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IAUSUBS@CFA.HARVARD.EDU or FAX 617-495-7231 (subscriptions)

BMARSDEN@CFA.HARVARD.EDU or GWILLIAMS@CFA.HARVARD.EDU (science)

Phone 617-495-7244/7444/7440 (for emergency use only).

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Brian G. Marsden, Director

Gareth V. Williams, Associate Director

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Syuichi Nakano, Liaison in Japan

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ERRATA

MPC Line
36127 -42
36127 -39

36127 -37
36988 1

For (7222) Alikperov read (7222) Alekperov
For Vagit Yusupovich Alikperov read Vagit
Yusupovich Alekperov
For Lukoil read LUKOIL
The header should read

094 Simeïs

S. I. Barabanov, Institute for Astronomy of the Russian
Academy of Sciences, Pyatnitskaja 48, Moscow
[baraban@amon.inasan.rssi.ru]
Observers S. I. Barabanov, M. A. Smirnov
1.0-m Ritchey-Chrétien + CCD
USNO-A1.0

37406 -30
37406 -28

For for Theoretical Astronomy read of Applied
Astronomy
For UA-334413, read Crimea, UA-98409

1998 PQ ₁	1998 09 01.68792	22 35 25.37	+01 20 00.5	MPS	2219		2 327
1999 PJ ₁	2000 01 14.86580	04 51 37.38	+84 42 53.8	MPS	8513	17.6 R	046
2000 AK ₂₆	* 2000 01 01.14568	11 30 32.06	+15 43 35.1	MPS	9239	17.8	461
2000 AK ₂₆	2000 01 01.16343	11 30 32.85	+15 43 38.4	MPS	9239		461
2000 AK ₂₆	2000 01 02.08669	11 31 12.08	+15 46 46.3	MPS	9239	16.8	461

Note 1: observations interchanged. 2: date changed by +1 month.

DELETED OBSERVATIONS

The following observations are to be deleted.

Object	Date	UT	α_{2000}	δ_{2000}	Reference	Obs.
2000 AT ₂₂₂	* 2000 01 09.19050	05 30 52.66	+23 23 44.2	MPS	9469	691
2000 AT ₂₂₂	2000 01 09.21310	05 30 51.49	+23 23 48.0	MPS	9469	691
2000 AT ₂₂₂	2000 01 09.23717	05 30 50.23	+23 23 50.9	MPS	9469	691
2000 AT ₂₂₂	2000 01 15.15418	05 26 45.00	+23 37 20.5	MPS	9469	691
2000 AT ₂₂₂	2000 01 15.17678	05 26 44.15	+23 37 23.6	MPS	9469	691
2000 AT ₂₂₂	2000 01 15.19948	05 26 43.30	+23 37 26.5	MPS	9469	691

NEW OBSERVATORY CODES

The following listing is a continuation to that on MPC 37381. The longitudes λ are measured in degrees eastward from Greenwich, and the parallax constants $\rho \cos \phi'$ and $\rho \sin \phi'$ are the product of the geocentric distance (in earth equatorial radii) and the cosine and sine, respectively, of the geocentric latitude.

Obs.	λ	$\rho \cos \phi'$	$\rho \sin \phi'$	
344	128.9767	0.80841	+0.58695	Bohyunsan Optical Astronomy Observatory
865	285.8792	0.74765	+0.66189	Emmy Observatory, New Paltz
943	355.8664	0.63881	+0.76679	Peverell

CORRECTED OBSERVATIONS

The following observations correct those previously published.

Object	Date	UT	α_{2000}	δ_{2000}	Reference	Mag.	N Obs.
1986 CD	* 1986 02 07.49236	11 58 03.87	+22 00 54.3	MPC10491	18	1 675	
1986 CD	1986 02 07.54444	11 58 02.76	+22 01 18.5	MPC10491		1 675	
1998 PQ ₁	* 1998 09 01.66056	22 35 27.00	+01 20 05.4	MPS	2219 17.8	2 327	
1998 PQ ₁	1998 09 01.67421	22 35 26.18	+01 20 02.8	MPS	2219	2 327	

IDENTIFICATION CHANGES

Continuation to MPC 37381.

Object	Date	UT	α_{2000}	δ_{2000}	Originally	Mag.	N Obs.
1976 YD ₈	* 1976 12 18.82659	04 31 55.98	+25 21 49.8	1976 YZ	17.5	095	
1977 BB ₁	* 1977 01 20.98539	07 45 50.22	+28 37 30.1	1977 AM ₂		095	
1985 OL ₁	* 1985 07 21.02222	20 44 37.53	-10 48 17.4	1985 OQ		033	
1986 CN ₂	* 1986 02 10.33958	11 59 03.51	+21 35 11.2	1986 CD		675	
1986 CN ₂	1986 02 10.35347	11 59 03.65	+21 35 09.2	1986 CD	18	675	
1987 SY ₃₀	* 1987 09 26.97219	01 04 05.12	+15 41 34.8	1987 QV ₃	16.5 V	095	
1987 SZ ₃₀	* 1987 09 25.97834	01 53 05.08	+23 19 55.8	1987 ST ₁₄	16.5	095	
1988 FU ₃	* 1988 03 26.19201	12 10 29.16	-01 43 07.4	1988 FZ ₂		809	
1988 FU ₃	1988 03 26.21076	12 10 28.26	-01 42 55.1	1988 FZ ₂		809	
1988 VJ ₁₄	* 1988 11 11.88403	02 49 51.22	+16 10 14.1	1988 VK ₇	16.8	046	
1988 VJ ₁₄	1988 11 11.89670	02 49 50.71	+16 10 11.8	1988 VK ₇		046	
1989 PA ₂	* 1989 08 10.39115	23 23 15.97	-04 14 06.9	1989 PJ		675	
1990 SZ ₂₉	* 1990 09 20.34366	23 54 38.38	-12 48 41.7	1990 SK ₁₀	17.0	675	
1990 SZ ₂₉	1990 09 20.37373	23 54 36.66	-12 48 49.5	1990 SK ₁₀		675	
1990 WF ₁₆	* 1990 11 21.50694	03 24 02.67	+20 38 56.5	1990 VA ₄	16.5	399	

1990 WF ₁₆	1990 11 21.52292	03 24 01.78	+20 38 51.7	1990 VA ₄	399	1999 RS ₂₁₅	1999 09 14.21825	22 08 10.90	-00 58 09.0	1999 RP ₁₀₂	19.1	704
1991 DU ₂	* 1991 02 16.97812	10 08 31.83	+11 04 19.0	1991 CD ₂	18.0 511	1999 RS ₂₁₅	1999 09 14.23114	22 08 10.28	-00 58 13.0	1999 RP ₁₀₂	19.0	704
1991 FX ₆	* 1991 03 17.62639	12 02 28.78	+14 03 09.2	1991 EY	16.5 875	1999 RS ₂₁₅	1999 09 14.24404	22 08 09.65	-00 58 18.3	1999 RP ₁₀₂	19.1	704
1992 EP ₃₆	* 1992 03 06.23750	11 11 25.74	+03 00 59.5	1992 EJ ₃₄	809	1999 UE ₃₆	* 1999 10 19.15127	09 30 18.75	+14 19 20.9	1999 UX ₁		W557
1992 YX ₅	* 1992 12 21.62743	03 28 30.21	+24 37 26.6	1992 YQ	18 372	1999 UE ₃₆	1999 10 19.15362	09 30 18.93	+14 19 21.7	1999 UX ₁	19.8	V W557
1992 YX ₅	1992 12 21.63750	03 28 29.48	+24 37 25.1	1992 YQ	372	1999 UE ₃₆	1999 10 19.16225	09 30 19.73	+14 19 17.3	1999 UX ₁		557
1993 FS ₈₄	* 1993 03 20.15382	12 14 22.11	-02 09 29.2	1993 FY ₅₈	17.9 809	1999 VS ₁₅₁	* 1999 11 15.28583	03 56 44.37	+21 58 04.1	1999 XA ₁₁₉	18.2	704
1993 HU ₈	* 1993 04 17.43889	11 59 35.14	-00 06 32.9	1993 FV ₅₉	19.6 413	1999 VS ₁₅₁	1999 11 15.30019	03 56 43.33	+21 58 03.4	1999 XA ₁₁₉	18.4	704
1994 LO ₁₀	* 1994 06 15.96382	16 15 50.11	-18 18 17.5	1994 LE ₁	104	1999 VS ₁₅₁	1999 11 15.31451	03 56 42.29	+21 58 02.7	1999 XA ₁₁₉	18.1	704
1994 LO ₁₀	1994 06 15.97465	16 15 49.47	-18 18 18.3	1994 LE ₁	104	1999 VS ₁₅₁	1999 11 15.32931	03 56 41.24	+21 58 02.0	1999 XA ₁₁₉	18.1	704
1994 NC ₁₃	* 1994 07 12.29826	19 24 22.45	-19 37 28.5	1994 NP ₄	809	1999 VS ₁₅₁	1999 11 15.34362	03 56 40.23	+21 58 00.9	1999 XA ₁₁₉	18.9	704
1994 NC ₁₃	1994 07 12.31563	19 24 21.27	-19 37 29.2	1994 NP ₄	809	2000 AL ₂₄₄	* 2000 01 07.04332	08 59 20.61	+17 05 59.4	2000 AZ ₁₅₀	18.8	V 104
1994 NC ₁₃	1994 07 12.33299	19 24 20.23	-19 37 32.6	1994 NP ₄	809	2000 AL ₂₄₄	2000 01 07.05488	08 59 20.00	+17 06 01.4	2000 AZ ₁₅₀		104
1994 ND ₁₃	* 1994 07 12.29826	19 24 25.80	-19 38 16.1	1994 NO ₄	809	2000 AU ₂₄₅	* 2000 01 04.09227	02 12 07.55	+21 46 47.1	1999 XU ₁₂₁	19.3	704
1994 ND ₁₃	1994 07 12.31563	19 24 24.63	-19 38 18.8	1994 NO ₄	809	2000 AU ₂₄₅	2000 01 04.10731	02 12 08.00	+21 46 43.9	1999 XU ₁₂₁	19.7	704
1994 ND ₁₃	1994 07 12.33299	19 24 23.72	-19 38 21.0	1994 NO ₄	809	2000 AU ₂₄₅	2000 01 04.12231	02 12 08.32	+21 46 42.6	1999 XU ₁₂₁	19.6	704
1994 RN ₂₉	* 1994 09 04.20486	22 19 51.13	-12 08 57.0	1994 RC ₁₅	809	2000 AU ₂₄₅	2000 01 04.13731	02 12 08.64	+21 46 38.3	1999 XU ₁₂₁	19.3	704
1994 RN ₂₉	1994 09 04.21806	22 19 50.40	-12 09 05.3	1994 RC ₁₅	809	2000 AV ₂₄₅	* 2000 01 11.94016	08 54 59.09	+17 20 31.3	2000 AF ₁₆₈	19.4	p 120
1994 RN ₂₉	1994 09 04.23125	22 19 49.68	-12 09 11.8	1994 RC ₁₅	809	2000 AV ₂₄₅	2000 01 11.96306	08 54 57.77	+17 20 29.9	2000 AF ₁₆₈		p 120
1995 WM ₄₃	* 1995 11 30.14567	02 05 42.49	+15 58 03.7	1995 WZ ₃₈	691	2000 AW ₂₄₅	* 2000 01 12.32327	07 58 43.51	+23 02 25.3	2000 AJ ₂₂₁	20.0	V 691
1995 WM ₄₃	1995 11 30.16713	02 05 41.88	+15 57 59.0	1995 WZ ₃₈	21.2 V 691	2000 AW ₂₄₅	2000 01 12.32959	07 58 43.04	+23 02 26.3	2000 AJ ₂₂₁	20.1	V 691
1995 WM ₄₃	1995 11 30.18896	02 05 41.27	+15 57 53.5	1995 WZ ₃₈	691	2000 AW ₂₄₅	2000 01 12.33556	07 58 42.60	+23 02 27.4	2000 AJ ₂₂₁	20.0	V 691
1996 KS ₉	* 1996 05 21.16460	14 19 58.14	-08 12 28.0	1996 JY ₁₁	20.0 V 691	2000 AW ₂₄₅	2000 01 15.21754	07 55 22.36	+23 10 09.1	2000 AJ ₂₂₁	19.8	V 691
1996 KS ₉	1996 05 21.18580	14 19 57.42	-08 12 24.6	1996 JY ₁₁	691	2000 AW ₂₄₅	2000 01 15.22360	07 55 21.91	+23 10 10.0	2000 AJ ₂₂₁	19.7	V 691
1996 KS ₉	1996 05 21.20694	14 19 56.48	-08 12 23.3	1996 JY ₁₁	691	2000 AW ₂₄₅	2000 01 15.22972	07 55 21.49	+23 10 10.9	2000 AJ ₂₂₁	19.6	V 691
1997 CC ₃₀	* 1997 02 06.43490	09 01 16.48	+13 36 10.9	1997 AZ ₇	18.8 V 566	2000 AX ₂₄₅	* 2000 01 07.03983	08 59 41.78	+19 00 59.4	2000 AB ₁₅₁		104
1997 CC ₃₀	1997 02 06.44333	09 01 15.90	+13 36 12.1	1997 AZ ₇	18.7 V 566	2000 AX ₂₄₅	2000 01 07.05128	08 59 41.31	+19 01 04.0	2000 AB ₁₅₁		104
1997 CC ₃₀	1997 02 06.45180	09 01 15.30	+13 36 13.2	1997 AZ ₇	18.6 V 566	2000 AY ₂₄₅	* 2000 01 07.03983	08 59 48.96	+19 00 31.1	2000 AA ₁₅₁		104
1997 NQ ₁₁	* 1997 07 02.24659	16 33 02.19	-16 23 33.7	1990 SC ₃	688	2000 AY ₂₄₅	2000 01 07.05128	08 59 48.54	+19 00 32.4	2000 AA ₁₅₁		104
1997 NQ ₁₁	1997 07 02.24838	16 33 02.20	-16 23 34.3	1990 SC ₃	688	2000 AZ ₂₄₅	* 2000 01 04.36415	08 42 23.66	+25 32 23.0	1999 XJ ₁₇₆	18.1	704
1997 NR ₁₁	* 1997 07 04.21972	15 52 47.44	-07 13 23.0	1997 MB ₇	19.5 V 691	2000 AZ ₂₄₅	2000 01 04.36461	08 42 23.62	+25 32 22.7	1999 XJ ₁₇₆	17.8	704
1997 NR ₁₁	1997 07 04.24868	15 52 46.77	-07 13 28.2	1997 MB ₇	19.7 V 691	2000 AZ ₂₄₅	2000 01 04.37883	08 42 22.90	+25 32 27.6	1999 XJ ₁₇₆	18.3	704
1997 NR ₁₁	1997 07 04.27663	15 52 46.09	-07 13 33.9	1997 MB ₇	19.6 V 691	2000 AZ ₂₄₅	2000 01 04.37926	08 42 22.87	+25 32 27.9	1999 XJ ₁₇₆	17.9	704
1998 LJ ₃	* 1998 06 02.39223	20 22 26.45	-19 51 53.5	1998 KN ₄₃	18.0 V 691	2000 AZ ₂₄₅	2000 01 04.39356	08 42 22.15	+25 32 31.9	1999 XJ ₁₇₆	18.6	704
1998 LJ ₃	1998 06 02.41414	20 22 26.80	-19 51 58.0	1998 KN ₄₃	17.9 V 691	2000 AZ ₂₄₅	2000 01 04.39400	08 42 22.12	+25 32 31.9	1999 XJ ₁₇₆	17.9	704
1998 LJ ₃	1998 06 02.43617	20 22 27.16	-19 52 02.3	1998 KN ₄₃	17.9 V 691	2000 AZ ₂₄₅	2000 01 04.40847	08 42 21.35	+25 32 37.0	1999 XJ ₁₇₆	18.5	704
1998 MN ₄₈	* 1998 06 28.42761	22 25 06.21	-08 29 23.2	1998 MF ₁₆	19.8 V 691	2000 AZ ₂₄₅	2000 01 04.40891	08 42 21.33	+25 32 37.0	1999 XJ ₁₇₆	18.4	704
1998 MN ₄₈	1998 06 28.44024	22 25 06.59	-08 29 19.9	1998 MF ₁₆	19.9 V 691	2000 BU ₁₀	* 2000 01 16.04557	08 14 49.30	+21 58 24.6	2000 AQ ₂₀₅	17.7	R 159
1998 MN ₄₈	1998 06 28.45292	22 25 06.95	-08 29 16.6	1998 MF ₁₆	20.2 V 691	2000 BU ₁₀	2000 01 16.05059	08 14 48.97	+21 58 25.7	2000 AQ ₂₀₅	17.8	R 159
1998 QS ₁₀₇	* 1998 08 23.39874	22 56 31.52	+03 08 29.1	1998 QZ ₃₆	19.0 704	2000 BU ₁₀	2000 01 16.05643	08 14 48.58	+21 58 28.2	2000 AQ ₂₀₅	17.8	R 159
1998 QS ₁₀₇	1998 08 23.41057	22 56 31.07	+03 08 28.1	1998 QZ ₃₆	19.0 704	2000 BU ₁₀	2000 01 16.06698	08 14 48.02	+21 58 30.8	2000 AQ ₂₀₅	17.8	R 159
1998 QS ₁₀₇	1998 08 23.43644	22 56 29.91	+03 08 26.4	1998 QZ ₃₆	19.7 704	2000 BH ₁₁	* 2000 01 16.10737	08 15 17.30	+21 54 20.6	2000 AP ₂₀₅	18.9	R 159
1998 QT ₁₀₇	* 1998 08 31.78160	22 11 59.97	-03 15 51.0	1998 QK ₁₀₇	18.3 327	2000 BH ₁₁	2000 01 16.11190	08 15 16.81	+21 54 23.5	2000 AP ₂₀₅	18.6	R 159
1998 QT ₁₀₇	1998 08 31.79137	22 11 59.49	-03 15 54.9	1998 QK ₁₀₇	327	2000 BH ₁₁	2000 01 16.12019	08 15 16.37	+21 54 26.8	2000 AP ₂₀₅	18.5	R 159
1998 QT ₁₀₇	1998 08 31.80112	22 11 59.02	-03 15 58.6	1998 QK ₁₀₇	327							
1998 SW ₁₆₅	* 1998 09 21.29583	02 21 55.76	+13 58 40.4	1998 SM ₁₄₆	809							
1998 SW ₁₆₅	1998 09 21.30903	02 21 55.33	+13 58 38.0	1998 SM ₁₄₆	809							
1998 SW ₁₆₅	1998 09 21.32222	02 21 55.01	+13 58 38.0	1998 SM ₁₄₆	809							
1998 XK ₉₇	* 1998 12 09.80917	02 37 53.32	+17 09 58.8	1998 VB ₃	18.2 120							
1998 XK ₉₇	1998 12 09.84424	02 37 52.27	+17 09 55.1	1998 VB ₃	120							
1998 XK ₉₇	1998 12 09.86635	02 37 51.64	+17 09 51.1	1998 VB ₃	120							
1999 RS ₂₁₅	* 1999 09 14.19261	22 08 12.12	-00 57 59.1	1999 RP ₁₀₂	18.5 704							
1999 RS ₂₁₅	1999 09 14.20544	22 08 11.48	-00 58 04.7	1999 RP ₁₀₂	19.2 704							

IDENTIFICATIONS

The following identifications with numbered minor planets continue the list on *MPC* 36608:

	Note		Note
1981 QX ₁ = (13324)	1	1985 YZ ₁ = (12597)	2
1985 YZ ₁ = (12597)	3	1985 YZ ₁ = (12597)	1

Note 1: by M. E. Sansaturio. 2: by G. V. Williams. 3: by A. Gnädig.

IDENTIFICATIONS WITH SATELLITES

The following identifications with satellites, by G. V. Williams, continue the list on *MPC* 16652:

1999 VV₇₂ = Jupiter VIII
 1999 VW₉₀ = Jupiter IX
 2000 AH₉₄ = Jupiter VIII

OBSERVATIONS OF COMETS

Observations are published here for the following observatory codes:

- 046 Kleť. 0.57-m $f/5.2$ reflector + CCD. Observers J. Tichá, M. Tichý and Z. Moravec.
- 049 Kvistaberg. 1.0-m Schmidt + CCD. Observers T. Oja, O. Karlsson, C.-I. Lagerkvist and J. Warell. Measurers J. Warell, C.-I. Lagerkvist, A. Erikson, G. Hahn and S. Mottola.
- 056 Skalnaté Pleso. 0.3-m $f/5$ astrograph. Observers G. Červák, J. Svorěn, P. Rychtarčík and L. Neslusan.
- 057 Belgrade. 0.14-m $f/12$ Askania astrograph + CCD. Observers Vl. Benishek and V. Protitch-Benishek.
- 104 San Marcello Pistoise. 0.40-m $f/5$ reflector + CCD. Observers L. Tesi, A. Boattini and M. Tombelli. Measured by A. Boattini, L. Tesi, M. Tombelli and G. Forti.
- 118 Modra. 0.6-m $f/5.5$ reflector + CCD. Observers L. Kornoš, Š. Gajdoš, A. Galád and J. Tóth.
- 120 Višňjan. 0.41-m $f/4.3$ reflector + CCD. Observers K. Korlević and P. Korlević.
- 143 Gnosca. 0.20-m $f/6.3$ reflector + CCD. Observer S. Sposetti.
- 145 's-Gravenwezel. 0.25-m $f/3.3$ Schmidt-Cassegrain + CCD. Observer T. Alderweireldt.
- 154 Cortina. 0.50-m $f/3.8$ reflector + CCD. Observer A. Dimai.
- 163 Roeser Observatory. 0.46-m $f/4.5$ reflector + CCD. Observer M. Dawson.
- 170 Begues. 0.26-m Schmidt-Cassegrain + CCD. Observer J. Manteca. Measured by S. Alonso.
- 249 SOHO. SOHO-LASCO coronagraphs C2 and C3. Observers K. Černis, T. Lovejoy, D. A. Biesecker, M. Meyer and D. Lewis. Measured by D. A. Biesecker and D. Hammer. Reduction by G. V. Williams and B. G. Marsden.
- 294 Staten Island. 0.41-m $f/4.7$ Schmidt-Cassegrain + CCD. Observer I. Robbins. Measured by S. Parello.
- 349 Ago. 0.18-m $f/5.5$ reflector + CCD. Observer K. Kadota.
- 351 Sakamoto. 0.15-m $f/7.0$ lens + CCD. Observer Y. Kitamura.
- 352 Konan. 0.25-m $f/6$ reflector + CCD. Observer M. Hotta.

- 355 Hadano. 0.28-m $f/5.0$ reflector + CCD. Observer A. Asami.
- 360 Kuma Kogen. 0.60-m $f/5.8$ Ritchey-Chrétien + CCD. Observer A. Nakamura.
- 372 Geisei. 0.60-m $f/3.5$ reflector. Observer T. Seki.
- 388 Mitaka. 0.50-m $f/12$ reflector + CCD. Observers H. Fukushima, K. Muroi and K. Kadota. Measured by K. Kadota.
- 402 Dynic Astronomical Observatory. 0.60-m $f/3.7$ reflector + CCD. Observer A. Sugie.
- 411 Oizumi. 0.41-m $f/4.3$ reflector + CCD. Observer T. Kobayashi.
- 422 Loomberah. 0.25-m $f/4.1$ reflector + CCD. Observer G. J. Garradd.
- 428 Reedy Creek. 0.25-m $f/6.3$ Schmidt-Cassegrain + CCD. Observer J. Broughton.
- 493 Calar Alto. 3.5-m reflector + CCD. Observers K. Birkle and H. Böhnhardt.
- 540 Linz. 0.3-m $f/5.2$ Schmidt-Cassegrain + CCD. Observers E. Meyer, E. Obermair and H. Raab.
- 557 Ondřejov. 0.65-m $f/3.6$ reflector + CCD. Observers P. Pravec, L. Šarounová and P. Kušnirák.
- 587 Sormano. 0.5-m reflector + CCD. Observers A. Testa, M. Cavagna, A. Volta, F. Manca and P. Sicoli.
- 595 Farra d'Isonzo. 0.40-m $f/4.5$ reflector + CCD. Observer E. Pettarin.
- 610 Pianoro. 0.25-m $f/4$ Schmidt-Cassegrain. Observer V. Goretti.
- 651 Grasslands Observatory, Tucson. 0.62-m $f/5.1$ Newtonian + CCD. Observer J. E. McGaha.
- 658 Dominion Astrophysical Observatory. 1.82-m Plaskett telescope + CCD. Observer D. D. Balam.
- 670 Camarillo. 0.25-m Schmidt-Cassegrain + CCD. Observer J. E. Rogers.
- 681 Calgary. 0.24-m $f/3.3$ Schmidt-Cassegrain + CCD. Observer G. W. Billings.
- 691 Kitt Peak. 0.91-m Spacewatch telescope. Observers T. Gehrels, R. S. McMillan, J. Scotti, J. Larsen, J. L. Montani, A. E. Gleason, M. T. Read and R. A. Kowalski.
- 699 LONEOS. 0.59-m Schmidt + CCD. Observers B. A. Skiff and W. Ferris. Measured by B. W. Koehn.
- 703 Catalina Sky Survey. 0.41-m $f/3$ Schmidt + CCD. Observer C. W. Hergenrother.
- 704 LINEAR. 1.0-m $f/2.15$ reflector + CCD. Observers M. Blythe, F. Shelly, M. Bezpalko, M. Elowitz and R. Huber. Measured by J. Stuart, H. Viggh and R. Sayer.
- 706 Salinas. 0.032-m Schmidt-Cassegrain + CCD. Observer J. Hall.
- 707 Barnard Observatory, Golden. 0.25-m $f/4.5$ reflector + CCD. Observer G. Emerson.
- 711 McDonald Observatory. 0.76-m reflector + CCD. Observer J. G. Ries.
- 734 Eskridge. 0.30-m Schmidt-Cassegrain + CCD. Observers G. Hug and G. Bell.
- 750 Hobbs Observatory, Fall Creek. 0.6-m $f/5$ telescope + CCD. Observer R. Elliott.
- 809 European Southern Observatory. 1.0-m Schmidt. Observer C.-I. Lagerkvist.
- 834 Buenos Aires-AAAA. 0.25-m $f/6.3$ reflector + CCD. Observers R. Caprio, H. Ruggio and R. Mackintosh. Measured by R. Caprio, R. Mackintosh and A. Rotzajt.
- 850 Cordell-Lorenz Observatory. 0.3-m $f/5.7$ Schmidt-Cassegrain + CCD. Observers D. T. Durig and T. D. Polk.
- 858 Tebbutt Observatory, Edgewood. 0.3-m $f/3.3$ Schmidt-Cassegrain + CCD. Observer F. B. Zoltowski.
- 888 Gekko Observatory. 0.50-m $f/4.0$ reflector + CCD. Observer T. Kagawa.

900 Moriyama. 0.25-m $f/6.3$ reflector + CCD. Observer Y. Ikari.
 903 Fukuchiyama. 0.25-m $f/6.3$ Schmidt-Cassegrain + CCD. Observer
 M. Yoshimi.

Object	Date	UT	α_{2000}	δ_{2000}	Mag.	N Obs.
C/1991 B1 (Shoemaker-Levy)						
C/1991 B1	1992 07 24.87488		20 26 25.05	+35 45 39.0		056
C/1991 B1	1992 07 24.89780		20 26 23.42	+35 45 17.6		056
C/1991 B1	1992 07 27.85845		20 23 02.45	+34 51 20.1		056
C/1991 B1	1992 07 27.87865		20 23 00.97	+34 50 54.8		056
C/1991 T2 (Shoemaker-Levy)						
C/1991 T2	1992 05 03.03194		00 56 54.51	+40 43 24.3		056
C/1991 T2	1992 05 03.05903		00 56 56.62	+40 43 58.2		1 056
C/1991 T2	1992 06 28.94583		05 51 20.44	+78 28 59.5	5 T	2 056
C/1991 T2	1992 06 29.00001		05 53 22.65	+78 29 57.8		2 056
C/1991 T2	1992 06 29.88889		06 27 48.90	+78 37 55.8		056
C/1991 T2	1992 06 29.90278		06 28 19.45	+78 37 51.1		056
C/1991 T2	1992 07 03.97986		08 57 07.38	+75 48 16.5		056
C/1991 T2	1992 07 03.99028		08 57 24.77	+75 47 30.4		056
C/1991 T2	1992 07 08.96806		10 34 48.52	+66 43 39.9		056
C/1991 T2	1992 07 08.97986		10 34 58.47	+66 42 05.1		056
C/1993 A1 (Mueller)						
C/1993 A1	1993 05 12.86806		06 42 17.10	+55 15 51.4		056
C/1993 A1	1993 05 13.87569		06 42 29.78	+55 14 10.8		056
C/1993 A1	1993 09 06.78403		08 40 35.03	+66 23 16.5		056
C/1993 A1	1993 09 06.80347		08 40 37.25	+66 23 40.3		056
C/1993 A1	1993 09 07.80417		08 42 44.10	+66 42 56.0		056
C/1993 A1	1993 09 07.82292		08 42 46.74	+66 43 22.0		056
C/1993 A1	1993 09 15.90764		09 02 19.71	+69 35 54.6		056
C/1993 A1	1993 09 16.01806		09 02 37.55	+69 38 25.7		056
C/1993 A1	1993 09 19.90625		09 14 16.20	+71 12 54.7		056
C/1993 A1	1993 09 19.99722		09 14 34.10	+71 15 14.8		056
C/1993 A1	1993 09 20.88889		09 17 32.39	+71 38 02.5		056
C/1993 A1	1993 09 21.00833		09 17 56.66	+71 41 08.5		056
C/1993 A1	1993 09 21.87708		09 20 58.60	+72 03 45.4		056
C/1993 A1	1993 09 21.96528		09 21 17.87	+72 06 03.5		056
C/1993 A1	1993 10 06.76458		10 51 34.85	+79 17 28.1		056
C/1993 A1	1993 10 06.78681		10 51 48.59	+79 18 03.7		056
C/1993 A1	1993 10 07.73403		11 02 30.00	+79 46 08.0	3	056
C/1993 A1	1993 10 09.91806		11 31 41.07	+80 48 11.2		056
C/1993 A1	1993 10 09.93125		11 31 54.00	+80 48 31.8		056
C/1993 A1	1993 11 18.82361		20 07 41.05	+56 40 18.3		056
C/1993 A1	1993 11 18.83681		20 07 43.75	+56 39 33.6		056
C/1993 A1	1993 12 10.73177		20 53 04.43	+36 16 47.7		056
C/1993 A1	1993 12 10.76632		20 53 07.11	+36 15 16.7		056
C/1993 Q1 (Mueller)						
C/1993 Q1	1993 09 15.87292		01 10 10.81	+49 17 25.2		056
C/1993 Q1	1993 09 19.96806		01 02 11.45	+48 45 03.7		056
C/1993 Q1	1993 09 20.85833		01 00 21.57	+48 36 41.2		056
C/1993 Q1	1993 09 20.97778		01 00 06.38	+48 35 30.4		056
C/1993 Q1	1993 09 21.93889		00 58 05.44	+48 25 47.1		056

C/1993 Q1	1993 09 22.02708	00 57 54.13	+48 24 53.2			056
C/1993 Q1	1993 10 25.03264	23 40 17.49	+35 12 07.6			056
C/1993 Q1	1993 10 25.05764	23 40 14.13	+35 11 03.9			056
C/1993 Q1	1993 11 10.77523	23 10 55.43	+23 32 58.3			056
C/1993 Q1	1993 11 10.79618	23 10 53.79	+23 32 09.8			056
C/1995 O1 (Hale-Bopp)						
C/1995 O1	1999 07 31.32966	06 35 08.47	-65 03 27.2			834
C/1995 O1	1999 08 01.34812	06 36 00.18	-65 08 01.3			834
C/1995 O1	1999 08 26.30817	06 54 53.59	-67 21 48.8			834
C/1995 O1	1999 08 26.33484	06 54 54.86	-67 21 57.8			834
C/1995 O1	1999 08 29.35109	06 56 50.44	-67 40 24.2			834
C/1995 O1	2000 02 02.49803	04 43 22.72	-76 12 37.0	17.0 N		422
C/1995 O1	2000 02 02.50196	04 43 22.58	-76 12 35.7	17.2 N		422
C/1995 O1	2000 02 02.50817	04 43 22.23	-76 12 34.2	17.0 N		422
P/1997 T3 (Lagerkvist-Carsenty)						
P/1997 T3	1997 10 26.06736	01 04 57.30	+02 16 04.0			809
P/1997 T3	1997 10 26.10903	01 04 56.16	+02 15 58.8			809
C/1998 M5 (LINEAR)						
C/1998 M5	2000 01 28.67181	10 17 56.07	-21 39 12.6			349
C/1998 M5	2000 01 28.67664	10 17 55.78	-21 39 14.3			349
C/1998 M5	2000 01 28.68172	10 17 55.48	-21 39 16.0	15.5 T		349
C/1998 M5	2000 01 28.72350	10 17 52.53	-21 39 22.7	15.1 T		900
C/1998 M5	2000 01 28.73348	10 17 52.02	-21 39 29.2			900
C/1998 M5	2000 02 10.72326	10 03 01.28	-22 18 40.3	15.7 T		360
C/1998 M5	2000 02 10.72569	10 03 01.12	-22 18 40.5			360
P/1998 S1 (LINEAR-Mueller)						
P/1998 S1	1999 10 11.13468	08 31 37.93	+28 55 42.6	18.6 T	4	143
P/1998 S1	1999 10 11.14291	08 31 38.51	+28 55 41.6	18.7 T	4	143
P/1998 S1	1999 10 11.15115	08 31 38.80	+28 55 41.0	18.5 T	4	143
P/1998 S1	2000 01 29.24940	08 22 13.98	+31 39 42.5	18.8 T		704
P/1998 S1	2000 01 29.26510	08 22 13.21	+31 39 43.0	19.4 T		704
P/1998 S1	2000 01 29.29695	08 22 11.60	+31 39 43.0	19.6 T		704
P/1998 S1	2000 01 29.31236	08 22 10.69	+31 39 44.5	19.5 T		704
C/1998 T1 (LINEAR)						
C/1998 T1	2000 01 28.48161	13 44 04.79	-18 06 41.3	17.9 T		704
C/1998 T1	2000 01 28.49678	13 44 03.71	-18 06 36.3	18.1 T		704
C/1998 T1	2000 01 28.51185	13 44 02.68	-18 06 31.6	17.8 T		704
C/1998 T1	2000 01 28.52701	13 44 01.59	-18 06 28.1	17.9 T		704
C/1998 T1	2000 02 04.75841	13 35 04.87	-17 26 49.6	15.9 T		349
C/1998 T1	2000 02 04.76117	13 35 04.54	-17 26 47.6			349
C/1998 T1	2000 02 04.77067	13 35 03.89	-17 26 43.5			349
C/1998 T1	2000 02 05.10486	13 34 36.61	-17 24 38.1	15.6 N		170
C/1998 T1	2000 02 05.15847	13 34 32.24	-17 24 18.5	16.4 N		170
C/1998 T1	2000 02 10.79688	13 26 24.15	-16 45 05.8	15.8 T		360
C/1998 T1	2000 02 10.79931	13 26 23.93	-16 45 04.7			360
P/1998 U4 (Spahr)						
P/1998 U4	2000 02 10.17759	07 47 33.80	-13 23 05.2	18.3 T		704
P/1998 U4	2000 02 10.19199	07 47 33.48	-13 22 59.3	18.9 T		704
P/1998 U4	2000 02 10.23531	07 47 32.25	-13 22 40.1	18.7 T		704

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C/1998 W3 (LINEAR)

C/1998 W3	2000 01 25.45792	03 10 02.72	+65 48 38.3	19.0 T	402
C/1998 W3	2000 01 25.46022	03 10 02.54	+65 48 36.8		402
C/1998 W3	2000 01 25.46252	03 10 02.46	+65 48 35.9		402

C/1999 E1 (Li)

C/1999 E1	2000 01 28.64637	10 35 17.39	+31 13 19.2	16.1 T	900
C/1999 E1	2000 01 28.65403	10 35 17.23	+31 13 24.3		349
C/1999 E1	2000 01 28.65810	10 35 17.06	+31 13 26.9	16.2 T	349
C/1999 E1	2000 01 28.65900	10 35 17.09	+31 13 27.1		900
C/1999 E1	2000 01 28.65940	10 35 17.10	+31 13 26.3		349
C/1999 E1	2000 01 29.32672	10 35 01.44	+31 20 17.5	17.2 T	704
C/1999 E1	2000 01 29.34326	10 35 01.04	+31 20 28.8	17.7 T	704
C/1999 E1	2000 01 29.35804	10 35 00.70	+31 20 37.7	17.4 T	704
C/1999 E1	2000 01 29.37312	10 35 00.32	+31 20 47.5	17.6 T	704
C/1999 E1	2000 01 29.38852	10 34 59.91	+31 20 57.2	17.6 T	704
C/1999 E1	2000 02 04.63646	10 32 19.82	+32 23 50.4	15.9 T	355
C/1999 E1	2000 02 04.63934	10 32 19.74	+32 23 51.9		355
C/1999 E1	2000 02 04.64236	10 32 19.69	+32 23 53.8		355
C/1999 E1	2000 02 05.18046	10 32 04.81	+32 29 10.5	16.3 N	170
C/1999 E1	2000 02 05.20220	10 32 04.16	+32 29 20.5	15.4 N	170
C/1999 E1	2000 02 08.23976	10 30 37.96	+32 58 46.8	15.8 T	294
C/1999 E1	2000 02 08.27281	10 30 36.99	+32 59 07.0	16.4 T	294
C/1999 E1	2000 02 09.22657	10 30 09.23	+33 08 10.6	16.7 T	294
C/1999 E1	2000 02 09.28741	10 30 07.01	+33 08 45.4		294
C/1999 E1	2000 02 09.32156	10 30 06.24	+33 09 00.0	16.8 T	294
C/1999 E1	2000 02 09.32647	10 30 05.68	+33 09 11.0	15.9 T	294
C/1999 E1	2000 02 10.58289	10 29 28.89	+33 20 53.1		355
C/1999 E1	2000 02 10.58591	10 29 28.81	+33 20 55.3	16.0 T	355
C/1999 E1	2000 02 10.59141	10 29 28.61	+33 20 58.3		355
C/1999 E1	2000 02 15.60534	10 26 54.65	+34 06 13.3		355
C/1999 E1	2000 02 15.60736	10 26 54.53	+34 06 14.9	16.3 T	355
C/1999 E1	2000 02 15.61139	10 26 54.44	+34 06 16.6		355

C/1999 H3 (LINEAR)

C/1999 H3	2000 01 19.75896	14 20 34.96	+34 18 59.9		349
C/1999 H3	2000 01 19.77769	14 20 34.07	+34 19 10.0	15.1 T	349
C/1999 H3	2000 01 20.83259	14 19 44.38	+34 29 13.2		388
C/1999 H3	2000 01 20.83773	14 19 44.15	+34 29 15.9		388
C/1999 H3	2000 01 20.84060	14 19 44.01	+34 29 17.7		388
C/1999 H3	2000 01 25.77793	14 15 24.14	+35 18 05.7		349
C/1999 H3	2000 01 25.78513	14 15 23.71	+35 18 09.8		349
C/1999 H3	2000 01 25.78662	14 15 23.61	+35 18 10.5	15.1 T	349
C/1999 H3	2000 01 29.47236	14 11 38.37	+35 56 27.7	18.7 T	704
C/1999 H3	2000 01 29.51629	14 11 35.34	+35 56 56.8	18.8 T	704
C/1999 H3	2000 01 29.53106	14 11 34.41	+35 57 06.8	18.7 T	704
C/1999 H3	2000 02 02.14157	14 07 25.41	+36 35 23.2	13 T	118
C/1999 H3	2000 02 02.14715	14 07 25.03	+36 35 27.0		118
C/1999 H3	2000 02 02.15014	14 07 24.74	+36 35 28.9		118
C/1999 H3	2000 02 02.70267	14 06 44.32	+36 41 26.1	15.3 T	372
C/1999 H3	2000 02 04.78965	14 04 04.77	+37 04 01.3	14.6 T	372
C/1999 H3	2000 02 05.18623	14 03 33.29	+37 08 18.9	15.4 N	170
C/1999 H3	2000 02 05.34170	14 03 21.11	+37 10 00.6	16.9 T	750
C/1999 H3	2000 02 05.34656	14 03 20.68	+37 10 04.3	17.3 T	750

C/1999 H3	2000 02 05.35515	14 03 20.01	+37 10 08.5	16.9 T	750
C/1999 H3	2000 02 09.72579	13 57 08.89	+37 57 39.8		349
C/1999 H3	2000 02 09.72939	13 57 08.56	+37 57 42.0		349
C/1999 H3	2000 02 09.73477	13 57 08.07	+37 57 45.9	14.9 T	349
C/1999 H3	2000 02 10.16770	13 56 28.88	+38 02 23.9	15.0 T	049
C/1999 H3	2000 02 10.17279	13 56 28.44	+38 02 27.0	15.0 T	049
C/1999 H3	2000 02 10.17654	13 56 28.07	+38 02 29.6	15.0 T	049
C/1999 H3	2000 02 10.84224	13 55 26.87	+38 09 44.8	14.9 T	900
C/1999 H3	2000 02 10.85622	13 55 25.57	+38 09 54.1		900
C/1999 H3	2000 02 11.13597	13 54 59.71	+38 12 55.0	14.4 T	118
C/1999 H3	2000 02 11.14611	13 54 58.79	+38 13 01.8		118
C/1999 H3	2000 02 11.70299	13 54 06.64	+38 19 01.6	14.5 T	355
C/1999 H3	2000 02 11.70507	13 54 06.44	+38 19 02.9		355
C/1999 H3	2000 02 11.70912	13 54 06.05	+38 19 05.4		355
C/1999 H3	2000 02 13.06358	13 51 55.90	+38 33 35.6	15.3 N	170
C/1999 H3	2000 02 15.38263	13 48 03.60	+38 58 09.0	16.3 T	704
C/1999 H3	2000 02 15.39651	13 48 02.14	+38 58 18.3	16.3 T	704
C/1999 H3	2000 02 15.41031	13 48 00.71	+38 58 27.3	16.4 T	704
C/1999 H3	2000 02 15.42413	13 47 59.23	+38 58 35.6	16.3 T	704
C/1999 H3	2000 02 15.43796	13 47 57.73	+38 58 44.4	16.5 T	704

C/1999 J2 (Skiff)

C/1999 J2	2000 01 28.77546	16 36 33.79	+35 00 19.1	15.9 T	349
C/1999 J2	2000 01 28.78270	16 36 33.80	+35 00 20.0		349
C/1999 J2	2000 01 28.78847	16 36 34.00	+35 00 21.6		349
C/1999 J2	2000 02 05.19340	16 38 07.75	+35 12 47.6	15.3 N	170
C/1999 J2	2000 02 11.15638	16 38 59.21	+35 25 31.7	14.9 T	118
C/1999 J2	2000 02 11.16498	16 38 59.25	+35 25 33.5		118

C/1999 K5 (LINEAR)

C/1999 K5	1999 07 31.11065	18 44 41.65	-20 07 24.4		834
C/1999 K5	1999 07 31.14311	18 44 39.75	-20 07 45.7		834

C/1999 L3 (LINEAR)

C/1999 L3	2000 01 15.73690	10 56 43.50	+06 08 52.5		349
C/1999 L3	2000 01 15.73763	10 56 43.28	+06 08 54.3	13.2 T	349
C/1999 L3	2000 01 19.70759	10 37 02.84	+08 59 35.8		349
C/1999 L3	2000 01 19.73508	10 36 53.91	+09 00 50.4		349
C/1999 L3	2000 01 19.74642	10 36 50.28	+09 01 21.4	12.5 T	349
C/1999 L3	2000 01 21.57875	10 26 42.90	+10 26 18.3		349
C/1999 L3	2000 01 21.58655	10 26 40.20	+10 26 40.3		349
C/1999 L3	2000 01 21.58831	10 26 39.58	+10 26 45.1	12.3 T	349
C/1999 L3	2000 01 25.74688	10 01 17.02	+13 49 25.2		349
C/1999 L3	2000 01 25.74899	10 01 16.19	+13 49 31.6		349
C/1999 L3	2000 01 25.75012	10 01 15.70	+13 49 35.1	11.8 T	349
C/1999 L3	2000 01 26.57096	09 55 53.82	+14 30 29.8	12.0 T	352
C/1999 L3	2000 01 26.57443	09 55 52.49	+14 30 40.6		352
C/1999 L3	2000 01 27.95840	09 46 34.18	+15 39 39.3	14.0 N	145
C/1999 L3	2000 01 27.96073	09 46 33.22	+15 39 46.2	14.0 N	145
C/1999 L3	2000 01 27.96326	09 46 32.17	+15 39 53.7	14.1 N	145
C/1999 L3	2000 01 27.96541	09 46 31.31	+15 40 00.2	14.1 N	145
C/1999 L3	2000 01 27.96777	09 46 30.33	+15 40 07.1	14.0 N	145
C/1999 L3	2000 01 27.97080	09 46 29.09	+15 40 16.5	14.2 N	145
C/1999 L3	2000 01 27.97189	09 46 28.62	+15 40 19.9	14.1 N	145

C/1999 L3	2000 01 28.62295	09 42 00.02	+16 12 43.1		900
C/1999 L3	2000 01 28.62500	09 41 59.25	+16 12 49.7	11.3 T	360
C/1999 L3	2000 01 28.62917	09 41 57.51	+16 13 02.2		360
C/1999 L3	2000 01 28.63015	09 41 56.98	+16 13 04.8	12.4 T	349
C/1999 L3	2000 01 28.63034	09 41 56.94	+16 13 05.7		900
C/1999 L3	2000 01 28.63595	09 41 54.54	+16 13 22.1		349
C/1999 L3	2000 01 28.63708	09 41 54.09	+16 13 24.8		349
C/1999 L3	2000 01 28.97468	09 39 33.61	+16 30 07.6	13.6 N	170
C/1999 L3	2000 01 28.99624	09 39 24.47	+16 31 11.1	12.8 N	170
C/1999 L3	2000 01 29.04609	09 39 03.51	+16 33 40.0	13.4 N	170
C/1999 L3	2000 01 29.78635	09 33 51.23	+17 10 05.9		903
C/1999 L3	2000 01 29.79722	09 33 46.58	+17 10 38.7		903
C/1999 L3	2000 01 30.52192	09 28 38.07	+17 46 01.4		349
C/1999 L3	2000 01 30.52409	09 28 37.13	+17 46 07.8		349
C/1999 L3	2000 01 30.52856	09 28 35.15	+17 46 20.6	12.0 T	349
C/1999 L3	2000 01 30.97266	09 25 23.99	+18 07 48.5	11.6 N	170
C/1999 L3	2000 01 31.00097	09 25 11.84	+18 09 10.3	11.4 N	170
C/1999 L3	2000 01 31.02775	09 25 00.13	+18 10 27.9	12.0 N	170
C/1999 L3	2000 01 31.27004	09 23 15.09	+18 22 06.8	14.4 T	750
C/1999 L3	2000 01 31.27678	09 23 12.16	+18 22 26.3	14.4 T	750
C/1999 L3	2000 01 31.28139	09 23 10.17	+18 22 39.7	14.3 T	750
C/1999 L3	2000 02 03.59024	08 58 53.25	+20 54 53.5		355
C/1999 L3	2000 02 03.59238	08 58 52.27	+20 54 59.4	12.0 T	355
C/1999 L3	2000 02 03.59444	08 58 51.35	+20 55 04.8		355
C/1999 L3	2000 02 03.91392	08 56 29.34	+21 08 56.1		143
C/1999 L3	2000 02 03.92216	08 56 25.64	+21 09 17.7		143
C/1999 L3	2000 02 03.93038	08 56 21.96	+21 09 39.1		143
C/1999 L3	2000 02 03.94523	08 56 15.32	+21 10 17.3		143
C/1999 L3	2000 02 04.61738	08 51 15.70	+21 38 59.2	12.2 T	355
C/1999 L3	2000 02 04.61951	08 51 14.74	+21 39 04.6		355
C/1999 L3	2000 02 04.62155	08 51 13.84	+21 39 09.8		355
C/1999 L3	2000 02 04.72490	08 50 27.50	+21 43 29.2		349
C/1999 L3	2000 02 04.72653	08 50 26.77	+21 43 33.4		349
C/1999 L3	2000 02 04.73064	08 50 24.92	+21 43 43.2	11.8 T	349
C/1999 L3	2000 02 05.00988	08 48 20.88	+21 55 20.6	11.8 N	170
C/1999 L3	2000 02 05.02042	08 48 16.16	+21 55 46.5	11.8 N	170
C/1999 L3	2000 02 05.04738	08 48 04.07	+21 56 53.8	11.9 N	170
C/1999 L3	2000 02 05.27605	08 46 22.20	+22 06 19.2	14.5 T	750
C/1999 L3	2000 02 05.28932	08 46 16.26	+22 06 51.7	14.7 T	750
C/1999 L3	2000 02 05.29958	08 46 11.71	+22 07 16.5	14.9 T	750
C/1999 L3	2000 02 05.51087	08 44 38.03	+22 15 53.7		349
C/1999 L3	2000 02 05.51164	08 44 37.68	+22 15 55.3		349
C/1999 L3	2000 02 05.51480	08 44 36.26	+22 16 03.4	12.1 T	349
C/1999 L3	2000 02 05.59155	08 44 02.05	+22 19 09.6		903
C/1999 L3	2000 02 05.60101	08 43 57.78	+22 19 32.7		903
C/1999 L3	2000 02 05.60598	08 43 55.52	+22 19 44.4		903
C/1999 L3	2000 02 07.77832	08 27 54.86	+23 42 50.3	13.5 T	057
C/1999 L3	2000 02 07.77919	08 27 54.35	+23 42 52.5		057
C/1999 L3	2000 02 07.77987	08 27 54.01	+23 42 54.4	13.3 T	057
C/1999 L3	2000 02 07.78251	08 27 53.06	+23 43 00.3		057
C/1999 L3	2000 02 07.78367	08 27 52.47	+23 43 03.0	13.4 T	057
C/1999 L3	2000 02 07.78670	08 27 50.96	+23 43 09.6		057
C/1999 L3	2000 02 07.78786	08 27 50.21	+23 43 17.7	12.8 T	057

C/1999 L3	2000 02 07.78897	08 27 49.82	+23 43 18.4		057
C/1999 L3	2000 02 07.79470	08 27 47.37	+23 43 25.8	13.2 T	057
C/1999 L3	2000 02 07.79567	08 27 47.06	+23 43 30.0		057
C/1999 L3	2000 02 07.79742	08 27 46.28	+23 43 34.1	13.1 T	057
C/1999 L3	2000 02 07.79817	08 27 45.93	+23 43 34.0		057
C/1999 L3	2000 02 08.15492	08 25 09.59	+23 56 21.2	15.8 T	750
C/1999 L3	2000 02 08.16167	08 25 06.67	+23 56 35.0	15.9 T	750
C/1999 L3	2000 02 08.99889	08 19 02.02	+24 25 30.0	13.0 N	170
C/1999 L3	2000 02 09.02196	08 18 52.01	+24 26 15.7	12.8 N	170
C/1999 L3	2000 02 09.03299	08 18 47.18	+24 26 38.8	12.8 N	170
C/1999 L3	2000 02 09.04127	08 18 43.56	+24 26 54.5	13.0 N	170
C/1999 L3	2000 02 09.57864	08 14 52.07	+24 44 41.2	11.7 T	372
C/1999 L3	2000 02 09.66701	08 14 13.90	+24 47 32.4		372
C/1999 L3	2000 02 09.68124	08 14 07.70	+24 47 59.1		349
C/1999 L3	2000 02 09.68241	08 14 07.17	+24 48 01.7		349
C/1999 L3	2000 02 09.68895	08 14 04.37	+24 48 14.1	12.6 T	349
C/1999 L3	2000 02 10.77196	08 06 24.33	+25 21 56.8	13.3 T	057
C/1999 L3	2000 02 10.77269	08 06 24.15	+25 21 55.7		057
C/1999 L3	2000 02 10.77346	08 06 23.79	+25 21 57.9	13.2 T	057
C/1999 L3	2000 02 10.77785	08 06 22.12	+25 22 05.3		057
C/1999 L3	2000 02 10.77863	08 06 21.50	+25 22 11.4	13.2 T	057
C/1999 L3	2000 02 11.60528	08 00 35.53	+25 46 14.3	12.9 T	355
C/1999 L3	2000 02 11.60715	08 00 34.72	+25 46 17.6		355
C/1999 L3	2000 02 11.60998	08 00 33.57	+25 46 22.6		355
C/1999 L3	2000 02 12.94899	07 51 25.93	+26 22 23.6	13.0 N	170
C/1999 L3	2000 02 12.97477	07 51 15.44	+26 23 03.3	12.8 N	170
C/1999 L3	2000 02 12.99415	07 51 07.58	+26 23 32.2	13.0 N	170
C/1999 L3	2000 02 14.86622	07 38 51.26	+27 07 51.1	13.4 N	170
C/1999 L3	2000 02 14.88027	07 38 45.74	+27 08 10.0	13.8 N	170
C/1999 L3	2000 02 15.44845	07 35 09.41	+27 20 25.7	15.9 N	422
C/1999 L3	2000 02 15.44999	07 35 08.80	+27 20 27.4	15.7 N	422
C/1999 L3	2000 02 15.45407	07 35 07.30	+27 20 32.5	15.8 N	422
C/1999 L3	2000 02 19.95590	07 08 40.70	+28 37 05.2		587
C/1999 L3	2000 02 19.96262	07 08 38.48	+28 37 10.6		587
C/1999 L3	2000 02 21.46892	07 00 40.97	+28 56 10.2	13.4 T	900
C/1999 L3	2000 02 21.47354	07 00 39.57	+28 56 13.8		900

C/1999 O1 (SOHO)

C/1999 O1	1999 07 31.51257	08 27 01.9	+16 48 05		249
Geocentric position (AU)	-0.00352308	+0.00720257	+0.00379958		
C/1999 O1	1999 07 31.52923	08 27 16.6	+16 49 42		249
Geocentric position (AU)	-0.00352705	+0.00720020	+0.00379883		
C/1999 O1	1999 07 31.57090	08 28 01.7	+16 54 49		249
Geocentric position (AU)	-0.00353698	+0.00719427	+0.00379697		
C/1999 O1	1999 07 31.59590	08 28 27.1	+16 57 31		249
Geocentric position (AU)	-0.00354294	+0.00719070	+0.00379584		
C/1999 O1	1999 07 31.61256	08 28 47.8	+16 59 20		249
Geocentric position (AU)	-0.00354692	+0.00718832	+0.00379509		
C/1999 O1	1999 07 31.63756	08 29 15.2	+17 02 42		249
Geocentric position (AU)	-0.00355288	+0.00718475	+0.00379397		
C/1999 O1	1999 07 31.65423	08 29 34.5	+17 04 38		249
Geocentric position (AU)	-0.00355685	+0.00718237	+0.00379321		

C/1999 O1	1999 07 31.67923	08 30 02.7	+17 06 47	249
Geocentric position (AU)	-0.00356281	+0.00717879	+0.00379208	
C/1999 O1	1999 07 31.69590	08 30 23.8	+17 09 47	249
Geocentric position (AU)	-0.00356678	+0.00717641	+0.00379133	
C/1999 O1	1999 07 31.72090	08 30 52.5	+17 12 20	249
Geocentric position (AU)	-0.00357275	+0.00717282	+0.00379020	
C/1999 O1	1999 07 31.73758	08 31 16.1	+17 15 00	249
Geocentric position (AU)	-0.00357672	+0.00717043	+0.00378944	
C/1999 O1	1999 07 31.76256	08 31 47.9	+17 18 17	249
Geocentric position (AU)	-0.00358268	+0.00716685	+0.00378830	
C/1999 O1	1999 07 31.77923	08 32 08.2	+17 20 34	249
Geocentric position (AU)	-0.00358666	+0.00716445	+0.00378754	
C/1999 O1	1999 07 31.82090	08 33 03.4	+17 25 10	249
Geocentric position (AU)	-0.00359659	+0.00715846	+0.00378564	

C/1999 P2 (SOHO)

C/1999 P2	1999 08 05.27923	08 39 51.5	+15 33 07	249
Geocentric position (AU)	-0.00465978	+0.00645550	+0.00354528	
C/1999 P2	1999 08 05.34590	08 40 59.1	+15 38 16	249
Geocentric position (AU)	-0.00467556	+0.00644399	+0.00354110	
C/1999 P2	1999 08 05.84590	08 51 14.4	+16 26 56	249
Geocentric position (AU)	-0.00479373	+0.00635671	+0.00350918	
C/1999 P2	1999 08 05.86258	08 51 39.1	+16 28 44	249
Geocentric position (AU)	-0.00479766	+0.00635377	+0.00350809	

C/1999 P3 (SOHO)

C/1999 P3	1999 08 03.23756	08 33 48.8	+15 57 59	249
Geocentric position (AU)	-0.00417377	+0.00679322	+0.00366469	
C/1999 P3	1999 08 03.26256	08 34 11.2	+16 00 13	249
Geocentric position (AU)	-0.00417974	+0.00678925	+0.00366332	
C/1999 P3	1999 08 03.27923	08 34 29.2	+16 02 11	249
Geocentric position (AU)	-0.00418372	+0.00678660	+0.00366241	
C/1999 P3	1999 08 03.32090	08 35 09.7	+16 05 46	249
Geocentric position (AU)	-0.00419367	+0.00677998	+0.00366013	
C/1999 P3	1999 08 03.34590	08 35 36.5	+16 07 55	249
Geocentric position (AU)	-0.00419964	+0.00677599	+0.00365876	
C/1999 P3	1999 08 03.36257	08 35 53.4	+16 09 33	249
Geocentric position (AU)	-0.00420362	+0.00677334	+0.00365784	
C/1999 P3	1999 08 03.38756	08 36 18.5	+16 12 02	249
Geocentric position (AU)	-0.00420958	+0.00676935	+0.00365647	
C/1999 P3	1999 08 03.40423	08 36 36.4	+16 13 49	249
Geocentric position (AU)	-0.00421356	+0.00676669	+0.00365555	
C/1999 P3	1999 08 03.42927	08 37 04.0	+16 16 27	249
Geocentric position (AU)	-0.00421954	+0.00676269	+0.00365417	
C/1999 P3	1999 08 03.44590	08 37 20.8	+16 17 47	249
Geocentric position (AU)	-0.00422351	+0.00676003	+0.00365325	
C/1999 P3	1999 08 03.47090	08 37 49.9	+16 20 49	249
Geocentric position (AU)	-0.00422948	+0.00675603	+0.00365186	
C/1999 P3	1999 08 03.48756	08 38 09.0	+16 22 22	249
Geocentric position (AU)	-0.00423346	+0.00675336	+0.00365094	
C/1999 P3	1999 08 03.51256	08 38 35.0	+16 25 02	249
Geocentric position (AU)	-0.00423942	+0.00674935	+0.00364955	
C/1999 P3	1999 08 03.52923	08 38 54.0	+16 26 37	249
Geocentric position (AU)	-0.00424340	+0.00674667	+0.00364863	

C/1999 P3	1999 08 03.57090	08 39 48.3	+16 30 59	249
Geocentric position (AU)	-0.00425335	+0.00673998	+0.00364631	
C/1999 P3	1999 08 03.61257	08 40 36.8	+16 35 56	249
Geocentric position (AU)	-0.00426329	+0.00673327	+0.00364398	
C/1999 P3	1999 08 03.65423	08 41 31.3	+16 40 03	249
Geocentric position (AU)	-0.00427323	+0.00672656	+0.00364164	
C/1999 P3	1999 08 03.67924	08 42 03.3	+16 43 29	249
Geocentric position (AU)	-0.00427920	+0.00672252	+0.00364024	
C/1999 P3	1999 08 03.69590	08 42 26.9	+16 45 46	249
Geocentric position (AU)	-0.00428317	+0.00671983	+0.00363930	

C/1999 S2 (McNaught-Watson)

C/1999 S2	2000 02 05.41429	02 13 23.53	-53 02 17.2	17.5 T	428
C/1999 S2	2000 02 05.43008	02 13 23.82	-53 02 07.5	17.4 T	428

C/1999 S3 (LINEAR)

C/1999 S3	2000 01 22.38553	20 39 08.80	+57 16 48.5	15.7 T	349
C/1999 S3	2000 01 22.39020	20 39 08.92	+57 16 53.2		349
C/1999 S3	2000 01 22.39160	20 39 08.99	+57 16 55.1		349
C/1999 S3	2000 02 05.39128	20 49 26.49	+61 06 23.1	15.6 T	402
C/1999 S3	2000 02 05.39381	20 49 26.71	+61 06 26.5		402
C/1999 S3	2000 02 05.39796	20 49 26.92	+61 06 31.5		402

C/1999 S4 (LINEAR)

C/1999 S4	1999 11 02.67569	04 23 47.93	+36 49 30.0		372
C/1999 S4	1999 12 03.45208	03 15 54.48	+36 20 02.2	15.0 T	372
C/1999 S4	1999 12 12.58159	02 54 11.83	+35 19 45.8	15.4 T	372
C/1999 S4	1999 12 29.47222	02 19 09.23	+32 46 14.4	15.0 T	372
C/1999 S4	2000 01 01.40690	02 14 02.54	+32 17 10.2		411
C/1999 S4	2000 01 01.41911	02 14 01.28	+32 17 03.0		411
C/1999 S4	2000 01 01.42659	02 14 00.48	+32 16 59.0		411
C/1999 S4	2000 01 03.41966	02 10 43.38	+31 57 14.5		411
C/1999 S4	2000 01 03.42637	02 10 42.72	+31 57 10.6		411
C/1999 S4	2000 01 03.43729	02 10 41.64	+31 57 04.5		411
C/1999 S4	2000 01 07.46442	02 04 31.25	+31 17 34.7		411
C/1999 S4	2000 01 07.47013	02 04 30.67	+31 17 31.2		411
C/1999 S4	2000 01 18.47365	01 50 45.51	+29 36 13.4	14.2 T	351
C/1999 S4	2000 01 18.48083	01 50 45.02	+29 36 09.4		351
C/1999 S4	2000 01 18.49610	01 50 43.94	+29 36 02.0		351
C/1999 S4	2000 01 21.52528	01 47 42.70	+29 10 40.1		349
C/1999 S4	2000 01 21.52932	01 47 42.42	+29 10 38.4		349
C/1999 S4	2000 01 21.53049	01 47 42.38	+29 10 38.1	15.2 T	349
C/1999 S4	2000 01 22.39579	01 46 54.10	+29 03 38.2		349
C/1999 S4	2000 01 22.39703	01 46 54.09	+29 03 37.7		349
C/1999 S4	2000 01 22.40362	01 46 53.68	+29 03 34.5	15.0 T	349
C/1999 S4	2000 01 24.40382	01 45 07.52	+28 47 49.6	14.6 T	372
C/1999 S4	2000 01 24.77280	01 44 48.88	+28 44 58.4	14.7 N	170
C/1999 S4	2000 01 24.77469	01 44 48.69	+28 44 57.6	15.3 N	046
C/1999 S4	2000 01 24.77706	01 44 48.58	+28 44 56.4	13.9 T	046
C/1999 S4	2000 01 24.77831	01 44 48.53	+28 44 55.5		046
C/1999 S4	2000 01 24.78080	01 44 48.41	+28 44 54.1		046
C/1999 S4	2000 01 24.80382	01 44 47.30	+28 44 44.5	14.7 N	170
C/1999 S4	2000 01 24.83197	01 44 45.92	+28 44 31.9	14.9 N	170
C/1999 S4	2000 01 25.49215	01 44 13.04	+28 39 30.6		900

C/1999 S4	2000 01 25.50133	01 44 12.59	+28 39 25.8	14.8 T	900
C/1999 S4	2000 01 25.83524	01 43 56.36	+28 36 54.5	14.4 T	540
C/1999 S4	2000 01 25.83704	01 43 56.35	+28 36 54.1		540
C/1999 S4	2000 01 25.83883	01 43 56.21	+28 36 53.1		540
C/1999 S4	2000 01 26.42719	01 43 28.07	+28 32 29.8	14.9 T	402
C/1999 S4	2000 01 26.42844	01 43 28.00	+28 32 29.3		402
C/1999 S4	2000 01 26.42970	01 43 27.95	+28 32 28.8		402
C/1999 S4	2000 01 27.05459	01 42 58.81	+28 27 52.4	17.3 T	750
C/1999 S4	2000 01 27.06004	01 42 58.58	+28 27 50.3	17.1 T	750
C/1999 S4	2000 01 27.07724	01 42 57.79	+28 27 42.9	17.3 T	750
C/1999 S4	2000 01 27.47048	01 42 39.79	+28 24 51.0	14.5 T	900
C/1999 S4	2000 01 27.47274	01 42 39.67	+28 24 51.3	14.8 T	372
C/1999 S4	2000 01 27.48321	01 42 39.25	+28 24 45.8		900
C/1999 S4	2000 01 28.37068	01 41 59.93	+28 18 24.4		411
C/1999 S4	2000 01 28.38472	01 41 59.25	+28 18 18.8		411
C/1999 S4	2000 01 28.39471	01 41 58.81	+28 18 14.2		411
C/1999 S4	2000 01 28.41979	01 41 57.68	+28 18 03.5	15.0 T	2 360
C/1999 S4	2000 01 28.42222	01 41 57.55	+28 18 02.2		2 360
C/1999 S4	2000 01 28.80237	01 41 41.16	+28 15 22.0	14.5 N	170
C/1999 S4	2000 01 28.82688	01 41 40.14	+28 15 11.1	14.6 N	170
C/1999 S4	2000 01 30.44560	01 40 33.11	+28 04 01.5	15.2 T	349
C/1999 S4	2000 01 30.45271	01 40 32.85	+28 03 57.7		349
C/1999 S4	2000 01 30.52882	01 40 29.72	+28 03 28.2		372
C/1999 S4	2000 01 30.75337	01 40 21.11	+28 01 58.3	13.8 N	170
C/1999 S4	2000 01 30.75870	01 40 20.83	+28 01 55.6	13.9 N	170
C/1999 S4	2000 01 30.76579	01 40 20.55	+28 01 52.4	13.9 N	170
C/1999 S4	2000 01 30.77701	01 40 20.02	+28 01 47.7	13.7 N	170
C/1999 S4	2000 01 30.79093	01 40 19.62	+28 01 42.9	13.9 N	5 170
C/1999 S4	2000 01 30.84549	01 40 17.38	+28 01 22.3	13.8 N	5 170
C/1999 S4	2000 01 31.08037	01 40 08.36	+27 59 49.2	18.0 T	704
C/1999 S4	2000 01 31.09506	01 40 07.61	+27 59 40.3	18.7 T	704
C/1999 S4	2000 01 31.10975	01 40 06.97	+27 59 34.6	18.2 T	704
C/1999 S4	2000 01 31.12445	01 40 06.38	+27 59 28.2	18.3 T	704
C/1999 S4	2000 01 31.13918	01 40 05.79	+27 59 20.9	16.7 T	704
C/1999 S4	2000 02 01.72743	01 39 06.56	+27 49 02.9		154
C/1999 S4	2000 02 01.73026	01 39 06.46	+27 49 01.6		154
C/1999 S4	2000 02 01.73403	01 39 06.32	+27 48 59.9		154
C/1999 S4	2000 02 03.39470	01 38 08.96	+27 38 38.1	14.8 T	402
C/1999 S4	2000 02 03.39722	01 38 08.91	+27 38 37.2		402
C/1999 S4	2000 02 03.39975	01 38 08.83	+27 38 36.6		402
C/1999 S4	2000 02 04.45580	01 37 34.64	+27 32 15.9	14.6 T	351
C/1999 S4	2000 02 04.46088	01 37 34.49	+27 32 15.6		351
C/1999 S4	2000 02 04.47007	01 37 34.18	+27 32 09.7		351
C/1999 S4	2000 02 04.74101	01 37 25.81	+27 30 36.0		143
C/1999 S4	2000 02 04.74513	01 37 25.68	+27 30 34.5		143
C/1999 S4	2000 02 04.78654	01 37 24.34	+27 30 19.5	14.7 N	170
C/1999 S4	2000 02 04.80247	01 37 23.79	+27 30 13.9	14.6 N	170
C/1999 S4	2000 02 04.82164	01 37 23.22	+27 30 06.2	14.7 N	170
C/1999 S4	2000 02 04.85498	01 37 22.11	+27 29 53.8		587
C/1999 S4	2000 02 05.38539	01 37 06.09	+27 26 50.5		349
C/1999 S4	2000 02 05.39039	01 37 05.97	+27 26 48.4		349
C/1999 S4	2000 02 05.39422	01 37 05.78	+27 26 49.5	14.1 T	351
C/1999 S4	2000 02 05.39462	01 37 05.76	+27 26 46.8	14.9 T	349

C/1999 S4	2000 02 05.40375	01 37 05.56	+27 26 43.5		351
C/1999 S4	2000 02 05.41131	01 37 05.35	+27 26 41.1		351
C/1999 S4	2000 02 05.75831	01 36 54.99	+27 24 41.0	14.7 N	170
C/1999 S4	2000 02 05.78280	01 36 54.26	+27 24 32.4	14.7 N	170
C/1999 S4	2000 02 06.08705	01 36 45.42	+27 22 56.1	18.3 T	704
C/1999 S4	2000 02 06.11636	01 36 44.45	+27 22 42.0	18.5 T	704
C/1999 S4	2000 02 06.13113	01 36 44.04	+27 22 36.3	18.8 T	704
C/1999 S4	2000 02 06.14579	01 36 43.56	+27 22 29.0	16.9 T	704
C/1999 S4	2000 02 07.74081	01 35 59.62	+27 13 45.2	13.7 T	057
C/1999 S4	2000 02 07.74191	01 35 59.32	+27 13 48.5		057
C/1999 S4	2000 02 07.76259	01 35 59.15	+27 13 36.3	14.3 T	057
C/1999 S4	2000 02 08.07403	01 35 51.06	+27 11 58.2	16.2 T	750
C/1999 S4	2000 02 08.08948	01 35 50.67	+27 11 53.6	18.5 T	750
C/1999 S4	2000 02 08.09893	01 35 50.40	+27 11 50.4	16.3 T	750
C/1999 S4	2000 02 09.76819	01 35 09.44	+27 03 14.2	14.5 N	170
C/1999 S4	2000 02 09.78059	01 35 09.19	+27 03 10.6	14.6 N	170
C/1999 S4	2000 02 09.79146	01 35 08.88	+27 03 07.5	14.5 N	170
C/1999 S4	2000 02 10.72631	01 34 47.74	+26 58 31.5	15.0 T	118
C/1999 S4	2000 02 10.74541	01 34 47.31	+26 58 26.0		118
C/1999 S4	2000 02 11.77763	01 34 25.43	+26 53 32.2	14.5 N	6 170
C/1999 S4	2000 02 12.79684	01 34 05.25	+26 48 52.4	14.5 N	170
C/1999 S4	2000 02 12.80272	01 34 05.22	+26 48 50.0	14.4 N	170
C/1999 S4	2000 02 19.77020	01 32 23.34	+26 21 32.1	14.6 N	170
C/1999 S4	2000 02 19.78566	01 32 23.17	+26 21 29.4	14.1 N	170
C/1999 S4	2000 02 19.79073	01 32 23.10	+26 21 27.2	14.8 N	170

C/1999 T1 (McNaught-Hartley)

C/1999 T1	2000 01 25.39468	01 12 36.03	-38 57 21.4	15.6 T	402
C/1999 T1	2000 01 25.39721	01 12 35.98	-38 57 21.1		402
C/1999 T1	2000 01 25.39972	01 12 36.09	-38 57 20.7		402
C/1999 T1	2000 01 27.40590	01 13 19.62	-38 45 03.1	15.0 T	372
C/1999 T1	2000 01 27.41667	01 13 19.87	-38 44 59.3		372
C/1999 T1	2000 02 05.42154	01 17 21.56	-37 49 24.1	14.6 T	428

C/1999 T2 (LINEAR)

C/1999 T2	2000 01 26.39727	22 15 48.55	+24 46 33.4	16.1 T	402
C/1999 T2	2000 01 26.39980	22 15 48.58	+24 46 34.0		402
C/1999 T2	2000 01 26.40233	22 15 48.59	+24 46 35.0		402

C/1999 T3 (LINEAR)

C/1999 T3	2000 01 08.08061	02 08 39.95	+06 53 56.3	18.5 T	704
C/1999 T3	2000 01 08.09584	02 08 39.65	+06 53 50.4	19.2 T	704
C/1999 T3	2000 01 08.11085	02 08 39.56	+06 53 43.9	18.7 T	704
C/1999 T3	2000 01 08.12592	02 08 39.40	+06 53 38.6	18.7 T	704
C/1999 T3	2000 01 08.14109	02 08 39.20	+06 53 31.9	19.0 T	704
C/1999 T3	2000 01 25.42837	02 07 09.29	+05 15 59.0	17.9 T	402
C/1999 T3	2000 01 25.43067	02 07 09.28	+05 15 58.3		402
C/1999 T3	2000 01 25.43297	02 07 09.28	+05 15 57.7		402
C/1999 T3	2000 02 04.43142	02 07 54.48	+04 32 06.6	17.8 T	2 360
C/1999 T3	2000 02 04.43594	02 07 54.55	+04 32 05.8		2 360

C/1999 U1 (Ferris)

C/1999 U1	2000 01 28.47691	03 11 56.64	+14 47 35.2	17.5 T	360
C/1999 U1	2000 01 28.48142	03 11 56.56	+14 47 36.2		360

P/1999 U3 (LINEAR)

P/1999 U3	2000 01 21.55946	03 58 34.45	+40 41 15.2		349
P/1999 U3	2000 01 21.56794	03 58 35.31	+40 41 06.5	15.6 T	349
P/1999 U3	2000 01 21.57071	03 58 35.47	+40 41 04.9		349
P/1999 U3	2000 01 25.44803	04 04 39.22	+39 36 59.1	15.8 T	402
P/1999 U3	2000 01 25.44928	04 04 39.38	+39 36 57.6		402
P/1999 U3	2000 01 25.45054	04 04 39.46	+39 36 56.3		402
P/1999 U3	2000 01 26.47766	04 06 18.02	+39 20 25.1		900
P/1999 U3	2000 01 26.49069	04 06 19.20	+39 20 13.9	15.9 T	900
P/1999 U3	2000 01 28.49792	04 09 34.55	+38 48 30.3	16.2 T	360
P/1999 U3	2000 01 28.50069	04 09 34.81	+38 48 27.7		360
P/1999 U3	2000 01 29.52838	04 11 16.05	+38 32 30.2	16.6 T	402
P/1999 U3	2000 01 29.52965	04 11 16.13	+38 32 28.6		402
P/1999 U3	2000 01 29.53090	04 11 16.26	+38 32 28.3		402
P/1999 U3	2000 02 04.08808	04 20 38.20	+37 09 41.6	18.1 T	704
P/1999 U3	2000 02 04.10235	04 20 39.61	+37 09 29.4	18.4 T	704
P/1999 U3	2000 02 04.14495	04 20 43.81	+37 08 52.3	18.0 T	704

C/1999 U4 (Catalina-Skiff)

C/1999 U4	2000 01 28.42813	01 44 40.84	+21 42 58.9	17.0 T	360
C/1999 U4	2000 01 28.43646	01 44 40.92	+21 43 00.1		360
C/1999 U4	2000 01 28.44236	01 44 40.96	+21 43 01.5		360

P/1999 V1 (Catalina)

P/1999 V1	2000 01 08.38134	10 01 58.41	+02 43 23.8	18.8 T	704
P/1999 V1	2000 01 08.39645	10 01 58.14	+02 43 18.8	19.3 T	704
P/1999 V1	2000 01 08.41209	10 01 57.79	+02 43 13.2	19.2 T	704
P/1999 V1	2000 01 08.42726	10 01 57.45	+02 43 07.4	19.5 T	704
P/1999 V1	2000 01 08.44236	10 01 57.17	+02 43 03.4	19.2 T	704
P/1999 V1	2000 01 28.63559	09 52 39.69	+01 12 50.7	17.3 T	360
P/1999 V1	2000 01 28.64010	09 52 39.51	+01 12 50.3		360
P/1999 V1	2000 02 06.33484	09 46 59.05	+00 50 20.8	17.7 T	704
P/1999 V1	2000 02 06.34957	09 46 58.41	+00 50 18.9	17.9 T	704
P/1999 V1	2000 02 06.36432	09 46 57.83	+00 50 17.1	17.9 T	704
P/1999 V1	2000 02 06.37932	09 46 57.08	+00 50 16.5	17.4 T	704

P/1999 WJ₇ (Korlević)

P/1999 WJ ₇	1999 11 03.39141	04 50 02.78	+25 26 11.2	19.0 N	704
P/1999 WJ ₇	1999 11 03.40788	04 50 02.29	+25 26 09.7	19.3 N	704
P/1999 WJ ₇	1999 11 03.42395	04 50 01.86	+25 26 09.0	19.0 N	704
P/1999 WJ ₇	1999 11 03.44010	04 50 01.51	+25 26 08.8	19.0 N	704
P/1999 WJ ₇	1999 11 03.45617	04 50 01.05	+25 26 08.3	19.2 N	704
P/1999 WJ ₇	1999 11 14.36323	04 44 37.41	+25 15 52.7	18.6 N	704
P/1999 WJ ₇	1999 11 14.37771	04 44 36.85	+25 15 51.4	19.2 N	704
P/1999 WJ ₇	1999 11 14.39231	04 44 36.35	+25 15 50.2	19.4 N	704
P/1999 WJ ₇	1999 11 14.40675	04 44 35.78	+25 15 48.8	19.5 N	704
P/1999 WJ ₇	1999 11 14.42140	04 44 35.16	+25 15 47.5	19.4 N	704
P/1999 WJ ₇	1999 11 16.28616	04 43 28.44	+25 13 21.9	18.5 N	704
P/1999 WJ ₇	1999 11 16.30039	04 43 27.86	+25 13 20.9	18.7 N	704
P/1999 WJ ₇	1999 11 16.31490	04 43 27.31	+25 13 19.7	18.9 N	704
P/1999 WJ ₇	1999 11 16.32915	04 43 26.80	+25 13 17.7	19.2 N	704
P/1999 WJ ₇	1999 11 16.34342	04 43 26.19	+25 13 17.7	18.9 N	704
P/1999 WJ ₇	1999 11 28.94427	04 34 56.58	+24 51 51.8	17.9 N	120
P/1999 WJ ₇	1999 11 28.96363	04 34 55.56	+24 51 49.1		120

P/1999 WJ ₇	1999 11 29.89278	04 34 15.80	+24 49 55.5	17.8 N	120
P/1999 WJ ₇	1999 11 29.91797	04 34 14.64	+24 49 53.4		120
P/1999 WJ ₇	1999 12 05.90690	04 29 55.49	+24 36 55.8	18.0 N	120
P/1999 WJ ₇	1999 12 05.93008	04 29 54.56	+24 36 52.7		120
P/1999 WJ ₇	1999 12 07.22846	04 28 58.94	+24 33 56.1	18.0 N	704
P/1999 WJ ₇	1999 12 07.24301	04 28 58.24	+24 33 53.5	18.6 N	704
P/1999 WJ ₇	1999 12 07.25759	04 28 57.63	+24 33 51.8	18.7 N	704
P/1999 WJ ₇	1999 12 07.27214	04 28 56.95	+24 33 49.4	18.4 N	704
P/1999 WJ ₇	1999 12 07.28666	04 28 56.29	+24 33 47.8	18.5 N	704
P/1999 WJ ₇	1999 12 07.93022	04 28 28.94	+24 32 18.0	18.0 N	120
P/1999 WJ ₇	1999 12 07.94447	04 28 28.29	+24 32 15.6		120
P/1999 WJ ₇	1999 12 30.85002	04 15 05.32	+23 38 10.7	17.1 N	046
P/1999 WJ ₇	1999 12 30.85217	04 15 05.34	+23 38 09.6	17.9 N	120
P/1999 WJ ₇	1999 12 30.85429	04 15 05.25	+23 38 09.9		046
P/1999 WJ ₇	1999 12 30.85847	04 15 05.16	+23 38 09.0		046
P/1999 WJ ₇	1999 12 30.86561	04 15 04.99	+23 38 07.9		120
P/1999 WJ ₇	1999 12 30.87933	04 15 04.60	+23 38 05.9		046
P/1999 WJ ₇	1999 12 30.88649	04 15 04.41	+23 38 05.8	17.1 N	046
P/1999 WJ ₇	1999 12 31.79289	04 14 43.18	+23 36 08.3	17.7 N	120
P/1999 WJ ₇	1999 12 31.80529	04 14 42.93	+23 36 06.7		120
P/1999 WJ ₇	1999 12 31.81231	04 14 42.75	+23 36 05.4		120
P/1999 WJ ₇	1999 12 31.82388	04 14 42.42	+23 36 04.3		120
P/1999 WJ ₇	1999 12 31.82789	04 14 42.39	+23 36 04.1		120
P/1999 WJ ₇	1999 12 31.84456	04 14 41.91	+23 36 02.1		120
P/1999 WJ ₇	2000 01 02.83236	04 13 58.73	+23 31 52.6	16.9 N	046
P/1999 WJ ₇	2000 01 02.83538	04 13 58.64	+23 31 52.5		046
P/1999 WJ ₇	2000 01 02.83898	04 13 58.56	+23 31 51.9		046
P/1999 WJ ₇	2000 01 03.22105	04 13 50.89	+23 31 05.5	17.9 N	704
P/1999 WJ ₇	2000 01 03.23583	04 13 50.53	+23 31 04.0	19.1 N	704
P/1999 WJ ₇	2000 01 03.25061	04 13 50.18	+23 31 02.5	18.9 N	704
P/1999 WJ ₇	2000 01 03.26540	04 13 49.87	+23 30 58.3	19.4 N	704
P/1999 WJ ₇	2000 01 03.28024	04 13 49.42	+23 30 56.6	18.4 N	704
P/1999 WJ ₇	2000 01 04.15377	04 13 32.89	+23 29 12.8	17.9 N	704
P/1999 WJ ₇	2000 01 04.16834	04 13 32.48	+23 29 11.5	18.9 N	704
P/1999 WJ ₇	2000 01 04.18292	04 13 32.23	+23 29 09.2	19.2 N	704
P/1999 WJ ₇	2000 01 04.19755	04 13 31.89	+23 29 08.0	18.5 N	704
P/1999 WJ ₇	2000 01 04.21223	04 13 31.52	+23 29 05.3	18.7 N	704
P/1999 WJ ₇	2000 01 12.74630	04 11 40.48	+23 13 56.8	17.5 N	104
P/1999 WJ ₇	2000 01 12.75174	04 11 40.44	+23 13 56.2		104
P/1999 WJ ₇	2000 01 12.80741	04 11 39.98	+23 13 50.1		104
P/1999 WJ ₇	2000 01 14.78562	04 11 28.65	+23 10 54.7	17.1 N	046
P/1999 WJ ₇	2000 01 14.79591	04 11 28.60	+23 10 54.1		046
P/1999 WJ ₇	2000 01 14.96051	04 11 27.74	+23 10 39.6	17.0 N	046
P/1999 WJ ₇	2000 01 14.96267	04 11 27.73	+23 10 39.3		046
P/1999 WJ ₇	2000 01 26.77361	04 12 16.38	+22 58 14.9	17.8 N	120
P/1999 WJ ₇	2000 01 26.78615	04 12 16.56	+22 58 14.9		120
P/1999 WJ ₇	2000 01 26.80142	04 12 16.75	+22 58 14.2		120
P/1999 WJ ₇	2000 01 27.78648	04 12 29.55	+22 57 35.6	17.8 N	120
P/1999 WJ ₇	2000 01 27.79966	04 12 29.67	+22 57 35.0		120
P/1999 WJ ₇	2000 02 01.85174	04 13 55.57	+22 55 11.8	17 N	118
P/1999 WJ ₇	2000 02 01.86758	04 13 55.90	+22 55 11.2		118
P/1999 WJ ₇	2000 02 01.87929	04 13 56.13	+22 55 11.2		118
P/1999 WJ ₇	2000 02 04.74068	04 15 00.13	+22 54 30.2	17.6 N	120

P/1999 WJ ₇	2000 02 04.74763	04 15 00.30	+22 54 30.4		120
P/1999 WJ ₇	2000 02 04.75385	04 15 00.40	+22 54 30.3		120
P/1999 WJ ₇	2000 02 11.08962	04 17 58.75	+22 54 38.6	17.8 N	704
P/1999 WJ ₇	2000 02 11.10396	04 17 59.28	+22 54 38.1	18.7 N	704
P/1999 WJ ₇	2000 02 11.11824	04 17 59.71	+22 54 38.7	18.0 N	704
P/1999 WJ ₇	2000 02 11.13297	04 18 00.17	+22 54 38.8	18.2 N	704
P/1999 WJ ₇	2000 02 11.14751	04 18 00.64	+22 54 38.8	18.0 N	704

P/1999 X1 (Hug-Bell)

P/1999 X1	1999 12 15.68403	08 22 50.16	+20 42 36.5	18.0 T	372
P/1999 X1	2000 01 26.51000	07 49 46.59	+25 45 34.5	18.3 T	402
P/1999 X1	2000 01 26.51461	07 49 46.31	+25 45 37.0		402
P/1999 X1	2000 01 26.51691	07 49 46.20	+25 45 36.2		402
P/1999 X1	2000 01 28.58802	07 48 02.12	+25 57 19.1	18.6 T	360
P/1999 X1	2000 01 28.59288	07 48 01.82	+25 57 20.5		360
P/1999 X1	2000 01 28.59705	07 48 01.65	+25 57 21.4		360
P/1999 X1	2000 02 07.11375	07 41 04.88	+26 43 03.6	19.9 T	734
P/1999 X1	2000 02 07.11962	07 41 04.62	+26 43 06.2	19.3 T	734
P/1999 X1	2000 02 07.12498	07 41 04.40	+26 43 08.5	20.3 T	734

C/1999 XS₈₇ (LINEAR)

C/1999 XS ₈₇	2000 01 13.69740	06 18 50.93	+18 20 07.2	17.5 T	372
C/1999 XS ₈₇	2000 01 13.71042	06 18 50.51	+18 20 03.2		372
C/1999 XS ₈₇	2000 01 25.49561	06 14 17.70	+17 39 21.2	16.8 T	402
C/1999 XS ₈₇	2000 01 25.49813	06 14 17.65	+17 39 20.8		402
C/1999 XS ₈₇	2000 01 25.50065	06 14 17.63	+17 39 20.3		402
C/1999 XS ₈₇	2000 01 27.60278	06 13 44.44	+17 32 57.8	16.3 T	360
C/1999 XS ₈₇	2000 01 27.60729	06 13 44.42	+17 32 57.4		360
C/1999 XS ₈₇	2000 01 28.47620	06 13 32.39	+17 30 24.6	17.1 T	402
C/1999 XS ₈₇	2000 01 28.47851	06 13 32.39	+17 30 24.9		402
C/1999 XS ₈₇	2000 01 28.48081	06 13 32.37	+17 30 24.3		402
C/1999 XS ₈₇	2000 01 30.08553	06 13 12.25	+17 25 48.4	13.7 T	706
C/1999 XS ₈₇	2000 01 30.13593	06 13 11.74	+17 25 38.5	13.7 T	706
C/1999 XS ₈₇	2000 02 02.17663	06 12 41.60	+17 17 25.6	18.9 T	704
C/1999 XS ₈₇	2000 02 02.21932	06 12 41.74	+17 17 14.4	19.4 T	704
C/1999 XS ₈₇	2000 02 02.23342	06 12 41.74	+17 17 12.1	19.4 T	704
C/1999 XS ₈₇	2000 02 03.47309	06 12 33.01	+17 14 01.2	17.0 T	402
C/1999 XS ₈₇	2000 02 03.47539	06 12 32.96	+17 14 00.3		402
C/1999 XS ₈₇	2000 02 03.47770	06 12 33.01	+17 14 00.5		402
C/1999 XS ₈₇	2000 02 04.57500	06 12 26.74	+17 11 13.7	16.7 T	360
C/1999 XS ₈₇	2000 02 04.57951	06 12 26.70	+17 11 13.3		360
C/1999 XS ₈₇	2000 02 05.49221	06 12 22.89	+17 08 57.6	16.9 T	349
C/1999 XS ₈₇	2000 02 05.50313	06 12 22.81	+17 08 56.3		349
C/1999 XS ₈₇	2000 02 05.50628	06 12 22.88	+17 08 56.9		349
C/1999 XS ₈₇	2000 02 11.48906	06 12 22.28	+16 55 13.6	17.4 T	360
C/1999 XS ₈₇	2000 02 11.50781	06 12 22.32	+16 55 11.1		360

C/1999 Y1 (LINEAR)

C/1999 Y1	2000 01 03.65000	03 02 06.96	+70 32 02.6		372
C/1999 Y1	2000 01 22.49463	02 30 14.51	+65 44 29.7	16.5 T	349
C/1999 Y1	2000 01 22.49670	02 30 14.27	+65 44 27.4		349
C/1999 Y1	2000 01 22.50760	02 30 13.83	+65 44 16.5		349
C/1999 Y1	2000 01 25.51512	02 27 21.80	+64 57 26.0	16.7 T	900
C/1999 Y1	2000 01 25.52020	02 27 21.52	+64 57 21.0		900

C/1999 Y1	2000 01 26.09652	02 26 51.92	+64 48 25.8	18.9 T	750
C/1999 Y1	2000 01 26.10701	02 26 51.35	+64 48 16.4	18.1 T	750
C/1999 Y1	2000 01 26.43611	02 26 35.04	+64 43 10.3	17.2 T	402
C/1999 Y1	2000 01 26.43737	02 26 34.94	+64 43 09.4		402
C/1999 Y1	2000 01 27.48281	02 25 45.02	+64 27 02.7	16.7 T	372
C/1999 Y1	2000 01 27.49306	02 25 44.61	+64 26 53.5		372
C/1999 Y1	2000 01 27.49743	02 25 44.25	+64 26 48.2		900
C/1999 Y1	2000 01 27.54078	02 25 41.88	+64 26 08.4	16.6 T	900
C/1999 Y1	2000 01 28.48993	02 24 59.62	+64 11 32.5	16.3 T	360
C/1999 Y1	2000 01 28.49253	02 24 59.55	+64 11 30.2		360
C/1999 Y1	2000 01 29.45128	02 24 19.32	+63 56 49.9	16.7 T	402
C/1999 Y1	2000 01 29.45255	02 24 19.22	+63 56 48.9		402
C/1999 Y1	2000 01 29.45381	02 24 19.16	+63 56 47.8		402
C/1999 Y1	2000 01 31.14416	02 23 14.11	+63 31 04.6	18.2 T	750
C/1999 Y1	2000 01 31.15075	02 23 13.89	+63 30 58.7	18.1 T	750
C/1999 Y1	2000 01 31.18146	02 23 12.84	+63 30 30.5	18.1 T	750
C/1999 Y1	2000 02 04.44549	02 21 02.14	+62 26 49.5	16.4 T	2 360
C/1999 Y1	2000 02 04.44844	02 21 02.05	+62 26 47.1		2 360
C/1999 Y1	2000 02 05.09970	02 20 45.92	+62 17 12.4	17.7 T	750
C/1999 Y1	2000 02 05.10318	02 20 45.87	+62 17 10.0	17.2 T	750
C/1999 Y1	2000 02 05.11012	02 20 45.66	+62 17 03.4	18.1 T	750
C/1999 Y1	2000 02 05.41149	02 20 38.50	+62 12 39.2		349
C/1999 Y1	2000 02 05.41517	02 20 38.43	+62 12 35.3		349
C/1999 Y1	2000 02 05.41723	02 20 38.49	+62 12 34.8	16.2 T	349
C/1999 Y1	2000 02 08.11024	02 19 43.39	+61 33 36.3	17.8 T	750
C/1999 Y1	2000 02 08.11758	02 19 43.32	+61 33 29.8	18.0 T	750
C/1999 Y1	2000 02 08.12777	02 19 43.11	+61 33 22.1	17.0 T	750
C/1999 Y1	2000 02 11.41354	02 18 56.19	+60 47 02.3	16.2 T	360
C/1999 Y1	2000 02 11.41632	02 18 56.14	+60 47 00.0		360

C/2000 A1 (Montani)

C/2000 A1	2000 01 24.34242	07 58 53.48	+23 39 50.5		658
C/2000 A1	2000 01 24.36016	07 58 53.18	+23 39 52.6		658
C/2000 A1	2000 01 26.19112	07 58 23.70	+23 43 29.1	18.6 T	691
C/2000 A1	2000 01 26.21914	07 58 23.13	+23 43 33.0	18.6 T	691
C/2000 A1	2000 01 26.24937	07 58 22.73	+23 43 35.8	18.4 T	5 691
C/2000 A1	2000 01 26.52738	07 58 18.30	+23 44 09.2	19.0 T	402
C/2000 A1	2000 01 26.53199	07 58 18.20	+23 44 09.2		402
C/2000 A1	2000 01 26.53660	07 58 18.14	+23 44 10.1		402
C/2000 A1	2000 01 27.51076	07 58 02.58	+23 46 04.2	19.1 T	372
C/2000 A1	2000 01 27.61424	07 58 00.87	+23 46 17.2	19.3 T	360
C/2000 A1	2000 01 27.62049	07 58 00.81	+23 46 17.7		360
C/2000 A1	2000 01 27.62604	07 58 00.72	+23 46 18.3		360
C/2000 A1	2000 01 28.53854	07 57 46.29	+23 48 04.4	19.2 T	372
C/2000 A1	2000 01 30.56736	07 57 14.37	+23 51 57.4	19.5 T	372
C/2000 A1	2000 02 03.30765	07 56 16.48	+23 59 00.0	20.3 T	691
C/2000 A1	2000 02 03.31374	07 56 16.38	+23 59 00.7	19.9 T	691
C/2000 A1	2000 02 03.31978	07 56 16.27	+23 59 01.7	20.2 T	691
C/2000 A1	2000 02 04.61944	07 55 56.75	+24 01 24.3	19.3 T	360
C/2000 A1	2000 02 04.63056	07 55 56.62	+24 01 25.3		360
C/2000 A1	2000 02 04.63611	07 55 56.52	+24 01 26.0		360
C/2000 A1	2000 02 12.31175	07 54 07.51	+24 14 54.7	19.0 T	691

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C/2000 A1	2000 02 12.33963	07 54 07.08	+24 14 57.6	18.5 T	691
C/2000 A1	2000 02 12.36739	07 54 06.75	+24 15 00.0	18.5 T	691

C/2000 B2 (LINEAR)

C/2000 B2	2000 01 29.23907	06 38 59.78	+36 32 39.9	18.8 N	704
C/2000 B2	2000 01 29.25454	06 38 58.32	+36 32 26.1	19.1 N	704
C/2000 B2	2000 01 29.27019	06 38 56.72	+36 32 10.2	19.1 N	704
C/2000 B2	2000 01 29.28627	06 38 55.33	+36 31 56.1	18.9 N	704
C/2000 B2	2000 01 29.30207	06 38 53.76	+36 31 40.9	19.3 N	704
C/2000 B2	2000 01 30.15754	06 37 34.49	+36 18 31.9	18.7 N	704
C/2000 B2	2000 01 30.17247	06 37 33.09	+36 18 19.4	18.9 N	704
C/2000 B2	2000 01 30.18731	06 37 31.74	+36 18 05.6	18.8 N	704
C/2000 B2	2000 01 30.20215	06 37 30.38	+36 17 52.0	19.5 N	704
C/2000 B2	2000 01 30.21702	06 37 28.93	+36 17 38.1	18.6 N	704
C/2000 B2	2000 01 31.16538	06 36 02.79	+36 03 00.8	18.9 N	704
C/2000 B2	2000 01 31.19544	06 36 00.10	+36 02 33.2	18.8 N	704
C/2000 B2	2000 01 31.21049	06 35 58.73	+36 02 19.1	18.7 N	704
C/2000 B2	2000 02 01.79700	06 33 38.99	+35 37 46.8		557
C/2000 B2	2000 02 01.79933	06 33 38.76	+35 37 44.8		557
C/2000 B2	2000 02 01.80166	06 33 38.59	+35 37 42.6		557
C/2000 B2	2000 02 01.81295	06 33 37.58	+35 37 31.8	17.9 N	046
C/2000 B2	2000 02 01.81429	06 33 37.51	+35 37 30.9		046
C/2000 B2	2000 02 01.81525	06 33 37.43	+35 37 30.2		046
C/2000 B2	2000 02 01.81633	06 33 37.27	+35 37 29.1		046
C/2000 B2	2000 02 01.81778	06 33 37.18	+35 37 27.0		046
C/2000 B2	2000 02 01.82397	06 33 36.63	+35 37 21.5		557
C/2000 B2	2000 02 01.85311	06 33 34.08	+35 36 54.3		557
C/2000 B2	2000 02 01.85558	06 33 33.87	+35 36 52.1		557
C/2000 B2	2000 02 01.96128	06 33 24.70	+35 35 14.2	17.6 T	118
C/2000 B2	2000 02 01.96834	06 33 24.03	+35 35 07.3		118
C/2000 B2	2000 02 01.97240	06 33 23.74	+35 35 04.3		118
C/2000 B2	2000 02 02.17214	06 33 06.55	+35 32 01.1	18.9 T	704
C/2000 B2	2000 02 02.17225	06 33 06.71	+35 31 58.5	18.4 T	704
C/2000 B2	2000 02 02.17235	06 33 06.67	+35 31 57.9	18.3 T	704
C/2000 B2	2000 02 02.18672	06 33 05.40	+35 31 45.8	18.4 T	704
C/2000 B2	2000 02 02.18683	06 33 05.41	+35 31 45.8	19.0 T	704
C/2000 B2	2000 02 02.18693	06 33 05.43	+35 31 45.0	18.7 T	704
C/2000 B2	2000 02 02.20077	06 33 04.19	+35 31 32.0	18.9 T	704
C/2000 B2	2000 02 02.20087	06 33 04.17	+35 31 32.0	18.4 T	704
C/2000 B2	2000 02 02.20097	06 33 04.19	+35 31 32.1	18.7 T	704
C/2000 B2	2000 02 02.21485	06 33 03.02	+35 31 18.6	18.6 T	704
C/2000 B2	2000 02 02.21496	06 33 02.94	+35 31 18.8	19.1 T	704
C/2000 B2	2000 02 02.21506	06 33 02.94	+35 31 19.0	18.9 T	704
C/2000 B2	2000 02 02.22894	06 33 01.73	+35 31 04.9	18.8 T	704
C/2000 B2	2000 02 02.22905	06 33 01.73	+35 31 06.1	18.5 T	704
C/2000 B2	2000 02 02.22915	06 33 01.72	+35 31 05.6	18.8 T	704
C/2000 B2	2000 02 03.15172	06 31 43.83	+35 16 46.9	18.5 T	704
C/2000 B2	2000 02 03.15183	06 31 43.82	+35 16 47.5	18.4 T	704
C/2000 B2	2000 02 03.16661	06 31 42.58	+35 16 34.3	19.1 T	704
C/2000 B2	2000 02 03.16672	06 31 42.60	+35 16 34.4	18.7 T	704
C/2000 B2	2000 02 03.18091	06 31 41.44	+35 16 20.1	18.5 T	704
C/2000 B2	2000 02 03.18101	06 31 41.38	+35 16 19.9	18.6 T	704
C/2000 B2	2000 02 03.19530	06 31 40.14	+35 16 07.2	18.3 T	704

C/2000 B2	2000 02 03.19541	06 31 40.17	+35 16 07.1	18.4 T	704
C/2000 B2	2000 02 03.20959	06 31 38.95	+35 15 53.4	18.4 T	704
C/2000 B2	2000 02 03.20969	06 31 38.95	+35 15 53.5	18.4 T	704
C/2000 B2	2000 02 03.43744	06 31 20.04	+35 12 20.3	17.8 T	402
C/2000 B2	2000 02 03.43975	06 31 19.94	+35 12 21.4		402
C/2000 B2	2000 02 03.44204	06 31 19.76	+35 12 17.1		402
C/2000 B2	2000 02 04.52917	06 29 50.79	+34 55 24.9	18.3 T	360
C/2000 B2	2000 02 04.53368	06 29 50.45	+34 55 20.4		360
C/2000 B2	2000 02 04.53785	06 29 50.07	+34 55 16.8		360
C/2000 B2	2000 02 05.57720	06 28 27.46	+34 39 09.3	18.4 T	402
C/2000 B2	2000 02 05.57949	06 28 27.37	+34 39 07.0		402
C/2000 B2	2000 02 05.58179	06 28 27.15	+34 39 05.1		402
C/2000 B2	2000 02 06.16008	06 27 42.28	+34 30 07.1	18.6 T	704
C/2000 B2	2000 02 06.17519	06 27 41.09	+34 29 53.4	18.9 T	704
C/2000 B2	2000 02 06.19016	06 27 39.91	+34 29 40.0	19.0 T	704
C/2000 B2	2000 02 06.22018	06 27 37.58	+34 29 11.7	19.2 T	704
C/2000 B2	2000 02 10.55148	06 22 24.74	+33 22 18.9		355
C/2000 B2	2000 02 10.55503	06 22 24.60	+33 22 15.7	18.3 T	355
C/2000 B2	2000 02 10.55848	06 22 24.29	+33 22 12.3		355
C/2000 B2	2000 02 11.54097	06 21 18.96	+33 07 07.3	18.2 T	360
C/2000 B2	2000 02 11.54497	06 21 18.69	+33 07 04.1		360
C/2000 B2	2000 02 11.54948	06 21 18.34	+33 06 59.5		360

P/2000 B3 (LINEAR)

P/2000 B3	2000 01 27.24052	06 29 47.84	+43 42 44.9	18.9 N	704
P/2000 B3	2000 01 27.25559	06 29 47.95	+43 42 34.2	19.4 N	704
P/2000 B3	2000 01 27.27066	06 29 47.93	+43 42 22.7	19.2 N	704
P/2000 B3	2000 01 27.30084	06 29 48.02	+43 42 00.8	19.2 N	704
P/2000 B3	2000 01 30.15728	06 30 13.25	+43 06 58.5	18.9 N	704
P/2000 B3	2000 01 30.17223	06 30 13.42	+43 06 47.8	19.5 N	704
P/2000 B3	2000 01 30.18706	06 30 13.60	+43 06 36.5	18.9 N	704
P/2000 B3	2000 01 30.20190	06 30 13.71	+43 06 25.0	19.1 N	704
P/2000 B3	2000 01 30.21676	06 30 13.82	+43 06 14.0	18.9 N	704
P/2000 B3	2000 01 31.15016	06 30 27.39	+42 54 19.5	18.4 N	704
P/2000 B3	2000 01 31.16512	06 30 27.56	+42 54 08.4	18.9 N	704
P/2000 B3	2000 01 31.19519	06 30 27.86	+42 53 45.4	18.8 N	704
P/2000 B3	2000 01 31.21023	06 30 28.06	+42 53 33.0	19.3 N	704
P/2000 B3	2000 02 01.96742	06 30 59.68	+42 30 29.8		5 557
P/2000 B3	2000 02 01.98329	06 31 00.00	+42 30 18.9		557
P/2000 B3	2000 02 02.13799	06 31 04.00	+42 28 19.8	18.1 T	858
P/2000 B3	2000 02 02.14260	06 31 04.05	+42 28 16.1	18.2 T	858
P/2000 B3	2000 02 02.14792	06 31 04.15	+42 28 11.9	18.2 T	858
P/2000 B3	2000 02 02.17203	06 31 04.58	+42 27 53.3	18.3 T	704
P/2000 B3	2000 02 02.18661	06 31 04.88	+42 27 41.4	18.6 T	704
P/2000 B3	2000 02 02.19174	06 31 05.03	+42 27 37.6		670
P/2000 B3	2000 02 02.20064	06 31 05.06	+42 27 30.7	18.9 T	704
P/2000 B3	2000 02 02.21472	06 31 05.24	+42 27 19.3	18.5 T	704
P/2000 B3	2000 02 02.22881	06 31 05.60	+42 27 07.8	18.9 T	704
P/2000 B3	2000 02 02.27889	06 31 06.46	+42 26 27.7		7 670
P/2000 B3	2000 02 02.31521	06 31 06.93	+42 25 58.2		651
P/2000 B3	2000 02 02.31902	06 31 06.94	+42 25 55.4	18.7 T	651
P/2000 B3	2000 02 02.32242	06 31 06.98	+42 25 52.7		670
P/2000 B3	2000 02 02.32374	06 31 07.10	+42 25 51.4		651

P/2000 B3	2000 02 02.44479	06 31 10.56	+42 24 23.9	18.4 T	422
P/2000 B3	2000 02 02.44990	06 31 10.64	+42 24 20.7	18.3 T	422
P/2000 B3	2000 02 02.89237	06 31 20.38	+42 18 15.0	18.3 T	163
P/2000 B3	2000 02 02.94983	06 31 21.57	+42 17 26.1	18.7 T	163
P/2000 B3	2000 02 02.96623	06 31 22.30	+42 17 11.7	18.9 T	163
P/2000 B3	2000 02 03.52508	06 31 35.92	+42 09 42.7	18.1 T	402
P/2000 B3	2000 02 03.52737	06 31 36.02	+42 09 40.9		402
P/2000 B3	2000 02 03.52968	06 31 36.04	+42 09 39.5		402
P/2000 B3	2000 02 03.81809	06 31 43.56	+42 05 41.9	17.7 T	046
P/2000 B3	2000 02 03.81929	06 31 43.58	+42 05 41.1		046
P/2000 B3	2000 02 03.82044	06 31 43.62	+42 05 40.2		046
P/2000 B3	2000 02 03.82179	06 31 43.67	+42 05 39.3		046
P/2000 B3	2000 02 03.82330	06 31 43.67	+42 05 37.3		046
P/2000 B3	2000 02 04.50451	06 32 02.10	+41 56 21.7	17.9 T	360
P/2000 B3	2000 02 04.50885	06 32 02.24	+41 56 18.3		360
P/2000 B3	2000 02 04.51267	06 32 02.30	+41 56 14.8		360
P/2000 B3	2000 02 04.57639	06 32 03.76	+41 55 24.4	18.9 T	372
P/2000 B3	2000 02 05.58556	06 32 33.65	+41 41 24.0	18.1 T	402
P/2000 B3	2000 02 05.58785	06 32 33.75	+41 41 21.8		402
P/2000 B3	2000 02 05.59015	06 32 33.79	+41 41 19.9		402
P/2000 B3	2000 02 11.55660	06 36 29.58	+40 15 44.8	17.7 T	360
P/2000 B3	2000 02 11.56042	06 36 29.74	+40 15 41.3		360

C/2000 B4 (LINEAR)

C/2000 B4	2000 01 02.35113	08 19 52.52	+36 42 36.4	19.1 N	8 704
C/2000 B4	2000 01 02.36896	08 19 52.02	+36 42 37.4	19.7 N	8 704
C/2000 B4	2000 01 02.40545	08 19 51.21	+36 42 42.3	19.7 N	8 704
C/2000 B4	2000 01 02.42513	08 19 50.64	+36 42 43.6	19.5 N	8 704
C/2000 B4	2000 01 29.24832	08 08 15.43	+37 03 04.0	19.4 N	704
C/2000 B4	2000 01 29.26399	08 08 14.94	+37 03 03.9	19.4 N	704
C/2000 B4	2000 01 29.28014	08 08 14.43	+37 03 04.3	19.3 N	704
C/2000 B4	2000 01 29.29596	08 08 14.15	+37 03 03.3	19.5 N	704
C/2000 B4	2000 01 31.22584	08 07 23.66	+37 02 57.5	19.4 N	704
C/2000 B4	2000 01 31.24068	08 07 23.29	+37 02 57.5	19.9 N	704
C/2000 B4	2000 01 31.25564	08 07 23.00	+37 02 58.7	20.0 N	704
C/2000 B4	2000 01 31.27049	08 07 22.53	+37 02 57.1	18.8 N	704
C/2000 B4	2000 02 02.25706	08 06 31.43	+37 02 34.8	19.0 N	704
C/2000 B4	2000 02 02.27145	08 06 31.05	+37 02 34.7	19.2 N	704
C/2000 B4	2000 02 02.28596	08 06 30.68	+37 02 35.0	19.3 N	704
C/2000 B4	2000 02 02.30036	08 06 30.30	+37 02 35.0	19.0 N	704
C/2000 B4	2000 02 05.32333	08 05 14.32	+37 01 31.7		651
C/2000 B4	2000 02 05.33281	08 05 14.09	+37 01 31.6		651
C/2000 B4	2000 02 05.33990	08 05 13.95	+37 01 31.5	19.5 N	651
C/2000 B4	2000 02 05.60374	08 05 07.42	+37 01 24.3	19.1 N	402
C/2000 B4	2000 02 05.60836	08 05 07.35	+37 01 24.4		402
C/2000 B4	2000 02 05.62463	08 05 06.93	+37 01 24.4		402
C/2000 B4	2000 02 05.62692	08 05 06.91	+37 01 24.1		402
C/2000 B4	2000 02 05.85559	08 05 01.25	+37 01 17.7		557
C/2000 B4	2000 02 05.86623	08 05 01.04	+37 01 16.4		557
C/2000 B4	2000 02 05.92610	08 04 59.57	+37 01 15.2	18.1 N	046
C/2000 B4	2000 02 05.92777	08 04 59.46	+37 01 14.9		046
C/2000 B4	2000 02 05.92912	08 04 59.42	+37 01 14.2		046
C/2000 B4	2000 02 05.93193	08 04 59.32	+37 01 15.5	18.3 N	046

C/2000 B4	2000 02 06.12716	08 04 54.61	+37 01 09.3	19.4 N	858
C/2000 B4	2000 02 06.17604	08 04 53.50	+37 01 08.1	19.7 N	704
C/2000 B4	2000 02 06.19101	08 04 53.02	+37 01 08.6	19.6 N	704
C/2000 B4	2000 02 06.22105	08 04 52.36	+37 01 07.3	19.3 N	704
C/2000 B4	2000 02 06.23152	08 04 52.06	+37 01 06.4	19.4 N	858
C/2000 B4	2000 02 06.23637	08 04 51.95	+37 01 06.9	19.6 N	858
C/2000 B4	2000 02 07.02492	08 04 32.82	+37 00 41.3		557
C/2000 B4	2000 02 07.03953	08 04 32.44	+37 00 40.0		557
C/2000 B4	2000 02 07.74687	08 04 15.48	+37 00 16.3		557
C/2000 B4	2000 02 07.78035	08 04 14.71	+37 00 15.4		557
C/2000 B4	2000 02 07.78266	08 04 14.61	+37 00 15.7		557
C/2000 B4	2000 02 08.21019	08 04 04.42	+36 59 59.7		711
C/2000 B4	2000 02 08.22779	08 04 03.85	+36 59 58.7		711
C/2000 B4	2000 02 08.24060	08 04 03.67	+36 59 58.4		711
C/2000 B4	2000 02 10.34742	08 03 14.31	+36 58 31.7		658
C/2000 B4	2000 02 10.39256	08 03 13.24	+36 58 30.1		658
C/2000 B4	2000 02 10.73014	08 03 05.53	+36 58 13.9		557
C/2000 B4	2000 02 10.75087	08 03 05.11	+36 58 12.8		557
C/2000 B4	2000 02 10.76198	08 03 04.86	+36 58 12.3		557
C/2000 B4	2000 02 10.76520	08 03 04.80	+36 58 11.5		557
C/2000 B4	2000 02 10.83799	08 03 03.11	+36 58 09.3		118
C/2000 B4	2000 02 10.84913	08 03 02.86	+36 58 08.9		118
C/2000 B4	2000 02 10.85334	08 03 02.74	+36 58 08.0		118
C/2000 B4	2000 02 11.12117	08 02 56.70	+36 57 56.1	19.7 N	858
C/2000 B4	2000 02 11.12856	08 02 56.48	+36 57 54.9	20.0 N	858
C/2000 B4	2000 02 11.13767	08 02 56.31	+36 57 54.7	20.0 N	858
C/2000 B4	2000 02 11.19885	08 02 54.90	+36 57 52.0		658
C/2000 B4	2000 02 11.22940	08 02 54.11	+36 57 50.3		658
C/2000 B4	2000 02 11.87488	08 02 39.57	+36 57 18.8	18.3 N	046
C/2000 B4	2000 02 11.87885	08 02 39.54	+36 57 18.3		046
C/2000 B4	2000 02 11.88061	08 02 39.51	+36 57 18.0		046
C/2000 B4	2000 02 11.88301	08 02 39.45	+36 57 17.9		046
C/2000 B4	2000 02 12.15388	08 02 33.39	+36 57 04.4	19.6 N	858
C/2000 B4	2000 02 12.16028	08 02 33.28	+36 57 03.8	19.8 N	858
C/2000 B4	2000 02 12.16654	08 02 33.16	+36 57 03.6	20.0 N	858
C/2000 B4	2000 02 12.91110	08 02 16.58	+36 56 23.3	19.5 N	104
C/2000 B4	2000 02 12.91631	08 02 16.43	+36 56 23.1	19.6 N	104
C/2000 B4	2000 02 12.92256	08 02 16.27	+36 56 21.7		104

P/2000 C1 (Hergenrother)

P/2000 C1	2000 01 04.44925	11 47 26.01	+04 44 20.2	18.7 N	8 704
P/2000 C1	2000 01 04.46404	11 47 26.91	+04 44 18.6	19.4 N	8 704
P/2000 C1	2000 01 08.45471	11 51 36.74	+04 35 12.2	18.9 N	8 704
P/2000 C1	2000 01 08.46968	11 51 37.49	+04 35 09.4	19.3 N	8 704
P/2000 C1	2000 01 08.49968	11 51 39.39	+04 35 06.2	19.3 N	8 704
P/2000 C1	2000 01 08.51504	11 51 40.19	+04 35 05.4	19.0 N	8 704
P/2000 C1	2000 02 04.45802	12 10 38.72	+04 53 06.1	17.1 T	703
P/2000 C1	2000 02 04.46984	12 10 38.98	+04 53 08.0	17.4 T	703
P/2000 C1	2000 02 04.48157	12 10 39.21	+04 53 10.4	17.2 T	703
P/2000 C1	2000 02 04.49333	12 10 39.43	+04 53 13.4	17.1 T	703
P/2000 C1	2000 02 05.36347	12 10 58.05	+04 56 16.5	17.8 T	651
P/2000 C1	2000 02 05.37149	12 10 58.20	+04 56 18.5	17.8 T	651
P/2000 C1	2000 02 05.37405	12 10 58.20	+04 56 18.9	17.6 T	651

P/2000 C1	2000 02 05.37704	12 10 58.28	+04 56 19.6	17.8 T	651
P/2000 C1	2000 02 05.50738	12 11 00.73	+04 56 46.7	18.0 N	681
P/2000 C1	2000 02 05.51317	12 11 00.84	+04 56 47.4	17.9 N	681
P/2000 C1	2000 02 05.52032	12 11 00.95	+04 56 48.6	17.9 N	681
P/2000 C1	2000 02 05.65532	12 11 03.95	+04 57 27.1	18.1 T	422
P/2000 C1	2000 02 05.65900	12 11 03.96	+04 57 27.9	18.7 T	422
P/2000 C1	2000 02 05.66081	12 11 03.98	+04 57 28.7	18.7 T	422
P/2000 C1	2000 02 05.66265	12 11 03.99	+04 57 29.0	18.5 T	422
P/2000 C1	2000 02 05.66649	12 11 04.09	+04 57 30.0	18.4 T	422
P/2000 C1	2000 02 05.95985	12 11 09.94	+04 58 25.4	17.7 T	046
P/2000 C1	2000 02 05.96097	12 11 10.01	+04 58 26.4		046
P/2000 C1	2000 02 05.96339	12 11 10.00	+04 58 26.4		046
P/2000 C1	2000 02 05.96455	12 11 10.00	+04 58 27.6		046
P/2000 C1	2000 02 05.96593	12 11 09.99	+04 58 27.7		046
P/2000 C1	2000 02 06.13226	12 11 12.95	+04 59 05.2		557
P/2000 C1	2000 02 06.14638	12 11 13.18	+04 59 08.5		557
P/2000 C1	2000 02 06.35833	12 11 17.26	+04 59 57.6	17.9 T	850
P/2000 C1	2000 02 06.37569	12 11 17.57	+05 00 02.0	17.8 T	850
P/2000 C1	2000 02 06.39535	12 11 18.00	+05 00 06.9	18.6 T	704
P/2000 C1	2000 02 06.40069	12 11 17.99	+05 00 08.0	17.9 T	850
P/2000 C1	2000 02 06.41007	12 11 18.27	+05 00 10.4	18.8 T	704
P/2000 C1	2000 02 06.42479	12 11 18.51	+05 00 14.0	19.9 T	704
P/2000 C1	2000 02 06.43948	12 11 18.78	+05 00 16.8	19.8 T	704
P/2000 C1	2000 02 06.45429	12 11 19.02	+05 00 19.1	17.9 T	681
P/2000 C1	2000 02 06.47903	12 11 19.47	+05 00 23.9	18.1 T	681
P/2000 C1	2000 02 06.56255	12 11 21.27	+05 00 52.4	18.0 T	422
P/2000 C1	2000 02 06.56745	12 11 21.42	+05 00 53.0	18.2 T	422
P/2000 C1	2000 02 06.56841	12 11 21.46	+05 00 54.2	17.9 T	422
P/2000 C1	2000 02 09.63668	12 12 09.50	+05 13 34.1	17.0 T	355
P/2000 C1	2000 02 09.64464	12 12 09.59	+05 13 37.1		355
P/2000 C1	2000 02 09.66124	12 12 09.74	+05 13 40.7		355
P/2000 C1	2000 02 09.73837	12 12 10.42	+05 14 01.1		349
P/2000 C1	2000 02 09.74358	12 12 10.59	+05 14 03.4	16.9 T	372
P/2000 C1	2000 02 09.74808	12 12 10.51	+05 14 04.2	17.1 T	349
P/2000 C1	2000 02 09.76389	12 12 10.81	+05 14 08.8	16.7 T	372
P/2000 C1	2000 02 10.73084	12 12 22.53	+05 18 35.1		900
P/2000 C1	2000 02 10.75051	12 12 22.69	+05 18 40.3	16.7 T	900
P/2000 C1	2000 02 10.78715	12 12 23.08	+05 18 50.8	17.0 T	360
P/2000 C1	2000 02 10.79115	12 12 23.10	+05 18 51.9		360
P/2000 C1	2000 02 11.38700	12 12 29.64	+05 21 40.4	18.6 T	704
P/2000 C1	2000 02 11.41546	12 12 29.90	+05 21 49.5	18.6 T	704
P/2000 C1	2000 02 11.42974	12 12 29.80	+05 21 54.3	19.3 T	704
P/2000 C1	2000 02 11.44411	12 12 29.95	+05 21 58.3	19.2 T	704
P/2000 C1	2000 02 11.51859	12 12 30.74	+05 22 18.3		658
P/2000 C1	2000 02 11.52483	12 12 30.78	+05 22 20.7		658
P/2000 C1	2000 02 11.53196	12 12 30.86	+05 22 22.6		658
P/2000 C1	2000 02 11.65347	12 12 32.33	+05 22 59.6	17.0 T	372
P/2000 C1	2000 02 11.67179	12 12 32.52	+05 23 04.0		411
P/2000 C1	2000 02 11.67923	12 12 32.57	+05 23 06.4		411
P/2000 C1	2000 02 11.72546	12 12 32.89	+05 23 20.2		411
P/2000 C1	2000 02 12.78803	12 12 41.89	+05 28 36.8	17 T	888
P/2000 C1	2000 02 12.79868	12 12 41.96	+05 28 40.5		888
P/2000 C1	2000 02 12.80958	12 12 42.00	+05 28 43.9		888

P/2000 C1	2000 02 16.67992	12 12 59.66	+05 49 40.6		355
P/2000 C1	2000 02 16.68332	12 12 59.66	+05 49 42.6	16.7 T	355
P/2000 C1	2000 02 16.69450	12 12 59.74	+05 49 47.1		355

C/2000 C2 (SOHO)

C/2000 C2	2000 02 03.70423	21 12 18.8	-15 10 58		249
Geocentric position (AU)	+0.00543154	-0.00604294	-0.00183939		
C/2000 C2	2000 02 03.71256	21 12 06.6	-15 09 41		249
Geocentric position (AU)	+0.00543352	-0.00604130	-0.00183865		
C/2000 C2	2000 02 03.72923	21 11 45.3	-15 05 21		249
Geocentric position (AU)	+0.00543747	-0.00603801	-0.00183717		
C/2000 C2	2000 02 03.74590	21 11 21.8	-15 01 46		249
Geocentric position (AU)	+0.00544142	-0.00603473	-0.00183569		
C/2000 C2	2000 02 03.75423	21 11 09.7	-15 00 00		249
Geocentric position (AU)	+0.00544339	-0.00603308	-0.00183495		
C/2000 C2	2000 02 03.77090	21 10 46.9	-14 56 08		249
Geocentric position (AU)	+0.00544734	-0.00602979	-0.00183346		
C/2000 C2	2000 02 03.78756	21 10 21.7	-14 53 28		249
Geocentric position (AU)	+0.00545128	-0.00602650	-0.00183198		
C/2000 C2	2000 02 03.81341	21 09 44.2	-14 48 52		249
Geocentric position (AU)	+0.00545740	-0.00602139	-0.00182968		
C/2000 C2	2000 02 03.82923	21 09 20.8	-14 46 10		249
Geocentric position (AU)	+0.00546114	-0.00601826	-0.00182827		
C/2000 C2	2000 02 03.83757	21 09 08.6	-14 44 59		249
Geocentric position (AU)	+0.00546311	-0.00601661	-0.00182753		

C/2000 C3 (SOHO)

C/2000 C3	2000 02 04.56345	21 16 22.9	-15 27 11		249
Geocentric position (AU)	+0.00563316	-0.00587096	-0.00176242		
C/2000 C3	2000 02 04.57923	21 16 03.5	-15 25 56		249
Geocentric position (AU)	+0.00563683	-0.00586775	-0.00176100		
C/2000 C3	2000 02 04.58756	21 15 53.4	-15 25 18		249
Geocentric position (AU)	+0.00563876	-0.00586605	-0.00176025		
C/2000 C3	2000 02 04.60423	21 15 33.0	-15 24 07		249
Geocentric position (AU)	+0.00564262	-0.00586266	-0.00175874		
C/2000 C3	2000 02 04.62090	21 15 12.0	-15 22 55		249
Geocentric position (AU)	+0.00564649	-0.00585926	-0.00175723		
C/2000 C3	2000 02 04.62923	21 15 01.5	-15 22 21		249
Geocentric position (AU)	+0.00564842	-0.00585757	-0.00175648		
C/2000 C3	2000 02 04.64590	21 14 40.4	-15 21 15		249
Geocentric position (AU)	+0.00565228	-0.00585417	-0.00175497		
C/2000 C3	2000 02 04.66256	21 14 19.1	-15 20 06		249
Geocentric position (AU)	+0.00565614	-0.00585077	-0.00175347		
C/2000 C3	2000 02 04.67090	21 14 08.5	-15 19 37		249
Geocentric position (AU)	+0.00565807	-0.00584907	-0.00175271		
C/2000 C3	2000 02 04.68758	21 13 46.5	-15 18 36		249
Geocentric position (AU)	+0.00566193	-0.00584566	-0.00175120		
C/2000 C3	2000 02 04.70423	21 13 24.4	-15 17 41		249
Geocentric position (AU)	+0.00566578	-0.00584226	-0.00174970		
C/2000 C3	2000 02 04.71256	21 13 13.6	-15 17 09		249
Geocentric position (AU)	+0.00566771	-0.00584056	-0.00174894		
C/2000 C3	2000 02 04.72923	21 12 52.0	-15 16 17		249
Geocentric position (AU)	+0.00567156	-0.00583715	-0.00174743		

C/2000 C3	2000 02 04.74590	21 12 29.8	-15 15 24	249
Geocentric position (AU)	+0.00567541	-0.00583374	-0.00174592	
C/2000 C3	2000 02 04.75806	21 12 11.1	-15 14 42	249
Geocentric position (AU)	+0.00567822	-0.00583125	-0.00174482	
C/2000 C3	2000 02 04.79177	21 11 25.8	-15 13 05	249
Geocentric position (AU)	+0.00568601	-0.00582435	-0.00174176	
C/2000 C3	2000 02 04.82348	21 10 42.9	-15 11 45	249
Geocentric position (AU)	+0.00569332	-0.00581785	-0.00173889	
C/2000 C3	2000 02 04.84454	21 10 14.6	-15 10 59	249
Geocentric position (AU)	+0.00569817	-0.00581352	-0.00173698	
C/2000 C3	2000 02 04.86671	21 09 44.6	-15 10 10	249
Geocentric position (AU)	+0.00570328	-0.00580897	-0.00173497	
C/2000 C3	2000 02 04.89257	21 09 10.3	-15 09 22	249
Geocentric position (AU)	+0.00570923	-0.00580365	-0.00173262	
C/2000 C3	2000 02 04.90296	21 08 56.1	-15 09 02	249
Geocentric position (AU)	+0.00571162	-0.00580152	-0.00173167	
C/2000 C3	2000 02 04.92357	21 08 28.6	-15 08 29	249
Geocentric position (AU)	+0.00571636	-0.00579727	-0.00172980	
C/2000 C3	2000 02 04.93354	21 08 15.2	-15 08 14	249
Geocentric position (AU)	+0.00571866	-0.00579522	-0.00172889	
C/2000 C3	2000 02 04.96853	21 07 29.3	-15 07 25	249
Geocentric position (AU)	+0.00572669	-0.00578801	-0.00172571	
C/2000 C3	2000 02 04.98122	21 07 12.7	-15 07 11	249
Geocentric position (AU)	+0.00572961	-0.00578539	-0.00172456	
C/2000 C3	2000 02 04.99183	21 06 58.9	-15 06 58	249
Geocentric position (AU)	+0.00573204	-0.00578320	-0.00172359	
C/2000 C3	2000 02 05.00820	21 06 37.6	-15 06 42	249
Geocentric position (AU)	+0.00573580	-0.00577982	-0.00172210	
C/2000 C3	2000 02 05.01642	21 06 26.8	-15 06 33	249
Geocentric position (AU)	+0.00573769	-0.00577813	-0.00172136	
C/2000 C3	2000 02 05.02462	21 06 16.4	-15 06 25	249
Geocentric position (AU)	+0.00573957	-0.00577643	-0.00172061	
C/2000 C3	2000 02 05.04731	21 05 47.3	-15 06 01	249
Geocentric position (AU)	+0.00574477	-0.00577174	-0.00171854	
C/2000 C3	2000 02 05.05979	21 05 31.4	-15 05 57	249
Geocentric position (AU)	+0.00574763	-0.00576916	-0.00171741	
C/2000 C3	2000 02 05.07294	21 05 14.7	-15 05 45	249
Geocentric position (AU)	+0.00575064	-0.00576644	-0.00171621	
C/2000 C3	2000 02 05.09016	21 04 53.3	-15 05 34	249
Geocentric position (AU)	+0.00575458	-0.00576288	-0.00171464	
C/2000 C3	2000 02 05.10424	21 04 35.3	-15 05 27	249
Geocentric position (AU)	+0.00575780	-0.00575996	-0.00171336	
C/2000 C3	2000 02 05.10840	21 04 30.4	-15 05 30	249
Geocentric position (AU)	+0.00575875	-0.00575910	-0.00171298	

C/2000 C4 (SOHO)

C/2000 C4	2000 02 05.16259	21 18 34.1	-15 15 04	249
Geocentric position (AU)	+0.00577114	-0.00574786	-0.00170803	
C/2000 C4	2000 02 05.16674	21 18 29.0	-15 14 52	249
Geocentric position (AU)	+0.00577209	-0.00574700	-0.00170766	
C/2000 C4	2000 02 05.17090	21 18 24.0	-15 14 26	249
Geocentric position (AU)	+0.00577304	-0.00574613	-0.00170728	

C/2000 C4	2000 02 05.17437	21 18 19.8	-15 14 15	249
Geocentric position (AU)	+0.00577383	-0.00574541	-0.00170696	
C/2000 C4	2000 02 05.18340	21 18 09.0	-15 13 35	249
Geocentric position (AU)	+0.00577589	-0.00574354	-0.00170614	
C/2000 C4	2000 02 05.18757	21 18 03.6	-15 13 21	249
Geocentric position (AU)	+0.00577684	-0.00574267	-0.00170575	
C/2000 C4	2000 02 05.19173	21 17 58.8	-15 13 01	249
Geocentric position (AU)	+0.00577779	-0.00574181	-0.00170537	
C/2000 C4	2000 02 05.22506	21 17 16.9	-15 10 39	249
Geocentric position (AU)	+0.00578540	-0.00573488	-0.00170233	
C/2000 C4	2000 02 05.22923	21 17 11.6	-15 10 25	249
Geocentric position (AU)	+0.00578635	-0.00573401	-0.00170195	
C/2000 C4	2000 02 05.23340	21 17 06.5	-15 10 07	249
Geocentric position (AU)	+0.00578730	-0.00573315	-0.00170157	
C/2000 C4	2000 02 05.24173	21 16 55.7	-15 09 36	249
Geocentric position (AU)	+0.00578920	-0.00573141	-0.00170081	
C/2000 C4	2000 02 05.24590	21 16 50.4	-15 09 19	249
Geocentric position (AU)	+0.00579015	-0.00573054	-0.00170043	
C/2000 C4	2000 02 05.25007	21 16 45.1	-15 09 04	249
Geocentric position (AU)	+0.00579110	-0.00572967	-0.00170005	
C/2000 C4	2000 02 05.25423	21 16 39.7	-15 08 48	249
Geocentric position (AU)	+0.00579205	-0.00572881	-0.00169967	
C/2000 C4	2000 02 05.25770	21 16 35.4	-15 08 35	249
Geocentric position (AU)	+0.00579284	-0.00572809	-0.00169935	
C/2000 C4	2000 02 05.26673	21 16 23.6	-15 08 01	249
Geocentric position (AU)	+0.00579489	-0.00572621	-0.00169852	
C/2000 C4	2000 02 05.27090	21 16 18.2	-15 07 47	249
Geocentric position (AU)	+0.00579584	-0.00572534	-0.00169814	
C/2000 C4	2000 02 05.27508	21 16 12.7	-15 07 34	249
Geocentric position (AU)	+0.00579679	-0.00572447	-0.00169776	
C/2000 C4	2000 02 05.28341	21 16 02.0	-15 07 04	249
Geocentric position (AU)	+0.00579869	-0.00572273	-0.00169700	
C/2000 C4	2000 02 05.28757	21 15 56.4	-15 06 51	249
Geocentric position (AU)	+0.00579964	-0.00572186	-0.00169662	
C/2000 C4	2000 02 05.29173	21 15 50.9	-15 06 32	249
Geocentric position (AU)	+0.00580058	-0.00572100	-0.00169624	
C/2000 C4	2000 02 05.29590	21 15 45.6	-15 06 20	249
Geocentric position (AU)	+0.00580153	-0.00572013	-0.00169586	
C/2000 C4	2000 02 05.29938	21 15 41.0	-15 06 09	249
Geocentric position (AU)	+0.00580233	-0.00571940	-0.00169554	
C/2000 C4	2000 02 05.42090	21 12 59.2	-15 00 29	249
Geocentric position (AU)	+0.00582993	-0.00569401	-0.00168441	
C/2000 C4	2000 02 05.42653	21 12 51.6	-15 00 18	249
Geocentric position (AU)	+0.00583120	-0.00569283	-0.00168390	
C/2000 C4	2000 02 05.43353	21 12 42.3	-15 00 00	249
Geocentric position (AU)	+0.00583279	-0.00569137	-0.00168326	
C/2000 C4	2000 02 05.43757	21 12 36.6	-14 59 52	249
Geocentric position (AU)	+0.00583370	-0.00569052	-0.00168289	
C/2000 C4	2000 02 05.44174	21 12 31.4	-14 59 45	249
Geocentric position (AU)	+0.00583465	-0.00568965	-0.00168250	
C/2000 C4	2000 02 05.45007	21 12 20.2	-14 59 26	249
Geocentric position (AU)	+0.00583654	-0.00568790	-0.00168174	

C/2000 C4	2000 02 05.45423	21 12 14.3	-14 59 17	249
Geocentric position (AU)	+0.00583748	-0.00568703	-0.00168136	
C/2000 C4	2000 02 05.45840	21 12 08.7	-14 59 11	249
Geocentric position (AU)	+0.00583843	-0.00568615	-0.00168097	
C/2000 C4	2000 02 05.46257	21 12 03.4	-14 59 04	249
Geocentric position (AU)	+0.00583937	-0.00568528	-0.00168059	
C/2000 C4	2000 02 05.46604	21 11 58.7	-14 58 56	249
Geocentric position (AU)	+0.00584015	-0.00568456	-0.00168028	
C/2000 C4	2000 02 05.47506	21 11 46.5	-14 58 39	249
Geocentric position (AU)	+0.00584220	-0.00568266	-0.00167945	
C/2000 C4	2000 02 05.47926	21 11 40.8	-14 58 31	249
Geocentric position (AU)	+0.00584315	-0.00568178	-0.00167906	
C/2000 C4	2000 02 05.48340	21 11 35.6	-14 58 25	249
Geocentric position (AU)	+0.00584408	-0.00568091	-0.00167868	
C/2000 C4	2000 02 05.49175	21 11 24.4	-14 58 11	249
Geocentric position (AU)	+0.00584597	-0.00567916	-0.00167792	
C/2000 C4	2000 02 05.49590	21 11 19.0	-14 58 03	249
Geocentric position (AU)	+0.00584691	-0.00567829	-0.00167754	
C/2000 C4	2000 02 05.50006	21 11 13.5	-14 57 55	249
Geocentric position (AU)	+0.00584786	-0.00567742	-0.00167715	
C/2000 C4	2000 02 05.50424	21 11 07.5	-14 57 49	249
Geocentric position (AU)	+0.00584880	-0.00567654	-0.00167677	
C/2000 C4	2000 02 05.50772	21 11 03.1	-14 57 46	249
Geocentric position (AU)	+0.00584959	-0.00567581	-0.00167645	
C/2000 C4	2000 02 05.51673	21 10 51.1	-14 57 32	249
Geocentric position (AU)	+0.00585162	-0.00567392	-0.00167562	
C/2000 C4	2000 02 05.52091	21 10 45.5	-14 57 24	249
Geocentric position (AU)	+0.00585257	-0.00567304	-0.00167524	
C/2000 C4	2000 02 05.52507	21 10 40.1	-14 57 18	249
Geocentric position (AU)	+0.00585351	-0.00567217	-0.00167486	
C/2000 C4	2000 02 05.62090	21 08 35.2	-14 55 31	249
Geocentric position (AU)	+0.00587514	-0.00565201	-0.00166606	
C/2000 C4	2000 02 05.62506	21 08 29.8	-14 55 30	249
Geocentric position (AU)	+0.00587608	-0.00565113	-0.00166567	
C/2000 C4	2000 02 05.62924	21 08 24.5	-14 55 21	249
Geocentric position (AU)	+0.00587702	-0.00565025	-0.00166529	
C/2000 C4	2000 02 05.63270	21 08 20.2	-14 55 22	249
Geocentric position (AU)	+0.00587780	-0.00564952	-0.00166497	
C/2000 C4	2000 02 05.64174	21 08 09.0	-14 55 10	249
Geocentric position (AU)	+0.00587984	-0.00564761	-0.00166414	
C/2000 C4	2000 02 05.64590	21 08 03.2	-14 55 13	249
Geocentric position (AU)	+0.00588078	-0.00564674	-0.00166376	
C/2000 C4	2000 02 05.65007	21 07 58.3	-14 55 08	249
Geocentric position (AU)	+0.00588171	-0.00564586	-0.00166337	
C/2000 C4	2000 02 05.65840	21 07 47.2	-14 55 03	249
Geocentric position (AU)	+0.00588359	-0.00564410	-0.00166261	
C/2000 C4	2000 02 05.66257	21 07 42.1	-14 54 59	249
Geocentric position (AU)	+0.00588453	-0.00564322	-0.00166222	
C/2000 C4	2000 02 05.66686	21 07 36.8	-14 54 57	249
Geocentric position (AU)	+0.00588550	-0.00564231	-0.00166183	

C/2000 C5 (SOHO)

C/2000 C5	2000 02 07.78756	21 28 04.0	-13 46 48	249
Geocentric position (AU)	+0.00634702	-0.00518058	-0.00146382	
C/2000 C5	2000 02 07.79173	21 27 57.7	-13 45 55	249
Geocentric position (AU)	+0.00634789	-0.00517965	-0.00146342	
C/2000 C5	2000 02 07.79590	21 27 51.8	-13 45 08	249
Geocentric position (AU)	+0.00634877	-0.00517872	-0.00146303	
C/2000 C5	2000 02 07.79937	21 27 47.2	-13 44 26	249
Geocentric position (AU)	+0.00634950	-0.00517794	-0.00146270	
C/2000 C5	2000 02 07.80840	21 27 34.1	-13 42 39	249
Geocentric position (AU)	+0.00635139	-0.00517592	-0.00146185	
C/2000 C5	2000 02 07.82727	21 27 04.2	-13 38 48	249
Geocentric position (AU)	+0.00635534	-0.00517168	-0.00146006	
C/2000 C5	2000 02 07.86419	21 26 09.4	-13 32 32	249
Geocentric position (AU)	+0.00636307	-0.00516340	-0.00145657	

C/2000 C6 (SOHO)

C/2000 C6	2000 02 09.22090	22 00 18.5	-17 12 43	249
Geocentric position (AU)	+0.00663962	-0.00485428	-0.00132739	
C/2000 C6	2000 02 09.23757	22 00 05.0	-17 10 15	249
Geocentric position (AU)	+0.00664293	-0.00485042	-0.00132579	
C/2000 C6	2000 02 09.26256	21 59 52.9	-17 08 35	249
Geocentric position (AU)	+0.00664788	-0.00484464	-0.00132340	
C/2000 C6	2000 02 09.36257	21 58 48.5	-16 58 20	249
Geocentric position (AU)	+0.00666765	-0.00482149	-0.00131383	
C/2000 C6	2000 02 09.38756	21 58 30.5	-16 54 59	249
Geocentric position (AU)	+0.00667258	-0.00481570	-0.00131143	
C/2000 C6	2000 02 09.40423	21 58 22.3	-16 53 15	249
Geocentric position (AU)	+0.00667586	-0.00481184	-0.00130983	
C/2000 C6	2000 02 09.43067	21 58 05.6	-16 51 10	249
Geocentric position (AU)	+0.00668106	-0.00480570	-0.00130730	
C/2000 C6	2000 02 09.44590	21 57 54.8	-16 49 07	249
Geocentric position (AU)	+0.00668406	-0.00480217	-0.00130584	
C/2000 C6	2000 02 09.61256	21 56 01.3	-16 31 24	249
Geocentric position (AU)	+0.00671670	-0.00476343	-0.00128986	
C/2000 C6	2000 02 09.63756	21 55 41.9	-16 28 48	249
Geocentric position (AU)	+0.00672158	-0.00475761	-0.00128747	
C/2000 C6	2000 02 09.65424	21 55 30.7	-16 26 56	249
Geocentric position (AU)	+0.00672483	-0.00475373	-0.00128587	
C/2000 C6	2000 02 09.67924	21 55 12.0	-16 24 13	249
Geocentric position (AU)	+0.00672970	-0.00474790	-0.00128347	

C/2000 CT₅₄ (LINEAR)

C/2000 CT ₅₄	2000 01 28.48460	14 03 12.38	-20 50 44.0	18.7 N	8 704
C/2000 CT ₅₄	2000 01 28.49974	14 03 12.53	-20 50 49.2	19.2 N	8 704
C/2000 CT ₅₄	2000 01 28.52996	14 03 13.00	-20 50 58.3	19.1 N	8 704
C/2000 CT ₅₄	2000 02 02.44006	14 03 40.19	-21 20 28.4	18.9 N	8 704
C/2000 CT ₅₄	2000 02 02.45526	14 03 40.26	-21 20 34.9	19.0 N	704
C/2000 CT ₅₄	2000 02 02.46965	14 03 40.36	-21 20 41.3	18.9 N	704
C/2000 CT ₅₄	2000 02 06.39952	14 03 49.54	-21 43 57.8	19.3 N	704
C/2000 CT ₅₄	2000 02 06.41424	14 03 49.46	-21 44 02.2	19.0 N	704
C/2000 CT ₅₄	2000 02 06.42897	14 03 49.44	-21 44 07.5	19.0 N	704
C/2000 CT ₅₄	2000 02 06.44365	14 03 49.47	-21 44 13.2	19.1 N	704
C/2000 CT ₅₄	2000 02 08.48123	14 03 49.32	-21 56 06.9	18.5 N	704

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C/2000 CT ₅₄	2000 02 08.49829	14 03 49.38	−21 56 15.0	19.0 N	704	50P	2000 02 19.94236	07 09 54.44	+45 14 27.1	587
C/2000 CT ₅₄	2000 02 08.51539	14 03 49.38	−21 56 20.9	18.9 N	704	50P	2000 02 19.94734	07 09 54.28	+45 14 24.5	587
C/2000 CT ₅₄	2000 02 12.47850	14 03 39.69	−22 19 17.2		711					
C/2000 CT ₅₄	2000 02 12.48680	14 03 39.60	−22 19 20.3		711		59P/Kearns-Kwee			
C/2000 CT ₅₄	2000 02 12.49504	14 03 39.54	−22 19 23.2		711	59P	2000 01 26.56063	08 11 59.30	+22 53 23.2	15.7 T 352
C/2000 CT ₅₄	2000 02 13.10649	14 03 36.96	−22 22 53.5	17.6 N	595	59P	2000 01 26.56409	08 11 59.13	+22 53 21.8	352
C/2000 CT ₅₄	2000 02 15.77766	14 03 22.04	−22 38 01.5	18.6 N	7 422	59P	2000 01 26.93197	08 11 40.53	+22 52 33.6	16.5 T 610
C/2000 CT ₅₄	2000 02 15.77824	14 03 21.90	−22 38 01.8	18.4 N	7 422	59P	2000 01 26.93613	08 11 40.35	+22 52 32.6	610
C/2000 CT ₅₄	2000 02 15.77882	14 03 21.89	−22 38 02.9	18.2 N	7 422	59P	2000 01 26.94030	08 11 40.18	+22 52 31.6	610
C/2000 CT ₅₄	2000 02 16.34748	14 03 18.04	−22 41 16.6	18.1 N	651	59P	2000 01 26.94447	08 11 40.01	+22 52 30.6	610
C/2000 CT ₅₄	2000 02 16.35457	14 03 17.86	−22 41 19.2	17.8 N	651	59P	2000 01 26.94863	08 11 39.83	+22 52 29.6	610
C/2000 CT ₅₄	2000 02 16.36172	14 03 17.92	−22 41 21.8	17.9 N	651	59P	2000 01 27.90941	08 10 52.44	+22 50 21.3	16.8 N 145
C/2000 CT ₅₄	2000 02 16.75181	14 03 15.00	−22 43 30.5	18.7 N	422	59P	2000 01 27.92661	08 10 51.53	+22 50 19.2	16.8 N 145
C/2000 CT ₅₄	2000 02 16.75492	14 03 14.98	−22 43 31.8	19.0 N	422	59P	2000 01 27.93314	08 10 51.14	+22 50 17.8	16.7 N 145
C/2000 CT ₅₄	2000 02 16.75714	14 03 14.95	−22 43 32.4	18.7 N	422	59P	2000 01 30.24180	08 08 59.47	+22 45 02.4	18.1 T 704
						59P	2000 01 30.25670	08 08 58.67	+22 44 59.3	18.8 T 704
						59P	2000 01 30.27159	08 08 58.03	+22 44 52.5	18.6 T 704
						59P	2000 01 30.28654	08 08 57.32	+22 44 49.8	19.3 T 704
						59P	2000 01 30.97362	08 08 24.78	+22 43 11.3	15.5 T 610
						59P	2000 01 30.97780	08 08 24.60	+22 43 10.3	610
						59P	2000 01 30.98197	08 08 24.41	+22 43 09.2	610
						59P	2000 01 30.98613	08 08 24.22	+22 43 08.1	610
						59P	2000 01 30.99030	08 08 24.04	+22 43 07.1	610
						59P	2000 01 31.23924	08 08 12.50	+22 42 33.6	18.0 T 704
						59P	2000 01 31.25420	08 08 11.76	+22 42 31.0	18.5 T 704
						59P	2000 01 31.26907	08 08 10.95	+22 42 28.9	18.5 T 704
						59P	2000 02 02.24257	08 06 40.53	+22 37 35.4	18.5 T 704
						59P	2000 02 02.25692	08 06 39.82	+22 37 32.9	18.6 T 704
						59P	2000 02 02.27131	08 06 39.12	+22 37 30.0	19.2 T 704
						59P	2000 02 02.28583	08 06 38.42	+22 37 27.7	18.7 T 704
						59P	2000 02 04.55590	08 04 59.07	+22 31 36.4	15.8 T 360
						59P	2000 02 04.56007	08 04 58.90	+22 31 35.7	360
						59P	2000 02 04.59910	08 04 57.17	+22 31 30.2	16.0 T 355
						59P	2000 02 04.60187	08 04 57.00	+22 31 28.9	355
						59P	2000 02 04.60741	08 04 56.74	+22 31 28.1	355
						59P	2000 02 05.06295	08 04 37.32	+22 30 18.3	16.6 N 170
						59P	2000 02 05.22418	08 04 38.90	+22 30 20.1	16.1 N 170
						59P	2000 02 05.56704	08 04 16.47	+22 28 54.4	903
						59P	2000 02 05.57006	08 04 16.21	+22 28 54.8	903
						59P	2000 02 05.57597	08 04 16.17	+22 28 52.8	16.1 T 903
						59P	2000 02 08.18089	08 02 31.94	+22 21 42.6	18.6 T 750
						59P	2000 02 08.18436	08 02 31.98	+22 21 41.3	17.8 T 750
						59P	2000 02 08.18783	08 02 31.74	+22 21 42.0	18.0 T 750
						59P	2000 02 08.20350	08 02 31.12	+22 21 38.9	16.6 T 707
						59P	2000 02 08.22430	08 02 30.22	+22 21 35.6	16.6 T 707
						59P	2000 02 10.78711	08 00 56.46	+22 14 13.5	16.4 T 118
						59P	2000 02 10.79523	08 00 56.19	+22 14 12.4	118
						59P	2000 02 11.23551	08 00 40.93	+22 12 56.2	18.5 T 704
						59P	2000 02 11.25046	08 00 40.20	+22 12 54.9	18.9 T 704
						59P	2000 02 11.26509	08 00 39.72	+22 12 50.9	18.4 T 704
						59P	2000 02 11.27961	08 00 39.17	+22 12 48.2	18.6 T 704
						59P	2000 02 14.09531	07 59 08.67	+22 04 20.6	16.9 T 691
						59P	2000 02 14.11864	07 59 07.87	+22 04 16.2	18.5 T 691

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59P	2000 02 14.14135	07 59 07.23	+22 04 12.5	16.9 T	691	74P	2000 01 30.24862	07 00 13.68	+27 31 53.5	17.8 T	704
59P	2000 02 19.92847	07 56 37.75	+21 45 50.6		587	74P	2000 01 30.26352	07 00 13.10	+27 31 55.8	18.2 T	704
59P	2000 02 19.93194	07 56 37.63	+21 45 48.8		587	74P	2000 01 30.27840	07 00 12.49	+27 31 56.4	17.7 T	704
59P	2000 02 19.93599	07 56 37.62	+21 45 48.7		587	74P	2000 01 30.29338	07 00 11.97	+27 31 57.1	18.8 T	704
63P/Wild 1						74P	2000 01 31.21049	06 59 39.26	+27 33 05.5	17.8 T	750
63P	2000 01 25.80066	13 49 18.60	-11 57 40.3	15.9 T	349	74P	2000 01 31.21920	06 59 39.00	+27 33 06.7	18.1 T	750
63P	2000 01 25.80208	13 49 18.84	-11 57 41.6		349	74P	2000 01 31.22934	06 59 38.60	+27 33 07.1	18.1 T	750
63P	2000 01 28.75924	13 52 34.70	-12 52 28.4		349	74P	2000 01 31.23044	06 59 38.53	+27 33 07.9	18.0 T	750
63P	2000 01 28.76446	13 52 35.02	-12 52 34.8	16.0 T	349	74P	2000 01 31.23319	06 59 38.58	+27 33 08.1	16.7 T	704
63P	2000 01 28.76757	13 52 35.22	-12 52 37.9		349	74P	2000 01 31.24813	06 59 38.02	+27 33 09.2	19.0 T	704
63P	2000 02 05.23598	13 59 56.30	-15 10 20.9	15.3 N	170	74P	2000 01 31.26299	06 59 37.49	+27 33 10.9	17.3 T	704
63P	2000 02 10.81420	14 04 30.23	-16 52 17.3		900	74P	2000 01 31.27787	06 59 36.85	+27 33 12.3	18.7 T	704
63P	2000 02 10.82785	14 04 30.80	-16 52 32.0	15.1 T	900	74P	2000 01 31.29517	06 59 36.23	+27 33 12.2	17.5 T	750
71P/Clark						74P	2000 02 04.57388	06 57 13.99	+27 37 56.8		355
71P	2000 02 04.07218	11 28 50.25	+18 07 58.7		557	74P	2000 02 04.58091	06 57 13.74	+27 37 57.3	16.1 T	355
71P	2000 02 04.08289	11 28 50.01	+18 08 03.7		557	74P	2000 02 04.58789	06 57 13.53	+27 37 58.0		355
71P	2000 02 04.10458	11 28 49.36	+18 08 11.7		557	74P	2000 02 05.16408	06 56 55.75	+27 38 31.6	17.4 T	750
71P	2000 02 04.11285	11 28 49.08	+18 08 14.0		557	74P	2000 02 05.16935	06 56 55.59	+27 38 32.4	17.6 T	750
71P	2000 02 10.40452	11 25 27.04	+18 50 42.8		691	74P	2000 02 05.18324	06 56 55.25	+27 38 33.0	17.5 T	750
71P	2000 02 10.45497	11 25 25.19	+18 51 02.9		691	74P	2000 02 08.13701	06 55 29.46	+27 41 05.6	18.2 T	750
71P	2000 02 11.45583	11 24 47.51	+18 58 01.8	19.2 T	691	74P	2000 02 08.14538	06 55 29.11	+27 41 06.7	16.8 T	750
71P	2000 02 11.48355	11 24 46.42	+18 58 13.2	19.5 T	691	74P	2000 02 11.18050	06 54 10.78	+27 43 17.2	19.6 T	704
71P	2000 02 11.51091	11 24 45.37	+18 58 24.5	19.4 T	691	74P	2000 02 11.19475	06 54 10.36	+27 43 18.0	19.3 T	704
73P/Schwassmann-Wachmann 3						74P	2000 02 11.20906	06 54 09.94	+27 43 18.4	19.7 T	704
73P	2000 01 05.15278	08 55 50.3	+29 45 00		493	74P	2000 02 11.22365	06 54 09.41	+27 43 17.8	19.0 T	704
73P	2000 01 24.15346	08 37 27.10	+31 33 30.3		711	74P	2000 02 11.93692	06 53 52.68	+27 43 42.9	15.6 T	118
73P	2000 01 24.16114	08 37 26.62	+31 33 32.5		711	74P	2000 02 11.94510	06 53 52.46	+27 43 43.3		118
73P	2000 01 24.16893	08 37 26.65	+31 33 30.1		711	84P/Giclas					
73P	2000 01 25.20485	08 36 17.73	+31 38 53.0		711	84P	2000 01 28.46407	04 48 24.39	+18 58 24.2	16.8 T	402
73P	2000 01 25.21442	08 36 17.33	+31 38 54.8		711	84P	2000 01 28.46660	04 48 24.47	+18 58 25.3		402
73P	2000 01 25.22463	08 36 16.58	+31 38 56.5		711	84P	2000 01 28.46912	04 48 24.54	+18 58 26.5		402
73P	2000 01 25.23541	08 36 15.80	+31 39 01.2		711	84P	2000 01 28.52083	04 48 25.82	+18 58 43.3	16.3 T	360
73P	2000 01 29.32854	08 31 42.26	+31 58 42.1	19.7 T	704	84P	2000 01 28.52517	04 48 25.92	+18 58 44.8		360
73P	2000 01 29.34506	08 31 41.17	+31 58 45.6	19.7 T	704	84P	2000 02 02.10821	04 50 44.25	+19 23 56.1	18.9 T	704
73P	2000 01 29.35992	08 31 40.18	+31 58 48.8	19.5 T	704	84P	2000 02 02.13632	04 50 45.29	+19 24 06.5	19.0 T	704
74P/Smirnova-Chernykh						84P	2000 02 02.15037	04 50 45.66	+19 24 11.9	18.9 T	704
74P	2000 01 15.72184	07 10 06.69	+27 06 58.4		349	84P	2000 02 02.16440	04 50 46.18	+19 24 15.9	18.7 T	704
74P	2000 01 15.72725	07 10 06.59	+27 06 59.6		349	84P	2000 02 03.12103	04 51 19.17	+19 29 25.2	19.1 T	704
74P	2000 01 15.73072	07 10 06.36	+27 06 58.9	15.9 T	349	84P	2000 02 03.13526	04 51 19.79	+19 29 31.5	19.6 T	704
74P	2000 01 24.18567	07 04 06.52	+27 22 57.5	16.3 T	706	84P	2000 02 03.14957	04 51 20.35	+19 29 35.0	19.0 T	704
74P	2000 01 24.20472	07 04 05.66	+27 23 00.0	16.3 T	706	84P	2000 02 03.78972	04 51 43.30	+19 33 00.8	17.0 T	049
74P	2000 01 25.59151	07 03 10.10	+27 25 14.0	15.7 T	900	84P	2000 02 03.79377	04 51 43.46	+19 33 01.7	17.1 T	049
74P	2000 01 25.60416	07 03 09.63	+27 25 15.4		900	84P	2000 02 03.79758	04 51 43.60	+19 33 02.6	17.1 T	049
74P	2000 01 26.48175	07 02 35.32	+27 26 36.0	15.8 T	402	84P	2000 02 06.08732	04 53 11.16	+19 45 21.3	19.5 T	704
74P	2000 01 26.48301	07 02 35.25	+27 26 36.3		402	84P	2000 02 06.10199	04 53 11.58	+19 45 26.1	19.1 T	704
74P	2000 01 26.48426	07 02 35.20	+27 26 36.3		402	84P	2000 02 06.11663	04 53 12.13	+19 45 30.7	18.9 T	704
74P	2000 01 26.55008	07 02 32.56	+27 26 41.4	15.5 T	352	84P	2000 02 06.13140	04 53 12.70	+19 45 35.0	18.9 T	704
74P	2000 01 26.55354	07 02 32.44	+27 26 41.8		352	106P/Schuster					
74P	2000 01 28.56615	07 01 15.56	+27 29 38.3	15.9 T	360	106P	2000 01 22.40734	01 41 29.46	+19 17 01.3	15.3 T	349
74P	2000 01 28.56875	07 01 15.44	+27 29 38.5		360	106P	2000 01 22.40970	01 41 29.69	+19 17 04.1		349
74P	2000 01 30.23378	07 00 14.32	+27 31 52.0	16.9 T	704	106P	2000 01 22.42988	01 41 32.29	+19 17 33.7		349
						106P	2000 01 28.41250	01 54 49.48	+21 40 54.6	15.5 T	2 360

106P	2000 01 28.41493	01 54 49.83	+21 40 58.4		2	360
106P	2000 01 31.08232	02 00 58.01	+22 41 58.6	17.6 T		704
106P	2000 01 31.11171	02 01 02.07	+22 42 38.8	17.7 T		704
106P	2000 01 31.12641	02 01 04.06	+22 42 59.5	17.8 T		704
106P	2000 01 31.14114	02 01 06.07	+22 43 18.1	17.6 T		704
106P	2000 02 05.47917	02 13 44.59	+24 39 48.9	15.8 T		349
106P	2000 02 05.48117	02 13 44.90	+24 39 50.7			349

114P/Wiseman-Skiff

114P	2000 01 21.54976	03 31 35.76	+19 40 46.4			349
114P	2000 01 21.55329	03 31 36.23	+19 40 42.3	14.5 T		349
114P	2000 01 22.47524	03 33 31.18	+19 27 27.6			349
114P	2000 01 22.47918	03 33 31.64	+19 27 23.9			349
114P	2000 01 22.48271	03 33 32.10	+19 27 21.4	14.6 T		349
114P	2000 01 25.81497	03 40 33.32	+18 41 40.6			118
114P	2000 01 25.81992	03 40 33.94	+18 41 36.8	15.0 T		118
114P	2000 01 26.50962	03 42 02.22	+18 32 37.5	14.6 T		900
114P	2000 01 26.51862	03 42 03.30	+18 32 29.3			900
114P	2000 01 28.50538	03 46 20.11	+18 07 24.2	15.1 T		360
114P	2000 01 28.50781	03 46 20.43	+18 07 22.2			360
114P	2000 01 29.52551	03 48 33.06	+17 54 57.3	15.0 T		903
114P	2000 01 29.52914	03 48 33.56	+17 54 55.3			903
114P	2000 01 30.79993	03 51 20.55	+17 39 50.2	14.9 N		170
114P	2000 01 30.82496	03 51 23.85	+17 39 32.1	14.5 N		170
114P	2000 01 30.86370	03 51 28.71	+17 39 05.5	14.4 N		170
114P	2000 02 03.08786	03 58 37.33	+17 02 57.9	17.0 T		704
114P	2000 02 03.11636	03 58 41.16	+17 02 40.7	17.2 T		704
114P	2000 02 03.14491	03 58 44.36	+17 02 20.6	17.6 T		704
114P	2000 02 03.43021	03 59 23.07	+16 59 17.8	15.0 T		402
114P	2000 02 03.43147	03 59 23.26	+16 59 16.9			402
114P	2000 02 03.43274	03 59 23.40	+16 59 16.2			402
114P	2000 02 05.13256	04 03 12.07	+16 41 28.4	17.6 T		750
114P	2000 02 05.15334	04 03 14.76	+16 41 14.7	17.7 T		750
114P	2000 02 05.15896	04 03 15.54	+16 41 11.6	17.5 T		750
114P	2000 02 05.43409	04 03 53.02	+16 38 24.4			349
114P	2000 02 05.43611	04 03 53.23	+16 38 23.5			349
114P	2000 02 05.43932	04 03 53.63	+16 38 21.7	15.2 T		349
114P	2000 02 05.44179	04 03 53.99	+16 38 19.7	15.1 T		355
114P	2000 02 05.44992	04 03 55.10	+16 38 15.3			355
114P	2000 02 05.45557	04 03 55.86	+16 38 11.3			355
114P	2000 02 12.09510	04 19 05.67	+15 35 46.4	16.4 T		704
114P	2000 02 12.10876	04 19 07.55	+15 35 38.6	16.6 T		704
114P	2000 02 12.13613	04 19 11.39	+15 35 26.9	17.4 T		704
114P	2000 02 12.14988	04 19 13.19	+15 35 20.6	17.4 T		704

132P/Helin-Roman-Alu 2

132P	1997 10 06.30556	02 13 44.40	+08 16 20.3			809
132P	1997 10 06.34722	02 13 44.06	+08 16 03.8			809
132P	1997 10 07.31181	02 13 37.99	+08 09 20.0			809
132P	1997 10 07.35347	02 13 37.54	+08 09 02.5			809

141P/Machholz 2

141P	2000 01 08.41277	23 57 11.19	-14 44 56.0	16.3 N		428
141P	2000 01 08.41419	23 57 12.20	-14 44 56.7	16.4 N		428

141P-A	2000 01 22.37803	02 36 01.56	-12 06 18.8	13.5 T		349
141P-A	2000 01 22.38059	02 36 03.19	-12 06 15.9			349
141P-A	2000 01 22.41792	02 36 26.23	-12 05 22.1			349
141P-A	2000 01 25.38557	03 06 17.92	-10 52 29.5	15.5 T		402
141P-A	2000 01 25.38809	03 06 19.36	-10 52 26.0			402
141P-A	2000 01 25.39061	03 06 20.56	-10 52 22.7			402
141P-A	2000 01 25.79538	03 10 11.26	-10 42 03.1			118
141P-A	2000 01 25.79683	03 10 12.04	-10 42 01.3			118
141P-A	2000 01 25.79766	03 10 12.51	-10 41 59.3			118
141P-A	2000 01 28.42388	03 33 53.56	-09 33 47.1			402
141P-A	2000 01 28.42514	03 33 54.14	-09 33 44.6	14.8 T		402
141P-A	2000 01 28.42640	03 33 54.72	-09 33 42.2			402
141P-A	2000 01 28.45174	03 34 07.77	-09 33 02.7	13.8 T		360
141P-A	2000 01 28.45399	03 34 08.92	-09 32 58.7			360
141P-A	2000 02 01.83459	04 08 37.49	-07 40 17.2			118
141P-A	2000 02 01.84275	04 08 40.90	-07 40 05.4	15 T		118
141P-A	2000 02 11.47101	05 06 15.70	-04 02 01.9	15.6 T		360
141P-A	2000 02 11.47448	05 06 16.68	-04 01 57.7			360

Note 1: poor guiding. 2: bad seeing. 3: black or dark plate. 4: correction to *MPC* 36157. 5: involved with star. 6: poor sky. 7: faint image. 8: predisccovery observation. 9: correction to *MPC* 35530.

OBSERVATIONS OF MINOR PLANETS

The summary lists, for each observatory code, the designation of each object observed (an asterisk signifying a new discovery), with three numbers indicating the number of observations, the number of different nights on which the object was observed and the arc (in days) covered by the observations; at the end of each observatory listing there is a count of the total number of observations, of the number of objects and of the number of discoveries followed by an asterisk, together with the total range of dates covered by the observations.

010 Caussols

E. W. Elst, Observatoire Royal de Belgique, Avenue Circulaire 3, B-1180 Brussels, Belgium [erice1st@ksb-orb.oma.be]

Observers C. Pollas, D. Albanese

Measurer E. W. Elst

0.9-m Schmidt telescope

1993 QA₆, 3, 1, 0; 1995 SD₂₆, 3, 1, 0; 1998 HK₂₀, 2, 1, 0; 1998 UE₈, 5, 2, 11; 1998 WA₁₇, 2, 1, 0; 1999 NQ₂₇, 3, 1, 0; 1999 VF₆, 5, 2, 11; 1999 XZ₁₈₂, 5, 2, 11; 1999 XE₁₉₂, 3, 1, 0; 2000 AH₄₂, 3, 1, 0; 2000 AH₉₁, 3, 1, 0; 2000 AK₂₀₃, 3, 1, 0; [40, 12, 0*, 1992/10/23-1996/02/16]

012 Uccle

E. W. Elst, Koninklijke Sterrenwacht van België, Ringlaan 3, B-1180 Brussels, Belgium [Eric.Elst@oma.be] (1)

T. Pauwels, Koninklijke Sterrenwacht van België, Ringlaan 3, B-1180 Brussels, Belgium [Thierry.Pauwels@oma.be] (2)

Observers E. W. Elst, T. Pauwels, H. Boffin, P. Lampens

Measurers E. W. Elst, T. Pauwels

0.85-m *f*/2.5 Schmidt + CCD

GSC-1.2

{1} 1999 UL₉, 2, 1, 0; 1999 UM₁₄, 4, 2, 4; 2000 BD₂₉, 2, 1, 0; [8, 3, 0*, 1999/10/12-2000/02/11]

{2} 1978 VW₉, 8, 2, 11; 1989 SZ₃, 5, 1, 0; 1990 VN₅, 6, 1, 0; 1991 PM₄, 6, 2, 9; 1995 UL₇, 5, 1, 0; 1997 EX₁₃, 5, 1, 0; 1997 TB₂₈, 5, 1, 0; 1998 SK₇₄, 5, 1, 0; 1998 XA₃₃, 5, 1, 0; 1999 RP₂₀, 9,

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M.P.C. 38259

2, 5; 1999 VG₆₆, 4, 1, 0; 1999 VY₆₆, 5, 1, 0; 1999 VQ₆₇, 5, 1, 0; 1999 XX₄₂, 4, 1, 0; 1999 XZ₁₁₆, 4, 1, 0; 1999 XV₁₃₇, 4, 1, 0; 1999 XW₁₆₂, 4, 1, 0; 1999 XJ₁₇₈, 5, 1, 0; 1999 XX₂₂₃, 14, 3, 18; 1999 XM₂₂₇, 12, 3, 11; 2000 AH₉, 5, 1, 0; 2000 AS₂₂, 4, 1, 0; 2000 AJ₃₅, 15, 3, 20; 2000 AJ₉₇, 5, 1, 0; 2000 AL₁₄₄, 5, 1, 0; 2000 AF₁₄₅, 3, 1, 0; 2000 AC₂₃₀, 5, 1, 0; 2000 BD₁₉, 5, 1, 0; 2000 BD₂₉ *, 10, 2, 7; 2000 BP₃₀, 13, 3, 11; (1481), 5, 1, 0; (2603), 2, 1, 0; (3944), 5, 1, 0; (5009), 5, 1, 0; (5464), 5, 1, 0; (9059), 5, 1, 0; (9526), 2, 1, 0; (9693), 10, 2, 11; (13432), 5, 1, 0; [234, 39, 1*, 1999/11/07–2000/02/14]

033 Tautenburg

F. Börngen, Thüringer Landessternwarte, Sternwarte 5, D-07778 Tautenburg, Germany [boerg@tls-tautenburg.de]

1.3-m Schmidt telescope

PPM

1995 EE₉, 1, 1, 0; 1998 QZ₈₅, 2, 1, 0; 1998 SL₄₂, 2, 1, 0; 2000 AB, 2, 1, 0; 2000 AV₂₃₉, 2, 1, 0; 2000 BR₃, 2, 1, 0; 2000 BR₁₄, 2, 1, 0; 3555 P-L, 2, 1, 0; 1106 T-3, 2, 1, 0; [17, 9, 0*, 1992/02/09–1995/10/25]

046 Kleť

J. Tichá, Hvězdárna Kleť, Zátkovo nábreží 4, CZ-37001 České Budějovice, Czech Republic [klet@klet.cz]

Observers J. Tichá, M. Tichý, Z. Moravec

Measurers M. Tichý, Z. Moravec

0.57-m $f/5.2$ reflector + CCD

USNO-A2.0

1982 RK₁, 4, 1, 0; 1984 UJ₁, 3, 1, 0; 1988 TR₂, 6, 2, 2; 1991 DB, 14, 2, 2; 1992 AJ₁, 4, 1, 0; 1995 UJ₂, 6, 2, 2; 1995 UW₂, 6, 2, 2; 1995 UB₄₆, 3, 1, 0; 1995 WE₆, 6, 2, 2; 1996 XM₂, 6, 2, 2; 1996 XT₁₄, 5, 1, 0; 1997 BG, 6, 2, 2; 1997 PE₃, 3, 1, 0; 1998 QO₁₁, 5, 1, 0; 1998 VG, 3, 1, 0; 1998 XK, 3, 1, 0; 1999 LD₃₁, 5, 1, 0; 1999 RH₂₇, 3, 1, 0; 1999 VT₅₄, 5, 1, 0; 1999 XG₁₇₆, 6, 1, 0; 1999 YK₅, 5, 1, 0; 2000 AQ₁, 4, 1, 0; 2000 AC₆, 5, 1, 0; 2000 AF₆, 5, 1, 0; 2000 AQ₆, 6, 1, 0; 2000 AL₄₃, 6, 2, 9; 2000 AX₆₄, 8, 2, 1; 2000 AZ₁₂₇, 7, 1, 0; 2000 AK₁₆₈, 9, 2, 9; 2000 AL₁₆₈, 8, 2, 9; 2000 AM₁₆₈, 7, 2, 9; 2000 AN₁₆₈, 4, 1, 0; 2000 AG₂₀₄, 9, 2, 9; 2000 AH₂₀₄, 7, 2, 9; 2000 AJ₂₀₄, 3, 1, 0; 2000 AU₂₄₂, 11, 2, 1; 2000 BD₁₉, 10, 2, 14; 2000 BE₁₉, 4, 1, 0; 2000 BG₁₉, 5, 1, 0; 2000 BH₁₉, 12, 3, 13; 2000 BJ₁₉, 4, 1, 0; 2000 BK₁₉, 6, 1, 0; 2000 BL₁₉, 5, 1, 0; 2000 BM₁₉, 17, 3, 9; 2000 BN₁₉, 5, 1, 0; 2000 CA₁₃, 6, 1, 0; 2000 CD₃₂, 6, 1, 0; 2000 CJ₃₃, 4, 1, 0; 2000 CK₃₃, 8, 2, 7; 2000 CL₃₃, 5, 1, 0; 2000 CM₃₃, 6, 1, 0; 2000 CN₃₃, 9, 2, 10; 2000 CO₃₃, 6, 1, 0; 2000 CO₃₉ *, 19, 3, 8; 2000 CU₅₇, 8, 1, 0; 2000 CE₅₉, 10, 2, 6; 2000 CF₅₉, 4, 1, 0; 2000 CG₅₉, 5, 1, 0; 2000 CH₅₉, 4, 1, 0; 2000 CJ₅₉, 4, 1, 0; 2000 CL₅₉, 4, 1, 0; 2000 CW₅₉, 10, 1, 0; 2000 CX₇₅, 11, 2, 1; 2000 CN₁₀₁, 7, 1, 0; 2000 CO₁₀₁, 4, 1, 0; 2000 CP₁₀₁, 11, 2, 1; 2000 CQ₁₀₁, 4, 1, 0; 2000 CR₁₀₁, 5, 1, 0; (4258), 3, 1, 0; (5474), 3, 1, 0; (5889), 3, 1, 0; (6627), 3, 1, 0; (7925), 3, 1, 0; (9174), 4, 1, 0; (13470), 4, 1, 0; [457, 75, 1*, 1995/09/19–2000/02/14]

049 Kvistaberg

C.-I. Lagerkvist, Uppsala Astronomical Observatory, Box 515, S-751 20 Uppsala, Sweden [classe@astro.uu.se]

G. Hahn, DLR - Institute Space Sensor Technology and of Planetary Exploration, Rutherfordstrasse 2, D-12489 Berlin, Germany [Gerhard.Hahn@DLR.de]

Observers T. Oja, O. Karlsson, C.-I. Lagerkvist, J. Warell

Measurers J. Warell, C.-I. Lagerkvist, A. Erikson, G. Hahn, S. Mottola

1.0m Schmidt + CCD

USNO-SA2.0

1977 QD₂, 6, 2, 1; 1978 RH₉, 6, 2, 9; 1978 RK₉, 3, 1, 0; 1979 QA₂, 6, 2, 3; 1993 FH₁₆, 3, 1, 0; 1993 FE₂₀, 3, 1, 0; 1993 FT₄₂, 3, 1, 0; 1993 UK, 6, 2, 4; 1995 BW₁₁, 3, 1, 0; 1995 YS₂₁, 3, 1, 0; 1996 KN, 3, 1, 0; 1997 CC₁₇, 3, 1, 0; 1997 GK₁₇, 3, 1, 0; 1997 JL, 3, 1, 0; 1997 JT₁₅, 3, 1, 0; 1998 FD₁₅, 3, 1, 0; 1998 KX₆, 3, 1, 0; 1998 OP₈, 3, 1, 0; 1998 OG₉, 3, 1, 0; 1998 OZ₁₁, 3, 1, 0; 1998 PA₁, 6, 2, 6; 1998 QH₅₂, 3, 1, 0; 1998 QU₁₀₃, 3, 1, 0; 1998 SQ₇₀, 6, 2, 1; 1998 SX₁₃₇, 6, 2, 3; 1998 UF₄₂, 3, 1, 0; 1998 VB₂₈, 6, 2, 1; 1998 WR₂₁, 3, 1, 0; 1998 XE₁₃, 6, 2, 1; 1999 TW₂₇, 3, 1, 0; 1999 VF₁, 3, 1, 0; 1999 VS₃₀, 9, 2, 5; 1999 VC₃₁, 3, 1, 0; 1999 VR₃₃, 3, 1, 0; 1999 VE₃₄, 3, 1, 0; 1999 VA₇₂, 3, 1, 0; 1999 WW₃, 3, 1, 0; 1999 WG₈, 3, 1, 0; 1999 XY₁, 6, 1, 0; 1999 XM₄, 3, 1, 0; 1999 XM₈, 3, 1, 0; 1999 XN₈, 3, 1, 0; 1999 XF₂₉, 3, 1, 0; 1999 XH₂₉, 3, 1, 0; 1999 XH₃₃, 3, 1, 0; 1999 XQ₃₅, 3, 1, 0; 1999 XB₃₉, 12, 4, 8; 1999 XS₆₄, 3, 1, 0; 1999 XU₈₆, 3, 1, 0; 1999 XT₉₁, 3, 1, 0; 1999 XS₁₄₀, 3, 1, 0; 1999 XZ₁₄₀, 3, 1, 0; 1999 XG₁₄₆, 3, 1, 0; 1999 XW₁₅₉, 3, 1, 0; 1999 XH₁₇₆, 6, 2, 3; 1999 YF₉, 6, 2, 1; 1999 YO₁₂, 3, 1, 0; 2000 AF₆, 3, 1, 0; 2000 AZ₃₈, 3, 1, 0;

2000 AB₃₉, 3, 1, 0; 2000 AV₄₇, 3, 1, 0; 2000 AK₅₀, 3, 1, 0; 2000 AX₅₅, 3, 1, 0; 2000 AY₅₆, 3, 1, 0; 2000 AB₆₂, 3, 1, 0; 2000 AR₆₂, 3, 1, 0; 2000 AB₆₃, 3, 1, 0; 2000 AA₈₈, 3, 1, 0; 2000 AL₁₁₂, 3, 1, 0; 2000 AV₁₃₇, 3, 1, 0; 2000 AH₁₅₁, 9, 3, 15; 2000 AX₁₅₈, 6, 2, 3; 2000 AM₁₅₉, 9, 3, 15; 2000 AB₁₆₂, 3, 1, 0; 2000 AF₁₆₂, 3, 1, 0; 2000 AK₂₁₅, 3, 1, 0; 2000 AZ₂₂₉, 3, 1, 0; 2000 AV₂₃₄, 3, 1, 0; 2000 AW₂₃₄, 3, 1, 0; 2000 AX₂₃₄, 3, 1, 0; 2000 AY₂₃₄, 6, 2, 1; 2000 AZ₂₃₄, 3, 1, 0; 2000 AB₂₄₂, 6, 2, 13; 2000 BD₃, 3, 1, 0; 2000 BX₁₇, 3, 1, 0; 2000 BO₁₈, 3, 1, 0; 2000 BC₁₉ *, 12, 4, 13; 2000 BG₂₈, 6, 2, 1; 2000 CD₃, 9, 2, 5; 2000 CL₃₈, 3, 1, 0; 2000 CL₃₈, 3, 1, 0; 4149 T-2, 3, 1, 0; (302), 9, 3, 5; (432), 3, 1, 0; (530), 3, 1, 0; (557), 3, 1, 0; (1763), 3, 1, 0; (1970), 3, 1, 0; (2874), 3, 1, 0; (3035), 6, 2, 6; (3179), 3, 1, 0; (3872), 3, 1, 0; (3941), 6, 2, 15; (4047), 9, 3, 5; (4073), 3, 1, 0; (4114), 3, 1, 0; (4327), 3, 1, 0; (4376), 3, 1, 0; (4459), 3, 1, 0; (4777), 9, 3, 13; (4891), 3, 1, 0; (5317), 6, 2, 18; (6082), 3, 1, 0; (6556), 6, 2, 3; (6705), 6, 2, 13; (6771), 3, 1, 0; (6898), 3, 1, 0; (6909), 6, 2, 1; (7013), 3, 1, 0; (7509), 6, 2, 1; (7696), 3, 1, 0; (7830), 3, 1, 0; (9008), 3, 1, 0; (9189), 3, 1, 0; (9375), 3, 1, 0; (9642), 6, 2, 1; (9786), 6, 2, 1; (9829), 3, 1, 0; (12218), 3, 1, 0; (12356), 3, 1, 0; (12417), 3, 1, 0; (12426), 3, 1, 0; (12431), 6, 2, 8; (12564), 3, 1, 0; (13133), 9, 3, 6; (13224), 3, 1, 0; (13327), 3, 1, 0; (13336), 3, 1, 0; (13344), 3, 1, 0; (13382), 3, 1, 0; [564, 140, 1*, 1999/11/12–2000/02/14]

071 Bulgarian National Observatory

V. Radeva, Astronomical Observatory and Planetarium, P.O. Box 120, Varna, Bulgaria [radevi@mail.varna.techno-link.com]

Observers V. Radeva, G. Borisov

Measurer V. Radeva

0.50-m $f/1.4$ Schmidt + CCD

USNO-A2.0

1998 UV₄₄ *, 10, 2, 4; [10, 1, 1*, 1998/10/19–1998/10/23]

095 Crimean Astrophysical Observatory

N. S. Chernykh, Crimean Astrophysical Observatory, Nauchnyj, Crimea UA-98409, Ukraine [nik@crao.crimea.ua]

V. A. Shor, Institute of Applied Astronomy, Naberezhnaya Kutuzova 10, St. Petersburg 191187, Russia [shor@quasar.ipa.nw.ru]

Observers N. S. Chernykh, L. I. Chernykh

0.4-m $f/4$ double astrograph

PPM

1978 RN₅, 2, 1, 0; 1978 SQ₄, 4, 2, 1; 1987 PM, 2, 1, 0; 1989 UP₁, 2, 1, 0; 1990 SV₁₂, 2, 1, 0; 1991 RX₁₇, 2, 1, 0; 1992 UW, 4, 2, 1; 1992 UQ₂, 2, 1, 0; 1993 BJ₂, 2, 1, 0; 1996 UD, 2, 1, 0; 1996 UG, 2, 1, 0; 1996 US, 2, 1, 0; 1996 VM₁, 2, 1, 0; 1996 VF₃, 2, 1, 0; 1998 DC₆, 2, 1, 0; 1998 FM₂₇, 2, 1, 0; 1998 HL₁₄, 2, 1, 0; 1998 HU₄₃, 2, 1, 0; 1998 SU₁₂₉, 4, 2, 1; 1999 EH₅, 2, 1, 0; 1999 RB₁₃₄, 2, 1, 0; 1999 XF₂₉, 2, 1, 0; 1999 XO₉₇, 2, 1, 0; 2000 AB₂₁₂, 2, 1, 0; (2), 2, 1, 0; (10), 4, 2, 1; (19), 2, 1, 0; (33), 2, 1, 0; (49), 2, 1, 0; (62), 2, 1, 0; (66), 2, 1, 0; (78), 2, 1, 0; (80), 2, 1, 0; (88), 2, 1, 0; (91), 2, 1, 0; (105), 2, 1, 0; (108), 2, 1, 0; (118), 3, 2, 1; (124), 2, 1, 0; (140), 2, 1, 0; (151), 2, 1, 0; (166), 2, 1, 0; (176), 2, 1, 0; (190), 2, 1, 0; (197), 4, 2, 1; (209), 2, 1, 0; (210), 1, 1, 0; (212), 4, 2, 6; (213), 4, 2, 23; (221), 2, 1, 0; (229), 4, 2, 1; (241), 4, 2, 1; (257), 2, 1, 0; (263), 2, 1, 0; (277), 2, 1, 0; (292), 2, 1, 0; (295), 2, 1, 0; (316), 2, 1, 0; (348), 2, 1, 0; (354), 2, 1, 0; (358), 2, 1, 0; (367), 2, 1, 0; (379), 2, 1, 0; (384), 2, 1, 0; (395), 2, 1, 0; (417), 2, 1, 0; (418), 1, 1, 0; (443), 2, 1, 0; (448), 2, 1, 0; (459), 2, 1, 0; (460), 2, 1, 0; (465), 2, 1, 0; (492), 4, 2, 1; (495), 3, 2, 23; (499), 2, 1, 0; (507), 2, 1, 0; (509), 4, 2, 1; (533), 4, 2, 6; (535), 4, 2, 23; (542), 2, 1, 0; (549), 2, 1, 0; (555), 3, 2, 825; (557), 2, 1, 0; (559), 2, 1, 0; (562), 2, 1, 0; (567), 2, 1, 0; (578), 2, 1, 0; (579), 2, 1, 0; (580), 2, 1, 0; (583), 2, 1, 0; (596), 2, 1, 0; (615), 3, 2, 1; (656), 2, 1, 0; (659), 4, 2, 2; (663), 2, 1, 0; (667), 2, 1, 0; (681), 1, 1, 0; (682), 2, 1, 0; (708), 2, 1, 0; (709), 2, 1, 0; (710), 4, 2, 2; (741), 2, 1, 0; (750), 2, 1, 0; (752), 4, 2, 1; (753), 3, 2, 1; (781), 2, 1, 0; (787), 4, 2, 23; (793), 2, 1, 0; (808), 1, 1, 0; (818), 4, 2, 1; (829), 2, 1, 0; (830), 2, 1, 0; (832), 2, 1, 0; (893), 2, 1, 0; (929), 2, 1, 0; (931), 2, 1, 0; (936), 3, 2, 1; (943), 2, 1, 0; (946), 2, 1, 0; (961), 6, 3, 24; (969), 4, 2, 6; (982), 2, 1, 0; (1003), 2, 1, 0; (1004), 2, 1, 0; (1005), 4, 2, 2; (1027), 2, 1, 0; (1073), 2, 1, 0; (1075), 2, 1, 0; (1077), 2, 1, 0; (1083), 2, 1, 0; (1095), 4, 2, 2; (1107), 2, 1, 0; (1125), 4, 2, 23; (1126), 4, 2, 1; (1128), 2, 1, 0; (1143), 4, 2, 2; (1144), 2, 1, 0; (1152), 3, 2, 2; (1153), 3, 2, 1; (1176), 2, 1, 0; (1209), 2, 1, 0; (1277), 4, 2, 1; (1287), 4, 2, 1; (1289), 4, 2, 2; (1328), 4, 2, 2; (1332), 2, 1, 0; (1357), 1, 1, 0; (1376), 2, 1, 0; (1378), 2, 1, 0; (1382), 1, 1, 0; (1400), 3, 2, 1; (1409), 4, 2, 2; (1440), 1, 1, 0; (1462), 1, 1, 0; (1487), 2, 1, 0; (1491), 2, 1, 0; (1503), 2, 1, 0; (1511), 2, 1, 0; (1534), 2, 1, 0; (1541), 4, 2, 2; (1544), 4, 2, 1; (1559), 2, 1, 0; (1567), 1, 1, 0; (1579), 1, 1, 0; (1590), 2, 1, 0; (1602), 2, 1, 0; (1611), 2, 1, 0; (1621), 2, 1, 0; (1623), 2, 1, 0; (1635), 4, 2, 6; (1651), 2, 1, 0; (1669), 2, 1, 0; (1691), 2, 1, 0; (1700), 2, 1, 0; (1724), 4, 2, 2; (1729), 2, 1, 0; (1735), 2, 1, 0; (1764), 2, 1, 0; (1766), 2, 1, 0; (1773), 2, 1, 0; (1785), 4, 2, 1; (1788), 4, 2, 2; (1789), 3, 2, 1; (1790), 1, 1, 0; (1793), 2, 1, 0; (1797), 2, 1, 0; (1798), 2, 1, 0; (1804), 2, 1, 0; (1805), 2, 1,

0; (1812), 4, 2, 2; (1826), 4, 2, 2; (1829), 2, 1, 0; (1847), 2, 1, 0; (1848), 2, 1, 0; (1852), 2, 1, 0; (1854), 2, 1, 0; (1855), 2, 1, 0; (1880), 2, 1, 0; (1890), 2, 1, 0; (1891), 2, 1, 0; (1905), 2, 1, 0; (1912), 2, 1, 0; (1924), 1, 1, 0; (1937), 2, 1, 0; (1938), 4, 2, 6; (1982), 2, 1, 0; (1987), 2, 1, 0; (1997), 2, 1, 0; (1998), 4, 2, 1; (2007), 2, 1, 0; (2012), 2, 1, 0; (2030), 2, 1, 0; (2048), 2, 1, 0; (2052), 2, 1, 0; (2071), 2, 1, 0; (2111), 2, 1, 0; (2112), 2, 1, 0; (2124), 2, 1, 0; (2126), 2, 1, 0; (2138), 2, 3, 23; (2158), 2, 1, 0; (2160), 2, 1, 0; (2167), 2, 1, 0; (2219), 2, 1, 0; (2248), 2, 1, 0; (2256), 2, 1, 0; (2259), 2, 1, 0; (2274), 2, 1, 0; (2276), 4, 2, 1; (2285), 1, 1, 0; (2286), 2, 1, 0; (2296), 4, 2, 1; (2297), 4, 2, 1; (2300), 2, 1, 0; (2312), 2, 1, 0; (2315), 2, 1, 0; (2323), 2, 1, 0; (2325), 2, 1, 0; (2351), 2, 1, 0; (2353), 2, 1, 0; (2356), 4, 2, 23; (2357), 2, 1, 0; (2361), 4, 2, 1; (2374), 2, 1, 0; (2378), 2, 2, 2; (2451), 2, 1, 0; (2476), 2, 1, 0; (2487), 1, 1, 0; (2493), 2, 1, 0; (2504), 2, 1, 0; (2508), 4, 2, 2; (2510), 2, 1, 0; (2511), 2, 1, 0; (2512), 2, 1, 0; (2516), 2, 1, 0; (2541), 2, 1, 0; (2566), 2, 1, 0; (2574), 2, 1, 0; (2585), 2, 1, 0; (2602), 2, 1, 0; (2615), 2, 1, 0; (2634), 2, 1, 0; (2653), 4, 2, 1; (2671), 2, 1, 0; (2674), 2, 1, 0; (2675), 2, 1, 0; (2697), 2, 1, 0; (2713), 2, 1, 0; (2718), 3, 2, 1; (2726), 2, 1, 0; (2727), 2, 1, 0; (2728), 4, 2, 6; (2752), 4, 2, 2; (2760), 4, 2, 1; (2780), 2, 1, 0; (2795), 2, 1, 0; (2802), 1, 1, 0; (2814), 2, 1, 0; (2832), 4, 2, 2; (2837), 2, 1, 0; (2844), 2, 1, 0; (2857), 2, 1, 0; (2871), 2, 1, 0; (2878), 2, 1, 0; (2901), 1, 1, 0; (2907), 1, 1, 0; (2967), 2, 1, 0; (2972), 4, 2, 1; (2973), 2, 1, 0; (3027), 2, 1, 0; (3029), 2, 1, 0; (3072), 2, 1, 0; (3084), 4, 2, 2; (3099), 2, 1, 0; (3174), 2, 1, 0; (3210), 2, 1, 0; (3224), 2, 1, 0; (3278), 2, 1, 0; (3279), 2, 1, 0; (3324), 2, 1, 0; (3327), 2, 1, 0; (3332), 2, 1, 0; (3338), 2, 1, 0; (3347), 2, 1, 0; (3372), 1, 1, 0; (3389), 2, 1, 0; (3396), 2, 1, 0; (3424), 4, 2, 2; (3436), 2, 1, 0; (3441), 1, 1, 0; (3460), 2, 1, 0; (3516), 2, 2, 2; (3526), 1, 1, 0; (3573), 3, 2, 1; (3640), 2, 1, 0; (3641), 2, 1, 0; (3695), 1, 1, 0; (3710), 2, 1, 0; (3730), 2, 1, 0; (3754), 4, 2, 23; (3778), 2, 1, 0; (3799), 1, 1, 0; (3813), 2, 1, 0; (3850), 4, 2, 23; (3877), 1, 1, 0; (3900), 2, 1, 0; (3906), 2, 1, 0; (3908), 4, 2, 2; (4000), 2, 1, 0; (4038), 2, 1, 0; (4040), 2, 1, 0; (4046), 2, 1, 0; (4080), 4, 2, 2; (4084), 2, 1, 0; (4089), 2, 1, 0; (4110), 2, 1, 0; (4131), 4, 2, 2; (4150), 2, 1, 0; (4231), 2, 1, 0; (4267), 2, 1, 0; (4271), 2, 1, 0; (4286), 2, 1, 0; (4345), 2, 1, 0; (4351), 2, 1, 0; (4359), 2, 1, 0; (4366), 1, 1, 0; (4387), 3, 2, 23; (4461), 2, 1, 0; (4481), 2, 1, 0; (4592), 3, 2, 1; (4597), 2, 1, 0; (4609), 2, 1, 0; (4624), 2, 1, 0; (4695), 1, 1, 0; (4698), 2, 1, 0; (4741), 2, 1, 0; (4781), 2, 1, 0; (4809), 2, 1, 0; (4864), 4, 2, 23; (4894), 4, 2, 1; (4900), 2, 1, 0; (4901), 2, 1, 0; (4982), 2, 1, 0; (5026), 3, 2, 6; (5072), 3, 2, 1; (5155), 4, 2, 1; (5186), 4, 2, 6; (5238), 4, 2, 2; (5242), 2, 1, 0; (5338), 2, 1, 0; (5379), 1, 1, 0; (5397), 2, 1, 0; (5424), 1, 1, 0; (5433), 2, 1, 0; (5440), 2, 1, 0; (5462), 2, 1, 0; (5494), 2, 1, 0; (5508), 4, 2, 1; (5512), 2, 1, 0; (5535), 2, 1, 0; (5536), 3, 2, 1; (5552), 2, 1, 0; (5687), 2, 1, 0; (5764), 2, 1, 0; (5937), 4, 2, 1; (6001), 2, 1, 0; (6026), 2, 1, 0; (6059), 2, 1, 0; (6111), 2, 1, 0; (6231), 2, 1, 0; (6468), 2, 1, 0; (6470), 3, 2, 1; (6741), 2, 1, 0; (6801), 2, 1, 0; (6993), 2, 1, 0; (7081), 4, 2, 2; (7159), 2, 1, 0; (7170), 3, 2, 2; (7191), 2, 1, 0; (7216), 2, 1, 0; (7217), 2, 1, 0; (7234), 2, 1, 0; (7253), 4, 2, 23; (7270), 2, 1, 0; (7300), 2, 1, 0; (7409), 4, 2, 1; (7422), 2, 1, 0; (7558), 3, 2, 1; (7615), 2, 1, 0; (7638), 4, 2, 1; (8226), 2, 1, 0; (8265), 2, 1, 0; (8375), 2, 1, 0; (8528), 4, 2, 1; (8540), 2, 1, 0; (8615), 2, 1, 0; (8647), 4, 2, 1; (8648), 2, 1, 0; (8694), 2, 1, 0; (8730), 4, 2, 1; (8951), 2, 1, 0; (9092), 2, 1, 0; (9146), 2, 1, 0; (9171), 2, 1, 0; (9177), 2, 1, 0; (9185), 2, 1, 0; (9214), 2, 1, 0; (9264), 2, 1, 0; (9328), 2, 1, 0; (9644), 2, 1, 0; (10050), 2, 1, 0; (10185), 2, 1, 0; (10258), 2, 1, 0; (10316), 2, 1, 0; (10385), 2, 1, 0; (10624), 2, 1, 0; (10671), 4, 2, 1; (10681), 2, 1, 0; (10743), 2, 1, 0; (10788), 2, 1, 0; (10882), 2, 1, 0; (10922), 4, 2, 2; (11127), 2, 1, 0; (11352), 4, 2, 1; (11358), 2, 1, 0; (11438), 2, 1, 0; (11480), 2, 1, 0; (12009), 2, 1, 0; (12068), 2, 1, 0; (12071), 2, 1, 0; [1048, 450, 0*, 1991/09/16–1998/08/25]

097 Wise Observatory, Mitzpeh Ramon

A. Gal-Yam, Wise Observatory, Tel-Aviv University, IL-69978 Tel-Aviv, Israel
[Avishay@wise1.tau.ac.il]

Observer E. Ofek

Measurer I. Manulis

1.0-m $f/7$ reflector + CCD

USNO-A2.0

(9804), 2, 1, 0; [2, 1, 0*, 1999/11/14]

098 Asiago Observatory, Cima Ekar

U. Munari, Osservatorio Astronomico di Padova, Sede di Asiago, I-36012 Asiago
(VI), Italy [munari@astras.pd.astro.it]

Observers U. Munari, F. Castellani, M. Tombelli, P. Antolini

Measurers F. Castellani, M. Tombelli, G. Forti

0.67-m $f/3.2$ Schmidt

1998 VG₂₈, 2, 1, 0; 1998 WM₁₃, 2, 1, 0; [4, 2, 0*, 1998/10/25–1998/10/26]

104 San Marcello Pistoiese

L. Tesi, Osservatorio di Pian dei Termini, Viale Panoramico 45, I-51028 San
Marcello Pistoiese (PT), Italy [iau@arcetri.astro.it]

Observers L. Tesi, A. Boattini, M. Tombelli

Measurers G. Forti, L. Tesi, A. Boattini, M. Tombelli

0.40-m $f/5$ reflector + CCD

GSC

1987 QT, 6, 2, 5; 1998 SG₆₀, 2, 1, 0; 1998 VK₃₃, 1, 1, 0; 1999 YN₁₂, 4, 1, 0; 1999 YJ₁₃, 2, 1, 0; 1999 YY₁₃, 3, 1, 0; 1999 YM₁₆, 3, 1, 0; 2000 AH₁, 5, 2, 1; 2000 AV₂, 3, 1, 0; 2000 AA₃, 3, 1, 0; 2000 AX₄, 4, 1, 0; 2000 AZ₄, 3, 1, 0; 2000 AZ₂₀₄, 3, 1, 0; 2000 BF₁₁, 3, 1, 0; 2000 BF₁₉, 5, 2, 1; 2000 BH₁₉, 2, 1, 0; 2000 BK₁₉, 3, 1, 0; 2000 BM₁₉, 4, 1, 0; 2000 BO₂₈, 1, 1, 0; 2000 CO₁ *, 9, 3, 9; 2000 CP₁ *, 4, 2, 1; 2000 CQ₁ *, 11, 5, 9; 2000 CR₁ *, 9, 4, 11; 2000 CS₁ *, 8, 4, 9; 2000 CT₁ *, 9, 4, 11; 2000 CU₁ *, 9, 4, 9; 2000 CV₁ *, 10, 4, 9; 2000 CW₁ *, 6, 3, 9; 2000 CX₁ *, 12, 4, 11; 2000 CK₃₃, 3, 1, 0; 2000 CM₃₃, 8, 2, 9; 2000 CN₃₃, 1, 1, 0; 2000 CO₃₃, 3, 1, 0; 2000 CR₃₄ *, 9, 3, 8; 2000 CS₃₄ *, 7, 3, 8; 2000 CW₅₀, 2, 1, 0; 2000 CR₅₇, 6, 2, 2; 2000 CE₅₉, 3, 1, 0; 2000 CH₅₉, 4, 1, 0; 2000 CX₇₅, 5, 1, 0; 2000 CW₇₆, 3, 1, 0; 2000 CR₇₇ *, 5, 2, 5; 2000 CC₉₁, 4, 2, 2; 2000 CL₉₇ *, 6, 2, 2; 2000 CN₁₀₁, 3, 1, 0; 2000 CP₁₀₁, 4, 1, 0; 2000 CQ₁₀₁, 4, 1, 0; (75), 3, 1, 0; (4443), 3, 1, 0; (9811), 2, 1, 0; (12742), 3, 1, 0; [238, 51, 14*, 2000/01/30–2000/02/14]

106 Črni vrh

H. Mikuž, Kersnikova 11, SI-61000 Ljubljana, Slovenia [herman.mikuz@uni-lj.si]

Observers H. Mikuž, B. Dintinjana, J. Skvarč, S. Matičič

0.36-m $f/6.7$ Schmidt-Cassegrain + CCD, 0.19-m $f/4$ Schmidt-Cassegrain + CCD
USNO-A2.0

1978 VM₁₁, 2, 1, 0; 1988 RV₁₂, 2, 1, 0; 1991 RF₁₁, 3, 1, 0; 1992 DU₅, 3, 1, 0; 1992 FC₂, 5, 2, 4; 1993 GC, 3, 1, 0; 1993 TR₁, 2, 1, 0; 1994 WC₂, 3, 1, 0; 1995 SA₁, 3, 1, 0; 1995 SQ₁, 3, 1, 0; 1995 TE₈, 2, 1, 0; 1995 UQ₁₂, 3, 1, 0; 1995 WG₅, 3, 1, 0; 1995 WV₇, 3, 1, 0; 1996 AP, 2, 1, 0; 1996 FJ₅, 3, 1, 0; 1996 HC₁, 3, 1, 0; 1996 PM₄, 3, 1, 0; 1997 ER₂, 3, 1, 0; 1997 EE₂₃, 3, 1, 0; 1997 FW, 3, 1, 0; 1997 GM₄₀, 3, 1, 0; 1997 HQ, 3, 1, 0; 1997 JY₁₃, 3, 1, 0; 1997 JD₁₅, 3, 1, 0; 1997 QQ₂, 3, 1, 0; 1997 TW₁₅, 2, 1, 0; 1997 WU₂₂, 3, 1, 0; 1998 MK₅, 2, 1, 0; 1998 MZ₂₃, 3, 1, 0; 1998 MV₄₂, 3, 1, 0; 1998 OB₄, 2, 1, 0; 1998 ON₁₃, 3, 1, 0; 1998 PH, 3, 1, 0; 1998 QU₉, 3, 1, 0; 1998 QJ₁₆, 2, 1, 0; 1998 QE₁₇, 2, 1, 0; 1998 QZ₁₇, 2, 1, 0; 1998 QW₂₂, 2, 1, 0; 1998 QP₃₁, 3, 1, 0; 1998 QM₃₇, 3, 1, 0; 1998 QH₅₂, 3, 1, 0; 1998 QE₅₄, 3, 1, 0; 1998 QV₇₃, 2, 1, 0; 1998 QX₇₇, 2, 1, 0; 1998 QG₈₆, 6, 1, 0; 1998 QN₈₆, 3, 1, 0; 1998 QA₈₇, 3, 1, 0; 1998 QU₉₀, 3, 1, 0; 1998 QW₁₀₀, 3, 1, 0; 1998 QL₁₀₅, 3, 1, 0; 1998 RH, 3, 1, 0; 1998 RJ₁, 3, 1, 0; 1998 RE₂, 3, 1, 0; 1998 RP₅, 3, 1, 0; 1998 RL₆, 3, 1, 0; 1998 RO₂₂, 3, 1, 0; 1998 RU₅₆, 3, 1, 0; 1998 RA₅₉, 3, 1, 0; 1998 RO₆₆, 3, 1, 0; 1998 RL₇₃, 2, 1, 0; 1998 RK₇₅, 2, 1, 0; 1998 RH₇₆, 3, 1, 0; 1998 RB₇₇, 3, 1, 0; 1998 RR₇₇, 2, 1, 0; 1998 SK₁, 3, 1, 0; 1998 SG₅, 3, 1, 0; 1998 SH₁₀, 2, 1, 0; 1998 SN₂₂, 3, 1, 0; 1998 SY₂₅, 2, 1, 0; 1998 SN₂₇, 2, 1, 0; 1998 SZ₃₆, 3, 1, 0; 1998 SE₄₃, 3, 1, 0; 1998 SE₄₇, 3, 1, 0; 1998 SS₅₅, 3, 1, 0; 1998 SL₅₇, 3, 1, 0; 1998 SN₅₇, 3, 1, 0; 1998 SM₆₃, 3, 1, 0; 1998 SY₆₃, 3, 1, 0; 1998 SZ₆₄, 2, 1, 0; 1998 SU₆₅, 3, 1, 0; 1998 SY₇₂, 3, 1, 0; 1998 ST₇₃, 3, 1, 0; 1998 SK₇₅, 3, 1, 0; 1998 SW₇₅, 2, 1, 0; 1998 SH₁₀₅, 3, 1, 0; 1998 SR₁₀₇, 3, 1, 0; 1998 SD₁₁₀, 2, 1, 0; 1998 SM₁₁₅, 3, 1, 0; 1998 SM₁₁₆, 3, 1, 0; 1998 SR₁₁₆, 3, 1, 0; 1998 SB₁₂₉, 3, 1, 0; 1998 SW₁₂₉, 3, 1, 0; 1998 SA₁₃₀, 3, 1, 0; 1998 SS₁₃₀, 3, 1, 0; 1998 ST₁₃₁, 2, 1, 0; 1998 SJ₁₃₂, 3, 1, 0; 1998 ST₁₃₂, 3, 1, 0; 1998 SX₁₃₂, 3, 1, 0; 1998 SN₁₃₈, 3, 1, 0; 1998 SQ₁₄₄, 3, 1, 0; 1998 SE₁₄₇, 3, 1, 0; 1998 SD₁₅₉, 3, 1, 0; 1998 SA₁₆₃, 3, 1, 0; 1998 TN₅, 3, 1, 0; 1998 TA₆, 3, 1, 0; 1998 TZ₁₇, 3, 1, 0; 1998 TH₂₉, 3, 1, 0; 1998 TW₃₂, 2, 1, 0; 1998 UE, 2, 1, 0; 1998 UX₁, 2, 1, 0; 1998 UZ₆, 3, 1, 0; 1998 UG₁₅, 3, 1, 0; 1998 UQ₁₅, 3, 1, 0; 1998 UN₂₀, 3, 1, 0; 1998 UV₂₀, 3, 1, 0; 1998 UP₂₁, 3, 1, 0; 1998 VU₂₃, 3, 1, 0; 1998 UA₂₇, 3, 1, 0; 1998 UZ₂₇, 3, 1, 0; 1998 UH₃₁, 3, 1, 0; 1998 UR₃₁, 3, 1, 0; 1998 UJ₄₀, 3, 1, 0; 1998 VC₃, 1, 0; 1998 VF₆, 3, 1, 0; 1998 VP₁₅, 3, 1, 0; 1998 VR₃₆, 3, 1, 0; 1998 WR₃, 3, 1, 0; 1998 WJ₈, 2, 1, 0; 1998 WS₉, 3, 1, 0; 1998 WU₁₀, 2, 1, 0; 1998 XR₉, 2, 1, 0; 1998 XA₁₃, 3, 1, 0; 1998 XU₅₀, 3, 1, 0; 1998 XD₅₁, 3, 1, 0; 1998 XU₅₁, 3, 1, 0; 1998 XH₅₉, 3, 1, 0; 1998 XT₆₂, 3, 1, 0; 1998 XO₈₉, 3, 1, 0; 1998 YR, 3, 1, 0; 1998 YC₆, 3, 1, 0; 1999 AM₆, 3, 1, 0; 1999 GJ₄, 3, 1, 0; 1999 SY₅, 3, 1, 0; 1999 TD₁₁, 2, 1, 0; 1999 VZ, 3, 1, 0; 1999 VW₁, 3, 1, 0; 1999 VM₂, 2, 1, 0; 1999 VA₉, 3, 1, 0; 1999 VB₉, 3, 1, 0; 1999 VR₁₀, 3, 1, 0; 1999 VQ₁₂, 3, 1, 0; 1999 VR₁₂, 3, 1, 0; 1999 VF₂₄, 3, 1, 0; 1999 VJ₂₄, 3, 1, 0; 1999 VN₂₄, 3, 1, 0; 1999 VQ₂₅, 3, 1, 0; 1999 VN₃₆, 2, 1, 0; 1999 VO₃₆, 3, 1, 0; 1999 VX₅₂, 2, 1, 0; 1999 VY₅₂, 3, 1, 0; 1999 VY₇₁, 3, 1, 0; 1999 VB₇₂, 2, 1, 0; 1999 VD₇₂, 2, 1, 0; 1999 VJ₇₂, 3, 1, 0; 1999 VM₇₂, 3, 1, 0; 1999 VO₇₂, 3, 1, 0; 1999 WM, 3, 1, 0; 1999 WU₃, 3, 1, 0; 1999 WX₇, 3, 1, 0; 1999 WX₉, 3, 1, 0; 1999 XB₁, 3, 1, 0; 1999 XE₁, 3, 1, 0; 1999 XF₁, 3, 1, 0; 1999 XL₁, 3, 1, 0; 1999 XT₇, 5, 2, 1; 1999 XN₁₂, 3, 1, 0; 1999 XT₁₃, 3, 1, 0; 1999 XG₁₄, 3, 1, 0; 1999 XK₁₄, 3, 1, 0; 1999 XD₁₅, 3, 1, 0; 1999 XF₁₅, 3, 1, 0; 1999 XV₁₅, 3, 1, 0; 1999 XB₁₆, 2, 1, 0; 1999 XX₂₁, 2, 1, 0; 1999 XZ₂₁, 3, 1, 0; 1999 XM₃₀, 3, 1, 0; 1999 XL₃₁, 3, 1, 0; 1999 XT₃₁, 3, 1, 0; 1999 XW₃₁, 3, 1, 0; 1999 XA₃₂, 3, 1, 0; 1999 XD₃₂, 6, 2, 1; 1999 XK₃₂, 3, 1, 0; 1999 XQ₃₂, 2, 1, 0; 1999 XS₃₂, 2, 1, 0; 1999 XW₃₂, 2, 1, 0; 1999 XX₃₂, 2, 1, 0; 1999 XY₃₂, 3, 1, 0; 1999 XA₃₃, 6, 2, 1; 1999 XC₃₃, 3, 1, 0; 1999 XF₃₃, 5, 2, 9; 1999 XJ₃₃, 3, 1, 0; 1999 XS₃₃, 3, 1, 0; 1999 XV₃₃, 3, 1, 0; 1999 XC₃₄, 2, 1, 0; 1999 XJ₃₄, 3, 1, 0; 1999 XL₃₄, 3, 1, 0; 1999 XN₃₄, 9, 3, 11; 1999 XQ₃₄, 3, 1, 0; 1999 XS₃₄, 3, 1, 0; 1999 XW₃₄, 2, 1, 0; 1999 XX₃₄, 2, 1, 0; 1999 XD₃₆, 6, 2, 2; 1999 XE₃₆, 2, 1, 0; 1999 XP₃₈, 3, 1, 0; 1999 XA₄₀, 3, 1, 0; 1999 XB₄₀, 3,

2000 FEB. 22

M.P.C. 38261

1, 0; 1999 XD₄₀, 3, 1, 0; 1999 XT₅₉, 2, 1, 0; 1999 XY₇₃, 3, 1, 0; 1999 XX₈₂, 3, 1, 0; 1999 XK₈₃, 3, 1, 0; 1999 XK₈₄, 2, 1, 0; 1999 XM₈₄, 3, 1, 0; 1999 XN₈₄, 3, 1, 0; 1999 XS₈₄, 2, 1, 0; 1999 XD₈₅, 3, 1, 0; 1999 XG₈₅, 2, 1, 0; 1999 XR₈₅, 3, 1, 0; 1999 XY₈₅, 2, 1, 0; 1999 XQ₈₆, 3, 1, 0; 1999 XE₈₈, 3, 1, 0; 1999 XJ₈₈, 3, 1, 0; 1999 XL₈₈, 3, 1, 0; 1999 XM₉₀, 3, 1, 0; 1999 XS₉₂, 2, 1, 0; 1999 XB₉₄, 3, 1, 0; 1999 XN₉₄, 3, 1, 0; 1999 XP₉₄, 3, 1, 0; 1999 XS₉₄, 3, 1, 0; 1999 XT₉₄, 3, 1, 0; 1999 XZ₉₄, 3, 1, 0; 1999 XA₉₅, 3, 1, 0; 1999 XP₉₅, 3, 1, 0; 1999 XT₉₇, 3, 1, 0; 1999 XK₉₈, 3, 1, 0; 1999 XB₁₀₀, 3, 1, 0; 1999 XH₁₀₀, 3, 1, 0; 1999 XL₁₀₁, 3, 1, 0; 1999 XO₁₀₁, 3, 1, 0; 1999 XC₁₀₂, 3, 1, 0; 1999 XQ₁₀₃, 3, 1, 0; 1999 XW₁₀₄, 3, 1, 0; 1999 XT₁₀₅, 3, 1, 0; 1999 XZ₁₀₅, 2, 1, 0; 1999 XB₁₀₆, 3, 1, 0; 1999 XG₁₁₁, 3, 1, 0; 1999 XD₁₁₃, 3, 1, 0; 1999 XP₁₂₆, 3, 1, 0; 1999 XE₁₃₃, 3, 1, 0; 1999 XL₁₃₃, 2, 1, 0; 1999 XB₁₃₄, 3, 1, 0; 1999 XE₁₃₄, 3, 1, 0; 1999 XG₁₃₄, 3, 1, 0; 1999 XO₁₃₆, 3, 1, 0; 1999 XQ₁₃₆, 3, 1, 0; 1999 XP₁₄₁, 6, 2, 3; 1999 XH₁₄₄, 3, 1, 0; 1999 XW₁₆₃, 3, 1, 0; 1999 XW₁₆₄, 3, 1, 0; 1999 XY₁₆₄, 2, 1, 0; 1999 XU₁₆₅, 3, 1, 0; 1999 XD₁₇₇, 3, 1, 0; 1999 YT₁, 3, 1, 0; 1999 YO₁, 3, 1, 0; 1999 YH₇, 3, 1, 0; 1999 YX₁₃, 3, 1, 0; 2000 AC₆, 2, 1, 0; 2000 AF₆, 3, 1, 0; 2000 AV₃₃, 2, 1, 0; 2000 AA₅₈, 2, 1, 0; 2000 AY₆₄, 3, 1, 0; 2000 AK₉₁, 5, 2, 1; 2000 AG₉₆, 8, 3, 4; 2000 AM₉₇, 3, 1, 0; 2000 AN₉₇, 3, 1, 0; 2000 AQ₉₇, 3, 1, 0; 2000 AR₉₇, 3, 1, 0; 2000 AV₉₇, 3, 1, 0; 2000 AX₉₇, 3, 1, 0; 2000 AZ₉₇, 3, 1, 0; 2000 AC₉₈, 3, 1, 0; 2000 AC₉₈, 3, 1, 0; 2000 AC₁₁₇, 3, 1, 0; 2000 AP₁₂₆, 3, 1, 0; 2000 AZ₁₂₆, 2, 1, 0; 2000 AA₁₂₇, 3, 1, 0; 2000 AT₁₃₆, 3, 1, 0; 2000 AU₁₃₆, 3, 1, 0; 2000 AX₁₃₆, 3, 1, 0; 2000 AY₁₃₆, 3, 1, 0; 2000 AZ₁₃₆, 5, 1, 0; 2000 AH₁₃₇, 3, 1, 0; 2000 AJ₁₃₇, 3, 1, 0; 2000 AK₁₃₇, 3, 1, 0; 2000 AL₁₃₇, 3, 1, 0; 2000 AO₁₃₇, 3, 1, 0; 2000 AV₁₃₇, 3, 1, 0; 2000 AX₁₄₀, 3, 1, 0; 2000 AG₁₄₂, 3, 1, 0; 2000 AH₁₄₂, 3, 1, 0; 2000 AT₁₄₂, 3, 1, 0; 2000 AV₁₄₂, 3, 1, 0; 2000 AD₁₄₃, 3, 1, 0; 2000 AT₁₄₃, 3, 1, 0; 2000 AV₁₄₃, 3, 1, 0; 2000 AC₁₄₄, 3, 1, 0; 2000 AM₁₄₄, 3, 1, 0; 2000 AU₁₄₄, 3, 1, 0; 2000 AU₁₄₄, 3, 1, 0; 2000 AN₁₄₆, 3, 1, 0; 2000 AU₁₅₀, 3, 1, 0; 2000 AV₁₅₀, 3, 1, 0; 2000 AY₁₅₀, 3, 1, 0; 2000 AR₁₆₂, 3, 1, 0; 2000 AK₁₈₅, 3, 1, 0; 2000 AQ₁₉₂, 6, 2, 2; 2000 AC₁₉₃, 3, 1, 0; 2000 AB₁₉₄, 3, 1, 0; 2000 AG₁₉₈, 2, 1, 0; 2000 AM₁₉₈, 3, 1, 0; 2000 AZ₂₀₁, 2, 1, 0; 2000 AA₂₀₂, 3, 1, 0; 2000 AU₂₃₄, 3, 1, 0; 2000 AG₂₃₇, 2, 1, 0; 2000 AJ₂₄₃, 3, 1, 0; 2000 AW₂₄₃, 6, 2, 3; 2000 AZ₂₄₃, 9, 2, 3; 2000 BM₁₄, 2, 1, 0; 2000 BH₁₉, 2, 1, 0; 2000 CM₃₃, 3, 1, 0; 2000 CS₄₄, 3, 1, 0; 2000 CF₅₆, 3, 1, 0; 2000 CD₇₅ *, 9, 3, 4; 3013 P-L, 2, 1, 0; 4032 P-L, 3, 1, 0; 4525 P-L, 3, 1, 0; 4597 P-L, 2, 1, 0; 4882 P-L, 3, 1, 0; 6607 P-L, 3, 1, 0; 7066 P-L, 2, 1, 0; 9097 P-L, 3, 1, 0; 2166 T-1, 3, 1, 0; 1259 T-2, 3, 1, 0; 2168 T-2, 3, 1, 0; 4834 T-2, 3, 1, 0; 4672 T-3, 2, 1, 0; (106), 3, 1, 0; (185), 3, 1, 0; (305), 3, 1, 0; (307), 3, 1, 0; (308), 3, 1, 0; (325), 3, 1, 0; (362), 3, 1, 0; (425), 3, 1, 0; (457), 3, 1, 0; (464), 3, 1, 0; (619), 3, 1, 0; (647), 3, 1, 0; (669), 3, 1, 0; (678), 3, 1, 0; (732), 3, 1, 0; (764), 3, 1, 0; (812), 3, 1, 0; (896), 6, 2, 3; (902), 3, 1, 0; (925), 3, 1, 0; (929), 9, 3, 2; (970), 3, 1, 0; (1002), 3, 1, 0; (1037), 3, 1, 0; (1052), 3, 1, 0; (1062), 3, 1, 0; (1106), 3, 1, 0; (1165), 2, 1, 0; (1174), 8, 3, 10; (1190), 2, 1, 0; (1218), 3, 1, 0; (1406), 3, 1, 0; (1410), 3, 1, 0; (1448), 6, 2, 2; (1451), 3, 1, 0; (1472), 6, 2, 1; (1477), 3, 1, 0; (1478), 3, 1, 0; (1549), 3, 1, 0; (1602), 3, 1, 0; (1777), 6, 2, 2; (1795), 2, 1, 0; (1824), 3, 1, 0; (1845), 3, 1, 0; (1957), 3, 1, 0; (2003), 3, 1, 0; (2005), 6, 2, 2; (2022), 3, 1, 0; (2294), 3, 1, 0; (2330), 3, 1, 0; (2341), 3, 1, 0; (2477), 2, 1, 0; (2511), 3, 1, 0; (2514), 4, 2, 11; (2519), 3, 1, 0; (2691), 2, 1, 0; (2802), 3, 1, 0; (2867), 3, 1, 0; (2881), 3, 1, 0; (2994), 9, 3, 4; (3003), 3, 1, 0; (3129), 3, 1, 0; (3372), 3, 1, 0; (3502), 2, 1, 0; (3600), 3, 1, 0; (3721), 3, 1, 0; (3904), 3, 1, 0; (3976), 2, 1, 0; (3986), 3, 1, 0; (3992), 3, 1, 0; (4114), 2, 1, 0; (4133), 3, 1, 0; (4229), 2, 1, 0; (4259), 2, 1, 0; (4285), 3, 1, 0; (4453), 3, 1, 0; (4519), 3, 1, 0; (4625), 3, 1, 0; (4959), 3, 1, 0; (4971), 3, 1, 0; (5051), 2, 1, 0; (5209), 2, 1, 0; (5215), 2, 1, 0; (5254), 3, 1, 0; (5283), 3, 1, 0; (5400), 2, 1, 0; (5462), 2, 1, 0; (5985), 3, 1, 0; (6193), 2, 1, 0; (6298), 6, 2, 2; (6393), 3, 1, 0; (6556), 3, 1, 0; (6627), 3, 1, 0; (6698), 2, 1, 0; (6726), 3, 1, 0; (6787), 2, 1, 0; (6909), 2, 1, 0; (7308), 3, 1, 0; (7567), 3, 1, 0; (7572), 3, 1, 0; (7590), 3, 1, 0; (7796), 3, 1, 0; (9006), 2, 1, 0; (9083), 3, 1, 0; (9182), 3, 1, 0; (9196), 3, 1, 0; (9325), 2, 1, 0; (9970), 3, 1, 0; (10561), 3, 1, 0; (11320), 3, 1, 0; (11390), 2, 1, 0; (12338), 2, 1, 0; (12553), 3, 1, 0; (12770), 2, 1, 0; (12782), 3, 1, 0; (12827), 3, 1, 0; (12829), 3, 1, 0; (13061), 3, 1, 0; (13081), 2, 1, 0; (13096), 6, 2, 1; (13143), 2, 1, 0; (13144), 5, 2, 4; (13166), 3, 1, 0; (13195), 3, 1, 0; (13208), 3, 1, 0; (13209), 3, 1, 0; (13218), 3, 1, 0; (13220), 3, 1, 0; (13224), 2, 1, 0; (13244), 3, 1, 0; (13249), 3, 1, 0; (13273), 3, 1, 0; (13276), 3, 1, 0; (13286), 3, 1, 0; (13287), 3, 1, 0; (13290), 3, 1, 0; (13293), 3, 1, 0; (13294), 5, 2, 2; (13299), 3, 1, 0; (13312), 3, 1, 0; (13319), 3, 1, 0; (13325), 3, 1, 0; (13341), 3, 1, 0; (13354), 3, 1, 0; (13358), 2, 1, 0; (13359), 3, 1, 0; (13360), 2, 1, 0; (13361), 3, 1, 0; (13375), 3, 1, 0; (13376), 2, 1, 0; (13380), 3, 1, 0; (13385), 2, 1, 0; (13388), 3, 1, 0; (13445), 3, 1, 0; (13468), 3, 1, 0; (13470), 3, 1, 0; [1540, 515, 1*, 1999/10/07–2000/02/14]

107 Cavezzo

M. Nicolini, via C. Battisti 48, I-41032 Carpi (MO), Italy [mnico@iol.it]

Observers M. Nicolini, P. Negrelli

Measurer M. Nicolini

0.40-m $f/5.5$ reflector + CCD

GSC

2000 AU₁₅₈, 5, 2, 1; 2000 BB, 5, 2, 1; (13145), 3, 1, 0; [13, 3, 0*, 2000/01/25–2000/01/30]

108 Montelupo

M. Tombelli, Via Bozzeto 26, I-50056 Montelupo (Fi), Italy

[iau@arcetri.astro.it]

Observers M. Tombelli, A. Boattini, L. Tesi, D. Guidetti, E. Masotti

Measurers M. Tombelli, A. Boattini, L. Tesi, S. Bartolini, G. Forti

0.30-m $f/5.7$ Schmidt-Cassegrain + CCD

GSC

1996 CX₈, 3, 1, 0; 1999 YL₉, 3, 1, 0; 2000 AS₂, 1, 1, 0; 2000 AU₂, 3, 1, 0; 2000 AX₂, 2, 1, 0; 2000 AB₃, 3, 1, 0; 2000 AZ₄, 2, 1, 0; 2000 AF₆, 3, 1, 0; 2000 AB₂₂₉, 3, 1, 0; 2000 BF₁₁ *, 4, 1, 0; 2000 BH₁₉, 3, 1, 0; 2000 CR₁, 3, 1, 0; 2000 CE₅₉, 2, 1, 0; 2000 CF₅₉, 3, 1, 0; 2000 CH₅₉, 2, 1, 0; [40, 15, 1*, 2000/01/26–2000/02/10]

113 Volkssternwarte Drebach, Schönbrunn

G. Lehmann, Persterstrasse 6h, D-09430 Drebach, Germany

[g.lehmann@abo.freieipresse.de]

Observers G. Lehmann, J. Kandler

Measurer J. Kandler

0.50-m $f/4.0$ reflector + CCD, 0.18-m $f/9.0$ refractor + CCD

USNO-A2.0

1976 DB₁, 2, 1, 0; 1982 UD₄, 2, 1, 0; 1988 VN₇, 2, 1, 0; 1989 CB₆, 4, 2, 17; 1990 TW₁₁, 2, 1, 0; 1991 RU₂, 2, 1, 0; 1991 TQ₂, 2, 1, 0; 1993 VH₅, 3, 1, 0; 1995 SO₅₄, 4, 1, 0; 1999 RV₄₀, 5, 1, 0; 2000 AE₁₅, 4, 1, 0; (3098), 4, 1, 0; (12233), 2, 1, 0; [38, 13, 0*, 1999/09/14–2000/02/12]

118 Modra

A. Galád, AGO MFF UK, P.O. Box 4, SK-90001 Modra, Slovakia

[ago@fmph.uniba.sk]

Observers L. Kornoš, J. Tóth, P. Kolény, Š. Gajdoš, A. Galád

0.6-m $f/5.5$ reflector + CCD

USNO-A2.0

1986 TV₆, 4, 2, 17; 1992 FL₁, 2, 1, 0; 1996 AX₁, 2, 1, 0; 1996 DC₃, 2, 1, 0; 1996 KA, 8, 3, 10; 1997 BR, 3, 1, 0; 1997 QS, 5, 2, 4; 1999 GJ₄, 2, 1, 0; 1999 NC₄₃, 3, 1, 0; 1999 RH₂₇, 5, 2, 5; 1999 WY, 4, 2, 3; 1999 XN₁₂₀, 3, 1, 0; 1999 XM₁₃₆, 2, 1, 0; 1999 XJ₁₄₁, 6, 2, 1; 1999 XA₁₄₃, 5, 2, 7; 1999 YT, 5, 2, 16; 1999 YF₃, 2, 1, 0; 1999 YG₃, 2, 1, 0; 1999 YK₅, 2, 1, 0; 2000 AC₆, 9, 4, 10; 2000 AF₆, 6, 2, 2; 2000 AC₄₈, 4, 2, 2; 2000 AW₉₃, 3, 1, 0; 2000 AB₂₂₉, 3, 1, 0; 2000 AM₂₃₈, 3, 1, 0; 2000 AU₂₄₂, 2, 1, 0; 2000 BD₁₉, 11, 4, 14; 2000 BE₁₉, 9, 3, 8; 2000 BG₁₉, 3, 1, 0; 2000 BH₁₉, 11, 4, 12; 2000 BJ₁₉, 3, 1, 0; 2000 BK₁₉, 3, 1, 0; 2000 BM₁₉, 6, 2, 3; 2000 CQ *, 12, 5, 9; 2000 CX₂ *, 14, 5, 9; 2000 CD₃₂, 3, 1, 0; 2000 CK₃₃, 3, 1, 0; 2000 CM₆₅, 5, 2, 3; 2000 CN₁₀₁, 3, 1, 0; 2000 CF₅₉, 6, 2, 3; 2000 CH₅₉, 6, 2, 1; 2000 CL₅₉, 3, 1, 0; 2000 CM₆₅, 5, 2, 3; 2000 CN₁₀₁, 3, 1, 0; (1685), 4, 2, 3; (1864), 4, 2, 2; (2758), 2, 1, 0; (2938), 2, 1, 0; (3507), 2, 1, 0; (3581), 4, 2, 3; (3800), 2, 1, 0; (4486), 4, 2, 3; (4996), 2, 1, 0; (5066), 4, 2, 2; (5543), 2, 1, 0; (6178), 2, 1, 0; (6909), 2, 1, 0; (7092), 2, 1, 0; (7702), 2, 1, 0; (12711), 4, 2, 3; (13470), 2, 1, 0; [250, 61, 2*, 2000/01/05–2000/02/21]

120 Višnjan

K. Korlević, Istarska 5, HR-51463 Višnjan, Croatia [korado@visnjan.hr]

Observers K. Korlević, P. Korlević, P. Radovan, M. Jurić, M. Dusić

Measurers K. Korlević, M. Jurić

0.41-m $f/4.3$ reflector + CCD

USNO-SA1.0

1977 DG₃, 2, 1, 0; 1985 QP, 5, 2, 2; 1985 RT, 2, 1, 0; 1985 RM₃, 3, 1, 0; 1986 TQ₅, 2, 1, 0; 1987 CH, 2, 1, 0; 1987 QH, 2, 1, 0; 1990 DZ, 4, 2, 2; 1990 OK₃, 4, 2, 1; 1990 QT₆, 11, 5, 6; 1990 SK₂₈, 2, 1, 0; 1991 PO₄, 4, 2, 2; 1991 PD₁₁, 11, 5, 11; 1991 RC₂, 2, 1, 0; 1991 RY₈, 2, 1, 0; 1991 RR₉, 8, 4, 6; 1991 RH₁₄, 5, 2, 1; 1992 EK₁₂, 3, 1, 0; 1992 EN₁₂, 13, 5, 15; 1992 EW₁₆, 3, 1, 0; 1992 RM₇, 5, 2, 1; 1992 WK₉, 2, 1, 0; 1993 BD, 2, 1, 0; 1993 FV₄, 5, 2, 3; 1993 FQ₁₂, 3, 1, 0; 1993 FS₁₂, 11, 5, 14; 1993 FS₂₆, 3, 1, 0; 1993 FW₄₁, 2, 1, 0; 1993 FH₄₃, 2, 1, 0; 1993 QP₉, 2, 1, 0; 1993 TD₁₇, 5, 2, 1; 1993 TM₃₁, 5, 2, 1; 1994 AC₃, 2, 1, 0; 1994 PK₈, 3, 1, 0; 1994 PP₁₆, 7, 2, 2; 1994 PX₂₀, 14, 6, 26; 1994 RV, 2, 1, 0; 1994 RN₁₂, 3, 1, 0; 1995 BS₁₁, 6, 3, 3; 1995 FA₈, 12, 4, 17; 1995 SO₅₄, 2, 1, 0; 1996 AV₁, 2, 1, 0; 1996 AP₁₅, 3, 2, 1; 1997 GL₃, 5, 2, 14; 1997 MZ₂, 5, 2, 15; 1997 RQ₃, 4, 2, 1; 1997 SW₃₀, 3, 1, 0; 1998 OA₁₃, 7, 3, 10; 1998 OR₁₃, 2, 1, 0; 1998 QE₁₇, 3, 2, 1; 1998 QZ₂₅, 5, 2, 2; 1998 QB₂₆, 2, 1, 0; 1998 QM₂₈, 3, 1, 0; 1998 QT₃₁, 5, 2, 1; 1998 QE₃₅, 2, 1, 0;

1998 QY₃₇, 2, 1, 0; 1998 QF₄₄, 7, 3, 14; 1998 QM₅₇, 2, 1, 0; 1998 QK₁₀₄, 2, 1, 0; 1998 RC₅, 2, 1, 0; 1998 RL₆, 4, 2, 8; 1998 RW₃₅, 4, 1, 0; 1998 RJ₄₀, 3, 1, 0; 1998 RT₄₆, 5, 2, 1; 1998 RO₄₉, 8, 3, 4; 1998 RJ₅₀, 4, 2, 3; 1998 RS₅₀, 2, 1, 0; 1998 RZ₅₅, 3, 1, 0; 1998 RD₇₁, 2, 1, 0; 1998 RR₇₂, 2, 1, 0; 1998 RT₇₄, 2, 1, 0; 1998 RA₇₅, 3, 1, 0; 1998 RB₇₇, 3, 1, 0; 1998 RC₇₈, 7, 3, 4; 1998 RX₇₈, 10, 3, 5; 1998 SA₁, 7, 3, 4; 1998 SK₁, 15, 4, 17; 1998 SL₄, 3, 1, 0; 1998 SH₁₀, 7, 3, 2; 1998 SX₁₂, 3, 1, 0; 1998 SG₃₀, 4, 2, 8; 1998 SL₅₅, 3, 1, 0; 1998 SF₅₇, 17, 5, 17; 1998 ST₁₁₀, 3, 1, 0; 1998 SJ₁₁₅, 5, 2, 1; 1998 SM₁₁₅, 3, 1, 0; 1998 SN₁₁₉, 2, 1, 0; 1998 SC₁₂₂, 9, 3, 4; 1998 SU₁₂₄, 3, 1, 0; 1998 SJ₁₃₂, 5, 2, 1; 1998 ST₁₃₂, 2, 1, 0; 1998 SX₁₃₂, 11, 4, 10; 1998 SA₁₃₉, 8, 3, 2; 1998 SQ₁₄₄, 2, 1, 0; 1998 SZ₁₄₅, 3, 1, 0; 1998 SV₁₆₄, 3, 1, 0; 1998 TC₁₀, 5, 2, 15; 1998 TH₂₉, 3, 1, 0; 1998 TN₃₃, 2, 1, 0; 1998 UT₆, 6, 3, 3; 1998 UO₁₅, 4, 2, 1; 1998 UE₂₀, 2, 1, 0; 1998 UN₂₀, 10, 4, 16; 1998 UX₄₄, 2, 1, 0; 1998 US₄₇, 2, 1, 0; 1998 VX₅, 2, 1, 0; 1998 VW₈, 3, 1, 0; 1998 VO₁₈, 2, 1, 0; 1998 VR₃₄, 2, 1, 0; 1998 WY₅, 5, 2, 2; 1998 XN₃, 12, 5, 16; 1998 XE₁₃, 5, 2, 1; 1998 XJ₄₀, 5, 2, 1; 1998 XK₇₂, 2, 1, 0; 1999 BH₁₀, 2, 1, 0; 1999 UY₁₄, 2, 1, 0; 1999 UZ₁₄, 2, 1, 0; 1999 VK₂₁, 4, 2, 7; 1999 VY₃₄, 2, 1, 0; 1999 VC₅₄, 2, 1, 0; 1999 VO₇₂, 2, 1, 0; 1999 VD₈₈, 3, 1, 0; 1999 WJ₃, 3, 1, 0; 1999 WJ₁₈, 2, 1, 0; 1999 XE₂₂, 4, 2, 1; 1999 XU₃₃, 5, 2, 4; 1999 XD₃₄, 2, 1, 0; 1999 XQ₃₄, 6, 2, 1; 1999 XR₃₄, 3, 1, 0; 1999 XW₃₄, 3, 1, 0; 1999 XJ₇₈, 3, 1, 0; 1999 XM₉₄, 2, 1, 0; 1999 XR₁₃₆, 3, 1, 0; 1999 XS₁₅₃, 3, 1, 0; 1999 XO₁₆₃, 4, 2, 8; 1999 XX₁₆₄, 5, 2, 2; 1999 XD₁₆₅, 5, 2, 14; 1999 XK₁₆₇, 5, 2, 1; 1999 XY₁₈₇, 2, 1, 0; 1999 YV₄, 3, 1, 0; 1999 YH₉, 5, 2, 1; 1999 YM₉, 3, 1, 0; 1999 YJ₁₃, 2, 1, 0; 1999 YS₁₃, 2, 1, 0; 1999 YT₁₃, 5, 2, 1; 1999 YU₁₃, 2, 1, 0; 1999 YW₁₃, 2, 1, 0; 1999 YC₁₄, 3, 1, 0; 1999 YK₁₆, 2, 1, 0; 2000 AR₁, 10, 4, 6; 2000 AS₁, 3, 1, 0; 2000 AZ₁, 2, 1, 0; 2000 AW₂, 3, 1, 0; 2000 AX₂, 3, 1, 0; 2000 AJ₅, 2, 1, 0; 2000 AX₅, 2, 1, 0; 2000 AU₄₇, 5, 2, 1; 2000 AK₄₈, 3, 1, 0; 2000 AM₅₀, 16, 7, 36; 2000 AO₅₀, 3, 1, 0; 2000 AZ₅₀, 3, 1, 0; 2000 AE₅₃, 4, 2, 8; 2000 AA₅₄, 3, 1, 0; 2000 AX₅₄, 3, 1, 0; 2000 AM₅₇, 7, 2, 1; 2000 AJ₅₈, 4, 2, 13; 2000 AL₅₈, 2, 1, 0; 2000 AO₅₈, 2, 1, 0; 2000 AQ₅₉, 3, 1, 0; 2000 AW₅₉, 7, 3, 4; 2000 AA₆₄, 4, 2, 3; 2000 AD₆₄, 5, 2, 1; 2000 AE₆₄, 10, 4, 16; 2000 AF₆₄, 5, 2, 1; 2000 AG₆₄, 2, 1, 0; 2000 AY₆₄, 8, 3, 2; 2000 AZ₆₄, 7, 3, 4; 2000 AA₆₅, 7, 3, 9; 2000 AB₆₅, 2, 1, 0; 2000 AD₆₅, 7, 3, 4; 2000 AP₆₇, 6, 2, 9; 2000 AZ₈₄, 3, 1, 0; 2000 AT₈₉, 9, 3, 2; 2000 AS₉₀, 8, 3, 3; 2000 AP₉₁, 7, 3, 4; 2000 AC₉₅, 9, 4, 9; 2000 AD₉₅, 5, 2, 9; 2000 AE₉₅, 6, 2, 9; 2000 AJ₉₅, 5, 2, 1; 2000 AO₉₅, 2, 1, 0; 2000 AW₉₅, 2, 1, 0; 2000 AB₉₇, 4, 2, 1; 2000 AQ₉₇, 2, 1, 0; 2000 AB₁₁₈, 3, 1, 0; 2000 AO₁₂₃, 4, 2, 1; 2000 AY₁₂₅, 3, 1, 0; 2000 AU₁₂₈, 9, 4, 7; 2000 AX₁₂₉, 5, 2, 1; 2000 AS₁₃₆, 3, 1, 0; 2000 AH₁₃₇, 4, 2, 1; 2000 AJ₁₃₇, 2, 1, 0; 2000 AD₁₄₄, 5, 2, 1; 2000 AE₁₅₃, 2, 1, 0; 2000 AX₁₆₀, 6, 2, 1; 2000 AX₁₆₃, 3, 1, 0; 2000 AL₁₆₈, 2, 1, 0; 2000 AC₂₀₅, 5, 3, 26; 2000 AJ₂₀₅, 5, 2, 2; 2000 AR₂₀₅, 2, 1, 0; 2000 AS₂₀₅, 3, 1, 0; 2000 AT₂₀₅, 3, 1, 0; 2000 AU₂₀₅, 3, 1, 0; 2000 AV₂₀₅, 8, 3, 20; 2000 AN₂₃₂, 3, 1, 0; 2000 AQ₂₃₂, 3, 1, 0; 2000 AP₂₃₃, 2, 1, 0; 2000 AZ₂₃₄, 2, 1, 0; 2000 AX₂₃₅, 5, 2, 1; 2000 AZ₂₃₆, 7, 3, 6; 2000 AZ₂₃₆, 4, 2, 1; 2000 AW₂₃₇, 2, 1, 0; 2000 AS₂₄₂, 4, 2, 2; 2000 BC₄, 2, 1; 2000 BD₄, 2, 1; 2000 BE₁₁, 4, 6; 2000 BF₈, 8, 3, 2; 2000 BL_{*}, 8, 4, 6; 2000 BM_{*}, 9, 3, 3; 2000 BN_{*}, 9, 4, 6; 2000 BO_{*}, 10, 4, 24; 2000 BE₂ *, 5, 2, 1; 2000 BF₂ *, 10, 4, 5; 2000 BG₂ *, 4, 2, 1; 2000 BV₂ *, 9, 4, 14; 2000 BW₂ *, 14, 5, 16; 2000 BX₂ *, 6, 2, 1; 2000 BY₂ *, 5, 2, 1; 2000 BZ₂ *, 9, 3, 4; 2000 BA₃ *, 9, 3, 4; 2000 BB₃ *, 9, 4, 9; 2000 BC₃ *, 11, 5, 14; 2000 BD₃ *, 5, 2, 1; 2000 BE₃ *, 7, 3, 8; 2000 BF₃ *, 5, 2, 1; 2000 BZ₃, 4, 2, 1; 2000 BV₈, 4, 1, 0; 2000 BW₈, 4, 1, 0; 2000 BA₁₄, 12, 5, 11; 2000 BB₁₄, 10, 4, 8; 2000 BD₁₄, 4, 2, 1; 2000 BF₁₄, 6, 3, 4; 2000 BE₁₇, 4, 2, 8; 2000 BP₂₂ *, 11, 5, 16; 2000 BQ₂₂ *, 14, 6, 16; 2000 BR₂₂ *, 9, 3, 9; 2000 BS₂₂ *, 6, 3, 13; 2000 BT₂₂ *, 14, 6, 13; 2000 BK₂₃, 10, 4, 6; 2000 BR₂₆, 4, 2, 1; 2000 BT₂₆, 10, 4, 6; 2000 BY₂₆, 4, 2, 1; 2000 BP₂₇, 6, 1, 0; 2000 BT₂₇, 6, 3, 2; 2000 BE₂₉ *, 21, 6, 17; 2000 BF₂₉ *, 3, 2, 1; 2000 BL₂₉ *, 12, 5, 14; 2000 BN₃₀ *, 9, 3, 15; 2000 CF₄, 4, 2, 1; 2000 CG₄, 2, 1, 0; 2000 CH₄, 2, 1; 2000 CZ₇ *, 11, 4, 8; 2000 CA₁ *, 15, 7, 16; 2000 CB₁ *, 21, 6, 9; 2000 CC₁ *, 15, 6, 9; 2000 CD₁ *, 6, 3, 3; 2000 CE₁ *, 6, 3, 3; 2000 CF₁ *, 9, 4, 3; 2000 CK₁ *, 4, 2, 1; 2000 CL₁ *, 10, 5, 9; 2000 CM₁ *, 5, 2, 1; 2000 CN₁ *, 16, 6, 9; 2000 CX₁, 2, 1, 0; 2000 CH₃₃, 2, 1, 0; 2000 CQ₃₃ *, 11, 5, 6; 2000 CR₃₃ *, 9, 4, 8; 2000 CS₃₃ *, 15, 5, 16; 2000 CT₃₃ *, 15, 5, 8; 2000 CU₃₃ *, 7, 3, 2; 2000 CV₃₃ *, 6, 3, 3; 2000 CW₃₃ *, 6, 3, 2; 2000 CX₃₃ *, 9, 4, 5; 2000 CY₃₃ *, 5, 2, 1; 2000 CZ₃₃ *, 5, 2, 1; 2000 CA₃₄ *, 5, 2, 1; 2000 CB₃₄ *, 5, 2, 1; 2000 CC₃₄ *, 12, 4, 8; 2000 CD₃₄ *, 9, 4, 8; 2000 CE₃₄ *, 10, 4, 8; 2000 CF₃₄ *, 5, 2, 1; 2000 CG₃₄ *, 10, 4, 8; 2000 CH₃₄ *, 5, 2, 1; 2000 CJ₃₄ *, 5, 2, 1; 2000 CK₃₄ *, 9, 4, 8; 2000 CL₃₄, 4, 2, 1; 2000 CP₃₆ *, 6, 2, 6; 2000 CQ₃₆, 3, 1, 0; 2000 CT₃₈, 10, 2, 1; 2000 CN₃₉ *, 14, 4, 5; 2000 CP₃₉ *, 13, 6, 9; 2000 CQ₃₉ *, 8, 4, 5; 2000 CR₃₉ *, 7, 3, 7; 2000 CH₄₀, 2, 1, 0; 2000 CN₄₀ *, 16, 5, 16; 2000 CF₄₁, 6, 3, 3; 2000 CH₄₁, 6, 3, 6; 2000 CB₅₃, 4, 2, 2; 2000 CD₅₃, 2, 1, 0; 2000 CY₅₅, 2, 1, 0; 2000 CD₆₅, 2, 1, 0; 2000 CF₆₅, 2, 1, 0; 2000 CH₆₅, 2, 1, 0; 2000 CJ₇₂ *, 8, 3, 7; 2000 CK₇₂ *, 10, 4, 11; 2000 CL₇₂ *, 8, 4, 6; 2000 CM₇₂ *, 7, 3, 4; 2000 CN₇₂ *, 9, 4, 6; 2000 CC₇₄, 8, 3, 2; 2000 CY₇₄, 6, 2, 1; 2000 CZ₇₄, 4, 2, 2; 2000 CD₇₆ *, 7, 3, 9; 2000 CE₇₆ *, 7, 3, 8; 2000 CF₇₆ *, 6, 2, 6; 2000 CG₇₆ *, 6, 2, 6; 2000 CH₇₆ *, 8, 3, 6; 2000 CJ₇₆ *, 8, 3, 2; 2000 CK₇₆ *, 7, 3, 2; 2000 CL₇₆ *, 7, 3, 2; 2000 CM₇₆ *, 4, 2, 1; 2000 CN₇₆ *, 6, 3, 3; 2000 CO₇₆ *, 4, 2, 1; 2000 CP₇₆ *, 6, 3, 3; 2000 CQ₇₆ *, 6, 3, 3; 2000 CR₇₆ *, 4, 2, 1; 2000 CS₇₆ *, 6, 3, 3; 2000 CT₇₆ *, 6, 3, 3; 2000 CU₇₆ *, 6, 3, 3; 2000 CV₇₆ *, 6, 3, 3; 2000 CW₇₆ *, 4, 2, 1; 2000 CX₇₆ *, 7, 3, 3; 2000 CY₇₆ *, 6, 3, 3; 2000 CZ₇₆ *, 6, 3, 4; 2000 CA₇₇ *, 4, 2, 1; 2000 CB₇₇ *, 6, 3, 4; 2000 CC₇₇ *, 6, 3, 4; 2000 CD₇₇ *, 4, 2, 1; 2000 CE₇₇ *, 8, 3, 3; 2000 CF₇₇ *, 10, 4, 5; 2000 CG₇₇ *, 6, 3, 4; 2000 CH₇₇ *, 10, 3, 2; 2000 CF₈₅, 4, 2, 2; 2000 CT₈₇, 6, 3, 3; 2000 CB₉₃, 7, 3, 2; 2000 CD₉₄, 7, 3, 2; 2000 CE₉₇ *, 4, 2, 8; 2000 CF₉₇ *, 11, 4, 4; 2000 CG₉₇ *, 5, 2, 2; 2000 CM₉₇ *, 5, 2, 1; 2000 CN₉₇ *, 4, 2, 3; 2000 CQ₉₇ *, 5, 2, 1; 2000 CR₉₇ *, 5, 2, 2; 2589 P-L, 2, 1, 0; 2602 P-L, 2, 1, 0; 2777 P-L, 3, 1, 0; 1259 T-2, 9, 3, 9;

3437 T-3, 3, 1, 0; 4205 T-3, 3, 1, 0; 4336 T-3, 7, 3, 2; (676), 5, 2, 1; (765), 5, 2, 8; (791), 3, 1, 0; (799), 4, 2, 1; (1062), 2, 1, 0; (1073), 2, 1, 0; (1097), 2, 1, 0; (1188), 2, 1, 0; (1240), 3, 1, 0; (1305), 5, 2, 1; (1704), 3, 1, 0; (1802), 3, 1, 0; (2032), 7, 3, 16; (2066), 10, 5, 11; (2132), 5, 2, 1; (2147), 6, 3, 2; (2405), 9, 4, 11; (2441), 2, 1, 0; (2485), 4, 2, 8; (2585), 8, 4, 7; (2609), 4, 2, 5; (2680), 2, 1, 0; (2883), 17, 6, 17; (2994), 5, 2, 1; (3016), 7, 3, 11; (3355), 2, 1, 0; (3473), 3, 1, 0; (3586), 2, 1, 0; (3616), 2, 1, 0; (3619), 2, 1, 0; (3647), 3, 1, 0; (3656), 5, 2, 16; (4027), 5, 2, 2; (4143), 3, 1, 0; (4268), 2, 1, 0; (4327), 3, 1, 0; (4389), 3, 1, 0; (4406), 3, 1, 0; (4462), 6, 3, 6; (4485), 2, 1, 0; (4646), 3, 1, 0; (5026), 3, 1, 0; (5055), 3, 1, 0; (5400), 2, 1, 0; (5428), 2, 1, 0; (5440), 3, 1, 0; (5537), 6, 2, 1; (5543), 2, 1, 0; (5554), 9, 3, 4; (5613), 3, 1, 0; (5640), 5, 2, 1; (5791), 3, 1, 0; (6018), 7, 3, 5; (6070), 4, 2, 1; (6173), 2, 1, 0; (6299), 2, 1, 0; (6432), 4, 2, 1; (6647), 3, 1, 0; (6738), 2, 1, 0; (6780), 6, 2, 7; (6878), 7, 3, 14; (7060), 7, 3, 9; (7095), 2, 1, 0; (7179), 3, 1, 0; (7201), 3, 1, 0; (7382), 16, 6, 17; (7471), 2, 1, 0; (7509), 3, 1, 0; (7677), 2, 1, 0; (7760), 2, 1, 0; (7774), 3, 1, 0; (7817), 3, 1, 0; (7830), 8, 3, 6; (7863), 2, 1, 0; (7897), 2, 1, 0; (7919), 3, 1, 0; (7923), 4, 2, 1; (8317), 3, 1, 0; (9156), 4, 2, 1; (9160), 3, 1, 0; (9206), 2, 1, 0; (9239), 2, 1, 0; (9342), 10, 5, 8; (9349), 2, 1, 0; (9422), 7, 3, 6; (9480), 3, 1, 0; (9516), 3, 1, 0; (9518), 8, 3, 5; (9525), 2, 1, 0; (9530), 2, 1, 0; (9614), 2, 1, 0; (9624), 2, 1, 0; (9626), 4, 2, 1; (9685), 2, 1, 0; (9742), 4, 2, 1; (9806), 4, 2, 16; (9815), 4, 2, 1; (10179), 2, 1, 0; (12355), 8, 3, 3; (12553), 2, 1, 0; (12567), 3, 1, 0; (12569), 3, 1, 0; (12745), 2, 1, 0; (12767), 7, 3, 3; (12781), 7, 3, 3; (12820), 2, 1, 0; (12895), 8, 4, 16; (13110), 3, 1, 0; (13154), 2, 1, 0; (13275), 2, 1, 0; (13303), 2, 1, 0; (13337), 3, 1, 0; (13368), 2, 1, 0; (13431), 3, 1, 0; [2495, 491, 107*, 1998/09/23–2000/02/15]

121 Kharkov University, Chuguevskaya Station

Yu. N. Krugly, Astronomical Observatory, Kharkov State University, Sumska Street 35, Kharkov 310022, Ukraine [krugly@astron.kharkov.ua] (1)

V. G. Shevchenko Astronomical Observatory of Kharkiv State University Kharkiv 61022 [shevchenko@astron.kharkov.ua] (2)

Observers Yu. N. Krugly, V. G. Shevchenko

Measurers Yu. N. Krugly, I. N. Belskaya

0.70-m $f/4$ reflector + CCD

USNO-A, GSC

{1} 1999 RQ₃₆, 7, 1, 0; (161), 3, 1, 0; (11066), 4, 1, 0; [14, 3, 0*, 1999/09/20–2000/02/05]

{2} (670), 10, 2, 1; (1025), 11, 2, 1; [21, 2, 0*, 2000/02/10–2000/02/12]

122 Pises Observatory

J. Blanc, 6 Bd. du General de Gaulle, F-91210 Draveil, France

[jhb@fr.ibm.com]

Observers J. Blanc, A. Irlande, A. Jacquey, R. Poncy

Measurer J. Blanc

0.40-m $f/4.7$ reflector + CCD

USNO-SA1.0, GSC

1997 PJ, 4, 1, 0; (13285), 4, 1, 0; [8, 2, 0*, 2000/02/03]

127 Bornheim

N. Ehling, Stationenweg 54, D-53332 Bornheim, Germany [norbert.ehling@t-online.de]

0.30-m $f/3.2$ FFC + CCD

USNO-A2.0

1981 QD₄, 5, 2, 15; 1989 BH, 3, 1, 0; 1991 VA₅, 4, 2, 2; 1992 UE₆, 5, 2, 2; 1994 WK₂, 3, 1, 0; 1995 UQ₄, 5, 2, 2; 1997 GM₄₀, 6, 2, 1; 1998 RK₇₅, 6, 2, 15; 1999 UG₁₁, 4, 2, 15; 1999 XF₃₄, 3, 1, 0; 2000 CM₃₃, 2, 1, 0; (13025), 7, 2, 2; (13166), 5, 2, 1; (13276), 6, 2, 2; [64, 14, 0*, 2000/01/24–2000/02/13]

130 Lumezzane

S. Foglia, F. Bisleri 11, I-20418 Milan, Italy [s.foglia@libero.it]

Observers G. Pizzetti, W. Marinello, J. Abdalla

Measurers G. Pizzetti, W. Marinello

0.40-m $f/4$ reflector + CCD

USNO-A1.0

(375), 3, 1, 0; (1685), 3, 1, 0; (3756), 3, 1, 0; [9, 3, 0*, 2000/02/05–2000/02/06]

133 Les Tardieux

M. Boeuf, Les Tardieux, St Julien, F-13500 Martigues, France
[Michel.Boeuf@wanadoo.fr]

0.20-m $f/3.5$ reflector + CCD

GSC

1996 DL₁, 3, 1, 0; 1999 XM₃₃, 3, 1, 0; 1999 XW₁₆₃, 2, 1, 0; 2000 AK₁₂₄, 7, 3, 2; 2000 BX₁₀ *, 7, 3, 2; (2758), 3, 1, 0; (6975), 3, 1, 0; (9530), 2, 1, 0; (12745), 3, 1, 0; [33, 9, 1*, 2000/01/26–2000/02/04]

143 Gnosca

S. Sposetti, CH-6525 Gnosca, Switzerland [spo@bluewin.ch]

0.40-m $f/4$ reflector + CCD

GSC

1998 PL, 3, 1, 0; 1999 XO₂₀, 3, 1, 0; 2000 AM, 8, 1, 0; 2000 AB₂, 8, 2, 1; 2000 AC₂, 8, 2, 1; 2000 AD₂, 3, 2, 1; 2000 AF₄₂, 5, 2, 1; 2000 AG₄₂, 3, 2, 2; 2000 AH₄₂, 4, 1, 0; 2000 AE₄₈, 5, 3, 2; 2000 AF₄₈, 3, 2, 4; 2000 AH₄₈, 3, 2, 1; 2000 AV₈₄, 5, 2, 1; 2000 AB₁₁₈, 2, 1, 0; 2000 BC₄ *, 8, 3, 8; 2000 BO₂₂, 1, 1, 0; [72, 16, 1*, 1999/10/31–2000/02/04]

145 's-Gravenwezel Observatory

T. Alderweireldt, Rozenlaan 14, B-2970 's-Gravenwezel, Belgium

[Tom.Alderweireldt@ping.be]

0.25-m $f/3.3$ Schmidt-Cassegrain + CCD

USNO-SA2.0

1990 SX₃, 3, 1, 0; 1998 QU₁₀₃, 3, 1, 0; 1999 VQ₂₄, 2, 1, 0; 1999 WD₅, 3, 1, 0; (4891), 3, 1, 0; [14, 5, 0*, 2000/01/24–2000/01/27]

151 Eschenberg Observatory, Winterthur

M. Griesser, Breitenstrasse 2, CH-8542 Wiesendangen, Switzerland

[griesser@spectraweb.ch]

0.25-m $f/8.0$ reflector + CCD

GSC

1976 DB₁, 8, 2, 9; 1991 TQ₂, 11, 2, 10; 1995 SO₅₄, 4, 1, 0; 1999 GJ₄, 4, 1, 0; 1999 RH₂₇, 12, 2, 11; 1999 VM₄₀, 22, 4, 25; 1999 XA₁₄₃, 5, 1, 0; 1999 YT, 5, 1, 0; 2000 CM₃₃, 6, 1, 0; 2000 CN₃₃, 6, 1, 0; (339), 3, 1, 0; (699), 3, 1, 0; (1685), 8, 2, 1; (3800), 10, 3, 21; [107, 14, 0*, 2000/01/26–2000/02/21]

153 Stuttgart–Hoffeld

R. Stuber, Hoffeldstrasse 121, D-70597 Stuttgart, Germany [mail@rolfstuber.de]

0.25-m $f/7.2$ reflector + CCD

GSC

(683), 7, 2, 1; [7, 1, 0*, 2000/01/24–2000/01/25]

154 Cortina

A. Dimai, Via Pecol 95, I-32043 Cortina d' Ampezzo (BL), Italy

Observer A. Dimai

Measurers V. Goretti, M. Migliardi

0.50-m $f/3.8$ Newton + CCD

GSC

2000 BY₃ *, 25, 7, 9; [25, 1, 1*, 2000/01/28–2000/02/06]

159 Monte Agliale

M. M. M. Santangelo, Monte Agliale Astronomical Observatory, Borgo a Mozzano, Lucca, Italy [ilra@comune.lucca.it]

Observer S. Donati

0.51-m $f/4.5$ Newtonian reflector + CCD

USNO-A1.0

1999 VB₃₅, 9, 2, 7; 2000 AD₅₆, 7, 2, 9; [16, 2, 0*, 2000/01/26–2000/02/10]

161 Cerrini Tololo Observatory

P. Camaiti, via Maria Vittoria 35, I-10123 Torino, Italy [P.Camaiti@flashnet.it]

0.28-m Schmidt-Cassegrain + CCD

GSC

(522), 1, 1, 0; (818), 1, 1, 0; (1602), 1, 1, 0; (2331), 1, 1, 0; [4, 4, 0*, 2000/02/05–2000/02/12]

162 Potenza

A. M. Giambersio, 22 R. Scotellaro Street, I-85100 Potenza, Italy

[agiamber@tin.it]

0.20-m $f/6.3$ reflector + CCD

GSC

(286), 3, 2, 1; (1036), 4, 2, 3; (4060), 3, 2, 1; [10, 3, 0*, 2000/01/27–2000/02/04]

169 Rosignano

S. Puccini, Airali Observatory, Via Montegrappa 16, I-15030 Rosignano, Italy

[starfield@tin.it]

0.25-m $f/5.1$ Schmidt-Cassegrain + CCD

GSC

1994 PL₁₂, 7, 2, 1; (5403), 4, 1, 0; [11, 2, 0*, 2000/02/13–2000/02/19]

170 Observatorio de Begues

J. Manteca, c/Santpere, no. Casa 22, E-08859 Begues, Barcelona, Spain

[jmantecav@nexo.es]

Observer J. Manteca

Measurer S. Alonso

0.26-m $f/6.9$ Schmidt-Cassegrain + CCD

GSC-1.1

(432), 3, 1, 0; (497), 2, 1, 0; (1308), 1, 1, 0; (1655), 3, 1, 0; (3318), 3, 1, 0; (3372), 1, 1, 0; (3800), 7, 3, 5; [20, 7, 0*, 2000/01/22–2000/02/05]

171 Flarestar Observatory, San Gwann

S. M. Brincat, Fl. 5 Ent. B, Silver Jubilee Apt., Ta' Zwej, San Gwann SGN 09,

Malta [sbrincat@orbit.net.mt]

0.25-m $f/2.6$ Schmidt-Cassegrain + CCD

GSC-ACT

1999 XX₃₁, 2, 1, 0; 1999 XW₁₂₇, 3, 1, 0; 1999 XA₁₄₃, 3, 1, 0; [8, 3, 0*, 2000/01/27–2000/02/05]

292 Burlington

T. Handley, 13 Linden Road, Burlington, NJ 08016, U.S.A.

0.30-m Schmidt-Cassegrain + focal reducer + CCD

GSC

2000 AA₁₂₇, 3, 1, 0; [3, 1, 0*, 1997/07/11]

294 Astrophysical Observatory, College of Staten Island

I. Robbins, The College of Staten Island, 2800 Victory Boulevard, Staten Island, NY 10314, U.S.A. [robbins@postbox.csi.cuny.edu]

Observer I. Robbins

Measurer S. Parelo

0.41-m $f/6.0$ Schmidt-Cassegrain + CCD

GSC

1999 VM₄₀, 4, 2, 1; (238), 3, 2, 1; (1037), 4, 2, 1; (2825), 3, 2, 1; (3055), 6, 3, 31; (3150), 4, 2, 1; (3872), 4, 2, 1; (4561), 5, 2, 1; (4835), 3, 2, 1; (7619), 4, 2, 1; (9045), 4, 2, 1; [44, 11, 0*, 1999/11/07–2000/02/09]

327 Peking Observatory, Xinglong Station

J. Zhu, Peking Astronomical Observatory, Chinese Academy of Sciences,
Zhongguancun, Peking 100101, Peoples Republic of China
[zj@bac.pku.edu.cn]

Observers J. Zhu, X. M. Teng, X. Zhou, X. Y. Li, C. H. Liu

Measurers J. Zhu, X. M. Teng, X. Y. Li

0.60-m Schmidt + CCD

1978 VW₉, 3, 1, 0; 1990 TJ₈, 6, 2, 17; 1993 QY₃, 3, 1, 0; 1993 SO₃, 5, 1, 0; 1995 UJ₄₉, 3, 1, 0; 1995 VS₁, 3, 1, 0; 1995 XO, 5, 2, 31; 1997 GX₂₉, 3, 1, 0; 1997 RQ₈, 3, 1, 0; 1997 UE₄, 6, 2, 10; 1998 QB₆₃, 3, 1, 0; 1998 QE₇₄, 3, 1, 0; 1998 QY₇₇, 6, 2, 13; 1998 RV₃₃, 4, 1, 0; 1998 RT₅₆, 3, 1, 0; 1998 SC₂₇, 3, 1, 0; 1998 SS₅₉, 3, 1, 0; 1998 SX₁₁₀, 3, 1, 0; 1998 SH₁₁₄, 3, 1, 0; 1998 SF₁₄₃, 3, 1, 0; 1998 TQ₁₂, 6, 1, 0; 1998 TP₃₅ *, 3, 1, 0; 1998 TQ₃₅, 3, 1, 0; 1998 TR₃₅, 3, 1, 0; 1998 TV₃₅, 3, 1, 0; 1998 TD₃₆ *, 3, 1, 0; 1998 TE₃₆ *, 3, 1, 0; 1998 TF₃₆ *, 3, 1, 0; 1998 UZ₃₁, 3, 1, 0; 1998 UG₄₄, 3, 1, 0; 1998 UH₄₄, 3, 1, 0; 1998 UM₄₄ *, 3, 1, 0; 1998 UN₄₄ *, 3, 1, 0; 1998 UQ₄₄, 3, 1, 0; 1998 UT₄₄, 3, 1, 0; 1998 UU₄₄, 3, 1, 0; 1998 UC₄₅ *, 3, 1, 0; 1998 UP₄₅ *, 6, 1, 0; 1998 UB₄₇, 3, 1, 0; 1998 VC₁₁, 3, 1, 0; 1998 VL₁₃, 3, 1, 0; 1998 VT₄₂, 3, 1, 0; 1998 WO₂₅, 3, 1, 0; 1998 WV₂₈, 3, 1, 0; 1998 XU₂₀, 3, 1, 0; 1998 XT₃₁, 3, 1, 0; 1998 XV₇₄, 3, 1, 0; 1999 RE₁₆, 3, 1, 0; 1999 RP₈₆, 3, 1, 0; 1999 RC₁₃₇, 3, 1, 0; 1999 RB₁₄₁, 3, 1, 0; 1999 VW₆₇, 3, 1, 0; 1999 XW₁₃₃, 3, 1, 0; 1999 XB₁₆₇, 4, 1, 0; 1999 XY₁₇₀, 3, 1, 0; 1999 XZ₁₈₂, 4, 1, 0; 1999 XR₁₈₈, 3, 1, 0; 1999 XG₁₉₃, 3, 1, 0; 1999 YY₂, 3, 1, 0; 2000 AP₅₇, 3, 1, 0; 2000 AT₆₃, 3, 1, 0; 2000 AD₆₆, 3, 1, 0; 2000 AT₈₄, 6, 2, 18; 2000 AP₈₅, 3, 1, 0; 2000 AD₁₄₁, 6, 2, 13; 2000 AQ₁₆₄, 3, 1, 0; 2000 AY₁₈₂, 3, 1, 0; 2000 AK₂₄₅, 3, 1, 0; 2000 BJ₁₄, 3, 1, 0; 2000 CS₁₃, 3, 1, 0; 2000 CV₂₉, 6, 2, 21; 2000 CE₄₈, 3, 1, 0; 2194 T-1, 3, 1, 0; 4133 T-1, 3, 1, 0; [253, 74, 8*, 1995/05/21-1998/12/22]

344 Bohyunsan Optical Astronomy Observatory

M.-Y. Chun, Korea Astronomy Observatory, San 36-1, Wha-am Dong, Yu-sung
Gu, Daejeon 305-348, Korea [mychun@boao.re.kr]

Observers E. O. Jeong, H. Lee, S.-L. Kim

Measurer M.-Y. Chun

1.8-m $f/8$ reflector + CCD, 0.30-m $f/3.3$ Schmidt-Cassegrain + CCD

GSC

2000 CO₁₀₁, 7, 1, 0; (525), 6, 2, 1; (2364), 15, 1, 0; (4613), 6, 2, 1; (6905), 5, 2, 1; (9363), 3, 1, 0; [42, 6, 0*, 2000/01/26-2000/02/20]

348 Ayabe

N. Otuki, 21-8 Kyuta, Sato-Cho, Ayabe, Kyoto-fu, 623-0005 Japan

[loomoon@crocus.ocn.ne.jp]

0.28-m $f/5.5$ Schmidt-Cassegrain + CCD

GSC

2000 BH₁₉, 2, 1, 0; [2, 1, 0*, 2000/02/02]

349 Ageo

K. Kadota, 77-1-3-12-204, Koshikiya, Ageo, Saitama-ken, 362-0064 Japan [kenic-k@astroarts.co.jp]

Observer K. Kadota

Measurers S. Yoshida, K. Kadota

0.18-m $f/5.5$ reflector + CCD

USNO-A1.0

2000 CM₃₃, 5, 1, 0; (1685), 6, 2, 7; (3150), 10, 3, 27; [21, 3, 0*, 2000/01/08-2000/02/12]

352 Konan

M. Hotta, Kibougaoka 2-5-3, Konan-cho, Koka-gun, Shiga 520-3333, Japan

[mhotta@mx.biwa.or.jp]

0.28-m $f/5.0$ reflector + CCD

GSC

1999 RH₂₇, 3, 1, 0; [3, 1, 0*, 1999/12/27]

355 Hadano

A. Asami, 28-1 Nishitawara, Hadano, Kanagawa-Ken, 257 Japan

[asami@st.rim.or.jp]

0.2-m $f/6.0$ reflector + CCD, 0.28-m $f/5.0$ reflector + CCD

GSC

1999 RH₂₇, 8, 3, 8; 1999 VM₄₀, 9, 3, 13; 1999 WY, 3, 1, 0; 1999 XA₁₄₃, 3, 1, 0; 2000 AU₂₄₂, 6, 2, 6; 2000 CM₃₃, 3, 1, 0; [32, 6, 0*, 2000/02/02-2000/02/16]

360 Kuma Kogen Astronomical Observatory

A. Nakamura, Shimo-Hatanokawa, Kuma, Kamiukena-Gun, Ehime-Ken, 791-1212

Japan [a-nakamu@mx2.nisiq.net]

0.60-m $f/5.8$ Ritchey-Chrétien + CCD

GSC-ACT, USNO-A2.0

1991 DB, 3, 1, 0; 1994 YL, 3, 1, 0; 1997 BR, 3, 1, 0; 1997 FQ₁, 4, 2, 6; 1997 GR₂₄, 2, 1, 0; 1997 WU₂₂, 3, 1, 0; 1997 XF₁₁, 3, 1, 0; 1998 YC₁, 2, 1, 0; 1999 JB, 3, 1, 0; 1999 LD₃₁, 3, 1, 0; 1999 NC₄₃, 3, 1, 0; 1999 WA₂, 3, 1, 0; 1999 XO₃₅, 3, 1, 0; 1999 XW₃₇, 5, 2, 5; 1999 XX₃₇, 5, 3, 8; 1999 XY₃₇, 5, 2, 7; 1999 XJ₁₄₁, 3, 1, 0; 1999 YB, 3, 1, 0; 1999 YT, 3, 1, 0; 1999 YF₃, 6, 2, 6; 1999 YN₄, 3, 1, 0; 1999 YK₅, 6, 2, 9; 2000 AC₆, 3, 1, 0; 2000 AE₆, 3, 1, 0; 2000 AF₆, 6, 2, 16; 2000 AX₉₃, 6, 2, 7; 2000 AC₂₂₉, 3, 1, 0; 2000 BD₁₉, 3, 1, 0; 2000 BE₁₉, 3, 1, 0; 2000 BG₁₉, 3, 1, 0; 2000 BH₁₉, 3, 1, 0; 2000 BL₁₉, 3, 1, 0; 2000 CL₃₃, 3, 1, 0; (6016), 3, 1, 0; (8931), 3, 1, 0; (13055), 3, 1, 0; [128, 37, 0*, 1999/12/29-2000/02/12]

372 Geisei

T. Seki, Kamimachi 2-9-35, Kochi-Shi, Kochi-Ken 780, Japan

0.60-m $f/3.5$ reflector

GSC

2000 AT₆₄, 4, 3, 3; [4, 1, 0*, 2000/01/28-2000/01/31]

376 Uenohara

N. Kawasato, 3-11-10, Hana-Koganei, Kodaira, Tokyo, 187 Japan

0.30-m reflector + CCD

GSC

1999 XD₃₄, 5, 2, 1; 2000 BA₁₄ *, 14, 6, 14; 2000 BB₁₄ *, 14, 6, 14; 2000 BC₁₄ *, 11, 5, 12; 2000 BD₁₄ *, 12, 5, 12; 2000 BF₁₄ *, 10, 5, 12; 2000 BK₂₃ *, 9, 5, 12; 2000 CZ₁ *, 10, 4, 9; 2000 CA₂ *, 9, 4, 9; 2000 CY₇₄ *, 8, 3, 9; [102, 10, 9*, 2000/01/27-2000/02/11]

385 Nihondaira Observatory

T. Urata, 1-8, Dobayashi 1 Chome, Shimizu, Shizuoka-Ken 424-0851, Japan

[urata@sannet.ne.jp]

0.31-m $f/4.0$ reflector + CCD

GSC-1.1, USNO-A2.0

1993 UT, 3, 1, 0; 1998 SS₂, 1, 1, 0; 1999 XU₁₇₆, 3, 1, 0; 2000 AY₁₆₄, 3, 1, 0; 2000 AA₂₀₅, 2, 1, 0; [12, 5, 0*, 2000/01/27]

402 Dynic Astronomical Observatory

A. Sugie, Dynic Astronomical Observatory, Taga 283-1, Taga, Inukami-Gun, Shiga-Ken, 522-0341 Japan [hhf00201@niftyserve.or.jp]

Observers A. Sugie, Y. Ikari

0.60-m $f/5.0$ reflector + CCD

GSC

1992 YR₂, 8, 2, 2; 1998 YF₇, 2, 1, 0; 1999 TD₅, 3, 1, 0; 1999 VC₁₂, 3, 1, 0; 1999 WY, 3, 1, 0; 1999 WA₂, 3, 1, 0; 1999 XB₆₉, 2, 1, 0; 1999 XD₁₀₆, 3, 1, 0; 1999 YA, 3, 1, 0; 1999 YB, 3, 1, 0; 1999 YT, 3, 1, 0; 1999 YF₃, 3, 1, 0; 1999 YN₄, 3, 1, 0; 1999 YE₅, 8, 3, 8; 1999 YK₅, 2, 1, 0; 2000 AC₆, 6, 2, 4; 2000 AE₆, 3, 1, 0; 2000 AF₆, 3, 1, 0; 2000 AW₉₃, 3, 1, 0; 2000 AY₉₃, 3, 1, 0; 2000 AB₂₂₉, 6, 2, 3; 2000 AC₂₂₉, 6, 2, 3; 2000 BZ₁₀ *, 14, 4, 10; 2000 BA₁₁ *, 9, 2, 2; 2000 BD₁₉, 4, 1, 0; 2000 BE₁₉, 6, 2, 5; 2000 BH₁₉, 4, 1, 0; 2000 CJ₃₃, 4, 1, 0; 2000 CK₃₃, 8, 2, 2; 2000 CM₃₃, 4, 1, 0; 2000 CN₃₃, 4, 1, 0; 2000 CE₅₉, 4, 1, 0; (12334), 3, 1, 0; (13101), 3, 1, 0; [149, 34, 2*, 2000/01/25-2000/02/05]

411 Oizumi

T. Kobayashi, 1717-2 Shimo-Koizumi, Oizumi-machi, Ora-gun, Gunma-ken, 370-0515 Japan [kobataka@sannet.ne.jp]

0.25-m $f/4.4$ reflector + CCD, 0.41-m $f/4.3$ reflector + CCD
GSC

1991 TL₁₄, 4, 2, 2; 1993 BL₂, 4, 2, 3; 1997 GB₃₆, 4, 2, 1; 1998 QH₃, 4, 2, 1; 1998 RA₅₂, 2, 1, 0; 1998 SA₁₁₀, 4, 2, 1; 1998 SA₁₁₈, 4, 2, 2; 1999 XS₃₁, 4, 2, 1; 1999 XZ₃₄, 4, 2, 2; 1999 XS₁₀₄, 2, 1, 0; 1999 XT₁₀₄, 2, 1, 0; 1999 XU₁₀₄, 2, 1, 0; 1999 XV₁₀₄, 4, 2, 21; 1999 XX₁₀₄, 2, 1, 0; 1999 XS₁₀₅, 2, 1, 0; 1999 XT₁₀₅, 2, 1, 0; 1999 XW₁₀₅, 2, 1, 0; 1999 XC₁₀₆, 2, 1, 0; 1999 XW₁₆₅, 4, 2, 2; 1999 YF₅, 4, 2, 22; 1999 YG₅, 7, 3, 22; 1999 YM₉, 6, 3, 21; 1999 YN₉, 4, 2, 18; 1999 YO₉, 4, 2, 18; 1999 YP₉, 4, 2, 18; 1999 YQ₉, 4, 2, 18; 1999 YR₉, 4, 2, 18; 1999 YS₉, 4, 2, 18; 1999 YT₉, 4, 2, 18; 1999 YU₉, 4, 2, 18; 2000 AE₂, 4, 2, 18; 2000 AF₂, 4, 2, 18; 2000 AH₂, 4, 2, 18; 2000 AJ₂, 4, 2, 18; 2000 AK₂, 4, 2, 18; 2000 AL₂, 4, 2, 18; 2000 AM₂, 4, 2, 18; 2000 AN₂, 4, 2, 18; 2000 AO₂, 4, 2, 18; 2000 AP₂, 4, 2, 18; 2000 AQ₂, 4, 2, 18; 2000 AD₆₈, 4, 2, 1; 2000 AQ₉₆, 4, 2, 2; 2000 AW₁₄₆, 4, 2, 2; 2000 AZ₁₄₆, 8, 3, 6; 2000 AA₁₄₇, 2, 1, 0; 2000 AJ₂₃₃, 4, 2, 2; 2000 AQ₂₃₈, 4, 2, 1; 2000 AR₂₃₉, 4, 2, 1; 2000 AS₂₃₉, 4, 2, 1; 2000 AN₂₄₂, 6, 3, 12; 2000 AQ₂₄₂, 4, 2, 2; 2000 AR₂₄₂, 4, 2, 2; 2000 AP₂₄₃, 4, 2, 2; 2000 AA₂₄₄, 4, 2, 1; 2000 BH₃, 8, 4, 15; 2000 BJ₃, 8, 4, 15; 2000 BK₃, 8, 4, 15; 2000 BL₃, 8, 4, 15; 2000 BM₃, 8, 4, 15; 2000 BN₃, 8, 4, 15; 2000 BO₃, 9, 4, 15; 2000 BP₃, 8, 4, 15; 2000 BQ₃, 8, 4, 15; 2000 BR₃, 8, 4, 15; 2000 BS₃, 8, 4, 15; 2000 BT₃, 9, 4, 15; 2000 BU₃, 8, 4, 15; 2000 BV₃, 8, 4, 15; 2000 BW₃, 8, 4, 15; 2000 BX₃, 8, 4, 15; 2000 BZ₁₃, 6, 3, 13; 2000 BE₁₄, 6, 3, 12; 2000 BH₁₄, 4, 2, 2; 2000 BJ₁₄, 6, 3, 14; 2000 BK₁₄, 6, 3, 12; 2000 BL₁₄, 6, 3, 12; 2000 BM₁₄, 4, 2, 2; 2000 BN₁₄, 4, 2, 2; 2000 BO₁₄, 6, 3, 12; 2000 BP₁₄, 6, 3, 12; 2000 BQ₁₄, 6, 3, 12; 2000 BR₁₄, 6, 3, 12; 2000 BS₁₄, 6, 3, 12; 2000 BT₁₄, 6, 3, 12; 2000 BV₁₄, 6, 3, 9; 2000 BW₁₄, 6, 3, 9; 2000 BX₁₄, 6, 3, 9; 2000 BY₁₄, 6, 3, 9; 2000 BZ₁₄, 6, 3, 9; 2000 BA₁₅, 6, 3, 9; 2000 BB₁₅, 6, 3, 9; 2000 BC₁₅, 6, 3, 9; 2000 BD₁₅, 6, 3, 9; 2000 BE₁₅, 6, 3, 9; 2000 BF₁₅, 6, 3, 9; 2000 BG₁₅, 6, 3, 9; 2000 BH₁₅, 6, 3, 9; 2000 BV₂₇, 4, 2, 1; 2000 CA*, 6, 3, 9; 2000 CB*, 6, 3, 9; 2000 CC*, 6, 3, 9; 2000 CD*, 6, 3, 9; 2000 CE*, 6, 3, 9; 2000 CF*, 6, 3, 9; 2000 CG*, 6, 3, 9; 2000 CH*, 6, 3, 9; 2000 CI*, 6, 3, 9; 2000 CL*, 6, 3, 9; 2000 CM*, 6, 3, 9; 2000 CN*, 6, 3, 9; 2000 CO*, 6, 3, 9; 2000 CP*, 6, 3, 9; 2000 CQ*, 6, 3, 7; 2000 CR*, 6, 3, 7; 2000 CS*, 6, 3, 7; 3042 T-3, 2, 1, 0; [599, 116, 59*, 2000/01/08–2000/02/11]

413 Siding Spring

R. H. McNaught, Research School of Astronomy and Astrophysics,
Siding Spring Observatory, Coonabarabran, NSW 2357, Australia
[rmn@aacbn.aao.gov.au] (1)

A. Gnädig, c/o Archenhold-Sternwarte, Alt-Treptow 1, D-12435 Berlin, Germany
[doppler@mind.de] (5)

A. Boattini, Istituto di Astrofisica Spaziale, Via Fosso del Cavaliere, I-00133 Rome,
Italy [boattini@ias.rm.cnr.it] (6)

M. Nicholson, 3 Grovelands, Daventry, Northants, NN11 4DH, United Kingdom
[Martin@crozet.demon.co.uk] (6)

Observers R. H. McNaught, R. D. Cannon

Measurers R. H. McNaught, A. Gnädig, A. Knöfel, M. Nicholson

1.2-m U.K. Schmidt, 1.0-m $f/8$ reflector + CCD

USNO-A2.0, GSC-ACT, PPM, GSC-1.2, TYC-1

{1} 1998 ER₁₄, 6, 3, 2; 1998 FF₂, 5, 2, 1; 1998 MN₁₄, 3, 2, 1; 1998 WT₂₄, 8, 3, 96; 1999 AE₄, 4, 2, 1; 1999 PM₁, 2, 1, 0; 1999 RR₂₈, 4, 2, 1; 1999 RJ₄₅, 2, 1, 0; 1999 RL₄₅, 2, 1, 0; 1999 TB₅, 4, 2, 1; 1999 TC₅, 2, 1, 0; 1999 TA₁₀, 2, 1, 0; 1999 TM₁₁, 2, 1, 0; 1999 TN₁₁, 2, 1, 0; 1999 TR₁₉, 2, 1, 0; 1999 TS₁₉, 2, 1, 0; 1999 UR, 7, 3, 3; 1999 UM₃, 5, 2, 2; 1999 UF₄, 4, 2, 1; 1999 UC₁₇, 3, 1, 0; 1999 VQ₆, 3, 2, 1; 1999 VQ₁₁, 2, 1, 0; 1999 VQ₃₂, 2, 1, 0; 1999 XK₁₄₁, 5, 2, 1; 1999 XO₁₄₁, 3, 1, 0; 1999 YD, 9, 3, 2; 1999 YR₁₄, 4, 2, 1; 2000 AB₆, 5, 2, 1; 2000 AF₆, 2, 1, 0; 2000 AV₄₈, 2, 1, 0; 2000 AZ₉₃, 5, 2, 1; 2000 AD₁₄₆, 2, 1, 0; 2000 AD₂₀₅, 4, 2, 1; 2000 AE₂₀₅, 4, 2, 1; 2000 AF₂₀₅, 5, 2, 1; 2000 AG₂₀₅, 3, 1, 0; 2000 AC₂₂₉, 4, 2, 1; 2000 BF₁₉, 14, 4, 3; 2000 BG₁₉, 4, 2, 1; 2000 BH₁₉, 2, 1, 0; 2000 BJ₁₉, 3, 1, 0; 2000 BK₁₉, 15, 4, 3; 2000 BL₁₉, 3, 1, 0; 2000 BO₂₈, 2, 1, 0; 2000 CA₁₃, 2, 1, 0; 2000 CD₃₂, 2, 1, 0; 2000 CN₃₃, 2, 1, 0; 2000 CO₃₃, 9, 3, 2; 2000 CO₃₉, 7, 3, 3; 2000 CE₅₉, 2, 1, 0; 2000 CF₅₉, 2, 1, 0; 2000 CG₅₉, 2, 1, 0; 2000 CH₅₉, 2, 1, 0; 2000 CI₅₉, 3, 2, 2; 2000 CL₅₉, 6, 2, 2; 2000 CH₇₂, 12, 5, 6; 2000 CF₇₇, 7, 3, 3; 2000 CQ₇₇, 8, 2, 2; 2000 CF₈₁, 6, 2, 1; 2000 CT₉₇, 6, 2, 1; 2000 CU₉₇, 6, 2, 1; 2000 CV₉₇, 5, 2, 1; 2066 T-2, 2, 1, 0; (3447), 4, 2, 2; (6394), 7, 3, 3; (6564), 2, 1, 0; (12622), 6, 3, 2; [295, 69, 6*, 1993/08/12–2000/02/10]

{5} 1979 PE, 3, 2, 1015; 1988 CY, 2, 1, 0; 1991 TH₃, 2, 1, 0; 1994 RT₁₁, 4, 2, 2621; 1994 TQ₁₆, 2, 1, 0; 1996 KO₁, 1, 1, 0; 1998 MU₇, 2, 1, 0; 1998 MY₇, 4, 2, 33; 1998 OA₁₃, 2, 1, 0; 1998 QB₃₂, 2, 1, 0; 1998 QD₃₂, 4, 2, 580; 1998 QC₄₂, 4, 2, 19; 1998 QM₅₄, 2, 1, 0; 1998 QV₈₉, 2, 1, 0; 1998 QA₉₁, 7, 4, 4336; 1998 QR₉₁, 3, 2, 87; 1998 QS₉₂, 1, 1, 0; 1998 QX₉₂, 2, 1, 0; 1998 QN₉₃, 6, 3, 2868; 1998 QP₉₃, 2, 1, 0; 1998 RX₇₂, 4, 2, 1776; 1998 SV₂₆, 2, 1, 0; 1998 TC, 2, 1, 0; 1998 UR₁₅, 4, 3, 902; 1998 VA, 5, 3, 7234; 1998 VT₅, 3, 2, 925; 1998 VH₁₈, 2, 1, 0; 1998 VQ₃₁, 6, 3, 2889; 1998 WX₆, 7, 4, 5058; 1998 WM₇, 3, 2, 52; 1998 WW₂₃, 2, 1, 0; 1998 XW₉, 5, 3, 3742; 1998 YD₅, 2, 1, 0; 1998 YC₁₂, 2, 1, 0; 1998 YH₂₇, 5, 4, 4753; 1999 AN₄, 2, 1, 0; 1999 AH₁₈, 2, 1, 0; 1999 AR₂₃, 2, 1, 0; 1999 BB₂, 4, 2, 2886; 1999 BE₂, 1, 1, 0; 1999 BE₅, 3, 2, 1424; 1999 BN₁₂, 4, 2, 446; 1999 CD₁, 6, 3, 1984; 1999 CR₄, 6, 3, 922; 1999 CH₅, 4, 2, 2770; 1999 CU₅, 4, 2, 5226; 1999 CT₂₉, 4, 2, 2888; 1999 CH₃₇, 3, 2, 1477; 1999 CP₃₉, 2, 1, 0; 1999 CY₅₁, 2, 1, 0; 1999 CV₈₁, 5, 3, 4813; 1999 CO₉₉, 2, 1, 0; 1999 CN₁₂₅, 2, 1, 0; 1999 DC₂, 3, 2, 5485; 1999 DH₃, 2, 1, 0; 1999 FN₂₁, 4, 2, 2122; 1999 GX₇, 4, 2, 5728; 1999 JZ, 4, 2, 641; 1999 JN₁₇, 4, 2, 3691; 1999 JT₆₃, 2, 1, 0; 1999 KQ₄, 4, 2, 6152; 1999 NT₁, 5, 3, 2100; 1999 NW₁, 2, 1, 0; 1999 NN₂, 2, 1, 0; 1999 NK₆, 1, 1, 0; 1999 NX₅₄, 6, 3, 1804; 1999 OS₃, 2, 1, 0; 1999 QP₂, 2, 1, 0; 1999 RA, 2, 1, 0; 1999 RE₁₆, 2, 1, 0; 1999 RP₂₉, 2, 1, 0; 1999 RV₃₂, 2, 1, 0; 1999 RK₄₀, 2, 1, 0; 1999 RS₉₅, 8, 4, 4877; 1999 RW₁₀₀, 1, 1, 0; 1999 RA₁₁₆, 6, 3, 2784; 1999 RC₁₃₇, 4, 2, 3125; 1999 RB₁₄₁, 1, 1, 0; 1999 UK₉, 2, 1, 0; 1999 UL₁₃, 2, 1, 0; 1999 VW₁, 2, 1, 0; 1999 VZ₂, 4, 2, 5546; 1999 VV₁₉, 4, 2, 1450; 1999 VH₂₀, 2, 1, 0; 1999 VZ₂₀, 2, 1, 0; 1999 VY₂₅, 1, 1, 0; 1999 VQ₆₀, 2, 1, 0; [267, 87, 0*, 1974/06/17–1997/09/30]

{6} 1996 CX₈, 2, 1, 0; 1998 DJ₃₃, 2, 1, 0; 1999 TW₉, 2, 1, 0; 2000 CN₁₀₁, 2, 1, 0; 1016 T-2, 2, 1, 0; [10, 5, 0*, 1951/11/28–1984/03/07]

422 Loomberah

G. J. Garradd, P.O. Box 157, Tamworth, NSW 2340, Australia
[loomberah@ozemail.com.au]

0.45-m $f/5.4$ reflector + CCD, 0.25-m $f/4.1$ reflector + CCD
GSC-ACT

1991 DB, 7, 2, 1; 1992 FL₁, 3, 1, 0; 1996 DH, 2, 1, 0; 1997 XF₁₁, 3, 1, 0; 1998 PF, 3, 1, 0; 1998 QK₆₁, 4, 1, 0; 1999 JB, 2, 1, 0; 1999 RM₂₈, 3, 1, 0; 1999 SK₁₀, 3, 1, 0; 1999 WA₂, 3, 1, 0; 1999 XO₁₃₅, 1, 1, 0; 1999 YF₃, 3, 1, 0; 2000 AX₉₃, 5, 2, 2; 2000 AY₉₃, 2, 1, 0; 2000 AB₂₂₉, 3, 1, 0; 2000 AC₂₂₉, 1, 1, 0; 2000 AU₂₄₂, 9, 3, 2; 2000 BE₁₉, 5, 1, 0; 2000 BG₁₉, 4, 2, 2; 2000 BH₁₉, 7, 2, 1; 2000 BJ₁₉, 5, 2, 1; 2000 BK₁₉, 10, 3, 2; 2000 BL₁₉, 6, 2, 1; 2000 BO₁₉, 2, 1, 0; 2000 CA₁₃, 2, 1, 0; 2000 CD₃₂, 9, 2, 3; 2000 CJ₃₃, 13, 4, 3; 2000 CK₃₃, 9, 3, 2; 2000 CL₃₃, 9, 3, 2; 2000 CM₃₃, 12, 4, 3; 2000 CN₃₃, 6, 2, 1; 2000 CO₃₃, 10, 3, 2; 2000 CE₅₉, 11, 4, 3; 2000 CF₅₉, 6, 2, 1; 2000 CG₅₉, 3, 1, 0; 2000 CH₅₉, 6, 2, 1; 2000 CJ₅₉, 6, 2, 1; 2000 CK₅₉, 7, 2, 1; 2000 CL₅₉, 4, 2, 3; 2000 CN₁₀₁, 1, 1, 0; 2000 CO₁₀₁, 10, 3, 6; 2000 CP₁₀₁, 1, 1, 0; 2000 CR₁₀₁, 3, 1, 0; (433), 5, 1, 0; (2567), 4, 1, 0; [235, 46, 0*, 2000/01/11–2000/02/17]

423 North Ryde

S. G. McAndrew, 2/32 Twin Rd, North Ryde, NSW 2113, Australia
[sgmcandrew@ozemail.com.au]

0.20-m $f/4$ hyperbolic astrograph + CCD
GSC

1989 AA, 4, 2, 7; 1993 KR, 7, 3, 14; 1999 VL₄₀, 13, 5, 15; 1999 XS₁₃₆, 6, 2, 3; 1999 YS, 10, 4, 7; [40, 5, 0*, 2000/02/01–2000/02/17]

426 Woomera

F. B. Zoltowski, 10 Gundawarra St., P.O. Box 84, Woomera, SA 5720, Australia
[fbzolt@CompuServe.com]

0.30-m $f/10$ Schmidt-Cassegrain + CCD
USNO-SA2.0

2000 AP₁₀₆, 3, 1, 0; [3, 1, 0*, 1998/09/12]

428 Reedy Creek

J. Broughton, 18 Branch Crescent, Reedy Creek, QLD 4228, Australia
[reedyck@one.net.au]

0.25-m $f/6.3$ Schmidt-Cassegrain + CCD
GSC

1998 TZ₁, 2, 1, 0; 1998 VE₃₃, 3, 2, 2; 2000 AF₅, 7, 6, 28; 2000 AX₉₃, 2, 1, 0; 2000 AU₂₄₂, 2, 1, 0; 2000 CF₅₉, 2, 1, 0; (9240), 2, 1, 0; [20, 7, 0*, 2000/01/08–2000/02/09]

461 JATE Asteroid Survey, Piskéstető

L. Kiss, Pf. 596, H-6701 Szeged, Hungary [l.kiss@physx.u-szeged.hu]

Observers K. Sárneczky, K. Sziládi, L. Kiss

Measurers K. Sárneczky, K. Sziládi

0.60-m Schmidt + CCD

USNO-A2.0

1998 SF₅₈, 8, 3, 5; 1998 WY₆, 6, 2, 31; 1999 XF₁₆₂, 8, 2, 2; 1999 YW₁₄, 11, 3, 5; 1999 YX₁₄, 3, 1, 0; 2000 AP₄, 3, 1, 0; 2000 AE₄₅, 6, 2, 4; 2000 AF₄₅, 3, 1, 0; 2000 BP₆, 9, 3, 5; 2000 BJ₁₅ *, 6, 2, 4; 2000 BK₁₅ *, 9, 3, 5; 2000 BM₁₅ *, 6, 2, 4; 2000 BD₁₉, 5, 1, 0; 2000 BL₁₉, 3, 1, 0; 2000 CJ₁ *, 5, 2, 1; 2000 CM₅₉ *, 6, 2, 1; (3101), 3, 1, 0; [100, 17, 5*, 2000/01/01–2000/02/02]

467 Auckland Observatory

I. P. Griffin, Auckland Observatory, P.O. Box 24-180, Royal Oak, Auckland, New Zealand [iang@stardome.org.nz]

Observers I. P. Griffin, M. Arthur

0.50-m $f/6.4$ Cassegrain reflector + CCD

USNO-A2.0

1998 VM₃₂, 2, 1, 0; 2000 AU₂₄₂, 5, 1, 0; 2000 CK₃₃, 3, 1, 0; 2000 CF₅₉, 4, 1, 0; [14, 4, 0*, 2000/02/05–2000/02/07]

504 Le Creusot

J.-C. Merlin, 18 rue P. Mendès-France, F-71200 Le Creusot, France

[merlin@obsmp.fr]

0.40-m $f/5.1$ reflector + CCD

GSC

1993 BD, 3, 1, 0; 1998 XZ₈, 2, 1, 0; 2000 AN₄₈, 8, 3, 10; 2000 AR₅₃, 6, 2, 1; 2000 AE₆₅, 2, 1, 0; 2000 BS *, 5, 2, 1; (7382), 3, 1, 0; (7817), 4, 1, 0; (12771), 5, 1, 0; [38, 9, 1*, 2000/01/25–2000/02/12]

511 Haute Provence

E. W. Elst, Royal Observatory, B-1180 Brussels, Belgium [ericelst@ksb-orb.oma.be]

Observers E. W. Elst, G. Traversa

Measurer E. W. Elst

0.6-m Schmidt

1991 DU₂, 1, 1, 0; [1, 1, 0*, 1991/02/20]

540 Linz

E. Meyer, F. Marklstrasse 1/62, A-4040 Linz, Austria [erich.meyer@ooenet.at]

Observers E. Meyer, E. Obermair

0.60-m $f/3.0$ reflector + CCD

USNO-A2.0, GSC-1.1

1996 VX, 3, 1, 0; 1997 EJ₁₁, 3, 1, 0; 1997 PG₃, 3, 1, 0; 1999 YF₃, 3, 1, 0; 1999 YG₃, 4, 1, 0; 2000 AC₆, 3, 1, 0; 2000 AF₆, 4, 1, 0; 2000 AC₂₂₉, 4, 1, 0; 2000 BM₁₉, 4, 1, 0; 2000 CM₃₃, 4, 1, 0; 2000 CE₅₉, 4, 1, 0; 2000 CF₅₉, 3, 1, 0; 2000 CH₅₉, 4, 1, 0; 2000 CJ₅₉, 4, 1, 0; (3031), 3, 1, 0; [53, 15, 0*, 2000/01/24–2000/02/10]

552 San Vittore

E. Colombini, Via S. Vittore 44, I-40136 Bologna, Italy

[ermes.colombini@iol.it]

Observers G. Sassi, E. Colombini, R. Di Luca

0.45-m $f/3.3$ reflector + CCD

GSC

1988 DE, 2, 1, 0; 1997 JR, 2, 1, 0; 1998 RT₄₆, 2, 1, 0; 2000 AT₂₉, 2, 1, 0; 2000 AP₅₉, 2, 1, 0; 2000 CJ₉₇ *, 7, 2, 2; 2000 CK₉₇ *, 8, 3, 4; 6063 P-L, 4, 1, 0; (12222), 2, 1, 0; [31, 9, 2*, 1997/05/30–2000/02/14]

557 Ondřejov

P. Pravec, Astronomical Institute, Czech Academy of Sciences, CZ-25165 Ondřejov, Czech Republic [ppravec@asu.cas.cz]

Observers P. Pravec, L. Šarounová, P. Kušnirák

0.65-m $f/3.6$ reflector + CCD

USNO-SA2.0

1991 DB, 6, 1, 0; 1996 HP, 5, 2, 1; 1996 HV, 4, 2, 2; 1996 JE₂, 6, 2, 2; 1996 LJ₁, 2, 1, 0; 1997 RA₁, 7, 2, 2; 1997 SM₁, 2, 1, 0; 1997 UJ, 5, 2, 5; 1997 VC₅, 3, 1, 0; 1997 WP₂₈, 3, 1, 0; 1998 QN₆₀, 7, 2, 23; 1998 QP₆₀, 3, 1, 0; 1998 QQ₆₀, 3, 1, 0; 1998 QD₉₉, 3, 1, 0; 1998 SU₂, 12, 4, 16; 1998 SB₁₃, 14, 3, 25; 1998 SS₂₆, 10, 3, 25; 1998 SM₁₁₆, 3, 1, 0; 1998 UJ₄₄ *, 2, 1, 0; 1998 UK₄₄ *, 3, 1, 0; 1998 XH₂₅, 3, 1, 0; 1999 GJ₄, 5, 1, 0; 1999 WX, 3, 1, 0; 1999 XH₁₅, 2, 1, 0; 1999 XW₂₇, 3, 1, 0; 1999 XW₂₈, 3, 1, 0; 1999 XN₁₂₇, 2, 1, 0; 1999 XV₁₂₇, 9, 3, 7; 1999 XW₁₂₇, 5, 2, 1; 1999 XT₁₆₅, 4, 1, 0; 2000 AT₄, 2, 1, 0; 2000 AT₃₄, 8, 2, 1; 2000 AW₄₉, 7, 3, 4; 2000 AU₇₈, 5, 2, 2; 2000 AM₁₂₁, 5, 2, 2; 2000 AQ₁₄₅, 4, 1, 0; 2000 AC₁₆₄, 6, 2, 2; 2000 AB₂₀₄, 3, 1, 0; 2000 AU₂₄₂, 7, 3, 2; 2000 BD₁₉, 7, 2, 3; 2000 BE₁₉, 9, 3, 3; 2000 BH₁₉, 9, 3, 3; 2000 BK₁₉, 2, 1, 0; 2000 BM₁₉, 8, 2, 2; 2000 BN₁₉, 7, 2, 2; 2000 CA₁₃, 5, 2, 1; 2000 CP₂₁, 4, 1, 0; 2000 CD₂₈, 3, 1, 0; 2000 CE₂₈, 3, 1, 0; 2000 CD₃₂, 4, 1, 0; 2000 CJ₃₃, 3, 1, 0; 2000 CK₃₃, 7, 2, 2; 2000 CL₃₃, 3, 1, 0; 2000 CM₃₃, 11, 2, 3; 2000 CN₃₃, 3, 1, 0; 2000 CO₃₃, 5, 1, 0; 2000 CM₃₄ *, 8, 3, 7; 2000 CN₃₄ *, 8, 3, 7; 2000 CO₃₄ *, 5, 2, 2; 2000 CP₃₄ *, 6, 2, 2; 2000 CQ₃₄ *, 10, 3, 7; 2000 CG₄₁ *, 11, 3, 4; 2000 CE₅₉, 6, 2, 2; 2000 CF₅₉, 10, 3, 2; 2000 CG₅₉, 5, 2, 1; 2000 CH₅₉, 3, 1, 0; 2000 CJ₅₉, 6, 2, 1; 2000 CK₅₉, 4, 1, 0; 2000 CL₅₉, 3, 1, 0; 2000 CG₆₀, 9, 2, 3; 2000 CX₇₅, 3, 1, 0; 2000 CJ₇₇ *, 5, 2, 9; 2000 CS₈₀ *, 7, 2, 1; 2000 CP₁₀₁, 8, 2, 1; (9234), 3, 1, 0; (10749), 5, 1, 0; (12845), 3, 1, 0; [410, 77, 10*, 1998/10/16–2000/02/14]

560 Madonna di Dossobuono

L. Lai, Via Mantovana 130e, I-37062 Dossobuono (Verona), Italy

[astrofil@astbo1.bo.cnr.it]

Observers L. Lai, I. Rocchetti, G. Vesentini

0.40-m $f/3.5$ reflector + CCD

GSC

1999 UT₃, 12, 3, 50; (12777), 4, 2, 1; [16, 2, 0*, 1999/12/22–2000/02/10]

561 Piskéstető

J. Kelemen, Konkoly Observatory, P.O. Box 67, H-1525 Budapest, Hungary

[kelemen@ogyalla.konkoly.hu]

0.60-m Schmidt telescope + CCD

USNO-A2.0

1992 DJ₈, 6, 1, 0; 1998 KF₁₆, 2, 1, 0; 1999 RO₂₁₅ *, 6, 2, 1; 1999 RP₂₁₅ *, 6, 2, 1; 1999 RQ₂₁₅ *, 5, 2, 1; 1999 TA₁₂, 3, 1, 0; 6625 P-L, 6, 1, 0; 4216 T-2, 6, 1, 0; (11618), 3, 1, 0; (12156), 6, 2, 1; (12245), 3, 1, 0; (12304), 3, 1, 0; (13013), 6, 1, 0; [61, 13, 3*, 1998/04/03–2000/01/12]

566 Haleakala-NEAT/GEODSS

E. F. Helin, MS 183-501, Jet Propulsion Laboratory, Pasadena, CA 91109, U.S.A.

[efh@ipl.jpl.nasa.gov]

Observers E. F. Helin, S. H. Pravdo, K. J. Lawrence, D. L. Rabinowitz, S. Groom,

C. Clark, R. Bamberg, S. Levin, J. Lorre, S. Shaklan, R. Byrd, A. Esquibel,

C. Cotton, D. Bascon

1-m $f/2.2$ Ritchey-Chretien + CCD

1982 JV₁, 9, 2, 30; 1992 EQ₂₆, 3, 1, 0; 1992 FC₂, 3, 1, 0; 1992 HJ₇, 6, 2, 88; 1992 JS₃, 3, 1, 0; 1993 SO₃, 3, 1, 0; 1993 TY₂₂, 3, 1, 0; 1994 PL₃, 3, 1, 0; 1995 ST₃, 3, 1, 0; 1995 WW₂₈, 3, 1, 0; 1996 AK₁₈, 3, 1, 0; 1996 JC₁, 3, 1, 0; 1997 FV₃, 3, 1, 0; 1997 GB₁₄, 3, 1, 0; 1997 MA₄, 3, 1, 0; 1997 NO₈, 3, 1, 0; 1997 PB₃, 3, 1, 0; 1998 AV₅, 3, 1, 0; 1998 BB₃₈, 3, 1, 0; 1998 DR₃₅, 3, 1, 0; 1998 DN₃₇, 3, 1, 0; 1998 FY₁₂₉, 6, 1, 0; 1998 GC₃, 3, 1, 0; 1998 HD₄₆, 3, 1, 0; 1998 HG₄₈, 3, 1, 0; 1998 HE₁₂₀, 6, 2, 29; 1998 KF₁₆, 3, 1, 0; 1998 KD₁₉, 3, 1, 0; 1998 KT₂₀, 3, 1, 0; 1998 KY₅₈, 3, 1, 0; 1998 OM₉, 3, 1, 0; 1998 QD₉, 3, 1, 0; 1998 QX₁₂, 3, 1, 0; 1998 QT₃₈, 3, 1, 0; 1998 QM₅₇, 3, 1, 0; 1998 QJ₆₅, 3, 1, 0; 1998 QF₆₈, 3, 1, 0; 1998 QP₈₀, 3, 1, 0; 1998 RM₅, 3, 1, 0; 1998 RW₃₂, 3, 1, 0; 1998 RV₅₄, 3, 1, 0; 1998 RV₅₅, 3, 1, 0; 1998 RM₅₈, 3, 1, 0; 1998 RQ₆₁, 3, 1, 0; 1998 RA₆₄, 3, 1, 0; 1998 SF₅₉, 3, 1, 0; 1998 SU₆₂, 3, 1, 0; 1998 SW₁₃₅, 3, 1, 0; 1998 SM₁₄₅, 3, 1, 0; 1998 SV₁₆₅, 9, 2, 30; 1998 UJ₁₉, 3, 1, 0; 1998 UE₂₀, 3, 1, 0; 1998 VN₅, 3, 1, 0; 1998 VQ₂₇, 3, 1, 0; 1998 WE₁₂, 3, 1, 0; 1998 WN₁₆, 3, 1, 0; 1998 XF₆₂, 3, 1, 0; 1998 XF₉₃, 3, 1, 0; 1998 XK₉₇, 3, 1, 0; 1998 YT₈, 3, 1, 0; 1998 YW₁₁, 3, 1, 0; 1999 AA, 3, 1, 0; 1999 CK₈₂, 3, 1, 0; 1999 JS₅₄, 3, 1, 0; 1999 JV₈₆, 3, 1,

0; 1999 NR₁₁, 3, 1, 0; 1999 NS₂₀, 3, 1, 0; 1999 NG₂₄, 3, 1, 0; 1999 NW₃₉, 6, 2, 27; 1999 NX₄₀, 3, 1, 0; 1999 RW₅₇, 6, 2, 32; 1999 XM₂₃, 3, 1, 0; 1999 XZ₄₉, 3, 1, 0; 1999 XW₈₅, 3, 1, 0; 1999 XB₉₅, 3, 1, 0; 1999 XP₁₅₁, 3, 1, 0; 1999 XQ₁₆₉, 3, 1, 0; 1999 XR₁₈₂, 6, 2, 30; 1999 XL₂₁₃, 3, 1, 0; 1999 XC₂₂₃, 3, 1, 0; 1999 YU₉, 3, 1, 0; 2000 AA₃, 3, 1, 0; 2000 AO₅, 3, 1, 0; 2000 AO₁₇, 3, 1, 0; 2000 AR₂₅, 3, 1, 0; 2000 AS₃₁, 3, 1, 0; 2000 AY₄₇, 3, 1, 0; 2000 AN₅₀, 6, 2, 477; 2000 AW₅₇, 3, 1, 0; 2000 AX₆₃, 3, 1, 0; 2000 AD₆₄, 3, 1, 0; 2000 AL₆₄, 3, 1, 0; 2000 AC₆₆, 3, 1, 0; 2000 AF₇₇, 3, 1, 0; 2000 AF₈₇, 3, 1, 0; 2000 AA₈₉, 3, 1, 0; 2000 AB₁₀₇, 6, 1, 0; 2000 AP₁₂₃, 3, 1, 0; 2000 AP₁₂₄, 3, 1, 0; 2000 AL₁₂₆, 3, 1, 0; 2000 AA₁₂₇, 3, 1, 0; 2000 AD₁₂₇, 3, 1, 0; 2000 AT₁₂₇, 3, 1, 0; 2000 AA₁₂₈, 3, 1, 0; 2000 AG₁₃₃, 3, 1, 0; 2000 AX₁₃₆, 9, 3, 59; 2000 AU₁₄₁, 3, 1, 0; 2000 AH₁₄₂, 3, 1, 0; 2000 AS₁₅₂, 3, 1, 0; 2000 AK₁₅₆, 3, 1, 0; 2000 AE₁₆₄, 3, 1, 0; 2000 AH₁₈₂, 6, 2, 31; 2000 AL₁₉₃, 3, 1, 0; 2000 AY₂₀₄, 3, 1, 0; 2000 AF₂₁₄, 3, 1, 0; 2000 AH₂₁₄, 3, 1, 0; 2000 BS₉, 6, 1, 0; 2000 BO₁₄, 3, 1, 0; 2000 BF₂₃, 3, 1, 0; 2000 CN₇₂, 3, 1, 0; 2000 CR₉₂, 3, 1, 0; 1329 T-2, 3, 1, 0; 4834 T-2, 3, 1, 0; [417, 123, 0*, 1995/12/19–1998/11/16]

568 Mauna Kea

D. Jewitt, Institute for Astronomy, 2680 Woodlawn Drive, Honolulu, HI 96822, U.S.A. [jewitt@galileo.ifa.hawaii.edu] (1)
 D. J. Tholen, Institute for Astronomy, 2680 Woodlawn Drive, Honolulu, HI 96822, U.S.A. [tholen@hale.ifa.hawaii.edu] (2)
 C. Veillet, Canada-France-Hawaii Telescope Corporation, P.O. Box 1597, Kamuela, HI 96743, U.S.A. [veillet@cfht.hawaii.edu] (3)
 B. Gladman, Observatoire de Nice, Department Cassini, BP 229, F-06304 Nice Cedex 4, France [gladman@obs-nice.fr] (6)
 D. D. Balam, Dept. of Physics, University of Victoria, P.O. Box 3055, Victoria, BC V8W 3P6, Canada [balam@beluga.phys.uvic.ca] (9)
 Observers C. A. Trujillo, D. C. Jewitt, J. X. Luu, S. S. Sheppard, D. J. Tholen, R. J. Whiteley, C. Veillet, J. Kavelaars, A. Morbidelli, H. Ebeling, A. Pickles, Y. Fernandez, C. J. Pritchett
 Measurers C. A. Trujillo, D. J. Tholen, R. J. Whiteley, C. Veillet, B. Gladman, H. Scholl, D. D. Balam
 2.24-m reflector + CCD, 3.6-m Canada-France-Hawaii Telescope
 USNO-A2.0
 {1} 1999 RN₂₁₅ *, 10, 5, 64; 1999 RR₂₁₅ *, 12, 5, 65; 1999 RT₂₁₅ *, 9, 4, 63; 1999 RU₂₁₅ *, 11, 5, 64; 1999 RV₂₁₅ *, 9, 4, 65; 1999 RW₂₁₅ *, 11, 5, 63; 1999 RX₂₁₅ *, 8, 4, 32; 1999 RY₂₁₅ *, 14, 8, 66; 1999 RZ₂₁₅ *, 10, 6, 66; [94, 9, 9*, 1999/09/07–1999/11/13]

{2} 2000 AP₁₄₄, 1, 1, 0; 2000 AT₂₄₅ *, 9, 5, 5; 2000 AA₂₄₆ *, 20, 8, 20; 2000 AB₂₄₆ *, 19, 7, 19; [49, 4, 3*, 1997/10/29–2000/01/27]

{3} 1999 XD₆₇, 3, 1, 0; [3, 1, 0*, 1997/10/30]

{6} 1999 DL₈ *, 6, 3, 35; 1999 DM₈ *, 4, 2, 1; 1999 DN₈ *, 4, 2, 1; 1999 DO₈ *, 4, 2, 1; 1999 DP₈ *, 4, 2, 1; 1999 DQ₈ *, 4, 2, 1; 1999 DR₈ *, 4, 2, 1; [30, 7, 7*, 1999/02/16–1999/03/23]

{9} 1999 RV₁₄₄, 3, 1, 0; 1999 RZ₁₄₄, 3, 1, 0; 1999 RA₁₄₅, 3, 1, 0; [9, 3, 0*, 1999/09/11]

587 Sormano

P. Sicoli, Via Valli 9, I-23846 Garbagnate Monastero (Lecco), Italy [sormano@tin.it]
 Observers F. Manca, P. Sicoli, P. Chiavenna, A. Testa, V. Giuliani, G. Ventre, M. Cavagna
 0.5-m reflector + CCD

1996 AP₂, 2, 1, 0; 1996 VS₁, 5, 2, 18; 1998 SH₁₀, 3, 1, 0; 1999 RC₃₂, 2, 1, 0; 1999 TK₁₂, 1, 1, 0; 1999 XA₁₄₃, 2, 1, 0; 1999 YA₉, 7, 3, 4; 2000 AC₆, 2, 1, 0; 2000 AD₆, 3, 1, 0; 2000 AF₆, 2, 1, 0; 2000 AY₂₇, 3, 1, 0; 2000 AZ₉₃, 2, 1, 0; 2000 BG₃ *, 10, 4, 8; 2000 BD₁₉, 3, 1, 0; 2000 BE₁₉, 3, 1, 0; 2000 BK₁₉, 2, 1, 0; 2000 BL₁₉, 2, 1, 0; 2000 BM₁₉, 2, 1, 0; 2000 BQ₂₆, 2, 1, 0; 2000 CK₃₃, 4, 2, 10; 2000 CM₃₃, 5, 2, 9; 2000 CE₅₉, 2, 1, 0; 2000 CH₅₉, 2, 1, 0; 2000 CP₁₀₁, 2, 1, 0; (1686), 3, 1, 0; (2626), 10, 4, 8; (13147), 3, 1, 0; [89, 27, 1*, 1995/12/10–2000/02/13]

589 Santa Lucia Stroncone

A. Vagnozzi, Via Santa Lucia 68, I-05039 Stroncone (Terni), Italy [vagnozzi@freenet.hut.fi]

Observers A. Vagnozzi, G. Bernabei, V. Risoldi, V. Scirri

0.50-m $f/2.8$ Ritchey-Chrétien + CCD

GSC

1994 NA, 7, 2, 2; 1997 HB, 3, 1, 0; 1998 SR₂₆, 6, 2, 8; [16, 3, 0*, 1997/05/10–2000/02/04]

595 Farra d'Isonzo

L. Bittesini, Via dei Conventi 10, I-34070 Farra D'Isonzo (GO), Italy [ccaf@tmedia.it]

Observers E. Pettarin, G. Lombardi, A. Toso

0.4-m $f/4.5$ reflector + CCD

GSC, USNO-SA1.0

1999 YB, 3, 1, 0; 2000 AQ₄, 4, 1, 0; 2000 AD₆, 3, 1, 0; 2000 AE₆, 2, 1, 0; 2000 AF₁₁₆, 6, 2, 10; 2000 AB₁₁₈, 3, 1, 0; 2000 AU₂₄₂, 3, 1, 0; 2000 BT *, 6, 3, 10; 2000 BU *, 4, 2, 1; 2000 BO₂₂ *, 7, 3, 9; 2000 CA₁₃, 2, 1, 0; 2000 CK₃₃, 2, 1, 0; 2000 CE₅₉, 3, 1, 0; 2000 CF₅₉, 6, 2, 5; 2000 CG₅₉, 2, 1, 0; 2000 CH₅₉, 4, 1, 0; 2000 CJ₅₉, 7, 2, 5; 2000 CK₅₉, 2, 1, 0; 2000 CN₁₀₁, 5, 2, 1; 2000 CO₁₀₁, 3, 1, 0; 2000 CQ₁₀₁, 2, 1, 0; 2000 CR₁₀₁, 5, 2, 1; (3793), 2, 1, 0; [86, 23, 3*, 2000/01/24–2000/02/14]

596 Colleverde di Guidonia

V. S. Casulli, Via M. Rosa 1, I-00010 Colleverde di Guidonia (RM), Italy [v.casulli@priminet.it]

0.40-m $f/3.2$ reflector + CCD

GSC

1990 UO₁, 5, 2, 1; 1997 JB₁₀, 5, 2, 1; 1999 XS₁₇₃, 6, 2, 1; 1999 YH₅, 4, 1, 0; 2000 CM₃₃, 10, 3, 3; 2000 CN₃₃, 5, 2, 2; 2000 CF₅₉, 7, 2, 1; [42, 7, 0*, 2000/01/26–2000/02/06]

599 Campo Imperatore-CINEOS

A. Carusi, Istituto di Astrofisica Spaziale, Via Fosso del Cavaliere, I-00133 Rome, Italy [carusi@saturn.ias.fra.cnr.it]

Observers A. Boattini, A. Di Clemente

Measurers A. Boattini, G. Forti

0.60-m $f/3$ Schmidt + CCD

GSC

1998 HD₄₆, 4, 2, 1; 1998 UC₇, 2, 1, 0; 1999 RL₉₆, 2, 1, 0; 1999 YJ₁₆, 2, 1, 0; 2000 AS₁₉₆, 2, 1, 0; 2000 AO₂₀₅, 2, 1, 0; [14, 6, 0*, 1996/11/13–1997/07/10]

608 Haleakala-AMOS

P. Kervin, Air Force Maui Optical Station, 535 Lipoa Parkway, Suite 200, Kihei, Maui, HI 96753, U.S.A. [paul@ulua.mhpcc.af.mil]

E. F. Helin, MS 183-501, Jet Propulsion Laboratory, Pasadena, CA 91109, U.S.A. [efh@temblor.jpl.nasa.gov]

Observers A. Alday, K. Moore, M. Tranilla, T. Goggia, A. Sylva

Measurers J. Africano, P. Sydney, D. Nishimoto, A. Angara, B. McCarthy,

P. Kervin, B. Kraszewski, V. Soo Hoo, B. Africano

1.2-m reflector + CCD

1998 AZ, 2, 1, 0; 1998 MZ₄₁, 4, 2, 1; [6, 2, 0*, 1995/12/28–1997/02/06]

609 Osservatorio Polino

G. Iatterri, Via Val Serra 45h, Terni, Italy

Observers G. Iatterri, V. Scirri, G. Bernabei

0.40-m $f/2.9$ reflector + CCD

GSC

2000 AR₁₂₉, 4, 2, 1; 2000 CE₂₀, 4, 2, 1; 2000 CY₄₀ *, 4, 2, 1; [12, 3, 1*, 2000/02/05–2000/02/06]

610 Pianoro

V. Goretti, Via Resistenza 93, I-40065 Pianoro (BO), Italy

[astrofil@astbo1.bo.cnr.it]

0.25-m $f/4$ Schmidt-Cassegrain + CCD

GSC, USNO-A2.0

1996 AX₁, 5, 1, 0; 1997 WU₂₂, 15, 3, 6; 1999 GJ₄, 5, 1, 0; 1999 RH₂₇, 25, 5, 9; 1999 VM₄₀, 20, 4, 9; 1999 WY, 20, 4, 6; 1999 XA₁₄₃, 20, 4, 5; 1999 YT, 15, 3, 5; 1999 YF₃, 9, 2, 1; 1999 YK₅, 10, 2, 2; 2000 AB₂₂₉, 15, 3, 2; 2000 BY₃, 10, 2, 11; (699), 25, 5, 17; (1036), 5, 1, 0; (1627), 5, 1, 0; (3800), 10, 2, 9; (4486), 15, 3, 4; (5066), 5, 1, 0; (6178), 5, 1, 0; (6909), 5, 1, 0; (12711), 19, 4, 9; [263, 21, 0*, 2000/01/10–2000/02/10]

611 Starkenburg Sternwarte, Heppenheim

M. Busch, Giessener Strasse 4, D-64646 Heppenheim, Germany [mab@iez.com]

Observers M. Busch, R. Kresken, S. Kluegl, A. Seib, R. Stoss

Measurers M. Busch, R. Stoss, L. Kurtze

0.45-m $f/4.4$ reflector + CCD, 0.30-m $f/6.3$ reflector + CCD

USNO-SA2.0, GSC-ACT

1997 TS₁₈, 1, 1, 0; 1998 SO₁₄₅, 1, 1, 0; 1998 UM₂₀, 2, 1, 0; 1999 TQ₂₆, 2, 1, 0; 2000 AB₂₂₉, 3, 1, 0; 2000 BD₁₉, 3, 1, 0; 2000 BE₁₉, 3, 1, 0; 2000 CK₃₃, 3, 1, 0; 2000 CM₃₃, 11, 2, 6; 2000 CN₃₃, 2, 1, 0; 2000 CE₅₉, 1, 1, 0; 2000 CF₅₉, 3, 1, 0; 2000 CO₁₀₁, 2, 1, 0; 2000 CO₁₀₁, 1, 1, 0; (3499), 2, 1, 0; (7688), 2, 1, 0; (9789), 4, 2, 11; [46, 17, 0*, 1999/11/15–2000/02/12]

615 St. Véran

J. Schwaenen, Allée D 5, B-6001 Marcinelle, Belgium

[jean.schwaenen@worldonline.be]

Observers J. Boussuge, C. Jacquemard, A. Jacquemard, J.-L. Labaye

Measurer J. Boussuge

0.62-m $f/3$ reflector + CCD

GSC, USNO-SA2.0

1999 VM₄₀, 4, 1, 0; 2000 AV₄, 7, 2, 1; (2953), 8, 2, 1; [19, 3, 0*, 2000/01/15–2000/01/21]

620 Observatorio Astronómico de Mallorca

À. López, Observatori Astronòmic de Mallorca, Camí de l'observatori s/n, E-07144

Costitix, Balears, Spain [astroam@dinky.bitel.es]

Observers M. Blasco, J. Rodriguez

Measurers J. Rodriguez, M. Blasco

0.41-m $f/2.0$ Schmidt-Cassegrain + CCD

GSC

2000 AY₃₃, 5, 1, 0; 2000 BT₁₈, 5, 1, 0; [10, 2, 0*, 2000/02/03]

621 Bergisch Gladbach

W. Bickel, Schau ins Land 21, D-51429 Bergisch Gladbach, Germany [0220455671–

00010t-online.de]

0.60-m $f/5$ reflector + CCD

USNO-A2.0

1996 HR₁₀, 3, 1, 0; 1998 QL₆₃, 4, 2, 2; 1998 RR₅₆, 5, 2, 2; 1998 SM₄₉, 6, 2, 2; 1999 UJ₁₁, 7, 2, 2; 1999 VV₂, 8, 2, 2; 1999 XA₈₉, 2, 1, 0; 2000 AB₄, 8, 2, 2; 2000 AO₄₇, 9, 2, 9; 2000 AG₇₉, 5, 2, 2; 2000 AJ₇₉, 10, 2, 6; 2000 AV₁₄₂, 3, 1, 0; 2000 BW₁₀ *, 4, 2, 2; 2000 BH₃₀ *, 3, 1, 0; (9562), 7, 2, 2; [84, 15, 2*, 1997/12/01–2000/02/12]

627 Blauvac

R. Roy, Le Badassier St Esteve, F-84570 Blauvac, France [Rene.Roy@wanadoo.fr]

0.26-m $f/4.7$ reflector + CCD

USNO-SA1.0, GSC

(5153), 4, 1, 0; (6310), 4, 1, 0; [8, 2, 0*, 2000/02/14]

628 Mülheim-Ruhr

A. Martin, Turtle Star Observatory, Friedhostr. 15, D-45478 Mülheim-Ruhr,

Germany [axelm@bph.ruhr-uni-bochum.de]

Observers A. Boeker, A. Martin

0.2-m Schmidt-Cassegrain + CCD

USNO-A2.0

1989 BB, 11, 3, 13; 1989 WU, 3, 1, 0; 1994 EL₁, 9, 2, 22; 1996 BV₂, 5, 1, 0; 1999 XP₇, 3, 1, 0; 1999 XA₁₆₀, 3, 1, 0; 2000 AD₉₇, 4, 1, 0; 2000 BE₃₀, 4, 1, 0; (6325), 4, 1, 0; [46, 9, 0*, 2000/01/11–2000/02/20]

639 Dresden

S. Gebhard, Duckwitzstrasse 27d, D-01129 Dresden, Germany [Gebhard@t-online.de]

0.35-m $f/7.3$ reflector + CCD

USNO-A2.0

1999 RH₂₇, 2, 1, 0; 1999 US₃, 2, 1, 0; (699), 2, 1, 0; (1685), 4, 2, 19; [10, 4, 0*, 2000/01/23–2000/02/11]

642 Oak Bay, Victoria

C. E. Spratt, 1431 St. Patrick Street, Victoria, BC V8S 4Y5, Canada

[cspratt@islandnet.com]

0.20-m $f/3.7$ Schmidt-Cassegrain + CCD

GSC

1999 RH₂₇, 9, 3, 15; 2000 BH₁₉, 1, 1, 0; 2000 BE₃₀, 3, 1, 0; (4531), 9, 3, 13; [22, 4, 0*, 2000/01/26–2000/02/12]

644 Palomar Mountain/NEAT

S. Pravdo, Jet Propulsion Laboratory, MS 306-438, 4800 Oak Grove Drive,

Pasadena, CA 91109, U.S.A. [spravdo@mail1.jpl.nasa.gov]

Observers S. Pravdo, D. L. Rabinowitz

1.2-m Oschin Schmidt + CCD

1999 JC₅₄, 3, 1, 0; [3, 1, 0*, 1999/06/10]

649 Powell Observatory, Louisburg

L. Robinson, 14680 W 144 St., Olathe, KS 66062, U.S.A.

[lrobinson@ix.netcom.com]

Observers K. Smalley, J. Alburty

0.30-m Schmidt-Cassegrain + CCD

GSC-1.1

2000 AL₆₂, 3, 1, 0; 2000 AY₂₄₄, 3, 1, 0; (3502), 3, 1, 0; (6004), 3, 1, 0; (6066), 10, 2, 1; (6097), 3, 1, 0; (9543), 4, 1, 0; (9788), 3, 1, 0; [32, 8, 0*, 2000/01/12–2000/02/20]

651 Grasslands Observatory, Tucson

J. E. McGaha, 5100 Sabino Foothills, Tucson, AZ 85750, U.S.A.

[jmcgaha@azstarnet.com]

0.62-m $f/5.1$ Newtonian + CCD

GSC-1.1

1999 BN₅, 6, 2, 26; 1999 WC, 3, 1, 0; 2000 AH₁₅₃, 3, 1, 0; 2000 AU₂₄₂, 2, 1, 0; 2000 AS₂₄₅ *, 3, 1, 0; 2000 BE₁₉, 3, 1, 0; 2000 BH₁₉, 3, 1, 0; 2000 BM₁₉, 3, 1, 0; 2000 BO₂₈, 3, 1, 0; 2000 CA₁₃, 2, 1, 0; 2000 CD₃₂, 2, 1, 0; 2000 CX₃₂, 3, 1, 0; 2000 CJ₃₃, 3, 1, 0; 2000 CK₃₃, 3, 1, 0; 2000 CL₃₃, 3, 1, 0; 2000 CM₃₃, 3, 1, 0; 2000 CN₃₃, 3, 1, 0; 2000 CO₃₃, 3, 1, 0; 2000 CE₅₉, 2, 1, 0; 2000 CF₅₉, 3, 1, 0; 2000 CG₅₉, 3, 1, 0; 2000 CH₅₉, 2, 1, 0; 2000 CJ₅₉, 3, 1, 0; 2000 CK₅₉, 2, 1, 0; 2000 CL₅₉, 2, 1, 0; 2000 CN₁₀₁, 3, 1, 0; 2000 CO₁₀₁, 3, 1, 0; 2000 CP₁₀₁, 2, 1, 0; 2000 CR₁₀₁, 3, 1, 0; [82, 29, 1*, 2000/01/09–2000/02/16]

652 Sandringham, Calgary

B. Yeung, 139 Sandringham Place NW, Calgary, Alberta T3K 3V8, Canada
[cyber_bill@sprynet.com]

0.35-m $f/7$ Schmidt-Cassegrain + CCD

1981 EB₈, 2, 1, 0; 1991 PD₁₁, 2, 1, 0; 1996 AV₁, 2, 1, 0; 1997 QF, 3, 1, 0; 1998 RJ₄₀, 4, 2, 3; 1998 SX₂₃, 2, 1, 0; 1998 SM₁₁₅, 2, 1, 0; 1998 SX₁₃₂, 2, 1, 0; 1998 SF₁₄₁, 2, 1, 0; 1998 UZ₁₉, 2, 1, 0; 1998 YF₁₂, 2, 1, 0; 1999 XR₁₃₆, 2, 1, 0; 1999 YQ₄, 2, 1, 0; 2000 AK₁₆₂, 5, 2, 1; 2000 AE₂₀₄, 2, 1, 0; 2000 BZ₃ *, 9, 4, 8; 2000 BA₄ *, 13, 5, 8; 2000 BB₄ *, 9, 3, 7; 2000 BY₁₃ *, 6, 3, 11; 2000 CU₂ *, 4, 2, 1; 2000 CV₂ *, 4, 2, 1; 2000 CW₂ *, 8, 3, 13; (6886), 1, 1, 0; (9224), 2, 1, 0; (9416), 2, 1, 0; [94, 25, 7*, 2000/01/24–2000/02/17]

658 Dominion Astrophysical Observatory, Victoria

D. D. Balam, Dept. of Physics, University of Victoria, P.O. Box 3055, Victoria, BC
V8W 3P6, Canada [balam@beluga.phys.uvic.ca]

Observers D. D. Balam, P. Somers

1.82-m Plaskett telescope + CCD

USNO-A2.0

1999 XR₃₅, 2, 1, 0; 2000 AD₂₀₅, 2, 1, 0; 2000 AB₂₄₆, 5, 1, 0; 2000 BD₁₉, 3, 1, 0; 2000 BM₁₉, 3, 1, 0; 2000 BO₂₈, 3, 1, 0; 2000 CK₃₃, 3, 1, 0; 2000 CM₃₃, 3, 1, 0; 2000 CE₅₉, 3, 1, 0; 2000 CH₅₉, 6, 2, 2; 2000 CN₁₀₁, 3, 1, 0; 2000 CO₁₀₁, 5, 2, 1; 2000 CQ₁₀₁, 3, 1, 0; 2000 CR₁₀₁, 2, 1, 0; 2039 T-2, 4, 1, 0; [50, 15, 0*, 1997/04/12–2000/02/15]

670 Camarillo

J. E. Rogers, 441 Rowland Avenue, Camarillo, CA 93010, U.S.A.

[johnrogers@csi.com]

0.30-m $f/6.7$ Helin Telescope + CCD

GSC-1.1

1999 GJ₄, 3, 1, 0; 1999 RH₂₇, 4, 2, 4; 1999 VM₄₀, 5, 2, 4; 1999 YT, 3, 1, 0; 2000 BE₁₉, 5, 2, 1; 2000 BH₁₉, 8, 3, 4; 2000 BJ₁₉, 2, 1, 0; 2000 BK₁₉, 5, 2, 1; 2000 BL₁₉, 3, 2, 3; 2000 BM₁₉, 2, 1, 0; 2000 CK₃₃, 4, 2, 3; 2000 CM₃₃, 5, 2, 3; 2000 CN₃₃, 2, 1, 0; 2000 CO₃₃, 2, 1, 0; 2000 CF₅₉, 5, 2, 1; (1627), 2, 1, 0; (4954), 2, 1, 0; [62, 17, 0*, 2000/01/29–2000/02/07]

675 Palomar

A. Boattini, Istituto di Astrofisica Spaziale, Via Fosso del Cavaliere, I-00133 Rome, Italy [boattini@ias.rm.cnr.it] (1)

E. F. Helin, MS 183-501, Jet Propulsion Laboratory, Pasadena, CA 91109, U.S.A.

[efh@alps.jpl.nasa.gov] (2)

C. S. Shoemaker, P.O. Box 984, Flagstaff, AZ 86002, U.S.A.

[cshoemaker@flagmail.wr.usgs.gov] (3)

C. J. van Houten, Sterrewacht Leiden, Postbus 9513, NL-2300 RA Leiden, The Netherlands [vanhouten@rulh11.leidenuniv.nl] (4)

A. Gnädig, c/o Archenhhold-Sternwarte, Alt-Treptow 1, D-12435 Berlin, Germany [doppler@mind.de] (5)

E. Bowell, Lowell Observatory, 1400 West Mars Hill Road, Flagstaff, AZ 86001, U.S.A. [elgb@lowell.edu] (6)

9 = 6 + 3

Observers T. Gehrels (4, L), E. F. Helin (2, S), K. Lawrence (2, S),

C. S. Shoemaker (3, S), E. M. Shoemaker (3, S)

Measurers A. Boattini (1), G. Forti (1), M. Tombelli (1), L. Tesi (1),

A. Gnädig (5), K. Lawrence (2), B. A. Skiff (6), C. J. van Houten (4), I. van Houten-Groeneveld (4), A. Wisse (4)

1.2-m Oschin Schmidt (L), 0.46-m Schmidt (S)

{1} 2000 BF₁₉, 2, 1, 0; [2, 1, 0*, 1991/10/04]

{2} 1996 XU₁₄, 2, 1, 0; 1999 SV₆, 2, 1, 0; 1999 TN₁, 2, 1, 0; 2000 AU₅₀, 2, 1, 0; 2000 AQ₁₁₇, 2, 1, 0; [10, 5, 0*, 1992/07/05–1993/12/16]

{3} 1999 VW₂₄, 2, 1, 0; [2, 1, 0*, 1992/07/31]

{4} 2059 P-L *, 8, 7, 32; 2214 P-L *, 7, 4, 5; 2633 P-L *, 10, 8, 32; 2652 P-L *, 6, 3, 4; 2685 P-L *, 4, 4, 5; 2710 P-L *, 8, 8, 32; 2739 P-L *, 4, 4, 5; 2752 P-L *, 8, 4, 5; 2774 P-L *, 6, 6, 32; 2782 P-L *, 7, 4, 5; 2831 P-L *, 8, 4, 5; 3037 P-L *, 18, 8, 30; 3062 P-L *, 7, 6, 5; 3069 P-L *, 4, 4, 4; 3514 P-L *, 9, 5, 9; 3521 P-L *, 9, 5, 9; 3555 P-L *, 3, 3, 4; 4057 P-L *, 7, 3, 32; 4201 P-L *, 6, 6, 32; 4252 P-L *, 6, 5, 28; 4279 P-L *, 7, 4, 4; 4289 P-L *, 6, 6, 32; 4536 P-L *, 8, 8, 32; 4540 P-L *, 5, 3, 4; 4749 P-L *, 8, 4, 4; 6258 P-L *, 5, 5, 28; 6260 P-L *, 4, 4, 4; 6312 P-L *, 6, 6, 28; 6678 P-L *, 8, 8, 32; 6759 P-L *, 4, 4, 4; 6861 P-L *, 4, 4, 4; 7595 P-L *, 4, 4, 9; 9554 P-L *, 4, 4, 9; 1075 T-1 *, 5, 4, 3; 1180 T-1 *, 8, 6, 23; 2035 T-1 *, 4, 3, 2; 2083 T-1 *, 4, 3, 2; 2194 T-1 *, 5, 4, 8; 2212 T-1 *, 6, 5, 9; 2236 T-1 *, 10, 8, 51; 2237 T-1 *, 6, 5, 9; 3085 T-1 *, 8, 4, 3; 3097 T-1 *, 5, 4, 8; 3101 T-1 *, 10, 7, 50; 3179 T-1 *, 7, 3, 2; 3225 T-1 *, 11, 8, 53; 3283 T-1 *, 6, 5, 9; 3309 T-1 *, 4, 3, 8; 3312 T-1 *, 6, 5, 9; 4060 T-1 *, 5, 3, 3; 4100 T-1 *, 5, 4, 9; 4133 T-1 *, 9, 7, 51; 4376 T-1 *, 5, 4, 9; 4868 T-1 *, 3, 3, 3; 1013 T-2 *, 13, 7, 15; 1037 T-2 *, 15, 8, 16; 1064 T-2 *, 15, 8, 16; 1118 T-2 *, 12, 6, 16; 1147 T-2 *, 15, 8, 16; 2022 T-2 *, 21, 8, 16; 2234 T-2 *, 14, 8, 16; 3113 T-2 *, 14, 8, 16; 3284 T-2 *, 8, 4, 6; 3322 T-2 *, 7, 4, 6; 4213 T-2 *, 16, 7, 16; 4312 T-2 *, 8, 4, 6; 5071 T-2 *, 12, 6, 14; 5081 T-2 *, 8, 4, 9; 5146 T-2 *, 14, 7, 15; 5151 T-2 *, 14, 7, 15; 1032 T-3 *, 10, 5, 11; 1044 T-3 *, 9, 5, 10; 1096 T-3 *, 9, 5, 10; 1106 T-3 *, 6, 3, 6; 1132 T-3 *, 11, 6, 15; 1184 T-3 *, 15, 7, 15; 2208 T-3 *, 17, 7, 15; 2281 T-3 *, 8, 4, 6; 2353 T-3 *, 6, 3, 5; 2430 T-3 *, 8, 4, 6; 2437 T-3 *, 7, 4, 6; 2616 T-3 *, 9, 5, 10; 3041 T-3 *, 19, 6, 11; 3179 T-3 *, 11, 6, 14; 3258 T-3 *, 13, 7, 15; 3265 T-3 *, 15, 7, 15; 3458 T-3 *, 8, 4, 6; 3466 T-3 *, 12, 7, 15; 3556 T-3 *, 6, 3, 5; 4044 T-3 *, 11, 6, 14; 4055 T-3 *, 10, 5, 10; 4062 T-3 *, 11, 6, 11; 4080 T-3 *, 12, 6, 11; 4240 T-3 *, 10, 5, 10; 4266 T-3 *, 23, 6, 11; 5068 T-3 *, 11, 6, 11; 5121 T-3 *, 12, 6, 11; 5132 T-3 *, 12, 6, 11; 5168 T-3 *, 12, 6, 11; 5184 T-3 *, 7, 4, 6; [887, 100, 100*, 1960/09/24–1977/10/22]

{5} 1990 BB₄, 2, 1, 0; 1990 TZ₁, 2, 1, 0; 1991 RU₄, 2, 1, 0; 1996 KO₁, 2, 1, 0; 1997 EB₅₇, 2, 1, 0; 1998 KJ₁₀, 2, 1, 0; 1998 KS₅₆, 2, 1, 0; 1998 MU₇, 2, 1, 0; 1998 MY₇, 4, 2, 1899; 1998 OA₁₃, 4, 2, 2574; 1998 QB₃₂, 2, 1, 0; 1998 QM₅₄, 2, 1, 0; 1998 QV₈₈, 10, 5, 15010; 1998 QV₈₉, 5, 3, 1305; 1998 QZ₉₀, 8, 4, 2042; 1998 QA₉₁, 4, 2, 1468; 1998 QR₉₁, 2, 1, 0; 1998 QS₉₂, 2, 1, 0; 1998 QX₉₂, 4, 2, 1384; 1998 QN₉₃, 2, 1, 0; 1998 RT₄₆, 4, 2, 2974; 1998 RX₇₂, 1, 1, 0; 1998 SQ₂₂, 4, 2, 2349; 1998 SV₂₆, 5, 3, 13885; 1998 VT₅, 2, 1, 0; 1998 VH₁₈, 4, 2, 13886; 1998 WB₆, 4, 2, 2; 1998 WX₆, 4, 2, 13248; 1998 WN₁₆, 2, 1, 0; 1998 WV₁₉, 4, 2, 1392; 1998 WO₂₂, 2, 2, 1987; 1998 WW₂₃, 2, 1, 0; 1998 YD₅, 2, 1, 0; 1998 YC₁₂, 2, 1, 0; 1998 YH₂₇, 2, 1, 0; 1999 AX₄, 2, 2, 1996; 1999 AS₃, 4, 2, 13530; 1999 AN₄, 1, 1, 0; 1999 AL₈, 6, 3, 2626; 1999 AH₁₈, 1, 1, 0; 1999 AR₂₃, 2, 1, 0; 1999 BE₂, 2, 1, 0; 1999 BE₅, 2, 1, 0; 1999 CR₄, 2, 1, 0; 1999 CC₅, 8, 4, 15910; 1999 CH₅, 2, 1, 0; 1999 CU₅, 2, 1, 0; 1999 CP₃₉, 3, 2, 12847; 1999 CY₅₁, 8, 4, 15273; 1999 CV₈₁, 2, 1, 0; 1999 CO₉₉, 6, 4, 16117; 1999 DH₃, 4, 2, 14; 1999 DV₇, 4, 2, 45; 1999 GX₇, 10, 5, 15995; 1999 JZ₃, 3, 2, 13527; 1999 JT₆₃, 4, 2, 505; 1999 JH₈₁, 4, 2, 441; 1999 MG₁, 7, 4, 2729; 1999 NT₁, 4, 2, 29; 1999 NW₁, 2, 2, 2678; 1999 NN₂, 4, 2, 13730; 1999 NK₆, 4, 2, 473; 1999 NR₁₁, 2, 1, 0; 1999 NG₅₃, 2, 1, 0; 1999 NX₅₄, 3, 2, 1420; 1999 OS₃, 4, 2, 1445; 1999 PZ₄, 2, 362; 1999 RA₃, 2, 493; 1999 RE₁₆, 2, 1, 0; 1999 RO₂₃, 7, 4, 2062; 1999 RC₃₆, 2, 1, 0; 1999 RK₄₀, 2, 1, 0; 1999 RT₈₈, 6, 3, 1968; 1999 RS₉₅, 2, 1, 0; 1999 RW₁₀₀, 2, 1, 0; 1999 RA₁₁₆, 7, 4, 1862; 1999 RL₁₃₀, 2, 1, 0; 1999 VW₁, 6, 3, 13490; 1999 VY₂₅, 2, 1, 0; 1999 VS₃₀, 8, 4, 14993; 1999 VQ₆₀, 4, 2, 1896; 1999 VJ₆₆, 1, 1, 0; 2000 BD₁₉, 2, 1, 0; [287, 83, 0*, 1949/11/25–1997/05/08]

{6} 1998 KD₃₈, 2, 1, 0; 1999 BN₁₂, 2, 1, 0; 2000 AF₅, 2, 1, 0; [6, 3, 0*, 1949/11/19–1955/11/19]

{9} 1990 TJ₈, 2, 1, 0; 1993 TL₄₈, 2, 1, 0; 1997 FV₃, 2, 1, 0; 1997 WB, 1, 1, 0; 1998 AV₅, 2, 1, 0; 1998 RN₇₈, 1, 1, 0; 1998 WX₆, 1, 1, 0; 1999 JT₆₃, 1, 1, 0; 1999 XN₉₆, 2, 1, 0; 1999 YX₁₃, 2, 1, 0; 2000 BV₃, 2, 1, 0; [18, 11, 0*, 1986/03/04–1993/09/23]

681 Calgary

G. W. Billings, 2320 Cherokee Dr NW, Calgary, Alberta T2L 0X7, Canada

[obs681@telusplanet.net]

0.36-m $f/7$ Schmidt-Cassegrain + CCD

USNO-A2.0

1998 SW₇₅, 2, 1, 0; 1998 UY₂₆, 5, 2, 2; 1998 VH₃₄, 6, 2, 6; 2000 AL₂₂₈, 5, 2, 1; 2000 BE₁₉, 6, 1, 0; 2000 BH₁₉, 4, 1, 0; 2000 CB *, 5, 2, 1; 2000 CK₃₃, 5, 1, 0; 2000 CM₃₃, 16, 3, 2; 2000 CN₃₃, 7, 2, 1; 2000 CF₅₉, 6, 1, 0; [67, 11, 1*, 2000/01/19–2000/02/06]

682 Kanab

E. Sheridan, 7205 Sunflower Lane, Kanab, UT 84741, U.S.A.

[mened@xpressweb.com]

0.25-m $f/4$ Schmidt-Cassegrain + CCD

GSC

1983 XE, 3, 1, 0; 1986 TG₁, 3, 1, 0; 1992 BQ₂, 4, 1, 0; 1993 FC₁₃, 6, 2, 1; 1994 PM₂₁, 3, 1, 0; 1995 YH₁₂, 3, 1, 0; 1997 QQ₂, 4, 1, 0; 1998 QN₂₆, 8, 2, 2; 1998 SV₁, 7, 2, 3; 1999 VR₁₀, 8, 2, 1;

1999 VA₃₇, 6, 2, 1; 2000 AF₃₄, 3, 1, 0; 2000 AU₂₄₂, 4, 1, 0; 2000 BY₁₀ *, 11, 3, 3; (677), 3, 1, 0; (1192), 3, 1, 0; [79, 16, 1*, 2000/01/27-2000/02/07]

684 Prescott

P. G. Comba, 1411 Galaxy Lane, Prescott, AZ 86303, U.S.A.

[comba@northlink.com]

0.46-m $f/4.5$ reflector + CCD

GSC

1992 RH₃, 6, 3, 2; 1996 BV₂, 2, 1, 0; 1996 JK₁₃, 4, 2, 1; 1997 JT₃, 7, 3, 2; 1997 LC, 4, 2, 1; 1997 NU₁, 4, 2, 1; 1998 OD₁₃, 2, 1, 0; 1998 PU, 4, 2, 1; 1998 QJ₂, 2, 1, 0; 1998 SR₁₃₉, 4, 2, 1; 1999 XR₁, 4, 2, 1; 1999 XE₁₀₆, 4, 2, 1; 2000 AM₆, 2, 1, 0; 2000 AN₆, 2, 1, 0; 2000 AD₅₄, 2, 1, 0; 2000 AA₈₄, 2, 1, 0; 2000 AV₈₅, 4, 2, 1; 2000 AP₈₆, 2, 1, 0; 2000 AR₂₃₈, 6, 2, 1; 2000 BP *, 8, 4, 3; 2000 BQ *, 5, 2, 1; 2000 BR *, 7, 3, 2; 2000 BF₁ *, 5, 2, 1; 2000 BG₁ *, 4, 2, 1; 2000 BU₁₄ *, 5, 2, 4; 2000 CE *, 4, 2, 1; 2000 CF *, 4, 2, 1; 2000 CG *, 4, 2, 1; 2000 CH *, 6, 3, 7; 2000 CJ *, 6, 3, 6; 2000 CK *, 4, 2, 1; 2000 CL *, 8, 3, 2; 2000 CM *, 4, 2, 1; 2000 CN *, 4, 2, 1; 2000 CO *, 4, 2, 1; 2000 CP *, 5, 2, 1; 2000 CR *, 4, 2, 1; 2000 CS *, 6, 2, 1; 2000 CT *, 4, 2, 1; 2000 CB₄₁, 2, 1, 0; 2000 CC₄₁ *, 4, 2, 1; 2000 CD₄₁ *, 4, 2, 1; 2000 CE₄₁ *, 7, 3, 2; 2000 CF₄₁ *, 4, 2, 1; 2000 CH₄₁ *, 4, 2, 1; 2000 CJ₄₁ *, 5, 2, 1; 2000 CD₅₉, 3, 1, 0; 2000 CL₇₂, 5, 2, 3; 2000 CL₇₇ *, 5, 2, 3; 2000 CM₇₇ *, 5, 2, 3; 2000 CN₇₇ *, 6, 2, 3; 2000 CO₇₇ *, 5, 2, 3; (5618), 3, 1, 0; (7942), 2, 1, 0; [232, 54, 30*, 1999/12/12-2000/02/11]

688 Lowell Observatory, Anderson Mesa Station

M. W. Buie, Lowell Observatory, 1400 West Mars Hill Road, Flagstaff, AZ 86001,

U.S.A. [buie@lowell.edu] (1)

L. H. Wasserman, Lowell Observatory, 1400 West Mars Hill Road, Flagstaff,

AZ 86001, U.S.A. [lhw@lowell.edu] (5)

Observers M. W. Buie, B. A. Skiff, L. H. Wasserman

1.8-m reflector + CCD, 0.8-m reflector + CCD

USNO-A2.0

{1} 1996 BF₁, 4, 1, 0; [4, 1, 0*, 1997/03/13]

{5} 2000 AN₂₃₀, 2, 1, 0; 2000 AO₂₃₀, 2, 1, 0; 2000 AR₂₃₀, 2, 1, 0; 2000 AE₂₃₁ *, 2, 1, 0; [8, 4, 1*, 2000/01/04]

691 Kitt Peak, Steward Observatory

R. S. McMillan, Space Sciences Building, University of Arizona, Tucson, AZ 85721,

U.S.A. [bob@lpl.arizona.edu]

Observers A. E. Gleason, J. V. Scotti, R. S. McMillan, J. L. Montani, J. Larsen,

M. T. Read, T. Gehrels, R. A. Kowalski

0.91-m Spacewatch telescope + CCD

USNO-A1.0, USNO-SA1.0, USNO-SA2.0

1977 DG₃, 6, 2, 9; 1977 RS₁₇, 9, 3, 9; 1978 RX₁, 3, 1, 0; 1978 VZ₈, 3, 1, 0; 1980 SF, 9, 3, 9; 1981 EC₁₄, 6, 2, 8; 1981 EC₁₇, 9, 3, 9; 1981 ER₄₀, 6, 2, 9; 1981 EV₄₅, 6, 2, 8; 1981 QJ₃, 3, 1, 0; 1982 TJ, 6, 2, 6; 1984 BZ₆, 6, 2, 1; 1985 CL₂, 6, 2, 3; 1985 RF₃, 6, 2, 17; 1986 WZ, 3, 1, 0; 1987 CH, 6, 2, 3; 1987 QT, 3, 1, 0; 1988 RH₆, 6, 2, 8; 1988 SL₁, 6, 2, 9; 1989 CB₆, 12, 4, 18; 1989 TU₄, 3, 1, 0; 1990 QF₇, 6, 2, 1; 1990 QA₈, 3, 1, 0; 1990 SX₃, 6, 2, 7; 1990 SW₈, 3, 1, 0; 1990 SU₁₆, 9, 3, 11; 1991 PT₄, 6, 2, 6; 1991 PA₅, 9, 3, 8; 1991 PF₅, 6, 2, 8; 1991 PO₅, 9, 3, 14; 1991 PP₁₂, 3, 1, 0; 1991 PJ₁₅, 3, 1, 0; 1991 QJ, 3, 1, 0; 1991 RV, 9, 3, 39; 1991 RF₁, 6, 2, 6; 1991 RC₂, 9, 3, 9; 1991 RT₉, 3, 1, 0; 1991 RZ₁₁, 6, 2, 1; 1991 RA₁₅, 6, 2, 11; 1991 RG₁₇, 9, 3, 9; 1991 RA₂₄, 3, 1, 0; 1991 TY, 9, 3, 18; 1991 TK₈, 3, 1, 0; 1991 UE₁, 3, 1, 0; 1992 AT₂, 9, 3, 10; 1992 EK₁₂, 3, 1, 0; 1992 EW₁₆, 12, 4, 5; 1992 EV₃₂, 3, 1, 0; 1992 GA, 9, 3, 6; 1992 PU₁, 3, 1, 0; 1992 RB₃, 3, 1, 0; 1992 RO₃, 3, 1, 0; 1992 RG₅, 3, 1, 0; 1993 FV₄, 6, 2, 7; 1993 FS₁₁, 6, 2, 3; 1993 FH₁₂, 3, 1, 0; 1993 FJ₁₂, 3, 1, 0; 1993 FH₁₆, 3, 1, 0; 1993 FE₂₀, 6, 2, 9; 1993 FH₂₀, 3, 1, 0; 1993 FB₃₂, 3, 1, 0; 1993 FH₃₄, 3, 1, 0; 1993 FC₄₆, 6, 2, 10; 1993 GK₁, 3, 1, 0; 1993 HX, 3, 1, 0; 1993 HL₃, 3, 1, 0; 1993 QP₉, 15, 5, 19; 1993 TD₁₇, 3, 1, 0; 1993 TL₂₈, 6, 2, 4; 1993 TU₂₉, 6, 2, 21; 1993 TZ₂₉, 3, 1, 0; 1993 TM₃₁, 3, 1, 0; 1994 BD₄, 6, 2, 4; 1994 EW, 3, 1, 0; 1994 GR₂, 6, 2, 1; 1994 JB, 3, 1, 0; 1994 PF₂, 9, 3, 18; 1994 PU₂, 9, 3, 16; 1994 PL₃, 12, 4, 18; 1994 PK₈, 3, 1, 0; 1994 PS₁₀, 6, 2, 5; 1994 PL₁₂, 3, 1, 0; 1994 PM₁₄, 6, 2, 4; 1994 PQ₁₅, 6, 2, 15; 1994 PE₁₆, 6, 2, 9; 1994 PE₂₀, 3, 1, 0; 1994 PX₂₀, 6, 2, 4; 1994 PA₃₆, 3, 1, 0; 1994 PK₃₇, 3, 1, 0; 1994 PY₃₇, 12, 3, 17; 1994 RV, 3, 1, 0; 1994 VE₁, 3, 1, 0; 1995 BJ₁₁, 3, 1, 0; 1995 BW₁₁, 3, 1, 0; 1995 CJ, 6, 2, 12; 1995 DR₁₃, 9, 3, 9; 1995 FA₈, 6, 2, 8; 1995 QB₂, 6, 2, 14; 1995 QC₆, 6, 2, 5; 1995 SE₁, 3, 1, 0; 1995 SX₄, 3, 1, 0; 1995 SO₅₄, 6, 2, 3; 1995 TA₁, 3, 1, 0; 1995 TS₃, 3, 1, 0; 1995 WK₄, 6, 2, 6; 1995 YS₂, 3, 1, 0; 1996 DL₁, 9, 3, 12; 1996 HR₁₀, 6, 2, 5; 1996 HC₁₂, 3, 1, 0; 1996 HY₁₇, 6, 2,

4; 1996 HW₂₀, 9, 3, 13; 1996 JC, 3, 1, 0; 1996 JX₇, 6, 2, 6; 1997 CT₁₆, 9, 3, 12; 1997 CL₂₆, 3, 1, 0; 1997 ER₂₅, 3, 1, 0; 1997 EF₃₂, 3, 1, 0; 1997 EB₅₄, 3, 1, 0; 1997 FG₄, 3, 1, 0; 1997 GA₁₄, 6, 2, 3; 1997 GK₁₇, 3, 1, 0; 1997 GX₂₂, 9, 2, 7; 1997 GO₂₈, 6, 2, 2; 1997 GO₄₀, 3, 1, 0; 1997 HR₁₀, 3, 1, 0; 1997 JL, 9, 2, 10; 1997 JJ₁₄, 3, 1, 0; 1997 JH₁₈, 3, 1, 0; 1997 LO₃, 6, 2, 7; 1997 MS₃, 15, 5, 13; 1997 MV₄, 9, 3, 10; 1997 MY₄, 6, 2, 9; 1997 MC₈, 3, 1, 0; 1997 OM, 3, 1, 0; 1997 PZ₁, 3, 1, 0; 1997 QS₄, 3, 1, 0; 1997 RQ₅, 3, 1, 0; 1997 RJ₇, 9, 3, 11; 1998 EW₁₂, 3, 1, 0; 1998 FP₁₀, 3, 1, 0; 1998 FK₆₅, 3, 1, 0; 1998 HO₃, 6, 2, 2; 1998 HK₁₄₈, 3, 1, 0; 1998 KY₄₆, 3, 1, 0; 1998 KG₆₄, 3, 1, 0; 1998 MW₁₃, 3, 1, 0; 1998 MN₁₆, 9, 3, 8; 1998 ML₃₁, 3, 1, 0; 1998 OT₁, 3, 1, 0; 1998 OQ₁₀, 9, 2, 15; 1998 OQ₁₁, 9, 3, 9; 1998 OA₁₃, 3, 1, 0; 1998 OR₁₃, 6, 2, 8; 1998 PJ, 9, 3, 9; 1998 PU, 3, 1, 0; 1998 QK₁, 3, 1, 0; 1998 QS₁₃, 6, 2, 5; 1998 QU₁₃, 6, 2, 9; 1998 QB₂₆, 3, 1, 0; 1998 QM₂₈, 9, 3, 9; 1998 QL₃₀, 3, 1, 0; 1998 QU₃₇, 3, 1, 0; 1998 QY₃₇, 3, 1, 0; 1998 QL₃₈, 3, 1, 0; 1998 QE₃₉, 6, 2, 6; 1998 QK₃₉, 9, 3, 11; 1998 QU₄₄, 3, 1, 0; 1998 QN₄₆, 6, 2, 9; 1998 QE₅₁, 3, 1, 0; 1998 QT₅₁, 3, 1, 0; 1998 QE₅₄, 9, 3, 16; 1998 QZ₅₅, 6, 2, 4; 1998 QL₆₃, 3, 1, 0; 1998 QS₇₇, 3, 1, 0; 1998 QS₈₅, 6, 2, 6; 1998 QC₉₈, 6, 2, 4; 1998 QK₁₀₄, 6, 2, 7; 1998 RG, 3, 1, 0; 1998 RH₁₆, 3, 1, 0; 1998 RM₃₄, 3, 1, 0; 1998 RB₄₃, 6, 2, 9; 1998 RP₄₄, 6, 1, 0; 1998 RT₄₆, 6, 2, 9; 1998 RK₄₇, 9, 3, 9; 1998 RO₄₉, 3, 1, 0; 1998 RJ₅₀, 6, 2, 2; 1998 RL₅₄, 3, 1, 0; 1998 RN₅₄, 6, 2, 14; 1998 RK₅₅, 3, 1, 0; 1998 RF₅₅, 3, 1, 0; 1998 RZ₅₅, 15, 5, 9; 1998 RT₅₆, 3, 1, 0; 1998 RN₅₇, 6, 2, 8; 1998 RN₅₈, 6, 2, 6; 1998 RW₆₀, 9, 3, 14; 1998 RX₆₂, 6, 2, 5; 1998 RU₆₅, 3, 1, 0; 1998 RW₆₅, 3, 1, 0; 1998 RV₆₅, 6, 2, 5; 1998 RG₆₇, 3, 1, 0; 1998 RD₆₉, 3, 1, 0; 1998 RH₆₉, 3, 1, 0; 1998 RT₇₀, 3, 1, 0; 1998 RW₇₀, 3, 1, 0; 1998 RB₇₁, 6, 2, 4; 1998 RE₇₁, 6, 2, 7; 1998 RF₇₁, 3, 1, 0; 1998 RD₇₂, 3, 1, 0; 1998 RT₇₄, 3, 1, 0; 1998 RV₇₄, 3, 1, 0; 1998 RC₇₈, 3, 1, 0; 1998 RX₇₈, 6, 2, 9; 1998 SN₂, 3, 1, 0; 1998 SU₂, 3, 1, 0; 1998 SL₄, 3, 1, 0; 1998 SQ₁₃, 3, 1, 0; 1998 SO₁₆, 6, 2, 5; 1998 SX₂₁, 9, 3, 19; 1998 SX₂₄, 3, 1, 0; 1998 SE₂₄, 3, 1, 0; 1998 SN₂₅, 3, 1, 0; 1998 SM₄₉, 9, 3, 11; 1998 SM₅₆, 6, 2, 4; 1998 SN₅₈, 3, 1, 0; 1998 SY₅₉, 3, 1, 0; 1998 SR₆₃, 6, 2, 6; 1998 SQ₇₀, 12, 4, 16; 1998 SL₇₁, 6, 2, 11; 1998 SB₇₄, 3, 1, 0; 1998 SU₉₀, 6, 2, 6; 1998 SR₉₇, 6, 2, 4; 1998 SV₁₁₄, 15, 4, 19; 1998 SJ₁₁₅, 3, 1, 0; 1998 SM₁₁₅, 12, 4, 11; 1998 SP₁₁₅, 3, 1, 0; 1998 SS₁₁₇, 6, 2, 8; 1998 SC₁₁₈, 3, 1, 0; 1998 SR₁₂₄, 3, 1, 0; 1998 SU₁₂₄, 6, 2, 14; 1998 SC₁₂₇, 6, 2, 1; 1998 SN₁₂₉, 6, 2, 5; 1998 SA₁₃₀, 6, 2, 4; 1998 SS₁₃₀, 3, 1, 0; 1998 SL₁₃₁, 3, 1, 0; 1998 SJ₁₃₂, 3, 1, 0; 1998 ST₁₃₂, 3, 1, 0; 1998 SX₁₃₂, 6, 2, 4; 1998 SH₁₃₄, 3, 1, 0; 1998 SV₁₃₄, 6, 2, 4; 1998 ST₁₄₂, 6, 2, 2; 1998 SB₁₄₄, 6, 2, 10; 1998 SQ₁₄₄, 3, 1, 0; 1998 ST₁₄₅, 3, 1, 0; 1998 SX₁₄₇, 3, 1, 0; 1998 SG₁₅₀, 6, 2, 4; 1998 SC₁₅₂, 6, 2, 6; 1998 SD₁₅₉, 6, 2, 9; 1998 SE₁₆₃, 6, 2, 15; 1998 TD₁, 6, 2, 4; 1998 TB₄, 6, 2, 4; 1998 TN₄, 6, 2, 4; 1998 TH₅, 18, 6, 19; 1998 TQ₁₂, 3, 1, 0; 1998 TY₂₀, 6, 2, 9; 1998 TH₂₉, 3, 1, 0; 1998 TV₃₀, 3, 1, 0; 1998 TM₃₂, 15, 5, 15; 1998 TR₃₃, 3, 1, 0; 1998 TH₃₅, 3, 1, 0; 1998 TJ₃₅, 3, 1, 0; 1998 TK₃₅, 3, 1, 0; 1998 TL₃₅, 3, 1, 0; 1998 TM₃₅ *, 6, 2, 5; 1998 TN₃₅ *, 6, 2, 5; 1998 TO₃₅ *, 6, 2, 5; 1998 TP₃₅, 3, 1, 0; 1998 TS₃₅, 3, 1, 0; 1998 TT₃₅ *, 6, 2, 5; 1998 TV₃₅ *, 3, 1, 0; 1998 TV₃₅ *, 3, 1, 0; 1998 TX₃₅ *, 3, 1, 0; 1998 TY₃₅ *, 3, 1, 0; 1998 TZ₃₅ *, 3, 1, 0; 1998 TA₃₆ *, 3, 1, 0; 1998 TB₃₆ *, 3, 1, 0; 1998 TC₃₆ *, 6, 2, 5; 1998 TD₃₆, 3, 1, 0; 1998 TE₃₆, 3, 1, 0; 1998 TF₃₆, 3, 1, 0; 1998 UB₁, 6, 2, 7; 1998 UK₁, 3, 1, 0; 1998 UX₁, 6, 2, 2; 1998 UC₃, 9, 3, 9; 1998 UO₆, 6, 2, 6; 1998 UV₆, 6, 2, 6; 1998 UZ₁₉, 3, 1, 0; 1998 UR₂₀, 3, 1, 0; 1998 UZ₂₇, 3, 1, 0; 1998 UG₃₄, 9, 3, 17; 1998 UO₄₀, 9, 3, 6; 1998 UE₄₄ *, 6, 2, 4; 1998 UF₄₄ *, 6, 2, 11; 1998 UG₄₄ *, 3, 1, 0; 1998 UH₄₄ *, 3, 1, 0; 1998 UJ₄₄, 2, 1, 0; 1998 UK₄₄, 2, 1, 0; 1998 UL₄₄ *, 3, 1, 0; 1998 UM₄₄, 3, 1, 0; 1998 UN₄₄, 3, 1, 0; 1998 UO₄₄, 3, 1, 0; 1998 UP₄₄, 3, 1, 0; 1998 UQ₄₄ *, 3, 1, 0; 1998 UR₄₄, 3, 1, 0; 1998 US₄₄, 3, 1, 0; 1998 UX₄₄ *, 3, 1, 0; 1998 UA₄₅ *, 6, 2, 6; 1998 UB₄₅ *, 6, 2, 6; 1998 UC₄₅, 3, 1, 0; 1998 UE₄₅ *, 5, 2, 6; 1998 UF₄₅ *, 5, 2, 6; 1998 UG₄₅ *, 5, 2, 6; 1998 UH₄₅ *, 6, 2, 6; 1998 UJ₄₅ *, 6, 2, 6; 1998 UK₄₅ *, 6, 2, 6; 1998 UL₄₅ *, 6, 2, 6; 1998 UM₄₅ *, 6, 2, 6; 1998 UN₄₅ *, 6, 2, 5; 1998 UO₄₅ *, 6, 2, 6; 1998 UP₄₅, 3, 1, 0; 1998 UQ₄₅ *, 6, 2, 4; 1998 UR₄₅ *, 6, 2, 4; 1998 US₄₅ *, 6, 2, 4; 1998 UT₄₅ *, 6, 2, 4; 1998 UU₄₅ *, 6, 2, 4; 1998 UV₄₅ *, 6, 2, 4; 1998 UW₄₅ *, 6, 2, 4; 1998 UX₄₅ *, 6, 2, 4; 1998 UY₄₅ *, 6, 2, 4; 1998 UZ₄₅ *, 6, 2, 4; 1998 UA₄₆ *, 6, 2, 4; 1998 UB₄₆ *, 6, 2, 4; 1998 UC₄₆ *, 6, 2, 4; 1998 UD₄₆ *, 6, 2, 4; 1998 UE₄₆ *, 6, 2, 4; 1998 UF₄₆ *, 6, 2, 4; 1998 UG₄₆ *, 6, 2, 4; 1998 UH₄₆ *, 6, 2, 4; 1998 UJ₄₆ *, 6, 2, 4; 1998 UK₄₆ *, 6, 2, 4; 1998 UL₄₆ *, 6, 2, 4; 1998 UM₄₆ *, 6, 2, 4; 1998 UN₄₆ *, 6, 2, 4; 1998 UO₄₆ *, 6, 2, 4; 1998 UP₄₆ *, 6, 2, 4; 1998 UQ₄₆ *, 6, 2, 4; 1998 UR₄₆ *, 6, 2, 4; 1998 US₄₆ *, 6, 2, 4; 1998 UT₄₆ *, 6, 2, 5; 1998 UU₄₆ *, 6, 2, 4; 1998 UV₄₆ *, 6, 2, 5; 1998 UW₄₆ *, 6, 2, 4; 1998 UX₄₆ *, 6, 2, 4; 1998 UY₄₆ *, 6, 2, 4; 1998 UZ₄₆ *, 6, 2, 5; 1998 UA₄₇ *, 6, 2, 5; 1998 UB₄₇ *, 3, 1, 0; 1998 UC₄₇ *, 5, 2, 5; 1998 UD₄₇ *, 5, 2, 5; 1998 UE₄₇ *, 5, 2, 5; 1998 UF₄₇ *, 5, 2, 5; 1998 UG₄₇ *, 5, 2, 5; 1998 UH₄₇ *, 5, 2, 5; 1998 UJ₄₇ *, 5, 2, 5; 1998 UK₄₇ *, 5, 2, 5; 1998 UL₄₇ *, 6, 2, 3; 1998 UM₄₇ *, 6, 2, 3; 1998 UN₄₇ *, 6, 2, 3; 1998 UO₄₇ *, 6, 2, 3; 1998 UP₄₇ *, 6, 2, 1; 1998 UQ₄₇ *, 3, 1, 0; 1998 UR₄₇ *, 6, 2, 1; 1998 US₄₇ *, 3, 1, 0; 1998 UB₄₈, 9, 3, 9; 1998 VF₆, 3, 1, 0; 1998 VW₈, 12, 4, 16; 1998 VZ₁₀, 3, 1, 0; 1998 VC₁₁, 3, 1, 0; 1998 VW₁₂, 6, 2, 7; 1998 VL₁₃, 3, 1, 0; 1998 VO₁₃, 3, 1, 0; 1998 VQ₁₃, 3, 1, 0; 1998 VN₁₄, 3, 1, 0; 1998 VR₁₄, 3, 1, 0; 1998 VA₁₅, 3, 1, 0; 1998 VH₁₇, 3, 1, 0; 1998 VQ₁₇, 3, 1, 0; 1998 VA₁₉, 3, 1, 0; 1998 VC₁₉, 3, 1, 0; 1998 VN₂₁, 6, 2, 11; 1998 VS₂₁, 6, 2, 6; 1998 VM₂₅, 3, 1, 0; 1998 VH₃₄, 9, 3, 16; 1998 VR₃₄, 6, 2, 8; 1998 VX₃₆, 3, 1, 0; 1998 VT₄₂, 3, 1, 0; 1998 WO₁, 6, 2, 8; 1998 WN₅, 12, 4, 16; 1998 WR₉, 3, 1, 0; 1998 WN₁₁, 6, 2, 5; 1998 WZ₂₁, 3, 1, 0; 1998 WO₂₅, 3, 1, 0; 1998 WV₂₈, 3, 1, 0; 1998 XL₅, 3, 1, 0; 1998 XT₇, 5, 2, 5; 1998 XU₂₀, 3, 1, 0; 1998 XN₂₄, 6, 2, 3; 1998 YS_{4</}

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1999 RV₄₀, 3, 1, 0; 1999 RJ₄₁, 3, 1, 0; 1999 RT₄₃, 3, 1, 0; 1999 RK₄₄, 3, 1, 0; 1999 RR₄₄, 3, 1, 0; 1999 RS₄₅, 3, 1, 0; 1999 RR₄₉, 6, 1, 0; 1999 RU₄₉, 3, 1, 0; 1999 RZ₇₅, 3, 1, 0; 1999 RX₈₁, 3, 1, 0; 1999 RJ₈₂, 6, 2, 4; 1999 RA₈₂, 9, 3, 30; 1999 RA₈₃, 3, 1, 0; 1999 RJ₈₄, 9, 3, 31; 1999 RS₈₄, 3, 1, 0; 1999 RK₈₅, 3, 1, 0; 1999 RD₈₅, 3, 1, 0; 1999 RL₈₇, 6, 2, 1; 1999 RW₈₈, 3, 1, 0; 1999 RH₉₇, 3, 1, 0; 1999 RF₁₀₄, 6, 2, 2; 1999 RD₁₀₆, 6, 2, 1; 1999 RV₁₃₃, 3, 1, 0; 1999 RY₁₄₁, 3, 1, 0; 1999 RT₁₄₃, 3, 1, 0; 1999 RV₁₄₃, 3, 1, 0; 1999 RW₁₄₃, 6, 2, 3; 1999 RS₁₅₆, 3, 1, 0; 1999 RC₁₆₁, 3, 1, 0; 1999 RW₁₆₉, 6, 2, 4; 1999 RQ₁₇₄, 3, 1, 0; 1999 RO₁₇₅, 3, 1, 0; 1999 RP₁₇₅, 3, 1, 0; 1999 RG₁₇₆, 3, 1, 0; 1999 RH₁₇₆, 3, 1, 0; 1999 RK₁₇₆, 3, 1, 0; 1999 RM₁₇₆, 3, 1, 0; 1999 RN₁₇₆, 3, 1, 0; 1999 RQ₁₇₆, 3, 1, 0; 1999 RC₁₇₇, 3, 1, 0; 1999 RJ₁₇₇, 3, 1, 0; 1999 RF₁₈₂, 3, 1, 0; 1999 RN₁₈₂, 6, 2, 6; 1999 RV₁₈₂, 6, 2, 2; 1999 RW₁₈₂, 3, 1, 0; 1999 RX₁₈₇, 3, 1, 0; 1999 RY₁₈₈, 3, 1, 0; 1999 RY₁₈₉, 6, 2, 6; 1999 RH₂₁₃, 3, 1, 0; 1999 RD₂₁₄, 3, 1, 0; 1999 RF₂₁₄, 3, 1, 0; 1999 TF₃, 3, 1, 0; 1999 TG₃, 3, 1, 0; 1999 TH₃, 3, 1, 0; 1999 TJ₃, 3, 1, 0; 1999 TE₆, 3, 1, 0; 1999 TB₁₁, 3, 1, 0; 1999 TW₈, 3, 1, 0; 1999 TX₈, 6, 2, 2; 1999 TZ₈, 3, 1, 0; 1999 TN₁₀, 3, 1, 0; 1999 TO₁₁, 3, 1, 0; 1999 TD₁₃, 3, 1, 0; 1999 TR₁₃, 3, 1, 0; 1999 TE₁₅, 3, 1, 0; 1999 TB₁₆, 3, 1, 0; 1999 TK₁₆, 3, 1, 0; 1999 TA₂₁, 3, 1, 0; 1999 TB₂₁, 3, 1, 0; 1999 TP₂₁, 3, 1, 0; 1999 TT₂₁, 6, 2, 32; 1999 TU₂₁, 3, 1, 0; 1999 TV₂₄, 3, 1, 0; 1999 TX₂₄, 6, 2, 2; 1999 TT₂₅, 3, 1, 0; 1999 TN₂₆, 12, 4, 7; 1999 TQ₂₆, 6, 2, 3; 1999 TT₂₆, 6, 2, 5; 1999 TK₂₇, 3, 1, 0; 1999 TN₂₇, 6, 2, 2; 1999 TF₂₈, 3, 1, 0; 1999 TD₃₅, 6, 2, 3; 1999 TV₃₅, 3, 1, 0; 1999 UN₁, 3, 1, 0; 1999 UF₃, 3, 1, 0; 1999 UC₄, 3, 1, 0; 1999 UN₆, 3, 1, 0; 1999 US₈, 6, 2, 1; 1999 UT₁₁, 3, 1, 0; 1999 UU₁₁, 3, 1, 0; 1999 UA₁₂, 3, 1, 0; 1999 UH₁₂, 3, 1, 0; 1999 US₁₇, 3, 1, 0; 1999 UM₁₈, 3, 1, 0; 1999 UV₁₈, 3, 1, 0; 1999 UZ₁₈, 3, 1, 0; 1999 UC₁₉, 3, 1, 0; 1999 UD₁₉, 3, 1, 0; 1999 UO₂₀, 3, 1, 0; 1999 UH₂₀, 3, 1, 0; 1999 UK₂₅, 6, 2, 2; 1999 UJ₂₆, 3, 1, 0; 1999 UM₂₆, 3, 1, 0; 1999 UF₂₇, 3, 1, 0; 1999 UG₂₇, 3, 1, 0; 1999 UP₂₇, 3, 1, 0; 1999 UQ₂₇, 6, 2, 4; 1999 UT₂₇, 3, 1, 0; 1999 UX₂₇, 3, 1, 0; 1999 UZ₂₇, 9, 3, 30; 1999 UD₂₈, 6, 2, 30; 1999 UK₂₈, 3, 1, 0; 1999 UM₂₈, 3, 1, 0; 1999 UO₂₈, 3, 1, 0; 1999 UV₂₈, 3, 1, 0; 1999 UZ₂₈, 3, 1, 0; 1999 UB₂₉, 3, 1, 0; 1999 UQ₂₉, 3, 1, 0; 1999 UR₂₉, 3, 1, 0; 1999 UA₃₀, 3, 1, 0; 1999 UF₃₀, 3, 1, 0; 1999 UO₃₁, 3, 1, 0; 1999 UP₃₁, 3, 1, 0; 1999 UQ₃₅, 3, 1, 0; 1999 US₃₅, 3, 1, 0; 1999 UO₃₅, 3, 1, 0; 1999 UF₃₆ * 6, 2, 3; 1999 UG₃₆ * 6, 2, 3; 1999 UH₃₆ * 6, 2, 3; 1999 UJ₃₆ * 6, 2, 3; 1999 UK₃₆ * 6, 2, 3; 1999 UL₃₆ * 6, 2, 3; 1999 UM₃₆ * 6, 2, 3; 1999 UN₃₆ * 6, 2, 3; 1999 UO₃₆ * 6, 2, 3; 1999 UP₃₆ * 6, 2, 3; 1999 UQ₃₆ * 6, 2, 3; 1999 UR₃₆ * 6, 2, 3; 1999 US₃₆ * 6, 2, 3; 1999 UT₃₆ * 6, 2, 3; 1999 UV₃₆ * 6, 2, 3; 1999 UZ₃₆ * 6, 2, 3; 1999 UW₃₆ * 6, 2, 2; 1999 UX₃₆ * 6, 2, 2; 1999 UY₃₆ * 6, 2, 2; 1999 UZ₃₆ * 6, 2, 2; 1999 UA₃₇ * 9, 2, 1; 1999 UB₃₇ * 9, 2, 1; 1999 UC₃₇ * 9, 2, 1; 1999 UD₃₇ * 9, 2, 1; 1999 UE₃₇ * 6, 2, 1; 1999 UF₃₇ * 6, 2, 1; 1999 UG₃₇ * 6, 2, 1; 1999 UH₃₇ * 6, 2, 1; 1999 UJ₃₇ * 6, 2, 1; 1999 UK₃₇ * 6, 2, 1; 1999 UL₃₇ * 6, 2, 1; 1999 UM₃₇ * 6, 2, 1; 1999 UN₃₇ * 6, 2, 1; 1999 UO₃₇ * 6, 2, 1; 1999 UP₃₇ * 6, 2, 1; 1999 UQ₃₇ * 6, 2, 1; 1999 UR₃₇ * 6, 2, 1; 1999 US₃₇ * 6, 2, 1; 1999 UT₃₇ * 6, 2, 1; 1999 UZ₃₇ * 6, 2, 1; 1999 UA₃₈ * 6, 2, 1; 1999 UB₃₈ * 6, 2, 1; 1999 UC₃₈ * 6, 2, 1; 1999 UD₃₈ * 6, 2, 1; 1999 UE₃₈ * 6, 2, 1; 1999 UF₃₈ * 6, 2, 1; 1999 UG₃₈ * 6, 2, 1; 1999 UH

[illegible]

5; 1999 VL₁₅₃ *, 6, 2, 5; 1999 VM₁₅₃ *, 6, 2, 5; 1999 VN₁₅₃ *, 6, 2, 5; 1999 VO₁₅₃ *, 6, 2, 5; 1999 VP₁₅₃ *, 6, 2, 5; 1999 VQ₁₅₃ *, 6, 2, 5; 1999 VR₁₅₃ *, 6, 2, 5; 1999 VS₁₅₃ *, 6, 2, 5; 1999 VT₁₅₃ *, 6, 2, 5; 1999 VU₁₅₃ *, 6, 2, 5; 1999 VV₁₅₃ *, 6, 2, 5; 1999 VW₁₅₃ *, 9, 3, 2; 1999 VE₁₅₄ *, 6, 2, 7; 1999 VF₁₅₄ *, 6, 2, 6; 1999 VG₁₅₄ *, 6, 2, 5; 1999 VH₁₅₄ *, 6, 2, 5; 1999 VJ₁₅₄ *, 6, 2, 5; 1999 VK₁₅₄ *, 6, 2, 5; 1999 VL₁₅₄ *, 6, 2, 5; 1999 VM₁₅₄ *, 6, 2, 5; 1999 VN₁₅₄ *, 6, 2, 5; 1999 VO₁₅₄ *, 6, 2, 5; 1999 VP₁₅₄ *, 6, 2, 5; 1999 VQ₁₅₄ *, 6, 2, 5; 1999 VR₁₅₄ *, 6, 2, 5; 1999 VS₁₅₄ *, 6, 2, 5; 1999 VT₁₅₄ *, 6, 2, 5; 1999 VU₁₅₄ *, 6, 2, 5; 1999 VV₁₅₄ *, 6, 2, 4; 1999 VW₁₅₄ *, 6, 2, 4; 1999 VX₁₅₄ *, 6, 2, 4; 1999 VY₁₅₄ *, 6, 2, 4; 1999 VZ₁₅₄ *, 6, 2, 4; 1999 VA₁₅₅ *, 6, 2, 4; 1999 VB₁₅₅ *, 6, 2, 4; 1999 VC₁₅₅ *, 6, 2, 4; 1999 VD₁₅₅ *, 6, 2, 4; 1999 VE₁₅₅ *, 6, 2, 4; 1999 VF₁₅₅ *, 6, 2, 4; 1999 VG₁₅₅ *, 6, 2, 4; 1999 VH₁₅₅ *, 6, 2, 3; 1999 VJ₁₅₅ *, 6, 2, 2; 1999 VK₁₅₅ *, 6, 2, 2; 1999 VL₁₅₅ *, 6, 2, 2; 1999 VM₁₅₅ *, 6, 2, 2; 1999 WB₃, 3, 1, 0; 1999 WG₁, 3, 1, 0; 1999 WG₂, 3, 1, 0; 1999 WG₁₀, 3, 1, 0; 1999 WA₁₁, 3, 1, 0; 1999 WS₁₁, 3, 1, 0; 1999 WB₁₄, 3, 1, 0; 1999 WP₁₄, 3, 1, 0; 1999 WZ₁₄, 3, 1, 0; 1999 WJ₁₅, 3, 1, 0; 1999 WN₁₅, 3, 1, 0; 1999 WW₁₅, 3, 1, 0; 1999 WA₁₈, 6, 2, 5; 1999 WR₁₈, 6, 2, 29; 1999 WU₁₈, 3, 1, 0; 1999 WV₁₈, 3, 1, 0; 1999 WR₁₉ *, 6, 2, 1; 1999 WS₁₉ *, 6, 2, 1; 1999 WT₁₉ *, 6, 2, 1; 1999 WU₁₉ *, 6, 2, 1; 1999 WV₁₉ *, 6, 2, 1; 1999 XB₃, 3, 1, 0; 1999 XM₄, 3, 1, 0; 1999 XX₁₅, 6, 2, 5; 1999 XY₁₅, 3, 1, 0; 1999 XE₁₈, 3, 1, 0; 1999 XJ₁₈, 3, 1, 0; 1999 XN₁₉, 3, 1, 0; 1999 XZ₂₁, 6, 2, 9; 1999 XE₂₂, 6, 2, 11; 1999 XZ₂₃, 3, 1, 0; 1999 XJ₂₄, 3, 1, 0; 1999 XD₂₅, 3, 1, 0; 1999 XU₂₆, 3, 1, 0; 1999 XN₂₇, 3, 1, 0; 1999 XO₂₇, 3, 1, 0; 1999 XP₂₇, 3, 1, 0; 1999 XT₂₇, 3, 1, 0; 1999 XO₃₂, 3, 1, 0; 1999 XC₃₃, 3, 1, 0; 1999 XU₃₃, 3, 1, 0; 1999 XA₃₄, 12, 4, 16; 1999 XD₃₄, 3, 1, 0; 1999 XP₃₄, 3, 1, 0; 1999 XX₃₄, 6, 2, 9; 1999 XC₃₉, 3, 1, 0; 1999 XU₄₄, 3, 1, 0; 1999 XX₄₄, 3, 1, 0; 1999 XY₄₄, 3, 1, 0; 1999 XE₄₅, 3, 1, 0; 1999 XJ₄₅, 3, 1, 0; 1999 XL₄₅, 3, 1, 0; 1999 XA₅₅, 6, 2, 8; 1999 XS₆₉, 3, 1, 0; 1999 XR₇₆, 9, 3, 19; 1999 XV₇₆, 6, 2, 19; 1999 XD₇₇, 3, 1, 0; 1999 XC₈₅, 3, 1, 0; 1999 XD₈₅, 6, 2, 4; 1999 XQ₈₅, 6, 2, 11; 1999 XZ₈₅, 3, 1, 0; 1999 XK₈₇, 6, 2, 31; 1999 XJ₈₇, 3, 1, 0; 1999 XY₈₈, 3, 1, 0; 1999 XH₈₉, 3, 1, 0; 1999 XS₈₉, 3, 1, 0; 1999 XY₈₉, 3, 1, 0; 1999 XE₉₀, 3, 1, 0; 1999 XW₉₀, 3, 1, 0; 1999 XA₉₁, 6, 2, 13; 1999 XJ₉₁, 12, 4, 469; 1999 XT₉₁, 3, 1, 0; 1999 XB₉₂, 3, 1, 0; 1999 XP₉₂, 3, 1, 0; 1999 XW₉₃, 3, 1, 0; 1999 XD₉₄, 3, 1, 0; 1999 XM₉₄, 3, 1, 0; 1999 XT₉₆, 3, 1, 0; 1999 XB₉₈, 3, 1, 0; 1999 XB₁₀₁, 3, 1, 0; 1999 XD₁₀₁, 3, 1, 0; 1999 XK₁₀₁, 3, 1, 0; 1999 XX₁₀₁, 6, 2, 10; 1999 XZ₁₀₁, 3, 1, 0; 1999 XA₁₀₂, 3, 1, 0; 1999 XQ₁₀₂, 3, 1, 0; 1999 XR₁₀₂, 6, 2, 7; 1999 XT₁₀₃, 3, 1, 0; 1999 XV₁₀₃, 3, 1, 0; 1999 XE₁₀₇, 3, 1, 0; 1999 XK₁₀₇, 3, 1, 0; 1999 XR₁₀₇, 3, 1, 0; 1999 XU₁₀₉, 3, 1, 0; 1999 XE₁₁₀, 6, 2, 29; 1999 XK₁₁₀, 6, 2, 32; 1999 XY₁₁₀, 3, 1, 0; 1999 XJ₁₂₇, 3, 1, 0; 1999 XW₁₃₃, 3, 1, 0; 1999 XR₁₃₆, 3, 1, 0; 1999 XB₁₃₈, 3, 1, 0; 1999 XH₁₃₉, 3, 1, 0; 1999 XU₁₃₉, 3, 1, 0; 1999 XV₁₃₉, 3, 1, 0; 1999 XB₁₄₀, 6, 2, 11; 1999 XS₁₄₀, 3, 1, 0; 1999 XO₁₄₁, 3, 1, 0; 1999 XL₁₄₅, 3, 1, 0; 1999 XO₁₄₇, 3, 1, 0; 1999 XW₁₅₁, 3, 1, 0; 1999 XX₁₅₁, 6, 2, 5; 1999 XJ₁₅₆, 3, 1, 0; 1999 XG₁₆₃, 9, 3, 11; 1999 XX₁₆₃, 3, 1, 0; 1999 XW₁₆₄, 3, 1, 0; 1999 XX₁₆₄, 3, 1, 0; 1999 XJ₁₆₅, 9, 3, 16; 1999 XW₁₇₂, 9, 3, 8; 1999 XW₁₇₃, 3, 1, 0; 1999 XO₁₇₄, 3, 1, 0; 1999 XP₁₇₄, 3, 1, 0; 1999 XH₁₇₅, 6, 2, 6; 1999 XK₁₇₆, 3, 1, 0; 1999 XV₁₇₆, 9, 3, 15; 1999 XQ₁₇₈, 3, 1, 0; 1999 XY₁₈₇, 3, 1, 0; 1999 XQ₂₁₆, 3, 1, 0; 1999 XL₂₁₈, 3, 1, 0; 1999 XW₂₁₈, 3, 1, 0; 1999 XZ₂₂₃, 6, 2, 6; 1999 XY₂₂₃, 3, 1, 0; 1999 XG₂₂₄, 6, 2, 10; 1999 XN₂₂₄, 3, 1, 0; 1999 XY₂₂₄, 3, 1, 0; 1999 XC₂₂₆, 3, 1, 0; 1999 XF₂₂₆, 3, 1, 0; 1999 XF₂₂₇, 3, 1, 0; 1999 XM₂₂₇, 3, 1, 0; 1999 XS₂₂₈, 3, 1, 0; 1999 XG₂₂₉, 3, 1, 0; 1999 YO₂, 3, 1, 0; 1999 YV₂, 3, 1, 0; 1999 YF₉, 9, 3, 16; 1999 YG₉, 12, 4, 14; 1999 YH₁₃, 3, 1, 0; 1999 YT₁₃, 9, 2, 2; 1999 YV₁₃, 9, 3, 3; 1999 YC₁₄, 3, 1, 0; 1999 YZ₁₆, 3, 1, 0; 2000 AC₃, 3, 1, 0; 2000 AK₃, 3, 1, 0; 2000 AV₃, 3, 1, 0; 2000 AZ₃, 3, 1, 0; 2000 AD₁, 3, 1, 0; 2000 AF₁, 6, 2, 1; 2000 AS₁, 3, 1, 0; 2000 AU₁, 6, 2, 15; 2000 AX₁, 6, 2, 15; 2000 AZ₁, 18, 4, 16; 2000 AV₂, 3, 1, 0; 2000 AW₂, 9, 3, 15; 2000 AX₂, 6, 2, 9; 2000 AZ₂, 6, 2, 3; 2000 AD₄, 3, 1, 0; 2000 AS₄, 3, 1, 0; 2000 AX₄, 9, 3, 17; 2000 AY₄, 3, 1, 0; 2000 AD₅, 3, 1, 0; 2000 AJ₅, 3, 1, 0; 2000 AL₅, 6, 2, 5; 2000 AO₅, 3, 1, 0; 2000 AM₆, 3, 1, 0; 2000 AP₁₄, 3, 1, 0; 2000 AR₁₄, 3, 1, 0; 2000 AZ₂₄, 3, 1, 0; 2000 AJ₂₆, 9, 3, 35; 2000 AT₂₆, 6, 2, 4; 2000 AY₂₆, 3, 1, 0; 2000 AH₂₈, 3, 1, 0; 2000 AE₂₉, 3, 1, 0; 2000 AK₃₁, 3, 1, 0; 2000 AL₃₁, 3, 1, 0; 2000 AM₃₁, 3, 1, 0; 2000 AV₃₂, 6, 2, 11; 2000 AX₃₂, 3, 1, 0; 2000 AZ₃₂, 3, 1, 0; 2000 AD₃₇, 3, 1, 0; 2000 AM₃₇, 6, 2, 4; 2000 AS₃₇, 3, 1, 0; 2000 AU₃₈, 6, 2, 2; 2000 AZ₃₈, 3, 1, 0; 2000 AG₄₀, 6, 1, 0; 2000 AT₄₄, 6, 2, 6; 2000 AO₄₇, 9, 3, 15; 2000 AP₄₇, 9, 3, 16; 2000 AJ₄₈, 3, 1, 0; 2000 AK₄₈, 6, 2, 1; 2000 AL₄₈, 9, 3, 16; 2000 AN₄₉, 6, 1, 0; 2000 AY₄₉, 3, 1, 0; 2000 AE₅₀, 6, 2, 4; 2000 AF₅₀, 6, 2, 4; 2000 AG₅₀, 3, 1, 0; 2000 AH₅₀, 9, 3, 16; 2000 AN₅₀, 6, 2, 15; 2000 AO₅₀, 3, 1, 0; 2000 AU₅₀, 3, 1, 0; 2000 AW₅₀, 6, 2, 12; 2000 AY₅₀, 3, 1, 0; 2000 AZ₅₀, 6, 2, 10; 2000 AO₅₃, 3, 1, 0; 2000 AU₅₃, 3, 1, 0; 2000 AX₅₃, 3, 1, 0; 2000 AY₅₃, 3, 1, 0; 2000 AZ₅₃, 6, 2, 9; 2000 AA₅₄, 9, 3, 17; 2000 AC₅₄, 3, 1, 0; 2000 AH₅₄, 3, 1, 0; 2000 AJ₅₄, 3, 1, 0; 2000 AM₅₄, 6, 2, 3; 2000 AQ₅₄, 3, 1, 0; 2000 AU₅₄, 6, 2, 16; 2000 AV₅₄, 3, 1, 0; 2000 AX₅₄, 12, 4, 18; 2000 AE₅₅, 6, 2, 1; 2000 AF₅₅, 3, 1, 0; 2000 AU₅₅, 9, 3, 16; 2000 AY₅₅, 3, 1, 0; 2000 AZ₅₅, 3, 1, 0; 2000 AB₅₆, 3, 1, 0; 2000 AC₅₆, 3, 1, 0; 2000 AD₅₆, 9, 3, 15; 2000 AF₅₆, 3, 1, 0; 2000 AG₅₆, 3, 1, 0; 2000 AM₅₆, 3, 1, 0; 2000 AN₅₆, 6, 2, 1; 2000 AT₅₆, 3, 1, 0; 2000 AV₅₆, 3, 1, 0; 2000 AX₅₆, 3, 1, 0; 2000 AM₅₇, 3, 1, 0; 2000 AP₅₇, 6, 2, 11; 2000 AQ₅₇, 3, 1, 0; 2000 AR₅₇, 6, 2, 4; 2000 AS₅₇, 9, 2, 2; 2000 AW₅₇, 6, 2, 2; 2000 AC₅₈, 9, 3, 2; 2000 AD₅₈, 6, 2, 1; 2000 AE₅₈, 3, 1, 0; 2000 AF₅₈, 3, 1, 0; 2000 AJ₅₈, 3, 1, 0; 2000 AL₅₈, 3, 1, 0; 2000 AN₅₈, 9, 3, 2; 2000 AS₅₈, 3, 1, 0; 2000 AP₅₉, 6, 2, 2; 2000 AR₅₉, 3, 1, 0; 2000 AS₅₉, 3, 1, 0; 2000 AG₆₀, 9, 3, 38; 2000 AJ₆₀, 3, 1, 0; 2000 AK₆₀, 6, 2, 7; 2000 AQ₆₀, 3, 1, 0; 2000 AV₆₀, 3, 1, 0; 2000 AU₆₁, 9, 3, 27; 2000 AV₆₁, 9, 3, 38; 2000 AW₆₁, 9, 3, 12; 2000 AD₆₂, 12, 4, 22; 2000 AK₆₂, 9, 3, 12; 2000 AT₆₃, 9, 3, 19; 2000 AX₆₃, 12, 4, 25; 2000 AC₆₄, 9, 3, 12; 2000 AE₆₅, 12, 4, 16; 2000 AD₆₆, 3, 1, 0; 2000 AE₆₆, 9,

3, 16; 2000 AJ₆₇, 6, 2, 1; 2000 AL₆₇, 3, 1, 0; 2000 AP₆₇, 3, 1, 0; 2000 AM₈₂, 6, 2, 4; 2000 AQ₈₂, 3, 1, 0; 2000 AS₈₂, 3, 1, 0; 2000 AN₈₃, 3, 1, 0; 2000 AQ₈₃, 3, 1, 0; 2000 AA₈₄, 3, 1, 0; 2000 AA₈₅, 3, 1, 0; 2000 AG₈₅, 3, 1, 0; 2000 AH₈₅, 6, 2, 1; 2000 AH₈₆, 3, 1, 0; 2000 AQ₈₆, 9, 3, 12; 2000 AZ₈₆, 6, 2, 1; 2000 AJ₈₇, 9, 3, 19; 2000 AM₈₇, 6, 2, 1; 2000 AV₈₇, 6, 2, 15; 2000 AE₈₈, 3, 1, 0; 2000 AO₈₈, 6, 2, 15; 2000 AX₈₈, 3, 1, 0; 2000 AZ₈₈, 3, 1, 0; 2000 AG₈₉, 3, 1, 0; 2000 AN₈₉, 3, 1, 0; 2000 AS₈₉, 9, 3, 4; 2000 AT₈₉, 3, 1, 0; 2000 AO₉₀, 3, 1, 0; 2000 AP₉₀, 6, 2, 4; 2000 AV₉₀, 3, 1, 0; 2000 AX₉₀, 3, 1, 0; 2000 AP₉₁, 3, 1, 0; 2000 AW₉₁, 3, 1, 0; 2000 AZ₉₂, 3, 1, 0; 2000 AY₉₄, 12, 4, 15; 2000 AC₉₅, 6, 2, 6; 2000 AD₉₅, 3, 1, 0; 2000 AK₉₅, 6, 2, 10; 2000 AQ₉₅, 3, 1, 0; 2000 AR₉₅, 9, 3, 18; 2000 AW₉₅, 3, 1, 0; 2000 AN₉₆, 3, 1, 0; 2000 AQ₉₇, 3, 1, 0; 2000 AG₁₁₁, 3, 1, 0; 2000 AZ₁₁₈, 3, 1, 0; 2000 AG₁₂₄, 3, 1, 0; 2000 AK₁₂₄, 3, 1, 0; 2000 AL₁₂₄, 3, 1, 0; 2000 AY₁₂₅, 3, 1, 0; 2000 AV₁₂₆, 3, 1, 0; 2000 AA₁₂₇, 3, 1, 0; 2000 AC₁₂₇, 6, 2, 3; 2000 AM₁₂₇, 3, 1, 0; 2000 AU₁₂₇, 9, 3, 7; 2000 AX₁₂₇, 3, 1, 0; 2000 AY₁₂₇, 6, 2, 4; 2000 AF₁₂₈, 6, 2, 18; 2000 AW₁₂₈, 3, 1, 0; 2000 AE₁₂₉, 3, 1, 0; 2000 AQ₁₂₉, 6, 2, 3; 2000 AS₁₂₉, 6, 2, 3; 2000 AX₁₂₉, 3, 1, 0; 2000 AM₁₃₀, 3, 1, 0; 2000 AC₁₃₁, 3, 1, 0; 2000 AD₁₃₁, 3, 1, 0; 2000 AF₁₃₁, 3, 1, 0; 2000 AL₁₃₄, 3, 1, 0; 2000 AS₁₃₅, 3, 1, 0; 2000 AY₁₃₅, 12, 4, 27; 2000 AX₁₃₆, 3, 1, 0; 2000 AQ₁₄₂, 3, 1, 0; 2000 AR₁₄₂, 3, 1, 0; 2000 AS₁₄₂, 6, 2, 3; 2000 AK₁₄₄, 3, 1, 0; 2000 AZ₁₄₅, 6, 2, 5; 2000 AK₁₄₆, 3, 1, 0; 2000 AB₁₄₇, 3, 1, 0; 2000 AD₁₅₁, 6, 2, 2; 2000 AL₁₅₄, 3, 1, 0; 2000 AU₁₅₈, 3, 1, 0; 2000 AQ₁₆₀, 3, 1, 0; 2000 AB₁₆₂, 9, 3, 16; 2000 AY₁₆₃, 12, 3, 2; 2000 AE₁₆₄, 6, 2, 3; 2000 AF₁₆₄, 3, 1, 0; 2000 AS₁₆₄, 3, 1, 0; 2000 AN₁₆₈, 6, 2, 6; 2000 AP₁₆₈, 6, 2, 2; 2000 AC₂₀₄, 3, 1, 0; 2000 AD₂₀₄, 3, 1, 0; 2000 AJ₂₀₄, 12, 4, 15; 2000 AG₂₀₅, 12, 4, 13; 2000 AJ₂₀₅, 9, 3, 13; 2000 AO₂₀₅, 3, 1, 0; 2000 AR₂₀₅, 3, 1, 0; 2000 AT₂₀₅, 3, 1, 0; 2000 AU₂₀₅, 6, 2, 15; 2000 AJ₂₀₆, 3, 1, 0; 2000 AF₂₀₇, 3, 1, 0; 2000 AL₂₀₇, 9, 3, 14; 2000 AO₂₂₉, 6, 2, 9; 2000 AC₂₁₄, 6, 2, 10; 2000 AD₂₁₄, 3, 1, 0; 2000 AF₂₁₄, 9, 3, 6; 2000 AG₂₁₄, 3, 1, 0; 2000 AT₂₁₅, 3, 1, 0; 2000 AD₂₁₈, 6, 2, 4; 2000 AW₂₁₈, 3, 1, 0; 2000 AZ₂₁₈, 3, 1, 0; 2000 AD₂₂₀, 3, 1, 0; 2000 AJ₂₂₀, 3, 1, 0; 2000 AT₂₂₃, 3, 1, 0; 2000 AG₂₂₅, 3, 1, 0; 2000 AW₂₂₅, 3, 1, 0; 2000 AN₂₂₆, 3, 1, 0; 2000 AZ₂₂₆, 6, 2, 3; 2000 AL₂₂₈, 6, 2, 1; 2000 AE₂₂₉ *, 3, 1, 0; 2000 AH₂₂₉ *, 3, 1, 0; 2000 AK₂₂₉ *, 3, 1, 0; 2000 AM₂₂₉ *, 3, 1, 0; 2000 AN₂₂₉ *, 3, 1, 0; 2000 AO₂₂₉ *, 3, 1, 0; 2000 AP₂₂₉ *, 3, 1, 0; 2000 AQ₂₂₉, 3, 1, 0; 2000 AR₂₂₉, 3, 1, 0; 2000 AS₂₂₉, 3, 1, 0; 2000 AT₂₂₉ *, 3, 1, 0; 2000 AX₂₂₉, 3, 1, 0; 2000 AY₂₂₉, 3, 1, 0; 2000 AS₂₃₀ *, 3, 1, 0; 2000 AT₂₃₀ *, 3, 1, 0; 2000 AV₂₃₀ *, 3, 1, 0; 2000 AW₂₃₀ *, 6, 2, 6; 2000 AB₂₃₁, 3, 1, 0; 2000 AK₂₃₁, 3, 1, 0; 2000 AL₂₃₁, 3, 1, 0; 2000 AM₂₃₁, 3, 1, 0; 2000 AN₂₃₁, 3, 1, 0; 2000 AO₂₃₁, 3, 1, 0; 2000 AP₂₃₁, 3, 1, 0; 2000 AQ₂₃₁, 3, 1, 0; 2000 AR₂₃₁, 3, 1, 0; 2000 AS₂₃₁, 3, 1, 0; 2000 AT₂₃₁, 3, 1, 0; 2000 AU₂₃₁, 3, 1, 0; 2000 AV₂₃₁, 3, 1, 0; 2000 AW₂₃₁, 3, 1, 0; 2000 AX₂₃₁, 6, 2, 21; 2000 AY₂₃₁, 3, 1, 0; 2000 AA₂₃₂, 3, 1, 0; 2000 AB₂₃₂, 3, 1, 0; 2000 AC₂₃₂, 3, 1, 0; 2000 AD₂₃₂, 3, 1, 0; 2000 AE₂₃₂, 3, 1, 0; 2000 AF₂₃₂, 3, 1, 0; 2000 AG₂₃₂, 3, 1, 0; 2000 AH₂₃₂, 3, 1, 0; 2000 AJ₂₃₂, 3, 1, 0; 2000 AK₂₃₂, 3, 1, 0; 2000 AL₂₃₂, 3, 1, 0; 2000 AM₂₃₂, 3, 1, 0; 2000 AN₂₃₂, 3, 1, 0; 2000 AO₂₃₂, 3, 1, 0; 2000 AP₂₃₂, 12, 4, 11; 2000 AU₂₃₂, 3, 1, 0; 2000 AH₂₃₃ *, 3, 1, 0; 2000 AL₂₃₃ *, 6, 2, 7; 2000 AP₂₃₃ *, 6, 2, 12; 2000 AY₂₃₃, 3, 1, 0; 2000 AZ₂₃₃, 3, 1, 0; 2000 AA₂₃₄ *, 6, 2, 6; 2000 AB₂₃₄, 3, 1, 0; 2000 AC₂₃₄, 3, 1, 0; 2000 AD₂₃₄ *, 6, 2, 1; 2000 AE₂₃₄, 3, 1, 0; 2000 AF₂₃₄, 3, 1, 0; 2000 AG₂₃₄, 3, 1, 0; 2000 AH₂₃₄, 3, 1, 0; 2000 AJ₂₃₄, 3, 1, 0; 2000 AK₂₃₄, 3, 1, 0; 2000 AL₂₃₄, 3, 1, 0; 2000 AM₂₃₄, 3, 1, 0; 2000 AO₂₃₄, 3, 1, 0; 2000 AP₂₃₄, 3, 1, 0; 2000 AQ₂₃₄, 3, 1, 0; 2000 AR₂₃₄, 3, 1, 0; 2000 AS₂₃₄, 3, 1, 0; 2000 AT₂₃₄, 3, 1, 0; 2000 AZ₂₃₄, 3, 1, 0; 2000 AA₂₃₅, 3, 1, 0; 2000 AB₂₃₅, 3, 1, 0; 2000 AC₂₃₅, 3, 1, 0; 2000 AD₂₃₅, 3, 1, 0; 2000 AE₂₃₅, 3, 1, 0; 2000 AF₂₃₅, 3, 1, 0; 2000 AG₂₃₅, 3, 1, 0; 2000 AH₂₃₅, 3, 1,

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2000 BF₉ *, 12, 4, 13; 2000 BQ₉ *, 9, 3, 6; 2000 BR₉ *, 6, 2, 3; 2000 BS₉ *, 15, 5, 15; 2000 BT₉ *, 6, 2, 3; 2000 BU₉ *, 12, 4, 15; 2000 BV₉ *, 9, 3, 13; 2000 BW₉ *, 12, 4, 15; 2000 BX₉ *, 9, 3, 4; 2000 BY₉ *, 6, 2, 3; 2000 BZ₉ *, 12, 4, 15; 2000 BA₁₀ *, 9, 3, 15; 2000 BB₁₀ *, 9, 3, 15; 2000 BC₁₀ *, 6, 2, 3; 2000 BD₁₀ *, 15, 5, 19; 2000 BE₁₀ *, 12, 4, 15; 2000 BF₁₀ *, 12, 4, 15; 2000 BG₁₀ *, 6, 2, 3; 2000 BH₁₀ *, 9, 3, 15; 2000 BJ₁₀ *, 12, 4, 15; 2000 BK₁₀ *, 12, 4, 15; 2000 BL₁₀ *, 6, 2, 1; 2000 BM₁₀ *, 6, 2, 1; 2000 BN₁₀ *, 6, 2, 1; 2000 BO₁₀ *, 6, 2, 1; 2000 BP₁₀ *, 6, 2, 1; 2000 BQ₁₀ *, 12, 4, 4; 2000 BR₁₀ *, 12, 4, 4; 2000 BS₁₀ *, 12, 4, 4; 2000 BT₁₀ *, 9, 3, 2; 2000 BV₁₀ *, 6, 2, 1; 2000 BJ₁₁ *, 6, 2, 4; 2000 BK₁₁ *, 6, 2, 4; 2000 BL₁₁ *, 6, 2, 4; 2000 BM₁₁ *, 6, 2, 4; 2000 BN₁₁ *, 6, 2, 4; 2000 BO₁₁ *, 6, 2, 4; 2000 BP₁₁ *, 6, 2, 4; 2000 BQ₁₁ *, 6, 2, 4; 2000 BR₁₁ *, 6, 2, 4; 2000 BS₁₁ *, 6, 2, 4; 2000 BT₁₁ *, 6, 2, 4; 2000 BU₁₁ *, 6, 2, 4; 2000 BV₁₁ *, 6, 2, 4; 2000 BW₁₁ *, 9, 3, 16; 2000 BX₁₁ *, 6, 2, 2; 2000 BY₁₁ *, 9, 3, 4; 2000 BZ₁₁ *, 6, 2, 2; 2000 BA₁₂ *, 6, 2, 2; 2000 BB₁₂ *, 6, 2, 2; 2000 BC₁₂ *, 6, 2, 2; 2000 BD₁₂ *, 12, 4, 13; 2000 BE₁₂ *, 9, 3, 10; 2000 BF₁₂ *, 6, 2, 2; 2000 BG₁₂ *, 9, 3, 11; 2000 BH₁₂ *, 15, 5, 17; 2000 BJ₁₂ *, 6, 2, 2; 2000 BK₁₂ *, 6, 2, 2; 2000 BL₁₂ *, 6, 2, 2; 2000 BM₁₂ *, 9, 3, 3; 2000 BN₁₂ *, 6, 2, 2; 2000 BO₁₂ *, 9, 3, 4; 2000 BP₁₂ *, 12, 4, 10; 2000 BQ₁₂ *, 6, 2, 2; 2000 BR₁₂ *, 6, 2, 2; 2000 BS₁₂ *, 6, 2, 2; 2000 BT₁₂ *, 6, 2, 2; 2000 BU₁₂ *, 6, 2, 2; 2000 BV₁₂ *, 6, 2, 2; 2000 BW₁₂ *, 6, 2, 2; 2000 BX₁₂ *, 6, 2, 2; 2000 BY₁₂ *, 6, 2, 2; 2000 BZ₁₂ *, 6, 2, 2; 2000 BA₁₃ *, 6, 2, 2; 2000 BB₁₃ *, 12, 4, 18; 2000 BC₁₃ *, 6, 2, 2; 2000 BD₁₃ *, 6, 2, 2; 2000 BE₁₃ *, 9, 3, 10; 2000 BF₁₃ *, 9, 3, 3; 2000 BG₁₃ *, 6, 2, 1; 2000 BH₁₃ *, 12, 4, 12; 2000 BJ₁₃ *, 9, 3, 10; 2000 BK₁₃ *, 9, 3, 12; 2000 BL₁₃ *, 12, 4, 16; 2000 BM₁₃ *, 6, 2, 1; 2000 BN₁₃ *, 9, 3, 3; 2000 BO₁₃ *, 9, 3, 3; 2000 BP₁₃ *, 9, 3, 3; 2000 BQ₁₃ *, 6, 2, 1; 2000 BR₁₃ *, 6, 2, 1; 2000 BS₁₃ *, 6, 2, 1; 2000 BT₁₃ *, 6, 2, 1; 2000 BU₁₃ *, 6, 2, 1; 2000 BV₁₃ *, 12, 4, 16; 2000 BW₁₃ *, 9, 3, 12; 2000 BX₁₃ *, 9, 3, 3; 2000 BG₁₄ *, 3, 1, 0; 2000 BN₁₆ *, 3, 1, 0; 2000 BS₁₆ *, 3, 1, 0; 2000 BU₁₇ *, 3, 1, 0; 2000 BV₁₇ *, 3, 1, 0; 2000 BJ₁₈ *, 3, 1, 0; 2000 BO₁₈ *, 9, 3, 16; 2000 BF₁₉ *, 24, 8, 15; 2000 BG₁₉ *, 9, 3, 2; 2000 BO₁₉ *, 8, 5, 4; 2000 BP₁₉ *, 6, 2, 6; 2000 BQ₁₉ *, 6, 2, 6; 2000 BR₁₉ *, 6, 2, 6; 2000 BS₁₉ *, 6, 2, 6; 2000 BT₁₉ *, 6, 2, 6; 2000 BU₁₉ *, 6, 2, 6; 2000 BV₁₉ *, 6, 2, 6; 2000 BW₁₉ *, 6, 2, 6; 2000 BX₁₉ *, 9, 3, 15; 2000 BY₁₉ *, 9, 3, 15; 2000 BZ₁₉ *, 6, 2, 6; 2000 BA₂₀ *, 6, 2, 6; 2000 BB₂₀ *, 6, 2, 6; 2000 BC₂₀ *, 9, 3, 12; 2000 BD₂₀ *, 9, 3, 13; 2000 BE₂₀ *, 12, 4, 15; 2000 BF₂₀ *, 9, 3, 12; 2000 BG₂₀ *, 9, 3, 15; 2000 BH₂₀ *, 9, 3, 12; 2000 BJ₂₀ *, 9, 3, 12; 2000 BK₂₀ *, 9, 3, 15; 2000 BL₂₀ *, 6, 2, 6; 2000 BM₂₀ *, 9, 3, 12; 2000 BN₂₀ *, 9, 3, 15; 2000 BO₂₀ *, 6, 2, 2; 2000 BP₂₀ *, 12, 4, 19; 2000 BQ₂₀ *, 6, 2, 6; 2000 BR₂₀ *, 6, 2, 6; 2000 BS₂₀ *, 12, 4, 15; 2000 BT₂₀ *, 6, 2, 4; 2000 BU₂₀ *, 6, 2, 4; 2000 BV₂₀ *, 6, 2, 4; 2000 BW₂₀ *, 15, 5, 17; 2000 BX₂₀ *, 6, 2, 4; 2000 BY₂₀ *, 6, 2, 4; 2000 BZ₂₀ *, 6, 2, 3; 2000 BA₂₁ *, 6, 2, 3; 2000 BB₂₁ *, 6, 2, 3; 2000 BC₂₁ *, 6, 2, 3; 2000 BD₂₁ *, 6, 2, 3; 2000 BE₂₁ *, 6, 2, 3; 2000 BF₂₁ *, 6, 2, 3; 2000 BG₂₁ *, 6, 2, 3; 2000 BH₂₁ *, 6, 2, 3; 2000 BJ₂₁ *, 6, 2, 3; 2000 BK₂₁ *, 9, 3, 9; 2000 BL₂₁ *, 12, 4, 25; 2000 BM₂₁ *, 9, 3, 9; 2000 BN₂₁ *, 12, 4, 12; 2000 BO₂₁ *, 9, 3, 9; 2000 BP₂₁ *, 9, 3, 9; 2000 BQ₂₁ *, 12, 4, 25; 2000 BR₂₁ *, 9, 3, 9; 2000 BS₂₁ *, 9, 3, 9; 2000 BT₂₁ *, 6, 2, 3; 2000 BU₂₁ *, 9, 3, 12; 2000 BV₂₁ *, 12, 4, 16; 2000 BW₂₁ *, 9, 3, 12; 2000 BX₂₁ *, 9, 3, 12; 2000 BY₂₁ *, 9, 3, 12; 2000 BZ₂₁ *, 9, 3, 12;

1, 0; 2000 CV₅₁, 3, 1, 0; 2000 CW₅₁, 6, 2, 7; 2000 CB₅₂, 3, 1, 0; 2000 CC₅₂, 3, 10; 2000 CD₅₂, 3, 1, 0; 2000 CB₅₃, 6, 2, 3; 2000 CD₅₃, 3, 1, 0; 2000 CE₅₃ *, 12, 4, 16; 2000 CL₅₃, 3, 1, 0; 2000 CM₅₃, 3, 1, 0; 2000 CT₅₅, 6, 2, 18; 2000 CU₅₅, 9, 3, 18; 2000 CW₅₅, 6, 2, 6; 2000 CX₅₅, 6, 2, 6; 2000 CZ₅₅, 3, 1, 0; 2000 CA₅₆, 3, 1, 0; 2000 CB₅₆, 3, 1, 0; 2000 CC₅₆, 3, 1, 0; 2000 CF₅₆, 3, 1, 0; 2000 CS₅₆, 3, 1, 0; 2000 CU₅₆, 3, 1, 0; 2000 CY₅₆, 3, 1, 0; 2000 CR₅₇, 3, 1, 0; 2000 CU₅₇, 3, 1, 0; 2000 CY₅₇, 3, 1, 0; 2000 CD₅₉, 3, 1, 0; 2000 CD₆₅, 3, 1, 0; 2000 CG₆₇, 3, 1, 0; 2000 CL₆₇ *, 6, 2, 6; 2000 CM₆₇ *, 6, 2, 6; 2000 CN₆₇ *, 6, 2, 6; 2000 CO₆₇ *, 6, 2, 6; 2000 CP₆₇ *, 6, 2, 6; 2000 CQ₆₇ *, 6, 2, 6; 2000 CR₆₇ *, 6, 2, 6; 2000 CS₆₇ *, 6, 2, 6; 2000 CT₆₇ *, 6, 2, 6; 2000 CU₆₇ *, 6, 2, 6; 2000 CV₆₇ *, 6, 2, 6; 2000 CW₆₇ *, 6, 2, 6; 2000 CX₆₇ *, 9, 3, 9; 2000 CY₆₇ *, 6, 2, 6; 2000 CZ₆₇ *, 6, 2, 6; 2000 CA₆₈ *, 6, 2, 6; 2000 CB₆₈ *, 6, 2, 6; 2000 CC₆₈ *, 6, 2, 6; 2000 CD₆₈ *, 6, 2, 6; 2000 CE₆₈ *, 6, 2, 6; 2000 CF₆₈ *, 6, 2, 6; 2000 CG₆₈ *, 6, 2, 6; 2000 CH₆₈ *, 6, 2, 6; 2000 CI₆₈ *, 9, 3, 9; 2000 CJ₆₈ *, 9, 3, 9; 2000 CK₆₈ *, 9, 3, 9; 2000 CL₆₈ *, 6, 2, 6; 2000 CM₆₈ *, 6, 2, 6; 2000 CN₆₈ *, 6, 2, 6; 2000 CO₆₈ *, 9, 3, 9; 2000 CP₆₈ *, 6, 2, 6; 2000 CQ₆₈ *, 6, 2, 6; 2000 CR₆₈ *, 6, 2, 6; 2000 CS₆₈ *, 6, 2, 6; 2000 CT₆₈ *, 9, 3, 9; 2000 CU₆₈ *, 9, 3, 9; 2000 CV₆₈ *, 6, 2, 6; 2000 CW₆₈ *, 6, 2, 6; 2000 CX₆₈ *, 9, 3, 13; 2000 CY₆₈ *, 9, 3, 13; 2000 CZ₆₈ *, 12, 3, 9; 2000 CA₆₉ *, 12, 4, 13; 2000 CB₆₉ *, 9, 3, 13; 2000 CC₆₉ *, 6, 2, 6; 2000 CD₆₉ *, 6, 2, 6; 2000 CE₆₉ *, 12, 4, 13; 2000 CF₆₉ *, 12, 4, 13; 2000 CG₆₉ *, 9, 3, 9; 2000 CH₆₉ *, 9, 3, 13; 2000 CI₆₉ *, 6, 2, 6; 2000 CJ₆₉ *, 6, 2, 6; 2000 CK₆₉ *, 6, 2, 6; 2000 CL₆₉ *, 6, 2, 6; 2000 CM₆₉ *, 9, 3, 13; 2000 CN₆₉ *, 6, 2, 6; 2000 CO₆₉ *, 6, 2, 6; 2000 CP₆₉ *, 9, 3, 9; 2000 CQ₆₉ *, 6, 2, 6; 2000 CR₆₉ *, 9, 3, 9; 2000 CS₆₉ *, 6, 2, 6; 2000 CT₆₉ *, 6, 2, 6; 2000 CU₆₉ *, 9, 3, 9; 2000 CV₆₉ *, 9, 3, 9; 2000 CW₆₉ *, 9, 3, 9; 2000 CX₆₉ *, 6, 2, 6; 2000 CY₆₉ *, 9, 3, 9; 2000 CZ₆₉ *, 6, 2, 1; 2000 CA₇₀ *, 9, 3, 3; 2000 CB₇₀ *, 6, 2, 1; 2000 CC₇₀ *, 15, 5, 13; 2000 CD₇₀ *, 9, 3, 3; 2000 CE₇₀ *, 6, 2, 1; 2000 CF₇₀ *, 6, 2, 1; 2000 CG₇₀ *, 6, 2, 1; 2000 CH₇₀ *, 6, 2, 1; 2000 CI₇₀ *, 6, 2, 1; 2000 CJ₇₀ *, 6, 2, 1; 2000 CK₇₀ *, 6, 2, 1; 2000 CL₇₀ *, 6, 2, 1; 2000 CM₇₀ *, 6, 2, 1; 2000 CN₇₀ *, 6, 2, 1; 2000 CO₇₀ *, 6, 2, 1; 2000 CP₇₀ *, 6, 2, 1; 2000 CQ₇₀ *, 6, 2, 1; 2000 CR₇₀ *, 6, 2, 1; 2000 CS₇₀ *, 6, 2, 1; 2000 CT₇₀ *, 6, 2, 1; 2000 CU₇₀ *, 6, 2, 1; 2000 CV₇₀ *, 6, 2, 1; 2000 CW₇₀ *, 6, 2, 1; 2000 CX₇₀ *, 6, 2, 1; 2000 CY₇₀ *, 6, 2, 1; 2000 CZ₇₀ *, 6, 2, 1; 2000 CA₇₁ *, 6, 2, 1; 2000 CB₇₁ *, 6, 2, 1; 2000 CC₇₁ *, 6, 2, 1; 2000 CD₇₁ *, 6, 2, 1; 2000 CE₇₁ *, 6, 2, 1; 2000 CF₇₁ *, 6, 2, 1; 2000 CG₇₁ *, 6, 2, 1; 2000 CH₇₁ *, 6, 2, 1; 2000 CI₇₁ *, 6, 2, 1; 2000 CJ₇₁ *, 6, 2, 1; 2000 CK₇₁ *, 6, 2, 1; 2000 CL₇₁ *, 6, 2, 1; 2000 CM₇₁ *, 6, 2, 1; 2000 CN₇₁ *, 6, 2, 1; 2000 CO₇₁ *, 6, 2, 1; 2000 CP₇₁ *, 6, 2, 1; 2000 CQ₇₁ *, 6, 2, 1; 2000 CR₇₁ *, 6, 2, 1; 2000 CS₇₁ *, 6, 2, 1; 2000 CT₇₁ *, 6, 2, 1; 2000 CU₇₁ *, 6, 2, 1; 2000 CV₇₁ *, 6, 2, 1; 2000 CW₇₁ *, 6, 2, 1; 2000 CX₇₁ *, 6, 2, 1; 2000 CY₇₁ *, 6, 2, 1; 2000 CZ₇₁ *, 6, 2, 1; 2000 CA₇₂ *, 6, 2, 1; 2000 CB₇₂ *, 6, 2, 1; 2000 CC₇₂ *, 15, 5, 13; 2000 CD₇₂ *, 9, 3, 3; 2000 CE₇₂ *, 6, 2, 1; 2000 CF₇₂ *, 6, 2, 1; 2000 CG₇₂ *, 6, 2, 1; 2000 CH₇₂ *, 6, 2, 1; 2000 CI₇₂ *, 6, 2, 1; 2000 CJ₇₂ *, 6, 2, 1; 2000 CK₇₂ *, 6, 2, 1; 2000 CL₇₂ *, 6, 2, 1; 2000 CM₇₂ *, 6, 2, 1; 2000 CN₇₂ *, 6, 2, 1; 2000 CO₇₂ *, 6, 2, 1; 2000 CP₇₂ *, 6, 2, 1; 2000 CQ₇₂ *, 6, 2, 1; 2000 CR₇₂ *, 6, 2, 1; 2000 CS₇₂ *, 6, 2, 1; 2000 CT₇₂ *, 6, 2, 1; 2000 CU₇₂ *, 6, 2, 1; 2000 CV₇₂ *, 6, 2, 1; 2000 CW₇₂ *, 6, 2, 1; 2000 CX_{72</}

6, 2, 4; 2000 CZ₉₉ *, 6, 2, 4; 2000 CA₁₀₀ *, 6, 2, 4; 2000 CB₁₀₀ *, 6, 2, 4; 2000 CC₁₀₀ *, 6, 2, 4; 2000 CD₁₀₀ *, 6, 2, 4; 2000 CE₁₀₀ *, 6, 2, 4; 2000 CF₁₀₀ *, 6, 2, 4; 2000 CG₁₀₀ *, 6, 2, 4; 2000 CH₁₀₀ *, 6, 2, 4; 2000 CJ₁₀₀ *, 6, 2, 4; 2000 CK₁₀₀ *, 6, 2, 4; 2000 CL₁₀₀ *, 6, 2, 4; 2000 CM₁₀₀ *, 6, 2, 4; 2000 CN₁₀₀ *, 6, 2, 4; 2000 CO₁₀₀ *, 6, 2, 4; 2000 CP₁₀₀ *, 6, 2, 4; 2000 CQ₁₀₀ *, 6, 2, 4; 2000 CR₁₀₀ *, 6, 2, 4; 2000 CS₁₀₀ *, 6, 2, 4; 2000 CT₁₀₀ *, 6, 2, 4; 2000 CU₁₀₀ *, 6, 2, 4; 2000 CV₁₀₀ *, 6, 2, 4; 2000 CW₁₀₀ *, 6, 2, 2; 2000 CX₁₀₀ *, 6, 2, 2; 2000 CY₁₀₀ *, 9, 3, 17; 2000 CZ₁₀₀ *, 6, 2, 2; 2000 CA₁₀₁ *, 6, 2, 2; 2000 CB₁₀₁ *, 6, 2, 2; 2000 CC₁₀₁ *, 6, 2, 2; 2000 CD₁₀₁ *, 6, 2, 2; 2000 CE₁₀₁ *, 6, 2, 2; 2000 CF₁₀₁ *, 6, 2, 2; 2000 CG₁₀₁ *, 6, 2, 3; 2000 CH₁₀₁ *, 6, 2, 3; 2000 CJ₁₀₁ *, 6, 2, 3; 2000 CK₁₀₁ *, 6, 2, 3; 2000 CL₁₀₁ *, 6, 2, 3; 2000 CR₁₀₁ *, 6, 2, 1; 2110 P-L, 6, 2, 4; 2188 P-L, 9, 3, 2; 2577 P-L, 3, 1, 0; 2695 P-L, 3, 1, 0; 2796 P-L, 3, 1, 0; 2861 P-L, 3, 1, 0; 4032 P-L, 6, 2, 8; 4602 P-L, 3, 1, 0; 4648 P-L, 6, 2, 9; 6063 P-L, 6, 2, 2; 6106 P-L, 3, 1, 0; 6276 P-L, 6, 2, 2; 6587 P-L, 3, 1, 0; 6607 P-L, 3, 1, 0; 6625 P-L, 6, 2, 5; 3306 T-1, 6, 2, 9; 2124 T-2, 3, 1, 0; 3336 T-2, 6, 2, 4; 1144 T-3, 3, 1, 0; 4181 T-3, 3, 1, 0; 5710 T-3, 3, 1, 0; (217), 3, 1, 0; (277), 6, 2, 7; (301), 3, 1, 0; (379), 3, 1, 0; (633), 6, 2, 9; (765), 6, 2, 4; (791), 3, 1, 0; (809), 3, 1, 0; (842), 3, 1, 0; (848), 3, 1, 0; (1010), 3, 1, 0; (1079), 6, 2, 5; (1240), 3, 1, 0; (1478), 3, 1, 0; (1592), 6, 2, 5; (1686), 9, 3, 10; (1742), 3, 1, 0; (1763), 9, 3, 9; (1769), 6, 2, 8; (1782), 3, 1, 0; (1802), 3, 1, 0; (1821), 3, 1, 0; (1824), 3, 1, 0; (1860), 9, 3, 9; (1970), 6, 2, 9; (2017), 3, 1, 0; (2071), 6, 2, 5; (2097), 3, 1, 0; (2123), 3, 1, 0; (2327), 3, 1, 0; (2466), 6, 2, 14; (2497), 3, 1, 0; (2534), 18, 6, 12; (2556), 6, 2, 9; (2739), 6, 2, 7; (2785), 6, 2, 8; (2859), 3, 1, 0; (2918), 3, 1, 0; (2958), 6, 2, 5; (2994), 3, 1, 0; (3005), 6, 2, 4; (3127), 3, 1, 0; (3128), 3, 1, 0; (3355), 6, 2, 3; 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(12849), 6, 2, 2; (12850), 3, 1, 0; (12958), 3, 1, 0; (12999), 6, 2, 9; (13046), 3, 1, 0; (13053), 3, 1, 0; (13075), 6, 2, 9; (13096), 6, 2, 7; (13100), 3, 1, 0; (13121), 3, 1, 0; (13147), 3, 1, 0; (13149), 6, 2, 4; (13154), 3, 1, 0; (13173), 3, 1, 0; (13207), 6, 2, 9; (13217), 3, 1, 0; (13225), 6, 2, 9; (13283), 6, 2, 10; (13301), 9, 3, 9; (13330), 6, 2, 9; (13337), 3, 1, 0; (13373), 6, 2, 3; (13459), 3, 1, 0; (13468), 3, 1, 0; *[13235, 2580, 914*, 1996/12/03–2000/02/15]*

695 Kitt Peak

M. W. Buie, Lowell Observatory, 1400 West Mars Hill Road, Flagstaff, AZ 86001, U.S.A. [buie@lowell.edu] (1)
 C. W. Hergenrother, Space Sciences Building, University of Arizona, Tucson, AZ 85721, U.S.A. [chergen@pir1.lpl.arizona.edu] (5)
 J. W. Parker, Southwest Research Institute, 1050 Walnut Street, Suite 426, Boulder, CO 80302, U.S.A. [joel@boulder.swri.edu] (9)
 Observers M. W. Buie (1), S. D. Kern (1), R. M. Wagner (1),
 M. Bielecki (1), L. Wasserman (1), J. W. Parker (9), J. A. Stansberry (9),
 C. W. Hergenrother (5)

Measurers M. W. Buie (1), L. H. Wasserman (1), S. D. Kern (1), J. W. Parker (9),
 C. W. Hergenrother (5)

4-m reflector + CCD, 2.3-m reflector + CCD, 0.9-m reflector + CCD, 0.40-m
 Schmidt-Cassegrain + CCD

GSC-1.1, USNO-A2.0

{1} 1999 VO₈₈, 2, 1, 0; *[2, 1, 0*, 1999/11/10]*

{5} 1998 QP₁₇, 3, 1, 0; *[3, 1, 0*, 1999/09/13]*

{9} 1997 CR₂₉, 2, 1, 0; 1998 WG₂₄, 9, 3, 29; 1998 WX₃₁, 4, 2, 3; 1998 WZ₃₁, 8, 2, 31; 1999 CP₁₃₃, 15, 2, 1; 1999 TR₁₁, 4, 1, 0; *[42, 6, 0*, 1999/04/14–1999/12/31]*

696 F. L. Whipple Observatory, Mount Hopkins

C. W. Hergenrother, Space Sciences Building, University of Arizona, Tucson, AZ 85721, U.S.A. [chergen@pir1.lpl.arizona.edu]

1.2-m *f*/8 reflector + CCD

USNO-A1.0

2000 BK₁₉, 2, 1, 0; 2000 BO₁₉, 3, 1, 0; 2000 CJ₃₃, 3, 1, 0; *[8, 3, 0*, 2000/02/02]*

697 Kitt Peak, McGraw-Hill Observatory

R. L. Allen, Dept. of Astronomy, University of Michigan, Ann Arbor, MI 48109
 [rhiannon@astro.lsa.umich.edu]

Observers R. L. Allen, M. Allen

Measurer R. L. Allen

2.4-m Hiltner Telescope + CCD

USNO-A2.0

1997 CQ₂₉, 4, 1, 0; 1997 CR₂₉, 4, 1, 0; 1997 CT₂₉, 6, 2, 2; 1998 UR₄₃, 6, 4, 3; 1998 WG₂₄, 3, 1, 0; 1998 WX₃₁, 3, 1, 0; 1998 WZ₃₁, 4, 2, 2; 1999 CJ₁₁₉, 6, 2, 1; *[36, 8, 0*, 2000/01/02–2000/01/05]*

699 Lowell Observatory–LONEOS

E. Bowell, Lowell Observatory, 1400 West Mars Hill Road, Flagstaff AZ 86001, U.S.A. [elgb@lowell.edu]

Observers B. W. Koehn, B. A. Skiff, M. E. Van Ness, W. D. Ferris

Measurer B. W. Koehn

0.59-m LONEOS Schmidt + CCD

USNO-A2.0

1989 CC₃, 6, 2, 48; 1989 TF₁₂, 6, 2, 21; 1990 QX₅, 3, 1, 0; 1990 VN₅, 9, 3, 70; 1991 AE₂, 3, 1, 0; 1992 DP₇, 3, 1, 0; 1992 PP₁, 3, 1, 0; 1992 SP₁, 3, 1, 0; 1993 BM₃, 3, 1, 0; 1993 FE₂₀, 3, 1, 0; 1993 FP₂₃, 3, 1, 0; 1993 FD₃₇, 3, 1, 0; 1994 AM₃, 3, 1, 0; 1994 PL₁₂, 6, 2, 12; 1994 PE₁₆, 3, 1, 0; 1994 PW₂₆, 3, 1, 0; 1994 XV₄, 9, 3, 77; 1995 WX₂, 3, 1, 0; 1996 BJ₄, 3, 1, 0; 1996 GY₁₇, 3, 1, 0; 1996 HL₂₀, 3, 1, 0; 1996 KO₁, 3, 1, 0; 1996 VS₁, 3, 1, 0; 1997 CS₃, 3, 1, 0; 1997 FV₃, 6, 2, 23; 1997 TZ₂₇, 3, 1, 0; 1997 WW₄₃, 3, 1, 0; 1998 HG₆₈, 3, 1, 0; 1998 HQ₇₀, 3, 1, 0; 1998 HD₇₆, 6, 2, 24; 1998 HD₁₁₁, 3, 1, 0; 1998 HF₁₂₄, 3, 1, 0; 1998 KE₁₃, 3, 1, 0; 1998 KM₁₃, 3, 1, 0; 1998 KF₁₆, 6, 2, 23; 1998 KN₂₈, 6, 2, 56; 1998 KX₂₉, 3, 1, 0; 1998 KY₅₈, 3, 1, 0; 1998 ML₃₅, 3, 1, 0; 1998 OD₁, 3, 1, 0; 1998 OE₄, 6, 2, 12; 1998 OK₇, 3, 1, 0; 1998 OG₉, 3, 1, 0; 1998 OM₉, 9, 3, 160; 1998 QY₃, 3, 1, 0; 1998 QZ₃, 3, 1, 0; 1998 QY₇, 3, 1, 0; 1998 QD₉, 6, 2, 109; 1998 QY₁₁, 6, 2, 51; 1998 QF₁₅, 6, 2, 73; 1998 QU₂₁, 3, 1, 0; 1998 QO₃₁, 6, 2, 55; 1998 QQ₄₀, 3, 1, 0; 1998 QU₄₁, 3, 1, 0; 1998 QY₄₂, 6, 2, 19; 1998 QO₄₃, 3, 1, 0; 1998 QC₅₃, 6, 2, 70; 1998 QD₅₃, 9, 3, 90; 1998 QZ₆₄, 6, 2, 21; 1998 QJ₆₅, 9, 3, 108; 1998 QZ₆₅, 6, 2, 42; 1998 QC₆₆, 6, 2, 23; 1998 QN₆₇, 3, 1, 0; 1998 QR₆₇, 3, 1, 0; 1998 QV₆₈, 9, 3, 84; 1998 QE₇₀, 6, 2, 29; 1998 QM₇₁, 3, 1, 0; 1998 QP₇₂, 3, 1, 0; 1998 QF₇₃, 6, 2, 20; 1998 QT₇₄, 3, 1, 0; 1998 QF₇₇, 3, 1, 0; 1998 QV₇₉, 3, 1, 0; 1998 QP₈₀, 9, 3, 83; 1998 QD₈₁, 6, 2, 47; 1998 QX₈₇, 3, 1, 0; 1998 QA₈₈, 6, 2, 30; 1998 QD₈₈, 3, 1, 0; 1998 QM₉₀, 3, 1, 0; 1998 QG₉₁, 6, 2, 27; 1998 QA₉₄, 3, 1, 0; 1998 QF₁₀₂, 3, 1, 0; 1998 QW₁₀₂, 3, 1, 0; 1998 QO₁₀₃, 3, 1, 0; 1998 QS₁₀₃, 3, 1, 0; 1998 RW₃, 3, 1, 0; 1998 RP₁, 3, 1, 0; 1998 RA₂, 3, 1, 0; 1998 RM₅, 6, 2, 23; 1998 RZ₁₇, 3, 1, 0; 1998 RH₁₈, 3, 1, 0; 1998 RK₁₈, 3, 1, 0; 1998 RL₁₉, 3, 1, 0; 1998 RA₂₄, 9, 3, 456; 1998 RA₂₅, 3, 1, 0; 1998 RK₂₅, 3, 1, 0; 1998 RP₂₅, 3, 1, 0; 1998 RU₂₇, 3, 1, 0; 1998 RZ₂₇, 3, 1, 0; 1998 RG₃₀, 3, 1, 0; 1998 RW₃₂, 3, 1, 0; 1998 RV₃₃, 3, 1, 0; 1998 RC₃₇, 3, 1, 0; 1998 RA₄₅, 3, 1, 0; 1998 RC₄₆, 3, 1, 0; 1998 RK₅₀, 3, 1, 0; 1998 RQ₅₂, 3, 1, 0; 1998 RS₅₂, 3, 1, 0; 1998 RB₅₅, 3, 1, 0; 1998 RN₅₆, 3, 1, 0; 1998 RT₅₇, 3, 1, 0; 1998 RQ₆₁, 3, 1, 0; 1998 RG₆₃, 3, 1, 0; 1998 RA₆₄, 6, 2, 30; 1998 RJ₆₄, 6, 2, 45; 1998 RL₆₄, 3, 1, 0; 1998 RD₆₆, 9, 3, 128; 1998 RJ₆₈, 3, 1, 0; 1998 RA₆₉, 3, 1, 0; 1998 RH₆₉, 6, 2, 19; 1998 RN₆₉, 3, 1, 0; 1998 RD₇₂, 3, 1,

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M.P.C. 38275

0; 1998 RW₇₄, 6, 1, 0; 1998 RM₇₅, 3, 1, 0; 1998 RD₇₇, 3, 1, 0; 1998 SQ₁₃, 3, 1, 0; 1998 SC₁₇, 3, 1, 0; 1998 SV₂₃, 3, 1, 0; 1998 SC₂₇, 3, 1, 0; 1998 SB₂₈, 3, 1, 0; 1998 SZ₃₆, 3, 1, 0; 1998 SD₄₃, 3, 1, 0; 1998 SD₅₆, 3, 1, 0; 1998 SE₆₂, 3, 1, 0; 1998 SN₇₁, 3, 1, 0; 1998 SV₇₄, 3, 1, 0; 1998 SY₇₇, 3, 1, 0; 1998 SR₈₂, 3, 1, 0; 1998 SB₈₇, 3, 1, 0; 1998 SZ₈₉, 3, 1, 0; 1998 SA₉₆, 6, 2, 30; 1998 SE₁₀₀, 3, 1, 0; 1998 SC₁₀₃, 3, 1, 0; 1998 SE₁₀₄, 3, 1, 0; 1998 SU₁₀₉, 3, 1, 0; 1998 SV₁₀₉, 9, 3, 64; 1998 SX₁₁₀, 3, 1, 0; 1998 SZ₁₁₁, 6, 2, 30; 1998 SK₁₁₂, 3, 1, 0; 1998 SM₁₁₃, 3, 1, 0; 1998 SN₁₁₉, 6, 2, 34; 1998 SB₁₂₁, 3, 1, 0; 1998 SF₁₂₁, 3, 1, 0; 1998 SF₁₂₆, 3, 1, 0; 1998 SP₁₂₈, 9, 3, 46; 1998 SE₁₂₉, 9, 3, 54; 1998 SP₁₂₉, 3, 1, 0; 1998 SL₁₃₁, 3, 1, 0; 1998 SX₁₃₃, 3, 1, 0; 1998 SE₁₃₄, 3, 1, 0; 1998 SL₁₃₅, 6, 2, 23; 1998 SV₁₃₆, 6, 2, 23; 1998 SG₁₃₈, 3, 1, 0; 1998 SZ₁₄₁, 9, 3, 83; 1998 SF₁₄₃, 3, 1, 0; 1998 SM₁₄₅, 9, 3, 82; 1998 SW₁₅₈, 3, 1, 0; 1998 SS₁₆₂, 3, 1, 0; 1998 SM₁₆₄, 9, 3, 97; 1998 SW₁₆₄, 3, 1, 0; 1998 TZ₁₇, 3, 1, 0; 1998 TH₃₅ *, 3, 1, 0; 1998 TJ₃₅ *, 3, 1, 0; 1998 TK₃₅ *, 3, 1, 0; 1998 TL₃₅ *, 3, 1, 0; 1998 TU₃₅, 3, 1, 0; 1998 TY₃₅, 3, 1, 0; 1998 TB₃₆, 3, 1, 0; 1998 UE₈, 3, 1, 0; 1998 UJ₁₉, 6, 2, 26; 1998 UL₁₉, 6, 2, 19; 1998 UE₂₀, 6, 2, 27; 1998 UT₂₃, 3, 1, 0; 1998 UC₂₄, 3, 1, 0; 1998 UB₂₇, 9, 3, 60; 1998 UP₂₇, 3, 1, 0; 1998 UN₂₈, 3, 1, 0; 1998 US₃₂, 6, 2, 30; 1998 UN₃₃, 3, 1, 0; 1998 UA₃₄, 3, 1, 0; 1998 UT₃₅, 3, 1, 0; 1998 UO₄₁, 3, 1, 0; 1998 UW₄₂, 3, 1, 0; 1998 UA₄₄, 3, 1, 0; 1998 UB₄₄, 3, 1, 0; 1998 UC₄₄, 3, 1, 0; 1998 UD₄₄, 3, 1, 0; 1998 UL₄₄, 3, 1, 0; 1998 UO₄₄ *, 3, 1, 0; 1998 UP₄₄ *, 3, 1, 0; 1998 UA₄₄ *, 3, 1, 0; 1998 US₄₄ *, 3, 1, 0; 1998 UT₄₄ *, 3, 1, 0; 1998 UU₄₄ *, 3, 1, 0; 1998 UY₄₄ *, 3, 1, 0; 1998 UZ₄₄ *, 3, 1, 0; 1998 VZ₁₀, 3, 1, 0; 1998 VC₁₁, 3, 1, 0; 1998 VW₁₁, 3, 1, 0; 1998 VX₁₁, 3, 1, 0; 1998 VV₁₂, 3, 1, 0; 1998 VL₁₃, 3, 1, 0; 1998 VO₁₃, 3, 1, 0; 1998 VQ₁₃, 3, 1, 0; 1998 VN₁₄, 3, 1, 0; 1998 VR₁₄, 3, 1, 0; 1998 VA₁₅, 3, 1, 0; 1998 VP₁₆, 3, 1, 0; 1998 VH₁₇, 3, 1, 0; 1998 VQ₁₇, 3, 1, 0; 1998 VC₁₈, 9, 3, 74; 1998 VQ₁₈, 3, 1, 0; 1998 VA₁₉, 3, 1, 0; 1998 VC₁₉, 3, 1, 0; 1998 VF₂₀, 3, 1, 0; 1998 VY₂₀, 6, 2, 80; 1998 VR₂₂, 6, 2, 79; 1998 VN₂₃, 9, 3, 51; 1998 VU₂₃, 6, 2, 14; 1998 VD₂₅, 9, 3, 80; 1998 VH₂₅, 6, 2, 37; 1998 VM₂₅, 6, 2, 37; 1998 VA₂₈, 3, 1, 0; 1998 VF₂₈, 6, 2, 106; 1998 VG₂₈, 3, 1, 0; 1998 VQ₂₈, 6, 2, 58; 1998 VO₃₆, 6, 2, 25; 1998 VV₃₆, 6, 2, 26; 1998 VX₃₆, 3, 1, 0; 1998 VZ₃₆, 6, 2, 50; 1998 VY₄₄, 6, 2, 40; 1998 WL₁₀, 3, 1, 0; 1998 WM₁₀, 3, 1, 0; 1998 WE₁₂, 3, 1, 0; 1998 WX₁₂, 3, 1, 0; 1998 WM₁₃, 3, 1, 0; 1998 WU₁₃, 3, 1, 0; 1998 WZ₁₆, 6, 2, 36; 1998 WC₁₈, 3, 1, 0; 1998 WX₂₀, 6, 2, 32; 1998 WV₂₁, 3, 1, 0; 1998 WW₂₁, 3, 1, 0; 1998 WL₃₁, 3, 1, 0; 1998 XH₂₉, 3, 1, 0; 1998 XF₆₂, 9, 3, 63; 1998 XK₉₇, 9, 3, 33; 1998 YZ₈, 2, 1, 0; 1998 YE₁₈, 6, 2, 15; 1998 YA₃₀, 3, 1, 0; 1998 AO₈, 9, 3, 119; 1998 CL₃, 1, 0; 1998 CK₈₂, 3, 1, 0; 1998 FW₂₅, 3, 1, 0; 1998 FS₄₆, 3, 1, 0; 1998 FR₅₆, 6, 2, 42; 1999 GP₉, 6, 2, 17; 1999 GV₃₇, 3, 1, 0; 1999 JS₂₄, 3, 1, 0; 1999 JW₈₀, 3, 1, 0; 1999 JF₈₆, 3, 1, 0; 1999 JW₉₅, 3, 1, 0; 1999 JH₁₂₇, 3, 1, 0; 1999 LK₇, 3, 1, 0; 1999 LE₉, 3, 1, 0; 1999 LF₃₃, 3, 1, 0; 1999 NA₉, 3, 1, 0; 1999 NQ₁₁, 3, 1, 0; 1999 NG₁₈, 3, 1, 0; 1999 NS₂₀, 3, 1, 0; 1999 NV₂₃, 6, 2, 12; 1999 NA₂₆, 6, 2, 37; 1999 NS₃₃, 3, 1, 0; 1999 NR₄₈, 3, 1, 0; 1999 NV₅₄, 3, 1, 0; 1999 RX₁₀, 3, 1, 0; 1999 RB₁₄, 3, 1, 0; 1999 RJ₁₆, 3, 1, 0; 1999 RZ₂₀, 9, 3, 54; 1999 RK₂₆, 3, 1, 0; 1999 RS₄₉, 3, 1, 0; 1999 RL₅₀, 3, 1, 0; 1999 RS₅₀, 3, 1, 0; 1999 RG₅₂, 3, 1, 0; 1999 RW₅₂, 3, 1, 0; 1999 RG₅₄, 6, 2, 112; 1999 RG₅₅, 3, 1, 0; 1999 RN₅₇, 3, 1, 0; 1999 RS₅₇, 3, 1, 0; 1999 RW₅₇, 9, 3, 129; 1999 RL₅₉, 3, 1, 0; 1999 RU₅₉, 3, 1, 0; 1999 RK₆₂, 3, 1, 0; 1999 RP₆₄, 3, 1, 0; 1999 RM₇₃, 3, 1, 0; 1999 RE₉₂, 6, 2, 19; 1999 RM₉₂, 3, 1, 0; 1999 RE₁₂₀, 9, 3, 47; 1999 RE₁₂₁, 3, 1, 0; 1999 RQ₁₂₁, 6, 2, 18; 1999 RF₁₂₅, 6, 2, 39; 1999 RD₁₂₉, 6, 2, 28; 1999 RJ₁₂₉, 3, 1, 0; 1999 RV₁₂₉, 3, 1, 0; 1999 RA₁₃₀, 3, 1, 0; 1999 RM₁₃₀, 3, 1, 0; 1999 RQ₁₃₄, 3, 1, 0; 1999 RC₁₃₇, 9, 3, 28; 1999 RP₁₃₉, 3, 1, 0; 1999 RB₁₄₁, 3, 1, 0; 1999 RC₁₄₉, 3, 1, 0; 1999 RR₁₆₂, 3, 1, 0; 1999 RK₁₈₀, 3, 1, 0; 1999 RD₁₈₃, 3, 1, 0; 1999 RO₁₈₄, 3, 1, 0; 1999 RG₁₈₅, 3, 1, 0; 1999 RK₁₉₆, 3, 1, 0; 1999 RM₁₉₉, 3, 1, 0; 1999 RW₂₀₅, 3, 1, 0; 1999 RR₂₀₆, 3, 1, 0; 1999 RX₂₀₇, 3, 1, 0; 1999 RX₂₀₈, 6, 2, 14; 1999 SS₈, 3, 1, 0; 1999 SA₉, 3, 1, 0; 1999 TH₁₂, 3, 1, 0; 1999 TQ₂₆, 3, 1, 0; 1999 TH₂₈, 3, 1, 0; 1999 TH₃₅, 3, 1, 0; 1999 UQ₁₁, 9, 3, 103; 1999 UA₁₆, 3, 1, 0; 1999 UK₂₆, 3, 1, 0; 1999 UD₃₆, 3, 1, 0; 1999 VJ₈, 3, 1, 0; 1999 VM₂₄, 3, 1, 0; 1999 VV₂₄, 3, 1, 0; 1999 VJ₄₀, 3, 1, 0; 1999 VJ₄₆, 3, 1, 0; 1999 VB₆₂, 3, 1, 0; 1999 VL₆₉, 3, 1, 0; 1999 VJ₇₇, 3, 1, 0; 1999 VZ₇₇, 3, 1, 0; 1999 VT₈₀, 6, 2, 22; 1999 VB₈₁, 3, 1, 0; 1999 VS₈₉, 3, 1, 0; 1999 VP₉₀, 3, 1, 0; 1999 VU₁₁₄, 3, 1, 0; 1999 VE₁₁₅, 3, 1, 0; 1999 WH₃, 1, 0; 1999 WL₃, 1, 0; 1999 WE₄, 3, 1, 0; 1999 WO₁₁, 6, 2, 22; 1999 XG₃, 3, 1, 0; 1999 XU₃, 3, 1, 0; 1999 XD₃, 3, 1, 0; 1999 XW₉, 3, 1, 0; 1999 XG₁₃, 3, 1, 0; 1999 XJ₁₃, 9, 3, 55; 1999 XO₁₇, 3, 1, 0; 1999 XE₁₈, 6, 2, 80; 1999 XF₁₈, 3, 1, 0; 1999 XJ₁₈, 3, 1, 0; 1999 XL₁₈, 3, 1, 0; 1999 XJ₂₆, 3, 1, 0; 1999 XS₂₈, 3, 1, 0; 1999 XU₃₂, 3, 1, 0; 1999 XO₃₄, 3, 1, 0; 1999 XZ₃₄, 3, 1, 0; 1999 XO₃₈, 3, 1, 0; 1999 XU₄₂, 3, 1, 0; 1999 XE₄₃, 3, 1, 0; 1999 XH₄₇, 3, 1, 0; 1999 XQ₆₀, 3, 1, 0; 1999 XV₆₉, 6, 2, 23; 1999 XR₇₆, 3, 1, 0; 1999 XW₇₆, 6, 2, 23; 1999 XV₈₆, 12, 4, 59; 1999 XB₈₇, 3, 1, 0; 1999 XW₉₃, 6, 2, 12; 1999 XV₉₄, 3, 1, 0; 1999 XB₉₅, 6, 2, 68; 1999 XS₉₆, 3, 1, 0; 1999 XV₉₇, 6, 2, 19; 1999 XC₉₉, 3, 1, 0; 1999 XL₁₀₁, 6, 2, 27; 1999 XF₁₀₂, 3, 1, 0; 1999 XJ₁₁₃, 3, 1, 0; 1999 XJ₁₁₃, 3, 1, 0; 1999 XW₁₁₃, 3, 1, 0; 1999 XN₁₂₀, 3, 1, 0; 1999 XK₁₂₂, 3, 1, 0; 1999 XQ₁₂₂, 3, 1, 0; 1999 XV₁₂₂, 3, 1, 0; 1999 XT₁₂₃, 9, 3, 81; 1999 XM₁₃₄, 3, 1, 0; 1999 XX₁₃₄, 3, 1, 0; 1999 XK₁₄₂, 3, 1, 0; 1999 XP₁₅₁, 6, 2, 23; 1999 XP₁₅₃, 3, 1, 0; 1999 XJ₁₅₆, 3, 1, 0; 1999 XA₁₆₃, 3, 1, 0; 1999 XR₁₆₄, 3, 1, 0; 1999 XT₁₆₄, 3, 1, 0; 1999 XN₁₆₆, 3, 1, 0; 1999 XB₁₆₇, 3, 1, 0; 1999 XA₁₆₈, 6, 2, 51; 1999 XN₁₆₈, 6, 2, 26; 1999 XU₁₆₉, 6, 2, 82; 1999 XW₁₇₀, 6, 2, 48; 1999 XW₁₇₂, 3, 1, 0; 1999 XW₁₇₃, 3, 1, 0; 1999 XS₁₇₄, 15, 5, 87; 1999 XC₁₇₅, 3, 1, 0; 1999 XE₁₇₆, 3, 1, 0; 1999 XG₁₇₆, 6, 2, 469; 1999 XK₁₇₆, 3, 1, 0; 1999 XY₁₇₆, 6, 1, 0; 1999 XE₁₇₇, 3, 1, 0; 1999 XF₁₇₇, 3, 1, 0; 1999 XH₁₇₉, 6, 2, 446; 1999 XA₁₈₇, 3, 1, 0; 1999 XY₁₈₇, 3, 1, 0; 1999 XX₁₉₂, 6, 2, 22; 1999 XT₁₉₄, 3, 1, 0; 1999 XZ₁₉₇, 3, 1, 0; 1999 XZ₂₀₂, 3, 1, 0; 1999 XF₂₀₃, 3, 1, 0; 1999 XB₂₀₄, 3, 1, 0; 1999 XL₂₁₃, 3, 1, 0; 1999 XO₂₁₃, 3, 1, 0; 1999 XU₂₁₅, 6, 2, 37; 1999 XP₂₂₀, 3, 1, 0; 1999 XZ₂₂₀, 3, 1, 0; 1999 XA₂₂₁, 3, 1, 0; 1999 XC₂₂₁,

3, 1, 0; 1999 XD₂₂₁, 3, 1, 0; 1999 XC₂₂₃, 6, 2, 469; 1999 XD₂₂₃, 3, 1, 0; 1999 XY₂₂₃, 6, 2, 28; 1999 XG₂₂₉, 6, 2, 384; 1999 XH₂₂₉, 6, 2, 1; 1999 XJ₂₃₀, 3, 1, 0; 1999 XW₂₃₀, 3, 1, 0; 1999 XV₂₃₁, 3, 1, 0; 1999 YD₃, 3, 1, 0; 1999 YZ₈, 6, 2, 24; 1999 YC₉, 6, 2, 41; 1999 YF₉, 6, 2, 39; 1999 YU₉, 6, 2, 16; 1999 YD₁₃, 6, 2, 10; 1999 YG₁₃, 6, 2, 10; 1999 YG₁₈, 3, 1, 0; 2000 AB₁₂, 4, 53; 2000 AJ₃, 3, 1, 0; 2000 AK₆, 6, 2, 25; 2000 AS₁, 3, 1, 0; 2000 AX₁, 3, 1, 0; 2000 AB₂, 6, 2, 12; 2000 AW₂, 3, 1, 0; 2000 AX₂, 3, 1, 0; 2000 AY₂, 3, 1, 0; 2000 AB₃, 6, 2, 13; 2000 AR₄, 9, 3, 447; 2000 AV₄, 3, 1, 0; 2000 AX₄, 3, 1, 0; 2000 AJ₅, 3, 1, 0; 2000 AO₅, 3, 1, 0; 2000 AM₆, 3, 1, 0; 2000 AT₇, 3, 1, 0; 2000 AO₈, 3, 1, 0; 2000 AL₉, 6, 2, 44; 2000 AQ₉, 3, 1, 0; 2000 AR₉, 3, 1, 0; 2000 AU₂₇, 6, 2, 58; 2000 AB₂₉, 3, 1, 0; 2000 AH₃₁, 3, 1, 0; 2000 AM₃₁, 3, 1, 0; 2000 AR₃₁, 3, 1, 0; 2000 AS₃₁, 9, 3, 89; 2000 AZ₃₂, 3, 1, 0; 2000 AQ₃₄, 3, 1, 0; 2000 AV₄₈, 3, 1, 0; 2000 AY₄₉, 6, 2, 25; 2000 AD₅₀, 6, 2, 30; 2000 AH₅₀, 3, 1, 0; 2000 AF₅₀, 6, 2, 9; 2000 AS₅₀, 9, 3, 466; 2000 AU₅₀, 3, 1, 0; 2000 AV₅₀, 3, 1, 0; 2000 AZ₅₀, 3, 1, 0; 2000 AD₅₂, 3, 1, 0; 2000 AJ₅₂, 3, 1, 0; 2000 AO₅₂, 3, 1, 0; 2000 AP₅₂, 3, 1, 0; 2000 AQ₅₂, 3, 1, 0; 2000 AS₅₂, 3, 1, 0; 2000 AX₅₂, 3, 1, 0; 2000 AB₅₃, 3, 1, 0; 2000 AR₅₃, 6, 2, 13; 2000 AC₅₄, 3, 1, 0; 2000 AD₅₄, 9, 3, 25; 2000 AF₅₄, 6, 2, 25; 2000 AJ₅₄, 3, 1, 0; 2000 AM₅₄, 3, 1, 0; 2000 AE₅₅, 3, 1, 0; 2000 AJ₅₅, 9, 3, 467; 2000 AW₅₆, 3, 1, 0; 2000 AQ₅₇, 3, 1, 0; 2000 AW₅₇, 9, 3, 430; 2000 AM₅₉, 3, 1, 0; 2000 AV₆₀, 3, 1, 0; 2000 AT₆₁, 3, 1, 0; 2000 AW₆₁, 3, 1, 0; 2000 AG₆₂, 6, 2, 31; 2000 AG₆₂, 3, 1, 0; 2000 AY₆₂, 3, 1, 0; 2000 AL₆₄, 3, 1, 0; 2000 AT₆₄, 3, 1, 0; 2000 AB₆₅, 3, 1, 0; 2000 AJ₆₅, 3, 1, 0; 2000 AM₆₈, 6, 2, 27; 2000 AF₆₈, 3, 1, 0; 2000 AG₇₆, 3, 1, 0; 2000 AP₈₄, 6, 2, 12; 2000 AV₈₄, 3, 1, 0; 2000 AW₈₄, 6, 2, 12; 2000 AZ₈₄, 6, 2, 12; 2000 AD₈₅, 3, 1, 0; 2000 AB₈₆, 3, 1, 0; 2000 AH₈₆, 3, 1, 0; 2000 AJ₈₆, 3, 1, 0; 2000 AU₈₆, 3, 1, 0; 2000 AV₈₆, 3, 1, 0; 2000 AZ₈₆, 3, 1, 0; 2000 AF₈₇, 9, 3, 415; 2000 AR₈₇, 3, 1, 0; 2000 AU₈₇, 3, 1, 0; 2000 AV₈₇, 6, 2, 26; 2000 AX₈₇, 6, 2, 25; 2000 AC₈₈, 3, 1, 0; 2000 AE₈₈, 3, 1, 0; 2000 AL₈₈, 3, 1, 0; 2000 AN₈₈, 3, 1, 0; 2000 AO₈₈, 12, 4, 88; 2000 AV₈₈, 3, 1, 0; 2000 AW₈₈, 3, 1, 0; 2000 AZ₈₈, 3, 1, 0; 2000 AA₈₉, 3, 1, 0; 2000 AJ₈₉, 3, 1, 0; 2000 AM₈₉, 3, 1, 0; 2000 AO₈₉, 3, 1, 0; 2000 AQ₈₉, 3, 1, 0; 2000 AR₈₉, 3, 1, 0; 2000 AT₈₉, 3, 1, 0; 2000 AU₈₉, 3, 1, 0; 2000 AS₉₀, 3, 1, 0; 2000 AP₉₁, 3, 1, 0; 2000 AR₉₁, 3, 1, 0; 2000 AG₉₃, 3, 1, 0; 2000 AJ₉₅, 3, 1, 0; 2000 AP₉₅, 3, 1, 0; 2000 AS₉₅, 9, 3, 59; 2000 AO₉₆, 3, 1, 0; 2000 AX₉₆, 3, 1, 0; 2000 AC₉₇, 3, 1, 0; 2000 AK₉₇, 3, 1, 0; 2000 AM₉₇, 3, 1, 0; 2000 AR₉₇, 9, 3, 531; 2000 AV₉₇, 9, 3, 55; 2000 AZ₉₇, 6, 2, 57; 2000 AB₉₈, 3, 1, 0; 2000 AF₉₈, 3, 1, 0; 2000 AF₉₉, 2, 1, 0; 2000 AL₉₉, 6, 2, 25; 2000 AS₉₉, 3, 1, 0; 2000 AM₁₀₀, 3, 1, 0; 2000 AP₁₀₂, 3, 1, 0; 2000 AQ₁₀₃, 3, 1, 0; 2000 AB₁₀₇, 3, 1, 0; 2000 AT₁₁₂, 3, 1, 0; 2000 AM₁₁₄, 3, 1, 0; 2000 AO₁₁₄, 3, 1, 0; 2000 AJ₁₁₆, 6, 2, 26; 2000 AZ₁₁₆, 3, 1, 0; 2000 AA₁₁₇, 3, 1, 0; 2000 AJ₁₁₇, 3, 1, 0; 2000 AQ₁₁₇, 12, 4, 466; 2000 AY₁₁₇, 3, 1, 0; 2000 AB₁₁₈, 3, 1, 0; 2000 AD₁₁₈, 3, 1, 0; 2000 AD₁₁₉, 3, 1, 0; 2000 AF₁₁₉, 9, 3, 439; 2000 AK₁₁₉, 3, 1, 0; 2000 AB₁₂₁, 6, 2, 107; 2000 AG₁₂₁, 3, 1, 0; 2000 AH₁₂₁, 3, 1, 0; 2000 AK₁₂₁, 3, 1, 0; 2000 AM₁₂₁, 3, 1, 0; 2000 AS₁₂₂, 3, 1, 0; 2000 AZ₁₂₃, 3, 1, 0; 2000 AC₁₂₄, 3, 1, 0; 2000 AP₁₂₄, 3, 1, 0; 2000 AS₁₂₄, 3, 1, 0; 2000 AY₁₂₄, 9, 3, 46; 2000 AC₁₂₅, 3, 1, 0; 2000 AK₁₂₅, 3, 1, 0; 2000 AL₁₂₅, 3, 1, 0; 2000 AU₁₂₅, 3, 1, 0; 2000 AY₁₂₅, 3, 1, 0; 2000 AL₁₂₆, 3, 1, 0; 2000 AP₁₂₆, 3, 1, 0; 2000 AD₁₂₇, 3, 1, 0; 2000 AM₁₂₇, 3, 1, 0; 2000 AT₁₂₇, 12, 4, 51; 2000 AY₁₂₇, 9, 2, 18; 2000 AE₁₂₈, 6, 2, 45; 2000 AE₁₂₉, 3, 1, 0; 2000 AG₁₃₃, 3, 1, 0; 2000 AV₁₃₆, 6, 2, 13; 2000 AX₁₃₆, 9, 3, 338; 2000 AZ₁₃₉, 3, 1, 0; 2000 AE₁₄₀, 6, 2, 25; 2000 AM₁₄₀, 6, 2, 25; 2000 AU₁₄₁, 3, 1, 0; 2000 AD₁₄₂, 3, 1, 0; 2000 AH₁₄₂, 3, 1, 0; 2000 AT₁₄₂, 3, 1, 0; 2000 AV₁₄₂, 3, 1, 0; 2000 AX₁₄₂, 9, 3, 162; 2000 AD₁₄₃, 3, 1, 0; 2000 AF₁₄₃,

1, 0; 2000 AZ₂₃₅ *, 3, 1, 0; 2000 AE₂₃₆ *, 3, 1, 0; 2000 AF₂₃₆ *, 3, 1, 0; 2000 AG₂₃₆ *, 3, 1, 0; 2000 AH₂₃₆ *, 3, 1, 0; 2000 AJ₂₃₆ *, 3, 1, 0; 2000 AK₂₃₆ *, 3, 1, 0; 2000 AO₂₃₆ *, 3, 1, 0; 2000 AP₂₃₆ *, 3, 1, 0; 2000 AQ₂₃₆ *, 3, 1, 0; 2000 AR₂₃₆ *, 3, 1, 0; 2000 AS₂₃₆ *, 3, 1, 0; 2000 AT₂₃₆ *, 3, 1, 0; 2000 AU₂₃₆ *, 3, 1, 0; 2000 AV₂₃₆ *, 3, 1, 0; 2000 AY₂₃₆ *, 3, 1, 0; 2000 AZ₂₃₆ *, 3, 1, 0; 2000 AA₂₃₇ *, 3, 1, 0; 2000 AB₂₃₇ *, 3, 1, 0; 2000 AC₂₃₇ *, 3, 1, 0; 2000 AD₂₃₇ *, 3, 1, 0; 2000 AE₂₃₇ *, 3, 1, 0; 2000 AF₂₃₇ *, 3, 1, 0; 2000 AG₂₃₇ *, 3, 1, 0; 2000 AH₂₃₇ *, 3, 1, 0; 2000 AJ₂₃₇ *, 3, 1, 0; 2000 AK₂₃₇ *, 3, 1, 0; 2000 AL₂₃₇ *, 3, 1, 0; 2000 AM₂₃₇ *, 3, 1, 0; 2000 AN₂₃₇ *, 3, 1, 0; 2000 AO₂₃₇ *, 6, 2, 27; 2000 AP₂₃₇ *, 3, 1, 0; 2000 AQ₂₃₇ *, 3, 1, 0; 2000 AR₂₃₇ *, 12, 4, 473; 2000 AS₂₃₇ *, 3, 1, 0; 2000 AT₂₃₇ *, 3, 1, 0; 2000 AU₂₃₇ *, 3, 1, 0; 2000 AV₂₃₇ *, 3, 1, 0; 2000 AZ₂₃₇ *, 3, 1, 0; 2000 AA₂₃₈ *, 3, 1, 0; 2000 AB₂₃₈ *, 3, 1, 0; 2000 AC₂₃₈ *, 3, 1, 0; 2000 AD₂₃₈ *, 3, 1, 0; 2000 AE₂₃₈ *, 3, 1, 0; 2000 AF₂₃₈ *, 3, 1, 0; 2000 AG₂₃₈ *, 3, 1, 0; 2000 AH₂₃₈ *, 3, 1, 0; 2000 AJ₂₃₈ *, 3, 1, 0; 2000 AK₂₃₈ *, 3, 1, 0; 2000 AL₂₃₈ *, 3, 1, 0; 2000 AM₂₃₈ *, 3, 1, 0; 2000 AN₂₃₈ *, 3, 1, 0; 2000 AO₂₃₈ *, 3, 1, 0; 2000 AP₂₃₈ *, 3, 1, 0; 2000 AQ₂₃₈ *, 3, 1, 0; 2000 AR₂₃₈ *, 3, 1, 0; 2000 AS₂₃₈ *, 3, 1, 0; 2000 AT₂₃₈ *, 3, 1, 0; 2000 AU₂₃₈ *, 3, 1, 0; 2000 AV₂₃₈ *, 3, 1, 0; 2000 AZ₂₃₈ *, 3, 1, 0; 2000 AA₂₄₀ *, 3, 1, 0; 2000 AB₂₄₀ *, 3, 1, 0; 2000 AC₂₄₀ *, 3, 1, 0; 2000 AD₂₄₀ *, 3, 1, 0; 2000 AE₂₄₀ *, 3, 1, 0; 2000 AF₂₄₀ *, 3, 1, 0; 2000 AG₂₄₀ *, 3, 1, 0; 2000 AH₂₄₀ *, 3, 1, 0; 2000 AI₂₄₀ *, 3, 1, 0; 2000 AJ₂₄₀ *, 3, 1, 0; 2000 AK₂₄₀ *, 3, 1, 0; 2000 AL₂₄₀ *, 3, 1, 0; 2000 AM₂₄₀ *, 3, 1, 0; 2000 AN₂₄₀ *, 3, 1, 0; 2000 AO₂₄₀ *, 3, 1, 0; 2000 AP₂₄₀ *, 3, 1, 0; 2000 AQ₂₄₀ *, 3, 1, 0; 2000 AR₂₄₀ *, 3, 1, 0; 2000 AS₂₄₀ *, 3, 1, 0; 2000 AT₂₄₀ *, 3, 1, 0; 2000 AU₂₄₀ *, 3, 1, 0; 2000 AV₂₄₀ *, 3, 1, 0; 2000 AZ₂₄₀ *, 3, 1, 0; 2000 AA₂₄₁ *, 3, 1, 0; 2000 AB₂₄₁ *, 3, 1, 0; 2000 AC₂₄₁ *, 3, 1, 0; 2000 AD₂₄₁ *, 3, 1, 0; 2000 AE₂₄₁ *, 3, 1, 0; 2000 AF₂₄₁ *, 3, 1, 0; 2000 AG₂₄₁ *, 3, 1, 0; 2000 AH₂₄₁ *, 3, 1, 0; 2000 AI₂₄₁ *, 3, 1, 0; 2000 AJ₂₄₁ *, 3, 1, 0; 2000 AK₂₄₁ *, 3, 1, 0; 2000 AL₂₄₁ *, 3, 1, 0; 2000 AM₂₄₁ *, 3, 1, 0; 2000 AN₂₄₁ *, 3, 1, 0; 2000 AO₂₄₁ *, 3, 1, 0; 2000 AP₂₄₁ *, 3, 1, 0; 2000 AQ₂₄₁ *, 3, 1, 0; 2000 AR₂₄₁ *, 3, 1, 0; 2000 AS₂₄₁ *, 3, 1, 0; 2000 AT₂₄₁ *, 3, 1, 0; 2000 AU₂₄₁ *, 3, 1, 0; 2000 AV₂₄₁ *, 3, 1, 0; 2000 AZ₂₄₁ *, 3, 1, 0; 2000 AA₂₄₂ *, 3, 1, 0; 2000 AB₂₄₂ *, 3, 1, 0; 2000 AC₂₄₂ *, 3, 1, 0; 2000 AD₂₄₂ *, 3, 1, 0; 2000 AE₂₄₂ *, 3, 1, 0; 2000 AF₂₄₂ *, 3, 1, 0; 2000 AG₂₄₂ *, 3, 1, 0; 2000 AH₂₄₂ *, 3, 1, 0; 2000 AI₂₄₂ *, 3, 1, 0; 2000 AJ₂₄₂ *, 3, 1, 0; 2000 AK₂₄₂ *, 3, 1, 0; 2000 AL₂₄₂ *, 3, 1, 0; 2000 AM₂₄₂ *, 3, 1, 0; 2000 AN₂₄₂ *, 6, 2, 382; 2000 AO₂₄₂ *, 3, 1, 0; 2000 AP₂₄₂ *, 3, 1, 0; 2000 AQ₂₄₂ *, 3, 1, 0; 2000 AR₂₄₂ *, 3, 1, 0; 2000 AS₂₄₂ *, 3, 1, 0; 2000 AT₂₄₂ *, 3, 1, 0; 2000 AU₂₄₂ *, 3, 1, 0; 2000 AV₂₄₂ *, 3, 1, 0; 2000 AZ₂₄₂ *, 3, 1, 0; 2000 AA₂₄₃ *, 3, 1, 0; 2000 AB₂₄₃ *, 3, 1, 0; 2000 AC₂₄₃ *, 3, 1, 0; 2000 AD₂₄₃ *, 3, 1, 0; 2000 AE₂₄₃ *, 3, 1, 0; 2000 AF₂₄₃ *, 3, 1, 0; 2000 AG₂₄₃ *, 3, 1, 0; 2000 AH₂₄₃ *, 3, 1, 0; 2000 AI₂₄₃ *, 3, 1, 0; 2000 AJ₂₄₃ *, 3, 1, 0; 2000 AK₂₄₃ *, 3, 1, 0; 2000 AL₂₄₃ *, 3, 1, 0; 2000 AM₂₄₃ *, 3, 1, 0; 2000 AN₂₄₃ *, 3, 1, 0; 2000 AO₂₄₃ *, 3, 1, 0; 2000 AP₂₄₃ *, 3, 1, 0; 2000 AQ₂₄₃ *, 3, 1, 0; 2000 AR₂₄₃ *, 3, 1, 0; 2000 AS₂₄₃ *, 6, 2, 24; 2000 AT₂₄₃ *, 3, 1, 0; 2000 AU₂₄₃ *, 3, 1, 0; 2000 AV₂₄₃ *, 3, 1, 0; 2000 AZ₂₄₃ *, 3, 1, 0; 2000 AA₂₄₄ *, 3, 1, 0; 2000 AB₂₄₄ *, 3, 1, 0; 2000 AC₂₄₄ *, 3, 1, 0; 2000 AD₂₄₄ *, 3, 1, 0; 2000 AE₂₄₄ *, 3, 1, 0; 2000 AF₂₄₄ *, 3, 1, 0; 2000 AG₂₄₄ *, 3, 1, 0; 2000 AH₂₄₄ *, 3, 1, 0; 2000 AI₂₄₄ *, 3, 1, 0; 2000 AJ₂₄₄ *, 3, 1, 0; 2000 AK₂₄₄ *, 3, 1, 0; 2000 AL₂₄₄ *, 3, 1, 0; 2000 AM₂₄₄ *, 3, 1, 0; 2000 AN₂₄₄ *, 3, 1, 0; 2000 AO₂₄₄ *, 3, 1, 0; 2000 AP₂₄₄ *, 3, 1, 0; 2000 AQ₂₄₄ *, 3, 1, 0; 2000 AR₂₄₄ *, 3, 1, 0; 2000 AS₂₄₄ *, 3, 1, 0; 2000 AT₂₄₄ *, 3, 1, 0; 2000 AU₂₄₄ *, 3, 1, 0; 2000 AV₂₄₄ *, 3, 1, 0; 2000 AZ₂₄₄ *, 3, 1, 0; 2000 AA₂₄₅ *, 3, 1, 0; 2000 AB₂₄₅ *, 3, 1, 0; 2000 AC₂₄₅ *, 3, 1, 0; 2000 AD₂₄₅ *, 3, 1, 0; 2000 AE₂₄₅ *, 3, 1, 0; 2000 AF₂₄₅ *, 3, 1, 0; 2000 AG₂₄₅ *, 3, 1, 0; 2000 AH₂₄₅ *, 3, 1, 0; 2000 AI₂₄₅ *, 3, 1, 0; 2000 AJ₂₄₅ *, 3, 1, 0; 2000 AK₂₄₅ *, 6, 2, 33; 2000 AL₂₄₅ *, 3, 1, 0; 2000 AM₂₄₅ *, 3, 1, 0; 2000 AN₂₄₅ *, 3, 1, 0; 2000 AO₂₄₅ *, 3, 1, 0; 2000 BR₃ *, 3, 1, 0; 2000 BS₃ *, 3, 1, 0; 2000 BU₃ *, 3, 1, 0; 2000 BV₃ *, 3, 1, 0; 2000 BY₃ *, 6, 2, 38; 2000 BB₄ *, 3, 1, 0; 2000 BZ₅ *, 3, 1, 0; 2000 BK₆ *, 3, 1, 0; 2000 BT₈ *, 3, 1, 0; 2000 BX₈ *, 3, 1, 0; 2000 BJ₁₄ *, 3, 1, 0; 2000 BM₁₄ *, 3, 1, 0; 2000 BO₁₄ *, 3, 1, 0; 2000 BX₁₅ *, 3, 1, 0; 2000 BF₁₆ *, 3, 1, 0; 2000 BO₁₆ *, 3, 1, 0; 2000 BX₂₂ *, 6, 2, 56; 2000 BM₂₅ *, 3, 1, 0; 2000 CF₂ *, 15, 5, 446; 2000 CS₁₃ *, 6, 2, 440; 2000 CH₅₆ *, 3, 1, 0; 2000 CV₇₅ *, 3, 1, 0; 2000 CA₈₃ *, 3, 1, 0; 2000 CL₉₂ *, 3, 1, 0; 2000 DB₃ *, 3, 1, 0; 2000 DC₃ *, 3, 1, 0; 3521 P-L, 6, 2, 29; 2166 T-1, 3, 1, 0; 3106 T-1, 3, 1, 0; 4326 T-1, 3, 1, 0; 1171 T-2, 3, 1, 0; 1343 T-2, 3, 1, 0; 4834 T-2, 3, 30; 3465 T-2, 3, 1, 0; 4080 T-3, 3, 1, 0; 5132 T-3, 3, 1, 0; 5193 T-3, 3, 1, 0; [3610, 943, 103*, 1998/03/22-2000/01/11]

703 Catalina Sky Survey

C. W. Hergenrother, Space Sciences Building, University of Arizona, Tucson, AZ
85721, U.S.A. [chergen@pirl.lpl.arizona.edu]

Observers C. W. Hergenrother, S. M. Larson, T. B. Spahr, R. E. Hill

0.41-m $f/3$ Schmidt + CCD

USNO-SA2.0, USNO-A2.0

1977 TO₆ *, 4, 1, 0; 1978 RX₁ *, 4, 1, 0; 1978 UW₄ *, 4, 1, 0; 1978 VH₅ *, 4, 1, 0; 1978 VD₈ *, 4, 1, 0; 1979 ML₆ *, 4, 1, 0; 1979 MW₆ *, 4, 1, 0; 1980 SF *, 4, 1, 0; 1981 DN *, 8, 2, 2; 1981 EB₈ *, 4, 1, 0; 1981 EJ₁₃ *, 4, 1, 0; 1981 ED₁₈ *, 4, 1, 0; 1981 EB₃₆ *, 4, 1, 0; 1981 EM₃₇ *, 4, 1, 0; 1981 QL₂ *, 4, 1, 0; 1982 ST₇ *, 4, 1, 0; 1982 UD₄ *, 4, 1, 0; 1982 UE₆ *, 4, 1, 0; 1982 UE₁₂ *, 4, 1, 0; 1983 XE *, 4, 1, 0; 1984 EQ *, 4, 1, 0; 1984 UJ₁ *, 4, 1, 0; 1985 PG *, 8, 2, 1; 1985 RT *, 8, 2, 7; 1986 TV₆ *, 4, 1, 0; 1987 QH *, 4, 1, 0; 1987 SV₃ *, 4, 1, 0; 1988 BY₃ *, 4, 1, 0; 1988 PL₂ *, 4, 1, 0; 1988 RH₆ *, 4, 1, 0; 1988 SB₂ *, 4, 1, 0; 1989 AB₃ *, 4, 1, 0; 1989 AN₅ *, 4, 1, 0; 1989 CB₆ *, 4, 1, 0; 1989 GM₁ *, 4, 1, 0; 1989 SD *, 4, 1, 0; 1989 TH₁ *, 4, 1, 0; 1989 TR₁₁ *, 4, 1, 0; 1989 TF₁₂ *, 8, 2, 28; 1989 WA₁ *, 4, 1, 0; 1989 YE₄ *, 4, 1, 0; 1990 DZ *, 4, 1, 0; 1990 EL₂ *, 4, 1, 0; 1990 QB₆ *, 8, 2, 15; 1990 QE₇ *, 4, 1, 0; 1990 SD₅ *, 4, 1, 0; 1990 TW₁₁ *, 4, 1, 0; 1990 UU₁ *, 4, 1, 0; 1990 UK₅ *, 8, 2, 4; 1990 VE *, 4, 1, 0; 1990 VP₆ *, 4, 1, 0; 1991 DB *, 4, 1, 0; 1991 FG *, 4, 1, 0; 1991 GT₄ *, 4, 1, 0; 1991 OO *, 4, 1, 0; 1991 OV *, 4, 1, 0; 1991 PG₃ *, 4, 1, 0; 1991 PD₁₁ *, 4, 1, 0; 1991 QJ *, 4, 1, 0; 1991 RN₄ *, 4, 1, 0; 1991 RY₈ *, 4, 1, 0; 1991 RR₁₀ *, 4, 1, 0; 1991 RZ₁₁ *, 4, 1, 0; 1991 RH₁₄ *, 4, 1, 0; 1991 RA₁₇ *, 4, 1, 0; 1991 RG₁₇ *, 4, 1, 0; 1991 SG *, 4, 1, 0; 1991 ST *, 4, 1, 0; 1991 TQ₂ *, 4, 1, 0; 1991 TK₈ *, 4, 1, 0; 1991 TL₁₄ *, 4, 1, 0; 1991 UR *, 4, 1, 0; 1991 UE₁ *, 4, 1, 0; 1991 UK₁ *, 4, 1, 0; 1991 UR₁ *, 4, 1, 0; 1991 UJ₂ *, 8, 2, 1; 1991 VE₂ *, 4, 1, 0; 1991 VA₃ *, 4, 1, 0; 1991 VP₃ *, 4, 1, 0; 1991 VC₅ *, 4, 1,

0; 1991 VM₅ *, 4, 1, 0; 1992 BQ₂ *, 4, 1, 0; 1992 DU₅ *, 4, 1, 0; 1992 EY₅ *, 3, 1, 0; 1992 EZ₆ *, 4, 1, 0; 1992 EK₁₄ *, 4, 1, 0; 1992 EW₁₆ *, 4, 1, 0; 1992 FC₂ *, 4, 1, 0; 1992 GA *, 4, 1, 0; 1992 JQ *, 4, 1, 0; 1992 JL₁ *, 4, 1, 0; 1992 JB₂ *, 4, 1, 0; 1992 RD₁ *, 4, 1, 0; 1992 RB₃ *, 4, 1, 0; 1992 RJ₅ *, 4, 1, 0; 1992 RX₆ *, 4, 1, 0; 1992 UR₂ *, 4, 1, 0; 1993 BB *, 4, 1, 0; 1993 FL₁ *, 4, 1, 0; 1993 FQ₁ *, 4, 1, 0; 1993 FY₅ *, 4, 1, 0; 1993 FW₉ *, 4, 1, 0; 1993 FS₁₂ *, 4, 1, 0; 1993 FV₁₆ *, 4, 1, 0; 1993 FZ₁₈ *, 4, 1, 0; 1993 FE₂₀ *, 4, 1, 0; 1993 FH₂₀ *, 4, 1, 0; 1993 FB₂₂ *, 4, 1, 0; 1993 FP₂₃ *, 4, 1, 0; 1993 FD₂₅ *, 4, 1, 0; 1993 FL₃₃ *, 8, 2, 88; 1993 FP₃₃ *, 4, 1, 0; 1993 FD₃₇ *, 8, 2, 28; 1993 FR₅₂ *, 4, 1, 0; 1993 FX₇₉ *, 4, 1, 0; 1993 FY₈₀ *, 4, 1, 0; 1993 HX *, 4, 1, 0; 1993 HL₃ *, 4, 1, 0; 1993 LF *, 3, 1, 0; 1993 NS₁ *, 4, 1, 0; 1993 NA₂ *, 4, 1, 0; 1993 OD₂ *, 4, 1, 0; 1993 QN₃ *, 8, 2, 2; 1993 QH₄ *, 4, 1, 0; 1993 QO₄ *, 8, 2, 62; 1993 TD₁₇ *, 4, 1, 0; 1993 TZ₂₉ *, 4, 1, 0; 1993 TM₃₁ *, 8, 2, 8; 1993 UK *, 4, 1, 0; 1994 AM *, 4, 1, 0; 1994 AC₃ *, 4, 1, 0; 1994 BD₄ *, 4, 1, 0; 1994 ER₅ *, 4, 1, 0; 1994 JB *, 4, 1, 0; 1994 PG *, 4, 1, 0; 1994 PC₂ *, 4, 1, 0; 1994 PL₄ *, 4, 1, 0; 1994 PL₁₁ *, 4, 1, 0; 1994 PD₁₈ *, 4, 1, 0; 1994 PL₂₃ *, 4, 1, 0; 1994 PL₂₆ *, 4, 1, 0; 1994 PW₂₆ *, 8, 2, 21; 1994 TJ *, 4, 1, 0; 1994 UC₁ *, 4, 1, 0; 1994 UQ₁ *, 4, 1, 0; 1994 VH₁ *, 4, 1, 0; 1994 WT *, 4, 1, 0; 1994 YC₂ *, 4, 1, 0; 1995 BS₁₁ *, 4, 1, 0; 1995 FA₈ *, 4, 1, 0; 1995 GC₇ *, 4, 1, 0; 1995 HY₂ *, 4, 1, 0; 1995 SX₄ *, 4, 1, 0; 1995 SH₃₂ *, 4, 1, 0; 1995 SD₅₃ *, 8, 2, 28; 1995 SO₅₄ *, 4, 1, 0; 1995 UG₅ *, 4, 1, 0; 1995 UB₈ *, 4, 1, 0; 1995 UV₈ *, 4, 1, 0; 1995 UX₄₈ *, 4, 1, 0; 1995 VD *, 4, 1, 0; 1995 VZ *, 4, 1, 0; 1995 VN₁ *, 4, 1, 0; 1995 VP₁ *, 4, 1, 0; 1995 WS₂ *, 4, 1, 0; 1995 WK₅ *, 4, 1, 0; 1995 WT₇ *, 4, 1, 0; 1995 WY₇ *, 4, 1, 0; 1995 WP₈ *, 4, 1, 0; 1995 WR₁₇ *, 4, 1, 0; 1995 WX₄₂ *, 4, 1, 0; 1995 YY₅ *, 4, 1, 0; 1995 YP₈ *, 4, 1, 0; 1995 YM₁₀ *, 4, 1, 0; 1996 AS *, 4, 1, 0; 1996 BZ *, 4, 1, 0; 1996 BH₂ *, 4, 1, 0; 1996 BY₂ *, 4, 1, 0; 1996 DU *, 4, 1, 0; 1996 DL₁ *, 4, 1, 0; 1996 DK₂ *, 4, 1, 0; 1996 DQ₂ *, 4, 1, 0; 1996 DT₃ *, 4, 1, 0; 1996 EB₁ *, 4, 1, 0; 1996 EL₁ *, 4, 1, 0; 1996 EG₂ *, 4, 1, 0; 1996 EK₆ *, 4, 1, 0; 1996 GN₂ *, 4, 1, 0; 1996 GL₃ *, 4, 1, 0; 1996 GE₂₀ *, 4, 1, 0; 1996 GG₂₀ *, 4, 1, 0; 1996 HX *, 4, 1, 0; 1996 HM₂ *, 4, 1, 0; 1996 HR₁₀ *, 4, 1, 0; 1996 HC₁₂ *, 4, 1, 0; 1996 HT₁₅ *, 8, 2, 2; 1996 HX₁₆ *, 4, 1, 0; 1996 HC₂₅ *, 4, 1, 0; 1996 JK₁₃ *, 4, 1, 0; 1996 KN *, 4, 1, 0; 1996 KO₁ *, 4, 1, 0; 1996 XU₁₄ *, 4, 1, 0; 1996 YE₂ *, 4, 1, 0; 1997 AZ₁₂ *, 4, 1, 0; 1997 BD₃ *, 4, 1, 0; 1997 CV₂₁ *, 4, 1, 0; 1997 CZ₂₁ *, 4, 1, 0; 1997 EY₂ *, 4, 1, 0; 1997 EC₆ *, 4, 1, 0; 1997 EJ₁₁ *, 4, 1, 0; 1997 ET₁₇ *, 4, 1, 0; 1997 EO₃₀ *, 4, 1, 0; 1997 EX₄₅ *, 8, 2, 30; 1997 EB₅₄ *, 4, 1, 0; 1997 FB *, 4, 1, 0; 1997 FQ₃ *, 4, 1, 0; 1997 FD₄ *, 4, 1, 0; 1997 GH₈ *, 4, 1, 0; 1997 GA₁₄ *, 4, 1, 0; 1997 GK₁₆ *, 4, 1, 0; 1997 GE₁₇ *, 4, 1, 0; 1997 GK₂₁ *, 4, 1, 0; 1997 GK₂₃ *, 4, 1, 0; 1997 GC₃₃ *, 4, 1, 0; 1997 GT₃₇ *, 4, 1, 0; 1997 HQ₁ *, 4, 1, 0; 1997 HG₁₀ *, 4, 1, 0; 1997 JZ *, 4, 1, 0; 1997 JB₁₀ *, 4, 1, 0; 1997 JT₁₅ *, 4, 1, 0; 1997 JN₁₆ *, 4, 1, 0; 1997 KA *, 4, 1, 0; 1997 KU₂ *, 4, 1, 0; 1997 LE₁₀ *, 4, 1, 0; 1997 MG₁ *, 4, 1, 0; 1997 MJ₂ *, 4, 1, 0; 1997 MZ₂ *, 4, 1, 0; 1997 NK₁ *, 4, 1, 0; 1997 NE₁₁ *, 4, 1, 0; 1997 PY₁ *, 4, 1, 0; 1997 QF *, 8, 2, 4; 1997 QF₂ *, 8, 2, 15; 1997 RA₁ *, 4, 1, 0; 1997 RO₇ *, 4, 1, 0; 1997 TR *, 4, 1, 0; 1997 TV *, 4, 1, 0; 1997 TS₁₈ *, 4, 1, 0; 1998 BE₁₅ *, 4, 1, 0; 1998 FO₁₀₃ *, 4, 1, 0; 1998 HU₃₁ *, 4, 1, 0; 1998 HC₄₂ *, 4, 1, 0; 1998 HJ₉₈ *, 12, 3, 16; 1998 HF₁₀₂ *, 4, 1, 0; 1998 HF₁₄₇ *, 4, 1, 0; 1998 JJ₁ *, 4, 1, 0; 1998 KR₁ *, 4, 1, 0; 1998 KS₄ *, 4, 1, 0; 1998 KT₆ *, 4, 1, 0; 1998 KV₃₂ *, 4, 1, 0; 1998 KT₄₈ *, 4, 1, 0; 1998 MU₇ *, 4, 1, 0; 1998 MC₃₂ *, 4, 1, 0; 1998 MM₃₆ *, 4, 1, 0; 1998 NA *, 4, 1, 0; 1998 OR *, 4, 1, 0; 1998 OE₇ *, 4, 1, 0; 1998 OJ₇ *, 4, 1, 0; 1998 OL₁₁ *, 4, 1, 0; 1998 OZ₁₁ *, 4, 1, 0; 1998 ON₁₃ *, 4, 1, 0; 1998 OS₁₃ *, 4, 1, 0; 1998 PL₁ *, 4, 1, 0; 1998 QK₁ *, 4, 1, 0; 1998 QH₃ *, 4, 1, 0; 1998 QS₅ *, 4, 1, 0; 1998 QU₈ *, 8, 2, 9; 1998 QU₁₃ *, 4, 1, 0; 1998 QT₁₆ *, 4, 1, 0; 1998 QE₂₃ *, 8, 2, 8; 1998 QT₂₃ *, 4

1, 0; 1998 TQ₃₀, 8, 2, 2; 1998 TR₃₀, 4, 1, 0; 1998 TT₃₀, 4, 1, 0; 1998 TA₃₂, 4, 1, 0; 1998 TN₃₃, 4, 1, 0; 1998 TD₃₄, 4, 1, 0; 1998 TG₃₄, 4, 1, 0; 1998 TJ₃₄, 4, 1, 0; 1998 UK₁, 4, 1, 0; 1998 UC₃, 4, 1, 0; 1998 UV₆, 4, 1, 0; 1998 US₇, 4, 1, 0; 1998 UL₈, 4, 1, 0; 1998 UF₁₄, 4, 1, 0; 1998 UG₁₅, 4, 1, 0; 1998 UW₁₈, 4, 1, 0; 1998 UW₁₉, 4, 1, 0; 1998 UN₂₀, 4, 1, 0; 1998 UR₂₀, 4, 1, 0; 1998 UN₂₃, 4, 1, 0; 1998 UZ₂₆, 4, 1, 0; 1998 UZ₂₇, 4, 1, 0; 1998 VG₄, 1, 0; 1998 VC₈, 4, 1, 0; 1998 VW₈, 4, 1, 0; 1998 VU₉, 4, 1, 0; 1998 VO₁₈, 4, 1, 0; 1998 VQ₂₇, 4, 1, 0; 1998 VR₂₇, 4, 1, 0; 1998 VB₂₈, 4, 1, 0; 1998 VN₃₁, 4, 1, 0; 1998 VC₃₄, 4, 1, 0; 1998 VP₄₄, 4, 1, 0; 1998 WO₁, 4, 1, 0; 1998 WR₃, 4, 1, 0; 1998 WB₇, 4, 1, 0; 1998 WG₇, 4, 1, 0; 1998 WU₁₀, 8, 2, 2; 1998 WS₁₆, 8, 2, 7; 1998 WR₂₁, 4, 1, 0; 1998 WU₃₀, 4, 1, 0; 1998 WY₃₀, 4, 1, 0; 1998 XN₄, 1, 0; 1998 XL₅, 4, 1, 0; 1998 XQ₁₂, 3, 1, 0; 1998 XV₁₂, 4, 1, 0; 1998 XE₁₃, 4, 1, 0; 1998 XJ₄₀, 4, 1, 0; 1998 XZ₄₃, 4, 1, 0; 1998 XK₇₂, 4, 1, 0; 1998 YC₆, 4, 1, 0; 1998 YF₇, 4, 1, 0; 1998 YR₈, 4, 1, 0; 1998 YV₁₁, 4, 1, 0; 1998 FF₁₄, 8, 2, 1; 1998 FR₅₆, 4, 1, 0; 1998 GV₁₀, 4, 1, 0; 1998 GD₂₉, 4, 1, 0; 1998 GV₃₇, 4, 1, 0; 1998 JK₄₉, 4, 1, 0; 1998 JR₅₀, 4, 1, 0; 1998 JV₈₆, 4, 1, 0; 1998 JP₁₀₈, 4, 1, 0; 1998 JQ₁₁₃, 4, 1, 0; 1998 JB₁₁₄, 4, 1, 0; 1998 KO₁₇, 4, 1, 0; 1998 LN₃₃, 4, 1, 0; 1998 NS₂₀, 4, 1, 0; 1998 NW₂₁, 4, 1, 0; 1998 NV₂₂, 4, 1, 0; 1998 NG₂₄, 4, 1, 0; 1998 NM₂₄, 4, 1, 0; 1998 NX₂₄, 4, 1, 0; 1998 NA₂₆, 4, 1, 0; 1998 ND₂₆, 4, 1, 0; 1998 NW₃₉, 4, 1, 0; 1998 NF₄₀, 4, 1, 0; 1998 NF₄₈, 4, 1, 0; 1998 NR₄₈, 4, 1, 0; 1998 OZ₁, 4, 1, 0; 1998 OQ₂, 8, 2, 13; 1998 OY₂, 4, 1, 0; 1998 OG₃, 4, 1, 0; 1998 RK₁₀, 4, 1, 0; 1998 RZ₂₀, 4, 1, 0; 1998 RK₄₂, 4, 1, 0; 1998 RJ₄₅, 4, 1, 0; 1998 RT₄₇, 4, 1, 0; 1998 RS₄₉, 4, 1, 0; 1998 RW₄₉, 4, 1, 0; 1998 RL₅₀, 4, 1, 0; 1998 RV₅₀, 4, 1, 0; 1998 RM₅₄, 4, 1, 0; 1998 RS₅₇, 4, 1, 0; 1998 RU₅₉, 4, 1, 0; 1998 RM₇₃, 8, 2, 17; 1998 RP₈₆, 4, 1, 0; 1998 RV₈₆, 4, 1, 0; 1998 RL₈₇, 4, 1, 0; 1998 RX₉₄, 4, 1, 0; 1998 RS₉₈, 4, 1, 0; 1998 RS₁₀₃, 4, 1, 0; 1998 RN₁₀₅, 8, 2, 30; 1998 RE₁₁₇, 4, 1, 0; 1998 RE₁₂₀, 4, 1, 0; 1998 RY₁₂₃, 4, 1, 0; 1998 RZ₁₂₈, 8, 1, 0; 1998 RQ₁₃₄, 4, 1, 0; 1998 RG₁₄₅, 8, 2, 33; 1998 RB₁₆₇, 4, 1, 0; 1998 RK₁₈₀, 4, 1, 0; 1998 RN₁₈₂, 4, 1, 0; 1998 RD₁₈₃, 4, 1, 0; 1998 RL₁₉₅, 4, 1, 0; 1998 RL₁₉₆, 4, 1, 0; 1998 RO₁₉₉, 4, 1, 0; 1998 RB₂₀₅, 8, 2, 1; 1998 RZ₂₀₅, 8, 2, 36; 1998 RQ₂₀₆, 4, 1, 0; 1998 RO₂₀₇, 4, 1, 0; 1998 RX₂₀₇, 8, 2, 27; 1998 RX₂₀₈, 12, 3, 58; 1998 RS₂₁₁, 4, 1, 0; 1998 SA₂, 8, 2, 19; 1998 SF₃, 4, 1, 0; 1998 SB₅, 4, 1, 0; 1998 SW₁₁, 4, 1, 0; 1998 TN₄, 4, 1, 0; 1998 TG₆, 4, 1, 0; 1998 TV₆, 4, 1, 0; 1998 TH₇, 4, 1, 0; 1998 TD₁₁, 4, 1, 0; 1998 TH₁₂, 4, 1, 0; 1998 TY₁₃, 4, 1, 0; 1998 TK₁₄, 4, 1, 0; 1998 TB₁₇, 4, 1, 0; 1998 TP₁₉, 4, 1, 0; 1998 TS₂₀, 4, 1, 0; 1998 TX₂₀, 8, 2, 28; 1998 TY₂₀, 4, 1, 0; 1998 TJ₂₅, 4, 1, 0; 1998 TO₂₅, 4, 1, 0; 1998 TU₂₅, 4, 1, 0; 1998 TD₂₆, 8, 2, 33; 1998 TN₂₆, 8, 2, 33; 1998 TC₂₇, 4, 1, 0; 1998 TK₂₇, 4, 1, 0; 1998 TH₂₈, 12, 3, 36; 1998 TY₃₁, 4, 1, 0; 1998 TB₃₂, 8, 2, 34; 1998 TC₃₂, 4, 1, 0; 1998 TH₃₂, 4, 1, 0; 1998 TK₃₂, 8, 2, 28; 1998 TB₃₅, 8, 2, 57; 1998 TD₃₅, 4, 1, 0; 1998 TH₃₅, 8, 2, 12; 1998 TX₃₅, 4, 1, 0; 1998 TY₃₅, 4, 1, 0; 1998 UG₁, 4, 1, 0; 1998 UK₃, 4, 1, 0; 1998 UV₃, 4, 1, 0; 1998 UD₄, 4, 1, 0; 1998 UV₄, 4, 1, 0; 1998 UY₄, 8, 2, 3; 1998 UR₆, 8, 2, 28; 1998 UG₉, 4, 1, 0; 1998 UJ₁₃, 8, 2, 12; 1998 US₁₃, 8, 2, 12; 1998 UW₁₃, 4, 1, 0; 1998 UM₁₄, 4, 1, 0; 1998 UJ₁₅, 4, 1, 0; 1998 UA₁₆, 4, 1, 0; 1998 UV₁₆, 8, 2, 41; 1998 UC₁₇, 4, 1, 0; 1998 UX₂₀, 4, 1, 0; 1998 UO₂₁, 4, 1, 0; 1998 UO₂₃, 4, 1, 0; 1998 UL₂₄, 4, 1, 0; 1998 UV₂₅, 4, 1, 0; 1998 UY₂₅, 4, 1, 0; 1998 UJ₂₆, 4, 1, 0; 1998 UK₂₆, 4, 1, 0; 1998 UO₂₆, 4, 1, 0; 1998 UV₂₈, 4, 1, 0; 1998 UD₃₆, 4, 1, 0; 1998 VQ₄, 1, 0; 1998 VC₂, 4, 1, 0; 1998 VY₂, 4, 1, 0; 1998 VU₅, 4, 1, 0; 1998 VZ₅, 4, 1, 0; 1998 VA₆, 4, 1, 0; 1998 VW₆, 4, 1, 0; 1998 VJ₈, 4, 1, 0; 1998 VT₈, 4, 1, 0; 1998 VW₈, 4, 1, 0; 1998 VB₉, 4, 1, 0; 1998 VE₉, 4, 1, 0; 1998 VK₁₀, 4, 1, 0; 1998 VQ₁₅, 8, 2, 28; 1998 VF₁₆, 4, 1, 0; 1998 VU₁₉, 4, 1, 0; 1998 VU₂₀, 4, 1, 0; 1998 VG₂₁, 8, 2, 28; 1998 VT₂₁, 4, 1, 0; 1998 VE₂₃, 4, 1, 0; 1998 VO₂₃, 4, 1, 0; 1998 VZ₂₇, 4, 1, 0; 1998 VS₃₀, 4, 1, 0; 1998 VF₃₁, 4, 1, 0; 1998 VH₃₁, 4, 1, 0; 1998 VL₃₁, 4, 1, 0; 1998 VM₃₁, 4, 1, 0; 1998 VR₃₃, 4, 1, 0; 1998 VF₃₄, 4, 1, 0; 1998 VJ₃₄, 4, 1, 0; 1998 VZ₃₄, 4, 1, 0; 1998 VT₃₇, 4, 1, 0; 1998 VY₃₇, 4, 1, 0; 1998 VH₃₈, 8, 2, 33; 1998 VK₄₁, 4, 1, 0; 1998 VW₄₁, 4, 1, 0; 1998 VX₄₃, 4, 1, 0; 1998 VZ₄₃, 4, 1, 0; 1998 VA₄₄, 4, 1, 0; 1998 VB₄₄, 4, 1, 0; 1998 VF₄₄, 4, 1, 0; 1998 VH₄₄, 12, 3, 71; 1998 VN₄₄, 4, 1, 0; 1998 VV₄₄, 4, 1, 0; 1998 VG₄₅, 4, 1, 0; 1998 VS₄₅, 4, 1, 0; 1998 VF₄₆, 4, 1, 0; 1998 VJ₄₆, 12, 3, 32; 1998 VB₄₇, 8, 2, 23; 1998 VV₄₇, 4, 1, 0; 1998 VE₄₈, 12, 3, 41; 1998 VH₅₀, 4, 1, 0; 1998 VN₅₀, 4, 1, 0; 1998 VT₅₃, 4, 1, 0; 1998 VW₅₃, 8, 2, 28; 1998 VC₅₄, 4, 1, 0; 1998 VF₅₄, 4, 1, 0; 1998 VH₅₄, 4, 1, 0; 1998 VM₅₄, 8, 2, 36; 1998 VO₅₄, 4, 1, 0; 1998 VV₅₄, 12, 3, 45; 1998 VA₅₅, 4, 1, 0; 1998 VB₅₅, 4, 1, 0; 1998 VE₅₅, 16, 3, 64; 1998 VY₅₅, 4, 1, 0; 1998 VH₅₆, 12, 3, 64; 1998 VL₅₆, 8, 2, 28; 1998 VT₅₆, 4, 1, 0; 1998 VU₅₉, 4, 1, 0; 1998 VV₅₉, 4, 1, 0; 1998 VD₆₀, 4, 1, 0; 1998 VL₆₀, 12, 3, 35; 1998 VT₆₀, 4, 1, 0; 1998 VP₆₁, 8, 2, 36; 1998 VV₆₁, 4, 1, 0; 1998 VA₆₂, 4, 1, 0; 1998 VE₆₂, 4, 1, 0; 1998 VT₆₂, 8, 2, 23; 1998 VA₆₄, 8, 2, 33; 1998 VA₆₅, 4, 1, 0; 1998 VV₆₆, 8, 2, 33; 1998 VO₆₈, 4, 1, 0; 1998 VD₇₂, 4, 1, 0; 1998 VE₇₂, 4, 1, 0; 1998 VK₇₂, 4, 1, 0; 1998 VO₇₂, 4, 1, 0; 1998 VP₇₃, 8, 2, 30; 1998 VC₇₇, 4, 1, 0; 1998 VJ₇₇, 8, 2, 20; 1998 VK₇₇, 12, 3, 16; 1998 VZ₇₇, 8, 2, 53; 1998 VV₇₈, 8, 2, 28; 1998 VL₇₉, 4, 1, 0; 1998 VT₈₀, 4, 1, 0; 1998 VM₈₃, 4, 1, 0; 1998 VN₈₃, 4, 1, 0; 1998 VN₈₇, 4, 1, 0; 1998 VO₈₈, 4, 1, 0; 1998 VZ₈₈, 4, 1, 0; 1998 VR₈₉, 8, 2, 28; 1998 VS₈₉, 8, 2, 33; 1998 VM₉₀, 4, 1, 0; 1998 VP₉₀, 8, 2, 31; 1998 VX₉₀, 8, 2, 50; 1998 VY₉₀, 4, 1, 0; 1998 VZ₉₀, 4, 1, 0; 1998 VK₉₁, 8, 2, 31; 1998 VY₉₁, 8, 2, 29; 1998 VT₉₄, 4, 1, 0; 1998 VS₉₅, 4, 1, 0; 1998 VH₉₆, 4, 1, 0; 1998 VD₉₈, 4, 1, 0; 1998 VU₉₈, 4, 1, 0; 1998 VY₉₈, 4, 1, 0; 1998 VU₉₉, 4, 1, 0; 1998 VK₁₀₂, 4, 1, 0; 1998 VP₁₁₄, 4, 1, 0; 1998 VV₁₁₄, 8, 2, 46; 1998 VE₁₁₅, 4, 1, 0; 1998 VH₁₁₆, 4, 1, 0; 1998 VG₁₁₉, 4, 1, 0; 1998 VC₁₂₃, 4, 1, 0; 1998 VD₁₂₃, 4, 1, 0; 1998 VF₁₂₃, 4, 1, 0; 1998 VX₁₂₃, 4, 1, 0; 1998 VE₁₂₉, 4, 1, 0; 1998 VG₁₂₉, 4, 1, 0; 1998 VN₁₃₀, 4, 1, 0; 1998 VO₁₃₀, 8, 2, 23; 1998 VW₁₃₃, 4, 1, 0; 1998 VX₁₃₃, 4, 1, 0; 1998 VD₁₃₄, 4, 1, 0; 1998 VK₁₃₅, 4, 1, 0; 1998 VF₁₃₈, 8, 2, 3; 1998 VG₁₃₉, 4, 1, 0; 1998 VE₁₄₁, 8, 2, 3; 1998 VG₁₄₁, 12, 3, 16; 1998 VJ₁₄₁, 8, 2, 3; 1998 VO₁₄₃ *, 8, 2, 5; 1998 VP₁₄₃ *, 8,

2, 3; 1999 VQ₁₄₃ *, 8, 2, 3; 1999 VR₁₄₃ *, 8, 2, 3; 1999 VS₁₄₃ *, 8, 2, 3; 1999 VT₁₄₃ *, 8, 2, 3; 1999 VU₁₄₃ *, 8, 2, 3; 1999 VV₁₄₃ *, 8, 2, 3; 1999 VW₁₄₃ *, 12, 3, 16; 1999 VX₁₄₃ *, 8, 2, 3; 1999 VY₁₄₃ *, 8, 2, 3; 1999 VZ₁₄₃ *, 8, 2, 3; 1999 VA₁₄₄ *, 8, 2, 3; 1999 VB₁₄₄ *, 8, 2, 3; 1999 VC₁₄₄ *, 8, 2, 3; 1999 VD₁₄₄ *, 8, 2, 3; 1999 VE₁₄₄ *, 8, 2, 3; 1999 VF₁₄₄ *, 8, 2, 3; 1999 VG₁₄₄ *, 8, 2, 3; 1999 VH₁₄₄ *, 8, 2, 3; 1999 VJ₁₄₄ *, 8, 2, 3; 1999 VK₁₄₄ *, 12, 2, 3; 1999 VL₁₄₄ *, 8, 2, 3; 1999 VM₁₄₄ *, 8, 2, 3; 1999 VN₁₄₄ *, 8, 2, 3; 1999 VO₁₄₄ *, 8, 2, 3; 1999 VP₁₄₄ *, 8, 2, 3; 1999 VQ₁₄₄ *, 8, 2, 3; 1999 VR₁₄₄ *, 8, 2, 3; 1999 VS₁₄₄ *, 8, 2, 1; 1999 VT₁₄₄ *, 8, 2, 1; 1999 VU₁₄₄ *, 8, 2, 1; 1999 VV₁₄₄ *, 8, 2, 1; 1999 VW₁₄₄ *, 8, 2, 1; 1999 VX₁₄₄ *, 8, 2, 1; 1999 VY₁₄₄ *, 8, 2, 1; 1999 VZ₁₄₄ *, 8, 2, 1; 1999 VA₁₄₅ *, 8, 2, 1; 1999 VB₁₄₅ *, 8, 2, 1; 1999 VC₁₄₅ *, 8, 2, 1; 1999 VD₁₄₅ *, 8, 2, 1; 1999 VE₁₄₅ *, 8, 2, 1; 1999 VG₁₄₆, 4, 1, 0; 1999 VJ₁₅₀, 12, 2, 33; 1999 VX₁₅₃ *, 8, 2, 6; 1999 VY₁₅₃ *, 8, 2, 6; 1999 VZ₁₅₃ *, 8, 2, 3; 1999 VA₁₅₄ *, 8, 2, 3; 1999 VB₁₅₄ *, 8, 2, 3; 1999 VC₁₅₄ *, 8, 2, 3; 1999 VD₁₅₄ *, 8, 2, 3; 1999 WG₁, 4, 1, 0; 1999 WT₁, 4, 1, 0; 1999 WZ₁, 4, 1, 0; 1999 WG₂, 4, 1, 0; 1999 WY₂, 4, 1, 0; 1999 WC₃, 4, 1, 0; 1999 WT₈, 4, 1, 0; 1999 WU₈, 4, 1, 0; 1999 WY₈, 4, 1, 0; 1999 WF₁₃, 4, 1, 0; 1999 WA₁₄, 4, 1, 0; 1999 WZ₁₄, 8, 2, 30; 1999 WM₁₇, 4, 1, 0; 1999 XY₁, 4, 1, 0; 1999 XB₂, 4, 1, 0; 1999 XH₂, 4, 1, 0; 1999 XU₂, 4, 1, 0; 1999 XE₅, 4, 1, 0; 1999 XE₆, 4, 1, 0; 1999 XA₇, 4, 1, 0; 1999 XH₇, 4, 1, 0; 1999 XJ₇, 4, 1, 0; 1999 XQ₈, 4, 1, 0; 1999 XH₁₀, 4, 1, 0; 1999 XE₁₂, 4, 1, 0; 1999 XX₁₃, 4, 1, 0; 1999 XB₁₄, 4, 1, 0; 1999 XK₁₄, 4, 1, 0; 1999 XF₁₅, 4, 1, 0; 1999 XY₁₅, 8, 2, 2; 1999 XZ₁₅, 4, 1, 0; 1999 XO₁₇, 4, 1, 0; 1999 XE₁₈, 8, 2, 29; 1999 XF₁₈, 8, 2, 29; 1999 XH₁₈, 12, 3, 42; 1999 XJ₁₈, 8, 2, 29; 1999 XL₁₈, 8, 2, 29; 1999 XN₁₉, 8, 2, 29; 1999 XR₁₉, 8, 2, 29; 1999 XS₁₉, 8, 2, 34; 1999 XT₁₉, 8, 2, 34; 1999 XV₁₉, 4, 1, 0; 1999 XJ₂₀, 4, 1, 0; 1999 XL₂₀, 4, 1, 0; 1999 XM₂₀, 8, 2, 28; 1999 XO₂₀, 4, 1, 0; 1999 XS₂₀, 4, 1, 0; 1999 XJ₂₁, 8, 2, 44; 1999 XL₂₁, 4, 1, 0; 1999 XV₂₁, 4, 1, 0; 1999 XX₂₁, 4, 1, 0; 1999 XZ₂₁, 4, 1, 0; 1999 XE₂₂, 4, 1, 0; 1999 XJ₂₂, 4, 1, 0; 1999 XJ₂₃, 4, 1, 0; 1999 XM₂₃, 4, 1, 0; 1999 XF₂₄, 8, 2, 49; 1999 XH₂₄, 8, 2, 26; 1999 XS₂₄, 4, 1, 0; 1999 XX₂₄, 4, 1, 0; 1999 XZ₂₅, 4, 1, 0; 1999 XJ₂₆, 12, 3, 65; 1999 XL₂₆, 12, 3, 16; 1999 XU₂₆, 4, 1, 0; 1999 XO₂₇, 4, 1, 0; 1999 XF₂₉, 4, 1, 0; 1999 XH₂₉, 4, 1, 0; 1999 XJ₃₁, 4, 1, 0; 1999 XR₃₁, 4, 1, 0; 1999 XT₃₁, 4, 1, 0; 1999 XX₃₁, 4, 1, 0; 1999 XY₃₁, 8, 2, 2; 1999 XA₃₂, 4, 1, 0; 1999 XC₃₂, 4, 1, 0; 1999 XD₃₂, 4, 1, 0; 1999 XL₃₂, 4, 1, 0; 1999 XN₃₂, 4, 1, 0; 1999 XQ₃₂, 4, 1, 0; 1999 XT₃₂, 4, 1, 0; 1999 XV₃₂, 4, 1, 0; 1999 XW₃₂, 4, 1, 0; 1999 XY₃₂, 4, 1, 0; 1999 XB₃₃, 4, 1, 0; 1999 XG₃₃, 4, 1, 0; 1999 XH₃₃, 8, 2, 83; 1999 XJ₃₃, 8, 2, 2; 1999 XL₃₃, 8, 2, 2; 1999 XM₃₃, 4, 1, 0; 1999 XR₃₃, 8, 2, 2; 1999 XU₃₃, 4, 1, 0; 1999 XV₃₃, 4, 1, 0; 1999 XA₃₄, 4, 1, 0; 1999 XB₃₄, 4, 1, 0; 1999 XD₃₄, 4, 1, 0; 1999 XG₃₄, 4, 1, 0; 1999 XH₃₄, 4, 1, 0; 1999 XL₃₄, 8, 2, 2; 1999 XP₃₄, 4, 1, 0; 1999 XQ₃₄, 4, 1, 0; 1999 XR₃₄, 4, 1, 0; 1999 XT₃₄, 4, 1, 0; 1999 XV₃₄, 4, 1, 0; 1999 XW₃₄, 4, 1, 0; 1999 XZ₃₄, 4, 1, 0; 1999 XA₃₅, 4, 1, 0; 1999 XB₃₅, 4, 1, 0; 1999 XE₃₇, 4, 1, 0; 1999 XH₃₇, 4, 1, 0; 1999 XJ₃₇, 4, 1, 0; 1999 XU₃₇, 4, 1, 0; 1999 XG₃₉, 4, 1, 0; 1999 XH₄₀, 4, 1, 0; 1999 XK₄₀, 4, 1, 0; 1999 XE₄₁, 12, 3, 42; 1999 XG₄₂, 4, 1, 0; 1999 XU₄₂, 4, 1, 0; 1999 XX₄₂, 8, 1, 0; 1999 XT₄₃, 4, 1, 0; 1999 XM₄₆, 4, 1, 0; 1999 XQ₄₆, 4, 1, 0; 1999 XV₄₆, 4, 1, 0; 1999 XX₄₉, 4, 1, 0; 1999 XR₅₂, 4, 1, 0; 1999 XE₅₃, 4, 1, 0; 1999 XK₅₃, 4, 1, 0; 1999 XE₅₄, 4, 1, 0; 1999 XF₅₄, 4, 1, 0; 1999 XG₅₄, 4, 1, 0; 1999 XD₅₉, 4, 1, 0; 1999 XQ₆₀, 4, 1, 0; 1999 XO₈₄, 4, 1, 0; 1999 XC₈₆, 8, 2, 2; 1999 XV₈₆, 4, 1, 0; 1999 XF₉₀, 4, 1, 0; 1999 XG₉₀, 4, 1, 0; 1999 XJ₉₃, 4, 1, 0; 1999 XH₉₄, 4, 1, 0; 1999 XT₉₄, 4, 1, 0; 1999 XU₉₄, 4, 1, 0; 1999 XV₉₄, 4, 1, 0; 1999 XY₁₀₄, 16, 4, 42; 1999 XA₁₀₅, 4, 1, 0; 1999 XP₁₀₆, 4, 1, 0; 1999 XU₁₀₆, 12, 3, 40; 1999 XA

0; 2000 AR₄, 8, 2, 88; 2000 AS₄, 4, 1, 0; 2000 AW₄, 4, 1, 0; 2000 AX₄, 4, 1, 0; 2000 AB₅, 4, 1, 0; 2000 AD₅, 4, 1, 0; 2000 AJ₅, 4, 1, 0; 2000 AN₅, 4, 1, 0; 2000 AO₅, 4, 1, 0; 2000 AN₆, 4, 1, 0; 2000 AK₁₃, 4, 1, 0; 2000 AO₁₄, 4, 1, 0; 2000 AR₂₅, 4, 1, 0; 2000 AT₂₉, 4, 1, 0; 2000 AY₃₀, 4, 1, 0; 2000 AL₃₁, 4, 1, 0; 2000 AB₃₂, 4, 1, 0; 2000 AM₃₂, 4, 1, 0; 2000 AN₃₂, 4, 1, 0; 2000 AR₃₂, 4, 1, 0; 2000 AT₃₂, 4, 1, 0; 2000 AV₃₂, 4, 1, 0; 2000 AY₃₂, 4, 1, 0; 2000 AZ₃₂, 4, 1, 0; 2000 AF₃₃, 4, 1, 0; 2000 AG₃₃, 8, 2, 83; 2000 AM₃₃, 4, 1, 0; 2000 AS₃₃, 4, 1, 0; 2000 AU₃₃, 4, 1, 0; 2000 AC₃₄, 4, 1, 0; 2000 AJ₃₄, 4, 1, 0; 2000 AL₃₄, 4, 1, 0; 2000 AN₃₄, 4, 1, 0; 2000 AR₃₄, 4, 1, 0; 2000 AT₃₄, 4, 1, 0; 2000 AW₃₈, 4, 1, 0; 2000 AM₃₉, 4, 1, 0; 2000 AL₄₀, 4, 1, 0; 2000 AQ₄₃, 4, 1, 0; 2000 AT₄₄, 4, 1, 0; 2000 AB₄₇, 4, 1, 0; 2000 AC₄₇, 4, 1, 0; 2000 AM₄₇, 4, 1, 0; 2000 AO₄₇, 4, 1, 0; 2000 AR₄₇, 4, 1, 0; 2000 AU₄₇, 4, 1, 0; 2000 AC₄₈, 4, 1, 0; 2000 AK₄₈, 4, 1, 0; 2000 AN₄₉, 4, 1, 0; 2000 AC₅₀, 4, 1, 0; 2000 AK₅₀, 4, 1, 0; 2000 AM₅₀, 4, 1, 0; 2000 AN₅₀, 4, 1, 0; 2000 AO₅₀, 8, 1, 0; 2000 AT₅₀, 8, 2, 91; 2000 AD₅₂, 4, 1, 0; 2000 AJ₅₂, 4, 1, 0; 2000 AO₅₂, 4, 1, 0; 2000 AP₅₂, 8, 2, 1; 2000 AQ₅₂, 12, 3, 22; 2000 AS₅₂, 16, 4, 36; 2000 AX₅₂, 8, 2, 31; 2000 AY₅₂, 12, 3, 22; 2000 AB₅₃, 8, 2, 31; 2000 AD₅₃, 8, 2, 26; 2000 AA₅₄, 4, 1, 0; 2000 AD₅₄, 4, 1, 0; 2000 AF₅₄, 4, 1, 0; 2000 AJ₅₄, 4, 1, 0; 2000 AP₅₄, 4, 1, 0; 2000 AU₅₄, 4, 1, 0; 2000 AW₅₄, 4, 1, 0; 2000 AX₅₄, 4, 1, 0; 2000 AE₅₅, 4, 1, 0; 2000 AJ₅₅, 4, 1, 0; 2000 AK₅₅, 4, 1, 0; 2000 AO₅₅, 3, 1, 0; 2000 AX₅₅, 4, 1, 0; 2000 AZ₅₅, 4, 1, 0; 2000 AB₅₆, 4, 1, 0; 2000 AG₅₆, 4, 1, 0; 2000 AK₅₆, 4, 1, 0; 2000 AS₅₇, 4, 1, 0; 2000 AU₅₇, 4, 1, 0; 2000 AW₅₇, 8, 2, 54; 2000 AA₅₈, 4, 1, 0; 2000 AC₅₈, 4, 1, 0; 2000 AF₅₈, 4, 1, 0; 2000 AN₅₈, 4, 1, 0; 2000 AS₅₈, 4, 1, 0; 2000 AU₅₈, 4, 1, 0; 2000 AV₅₉, 4, 1, 0; 2000 AQ₅₉, 4, 1, 0; 2000 AR₅₉, 8, 2, 8; 2000 AU₅₉, 4, 1, 0; 2000 AW₅₉, 4, 1, 0; 2000 AZ₅₉, 4, 1, 0; 2000 AA₆₀, 4, 1, 0; 2000 AG₆₀, 4, 1, 0; 2000 AJ₆₀, 4, 1, 0; 2000 AK₆₀, 4, 1, 0; 2000 AO₆₀, 4, 1, 0; 2000 AQ₆₀, 4, 1, 0; 2000 AW₆₀, 4, 1, 0; 2000 AG₆₁, 4, 1, 0; 2000 AT₆₁, 4, 1, 0; 2000 AU₆₁, 4, 1, 0; 2000 AV₆₁, 4, 1, 0; 2000 AW₆₁, 4, 1, 0; 2000 AB₆₂, 4, 1, 0; 2000 AH₆₂, 4, 1, 0; 2000 AK₆₂, 12, 3, 81; 2000 AM₆₂, 4, 1, 0; 2000 AR₆₂, 4, 1, 0; 2000 AT₆₃, 8, 2, 57; 2000 AA₆₄, 4, 1, 0; 2000 AD₆₄, 4, 1, 0; 2000 AE₆₄, 4, 1, 0; 2000 AF₆₄, 4, 1, 0; 2000 AG₆₄, 4, 1, 0; 2000 AZ₆₄, 4, 1, 0; 2000 AA₆₅, 4, 1, 0; 2000 AB₆₅, 4, 1, 0; 2000 AD₆₅, 4, 1, 0; 2000 AE₆₅, 4, 1, 0; 2000 AJ₆₅, 4, 1, 0; 2000 AC₆₆, 8, 2, 29; 2000 AD₆₆, 8, 2, 57; 2000 AE₆₆, 4, 1, 0; 2000 AF₆₆, 4, 1, 0; 2000 AZ₆₆, 12, 3, 8; 2000 AP₆₇, 4, 1, 0; 2000 AZ₆₇, 4, 1, 0; 2000 AA₆₈, 8, 2, 64; 2000 AD₆₈, 4, 1, 0; 2000 AE₆₈, 4, 1, 0; 2000 AM₆₈, 4, 1, 0; 2000 AZ₈₄, 4, 1, 0; 2000 AA₈₅, 4, 1, 0; 2000 AG₈₅, 4, 1, 0; 2000 AH₈₅, 4, 1, 0; 2000 AX₈₅, 4, 1, 0; 2000 AQ₈₆, 4, 1, 0; 2000 AX₈₇, 4, 1, 0; 2000 AB₈₉, 4, 1, 0; 2000 AJ₈₉, 4, 1, 0; 2000 AR₈₉, 4, 1, 0; 2000 AP₉₀, 4, 1, 0; 2000 AS₉₀, 4, 1, 0; 2000 AU₉₁, 4, 1, 0; 2000 AW₉₁, 4, 1, 0; 2000 AC₉₂, 4, 1, 0; 2000 AZ₉₂, 4, 1, 0; 2000 AY₉₃, 4, 1, 0; 2000 AR₉₄, 4, 1, 0; 2000 AB₉₅, 8, 2, 2; 2000 AD₉₅, 4, 1, 0; 2000 AJ₉₅, 4, 1, 0; 2000 AK₉₅, 4, 1, 0; 2000 AR₉₅, 4, 1, 0; 2000 AS₉₅, 4, 1, 0; 2000 AT₉₅, 4, 1, 0; 2000 AX₉₅, 4, 1, 0; 2000 AZ₉₅, 4, 1, 0; 2000 AF₉₆, 4, 1, 0; 2000 AG₉₆, 4, 1, 0; 2000 AM₉₆, 8, 2, 63; 2000 AN₉₆, 4, 1, 0; 2000 AO₉₆, 4, 1, 0; 2000 AQ₉₆, 8, 2, 4; 2000 AS₉₆, 4, 1, 0; 2000 AT₉₆, 4, 1, 0; 2000 AW₉₆, 8, 2, 58; 2000 AX₉₆, 4, 1, 0; 2000 AY₉₆, 4, 1, 0; 2000 AZ₉₆, 4, 1, 0; 2000 AD₉₇, 4, 1, 0; 2000 AN₉₈, 4, 1, 0; 2000 AF₉₉, 4, 1, 0; 2000 AN₁₀₀, 4, 1, 0; 2000 AP₁₀₂, 12, 3, 86; 2000 AQ₁₀₃, 4, 1, 0; 2000 AC₁₁₄, 8, 2, 32; 2000 AK₁₁₅, 4, 1, 0; 2000 AA₁₁₇, 4, 1, 0; 2000 AB₁₁₈, 4, 1, 0; 2000 AM₁₁₈, 4, 1, 0; 2000 AZ₁₁₈, 4, 1, 0; 2000 AK₁₁₉, 4, 1, 0; 2000 AV₁₂₀, 4, 1, 0; 2000 AB₁₂₁, 4, 1, 0; 2000 AG₁₂₁, 4, 1, 0; 2000 AH₁₂₁, 4, 1, 0; 2000 AK₁₂₁, 4, 1, 0; 2000 AE₁₂₄, 4, 1, 0; 2000 AK₁₂₄, 4, 1, 0; 2000 AQ₁₂₄, 4, 1, 0; 2000 AS₁₂₄, 4, 1, 0; 2000 AW₁₂₄, 4, 1, 0; 2000 AY₁₂₄, 4, 1, 0; 2000 AE₁₂₅, 4, 1, 0; 2000 AJ₁₂₅, 8, 2, 83; 2000 AK₁₂₅, 4, 1, 0; 2000 AW₁₂₅, 4, 1, 0; 2000 AY₁₂₅, 4, 1, 0; 2000 AZ₁₂₅, 4, 1, 0; 2000 AA₁₂₆, 4, 1, 0; 2000 AM₁₂₆, 4, 1, 0; 2000 AP₁₂₆, 4, 1, 0; 2000 AQ₁₂₆, 4, 1, 0; 2000 AS₁₂₆, 4, 1, 0; 2000 AV₁₂₆, 4, 1, 0; 2000 AA₁₂₇, 4, 1, 0; 2000 AB₁₂₇, 4, 1, 0; 2000 AE₁₂₇, 4, 1, 0; 2000 AM₁₂₇, 8, 2, 2; 2000 AO₁₂₇, 8, 2, 2; 2000 AQ₁₂₇, 4, 1, 0; 2000 AR₁₂₇, 4, 1, 0; 2000 AX₁₂₇, 8, 2, 2; 2000 AA₁₂₈, 3, 1, 0; 2000 AF₁₂₈, 4, 1, 0; 2000 AJ₁₂₈, 4, 1, 0; 2000 AM₁₂₈, 4, 1, 0; 2000 AS₁₂₈, 4, 1, 0; 2000 AW₁₂₈, 4, 1, 0; 2000 AX₁₂₈, 4, 1, 0; 2000 AE₁₂₉, 4, 1, 0; 2000 AQ₁₂₉, 4, 1, 0; 2000 AX₁₂₉, 4, 1, 0; 2000 AD₁₃₀, 8, 2, 2; 2000 AH₁₃₀, 4, 1, 0; 2000 AO₁₃₀, 4, 1, 0; 2000 AD₁₃₁, 4, 1, 0; 2000 AN₁₃₂, 4, 1, 0; 2000 AR₁₃₆, 4, 1, 0; 2000 AS₁₃₆, 4, 1, 0; 2000 AC₁₃₇, 8, 2, 15; 2000 AD₁₃₇, 4, 1, 0; 2000 AF₁₃₇, 4, 1, 0; 2000 AH₁₃₇, 16, 4, 103; 2000 AJ₁₃₇, 4, 1, 0; 2000 AK₁₃₇, 4, 1, 0; 2000 AO₁₃₇, 4, 1, 0; 2000 AV₁₃₇, 4, 1, 0; 2000 AY₁₃₉, 4, 1, 0; 2000 AE₁₄₀, 8, 2, 53; 2000 AM₁₄₀, 4, 1, 0; 2000 AN₁₄₀, 4, 1, 0; 2000 AB₁₄₁, 4, 1, 0; 2000 AE₁₄₁, 8, 2, 49; 2000 AK₁₄₁, 4, 1, 0; 2000 AQ₁₄₁, 4, 1, 0; 2000 AA₁₄₂, 4, 1, 0; 2000 AD₁₄₂, 8, 2, 58; 2000 AV₁₄₂, 4, 1, 0; 2000 AC₁₄₃, 4, 1, 0; 2000 AD₁₄₃, 4, 1, 0; 2000 AF₁₄₃, 4, 1, 0; 2000 AG₁₄₃, 4, 1, 0; 2000 AL₁₄₃, 4, 1, 0; 2000 AM₁₄₃, 4, 1, 0; 2000 AT₁₄₃, 4, 1, 0; 2000 AA₁₄₄, 4, 1, 0; 2000 AC₁₄₄, 4, 1, 0; 2000 AM₁₄₄, 4, 1, 0; 2000 AU₁₄₄, 4, 1, 0; 2000 AG₁₄₅, 4, 1, 0; 2000 AH₁₄₅, 4, 1, 0; 2000 AZ₁₄₅, 16, 4, 91; 2000 AW₁₄₆, 4, 1, 0; 2000 AY₁₄₆, 4, 1, 0; 2000 AB₁₄₇, 4, 1, 0; 2000 AU₁₄₇, 4, 1, 0; 2000 AB₁₅₅, 4, 1, 0; 2000 AQ₁₅₅, 4, 1, 0; 2000 AM₁₅₉, 4, 1, 0; 2000 AT₁₅₉, 4, 1, 0; 2000 AU₁₅₉, 4, 1, 0; 2000 AV₁₅₉, 4, 1, 0; 2000 AX₁₆₀, 4, 1, 0; 2000 AE₁₆₂, 4, 1, 0; 2000 AF₁₆₂, 4, 1, 0; 2000 AG₁₆₂, 4, 1, 0; 2000 AK₁₆₂, 4, 1, 0; 2000 AL₁₆₂, 8, 2, 57; 2000 AT₁₆₂, 4, 1, 0; 2000 AE₁₆₄, 4, 1, 0; 2000 AF₁₆₄, 15, 4, 437; 2000 AL₁₆₅, 4, 1, 0; 2000 AG₁₆₇, 4, 1, 0; 2000 AZ₁₆₇, 4, 1, 0; 2000 AW₁₆₈, 8, 2, 3; 2000 AB₁₆₉, 4, 1, 0; 2000 AX₁₇₄, 4, 1, 0; 2000 AN₁₈₂, 4, 1, 0; 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4, 1, 0; 2000 AR₂₀₀, 4, 1, 0; 2000 AS₂₀₀, 8, 2, 58; 2000 AS₂₀₁, 4, 1, 0; 2000 AZ₂₀₁, 4, 1, 0; 2000 AA₂₀₂, 4, 1, 0; 2000 AK₂₀₃, 4, 1, 0; 2000 AZ₂₀₃, 4, 1, 0; 2000 AD₂₀₄, 4, 1, 0; 2000 AJ₂₀₄, 4, 1, 0; 2000 AJ₂₀₅, 4, 1, 0; 2000 AR₂₀₅, 4, 1, 0; 2000 AU₂₀₅, 4, 1, 0; 2000 AD₂₀₉, 4, 1, 0; 2000 AW₂₁₁, 4, 1, 0; 2000 AC₂₁₂, 3, 1, 0; 2000 AD₂₁₂, 4, 1, 0; 2000 AF₂₁₄, 4, 1, 0; 2000 AK₂₁₅, 4, 1, 0; 2000 AF₂₂₂, 4, 1, 0; 2000 AW₂₂₆, 4, 1, 0; 2000 AF₂₂₇, 4, 1, 0; 2000 AL₂₂₈, 4, 1, 0; 2000 AN₂₂₈, 4, 1, 0; 2000 AA₂₂₉, 4, 1, 0; 2000 AB₂₂₉, 4, 1, 0; 2000 AU₂₂₉, 4, 1, 0; 2000 AB₂₃₀, 4, 1, 0; 2000 AY₂₃₀, 8, 2, 3; 2000 AQ₂₃₂, 4, 1, 0; 2000 AD₂₃₃, 4, 1, 0; 2000 AE₂₃₃, 4, 1, 0; 2000 AK₂₃₃, 4, 1, 0; 2000 AN₂₃₃, 8, 2, 69; 2000 AP₂₃₃, 4, 1, 0; 2000 AX₂₃₅, 4, 1, 0; 2000 AE₂₃₆, 4, 1, 0; 2000 AP₂₃₆, 4, 1, 0; 2000 AU₂₃₆, 4, 1, 0; 2000 AC₂₃₇, 4, 1, 0; 2000 AJ₂₃₇, 4, 1, 0; 2000 AN₂₃₇, 8, 2, 5; 2000 AO₂₃₇, 4, 1, 0; 2000 AR₂₃₇, 4, 1, 0; 2000 AQ₂₃₈, 8, 2, 64; 2000 AT₂₃₈, 4, 1, 0; 2000 AU₂₃₈, 4, 1, 0; 2000 AY₂₃₈, 4, 1, 0; 2000 AO₂₃₉, 4, 1, 0; 2000 AY₂₃₉, 4, 1, 0; 2000 AB₂₄₀, 4, 1, 0; 2000 AT₂₄₁, 4, 1, 0; 2000 AY₂₄₁, 4, 1, 0; 2000 AB₂₄₂, 4, 1, 0; 2000 AP₂₄₂, 4, 1, 0; 2000 AQ₂₄₂, 4, 1, 0; 2000 AR₂₄₂, 4, 1, 0; 2000 AU₂₄₂, 4, 1, 0; 2000 AD₂₄₃, 4, 1, 0; 2000 AJ₂₄₃, 4, 1, 0; 2000 AK₂₄₃, 4, 1, 0; 2000 AW₂₄₃, 4, 1, 0; 2000 AY₂₄₃, 8, 2, 5; 2000 BC₈, 2, 15; 2000 BD₄, 1, 0; 2000 BO₄, 1, 0; 2000 BE₂, 4, 1, 0; 2000 BF₂, 4, 1, 0; 2000 BH₂, 4, 1, 0; 2000 BB₃, 4, 1, 0; 2000 BC₃, 4, 1, 0; 2000 BD₃, 4, 1, 0; 2000 BE₃, 4, 1, 0; 2000 BF₃, 4, 1, 0; 2000 BC₃, 4, 1, 0; 2000 BM₃, 4, 1, 0; 2000 BN₃, 4, 1, 0; 2000 BP₃, 4, 1, 0; 2000 BQ₃, 8, 2, 64; 2000 BR₃, 11, 3, 81; 2000 BS₃, 4, 1, 0; 2000 BU₃, 4, 1, 0; 2000 BV₃, 4, 1, 0; 2000 BW₃, 8, 2, 7; 2000 BX₃, 4, 1, 0; 2000 BZ₃, 4, 1, 0; 2000 BA₄, 4, 1, 0; 2000 BE₄, 4, 1, 0; 2000 BG₅, 4, 1, 0; 2000 BM₇, 4, 1, 0; 2000 BN₉, 4, 1, 0; 2000 BS₉, 4, 1, 0; 2000 BX₁₀, 4, 1, 0; 2000 BY₁₀, 4, 1, 0; 2000 BB₁₁, 4, 1, 0; 2000 BG₁₃, 4, 1, 0; 2000 BZ₁₃, 4, 1, 0; 2000 BE₁₄, 4, 1, 0; 2000 BG₁₄, 4, 1, 0; 2000 BH₁₄, 4, 1, 0; 2000 BJ₁₄, 4, 1, 0; 2000 BK₁₄, 4, 1, 0; 2000 BM₁₄, 4, 1, 0; 2000 BN₁₄, 4, 1, 0; 2000 BO₁₄, 4, 1, 0; 2000 BP₁₄, 4, 1, 0; 2000 BR₁₄, 4, 1, 0; 2000 BS₁₄, 4, 1, 0; 2000 BY₁₄, 4, 1, 0; 2000 BF₁₆, 4, 1, 0; 2000 BP₁₆, 4, 1, 0; 2000 BL₁₇, 4, 1, 0; 2000 BU₁₇, 4, 1, 0; 2000 BV₁₇, 4, 1, 0; 2000 BA₁₈, 4, 1, 0; 2000 BB₁₈, 4, 1, 0; 2000 BE₁₈, 4, 1, 0; 2000 BG₁₈, 4, 1, 0; 2000 BJ₁₈, 4, 1, 0; 2000 BJ₁₉ *, 4, 1, 0; 2000 BK₁₉, 4, 1, 0; 2000 BL₁₉ *, 4, 1, 0; 2000 BS₂₀, 4, 1, 0; 2000 BE₂₁, 4, 1, 0; 2000 BK₂₁, 4, 1, 0; 2000 BQ₂₁, 4, 1, 0; 2000 BV₂₂ *, 8, 2, 2; 2000 BW₂₂ *, 8, 2, 2; 2000 BX₂₂ *, 8, 2, 2; 2000 BY₂₂ *, 8, 2, 2; 2000 BZ₂₂ *, 8, 2, 2; 2000 BA₂₃ *, 8, 2, 2; 2000 BE₂₃ *, 8, 2, 2; 2000 BC₂₃ *, 8, 2, 2; 2000 BD₂₃ *, 8, 2, 2; 2000 BE₂₃ *, 8, 2, 2; 2000 BF₂₃ *, 8, 2, 2; 2000 BG₂₃ *, 8, 2, 2; 2000 BH₂₃ *, 8, 2, 2; 2000 BC₂₅, 4, 1, 0; 2000 BN₂₅, 4, 1, 0; 2000 BX₂₅, 4, 1, 0; 2000 BY₂₅, 4, 1, 0; 2000 BC₂₆, 4, 1, 0; 2000 BD₂₆, 4, 1, 0; 2000 BK₂₆, 4, 1, 0; 2000 BU₂₆, 4, 1, 0; 2000 BX₂₆, 8, 1, 0; 2000 BA₂₇, 4, 1, 0; 2000 BH₂₇, 4, 1, 0; 2000 BM₂₇, 4, 1, 0; 2000 BN₂₇, 4, 1, 0; 2000 BQ₂₇, 4, 1, 0; 2000 BR₂₇ *, 12, 3, 57; 2000 BX₂₇, 4, 1, 0; 2000 BH₂₈, 4, 1, 0; 2000 BT₂₈, 4, 1, 0; 2000 BV₂₈ *, 8, 2, 7; 2000 BW₂₈ *, 8, 2, 7; 2000 BX₂₈ *, 12, 3, 64; 2000 BY₂₈ *, 8, 2, 7; 2000 BZ₂₈ *, 12, 3, 8; 2000 BA₂₉ *, 8, 2, 7; 2000 BC₂₉ *, 8, 2, 7; 2000 BZ₂₉, 4, 1, 0; 2000 BE₃₀, 8, 2, 1; 2000 BG₃₀, 12, 3, 64; 2000 BK₃₀, 4, 1, 0; 2000 BL₃₀, 4, 1, 0; 2000 BM₃₀, 4, 1, 0; 2000 BN₃₀, 4, 1, 0; 2000 BR₃₀, 8, 1, 0; 2000 CD₄, 1, 0; 2000 CK₄, 1, 0; 2000 CS₄, 1, 0; 2000 CU *, 8, 2, 1; 2000 CV *, 8, 2, 1; 2000 CW *, 8, 2, 1; 2000 CX *, 8, 2, 1; 2000 CY *, 8, 2, 1; 2000 CH₁, 4, 1, 0; 2000 CR₁, 4, 1, 0; 2000 CJ₂, 4, 1, 0; 2000 CT₂, 4, 1, 0; 2000 CW₂, 8, 2, 56; 2000 CF₉, 4, 1, 0; 2000 CG₉, 4, 1, 0; 2000 CC₁₅, 4, 1, 0; 2000 CO₁₇, 4, 1, 0; 2000 CR₁₇, 4, 1, 0; 2000 CX₁₇, 4, 1, 0; 2000 CZ₁₇, 4, 1, 0; 2000 CD₁₈, 4, 1, 0; 2000 CO₁₉, 4, 1, 0; 2000 CG₁₉, 4, 1, 0; 2000 CH₁₉, 4, 1, 0; 2000 CP₁₉, 4, 1, 0; 2000 CS₁₉, 4, 1, 0; 2000 CU₁₉, 4, 1, 0; 2000 CA₂₀, 4, 1, 0; 2000 CZ₂₀, 4, 1, 0; 2000 CA₂₁, 8, 2, 2; 2000 CM₂₂, 4, 1, 0; 2000 CQ₂₂, 4, 1,

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704 Lincoln Laboratory Experimental Test System, New Mexico

G. Stokes, MIT Lincoln Laboratory, 244 Wood Street, Lexington, MA 02420,

U.S.A. [stokes@ll.mit.edu]

Observers M. Blythe, F. Shelly, M. Bezpalko, M. Elowitz, R. Huber

Measurers J. Stuart, H. Vigg, R. Sayer, J. B. Evans

1.0-m $f/2.15$ reflector + CCD

USNO-A2.0

1953 GJ, 10, 2, 2; 1966 PP, 13, 3, 5; 1973 QO₁, 28, 4, 17; 1973 SX, 5, 1, 0; 1973 SU₁, 5, 1, 0; 1974 QF, 10, 2, 2; 1975 ST, 5, 1, 0; 1975 TE, 15, 3, 13; 1975 VW₅, 3, 1, 0; 1975 VZ₈, 10, 2, 1; 1976 DB₁, 13, 3, 15; 1976 QA, 10, 3, 4; 1976 QK₂, 4, 1, 0; 1976 YN₇, 9, 2, 11; 1977 DG₃, 15, 3, 12; 1977 PC₁, 23, 5, 89; 1977 QN₁, 3, 1, 0; 1977 QD₂, 9, 2, 7; 1977 QO₃, 10, 2, 4; 1977 RS₁₇, 12, 3, 4; 1977 TU₃, 5, 1, 0; 1977 TO₆, 5, 1, 0; 1978 NF, 4, 1, 0; 1978 PV₂, 12, 3, 4; 1978 PX₃, 19, 4, 9; 1978 PG₄, 10, 2, 2; 1978 QK₂, 4, 1, 0; 1978 RX₁, 10, 2, 7; 1978 RY₇, 5, 1, 0; 1978 RH₉, 4, 1, 0; 1978 RK₉, 5, 1, 0; 1978 SH₃, 5, 1, 0; 1978 SF₅, 3, 1, 0; 1978 SJ₇, 5, 1, 0; 1978 UW₄, 5, 1, 0; 1978 UN₅, 4, 1, 0; 1978 VA, 5, 1, 0; 1978 VL₃, 3, 1, 0; 1978 VV₃, 4, 1, 0; 1978 VY₃, 10, 2, 2; 1978 VO₅, 4, 1, 0; 1978 VO₆, 9, 2, 6; 1978 VX₆, 5, 1, 0; 1978 VD₈, 9, 2, 7; 1978 VQ₈, 3, 1, 0; 1978 VC₉, 3, 1, 0; 1978 VQ₉, 4, 1, 0; 1978 VW₉, 8, 2, 421; 1978 VF₁₁, 4, 1, 0; 1978 VM₁₁, 12, 3, 12; 1978 WU, 10, 2, 5; 1979 DA, 3, 1, 0; 1979 HN₅, 7, 2, 1; 1979 MM₁, 4, 1, 0; 1979 MQ₃, 4, 1, 0; 1979 ML₆, 16, 4, 6; 1979 MW₆, 10, 2, 2; 1979 MD₈, 5, 1, 0; 1979 QT₁, 8, 2, 6; 1979 QA₂, 11, 3, 12; 1979 SO, 5, 1, 0; 1980 FQ₁, 10, 2, 4; 1980 LC₁, 5, 1, 0; 1980 SF, 5, 1, 0; 1980 VH, 15, 3, 536; 1980 XB, 5, 1, 0; 1981 DN, 15, 3, 10; 1981 DR, 9, 2, 1; 1981 DF₁, 4, 1, 0; 1981 DN₁, 5, 1, 0; 1981 EK₁, 5, 1, 0; 1981 EJ₁₄, 14, 3, 9; 1981 EH₆, 4, 1, 0; 1981 EB₈, 16, 4, 12; 1981 EX₈, 3, 1, 0; 1981 EJ₁₁, 4, 1, 0; 1981 EJ₁₃, 13, 3, 12; 1981 EA₁₆, 8, 2, 1; 1981 EL₁₆, 12, 3, 13; 1981 EC₁₇, 12, 3, 12; 1981 EK₁₇, 9, 2, 4; 1981 ED₁₈, 14, 3, 14; 1981 EC₂₂, 7, 2, 4; 1981 EB₂₃, 6, 2, 5; 1981 EP₂₅, 4, 1, 0; 1981 EU₂₅, 4, 1, 0; 1981 EW₂₅, 4, 1, 0; 1981 EX₂₆, 3, 1, 0; 1981 EK₂₇, 3, 1, 0; 1981 EH₂₈, 10, 2, 7; 1981 EZ₂₉, 15, 4, 12; 1981 EQ₃₀, 5, 1, 0; 1981 EH₃₁, 3, 1, 0; 1981 EB₃₆, 9, 2, 12; 1981 EM₃₇, 11, 3, 3; 1981 EH₄₅, 3, 1, 0; 1981 ER₄₇, 5, 1, 0; 1981 FP, 6, 2, 4; 1981 QL₂, 10, 2, 8; 1981 QJ₃, 9, 2, 1; 1981 QD₄, 5, 1, 0; 1981 RX₁, 10, 2, 12; 1981 RL₂, 9, 2, 8; 1981 RW₄, 14, 2, 7; 1981 SE₇, 4, 1, 0; 1981 UB₂₃, 8, 2, 9; 1981 UC₂₃, 10, 2, 5; 1981 UZ₂₄, 5, 1, 0; 1981 UT₂₉, 4, 1, 0; 1981 VN, 8, 2, 11; 1982 KH₁, 9, 2, 10; 1982 QP, 8, 2, 4; 1982 QA₂, 10, 2, 6; 1982 RK₁, 17, 4, 11; 1982 ST₇, 8, 2, 1; 1982 TJ, 8, 2, 11; 1982 TK₁, 8, 2, 3; 1982 UD₄, 10, 3, 12; 1982 UO₆, 7, 2, 5; 1982 US₆, 15, 2, 11; 1982 UH₉, 5, 1, 0; 1982 UE₁₂, 20, 5, 12; 1982 VP₃, 3, 1, 0; 1982 VK₄, 5, 1, 0; 1983 GU, 5, 1, 0; 1983 XE, 5, 1, 0; 1984 BZ₆, 4, 1, 0; 1984 CE, 10, 2, 1; 1984 EQ, 10, 2, 8; 1984 SA, 8, 2, 6; 1984 SL, 9, 2, 3; 1984 SO₄, 3, 1, 0; 1984 SM₅, 10, 2, 3; 1984 SZ₅, 5, 1, 0; 1984 UR, 8, 2, 14; 1984 UJ₁, 13, 3, 11; 1984 YE₄, 5, 1, 0; 1985 CL₂, 20, 4, 11; 1985 PC, 3, 1, 0; 1985 PG, 5, 1, 0; 1985 PH, 5, 1, 0; 1985 PT, 6, 2, 2; 1985 PE₁, 13, 3, 4; 1985 QP, 3, 1, 0; 1985 RA, 12, 3, 12; 1985 RT, 10, 2, 8; 1985 RD₃, 10, 2, 5; 1985 RF₃, 14, 3, 4; 1985 RM₃, 8, 2, 5; 1985 RN₃, 4, 1, 0; 1985 SX₂, 5, 1, 0; 1985 UO₃, 5, 1, 0; 1985 UA₅, 5, 1, 0; 1985 VA₁, 5, 1, 0; 1986 EK₁, 4, 1, 0; 1986 PX, 10, 2, 1; 1986 PE₁, 3, 1, 0; 1986 PL₁, 4, 1, 0; 1986 QR₁, 9, 2, 7; 1986 QO₂, 9, 2, 8; 1986 QQ₃, 4, 1, 0; 1986 TG₁, 5, 1, 0; 1986 TV₆, 11, 3, 12; 1986 WZ, 5, 1, 0; 1986 XT, 8, 2, 7; 1987 BS₁, 4, 1, 0; 1987 BX₁, 5, 1, 0; 1987 CH, 20, 4, 10; 1987 DK₆, 6, 2, 8; 1987 QH, 9, 2, 8; 1987 QT, 4, 1, 0; 1987 RR, 4, 1, 0; 1987 SJ₂, 10, 2, 1; 1987 SL₃, 5, 1, 0; 1987 SV₃, 10, 2, 5; 1987 SF₆, 12, 3, 5; 1987 SP₁₁, 9, 2, 1; 1987 UT, 4, 1, 0; 1987 VG, 15, 2, 12; 1987 VR, 10, 2, 1; 1987 WD, 6, 2, 14; 1988 AX₁, 10, 2, 2; 1988 BG, 5, 1, 0; 1988 BO₃, 5, 1, 0; 1988 BY₃, 15, 3, 10; 1988 BH₅, 10, 2, 1; 1988 BL₅, 8, 2, 3; 1988 CF, 5, 1, 0; 1988 CS₅, 4, 1, 0; 1988 CO₇, 5, 1, 0; 1988 DE, 3, 1, 0; 1988 GG, 8, 2, 1; 1988 MH, 4, 1, 0; 1988 PL, 4, 1, 0; 1988 PU, 5, 1, 0; 1988 PV₁, 13, 3, 8; 1988 PL₂, 7, 2, 8; 1988 RF₄, 9, 2, 1; 1988 RH₆, 12, 3, 13; 1988 RQ₈, 9, 2, 8; 1988 RV₁₂, 15, 3, 6; 1988 RA₁₃, 4, 1, 0; 1988 RF₁₃, 5, 1, 0; 1988 SU₁, 5, 1,

0; 1988 SB₂, 8, 2, 12; 1988 TJ, 10, 2, 1; 1988 TK, 3, 1, 0; 1988 TU, 13, 3, 10; 1988 TV₁, 9, 2, 1; 1988 TR₂, 3, 1, 0; 1988 VV, 9, 2, 1; 1988 VJ₁, 12, 3, 10; 1988 VR₂, 4, 1, 0; 1988 VA₅, 10, 3, 12; 1988 XV₁, 8, 2, 13; 1988 XE₂, 12, 3, 10; 1988 XY₄, 5, 1, 0; 1989 AB₃, 5, 1, 0; 1989 AF₃, 6, 2, 3; 1989 AN₅, 10, 2, 8; 1989 BB, 15, 3, 13; 1989 BH, 10, 2, 11; 1989 CC₃, 5, 1, 0; 1989 CB₆, 19, 3, 12; 1989 DB, 10, 2, 7; 1989 DC, 8, 2, 1; 1989 EB₁, 15, 3, 2; 1989 GM₁, 4, 1, 0; 1989 GN₃, 17, 4, 8; 1989 GU₃, 9, 2, 1; 1989 HC, 3, 1, 0; 1989 LH, 5, 1, 0; 1989 LT, 5, 1, 0; 1989 OL, 4, 1, 0; 1989 PU, 3, 1, 0; 1989 QH, 9, 2, 75; 1989 RX, 5, 1, 0; 1989 RD₁, 12, 3, 16; 1989 RP₁, 17, 4, 15; 1989 SD, 12, 3, 12; 1989 SJ₂, 10, 2, 6; 1989 SZ₃, 5, 1, 0; 1989 ST₄, 14, 3, 13; 1989 SZ₄, 5, 1, 0; 1989 SW₈, 10, 2, 6; 1989 SY₁₃, 4, 1, 0; 1989 TH₁, 14, 3, 9; 1989 TN₁, 13, 2, 8; 1989 TR₂, 5, 1, 0; 1989 TX₂, 4, 1, 0; 1989 TA₄, 4, 1, 0; 1989 TR₁₁, 5, 1, 0; 1989 TF₁₂, 10, 2, 61; 1989 TF₁₄, 5, 1, 0; 1989 UA₁, 8, 2, 1; 1989 VR₁, 5, 1, 0; 1989 VS₂, 3, 1, 0; 1989 WH, 4, 1, 0; 1989 WU, 10, 2, 1; 1989 WA₁, 4, 1, 0; 1989 YO₂, 13, 3, 12; 1989 YE₆, 14, 3, 3; 1990 BA₂, 13, 3, 13; 1990 CE, 8, 2, 1; 1990 DZ, 10, 2, 7; 1990 EB, 3, 1, 0; 1990 EJ, 4, 1, 0; 1990 EV₁, 5, 1, 0; 1990 EL₂, 10, 2, 6; 1990 EU₄, 9, 2, 12; 1990 ES₆, 14, 3, 5; 1990 FD₃, 14, 3, 3; 1990 HE, 18, 4, 3; 1990 HG, 5, 1, 0; 1990 MR, 8, 2, 1; 1990 OB₁, 9, 2, 3; 1990 OH₂, 10, 2, 3; 1990 OK₃, 5, 1, 0; 1990 QX₅, 4, 1, 0; 1990 QY₅, 3, 1, 0; 1990 QB₆, 5, 1, 0; 1990 QT₆, 13, 3, 12; 1990 QE₇, 14, 3, 10; 1990 QN₇, 8, 2, 7; 1990 RN₃, 14, 3, 10; 1990 RO₇, 4, 1, 0; 1990 RT₈, 4, 1, 0; 1990 SC₇, 4, 1, 0; 1990 SX₃, 16, 4, 12; 1990 SY₃, 5, 1, 0; 1990 ST₄, 8, 2, 2; 1990 SD₅, 13, 3, 7; 1990 SN₆, 3, 1, 0; 1990 SC₈, 8, 2, 1; 1990 SG₁₂, 19, 4, 6; 1990 ST₁₄, 11, 3, 13; 1990 SP₁₅, 3, 1, 0; 1990 SU₁₆, 8, 2, 12; 1990 SK₂₈, 10, 2, 7; 1990 TN₃, 3, 1, 0; 1990 TO₄, 9, 2, 10; 1990 TF₈, 5, 1, 0; 1990 TJ₈, 4, 1, 0; 1990 TW₁₁, 8, 2, 4; 1990 TD₁₂, 8, 2, 4; 1990 UC₁, 4, 1, 0; 1990 UO₁, 10, 2, 7; 1990 UU₁, 3, 1, 0; 1990 UA₂, 3, 1, 0; 1990 UC₂, 4, 1, 0; 1990 UJ₄, 9, 2, 10; 1990 UK₅, 9, 2, 7; 1990 VE, 5, 1, 0; 1990 VL₁, 10, 2, 5; 1990 VM₂, 10, 2, 1; 1990 VV₂, 5, 1, 0; 1990 VM₃, 9, 2, 17; 1990 VE₄, 5, 1, 0; 1990 VS₄, 5, 1, 0; 1990 VN₅, 8, 2, 83; 1990 VY₅, 9, 2, 7; 1990 VC₆, 5, 1, 0; 1990 VG₆, 11, 3, 5; 1990 VP₆, 5, 1, 0; 1990 VW₈, 4, 1, 0; 1990 WG₁, 3, 1, 0; 1990 WO₄, 10, 2, 2; 1990 YP, 9, 2, 1; 1990 YR, 10, 2, 1; 1991 AK₁, 13, 3, 10; 1991 AE₂, 4, 1, 0; 1991 AF₂, 10, 2, 3; 1991 AG₂, 5, 1, 0; 1991 BK, 6, 2, 3; 1991 BZ, 5, 1, 0; 1991 CL, 15, 3, 10; 1991 DB, 8, 2, 5; 1991 DY, 3, 1, 0; 1991 EL₄, 4, 1, 0; 1991 FG, 4, 1, 0; 1991 GT₄, 4, 1, 0; 1991 GF₈, 3, 1, 0; 1991 LU₁, 5, 1, 0; 1991 LF₂, 5, 1, 0; 1991 LJ₃, 8, 2, 1; 1991 NQ₆, 9, 2, 4; 1991 NV₆, 10, 2, 2; 1991 OO, 14, 3, 10; 1991 OV, 20, 5, 6; 1991 PV, 4, 1, 0; 1991 PG₃, 13, 3, 12; 1991 PM₄, 4, 1, 0; 1991 PO₄, 4, 1, 0; 1991 PA₅, 4, 1, 0; 1991 PF₅, 18, 3, 12; 1991 PO₅, 7, 2, 4; 1991 PQ₅, 14, 3, 6; 1991 PX₅, 9, 2, 12; 1991 PE₆, 9, 2, 7; 1991 PH₇, 4, 1, 0; 1991 PL₈, 5, 1, 0; 1991 PP₈, 4, 1, 0; 1991 PT₉, 12, 3, 12; 1991 PD₁₁, 13, 3, 12; 1991 PP₁₂, 13, 3, 7; 1991 PJ₁₅, 11, 3, 12; 1991 PM₁₆, 4, 1, 0; 1991 PR₁₆, 9, 2, 2; 1991 PH₁₈, 4, 1, 0; 1991 PL₁₈, 4, 1, 0; 1991 PO₁₈, 14, 3, 12; 1991 QJ, 9, 2, 11; 1991 RA, 3, 1, 0; 1991 RQ, 9, 2, 6; 1991 RV, 12, 3, 36; 1991 RE₁, 7, 2, 8; 1991 RF₁, 21, 4, 8; 1991 RC₂, 10, 2, 7; 1991 RS₂, 15, 3, 6; 1991 RU₂, 5, 1, 0; 1991 RO₃, 5, 1, 0; 1991 RP₃, 4, 1, 0; 1991 RN₄, 33, 7, 10; 1991 RE₇, 7, 2, 14; 1991 RG₇, 4, 1, 0; 1991 RL₈, 9, 2, 7; 1991 RY₈, 5, 1, 0; 1991 RC₉, 10, 2, 7; 1991 RR₉, 10, 2, 8; 1991 RT₉, 3, 1, 0; 1991 RU₉, 3, 1, 0; 1991 RB₁₀, 14, 3, 10; 1991 RR₁₀, 8, 2, 5; 1991 RF₁₁, 15, 3, 12; 1991 RJ₁₁, 9, 2, 2; 1991 RO₁₁, 10, 2, 26; 1991 RZ₁₁, 10, 2, 8; 1991 RP₁₂, 18, 4, 130; 1991 RS₁₃, 10, 2, 5; 1991 RA₁₄, 5, 1, 0; 1991 RH₁₄, 17, 4, 14; 1991 RA₁₅, 17, 4, 12; 1991 RR₁₆, 5, 1, 0; 1991 RF₁₇, 3, 1, 0; 1991 RG₁₇, 13, 3, 12; 1991 RW₁₇, 14, 3, 10; 1991 RX₁₇, 16, 4, 11; 1991 RE₁₉, 5, 1, 0; 1991 RA₂₀, 4, 1, 0; 1991 RJ₂₀, 3, 1, 0; 1991 RW₂₁, 5, 1, 0; 1991 RA₂₄, 18, 5, 87; 1991 RK₂₆, 8, 2, 8; 1991 RH₂₇, 9, 2, 5; 1991 RJ₄₁, 5, 1, 0; 1991 SA, 5, 1, 0; 1991 SB, 4, 1, 0; 1991 SG, 9, 2, 5; 1991 ST, 8, 2, 10; 1991 SZ, 3, 1, 0; 1991 SE₁, 7, 2, 1; 1991 SV₁, 5, 1, 0; 1991 SE₂, 4, 1, 0; 1991 TK, 9, 2, 6; 1991 TS, 5, 1, 0; 1991 TX, 7, 2, 1; 1991 TY, 13, 3, 12; 1991 TQ₁, 5, 1, 0; 1991 TJ₂, 5, 1, 0; 1991 TQ₂, 32, 6, 11; 1991 TU₅, 7, 2, 87; 1991 TK₈, 14, 3, 9; 1991 UR, 10, 2, 8; 1991 UE₁, 14, 3, 12; 1991 UF₁, 3, 1, 0; 1991 UR₁, 8, 2, 5; 1991 UJ₂, 10, 2, 8; 1991 UN₃, 3, 1, 0; 1991 UZ₃, 6, 2, 6; 1991 VY, 13, 3, 5; 1991 VE₂, 5, 1, 0; 1991 VO₃, 9, 2, 7; 1991 VP₃, 10, 2, 11; 1991 VG₄, 10, 2, 79; 1991 VJ₄, 10, 2, 1; 1991 VY₄, 9, 2, 1; 1991 VA₅, 6, 2, 19; 1991 VC₅, 9, 2, 10; 1991 VM₅, 5, 1, 0; 1991 XC, 3, 1, 0; 1991 YC, 5, 1, 0; 1992 AJ₁, 25, 4, 10; 1992 AV₁, 10, 2, 2; 1992 AO₂, 14, 3, 9; 1992 AT₂, 6, 2, 1; 1992 BD, 4, 1, 0; 1992 BC₁, 5, 1, 0; 1992 BP₂, 22, 5, 11; 1992 BQ₂, 13, 3, 4; 1992 BK₄, 3, 1, 0; 1992 CH, 13, 3, 13; 1992 CS₂, 9, 2, 1; 1992 DD₄, 4, 1, 0; 1992 DU₅, 10, 2, 2; 1992 DY₅, 4, 1, 0; 1992 DZ₅, 8, 2, 1; 1992 DD₈, 4, 1, 0; 1992 DF₈, 10, 2, 5; 1992 DJ₈, 10, 2, 4; 1992 EX, 3, 1, 0; 1992 EA₁, 9, 2, 4; 1992 ER₁, 11, 3, 3; 1992 EZ₆, 9, 2, 8; 1992 EP₇, 8, 2, 1; 1992 EW₇, 4, 1, 0; 1992 EC₈, 5, 1, 0; 199

0; 1992 WM, 10, 2, 12; 1992 WR, 4, 1, 0; 1992 WZ, 5, 1, 0; 1992 WE₁, 8, 2, 4; 1992 WF₁, 5, 1, 0; 1992 WK₁, 5, 1, 0; 1992 WP₁, 5, 1, 0; 1992 WX₁, 5, 1, 0; 1992 WL₃, 14, 3, 6; 1992 WA₄, 10, 2, 7; 1992 WK₉, 4, 1, 0; 1992 YC, 3, 1, 0; 1992 YK, 15, 3, 3; 1992 YP, 5, 1, 0; 1992 YP₁, 13, 3, 55; 1992 YY₁, 13, 3, 12; 1992 YG₂, 8, 2, 4; 1992 YR₂, 10, 2, 7; 1992 YR₂, 8, 2, 1; 1993 BB, 10, 2, 7; 1993 BD, 13, 3, 12; 1993 BG, 10, 2, 29; 1993 BJ₂, 5, 1, 0; 1993 BL₂, 5, 1, 0; 1993 BM₃, 5, 1, 0; 1993 BV₄, 11, 2, 1; 1993 BT₁₄, 18, 4, 11; 1993 DX₂, 10, 2, 1; 1993 EJ, 5, 1, 0; 1993 EK, 3, 1, 0; 1993 FL₁, 9, 2, 11; 1993 FQ₁, 37, 5, 11; 1993 FV₄, 9, 2, 1; 1993 FZ₆, 25, 4, 8; 1993 FH₇, 9, 2, 8; 1993 FT₇, 15, 3, 10; 1993 FE₈, 3, 1, 0; 1993 FL₈, 5, 1, 0; 1993 FK₉, 9, 2, 7; 1993 FL₉, 10, 2, 4; 1993 FN₉, 10, 2, 7; 1993 FW₉, 3, 1, 0; 1993 FP₁₀, 9, 2, 1; 1993 FH₁₁, 4, 1, 0; 1993 FS₁₁, 12, 3, 4; 1993 FE₁₂, 14, 3, 9; 1993 FH₁₂, 8, 2, 12; 1993 FO₁₂, 8, 2, 7; 1993 FQ₁₂, 17, 4, 12; 1993 FS₁₂, 18, 4, 543; 1993 FC₁₃, 15, 3, 12; 1993 FR₁₃, 5, 1, 0; 1993 FV₁₃, 5, 1, 0; 1993 FC₁₄, 4, 1, 0; 1993 FP₁₄, 3, 1, 0; 1993 FH₁₆, 10, 2, 38; 1993 FV₁₆, 14, 3, 8; 1993 FB₁₈, 3, 1, 0; 1993 FZ₁₈, 4, 1, 0; 1993 FB₁₉, 8, 2, 1; 1993 FE₂₀, 26, 6, 13; 1993 FH₂₀, 5, 1, 0; 1993 FJ₂₀, 3, 1, 0; 1993 FO₂₀, 10, 2, 7; 1993 FU₂₀, 15, 3, 10; 1993 FX₂₁, 3, 1, 0; 1993 FB₂₂, 23, 4, 87; 1993 FP₂₃, 22, 5, 87; 1993 FF₂₄, 7, 2, 8; 1993 FD₂₅, 14, 3, 12; 1993 FR₂₅, 15, 4, 10; 1993 FS₂₆, 28, 6, 11; 1993 FM₂₈, 4, 1, 0; 1993 FP₂₉, 5, 1, 0; 1993 FX₂₉, 10, 2, 4; 1993 FS₃₁, 12, 3, 12; 1993 FB₃₂, 15, 3, 9; 1993 FJ₃₃, 8, 2, 585; 1993 FL₃₃, 17, 4, 87; 1993 FH₃₄, 10, 2, 23; 1993 FY₃₄, 5, 1, 0; 1993 FQ₃₅, 9, 2, 12; 1993 FY₃₅, 5, 1, 0; 1993 FC₃₇, 3, 1, 0; 1993 FD₃₇, 5, 1, 0; 1993 FL₃₉, 4, 1, 0; 1993 FD₄₀, 9, 2, 4; 1993 FJ₄₀, 3, 1, 0; 1993 FW₄₁, 3, 1, 0; 1993 FY₄₁, 7, 2, 12; 1993 FT₄₂, 19, 4, 87; 1993 FH₄₃, 8, 2, 5; 1993 FA₄₅, 4, 1, 0; 1993 FV₄₅, 3, 1, 0; 1993 FC₄₆, 3, 1, 0; 1993 FS₄₆, 14, 3, 6; 1993 FD₄₇, 4, 1, 0; 1993 FS₄₇, 5, 1, 0; 1993 FV₅₀, 44, 8, 10; 1993 FR₅₂, 9, 2, 2; 1993 FZ₅₅, 10, 2, 5; 1993 FW₇₃, 3, 1, 0; 1993 FX₇₉, 13, 3, 10; 1993 FV₈₀, 5, 1, 0; 1993 FY₈₀, 10, 2, 33; 1993 FL₈₁, 9, 2, 1; 1993 GB, 9, 2, 2; 1993 GN, 6, 2, 3; 1993 GK₁, 9, 2, 12; 1993 HW, 10, 2, 7; 1993 HX, 26, 6, 12; 1993 HC₁, 4, 1, 0; 1993 HR₁, 14, 3, 12; 1993 HW₁, 5, 1, 0; 1993 HL₃, 19, 4, 12; 1993 HZ₅, 5, 1, 0; 1993 KX₁, 5, 1, 0; 1993 KZ₁, 5, 1, 0; 1993 LF, 15, 3, 458; 1993 LF₁, 5, 1, 0; 1993 LW₁, 5, 1, 0; 1993 MK, 21, 5, 18; 1993 NB, 5, 1, 0; 1993 NS₁, 10, 2, 16; 1993 NW₁, 9, 2, 429; 1993 NA₂, 14, 3, 10; 1993 OC₂, 4, 1, 0; 1993 OD₂, 14, 3, 3, 7; 1993 OO₄, 13, 3, 7; 1993 OQ₅, 15, 3, 10; 1993 OY₁₂, 14, 3, 10; 1993 PF, 3, 1, 0; 1993 PV₅, 4, 1, 0; 1993 QV₁, 8, 2, 3; 1993 QN₃, 19, 3, 10; 1993 QH₄, 5, 1, 0; 1993 QM₄, 3, 1, 0; 1993 QO₄, 9, 2, 33; 1993 QX₄, 3, 1, 0; 1993 QQ₅, 11, 3, 4; 1993 QP₆, 4, 1, 0; 1993 QP₉, 9, 2, 8; 1993 RS, 7, 2, 8; 1993 RD₂, 4, 1, 0; 1993 RA₅, 5, 1, 0; 1993 RC₅, 4, 1, 0; 1993 SK₂, 4, 1, 0; 1993 SA₄, 17, 4, 5; 1993 SA₆, 8, 2, 92; 1993 SN₇, 9, 2, 4; 1993 TJ₂, 8, 2, 88; 1993 TN₂, 3, 1, 0; 1993 TH₁₄, 8, 2, 3; 1993 TX₁₄, 5, 1, 0; 1993 TM₁₅, 8, 2, 28; 1993 TU₁₅, 3, 1, 0; 1993 TD₁₇, 15, 3, 8; 1993 TK₁₇, 5, 1, 0; 1993 TL₁₇, 3, 1, 0; 1993 TN₁₈, 10, 2, 7; 1993 TH₁₉, 3, 1, 0; 1993 TV₁₉, 14, 3, 12; 1993 TC₂₀, 9, 2, 8; 1993 TJ₂₁, 4, 1, 0; 1993 TY₂₂, 14, 3, 39; 1993 TH₂₄, 9, 2, 10; 1993 TM₂₄, 5, 1, 0; 1993 TJ₂₇, 3, 1, 0; 1993 TL₂₈, 9, 2, 57; 1993 TQ₂₉, 8, 2, 1; 1993 TU₂₉, 14, 4, 36; 1993 TZ₂₉, 8, 2, 27; 1993 TM₃₁, 9, 2, 8; 1993 TQ₃₆, 9, 2, 11; 1993 TK₃₇, 4, 1, 0; 1993 TU₃₈, 10, 2, 7; 1993 UK, 14, 3, 12; 1993 UL, 10, 2, 6; 1993 US, 5, 1, 0; 1993 UY₂, 5, 1, 0; 1993 UW₆, 6, 2, 1; 1993 UZ₇, 10, 2, 1; 1993 VU₁, 9, 2, 2; 1993 XG, 4, 1, 0; 1993 XM, 5, 1, 0; 1993 YF, 11, 2, 7; 1994 AM, 13, 3, 63; 1994 AC₃, 10, 2, 7; 1994 AF₃, 4, 1, 0; 1994 AU₆, 8, 1, 0; 1994 AL₁₆, 3, 1, 0; 1994 BC₁, 18, 4, 11; 1994 BD₁, 4, 1, 0; 1994 BD₄, 14, 3, 5; 1994 BJ₄, 4, 1, 0; 1994 CG₁, 3, 1, 0; 1994 CD₁₈, 5, 1, 0; 1994 EK₁, 5, 1, 0; 1994 EL₁, 14, 3, 12; 1994 EJ₆, 5, 1, 0; 1994 EZ₆, 3, 1, 0; 1994 FB, 3, 1, 0; 1994 GN, 4, 1, 0; 1994 GB₁, 15, 3, 13; 1994 KG₉, 4, 1, 0; 1994 GO₉, 13, 3, 12; 1994 GU₉, 10, 2, 2; 1994 JB, 3, 1, 0; 1994 JC, 3, 1, 0; 1994 JU, 4, 1, 0; 1994 NQ, 3, 1, 0; 1994 NS, 4, 1, 0; 1994 NF₁, 5, 1, 0; 1994 PG, 18, 4, 11; 1994 PH, 4, 1, 0; 1994 PL₁, 3, 1, 0; 1994 PN₁, 14, 4, 565; 1994 PC₂, 12, 3, 12; 1994 PE₂, 4, 1, 0; 1994 PB₃, 28, 6, 9; 1994 PL₃, 12, 3, 12; 1994 PL₄, 8, 2, 2; 1994 PF₅, 3, 1, 0; 1994 PK₈, 10, 2, 9; 1994 PJ₁₁, 3, 1, 0; 1994 PL₁₁, 15, 3, 4; 1994 PL₁₂, 19, 4, 79; 1994 PQ₁₅, 15, 3, 9; 1994 PC₁₆, 4, 1, 0; 1994 PE₁₆, 9, 2, 4; 1994 PD₁₈, 14, 3, 10; 1994 PE₁₈, 3, 1, 0; 1994 PG₁₈, 15, 3, 10; 1994 PH₁₈, 8, 2, 27; 1994 PG₁₉, 13, 3, 12; 1994 PH₁₉, 9, 2, 1; 1994 PY₁₉, 13, 3, 12; 1994 PL₂₀, 9, 2, 4; 1994 PX₂₀, 4, 1, 0; 1994 PM₂₁, 23, 4, 4; 1994 PY₂₁, 9, 2, 3; 1994 PO₂₂, 5, 1, 0; 1994 PR₂₂, 3, 1, 0; 1994 PL₂₃, 47, 6, 12; 1994 PL₂₆, 5, 1, 0; 1994 PW₂₆, 21, 5, 63; 1994 PW₂₇, 9, 2, 3; 1994 PU₂₉, 9, 2, 8; 1994 PQ₃₂, 4, 1, 0; 1994 PL₃₅, 10, 2, 1; 1994 PB₃₆, 9, 2, 1; 1994 PF₃₇, 14, 3, 10; 1994 PK₃₇, 8, 2, 1; 1994 PN₃₇, 5, 1, 0; 1994 PU₃₇, 34, 4, 4; 1994 PV₃₇, 10, 2, 1; 1994 PA₃₉, 10, 2, 1; 1994 PV₃₉, 9, 2, 2; 1994 QV, 4, 1, 0; 1994 RV, 11, 3, 7; 1994 RZ, 5, 1, 0; 1994 RL₁, 5, 1, 0; 1994 RY₁, 4, 1, 0; 1994 RN₅, 13, 3, 4; 1994 RG₇, 11, 3, 477; 1994 RR₁₁, 10, 2, 1; 1994 RW₁₁, 5, 1, 0; 1994 RA₁₂, 5, 1, 0; 1994 ST₇, 5, 1, 0; 1994 SH₁₁, 6, 2, 3; 1994 TJ, 9, 2, 8; 1994 TT, 4, 1, 0; 1994 TJ₁, 5, 1, 0; 1994 TQ₁, 5, 1, 0; 1994 TO₂, 5, 1, 0; 1994 TB₃, 5, 1, 0; 1994 TD₃, 5, 1, 0; 1994 TQ₃, 5, 1, 0; 1994 TT₃, 5, 1, 0; 1994 TK₁₁, 15, 3, 10; 1994 TZ₁₄, 8, 2, 4; 1994 TF₁₅, 4, 1, 0; 1994 TH₁₅, 5, 1, 0; 1994 TN₁₅, 3, 1, 0; 1994 TO₁₅, 4, 1, 0; 1994 TW₁₅, 5, 1, 0; 1994 TS₁₆, 4, 1, 0; 1994 UQ, 5, 1, 0; 1994 UY, 8, 2, 4; 1994 UC₁, 10, 2, 7; 1994 UM₁, 15, 3, 3; 1994 UQ₁, 30, 5, 10; 1994 US₂, 3, 1, 0; 1994 UA₃, 23, 5, 10; 1994 UA₆, 4, 1, 0; 1994 UE₈, 4, 1, 0; 1994 VB, 5, 1, 0; 1994 VD, 4, 1, 0; 1994 VR, 4, 1, 0; 1994 VE₁, 16, 4, 6; 1994 VG₁, 10, 2, 3; 1994 VH₁, 14, 3, 12; 1994 VL₁, 5, 1, 0; 1994 VA₂, 5, 1, 0; 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1995 BF₂, 13, 3, 12; 1995 BQ₂, 8, 2, 1; 1995 BY₂, 5, 1, 0; 1995 BQ₈, 15, 3, 12; 1995 BU₈, 4, 1, 0; 1995 BJ₁₁, 21, 5, 36; 1995 BS₁₁, 9, 2, 7; 1995 BW₁₁, 14, 3, 12; 1995 BP₁₅, 10, 2, 1; 1995 CC, 14, 3, 55; 1995 CJ, 14, 3, 12; 1995 CC₂, 12, 3, 9; 1995 DG, 5, 1, 0; 1995 DL, 9, 2, 12; 1995 DW, 5, 1, 0; 1995 DN₁, 13, 3, 2; 1995 DO₂, 4, 1, 0; 1995 DZ₃, 12, 3, 12; 1995 DR₁₃, 4, 1, 0; 1995 EP₁, 7, 2, 8; 1995 EY₇, 3, 1, 0; 1995 EZ₇, 3, 1, 0; 1995 FM₃, 12, 3, 12; 1995 FA₈, 10, 2, 8; 1995 GC₇, 10, 2, 5; 1995 GL₇, 5, 1, 0; 1995 HR, 13, 3, 6; 1995 HY₂, 10, 2, 7; 1995 KK, 4, 1, 0; 1995 ME₄, 5, 1, 0; 1995 OV₃, 4, 1, 0; 1995 PA, 3, 1, 0; 1995 QH, 10, 2, 1; 1995 QB₂, 22, 5, 14; 1995 QD₂, 9, 2, 6; 1995 QA₃, 14, 3, 13; 1995 RA, 4, 1, 0; 1995 RD, 9, 2, 1; 1995 SE, 7, 2, 1; 1995 SP, 9, 2, 16; 1995 SA₁, 4, 1, 0; 1995 SQ₁, 4, 1, 0; 1995 ST₃, 5, 1, 0; 1995 SU₃, 4, 1, 0; 1995 SW₃, 7, 2, 1; 1995 SG₄, 7, 2, 1; 1995 SN₄, 12, 3, 13; 1995 SX₄, 19, 4, 88; 1995 SB₂₅, 5, 1, 0; 1995 SY₂₇, 3, 1, 0; 1995 SY₃₀, 9, 3, 39; 1995 SH₃₂, 12, 3, 12; 1995 SU₅₂, 4, 1, 0; 1995 SD₅₃, 10, 2, 46; 1995 SO₅₄, 15, 3, 12; 1995 TB, 13, 3, 13; 1995 TD, 8, 2, 2; 1995 TR, 5, 1, 0; 1995 TE₈, 5, 1, 0; 1995 UD, 10, 2, 1; 1995 UR, 10, 2, 1; 1995 UA₁, 23, 5, 58; 1995 UQ₁, 8, 2, 2; 1995 UA₂, 12, 3, 12; 1995 UJ₂, 5, 1, 0; 1995 UW₂, 10, 2, 1; 1995 UO₃, 15, 3, 6; 1995 UP₃, 8, 2, 1; 1995 UQ₃, 20, 4, 11; 1995 UX₃, 15, 3, 13; 1995 UD₄, 9, 2, 5; 1995 UE₄, 5, 1, 0; 1995 UQ₄, 9, 2, 19; 1995 UW₄, 8, 2, 11; 1995 UC₅, 5, 1, 0; 1995 UG₅, 8, 2, 8; 1995 UM₅, 8, 2, 4; 1995 UG₇, 14, 3, 117; 1995 UL₈, 8, 2, 1; 1995 UP₇, 5, 1, 0; 1995 UB₈, 14, 3, 12; 1995 UL₈, 10, 2, 12; 1995 UG₈, 8, 2, 13; 1995 UT₈, 4, 1, 0; 1995 UY₈, 3, 1, 0; 1995 UQ₁₂, 24, 5, 90; 1995 US₁₂, 5, 1, 0; 1995 UC₁₇, 5, 1, 0; 1995 UP₄₄, 10, 2, 470; 1995 UX₄₈, 10, 2, 7; 1995 VC, 9, 2, 1; 1995 VD, 14, 3, 12; 1995 VZ, 23, 5, 11; 1995 VH₁, 5, 1, 0; 1995 VM₁, 10, 2, 90; 1995 VN₁, 4, 1, 0; 1995 VP₁, 15, 3, 12; 1995 VS₁, 4, 1, 0; 1995 VW₁, 4, 1, 0; 1995 VH₂, 10, 2, 1; 1995 VJ₂, 5, 1, 0; 1995 VZ₄, 9, 2, 8; 1995 VZ₆, 4, 1, 0; 1995 VQ₁₂, 3, 1, 0; 1995 VL₁₅, 5, 1, 0; 1995 VP₁₇, 4, 1, 0; 1995 VD₁₉, 3, 1, 0; 1995 WE, 9, 2, 8; 1995 WK, 8, 2, 1; 1995 WM, 9, 2, 1; 1995 WQ, 4, 1, 0; 1995 WC₁, 10, 2, 1; 1995 WK₁, 5, 1, 0; 1995 WP₁, 14, 3, 12; 1995 WQ₁, 3, 1, 0; 1995 WT₁, 15, 4, 11; 1995 WA₂, 32, 5, 10; 1995 WD₂, 9, 2, 1; 1995 WX₂, 24, 5, 68; 1995 WE₃, 4, 1, 0; 1995 WO₃, 10, 2, 1; 1995 WK₄, 7, 2, 1; 1995 WX₄, 9, 2, 1; 1995 WY₄, 25, 6, 87; 1995 WE₅, 15, 4, 1048; 1995 WG₅, 8, 2, 536; 1995 WH₅, 10, 2, 6; 1995 WK₅, 5, 1, 0; 1995 WL₅, 15, 3, 6; 1995 WU₅, 5, 1, 0; 1995 WE₆, 12, 3, 12; 1995 WT₆, 16, 4, 63; 1995 WV₆, 15, 4, 87; 1995 WT₇, 3, 1, 0; 1995 WV₇, 13, 3, 12; 1995 WY₇, 9, 2, 7; 1995 WZ₇, 9, 2, 1; 1995 WP₈, 10, 2, 7; 1995 WR₈, 5, 1, 0; 1995 WT₈, 5, 1, 0; 1995 WB₉, 5, 1, 0; 1995 WP₁₀, 3, 1, 0; 1995 WL₁₃, 13, 3, 10; 1995 WR₁₇, 10, 2, 38; 1995 WW₁₇, 10, 2, 7; 1995 WN₂₀, 9, 2, 4; 1995 WO₄₁, 9, 2, 1; 1995 WY₄₁, 9, 2, 4; 1995 WA₄₂, 9, 2, 2; 1995 WW₄₂, 4, 1, 0; 1995 WX₄₂, 4, 1, 0; 1995 XE, 14, 3, 12; 1995 XV, 8, 2, 8; 1995 XG₁, 9, 2, 12; 1995 XH₁, 14, 3, 6; 1995 XT₁, 11, 3, 12; 1995 YJ, 4, 1, 0; 1995 YR, 5, 1, 0; 1995 YT, 12, 3, 3; 1995 YU, 8, 2, 12; 1995 YY, 9, 2, 7; 1995 YA₁, 10, 2, 1; 1995 YF₁, 7, 2, 4; 1995 YH₁, 5, 1, 0; 1995 YX₁, 3, 1, 0; 1995 YY₁, 3, 1, 0; 1995 YS₂, 8, 2, 4; 1995 YT₂, 5, 1, 0; 1995 YZ₂, 18, 4, 13; 1995 YH₃, 4, 1, 0; 1995 YL₃, 4, 1, 0; 1995 YO₃, 12, 3, 4; 1995 YX₃, 4, 1, 0; 1995 YM₄, 5, 1, 0; 1995 YY₅, 23, 4, 8; 1995 YE₆, 9, 2, 4; 1995 YP₈, 5, 1, 0; 1995 YM₁₀, 13, 3, 48; 1995 YH₁₂, 12, 3, 12; 1995 YK₂₀, 10, 2, 1; 1995 YS₂₁, 3, 1, 0; 1996 AP, 5, 1, 0; 1996 AR, 3, 1, 0; 1996 AS, 10, 2, 7; 1996 AT, 3, 1, 0; 1996 AO₁, 9, 2, 7; 1996 AV₁, 9, 2, 7; 1996 AX₁, 5, 1, 0; 1996 AA₂, 15, 3, 106; 1996 AP₂, 17, 3, 12; 1996 AR₂, 9, 2, 17; 1996 AP₃, 15, 3, 10; 1996 AU₃, 18, 4, 115; 1996 AX₃, 13, 3, 12; 1996 AW₄, 6, 2, 3; 1996 AD₁₀, 13, 3, 12; 1996 AL₁₉, 5, 1, 0; 1996 BU, 5, 1, 0; 1996 BZ, 10, 2, 8; 1996 BB₁, 4, 1, 0; 1996 BB₂, 3, 1, 0; 1996 BC₂, 4, 1, 0; 1996 BV₂, 18, 4, 12; 1996 BY₂, 17, 4, 114; 1996 BV₂, 33, 7, 11; 1996 BO₃, 9, 2, 473; 1996 BJ₄, 9, 2, 418; 1996 BM₅, 13, 3, 6; 1996 BM₁₇, 9, 2, 3; 1996 CK₁, 8, 2, 13; 1996 CD₂, 13, 3, 12; 1996 CJ₂, 4, 1, 0; 1996 CW₃, 14, 3, 13; 1996 CE₅, 9, 2, 12; 1996 CC₇, 6, 2, 3; 1996 CT₇, 10, 2, 6; 1996 CR₈, 4, 1, 0; 1996 DH, 9, 2, 4;

2, 5; 1997 CB₉, 2, 2; 1997 CZ₄, 1, 0; 1997 CB₁, 8, 2, 10; 1997 CO₁, 4, 1, 0; 1997 CD₄, 5, 1, 0; 1997 CG₄, 14, 3, 13; 1997 CM₄, 8, 2, 1; 1997 CT₅, 14, 3, 3; 1997 CT₁₆, 17, 4, 12; 1997 CZ₁₆, 8, 2, 11; 1997 CC₁₇, 11, 3, 12; 1997 CE₂₀, 6, 2, 1; 1997 CV₂₁, 12, 3, 12; 1997 CZ₂₁, 10, 2, 7; 1997 CC₂₂, 14, 3, 13; 1997 CE₂₂, 5, 1, 0; 1997 CB₂₆, 5, 1, 0; 1997 CK₂₆, 4, 1, 0; 1997 CK₂₇, 5, 1, 0; 1997 CY₂₈, 6, 2, 1; 1997 CF₂₉, 13, 3, 10; 1997 DW₄, 1, 0; 1997 EE₁₈, 4, 87; 1997 EG₅, 1, 0; 1997 EH₅, 1, 0; 1997 EV₄, 1, 0; 1997 EO₂, 10, 2, 1; 1997 EQ₂, 10, 2, 1; 1997 ER₂, 9, 2, 1; 1997 EY₂, 24, 5, 12; 1997 EN₅, 4, 1, 0; 1997 ER₅, 4, 1, 0; 1997 EB₆, 4, 1, 0; 1997 EJ₁₁, 5, 1, 0; 1997 EM₁₅, 3, 1, 0; 1997 EO₁₇, 4, 1, 0; 1997 ET₁₇, 14, 3, 10; 1997 EE₂₃, 14, 3, 12; 1997 EP₂₅, 5, 1, 0; 1997 ER₂₅, 5, 1, 0; 1997 EO₃₀, 8, 2, 107; 1997 EF₃₂, 3, 1, 0; 1997 EX₄₅, 24, 5, 477; 1997 EY₄₅, 13, 3, 91; 1997 EF₄₆, 8, 2, 5; 1997 EB₅₄, 33, 7, 13; 1997 FB₂₈, 6, 10; 1997 FM₄, 1, 0; 1997 FR₆, 2, 1; 1997 FW₅, 1, 0; 1997 FC₁, 8, 2, 1; 1997 FN₁, 10, 3, 9; 1997 FQ₁, 8, 2, 11; 1997 FT₁, 7, 2, 1; 1997 FM₂, 5, 1, 0; 1997 FU₂, 5, 1, 0; 1997 FY₂, 5, 1, 0; 1997 FQ₃, 8, 2, 7; 1997 FV₃, 5, 1, 0; 1997 FW₃, 4, 1, 0; 1997 FZ₃, 5, 1, 0; 1997 FD₄, 13, 3, 10; 1997 FH₄, 5, 1, 0; 1997 FJ₄, 5, 1, 0; 1997 FB₅, 4, 1, 0; 1997 GA₃, 3, 1, 0; 1997 GE₁, 10, 2, 1; 1997 GT₃, 5, 1, 0; 1997 GU₃, 5, 1, 0; 1997 GL₆, 4, 1, 0; 1997 GU₆, 5, 1, 0; 1997 GW₆, 3, 1, 0; 1997 GZ₆, 8, 2, 12; 1997 GB₇, 13, 3, 12; 1997 GD₇, 4, 1, 0; 1997 GQ₇, 5, 1, 0; 1997 GC₈, 4, 1, 0; 1997 GE₈, 4, 1, 0; 1997 GG₈, 3, 1, 0; 1997 GH₈, 22, 5, 8; 1997 GM₈, 15, 3, 10; 1997 GZ₉, 15, 3, 63; 1997 GL₁₁, 33, 5, 12; 1997 GP₁₂, 20, 4, 537; 1997 GP₁₃, 8, 2, 1; 1997 GA₁₄, 9, 2, 3; 1997 GB₁₄, 5, 1, 0; 1997 GF₁₄, 14, 3, 12; 1997 GL₁₄, 6, 2, 1; 1997 GT₁₄, 4, 1, 0; 1997 GC₁₅, 12, 3, 7; 1997 GL₁₅, 18, 4, 570; 1997 GT₁₅, 5, 1, 0; 1997 GX₁₅, 3, 1, 0; 1997 GD₁₇, 4, 1, 0; 1997 GE₁₇, 9, 2, 8; 1997 GF₁₇, 16, 4, 11; 1997 GK₁₇, 8, 3, 33; 1997 GT₁₈, 7, 2, 4; 1997 GC₁₉, 4, 1, 0; 1997 GM₁₉, 4, 1, 0; 1997 GV₂₀, 5, 1, 0; 1997 GX₂₀, 3, 1, 0; 1997 GK₂₁, 7, 2, 4; 1997 GL₂₁, 5, 1, 0; 1997 GX₂₁, 9, 2, 91; 1997 GH₂₂, 9, 2, 7; 1997 GW₂₂, 5, 1, 0; 1997 GX₂₂, 9, 2, 1; 1997 GZ₂₂, 3, 1, 0; 1997 GJ₂₃, 4, 1, 0; 1997 GK₂₃, 14, 3, 477; 1997 GS₂₃, 4, 1, 0; 1997 GX₂₃, 4, 1, 0; 1997 GD₂₄, 3, 1, 0; 1997 GR₂₅, 10, 3, 12; 1997 GA₂₆, 3, 1, 0; 1997 GB₂₆, 14, 3, 77; 1997 GP₂₇, 9, 2, 1; 1997 GO₂₈, 19, 4, 15; 1997 GW₂₈, 3, 1, 0; 1997 GC₃₃, 18, 4, 12; 1997 GL₃₄, 8, 2, 12; 1997 GR₃₅, 5, 1, 0; 1997 GV₃₅, 8, 2, 3; 1997 GX₃₅, 7, 2, 4; 1997 GA₃₇, 16, 4, 11; 1997 GT₃₇, 46, 8, 544; 1997 GC₃₈, 13, 3, 6; 1997 GD₃₈, 4, 1, 0; 1997 GM₄₀, 4, 1, 0; 1997 GD₄₂, 10, 2, 1; 1997 GD₄₃, 3, 1, 0; 1997 GH₄₄, 5, 1, 0; 1997 HQ₉, 2, 2; 1997 HQ₁, 5, 1, 0; 1997 HF₇, 10, 2, 7; 1997 HW₇, 4, 1, 0; 1997 HX₇, 3, 1, 0; 1997 HG₁₀, 3, 1, 0; 1997 HR₁₀, 5, 1, 0; 1997 HP₁₁, 5, 1, 0; 1997 HL₁₃, 13, 3, 6; 1997 JL₁₀, 2, 2; 1997 JR₄, 1, 0; 1997 JZ₅, 1, 0; 1997 JF₃, 4, 1, 0; 1997 JU₇, 3, 1, 0; 1997 JV₇, 21, 5, 11; 1997 JB₁₀, 10, 2, 7; 1997 JH₁₀, 11, 3, 10; 1997 JA₁₁, 4, 1, 0; 1997 JA₁₃, 5, 1, 0; 1997 JY₁₃, 19, 4, 534; 1997 JC₁₄, 4, 1, 0; 1997 JD₁₄, 9, 2, 1; 1997 JS₁₄, 27, 4, 4; 1997 JD₁₅, 6, 2, 5; 1997 JJ₁₅, 15, 2, 1; 1997 JT₁₅, 4, 1, 0; 1997 JU₁₅, 7, 2, 1; 1997 JN₁₆, 19, 3, 6; 1997 JE₁₈, 4, 1, 0; 1997 JH₁₈, 3, 1, 0; 1997 KA₁₀, 2, 3; 1997 KC₁₃, 13, 12; 1997 KG₉, 2, 1; 1997 KH₈, 2, 1; 1997 KS₁₂, 3, 6; 1997 KU₂, 3, 1, 0; 1997 KH₄, 12, 3, 10; 1997 LO₃, 24, 5, 6; 1997 LZ₄, 13, 3, 4; 1997 LA₆, 14, 3, 12; 1997 LH₉, 7, 2, 1; 1997 LE₁₀, 8, 2, 1; 1997 MG₁, 5, 1, 0; 1997 MJ₂, 8, 2, 11; 1997 MZ₂, 14, 3, 12; 1997 MD₃, 10, 2, 1; 1997 MS₃, 8, 2, 8; 1997 MA₄, 14, 3, 63; 1997 MQ₄, 5, 1, 0; 1997 MV₄, 12, 3, 11; 1997 MY₄, 9, 2, 2; 1997 MC₈, 4, 1, 0; 1997 MR₈, 12, 3, 51; 1997 NP₁₅, 15, 3, 6; 1997 NK₁, 15, 3, 4; 1997 NU₁, 12, 3, 10; 1997 NE₃, 15, 3, 8; 1997 NG₆, 8, 2, 1; 1997 NU₆, 4, 1, 0; 1997 NE₁₁, 5, 1, 0; 1997 OA₅, 5, 1, 0; 1997 OJ₃, 1, 0; 1997 OJ₁, 4, 1, 0; 1997 OZ₁, 12, 3, 6; 1997 OL₂, 5, 1, 0; 1997 PJ₃, 3, 1, 0; 1997 PY₁₈, 4, 4; 1997 PY₁, 10, 2, 8; 1997 PZ₁, 7, 2, 7; 1997 PE₂, 10, 2, 7; 1997 PE₃, 10, 2, 7; 1997 PG₃, 5, 1, 0; 1997 PV₃, 23, 5, 9; 1997 PC₄, 5, 1, 0; 1997 PJ₄, 3, 1, 0; 1997 PU₄, 4, 1, 0; 1997 QF₉, 2, 7; 1997 QK₁₀, 10, 2, 1; 1997 QP₄, 1, 0; 1997 QS₇, 2, 12; 1997 QE₁, 14, 3, 12; 1997 QQ₂, 10, 2, 2; 1997 QS₂, 4, 1, 0; 1997 QG₄, 5, 1, 0; 1997 QS₄, 4, 1, 0; 1997 RF₈, 8, 2, 3; 1997 RA₁, 9, 2, 5; 1997 RJ₁, 4, 1, 0; 1997 RC₃, 4, 1, 0; 1997 RQ₃, 5, 1, 0; 1997 RQ₅, 7, 2, 1; 1997 RB₇, 5, 1, 0; 1997 RJ₇, 10, 2, 8; 1997 RO₇, 15, 3, 3; 1997 RR₈, 13, 3, 5; 1997 RY₈, 3, 1, 0; 1997 RG₉, 10, 2, 1; 1997 SR₉, 2, 4; 1997 SM₁, 3, 1, 0; 1997 SN₁, 5, 1, 0; 1997 SM₃, 7, 2, 8; 1997 SZ₄, 1, 0; 1997 SG₇, 13, 3, 36; 1997 SN₁₀, 8, 2, 2; 1997 SF₁₁, 3, 1, 0; 1997 SL₁₆, 3, 1, 0; 1997 SG₂₅, 3, 1, 0; 1997 SF₂₈, 4, 1, 0; 1997 SW₃₀, 4, 1, 0; 1997 SS₃₁, 12, 3, 6; 1997 TC₁₀, 10, 2, 7; 1997 TR₁₀, 2, 8; 1997 TV₂₅, 5, 7; 1997 TZ₇, 4, 1, 0; 1997 TW₁₅, 4, 1, 0; 1997 TV₁₇, 4, 1, 0; 1997 TS₁₈, 15, 3, 8; 1997 TZ₂₇, 9, 2, 392; 1997 TB₂₈, 3, 1, 0; 1997 TD₂₈, 3, 1, 0; 1997 TU₂₈, 5, 1, 0; 1997 TV₂₈, 5, 1, 0; 1997 TX₂₈, 5, 1, 0; 1997 UJ₄, 1, 0; 1997 UT₂, 3, 1, 0; 1997 UR₄, 4, 1, 0; 1997 UB₁₁, 10, 3, 14; 1997 UC₁₁, 6, 2, 3; 1997 UC₂₂, 16, 4, 8; 1997 UZ₂₃, 5, 1, 0; 1997 UD₂₅, 3, 1, 0; 1997 VM₂, 5, 1, 0; 1997 WG₁, 4, 1, 0; 1997 WW₇, 13, 3, 4; 1997 WV₁₃, 8, 2, 30; 1997 WU₂₂, 18, 4, 14; 1997 WB₃₇, 3, 1, 0; 1997 WM₄₀, 5, 1, 0; 1997 WW₄₃, 4, 1, 0; 1997 XF₁₁, 5, 1, 0; 1998 AZ₄, 1, 0; 1998 AV₅, 19, 4, 61; 1998 AY₇, 10, 2, 18; 1998 BE₁₅, 5, 1, 0; 1998 BB₃₈, 6, 1, 0; 1998 DQ₂₇, 5, 1, 0; 1998 EQ₁₀, 19, 4, 117; 1998 EW₁₂, 5, 1, 0; 1998 FJ₆, 4, 1, 0; 1998 FA₁₁, 4, 1, 0; 1998 FC₁₂, 10, 2, 90; 1998 FX₁₅, 4, 1, 0; 1998 FG₂₆, 8, 2, 3; 1998 FD₃₀, 10, 2, 27; 1998 FN₄₁, 5, 1, 0; 1998 FV₄₁, 4, 1, 0; 1998 FM₅₇, 5, 1, 0; 1998 FL₆₀, 5, 1, 0; 1998 FV₇₈, 5, 1, 0; 1998 FV₉₀, 5, 1, 0; 1998 FO₁₀₃, 5, 1, 0; 1998 FF₁₀₅, 5, 1, 0; 1998 FB₁₁₈, 5, 1, 0; 1998 FN₁₂₆, 5, 1, 0; 1998 FY₁₂₉, 5, 1, 0; 1998 FB₁₄₄, 5, 1, 0; 1998 GF₅, 1, 0; 1998 GK₂₀, 5, 4; 1998 HN₁, 4, 1, 0; 1998 HG₂₆, 3, 1, 0; 1998 HO₂₇, 3, 1, 0; 1998 HO₃₀, 8, 2, 12; 1998 HU₃₁, 5, 1, 0; 1998 HD₃₂, 5, 1, 0; 1998 HF₃₂, 4, 1, 0; 1998 HU₃₂, 5, 1, 0; 1998 HO₃₃, 5, 1, 0; 1998 HL₃₄, 5, 1, 0; 1998 HB₃₅, 14, 3, 31; 1998 HG₃₇, 24, 5, 52; 1998 HK₃₇, 12, 3, 501; 1998 HJ₄₀, 10, 2, 4; 1998 HY₄₃, 14, 3, 52; 1998 HN₄₄, 9, 2, 3; 1998 HC₄₆, 5, 1, 0; 1998 HD₄₆, 14, 3, 52; 1998 HH₄₆, 10, 2, 4; 1998 HU₄₆, 12, 3, 52; 1998 HG₄₈, 5, 1, 0; 1998 HU₅₀, 3, 1, 0; 1998 HW₅₀, 9, 2, 621; 1998 HU₅₁, 3, 1, 0; 1998 HH₅₂, 5, 1, 0; 1998 HP₅₃, 5, 1, 0; 1998 HH₆₃, 5, 1, 0; 1998 HG₆₈, 4, 1, 0; 1998 HQ₇₀,

5, 1, 0; 1998 HD₇₆, 10, 2, 15; 1998 HK₈₃, 9, 2, 38; 1998 HA₈₄, 9, 2, 21; 1998 HG₈₉, 9, 2, 15; 1998 HL₉₃, 5, 1, 0; 1998 HS₉₃, 5, 1, 0; 1998 HV₉₅, 5, 1, 0; 1998 HA₉₈, 5, 1, 0; 1998 HJ₉₈, 10, 2, 13; 1998 HC₉₉, 5, 1, 0; 1998 HH₉₉, 5, 1, 0; 1998 HQ₁₀₀, 5, 1, 0; 1998 HW₁₀₀, 5, 1, 0; 1998 HY₁₀₀, 3, 1, 0; 1998 HD₁₁₁, 10, 2, 25; 1998 HE₁₂₀, 5, 1, 0; 1998 HD₁₂₄, 5, 1, 0; 1998 HF₁₂₄, 5, 1, 0; 1998 HK₁₄₈, 4, 1, 0; 1998 HS₁₄₈, 4, 1, 0; 1998 HW₁₅₀, 5, 1, 0; 1998 JQ₄, 1, 0; 1998 JS₁₃, 3, 7; 1998 JT₉, 2, 1; 1998 JZ₁, 5, 1, 0; 1998 JB₂, 10, 1, 0; 1998 JF₂, 10, 2, 106; 1998 JK₄, 4, 1, 0; 1998 KB₅, 5, 1, 0; 1998 KZ₃, 3, 1, 0; 1998 KP₁, 4, 1, 0; 1998 KS₁, 4, 1, 0; 1998 KK₂, 8, 2, 1; 1998 KB₄, 10, 1, 0; 1998 KS₄, 3, 1, 0; 1998 KU₄, 9, 2, 12; 1998 KE₅, 8, 2, 1; 1998 KA₆, 4, 1, 0; 1998 KX₆, 5, 1, 0; 1998 KS₇, 4, 1, 0; 1998 KT₈, 2, 1, 0; 1998 KK₉, 3, 1, 0; 1998 KZ₉, 3, 1, 0; 1998 KE₁₃, 9, 2, 9; 1998 KM₁₃, 8, 2, 10; 1998 KB₁₄, 12, 3, 31; 1998 KF₁₆, 10, 2, 9; 1998 KQ₁₇, 8, 2, 9; 1998 KD₁₉, 10, 2, 9; 1998 KT₂₀, 10, 2, 31; 1998 KO₂₅, 4, 1, 0; 1998 KW₂₆, 3, 1, 0; 1998 KV₃₂, 4, 1, 0; 1998 KZ₃₃, 10, 2, 106; 1998 KF₃₅, 5, 1, 0; 1998 KE₃₇, 3, 1, 0; 1998 KQ₄₄, 5, 1, 0; 1998 KQ₄₅, 5, 1, 0; 1998 KA₄₆, 5, 1, 0; 1998 KL₄₈, 5, 1, 0; 1998 KS₄₈, 8, 2, 106; 1998 KT₄₈, 5, 1, 0; 1998 KS₅₁, 13, 3, 3; 1998 KT₅₅, 5, 1, 0; 1998 KG₅₆, 5, 1, 0; 1998 KS₅₆, 14, 3, 547; 1998 KD₅₈, 5, 1, 0; 1998 KY₅₈, 5, 1, 0; 1998 KT₆₃, 4, 1, 0; 1998 KA₆₆, 4, 1, 0; 1998 LP₂, 4, 1, 0; 1998 MD₁₀, 2, 1; 1998 MF₅, 8, 2, 1; 1998 MK₅, 20, 4, 115; 1998 MO₅, 9, 2, 1; 1998 MD₇, 5, 1, 0; 1998 MM₇, 8, 2, 26; 1998 MU₇, 26, 6, 11; 1998 MA₈, 4, 1, 0; 1998 MH₁₂, 4, 1, 0; 1998 MW₁₃, 13, 3, 8; 1998 MR₁₅, 3, 1, 0; 1998 MN₁₆, 9, 2, 12; 1998 MV₁₉, 13, 3, 12; 1998 MP₂₂, 22, 5, 619; 1998 MS₂₃, 15, 3, 10; 1998 MP₂₄, 15, 4, 55; 1998 MD₂₇, 4, 1, 0; 1998 MH₂₇, 4, 1, 0; 1998 MV₂₇, 13, 3, 12; 1998 MG₂₈, 4, 1, 0; 1998 MJ₂₈, 4, 1, 0; 1998 MF₃₁, 5, 1, 0; 1998 MP₃₁, 5, 1, 0; 1998 MS₃₁, 3, 1, 0; 1998 MB₃₂, 4, 1, 0; 1998 MC₃₂, 9, 2, 4; 1998 MD₃₂, 5, 1, 0; 1998 MQ₃₂, 12, 3, 76; 1998 MN₃₃, 5, 1, 0; 1998 MU₃₃, 4, 1, 0; 1998 MW₃₅, 8, 2, 25; 1998 MM₃₆, 19, 4, 9; 1998 MH₃₇, 5, 1, 0; 1998 MJ₃₇, 4, 1, 0; 1998 MR₃₇, 8, 2, 1; 1998 MV₃₇, 15, 3, 12; 1998 MZ₃₇, 3, 1, 0; 1998 MB₃₈, 10, 2, 1; 1998 MB₃₉, 5, 1, 0; 1998 MJ₃₉, 4, 1, 0; 1998 MN₄₂, 4, 1, 0; 1998 MV₄₂, 14, 3, 12; 1998 MC₄₅, 5, 1, 0; 1998 MG₄₈, 5, 1, 0; 1998 NA₁₅, 3, 12; 1998 NF₅, 1, 0; 1998 OD₈, 2, 52; 1998 ON₁₄, 14, 3, 12; 1998 OS₅, 1, 0; 1998 OY₄, 1, 0; 1998 OD₁, 11, 3, 26; 1998 OT₁, 4, 1, 0; 1998 OX₁, 5, 1, 0; 1998 OJ₂, 12, 3, 59; 1998 OB₄, 19, 4, 6; 1998 OV₄, 5, 1, 0; 1998 OY₄, 4, 1, 0; 1998 OA₆, 4, 1, 0; 1998 OB₆, 4, 1, 0; 1998 OW₆, 13, 2, 2; 1998 OZ₆, 7, 2, 2; 1998 OE₇, 26, 6, 13; 1998 OJ₇, 4, 1, 0; 1998 OK₇, 5, 1, 0; 1998 OP₇, 9, 2, 1; 1998 OL₈, 4, 1, 0; 1998 OF₈, 15, 3, 79; 1998 OT₈, 5, 1, 0; 1998 OZ₈, 12, 3, 12; 1998 OG₉, 5, 1, 0; 1998 OM₉, 2, 114; 1998 OF₁₀, 10, 2, 1; 1998 OL₁₀, 5, 1, 0; 1998 OQ₁₀, 19, 4, 88; 1998 OT₁₀, 5, 1, 0; 1998 OK₁₁, 9, 2, 1; 1998 OL₁₁, 7, 2, 12; 1998 ON₁₁, 9, 2, 3; 1998 OP₁₁, 5, 1, 0; 1998 OZ₁₁, 16, 4, 87; 1998 OA₁₂, 15, 3, 13; 1998 OD₁₂, 8, 2, 12; 1998 ON₁₂, 10, 2, 1; 1998 OR₁₂, 9, 2, 80; 1998 OS₁₂, 18, 4, 8; 1998 OA₁₃, 14, 3, 12; 1998 OB₁₃, 5, 1, 0; 1998 OD₁₃, 8, 2, 8; 1998 OE₁₃, 5, 1, 0; 1998 ON₁₃, 39, 5, 12; 1998 OR₁₃, 14, 3, 9; 1998 OS₁₃, 15, 3, 8; 1998 OC₁₄, 11, 3, 107; 1998 OE₁₄, 10, 2, 6; 1998 OQ₁₄, 11, 3, 12; 1998 OU₁₄, 4, 1, 0; 1998 OB₁₅, 5, 1, 0; 1998 PH₁₆, 4, 12; 1998 PJ₅, 1, 0; 1998 PL₅, 9, 2, 1; 1998 PR₁₄, 3, 531; 1998 PU₁₀, 10, 2, 7; 1998 PV₅, 1, 0; 1998 PX₈, 1, 0; 1998 PA₁, 4, 1, 0; 1998 PL₁, 20, 5, 11; 1998 PP₁, 10, 2, 1; 1998 QB₁₂, 12, 3, 12; 1998 QC₄, 1, 0; 1998 QD₁₀, 2, 6; 1998 QE₁, 14, 3, 55; 1998 QH₅, 1, 0; 1998 QR₁₅, 3, 91; 1998 QW₃, 1, 0; 1998 QY₃, 1, 0; 1998 QK₁, 10, 2, 2; 1998 QP₁, 3, 1, 0; 1998 QR₁, 10, 2, 1; 1998 QV₁, 14, 3, 40; 1998 QJ₂, 10, 2, 7; 1998 QM₂, 3, 1, 0; 1998 QN₂, 9, 2, 1; 1998 QU₂, 16, 3, 5; 1998 QF₃, 15, 3, 6; 1998 QH₃, 5, 1, 0; 1998 QZ₃, 5, 1, 0; 1998 QJ₄, 8, 2, 5; 1998 QN₄, 3, 1, 0; 1998 QA₅, 5, 1, 0; 1998 QS₅, 10, 2,

11, 3, 13; 1998 QU₄₂, 5, 1, 0; 1998 QB₄₃, 5, 1, 0; 1998 QD₄₃, 3, 1, 0; 1998 QK₄₃, 10, 2, 1; 1998 QR₄₃, 9, 2, 1; 1998 QY₄₃, 5, 1, 0; 1998 QD₄₄, 9, 2, 8; 1998 QF₄₄, 8, 2, 8; 1998 QH₄₄, 20, 4, 9; 1998 QN₄₄, 7, 2, 12; 1998 QO₄₄, 4, 1, 0; 1998 QS₄₄, 5, 1, 0; 1998 QU₄₄, 10, 2, 2; 1998 QD₄₅, 17, 4, 11; 1998 QJ₄₅, 5, 1, 0; 1998 QN₄₅, 3, 1, 0; 1998 QO₄₅, 5, 1, 0; 1998 QP₄₅, 13, 3, 109; 1998 QS₄₅, 19, 4, 9; 1998 QU₄₅, 8, 2, 2; 1998 QY₄₅, 4, 1, 0; 1998 QA₄₆, 5, 1, 0; 1998 QG₄₆, 4, 1, 0; 1998 QJ₄₆, 10, 3, 12; 1998 QN₄₆, 9, 2, 2; 1998 QT₄₇, 16, 4, 1; 1998 QY₄₇, 18, 4, 11; 1998 QB₄₈, 3, 1, 0; 1998 QF₄₈, 10, 2, 1; 1998 QK₄₈, 21, 4, 17; 1998 QU₄₈, 13, 3, 10; 1998 QW₄₈, 5, 1, 0; 1998 QE₄₉, 9, 2, 1; 1998 QF₄₉, 21, 5, 9; 1998 QO₄₉, 10, 2, 2; 1998 QF₅₀, 5, 1, 0; 1998 QL₅₀, 12, 2, 7; 1998 QN₅₀, 9, 2, 1; 1998 QR₅₀, 7, 2, 1; 1998 QU₅₀, 11, 3, 4; 1998 QW₅₀, 4, 1, 0; 1998 QX₅₀, 13, 3, 13; 1998 QY₅₀, 4, 1, 0; 1998 QZ₅₀, 7, 2, 1; 1998 QC₅₁, 3, 1, 0; 1998 QK₅₁, 14, 3, 10; 1998 QP₅₁, 4, 1, 0; 1998 QR₅₁, 3, 1, 0; 1998 QT₅₁, 14, 3, 12; 1998 QV₅₁, 14, 3, 8; 1998 QX₅₁, 13, 3, 10; 1998 QC₅₂, 5, 1, 0; 1998 QG₅₂, 10, 2, 1; 1998 QH₅₂, 12, 3, 12; 1998 QM₅₂, 10, 2, 7; 1998 QU₅₂, 10, 2, 1; 1998 QC₅₃, 20, 4, 192; 1998 QD₅₃, 8, 2, 163; 1998 QJ₅₃, 19, 5, 11; 1998 QL₅₃, 5, 1, 0; 1998 QM₅₃, 9, 2, 13; 1998 QR₅₃, 8, 2, 12; 1998 QE₅₄, 14, 3, 12; 1998 QG₅₄, 5, 1, 0; 1998 QK₅₄, 10, 2, 1; 1998 QM₅₄, 12, 3, 2; 1998 QO₅₄, 4, 1, 0; 1998 QV₅₄, 10, 3, 12; 1998 QY₅₄, 17, 4, 4; 1998 QZ₅₄, 15, 3, 5; 1998 QA₅₅, 4, 1, 0; 1998 QB₅₅, 10, 2, 13; 1998 QF₅₅, 13, 3, 8; 1998 QH₅₅, 5, 1, 0; 1998 QT₅₅, 9, 2, 8; 1998 QY₅₅, 13, 3, 9; 1998 QZ₅₅, 13, 3, 4; 1998 QA₅₆, 12, 3, 6; 1998 QG₅₆, 10, 2, 2; 1998 QE₅₇, 9, 2, 1; 1998 QL₅₇, 22, 5, 10; 1998 QM₅₇, 10, 3, 12; 1998 QP₅₇, 10, 2, 1; 1998 QS₅₇, 5, 1, 0; 1998 QO₆₀, 9, 2, 16; 1998 QF₆₀, 9, 2, 2; 1998 QQ₆₀, 4, 1, 0; 1998 QY₆₀, 13, 3, 36; 1998 QF₆₁, 5, 1, 0; 1998 QK₆₁, 34, 7, 10; 1998 QB₆₃, 8, 2, 6; 1998 QN₆₉, 3, 1, 0; 1998 QP₆₉, 4, 1, 0; 1998 QE₇₀, 8, 2, 112; 1998 QF₇₀, 3, 1, 0; 1998 QJ₇₀, 21, 5, 17; 1998 QP₇₀, 4, 1, 0; 1998 QU₇₀, 3, 1, 0; 1998 QX₇₀, 4, 1, 0; 1998 QC₇₁, 5, 1, 0; 1998 QM₇₁, 5, 1, 0; 1998 QU₇₁, 4, 1, 0; 1998 QP₇₂, 5, 1, 0; 1998 QT₇₂, 10, 2, 1; 1998 QE₇₃, 9, 2, 12; 1998 QJ₇₃, 4, 1, 0; 1998 QV₇₃, 5, 1, 0; 1998 QO₇₄, 34, 8, 11; 1998 QP₇₄, 5, 1, 0; 1998 QT₇₄, 10, 2, 112; 1998 QY₇₄, 10, 2, 1; 1998 QB₇₅, 8, 2, 7; 1998 QT₇₆, 17, 4, 11; 1998 QF₇₇, 10, 2, 162; 1998 QV₇₇, 5, 1, 0; 1998 QW₇₇, 5, 1, 0; 1998 QX₇₇, 15, 3, 12; 1998 QY₇₇, 3, 1, 0; 1998 QF₈₀, 38, 8, 88; 1998 QC₈₄, 4, 1, 0; 1998 QL₈₄, 23, 5, 89; 1998 QQ₈₄, 3, 1, 0; 1998 QT₈₄, 4, 1, 0; 1998 QF₈₅, 13, 3, 13; 1998 QJ₈₅, 10, 2, 12; 1998 QL₈₅, 4, 1, 0; 1998 QN₈₅, 10, 2, 1; 1998 QO₈₅, 8, 2, 1; 1998 QS₈₅, 12, 3, 4; 1998 QW₈₅, 8, 2, 2; 1998 QB₈₆, 3, 1, 0; 1998 QG₈₆, 9, 2, 2; 1998 QN₈₆, 15, 3, 10; 1998 QR₈₆, 13, 3, 10; 1998 QW₈₆, 15, 3, 10; 1998 QAg₇, 5, 1, 0; 1998 QB₈₇, 10, 2, 1; 1998 QO₈₇, 8, 2, 1; 1998 QQ₈₇, 5, 1, 0; 1998 QX₈₇, 5, 1, 0; 1998 QA₈₈, 14, 3, 454; 1998 QD₈₈, 4, 1, 0; 1998 QF₈₉, 10, 2, 2; 1998 QV₈₉, 14, 3, 12; 1998 QW₈₉, 4, 1, 0; 1998 QM₉₀, 4, 1, 0; 1998 QP₉₀, 7, 2, 5; 1998 QS₉₀, 8, 2, 13; 1998 QU₉₀, 8, 2, 10; 1998 QV₉₀, 11, 3, 12; 1998 QY₉₀, 9, 2, 5; 1998 QO₉₁, 14, 3, 5; 1998 QM₉₂, 4, 1, 0; 1998 QN₉₂, 5, 1, 0; 1998 QS₉₂, 5, 1, 0; 1998 QU₉₂, 5, 1, 0; 1998 QX₉₂, 10, 2, 1; 1998 QO₉₃, 4, 1, 0; 1998 QP₉₃, 10, 2, 5; 1998 QR₉₃, 5, 1, 0; 1998 QS₉₃, 5, 1, 0; 1998 QM₉₄, 9, 2, 1; 1998 QX₉₄, 4, 1, 0; 1998 QC₉₅, 5, 1, 0; 1998 QH₉₅, 5, 1, 0; 1998 QK₉₅, 5, 1, 0; 1998 QM₉₅, 3, 1, 0; 1998 QO₉₅, 15, 3, 10; 1998 QF₉₆, 4, 1, 0; 1998 QA₉₈, 15, 3, 6; 1998 QC₉₈, 17, 4, 9; 1998 QD₉₉, 14, 2, 1; 1998 QE₉₉, 4, 1, 0; 1998 QJ₉₉, 4, 1, 0; 1998 QF₁₀₀, 10, 2, 2; 1998 QO₁₀₀, 10, 2, 1; 1998 QP₁₀₀, 14, 3, 13; 1998 QW₁₀₀, 9, 2, 1; 1998 QH₁₀₁, 10, 2, 5; 1998 QI₁₀₁, 10, 2, 1; 1998 QF₁₀₂, 18, 4, 386; 1998 QG₁₀₂, 13, 3, 9; 1998 QL₁₀₂, 4, 1, 0; 1998 QP₁₀₂, 5, 1, 0; 1998 QR₁₀₂, 4, 1, 0; 1998 QF₁₀₃, 5, 1, 0; 1998 QL₁₀₃, 13, 3, 38; 1998 QM₁₀₃, 10, 2, 26; 1998 QQ₁₀₃, 5, 1, 0; 1998 QU₁₀₃, 20, 5, 87; 1998 QD₁₀₄, 4, 1, 0; 1998 QF₁₀₄, 4, 1, 0; 1998 QK₁₀₄, 7, 2, 1; 1998 QQ₁₀₄, 8, 2, 21; 1998 QL₁₀₅, 4, 1, 0; 1998 QN₁₀₅, 10, 2, 7; 1998 QR₁₀₅, 5, 1, 0; 1998 QB₁₀₆, 9, 2, 7; 1998 QM₁₀₆, 4, 1, 0; 1998 QT₁₀₇, 5, 1, 0; 1998 RG, 19, 4, 9; 1998 RH, 13, 3, 87; 1998 RM, 5, 1, 0; 1998 RS, 4, 1, 0; 1998 RJ₁, 10, 2, 1; 1998 RD₂, 8, 2, 7; 1998 RE₂, 10, 2, 1; 1998 RL₂, 9, 2, 2; 1998 RQ₂, 3, 1, 0; 1998 RA₅, 5, 1, 0; 1998 RC₅, 8, 2, 3; 1998 RM₅, 5, 1, 0; 1998 RP₅, 9, 2, 1; 1998 RQ₅, 14, 3, 7; 1998 RB₆, 8, 2, 2; 1998 RJ₆, 9, 2, 1; 1998 RL₆, 18, 4, 87; 1998 RV₁₂, 5, 1, 0; 1998 RS₁₄, 4, 1, 0; 1998 RH₁₆, 5, 1, 0; 1998 RJ₁₇, 5, 1, 0; 1998 RL₁₇, 10, 2, 6; 1998 RZ₁₇, 10, 2, 6; 1998 RH₁₈, 4, 1, 0; 1998 RL₁₉, 4, 1, 0; 1998 RM₁₉, 9, 2, 12; 1998 RL₂₀, 5, 1, 0; 1998 RN₂₂, 5, 1, 0; 1998 RO₂₂, 19, 4, 6; 1998 RU₂₂, 5, 1, 0; 1998 RX₂₂, 5, 1, 0; 1998 RF₂₃, 4, 1, 0; 1998 RA₂₄, 8, 2, 477; 1998 RC₂₄, 10, 2, 1; 1998 RS₂₄, 5, 1, 0; 1998 RV₂₄, 4, 1, 0; 1998 RA₂₅, 5, 1, 0; 1998 RK₂₅, 10, 2, 6; 1998 RP₂₅, 5, 1, 0; 1998 RC₂₇, 10, 2, 6; 1998 RU₂₇, 5, 1, 0; 1998 RZ₂₇, 4, 1, 0; 1998 RF₂₈, 5, 1, 0; 1998 RE₂₉, 5, 1, 0; 1998 RR₂₉, 15, 3, 3; 1998 RG₃₀, 10, 2, 6; 1998 RO₃₀, 8, 2, 6; 1998 RS₃₀, 4, 1, 0; 1998 RK₃₁, 9, 2, 6; 1998 RF₃₂, 5, 1, 0; 1998 RV₃₃, 10, 2, 107; 1998 RM₃₄, 34, 6, 9; 1998 RD₃₆, 5, 1, 0; 1998 RO₃₆, 5, 1, 0; 1998 RC₃₇, 5, 1, 0; 1998 RE₃₇, 23, 5, 82; 1998 RO₃₈, 13, 3, 12; 1998 RA₃₉, 10, 2, 2; 1998 RD₄₀, 12, 3, 53; 1998 RJ₄₀, 14, 3, 12; 1998 RE₄₁, 5, 1, 0; 1998 RQ₄₂, 13, 3, 10; 1998 RV₄₂, 18, 4, 6; 1998 RD₄₃, 8, 2, 22; 1998 RD₄₄, 16, 4, 46; 1998 RP₄₄, 10, 2, 7; 1998 RT₄₄, 8, 2, 65; 1998 RA₄₅, 9, 2, 480; 1998 RC₄₅, 9, 2, 107; 1998 RJ₄₅, 8, 2, 1; 1998 RO₄₅, 8, 2, 24; 1998 RF₄₆, 4, 1, 0; 1998 RJ₄₆, 8, 2, 63; 1998 RT₄₆, 11, 3, 12; 1998 RW₄₆, 8, 2, 4; 1998 RE₄₇, 9, 2, 6; 1998 RK₄₇, 14, 3, 12; 1998 RQ₄₇, 10, 2, 12; 1998 RU₄₇, 4, 1, 0; 1998 RC₄₈, 3, 1, 0; 1998 RJ₄₈, 4, 1, 0; 1998 RS₄₈, 19, 5, 10; 1998 RZ₄₈, 3, 1, 0; 1998 RG₄₉, 10, 2, 1; 1998 RJ₄₉, 21, 5, 87; 1998 RO₄₉, 8, 2, 8; 1998 RQ₄₉, 4, 1, 0; 1998 RJ₅₀, 15, 3, 8; 1998 RS₅₀, 10, 2, 1; 1998 RT₅₀, 4, 1, 0; 1998 RD₅₁, 10, 2, 1; 1998 RJ₅₁, 5, 1, 0; 1998 RY₅₁, 10, 2, 1; 1998 RA₅₂, 10, 2, 7; 1998 RJ₅₂, 13, 3, 13; 1998 RQ₅₂, 9, 2, 9; 1998 RR₅₂, 10, 2, 10; 1998 RS₅₂, 4, 1, 0; 1998 RD₅₃, 5, 1, 0; 1998 RG₅₃, 3, 1, 0; 1998 RL₅₃, 4, 1, 0; 1998 RC₅₄, 3, 1, 0; 1998 RG₅₄, 4, 1, 0; 1998 RL₅₄, 8, 2, 4; 1998 RN₅₄, 12, 3, 12; 1998 RV₅₄, 4, 1, 0; 1998 RB₅₅, 15, 1, 0; 1998 RK₅₅, 18, 4, 15; 1998 RP₅₅, 9, 2, 1; 1998 RZ₅₅, 14, 3, 12; 1998 RC₅₆, 14, 3, 6; 1998 RF₅₆, 5, 1, 0;

1998 RJ₅₆, 4, 1, 0; 1998 RN₅₆, 5, 1, 0; 1998 RR₅₆, 3, 1, 0; 1998 RT₅₆, 10, 2, 2; 1998 RU₅₆, 10, 2, 1; 1998 RB₅₇, 5, 1, 0; 1998 RJ₅₇, 5, 1, 0; 1998 RT₅₇, 5, 1, 0; 1998 RY₅₇, 5, 1, 0; 1998 RM₅₈, 4, 1, 0; 1998 RN₅₈, 38, 8, 88; 1998 RQ₅₈, 4, 1, 0; 1998 RA₅₉, 12, 3, 10; 1998 RR₅₉, 5, 1, 0; 1998 RU₅₉, 4, 1, 0; 1998 RX₅₉, 5, 1, 0; 1998 RJ₆₀, 20, 1, 0; 1998 RO₆₀, 8, 2, 2; 1998 RW₆₀, 4, 1, 0; 1998 RY₆₀, 19, 3, 55; 1998 RL₆₁, 13, 3, 12; 1998 RQ₆₁, 4, 1, 0; 1998 RR₆₁, 4, 1, 0; 1998 RU₆₁, 9, 2, 7; 1998 RB₆₂, 5, 1, 0; 1998 RD₆₂, 3, 1, 0; 1998 RK₆₂, 5, 1, 0; 1998 RY₆₂, 5, 1, 0; 1998 RZ₆₂, 5, 1, 0; 1998 RH₆₃, 7, 2, 7; 1998 RL₆₄, 5, 1, 0; 1998 RF₆₄, 5, 1, 0; 1998 RQ₆₄, 4, 1, 0; 1998 RS₆₄, 5, 1, 0; 1998 RE₆₅, 14, 3, 3; 1998 RK₆₅, 14, 3, 12; 1998 RL₆₅, 7, 2, 12; 1998 RR₆₅, 14, 3, 13; 1998 RS₆₅, 5, 1, 0; 1998 RW₆₅, 5, 1, 0; 1998 RC₆₆, 9, 2, 2; 1998 RJ₆₆, 4, 1, 0; 1998 RK₆₆, 15, 3, 10; 1998 RO₆₆, 21, 5, 87; 1998 RP₆₆, 4, 1, 0; 1998 RQ₆₆, 5, 1, 0; 1998 RT₆₆, 4, 1, 0; 1998 RV₆₆, 8, 2, 2; 1998 RZ₆₆, 5, 1, 0; 1998 RM₆₇, 3, 1, 0; 1998 RO₆₇, 3, 1, 0; 1998 RZ₆₇, 10, 2, 1; 1998 RN₆₈, 18, 4, 8; 1998 RQ₆₈, 3, 1, 0; 1998 RS₆₈, 10, 2, 7; 1998 RC₆₉, 7, 2, 1; 1998 RD₆₉, 9, 2, 12; 1998 RG₆₉, 13, 3, 8; 1998 RP₇₀, 4, 1, 0; 1998 RW₇₀, 5, 1, 0; 1998 RB₇₁, 21, 5, 9; 1998 RD₇₁, 7, 2, 1; 1998 RE₇₁, 23, 5, 6; 1998 RF₇₁, 4, 1, 0; 1998 RK₇₁, 8, 2, 5; 1998 RL₇₁, 5, 1, 0; 1998 RM₇₁, 15, 3, 60; 1998 RY₇₁, 4, 1, 0; 1998 RZ₇₁, 13, 3, 12; 1998 RA₇₂, 14, 3, 6; 1998 RG₇₂, 4, 1, 0; 1998 RM₇₂, 10, 2, 1; 1998 RR₇₂, 13, 3, 4; 1998 RX₇₂, 13, 3, 4; 1998 RH₇₃, 4, 1, 0; 1998 RL₇₃, 9, 2, 1; 1998 RN₇₃, 4, 1, 0; 1998 RQ₇₃, 4, 1, 0; 1998 RS₇₃, 5, 1, 0; 1998 RC₇₄, 18, 4, 115; 1998 RF₇₄, 18, 3, 12; 1998 RH₇₄, 13, 3, 8; 1998 RP₇₄, 11, 3, 12; 1998 RT₇₄, 13, 3, 9; 1998 RV₇₄, 4, 1, 0; 1998 RW₇₄, 8, 1, 0; 1998 RX₇₄, 11, 3, 4; 1998 RG₇₅, 9, 2, 5; 1998 RH₇₅, 13, 3, 5; 1998 RK₇₅, 14, 3, 19; 1998 RW₇₅, 5, 1, 0; 1998 RH₇₆, 14, 3, 12; 1998 RL₇₆, 5, 1, 0; 1998 RU₇₆, 13, 3, 10; 1998 RB₇₇, 15, 3, 8; 1998 RF₇₇, 5, 1, 0; 1998 RJ₇₇, 27, 4, 4; 1998 RR₇₇, 10, 2, 3; 1998 RY₇₇, 14, 3, 10; 1998 RA₇₈, 9, 2, 12; 1998 RC₇₈, 13, 3, 3; 1998 RF₇₈, 5, 1, 0; 1998 RL₇₈, 3, 1, 0; 1998 RM₇₈, 8, 2, 14; 1998 RN₇₈, 22, 5, 63; 1998 RO₇₈, 3, 1, 0; 1998 RP₇₈, 10, 2, 99; 1998 RU₇₈, 9, 2, 1; 1998 RV₇₈, 5, 1, 0; 1998 RX₇₈, 9, 2, 1; 1998 RY₇₈, 4, 1, 0; 1998 RA₇₉, 3, 1, 0; 1998 RX₇₉, 5, 1, 0; 1998 RZ₇₉, 24, 5, 12; 1998 RA₈₀, 4, 1, 0; 1998 RB₈₀, 9, 2, 1; 1998 RM₈₀, 5, 1, 0; 1998 SA₁, 10, 2, 1; 1998 SF₁, 9, 2, 1; 1998 SK₁, 14, 3, 12; 1998 SN₁, 4, 1, 0; 1998 SR₁, 5, 1, 0; 1998 SV₁, 13, 3, 87; 1998 SW₁, 5, 1, 0; 1998 SL₂, 10, 2, 6; 1998 SQ₂, 4, 1, 0; 1998 SS₂, 4, 1, 0; 1998 ST₂, 10, 2, 4; 1998 SU₂, 4, 1, 0; 1998 SZ₂, 5, 1, 0; 1998 SN₃, 10, 2, 12; 1998 SE₄, 5, 1, 0; 1998 SG₄, 10, 2, 2; 1998 SL₄, 13, 3, 12; 1998 SX₄, 3, 1, 0; 1998 SG₅, 5, 1, 0; 1998 SE₉, 2, 6; 1998 SO₉, 19, 4, 8; 1998 SG₁₀, 8, 2, 14; 1998 SH₁₀, 19, 4, 12; 1998 SU₁₀, 4, 1, 0; 1998 SL₁₂, 5, 1, 0; 1998 SX₁₂, 15, 3, 9; 1998 SY₁₂, 10, 2, 12; 1998 SG₁₃, 4, 1, 0; 1998 SX₁₆, 23, 5, 6; 1998 SQ₁₈, 9, 2, 2; 1998 SU₂₁, 10, 2, 1; 1998 SX₂₁, 3, 1, 0; 1998 SK₂₂, 3, 1, 0; 1998 SN₂₂, 5, 1, 0; 1998 SP₂₂, 9, 2, 1; 1998 SQ₂₂, 5, 1, 0; 1998 SR₂₂, 4, 1, 0; 1998 SW₂₂, 3, 1, 0; 1998 SX₂₂, 10, 2, 1; 1998 SV₂₃, 3, 1, 0; 1998 SX₂₃, 10, 2, 8; 1998 SA₂₄, 13, 3, 12; 1998 SD₂₄, 3, 1, 0; 1998 SE₂₄, 4, 1, 0; 1998 SG₂₄, 10, 2, 8; 1998 SJ₂₄, 10, 2, 1; 1998 SM₂₄, 8, 2, 12; 1998 SQ₂₄, 4, 1, 0; 1998 SV₂₄, 3, 1, 0; 1998 SA₂₅, 4, 1, 0; 1998 SH₂₅, 14, 3, 12; 1998 SN₂₅, 13, 3, 12; 1998 SJ₂₆, 8, 2, 27; 1998 SN₂₆, 4, 1, 0; 1998 SN₂₇, 4, 1, 0; 1998 SS₂₇, 19, 4, 10; 1998 SA₂₈, 9, 2, 1; 1998 SB₂₈, 5, 1, 0; 1998 SG₃₀, 9, 2, 8; 1998 SV₃₆, 6, 2, 1; 1998 SZ₃₆, 13, 3, 12; 1998 SR₃₇, 5, 1, 0; 1998 SS₃₇, 3, 1, 0; 1998 SL₄₂, 19, 4, 67; 1998 SF₄₂, 5, 1, 0; 1998 SC₄₃, 6, 2, 11; 1998 SE₄₃, 10, 2, 7; 1998 SG₄₃, 23, 4, 8; 1998 SR₄₃, 14, 3, 12; 1998 SS₄₃, 9, 2, 5; 1998 SV₄₃, 5, 1, 0; 1998 SE₄₄, 10, 2, 105; 1998 SO₄₅, 9, 2, 7; 1998 SY₄₅, 4, 1, 0; 1998 SC₄₆, 9, 2, 1; 1998 SE₄₇, 8, 2, 3; 1998 SL₄₇, 6, 2, 12; 1998 SP₄₈, 10, 2, 4; 1998 SC₄₉, 10, 2, 1; 1998 SF₄₉, 12, 3, 12; 1998 SG₄₉, 13, 3, 6; 1998 SM₄₉, 5, 1, 0; 1998 SO₅₀, 3, 1, 0; 199

1998 SS₁₁₇, 18, 4, 87; 1998 SZ₁₁₇, 5, 1, 0; 1998 SA₁₁₈, 5, 1, 0; 1998 SK₁₁₈, 4, 1, 0; 1998 SR₁₁₈, 15, 3, 10; 1998 SB₁₁₉, 12, 3, 12; 1998 ST₁₁₉, 9, 2, 7; 1998 SN₁₂₁, 9, 2, 1; 1998 SC₁₂₂, 5, 1, 0; 1998 SH₁₂₂, 4, 1, 0; 1998 SJ₁₂₂, 13, 3, 11; 1998 SK₁₂₂, 3, 1, 0; 1998 SM₁₂₂, 4, 1, 0; 1998 SK₁₂₃, 8, 2, 12; 1998 SN₁₂₃, 13, 3, 12; 1998 SD₁₂₄, 19, 4, 10; 1998 SR₁₂₄, 17, 4, 8; 1998 SU₁₂₄, 10, 2, 1; 1998 SK₁₂₅, 5, 1, 0; 1998 SA₁₂₆, 10, 3, 12; 1998 SV₁₂₆, 17, 4, 12; 1998 SX₁₂₆, 15, 3, 13; 1998 SC₁₂₇, 9, 2, 1; 1998 SJ₁₂₈, 4, 1, 0; 1998 SU₁₂₈, 4, 1, 0; 1998 SV₁₂₈, 5, 1, 0; 1998 SB₁₂₉, 8, 2, 2; 1998 SN₁₂₉, 18, 4, 6; 1998 SO₁₂₉, 12, 3, 12; 1998 SP₁₂₉, 4, 1, 0; 1998 SQ₁₂₉, 27, 4, 5; 1998 SU₁₂₉, 5, 1, 0; 1998 SA₁₃₀, 21, 5, 11; 1998 SE₁₃₀, 8, 2, 1; 1998 SG₁₃₀, 9, 2, 5; 1998 SL₁₃₀, 4, 1, 0; 1998 SS₁₃₀, 17, 4, 12; 1998 SB₁₃₁, 19, 3, 3; 1998 SD₁₃₁, 13, 3, 12; 1998 SV₁₃₁, 5, 1, 0; 1998 SB₁₃₂, 4, 1, 0; 1998 SC₁₃₂, 4, 1, 0; 1998 SE₁₃₂, 9, 2, 1; 1998 SG₁₃₂, 26, 6, 17; 1998 SJ₁₃₂, 5, 1, 0; 1998 SK₁₃₂, 17, 4, 11; 1998 SR₁₃₂, 3, 1, 0; 1998 ST₁₃₂, 27, 6, 36; 1998 SV₁₃₂, 4, 1, 0; 1998 SX₁₃₂, 18, 4, 12; 1998 SA₁₃₃, 4, 1, 0; 1998 SG₁₃₃, 4, 1, 0; 1998 SX₁₃₃, 9, 2, 13; 1998 SZ₁₃₃, 5, 1, 0; 1998 SH₁₃₄, 14, 3, 9; 1998 SN₁₃₄, 10, 2, 7; 1998 SV₁₃₄, 7, 2, 1; 1998 SL₁₃₅, 4, 1, 0; 1998 SN₁₃₅, 5, 1, 0; 1998 SO₁₃₅, 5, 1, 0; 1998 SW₁₃₅, 5, 1, 0; 1998 SX₁₃₆, 4, 1, 0; 1998 SK₁₃₇, 7, 2, 12; 1998 SQ₁₃₇, 12, 3, 12; 1998 SX₁₃₇, 18, 4, 87; 1998 SC₁₃₈, 18, 4, 4; 1998 SE₁₃₈, 5, 1, 0; 1998 SG₁₃₈, 4, 1, 0; 1998 SM₁₃₈, 10, 2, 9; 1998 SN₁₃₈, 10, 2, 8; 1998 SY₁₃₈, 9, 2, 460; 1998 SA₁₃₉, 13, 3, 8; 1998 SB₁₃₉, 25, 5, 10; 1998 SC₁₃₉, 15, 3, 10; 1998 SX₁₃₉, 13, 3, 4; 1998 SR₁₃₉, 10, 2, 1; 1998 SB₁₄₀, 12, 3, 12; 1998 SE₁₄₀, 8, 2, 8; 1998 SW₁₄₀, 9, 2, 1; 1998 SX₁₄₀, 13, 3, 12; 1998 SZ₁₄₀, 7, 2, 10; 1998 SF₁₄₁, 3, 1, 0; 1998 SF₁₄₁, 14, 3, 12; 1998 SV₁₄₁, 8, 2, 7; 1998 SZ₁₄₁, 9, 2, 59; 1998 SL₁₄₂, 5, 1, 0; 1998 ST₁₄₂, 9, 2, 7; 1998 SP₁₄₃, 14, 3, 15; 1998 SS₁₄₃, 15, 2, 2; 1998 SY₁₄₃, 3, 1, 0; 1998 SA₁₄₄, 10, 2, 1; 1998 SD₁₄₄, 4, 1, 0; 1998 SX₁₄₄, 19, 4, 32; 1998 SV₁₄₄, 18, 3, 12; 1998 SA₁₄₅, 3, 1, 0; 1998 SM₁₄₅, 5, 1, 0; 1998 SO₁₄₅, 10, 2, 8; 1998 ST₁₄₅, 26, 6, 10; 1998 SW₁₄₅, 3, 1, 0; 1998 SY₁₄₅, 3, 1, 0; 1998 SZ₁₄₅, 4, 1, 0; 1998 SX₁₄₆, 3, 1, 0; 1998 ST₁₄₆, 5, 1, 0; 1998 SU₁₄₆, 3, 1, 0; 1998 SY₁₄₆, 16, 4, 5; 1998 SE₁₄₇, 22, 5, 12; 1998 SU₁₄₇, 13, 3, 8; 1998 SX₁₄₇, 10, 3, 8; 1998 SQ₁₅₄, 16, 4, 87; 1998 SW₁₅₆, 7, 2, 12; 1998 SD₁₅₉, 14, 3, 12; 1998 SG₁₅₉, 9, 2, 1; 1998 ST₁₆₀, 8, 2, 889; 1998 SE₁₆₁, 3, 1, 0; 1998 SX₁₆₁, 5, 1, 0; 1998 SP₁₆₂, 4, 1, 0; 1998 SA₁₆₃, 9, 2, 2; 1998 SE₁₆₃, 15, 4, 12; 1998 SU₁₆₃, 4, 1, 0; 1998 SX₁₆₃, 8, 2, 16; 1998 SX₁₆₃, 5, 1, 0; 1998 SG₁₆₄, 15, 3, 9; 1998 SK₁₆₄, 20, 4, 15; 1998 SM₁₆₄, 5, 1, 0; 1998 SV₁₆₄, 13, 3, 12; 1998 TA₂₀, 4, 65; 1998 TF₅, 1, 0; 1998 TK₉, 2, 107; 1998 TU₁, 3, 1, 0; 1998 TY₁, 7, 2, 11; 1998 TZ₁, 12, 3, 10; 1998 TC₂, 7, 2, 12; 1998 TP₂, 13, 3, 10; 1998 TX₂, 10, 2, 12; 1998 TG₃, 3, 1, 0; 1998 TH₅, 8, 2, 3; 1998 TN₅, 27, 6, 15; 1998 TX₅, 10, 2, 1; 1998 TA₆, 4, 1, 0; 1998 TC₆, 4, 1, 0; 1998 TQ₆, 10, 2, 7; 1998 TU₆, 3, 1, 0; 1998 TV₆, 5, 1, 0; 1998 TY₆, 3, 1, 0; 1998 TC₁₀, 17, 4, 14; 1998 TX₁₂, 7, 2, 8; 1998 TR₁₇, 3, 1, 0; 1998 TY₁₇, 12, 3, 4; 1998 TZ₁₇, 17, 4, 388; 1998 TF₂₀, 4, 1, 0; 1998 TY₂₀, 9, 2, 7; 1998 TT₂₆, 4, 1, 0; 1998 TV₂₆, 10, 2, 1; 1998 TD₂₇, 39, 7, 15; 1998 TH₂₉, 10, 2, 8; 1998 TN₃₀, 4, 1, 0; 1998 TQ₃₀, 9, 2, 2; 1998 TR₃₀, 9, 2, 2; 1998 TT₃₀, 10, 2, 8; 1998 TV₃₀, 13, 3, 7; 1998 TW₃₀, 4, 1, 0; 1998 TQ₃₁, 4, 1, 0; 1998 TA₃₂, 31, 6, 11; 1998 TD₃₂, 3, 1, 0; 1998 TL₃₂, 4, 1, 0; 1998 TM₃₂, 14, 3, 8; 1998 TN₃₃, 14, 3, 12; 1998 TR₃₃, 11, 3, 12; 1998 TD₃₄, 5, 1, 0; 1998 TE₃₄, 5, 1, 0; 1998 TG₃₄, 9, 2, 6; 1998 TJ₃₄, 31, 6, 10; 1998 TK₃₄, 8, 2, 6; 1998 TG₃₅, 8, 2, 1; 1998 TU₃₅, 5, 1, 0; 1998 UE₁₀, 2, 1; 1998 UZ₃, 3, 1, 0; 1998 UJ₁, 3, 1, 0; 1998 UK₁, 23, 5, 11; 1998 UX₁, 10, 2, 2; 1998 UO₂, 3, 1, 0; 1998 UC₃, 13, 3, 12; 1998 UP₆, 4, 1, 0; 1998 US₆, 8, 2, 8; 1998 UT₆, 18, 4, 450; 1998 UV₆, 14, 3, 6; 1998 UZ₆, 9, 2, 1; 1998 UC₇, 4, 1, 0; 1998 UD₇, 6, 2, 11; 1998 UG₇, 44, 7, 87; 1998 UF₇, 5, 1, 0; 1998 UY₇, 17, 4, 9; 1998 UE₈, 5, 1, 0; 1998 UL₈, 10, 2, 5; 1998 UB₉, 4, 1, 0; 1998 UF₉, 10, 2, 7; 1998 US₁₃, 4, 1, 0; 1998 UF₁₄, 18, 4, 87; 1998 UG₁₅, 9, 2, 12; 1998 UH₁₅, 10, 2, 74; 1998 UN₁₅, 4, 1, 0; 1998 UO₁₅, 4, 1, 0; 1998 UP₁₅, 3, 1, 0; 1998 UQ₁₅, 10, 2, 7; 1998 UR₁₅, 10, 2, 7; 1998 UB₁₆, 3, 1, 0; 1998 UB₁₇, 5, 1, 0; 1998 UG₁₇, 10, 2, 2; 1998 UM₁₈, 8, 2, 2; 1998 UW₁₈, 13, 3, 8; 1998 UJ₁₉, 9, 2, 56; 1998 UL₁₉, 8, 2, 54; 1998 UW₁₉, 25, 4, 11; 1998 UY₁₉, 10, 2, 1; 1998 UE₂₀, 3, 1, 0; 1998 UJ₂₀, 14, 3, 6; 1998 UM₂₀, 10, 2, 8; 1998 UN₂₀, 13, 3, 12; 1998 UR₂₀, 18, 4, 11; 1998 UV₂₀, 4, 1, 0; 1998 UP₂₁, 5, 1, 0; 1998 UY₂₁, 4, 1, 0; 1998 UZ₂₁, 5, 1, 0; 1998 UJ₂₃, 5, 1, 0; 1998 UN₂₃, 9, 2, 7; 1998 UR₂₃, 5, 1, 0; 1998 UT₂₃, 13, 3, 34; 1998 UC₂₄, 5, 1, 0; 1998 UM₂₄, 4, 1, 0; 1998 UO₂₄, 4, 1, 0; 1998 UZ₂₄, 9, 2, 7; 1998 UL₂₅, 8, 2, 9; 1998 UC₂₆, 12, 3, 8; 1998 UM₂₆, 18, 3, 12; 1998 UA₂₇, 10, 2, 7; 1998 UB₂₇, 5, 1, 0; 1998 UZ₂₇, 28, 5, 12; 1998 UM₂₈, 4, 1, 0; 1998 UN₂₈, 3, 1, 0; 1998 UO₂₈, 9, 2, 16; 1998 UZ₂₈, 8, 2, 10; 1998 UC₂₉, 5, 1, 0; 1998 UO₂₉, 5, 1, 0; 1998 UT₂₉, 5, 1, 0; 1998 UE₃₀, 3, 1, 0; 1998 UF₃₁, 22, 4, 58; 1998 UR₃₁, 3, 1, 0; 1998 UZ₃₁, 7, 2, 624; 1998 UF₃₃, 5, 1, 0; 1998 UE₃₄, 3, 1, 0; 1998 UG₃₄, 12, 3, 12; 1998 UV₃₅, 8, 2, 7; 1998 UJ₄₀, 5, 1, 0; 1998 UU₄₀, 4, 1, 0; 1998 UF₄₁, 5, 1, 0; 1998 UO₄₁, 5, 1, 0; 1998 UF₄₂, 11, 3, 12; 1998 UW₄₂, 4, 1, 0; 1998 UF₄₃, 5, 1, 0; 1998 UJ₄₃, 8, 2, 889; 1998 UA₄₄, 5, 1, 0; 1998 UB₄₄, 5, 1, 0; 1998 UC₄₄, 5, 1, 0; 1998 UD₄₄, 5, 1, 0; 1998 UF₄₄, 5, 1, 0; 1998 US₄₄, 4, 1, 0; 1998 UD₄₅, 5, 1, 0; 1998 UG₄₇, 4, 1, 0; 1998 VG₁₀, 2, 8; 1998 VU₅, 1, 0; 1998 VV₂, 9, 2, 1; 1998 VB₄, 7, 2, 8; 1998 VD₅, 10, 2, 7; 1998 VJ₅, 5, 1, 0; 1998 VS₅, 5, 1, 0; 1998 VX₅, 8, 2, 8; 1998 VF₆, 18, 4, 11; 1998 VM₆, 10, 2, 12; 1998 VO₆, 10, 2, 5; 1998 VK₇, 8, 2, 4; 1998 VQ₇, 3, 1, 0; 1998 VC₈, 13, 3, 5; 1998 VN₈, 8, 2, 7; 1998 VW₈, 10, 2, 8; 1998 VD₉, 4, 1, 0; 1998 VU₉, 8, 2, 6; 1998 VN₁₁, 10, 2, 7; 1998 VW₁₂, 7, 2, 2; 1998 VD₁₃, 13, 3, 87; 1998 VO₁₃, 8, 2, 34; 1998 VR₁₃, 7, 2, 1; 1998 VR₁₄, 5, 1, 0; 1998 VP₁₅, 30, 5, 12; 1998 VL₁₆, 5, 1, 0; 1998 VM₁₆, 9, 2, 16; 1998 VP₁₆, 4, 1, 0; 1998 VR₁₇, 4, 1, 0; 1998 VW₁₇, 4, 1, 0; 1998 VC₁₈, 10, 2, 24; 1998 VO₁₈, 14, 3, 12; 1998 VP₂₀, 9, 2, 1; 1998 VY₂₀, 5, 1, 0; 1998 VH₂₁, 14, 3, 12; 1998 VS₂₁, 13, 3, 10; 1998 VR₂₂, 5, 1, 0; 1998 VN₂₃, 5, 1, 0; 1998 VD₂₅, 5, 1, 0; 1998 VH₂₅, 5, 1, 0; 1998 VQ₂₅, 4, 1, 0; 1998 VB₂₆, 12, 3, 12; 1998 VQ₂₇, 18, 4, 12; 1998 VR₂₇, 30, 6, 116; 1998 VA₂₈, 4, 1, 0;

1998 VB₂₈, 25, 5, 12; 1998 VF₂₈, 5, 1, 0; 1998 VG₂₈, 5, 1, 0; 1998 VQ₂₈, 4, 1, 0; 1998 VQ₂₉, 4, 1, 0; 1998 VU₂₉, 4, 1, 0; 1998 VY₂₉, 13, 3, 10; 1998 VF₃₀, 3, 1, 0; 1998 VK₃₀, 10, 2, 7; 1998 VU₃₀, 10, 2, 1; 1998 VZ₃₀, 5, 1, 0; 1998 VN₃₁, 5, 1, 0; 1998 VP₃₁, 14, 3, 9; 1998 VM₃₂, 15, 3, 3; 1998 VN₃₂, 4, 1, 0; 1998 VS₃₂, 3, 1, 0; 1998 VE₃₃, 7, 2, 3; 1998 VK₃₃, 10, 2, 12; 1998 VC₃₄, 5, 1, 0; 1998 VH₃₄, 5, 1, 0; 1998 VR₃₄, 9, 2, 7; 1998 VV₃₄, 10, 2, 3; 1998 VO₃₆, 5, 1, 0; 1998 VR₃₆, 5, 1, 0; 1998 VX₃₆, 8, 2, 8; 1998 VK₃₇, 5, 1, 0; 1998 VL₃₇, 3, 1, 0; 1998 VZ₃₇, 5, 1, 0; 1998 VO₃₈, 10, 2, 1; 1998 VQ₃₈, 4, 1, 0; 1998 VD₃₉, 5, 1, 0; 1998 VT₄₂, 8, 2, 12; 1998 VL₄₄, 3, 1, 0; 1998 VN₄₄, 5, 1, 0; 1998 VP₄₄, 9, 2, 10; 1998 WB₂₁, 5, 12; 1998 WE₅, 5, 1, 0; 1998 WH₃, 1, 0; 1998 WP₅, 1, 0; 1998 WQ₁₅, 3, 6; 1998 WM₁, 4, 1, 0; 1998 WO₁, 16, 4, 11; 1998 WU₁, 5, 1, 0; 1998 WR₃, 5, 1, 0; 1998 WU₃, 7, 2, 7; 1998 WH₄, 9, 2, 5; 1998 WX₄, 14, 3, 10; 1998 WL₅, 5, 1, 0; 1998 WW₅, 5, 1, 0; 1998 WY₅, 3, 1, 0; 1998 WC₆, 5, 1, 0; 1998 WN₆, 3, 1, 0; 1998 WB₇, 9, 2, 8; 1998 WF₇, 8, 2, 20; 1998 WG₇, 9, 2, 7; 1998 WC₈, 4, 1, 0; 1998 WD₈, 3, 1, 0; 1998 WJ₈, 9, 2, 1; 1998 WS₈, 5, 1, 0; 1998 WK₉, 4, 1, 0; 1998 WO₉, 4, 1, 0; 1998 WS₉, 5, 1, 0; 1998 WM₁₀, 5, 1, 0; 1998 WU₁₀, 14, 3, 10; 1998 WW₁₀, 4, 1, 0; 1998 WF₁₁, 10, 2, 7; 1998 WP₁₁, 5, 1, 0; 1998 WE₁₂, 5, 1, 0; 1998 WG₁₂, 9, 2, 6; 1998 WJ₁₂, 4, 1, 0; 1998 WX₁₂, 10, 2, 26; 1998 WM₁₃, 13, 3, 34; 1998 WU₁₃, 4, 1, 0; 1998 WH₁₄, 4, 1, 0; 1998 WQ₁₄, 4, 1, 0; 1998 WA₁₅, 4, 1, 0; 1998 WD₁₅, 6, 2, 7; 1998 WP₁₅, 15, 3, 5; 1998 WR₁₅, 10, 2, 1; 1998 WS₁₆, 13, 3, 12; 1998 WZ₁₆, 7, 2, 450; 1998 WW₁₇, 8, 2, 26; 1998 WZ₁₇, 5, 1, 0; 1998 WA₁₈, 10, 2, 4; 1998 WC₁₈, 4, 1, 0; 1998 WR₁₈, 8, 2, 6; 1998 WW₁₈, 5, 1, 0; 1998 WJ₁₉, 10, 2, 4; 1998 WG₂₀, 4, 1, 0; 1998 WT₂₀, 8, 2, 8; 1998 WU₂₀, 3, 1, 0; 1998 WW₂₀, 8, 2, 16; 1998 WX₂₀, 4, 1, 0; 1998 WG₂₁, 4, 1, 0; 1998 WR₂₁, 5, 1, 0; 1998 WZ₂₁, 3, 1, 0; 1998 WA₂₂, 9, 2, 8; 1998 WO₂₂, 8, 2, 38; 1998 WX₂₂, 3, 1, 0; 1998 WV₂₈, 4, 1, 0; 1998 WU₃₀, 8, 2, 11; 1998 WY₃₀, 3, 1, 0; 1998 WE₃₁, 19, 4, 12; 1998 WL₃₁, 4, 1, 0; 1998 WA₃₂, 14, 3, 10; 1998 WK₃₂, 5, 1, 0; 1998 WM₃₂, 5, 1, 0; 1998 XK₃₂, 10, 2, 7; 1998 XN₇, 7, 2, 1; 1998 XP₂, 13, 3, 834; 1998 XN₃, 12, 3, 12; 1998 XW₃, 10, 2, 11; 1998 XL₅, 15, 3, 10; 1998 XM₅, 13, 3, 6; 1998 XM₆, 10, 2, 8; 1998 XL₇, 4, 1, 0; 1998 XK₉, 4, 1, 0; 1998 XS₉, 8, 2, 1007; 1998 XP₁₁, 3, 1, 0; 1998 XQ₁₂, 43, 6, 12; 1998 XV₁₂, 5, 1, 0; 1998 XA₁₃, 15, 3, 13; 1998 XE₁₃, 10, 2, 8; 1998 XB₁₄, 3, 1, 0; 1998 XG₂₄, 5, 1, 0; 1998 XK₂₇, 14, 2, 33; 1998 XP₂₇, 12, 3, 10; 1998 XZ₂₇, 9, 2, 30; 1998 XR₂₈, 7, 2, 5; 1998 XB₂₉, 4, 1, 0; 1998 XP₃₀, 5, 1, 0; 1998 XA₃₃, 10, 2, 7; 1998 XH₃₃, 10, 2, 56; 1998 XJ₄₀, 9, 2, 5; 1998 XZ₄₀, 10, 2, 7; 1998 XA₄₂, 4, 1, 0; 1998 XE₄₃, 5, 1, 0; 1998 XZ₄₃, 12, 3, 29; 1998 XX₄₆, 10, 2, 1; 1998 XU₅₀, 3, 1, 0; 1998 XD₅₁, 14, 3, 6; 1998 XU₅₁, 3, 1, 0; 1998 XB₅₅, 13, 2, 5; 1998 XH₅₉, 14, 3, 6; 1998 XR₅₉, 5, 1, 0; 1998 XV₅₉, 8, 2, 32; 1998 XF₆₂, 5, 1, 0; 1998 XT₆₂, 7, 2, 8; 1998 XR₇₁, 4, 1, 0; 1998 XK₇₂, 7, 2, 5; 1998 XS₇₃, 15, 3, 6; 1998 XZ₇₃, 5, 1, 0; 1998 XV₇₄, 10, 2, 20; 1998 XO₇₇, 3, 1, 0; 1998 XV₇₇, 8, 2, 10; 1998 XY₇₇, 6, 2, 1; 1998 XE₇₈, 5, 1, 0; 1998 XW₈₂, 9, 2, 6; 1998 XF₈₃, 4, 1, 0; 1998 XO₈₉, 5, 1, 0; 1998 XZ₉₀, 4, 1, 0; 1998 XP₉₂, 5, 1, 0; 1998 XK₉₇, 5, 1, 0; 1998 YR₈, 2, 3; 1998 YX₃, 1, 0; 1998 YC₁, 5, 1, 0; 1998 YL₁, 24, 5, 89; 1998 YG₃, 5, 1, 0; 1998 YH₄, 3, 1, 0; 1998 YS₄, 5, 1, 0; 1998 YE₅, 3, 1, 0; 1998 YC₆, 5, 1, 0; 1998 YU₆, 5, 1, 0; 1998 YB₇, 9, 2, 3; 1998 YF₇, 4, 1, 0; 1998 YC₈, 5, 1, 0; 1998 YR₈, 14, 3, 9; 1998 YT₈, 8, 2, 106; 1998 YE₁₀, 6, 2, 25; 1998 YV₁₁, 4, 1, 0; 1998 YW₁₁, 4, 1, 0; 1998 YF₁₂, 7, 2, 1; 1998 YE₁₈, 5, 1, 0; 1998 YA₁₉, 10, 2, 23; 1998 YA₃₀, 5, 1, 0; 1999 AA₁₀, 2, 31; 1999 AK₃, 3, 1, 0; 1999 AJ₅, 3, 1, 0; 1999 AO₈, 10, 2, 32; 1999 AY₈, 5, 1, 0; 1999 AL₉, 4, 1, 0; 1999 AM₂₀, 5, 1, 0; 1999 BO₁, 3, 1, 0; 1999 BC₄, 3, 1, 0; 1999 BY₂₅, 4, 1, 0; 1999 BZ₃₃, 8, 2, 1; 1999 CL₁₅, 3, 132; 1999 CL₁₀, 5, 1, 0; 1999 CG₁₇, 3, 1, 0; 1999 CS₁₈, 5, 1, 0; 1999 CS₁₉, 4, 1, 0; 1999 CD₂₈, 4, 1, 0; 1999 CT₂

2000 FEB. 22

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9, 2, 415; 1999 RG₅₂, 7, 2, 117; 1999 RW₅₂, 10, 2, 3; 1999 RG₅₄, 3, 1, 0; 1999 RM₅₄, 22, 2, 39; 1999 RG₅₅, 4, 1, 0; 1999 RN₅₇, 5, 1, 0; 1999 RW₅₇, 10, 2, 41; 1999 RU₅₉, 8, 2, 119; 1999 RK₆₂, 5, 1, 0; 1999 RM₇₃, 17, 4, 76; 1999 RJ₈₄, 6, 2, 66; 1999 RV₈₅, 3, 1, 0; 1999 RP₈₆, 25, 6, 589; 1999 RT₈₈, 5, 1, 0; 1999 RP₈₉, 2, 1, 0; 1999 RS₈₉, 9, 2, 21; 1999 RR₉₀, 10, 2, 119; 1999 RE₉₂, 7, 2, 863; 1999 RM₉₂, 9, 2, 52; 1999 RN₉₃, 5, 1, 0; 1999 RO₉₄, 3, 1, 0; 1999 RX₉₄, 5, 1, 0; 1999 RM₉₅, 5, 1, 0; 1999 RS₉₈, 4, 1, 0; 1999 RZ₉₈, 4, 1, 0; 1999 RE₁₀₃, 5, 1, 0; 1999 RS₁₀₃, 10, 2, 18; 1999 RD₁₀₅, 5, 1, 0; 1999 RF₁₀₅, 5, 1, 0; 1999 RL₁₀₅, 5, 1, 0; 1999 RN₁₀₅, 13, 3, 98; 1999 RV₁₀₅, 10, 2, 90; 1999 RD₁₀₆, 4, 1, 0; 1999 RO₁₀₇, 5, 1, 0; 1999 RX₁₀₈, 5, 1, 0; 1999 RO₁₀₉, 5, 1, 0; 1999 RR₁₀₉, 5, 1, 0; 1999 RS₁₀₉, 5, 1, 0; 1999 RV₁₀₉, 3, 1, 0; 1999 RW₁₁₄, 4, 1, 0; 1999 RE₁₁₇, 22, 5, 505; 1999 RE₁₂₀, 3, 1, 0; 1999 RE₁₂₁, 14, 3, 118; 1999 RQ₁₂₁, 5, 1, 0; 1999 RY₁₂₃, 8, 2, 42; 1999 RL₁₂₄, 3, 1, 0; 1999 RQ₁₂₄, 5, 1, 0; 1999 RF₁₂₅, 9, 2, 68; 1999 RZ₁₂₈, 5, 1, 0; 1999 RD₁₂₉, 5, 1, 0; 1999 RJ₁₂₉, 5, 1, 0; 1999 RV₁₂₉, 5, 1, 0; 1999 RA₁₃₀, 5, 1, 0; 1999 RM₁₃₀, 8, 2, 23; 1999 RV₁₃₃, 10, 2, 36; 1999 RQ₁₃₄, 5, 1, 0; 1999 RC₁₃₇, 8, 2, 23; 1999 RN₁₃₈, 3, 1, 0; 1999 RP₁₃₉, 8, 2, 23; 1999 RL₁₄₀, 5, 1, 0; 1999 RB₁₄₁, 11, 2, 506; 1999 RG₁₄₅, 5, 1, 0; 1999 RC₁₄₉, 5, 1, 0; 1999 RA₁₅₈, 4, 1, 0; 1999 RY₁₆₆, 3, 1, 0; 1999 RB₁₆₇, 13, 3, 46; 1999 RF₁₇₁, 8, 2, 7; 1999 RM₁₇₆, 8, 2, 43; 1999 RW₁₇₇, 4, 1, 0; 1999 RF₁₇₉, 13, 3, 91; 1999 RW₁₇₉, 4, 1, 0; 1999 RK₁₈₀, 13, 3, 115; 1999 RN₁₈₂, 5, 1, 0; 1999 RD₁₈₃, 10, 2, 25; 1999 RO₁₈₄, 14, 3, 76; 1999 RX₁₈₄, 15, 3, 32; 1999 RG₁₈₅, 5, 1, 0; 1999 RY₁₈₉, 5, 1, 0; 1999 RQ₁₉₄, 5, 1, 0; 1999 RB₁₉₅, 4, 1, 0; 1999 RL₁₉₅, 3, 1, 0; 1999 RK₁₉₆, 14, 3, 89; 1999 RL₁₉₆, 18, 5, 527; 1999 RT₁₉₆, 4, 1, 0; 1999 RB₁₉₇, 14, 3, 133; 1999 RC₁₉₈, 5, 1, 0; 1999 RG₁₉₉, 5, 1, 0; 1999 RN₁₉₉, 5, 1, 0; 1999 RO₁₉₉, 8, 2, 73; 1999 RP₁₉₉, 5, 1, 0; 1999 RZ₁₉₉, 5, 1, 0; 1999 RG₂₀₀, 8, 2, 90; 1999 RL₂₀₀, 5, 1, 0; 1999 RY₂₀₀, 5, 1, 0; 1999 RB₂₀₁, 5, 1, 0; 1999 RK₂₀₁, 5, 1, 0; 1999 RQ₂₀₁, 5, 1, 0; 1999 RF₂₀₂, 5, 1, 0; 1999 RJ₂₀₂, 5, 1, 0; 1999 RM₂₀₂, 4, 1, 0; 1999 RN₂₀₂, 3, 1, 0; 1999 RO₂₀₂, 4, 1, 0; 1999 RQ₂₀₂, 5, 1, 0; 1999 RS₂₀₂, 5, 1, 0; 1999 RB₂₀₄, 4, 1, 0; 1999 RF₂₀₄, 5, 1, 0; 1999 RP₂₀₄, 5, 1, 0; 1999 RY₂₀₄, 5, 1, 0; 1999 RB₂₀₅, 15, 3, 105; 1999 RV₂₀₅, 5, 1, 0; 1999 RW₂₀₅, 10, 2, 548; 1999 RZ₂₀₅, 22, 5, 105; 1999 RA₂₀₆, 5, 1, 0; 1999 RB₂₀₆, 5, 1, 0; 1999 RC₂₀₆, 5, 1, 0; 1999 RN₂₀₆, 5, 1, 0; 1999 RQ₂₀₆, 4, 1, 0; 1999 RG₂₀₇, 5, 1, 0; 1999 RO₂₀₇, 10, 2, 17; 1999 RQ₂₀₇, 5, 1, 0; 1999 RW₂₀₇, 5, 1, 0; 1999 RX₂₀₇, 10, 2, 32; 1999 RH₂₀₈, 5, 1, 0; 1999 RN₂₀₈, 5, 1, 0; 1999 RS₂₀₈, 5, 1, 0; 1999 RT₂₀₈, 5, 1, 0; 1999 RW₂₀₈, 5, 1, 0; 1999 RX₂₀₈, 27, 6, 137; 1999 RB₂₀₉, 5, 1, 0; 1999 RC₂₀₉, 5, 1, 0; 1999 RE₂₀₉, 3, 1, 0; 1999 RH₂₀₉, 5, 1, 0; 1999 RB₂₁₀, 5, 1, 0; 1999 RB₂₁₁, 5, 1, 0; 1999 RD₂₁₁, 5, 1, 0; 1999 RS₂₁₁, 20, 4, 95; 1999 RH₂₁₂, 4, 1, 0; 1999 RK₂₁₂, 4, 1, 0; 1999 RA₂₁₃, 5, 1, 0; 1999 RP₂₁₃, 10, 1, 0; 1999 SN₁, 5, 1, 0; 1999 SU₁, 5, 1, 0; 1999 SW₁, 5, 1, 0; 1999 SA₂, 5, 1, 0; 1999 SC₂, 5, 1, 0; 1999 SH₂, 3, 1, 0; 1999 SJ₂, 10, 2, 103; 1999 SO₂, 3, 1, 0; 1999 SB₃, 5, 1, 0; 1999 SC₃, 16, 4, 101; 1999 SD₃, 4, 1, 0; 1999 SE₃, 9, 2, 35; 1999 SF₃, 5, 1, 0; 1999 SL₃, 20, 4, 69; 1999 SP₃, 14, 3, 13; 1999 SR₃, 24, 5, 88; 1999 SS₃, 4, 1, 0; 1999 SY₅, 9, 2, 1; 1999 SL₆, 9, 2, 531; 1999 SU₆, 5, 1, 0; 1999 SV₆, 5, 1, 0; 1999 SS₆, 5, 1, 0; 1999 ST₈, 10, 2, 60; 1999 SA₉, 8, 2, 57; 1999 ST₉, 5, 1, 0; 1999 SN₁₁, 5, 1, 0; 1999 SE₁₂ *, 8, 2, 13; 1999 SF₁₂ *, 7, 2, 13; 1999 SG₁₂ *, 8, 2, 13; 1999 SH₁₂ *, 10, 2, 8; 1999 SJ₁₂ *, 9, 2, 6; 1999 TE₁₂, 12, 3, 89; 1999 TQ₁₂, 5, 1, 0; 1999 TV₁₂, 5, 1, 0; 1999 TW₁₂, 5, 1, 0; 1999 TB₁, 4, 1, 0; 1999 TF₁, 4, 1, 0; 1999 TG₁, 5, 1, 0; 1999 TH₁, 5, 1, 0; 1999 TJ₁, 5, 1, 0; 1999 TN₁, 5, 1, 0; 1999 TO₁, 5, 1, 0; 1999 TP₁, 5, 1, 0; 1999 TQ₁, 5, 1, 0; 1999 TT₁, 5, 1, 0; 1999 TA₂, 9, 2, 1; 1999 TE₂, 5, 1, 0; 1999 TF₂, 5, 1, 0; 1999 TG₂, 5, 1, 0; 1999 TH₂, 5, 1, 0; 1999 TJ₂, 5, 1, 0; 1999 TL₃, 5, 1, 0; 1999 TN₃, 8, 2, 6; 1999 TO₃, 4, 1, 0; 1999 TQ₃, 7, 2, 42; 1999 TU₃, 5, 1, 0; 1999 TJ₄, 5, 1, 0; 1999 TL₄, 5, 1, 0; 1999 TW₄, 5, 1, 0; 1999 TK₅, 5, 1, 0; 1999 TO₅, 5, 1, 0; 1999 TS₅, 5, 1, 0; 1999 TT₅, 5, 1, 0; 1999 TU₅, 5, 1, 0; 1999 TV₅, 4, 1, 0; 1999 TZ₅, 5, 1, 0; 1999 TG₆, 3, 1, 0; 1999 TU₆, 5, 1, 0; 1999 TV₆, 4, 1, 0; 1999 TW₆, 5, 1, 0; 1999 TX₆, 5, 1, 0; 1999 TA₇, 14, 3, 10; 1999 TH₇, 5, 1, 0; 1999 TJ₇, 5, 1, 0; 1999 TM₇, 4, 1, 0; 1999 TO₇, 8, 2, 1; 1999 TB₈, 9, 2, 3; 1999 TQ₈, 5, 1, 0; 1999 TS₈, 5, 1, 0; 1999 TT₈, 5, 1, 0; 1999 TV₈, 5, 1, 0; 1999 TZ₈, 3, 1, 0; 1999 TF₉, 5, 1, 0; 1999 TG₉, 5, 1, 0; 1999 TJ₉, 5, 1, 0; 1999 TK₉, 5, 1, 0; 1999 TL₉, 5, 1, 0; 1999 TN₉, 5, 1, 0; 1999 TO₉, 5, 1, 0; 1999 TP₉, 5, 1, 0; 1999 TQ₉, 5, 1, 0; 1999 TR₉, 5, 1, 0; 1999 TS₉, 5, 1, 0; 1999 TT₉, 5, 1, 0; 1999 TX₉, 5, 1, 0; 1999 TN₁₀, 5, 1, 0; 1999 TO₁₀, 5, 1, 0; 1999 TR₁₀, 4, 1, 0; 1999 TT₁₀, 5, 1, 0; 1999 TW₁₀, 5, 1, 0; 1999 TY₁₀, 4, 1, 0; 1999 TD₁₁, 13, 3, 12; 1999 TG₁₁, 4, 1, 0; 1999 TH₁₁, 5, 1, 0; 1999 TL₁₁, 10, 2, 109; 1999 TN₁₁, 5, 1, 0; 1999 TQ₁₁, 4, 1, 0; 1999 TS₁₁, 10, 2, 2; 1999 TU₁₁, 5, 1, 0; 1999 TW₁₁, 5, 1, 0; 1999 TB₁₂, 5, 1, 0; 1999 TD₁₂, 5, 1, 0; 1999 TF₁₂, 5, 1, 0; 1999 TG₁₂, 5, 1, 0; 1999 TH₁₂, 15, 3, 531; 1999 TJ₁₂, 10, 2, 106; 1999 TH₁₃, 5, 1, 0; 1999 TQ₁₃, 5, 1, 0; 1999 TT₁₃, 4, 1, 0; 1999 TU₁₃, 5, 1, 0; 1999 TX₁₃, 4, 1, 0; 1999 TY₁₃, 4, 1, 0; 1999 TL₁₄, 5, 1, 0; 1999 TO₁₄, 5, 1, 0; 1999 TW₁₄, 5, 1, 0; 1999 TD₁₅, 5, 1, 0; 1999 TP₁₅, 5, 1, 0; 1999 TR₁₅, 5, 1, 0; 1999 TV₁₅, 5, 1, 0; 1999 TS₁₅, 4, 1, 0; 1999 TC₁₇, 5, 1, 0; 1999 TG₁₇, 10, 2, 12; 1999 TY₁₇, 8, 2, 1; 1999 TA₁₈, 5, 1, 0; 1999 TB₁₈, 5, 1, 0; 1999 TM₁₈, 4, 1, 0; 1999 TN₁₈, 5, 1, 0; 1999 TO₁₈, 5, 1, 0; 1999 TP₁₈, 5, 1, 0; 1999 TQ₁₈, 5, 1, 0; 1999 TR₁₈, 5, 1, 0; 1999 TV₁₈, 4, 1, 0; 1999 TY₁₈, 4, 1, 0; 1999 TA₁₉, 4, 1, 0; 1999 TB₁₉, 4, 1, 0; 1999 TC₁₉, 7, 2, 17; 1999 TG₁₉, 5, 1, 0; 1999 TP₁₉, 5, 1, 0; 1999 TW₁₉, 3, 1, 0; 1999 TX₁₉, 5, 1, 0; 1999 TH₂₀, 5, 1, 0; 1999 TS₂₀, 7, 2, 17; 1999 TY₂₀, 22, 5, 43; 1999 TZ₂₀, 20, 4, 44; 1999 TG₂₁, 3, 1, 0; 1999 TS₂₁, 4, 1, 0; 1999 TT₂₁, 10, 1, 0; 1999 TE₂₅, 5, 1, 0; 1999 TG₂₅, 5, 1, 0; 1999 TJ₂₅, 3, 1, 0; 1999 TL₂₅, 3, 1, 0; 1999 TM₂₅, 10, 2, 23; 1999 TN₂₅, 5, 1, 0; 1999 TO₂₅, 5, 1, 0; 1999 TQ₂₅, 5, 1, 0; 1999 TR₂₅, 10, 2, 15; 1999 TT₂₅, 5, 1, 0; 1999 TV₂₅, 5, 1, 0; 1999 TZ₂₅, 4, 1, 0; 1999 TW₂₅, 13, 3, 25; 1999 TY₂₅, 5, 1, 0; 1999 TZ₂₅, 5, 1, 0; 1999 TA₂₆, 10, 2, 27; 1999 TD₂₆, 10, 2, 15; 1999 TF₂₆, 5, 1, 0; 1999 TH₂₆, 5, 1, 0; 1999 TN₂₆, 15, 3, 12; 1999 TP₂₆,

5, 1, 0; 1999 TQ₂₆, 12, 3, 61; 1999 TT₂₆, 14, 3, 12; 1999 TG₂₇, 5, 1, 0; 1999 TS₂₇, 5, 1, 0; 1999 TW₂₇, 14, 3, 12; 1999 TX₂₇, 10, 2, 37; 1999 TY₂₇, 8, 2, 12; 1999 TF₂₈, 9, 2, 2; 1999 TH₂₈, 19, 4, 12; 1999 TJ₃₁, 9, 2, 16; 1999 TZ₃₁, 5, 1, 0; 1999 TB₃₂, 10, 2, 16; 1999 TC₃₂, 15, 3, 25; 1999 TF₃₂, 5, 1, 0; 1999 TH₃₂, 5, 1, 0; 1999 TJ₃₂, 5, 1, 0; 1999 TK₃₂, 19, 4, 26; 1999 TM₃₂, 5, 1, 0; 1999 TN₃₂, 10, 2, 15; 1999 TQ₃₃, 4, 1, 0; 1999 TT₃₃, 9, 2, 16; 1999 TW₃₃, 10, 2, 25; 1999 TW₃₄, 10, 2, 26; 1999 TD₃₅, 4, 1, 0; 1999 TJ₃₅, 4, 1, 0; 1999 TW₃₅, 8, 2, 1; 1999 TX₃₅, 4, 1, 0; 1999 UK₅, 5, 1, 0; 1999 UM₅, 5, 1, 0; 1999 UN₅, 5, 1, 0; 1999 UZ₅, 8, 2, 27; 1999 UA₁, 5, 1, 0; 1999 UC₁, 5, 1, 0; 1999 UD₁, 5, 1, 0; 1999 UE₁, 5, 1, 0; 1999 UF₁, 5, 1, 0; 1999 UG₁, 5, 1, 0; 1999 UL₁, 5, 1, 0; 1999 UQ₁, 10, 2, 1; 1999 UW₁, 5, 1, 0; 1999 UE₂, 15, 2, 12; 1999 UG₂, 5, 1, 0; 1999 UH₂, 5, 1, 0; 1999 UK₂, 5, 1, 0; 1999 UW₂, 4, 1, 0; 1999 UC₃, 5, 1, 0; 1999 UE₃, 13, 3, 12; 1999 UK₃, 3, 1, 0; 1999 UL₃, 4, 1, 0; 1999 UN₃, 10, 2, 1; 1999 UF₃, 10, 2, 4; 1999 US₃, 9, 2, 1; 1999 UA₄, 5, 1, 0; 1999 UB₄, 4, 1, 0; 1999 UD₄, 8, 2, 76; 1999 UG₄, 4, 1, 0; 1999 UH₄, 5, 1, 0; 1999 UN₄, 5, 1, 0; 1999 UU₄, 5, 1, 0; 1999 UY₄, 10, 2, 10; 1999 UE₅, 9, 2, 98; 1999 UF₅, 9, 2, 61; 1999 UH₅, 4, 1, 0; 1999 UJ₅, 5, 1, 0; 1999 UK₅, 9, 2, 54; 1999 UL₅, 41, 9, 105; 1999 UO₅, 5, 1, 0; 1999 UB₆, 5, 1, 0; 1999 UD₆, 10, 2, 1; 1999 UH₆, 5, 1, 0; 1999 UL₆, 5, 1, 0; 1999 UN₆, 13, 3, 4; 1999 UR₆, 15, 3, 39; 1999 US₆, 3, 1, 0; 1999 UG₇, 4, 1, 0; 1999 UH₇, 24, 5, 86; 1999 UK₇, 8, 2, 98; 1999 US₇, 5, 1, 0; 1999 UO₈, 4, 1, 0; 1999 UG₉, 5, 1, 0; 1999 UL₉, 5, 1, 0; 1999 UT₉, 11, 3, 42; 1999 UV₉, 10, 3, 100; 1999 UX₉, 4, 1, 0; 1999 UO₁₀, 4, 1, 0; 1999 UQ₁₀, 4, 1, 0; 1999 UG₁₁, 8, 2, 16; 1999 UM₁₁, 5, 1, 0; 1999 UO₁₁, 4, 1, 0; 1999 UQ₁₁, 15, 3, 52; 1999 UR₁₂, 10, 1, 0; 1999 UV₁₂, 3, 1, 0; 1999 UB₁₃, 9, 2, 58; 1999 UH₁₃, 4, 1, 0; 1999 UJ₁₃, 12, 3, 563; 1999 UO₁₃, 4, 1, 0; 1999 US₁₃, 8, 2, 467; 1999 UU₁₃, 5, 1, 0; 1999 UW₁₃, 32, 7, 536; 1999 UM₁₄, 9, 2, 33; 1999 UT₁₄, 8, 2, 23; 1999 UU₁₄, 7, 2, 17; 1999 UV₁₄, 9, 2, 14; 1999 UX₁₄, 8, 2, 23; 1999 UY₁₄, 4, 1, 0; 1999 UZ₁₄, 4, 1, 0; 1999 UA₁₅, 3, 1, 0; 1999 UB₁₅, 4, 1, 0; 1999 UC₁₅, 5, 1, 0; 1999 UD₁₅, 9, 2, 107; 1999 UE₁₅, 4, 1, 0; 1999 UF₁₅, 5, 1, 0; 1999 UG₁₅, 4, 1, 0; 1999 UJ₁₅, 9, 2, 48; 1999 UK₁₅, 5, 1, 0; 1999 UL₁₅, 10, 2, 48; 1999 UM₁₅, 5, 1, 0; 1999 UN₁₅, 10, 2, 48; 1999 UP₁₅, 5, 1, 0; 1999 UZ₁₅, 10, 2, 23; 1999 UA₁₆, 8, 2, 77; 1999 UB₁₆, 5, 1, 0; 1999 UC₁₆, 5, 1, 0; 1999 UE₁₇, 10, 2, 15; 1999 UD₁₉, 7, 2, 25; 1999 UN₁₉, 10, 2, 23; 1999 UX₂₀, 3, 1, 0; 1999 UK₂₁, 6, 2, 14; 1999 UF₂₃, 10, 2, 27; 1999 UM₂₃, 5, 1, 0; 1999 UO₂₃, 20, 4, 42; 1999 UL₂₄, 8, 2, 1; 1999 UK₂₅, 10, 2, 10; 1999 UQ₂₅, 5, 1, 0; 1999 US₂₅, 5, 1, 0; 1999 UW₂₅, 13, 3, 40; 1999 UY₂₅, 17, 4, 44; 1999 UZ₂₅, 26, 6, 80; 1999 UJ₂₆, 9, 2, 32; 1999 UK₂₆, 10, 2, 17; 1999 UL₂₆, 9, 2, 27; 1999 UM₂₆, 5, 1, 0; 1999 UN₂₆, 9, 2, 25; 1999 UO₂₆, 22, 5, 595; 1999 UP₂₆, 8, 2, 32; 1999 UD₂₈, 10, 2, 25; 1999 UV₂₈, 5, 1, 0; 1999 UO₃₁, 3, 1, 0; 1999 UC₃₂, 5, 1, 0; 1999 UL₃₂, 10, 2, 27; 1999 UY₃₂, 14, 3, 27; 1999 UB₃₃, 5, 1, 0; 1999 UN₃₃, 3, 1, 0; 1999 UP₃₃, 12, 3, 34; 1999 UW₃₃, 21, 5, 37; 1999 UP₃₄, 3, 1, 0; 1999 UQ₃₄, 9, 2, 27; 1999 UB₃₅, 3, 1, 0; 1999 UG₃₅, 10, 2, 27; 1999 UP₃₅, 4, 1, 0; 1999 UD₃₆, 5, 1, 0; 1999 VG₅, 5, 1, 0; 1999 VJ₁₀, 2, 2; 1999 VK₉, 9, 2, 1; 1999 VL₅, 5, 1, 0; 1999 VM₅, 5, 1, 0; 1999 VQ₄, 1, 0; 1999 VR₇, 7, 2, 4; 1999 VF₁, 4, 1, 0; 1999 VK₁, 5, 1, 0; 1999 VQ₁, 5, 1, 0; 1999 VW₁, 19, 4, 543; 1999 VA₂, 5, 1, 0; 1999 VC₂, 5, 1, 0; 1999 VE₂, 5, 1, 0; 1999 VH₂, 5, 1, 0; 1999 VJ₂, 5, 1, 0; 1999 VM₂, 8, 2, 154; 1999 VO₂, 9, 2, 117; 1999 VQ₂, 5, 1, 0; 1999 VX₂, 9, 2, 4; 1999 VY₂, 5, 1, 0; 1999 VG₃, 4, 1, 0; 1999 VJ₅, 7, 1, 0; 1999 VT₅, 5, 1, 0; 1999 VU₅, 3, 1, 0; 1999 VV₅, 4, 1, 0; 1999 VX₅, 5, 1, 0; 1999 VY₅, 3, 1, 0; 1999 VZ₅, 5, 1, 0; 1999 VB₆, 8, 2, 8; 1999 VC₆, 4, 1, 0; 1999 VD₆, 11, 3, 543; 1999 VE₆, 3, 1, 0; 1999 VF₆, 8, 2, 1; 1999 VG₆, 8, 2, 1; 1999 VJ₆, 10, 2, 12; 1999 VM₆, 9, 2, 429; 1999 VV₆, 7, 2, 4; 1999 VW₆, 9, 2, 1; 1999 VY₆, 3, 1, 0; 19

1999 VH₂₅, 5, 1, 0; 1999 VJ₂₅, 4, 1, 0; 1999 VN₂₅, 3, 1, 0; 1999 VY₂₅, 5, 1, 0; 1999 VA₂₆, 3, 1, 0;
 1999 VB₂₆, 3, 1, 0; 1999 VJ₂₆, 4, 1, 0; 1999 VO₂₆, 8, 2, 79; 1999 VP₂₆, 3, 1, 0; 1999 VU₂₆, 3, 1,
 0; 1999 VJ₂₇, 5, 1, 0; 1999 VL₂₇, 5, 1, 0; 1999 VZ₂₇, 19, 4, 70; 1999 VD₂₈, 4, 1, 0; 1999 VF₂₈, 5,
 1, 0; 1999 VK₂₈, 4, 1, 0; 1999 VP₂₈, 3, 1, 0; 1999 VQ₂₈, 4, 1, 0; 1999 VU₂₈, 4, 1, 0; 1999 VV₂₈, 4,
 1, 0; 1999 VE₂₉, 4, 1, 0; 1999 VS₃₀, 5, 1, 0; 1999 VC₃₁, 5, 1, 0; 1999 VJ₃₁, 4, 1, 0; 1999 VG₃₂, 4,
 1, 0; 1999 VE₃₃, 4, 1, 0; 1999 VR₃₃, 9, 2, 21; 1999 VD₃₄, 4, 1, 0; 1999 VM₃₄, 5, 1, 0; 1999 VO₃₄,
 5, 1, 0; 1999 VP₃₄, 5, 1, 0; 1999 VW₃₄, 13, 3, 12; 1999 VX₃₄, 5, 1, 0; 1999 VY₃₄, 11, 3, 30;
 1999 VZ₃₄, 5, 1, 0; 1999 VA₃₅, 4, 1, 0; 1999 VE₃₅, 4, 1, 0; 1999 VT₃₅, 9, 2, 12; 1999 VU₃₅,
 14, 3, 12; 1999 VZ₃₅, 8, 2, 12; 1999 VA₃₆, 5, 1, 0; 1999 VB₃₆, 8, 2, 4; 1999 VD₃₆, 10, 2, 1;
 1999 VG₃₆, 10, 2, 1; 1999 VH₃₆, 4, 1, 0; 1999 VL₃₆, 4, 1, 0; 1999 VN₃₆, 13, 3, 12; 1999 VO₃₆,
 10, 2, 12; 1999 VP₃₆, 5, 1, 0; 1999 VS₃₆, 9, 2, 535; 1999 VW₃₆, 5, 1, 0; 1999 VA₃₇, 9, 2, 12;
 1999 VD₃₇, 13, 3, 12; 1999 VF₃₇, 4, 1, 0; 1999 VG₃₇, 3, 1, 0; 1999 VM₃₇, 9, 2, 1; 1999 VO₃₇, 4,
 1, 0; 1999 VJ₃₇, 4, 1, 0; 1999 VT₃₇, 15, 3, 28; 1999 VU₃₇, 5, 1, 0; 1999 VV₃₇, 5, 1, 0; 1999 VY₃₇,
 4, 1, 0; 1999 VZ₃₇, 15, 3, 32; 1999 VK₃₈, 5, 1, 0; 1999 VL₃₈, 8, 2, 15; 1999 VM₃₈, 10, 2, 17;
 1999 VZ₃₈, 4, 1, 0; 1999 VW₃₉, 5, 1, 0; 1999 VL₄₀, 5, 1, 0; 1999 VM₄₀, 17, 4, 19; 1999 VO₄₀, 3, 1,
 0; 1999 VU₄₀, 6, 2, 14; 1999 VH₄₁, 3, 1, 0; 1999 VK₄₁, 8, 2, 15; 1999 VW₄₁, 3, 1, 0; 1999 VY₄₂,
 4, 1, 0; 1999 VP₄₃, 3, 1, 0; 1999 VV₄₃, 4, 1, 0; 1999 VZ₄₃, 10, 2, 25; 1999 VA₄₄, 10, 2, 23;
 1999 VB₄₄, 15, 3, 27; 1999 VF₄₄, 11, 3, 38; 1999 VH₄₄, 5, 1, 0; 1999 VJ₄₄, 3, 1, 0; 1999 VN₄₄,
 10, 2, 27; 1999 VV₄₄, 10, 2, 15; 1999 VE₄₅, 5, 1, 0; 1999 VG₄₅, 18, 4, 90; 1999 VS₄₅, 12, 3,
 95; 1999 VA₄₆, 8, 2, 1; 1999 VJ₄₆, 5, 1, 0; 1999 VN₄₆, 4, 1, 0; 1999 VB₄₇, 9, 2, 49; 1999 VC₄₇,
 5, 1, 0; 1999 VD₄₇, 3, 1, 0; 1999 VE₄₇, 9, 2, 103; 1999 VF₄₇, 10, 2, 103; 1999 VN₄₇, 5, 1, 0;
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 9, 2, 12; 1999 VC₇₂, 10, 2, 1; 1999 VD₇₂, 13, 3, 12; 1999 VE₇₂, 13, 3, 12; 1999 VJ₇₂, 5, 1, 0;
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 1999 VS₇₅, 10, 2, 3; 1999 VX₇₅, 8, 2, 3; 1999 VP₇₆, 3, 1, 0; 1999 VV₇₆, 8, 2, 32; 1999 VC₇₇,
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 27; 1999 VQ₉₆, 4, 1, 0; 1999 VX₉₆, 4, 1, 0; 1999 VY₉₆, 3, 1, 0; 1999 VO₉₇, 4, 1, 0; 1999 VD₉₈, 10,

2, 48; 1999 VG₉₈, 5, 1, 0; 1999 VS₉₈, 3, 1, 0; 1999 VU₉₈, 4, 1, 0; 1999 VU₉₉, 5, 1, 0; 1999 VD₁₀₀,
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 2, 6; 1999 VK₁₄₅ *, 9, 2, 6; 1999 VL₁₄₅ *, 9, 2, 6; 1999 VM₁₄₅ *, 9, 2, 6; 1999 VN₁₄₅ *, 8, 2,
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 6; 1999 VW₁₄₅ *, 7, 2, 6; 1999 VX₁₄₅ *, 7, 2, 6; 1999 VY₁₄₅ *, 8, 2, 3; 1999 VZ₁₄₅ *, 8, 2,
 3; 1999 VA

1; 1999 VR₁₅₀ *, 14, 3, 2; 1999 VS₁₅₀ *, 8, 2, 1; 1999 VT₁₅₀ *, 9, 2, 1; 1999 VU₁₅₀ *, 9, 2, 1; 1999 VV₁₅₀ *, 10, 2, 1; 1999 VW₁₅₀ *, 10, 2, 1; 1999 VX₁₅₀ *, 7, 2, 1; 1999 VY₁₅₀ *, 10, 2, 1; 1999 VZ₁₅₀ *, 8, 2, 1; 1999 VA₁₅₁ *, 12, 3, 2; 1999 VB₁₅₁ *, 7, 2, 1; 1999 VC₁₅₁ *, 14, 3, 2; 1999 VD₁₅₁ *, 9, 2, 1; 1999 VE₁₅₁ *, 15, 3, 2; 1999 VF₁₅₁ *, 14, 3, 2; 1999 VG₁₅₁ *, 8, 2, 1; 1999 VH₁₅₁ *, 13, 3, 2; 1999 VJ₁₅₁ *, 10, 2, 1; 1999 VK₁₅₁ *, 10, 2, 1; 1999 VL₁₅₁ *, 10, 2, 1; 1999 VM₁₅₁ *, 9, 2, 1; 1999 VN₁₅₁ *, 13, 3, 2; 1999 VO₁₅₁ *, 14, 3, 2; 1999 VP₁₅₁ *, 9, 2, 1; 1999 VQ₁₅₁ *, 9, 2, 1; 1999 VR₁₅₁ *, 8, 2, 1; 1999 VW₁₅₂ *, 3, 1, 0; 1999 VV₁₅₄ *, 10, 2, 22; 1999 WG₈, 2, 2; 1999 WH₁₅, 3, 417; 1999 WL₁₄, 3, 11; 1999 WM₁₂, 3, 10; 1999 WN₅, 5, 1, 0; 1999 WP₁₀, 2, 1; 1999 WT₅, 5, 1, 0; 1999 WV₅, 1, 0; 1999 WX₁₂, 3, 4; 1999 WY₁₀, 2, 2; 1999 WA₁, 4, 1, 0; 1999 WC₁, 5, 1, 0; 1999 WG₁, 10, 2, 29; 1999 WM₁, 10, 2, 4; 1999 WN₁, 3, 1, 0; 1999 WP₁, 5, 1, 0; 1999 WQ₁, 16, 4, 9; 1999 WR₁, 5, 1, 0; 1999 WT₁, 9, 2, 17; 1999 WV₁, 5, 1, 0; 1999 WZ₁, 5, 1, 0; 1999 WA₂, 4, 1, 0; 1999 WB₂, 14, 3, 817; 1999 WG₂, 3, 1, 0; 1999 WK₂, 5, 1, 0; 1999 WL₂, 5, 1, 0; 1999 WN₂, 5, 1, 0; 1999 WP₂, 9, 2, 12; 1999 WQ₂, 5, 1, 0; 1999 WV₂, 10, 2, 2, 1; 1999 WA₃, 4, 1, 0; 1999 WC₃, 7, 2, 4; 1999 WH₃, 5, 1, 0; 1999 WJ₃, 5, 1, 0; 1999 WL₃, 18, 4, 114; 1999 WM₃, 4, 1, 0; 1999 WO₃, 9, 2, 1; 1999 WR₃, 5, 1, 0; 1999 WS₃, 10, 2, 3; 1999 WT₃, 9, 2, 4; 1999 WV₃, 9, 2, 12; 1999 WW₃, 10, 2, 1; 1999 WX₃, 9, 2, 1; 1999 WZ₃, 4, 1, 0; 1999 WB₄, 12, 3, 12; 1999 WC₄, 10, 2, 12; 1999 WE₄, 15, 3, 535; 1999 WH₄, 4, 1, 0; 1999 WK₄, 5, 1, 0; 1999 WL₄, 4, 1, 0; 1999 WM₄, 4, 1, 0; 1999 WN₄, 12, 3, 12; 1999 WO₄, 4, 1, 0; 1999 WP₄, 13, 3, 99; 1999 WU₄, 5, 1, 0; 1999 WW₄, 3, 1, 0; 1999 WX₄, 4, 1, 0; 1999 WZ₄, 10, 2, 12; 1999 WA₅, 4, 1, 0; 1999 WB₅, 5, 1, 0; 1999 WY₅, 9, 2, 1; 1999 WF₆, 4, 1, 0; 1999 WK₆, 5, 1, 0; 1999 WN₆, 4, 1, 0; 1999 WV₆, 3, 1, 0; 1999 WA₇, 4, 1, 0; 1999 WB₇, 4, 1, 0; 1999 WE₇, 4, 1, 0; 1999 WH₇, 4, 1, 0; 1999 WJ₇, 3, 1, 0; 1999 WT₇, 3, 1, 0; 1999 WU₇, 23, 4, 35; 1999 WW₇, 14, 3, 30; 1999 WX₇, 5, 1, 0; 1999 WY₇, 4, 1, 0; 1999 WA₈, 4, 1, 0; 1999 WG₈, 5, 1, 0; 1999 WM₈, 3, 1, 0; 1999 WT₈, 6, 2, 1; 1999 WU₈, 5, 1, 0; 1999 WV₈, 4, 1, 0; 1999 WW₈, 10, 2, 4; 1999 WX₈, 9, 2, 106; 1999 WY₈, 5, 1, 0; 1999 WB₉, 14, 2, 1; 1999 WG₉, 5, 1, 0; 1999 WK₉, 3, 1, 0; 1999 WQ₉, 5, 1, 0; 1999 WR₉, 11, 3, 12; 1999 WS₉, 18, 4, 581; 1999 WT₉, 15, 3, 5; 1999 WU₉, 10, 2, 1; 1999 WV₉, 8, 2, 1; 1999 WW₉, 14, 3, 12; 1999 WX₉, 5, 1, 0; 1999 WY₉, 3, 1, 0; 1999 WA₁₀, 19, 4, 114; 1999 WC₁₀, 10, 2, 1; 1999 WD₁₀, 4, 1, 0; 1999 WE₁₀, 9, 2, 1; 1999 WU₁₀, 4, 1, 0; 1999 WZ₁₀, 3, 1, 0; 1999 WN₁₁, 12, 3, 12; 1999 WO₁₁, 10, 2, 531; 1999 WP₁₁, 14, 3, 128; 1999 WQ₁₁, 9, 2, 470; 1999 WB₁₃, 5, 1, 0; 1999 WF₁₃, 20, 4, 41; 1999 WL₁₃, 5, 1, 0; 1999 WR₁₃, 3, 1, 0; 1999 WS₁₃, 5, 1, 0; 1999 WA₁₄, 10, 2, 15; 1999 WZ₁₄, 4, 1, 0; 1999 WJ₁₅, 3, 1, 0; 1999 WT₁₆, 4, 1, 0; 1999 WM₁₇, 13, 3, 42; 1999 WS₁₇, 5, 1, 0; 1999 WV₁₇, 5, 1, 0; 1999 WX₁₇, 8, 1, 0; 1999 WZ₁₇, 10, 2, 1; 1999 WA₁₈, 5, 1, 0; 1999 WF₁₈, 9, 2, 14; 1999 WG₁₈, 14, 3, 87; 1999 WJ₁₈, 10, 2, 88; 1999 WF₁₉, 5, 1, 0; 1999 XG₈, 2, 41; 1999 XM₁₅, 15, 3, 13; 1999 XR₃, 3, 1, 0; 1999 XU₁₀, 2, 39; 1999 XW₅, 5, 1, 0; 1999 XX₄, 4, 1, 0; 1999 XY₅, 5, 1, 0; 1999 XZ₁₇, 17, 4, 87; 1999 XA₁, 9, 2, 1; 1999 XB₁, 5, 1, 0; 1999 XD₁, 5, 1, 0; 1999 XE₁, 10, 2, 1; 1999 XF₁, 8, 2, 1; 1999 XG₁, 9, 2, 2; 1999 XH₁, 9, 2, 1; 1999 XK₁, 10, 2, 1; 1999 XL₁, 10, 2, 1; 1999 XR₁, 15, 2, 1; 1999 XS₁, 8, 2, 13; 1999 XV₁, 5, 1, 0; 1999 XW₁, 8, 2, 106; 1999 XY₁, 4, 1, 0; 1999 XZ₁, 5, 1, 0; 1999 XA₂, 8, 2, 2; 1999 XB₂, 5, 1, 0; 1999 XF₂, 4, 1, 0; 1999 XG₂, 10, 2, 1; 1999 XK₂, 4, 1, 0; 1999 XZ₂, 10, 2, 109; 1999 XB₃, 5, 1, 0; 1999 XC₃, 8, 2, 106; 1999 XD₃, 5, 1, 0; 1999 XG₃, 9, 2, 106; 1999 XH₃, 9, 2, 15; 1999 XR₃, 10, 2, 15; 1999 XS₃, 8, 2, 4; 1999 XX₃, 8, 2, 15; 1999 XR₄, 5, 1, 0; 1999 XC₅, 3, 1, 0; 1999 XE₅, 5, 1, 0; 1999 XL₅, 4, 1, 0; 1999 XM₅, 5, 1, 0; 1999 XP₅, 5, 1, 0; 1999 XS₅, 5, 1, 0; 1999 XX₅, 8, 2, 1; 1999 XY₅, 5, 1, 0; 1999 XA₆, 5, 1, 0; 1999 XK₆, 5, 1, 0; 1999 XM₆, 4, 1, 0; 1999 XT₆, 4, 1, 0; 1999 XV₆, 10, 2, 560; 1999 XY₆, 5, 1, 0; 1999 XZ₇, 3, 1, 0; 1999 XH₇, 5, 1, 0; 1999 XJ₇, 9, 2, 106; 1999 XL₇, 5, 1, 0; 1999 XM₇, 5, 1, 0; 1999 XR₇, 5, 1, 0; 1999 XO₇, 5, 1, 0; 1999 XP₇, 5, 1, 0; 1999 XQ₇, 5, 1, 0; 1999 XR₇, 10, 2, 2; 1999 XS₇, 3, 1, 0; 1999 XT₇, 5, 1, 0; 1999 XD₈, 13, 3, 621; 1999 XH₈, 9, 2, 1; 1999 XJ₈, 4, 1, 0; 1999 XK₈, 8, 2, 1; 1999 XL₈, 9, 2, 1; 1999 XM₈, 9, 2, 1; 1999 XN₈, 13, 3, 12; 1999 XQ₈, 4, 1, 0; 1999 XV₈, 3, 1, 0; 1999 XZ₈, 5, 1, 0; 1999 XK₉, 15, 3, 80; 1999 XW₉, 5, 1, 0; 1999 XZ₉, 5, 1, 0; 1999 XC₁₀, 4, 1, 0; 1999 XE₁₀, 5, 1, 0; 1999 XH₁₀, 4, 1, 0; 1999 XR₁₀, 11, 3, 118; 1999 XX₁₀, 5, 1, 0; 1999 XE₁₁, 5, 1, 0; 1999 XH₁₁, 5, 1, 0; 1999 XM₁₁, 3, 1, 0; 1999 XO₁₁, 4, 1, 0; 1999 XP₁₁, 8, 2, 89; 1999 XT₁₁, 8, 2, 526; 1999 XV₁₁, 5, 1, 0; 1999 XW₁₁, 3, 1, 0; 1999 XY₁₁, 5, 1, 0; 1999 XZ₁₂, 5, 1, 0; 1999 XC₁₂, 3, 1, 0; 1999 XE₁₂, 3, 1, 0; 1999 XH₁₂, 10, 2, 1; 1999 XL₁₂, 10, 2, 1; 1999 XM₁₂, 4, 1, 0; 1999 XN₁₂, 11, 3, 9; 1999 XP₁₂, 10, 2, 1; 1999 XQ₁₂, 8, 2, 1; 1999 XT₁₂, 4, 1, 0; 1999 XW₁₂, 9, 2, 15; 1999 XE₁₃, 13, 3, 109; 1999 XG₁₃, 9, 2, 61; 1999 XJ₁₃, 18, 4, 77; 1999 XK₁₃, 5, 1, 0; 1999 XL₁₃, 5, 1, 0; 1999 XO₁₃, 4, 1, 0; 1999 XR₁₃, 5, 1, 0; 1999 XS₁₃, 10, 2, 107; 1999 XT₁₃, 20, 4, 106; 1999 XW₁₃, 5, 1, 0; 1999 XX₁₃, 5, 1, 0; 1999 XK₁₄, 10, 2, 4; 1999 XL₁₄, 10, 2, 7; 1999 XT₁₄, 14, 3, 6; 1999 XU₁₄, 3, 1, 0; 1999 XV₁₄, 4, 1, 0; 1999 XX₁₄, 5, 1, 0; 1999 XA₁₅, 13, 3, 106; 1999 XC₁₅, 5, 1, 0; 1999 XD₁₅, 5, 1, 0; 1999 XF₁₅, 4, 1, 0; 1999 XK₁₅, 4, 1, 0; 1999 XR₁₅, 4, 1, 0; 1999 XS₁₅, 13, 3, 12; 1999 XU₁₅, 14, 3, 12; 1999 XV₁₅, 11, 3, 12; 1999 XX₁₅, 11, 3, 12; 1999 XY₁₅, 15, 4, 11; 1999 XZ₁₅, 32, 5, 6; 1999 XB₁₆, 35, 5, 16; 1999 XD₁₆, 5, 1, 0; 1999 XE₁₆, 15, 2, 1; 1999 XF₁₆, 11, 3, 106; 1999 XQ₁₆, 21, 5, 88; 1999 XR₁₆, 5, 1, 0; 1999 XS₁₆, 18, 4, 88; 1999 XV₁₆, 4, 1, 0; 1999 XA₁₇, 4, 1, 0; 1999 XD₁₇, 10, 2, 9; 1999 XF₁₇, 5, 1, 0; 1999 XG₁₇, 9, 2, 1; 1999 XJ₁₇, 5, 1, 0; 1999 XO₁₇, 15, 3, 54; 1999 XE₁₈, 5, 1, 0; 1999 XF₁₈, 8, 2, 27; 1999 XH₁₈, 17, 4, 112; 1999 XJ₁₈, 12, 3, 90; 1999 XL₁₈, 14, 3, 496; 1999 XV₁₈, 5, 1, 0; 1999 XD₁₉, 10, 2, 556; 1999 XK₁₉, 5, 1, 0; 1999 XN₁₉, 15, 3, 64; 1999 XR₁₉, 5, 1, 0; 1999 XS₁₉, 19, 4, 48; 1999 XT₁₉, 33, 7, 116; 1999 XV₁₉, 22, 5, 116; 1999 XE₂₀, 10, 2, 26; 1999 XF₂₀, 9, 2, 16; 1999 XJ₂₀, 9, 2, 107; 1999 XL₂₀, 5, 1, 0; 1999 XM₂₀, 9, 2, 16; 1999 XN₂₀, 5, 1, 0; 1999 XO₂₀, 4, 1, 0; 1999 XP₂₀,

13, 3, 107; 1999 XS₂₀, 10, 2, 26; 1999 XU₂₀, 5, 1, 0; 1999 XB₂₁, 5, 1, 0; 1999 XC₂₁, 5, 1, 0; 1999 XD₂₁, 4, 1, 0; 1999 XJ₂₁, 18, 4, 435; 1999 XL₂₁, 8, 2, 16; 1999 XO₂₁, 3, 1, 0; 1999 XQ₂₁, 9, 2, 12; 1999 XV₂₁, 18, 4, 114; 1999 XW₂₁, 10, 2, 4; 1999 XX₂₁, 23, 4, 4; 1999 XZ₂₁, 38, 7, 122; 1999 XA₂₂, 10, 2, 4; 1999 XD₂₂, 10, 2, 2; 1999 XE₂₂, 18, 4, 12; 1999 XF₂₂, 5, 1, 0; 1999 XJ₂₂, 4, 1, 0; 1999 XK₂₂, 9, 2, 26; 1999 XL₂₂, 5, 1, 0; 1999 XP₂₂, 9, 2, 106; 1999 XX₂₂, 15, 3, 23; 1999 XZ₂₂, 3, 1, 0; 1999 XE₂₃, 5, 1, 0; 1999 XH₂₃, 3, 1, 0; 1999 XJ₂₃, 5, 1, 0; 1999 XM₂₃, 9, 2, 15; 1999 XN₂₃, 5, 1, 0; 1999 XY₂₃, 5, 1, 0; 1999 XZ₂₃, 10, 2, 1; 1999 XF₂₄, 21, 5, 529; 1999 XG₂₄, 5, 1, 0; 1999 XH₂₄, 23, 5, 573; 1999 XJ₂₄, 7, 2, 15; 1999 XK₂₄, 4, 1, 0; 1999 XL₂₄, 5, 1, 0; 1999 XP₂₄, 5, 1, 0; 1999 XQ₂₄, 5, 1, 0; 1999 XT₂₄, 5, 1, 0; 1999 XU₂₄, 5, 1, 0; 1999 XX₂₄, 10, 2, 15; 1999 XA₂₅, 5, 1, 0; 1999 XB₂₅, 9, 2, 91; 1999 XC₂₅, 10, 2, 26; 1999 XG₂₅, 5, 1, 0; 1999 XH₂₅, 5, 1, 0; 1999 XJ₂₅, 10, 2, 103; 1999 XK₂₅, 5, 1, 0; 1999 XP₂₅, 7, 2, 91; 1999 XQ₂₅, 4, 1, 0; 1999 XT₂₅, 6, 2, 4; 1999 XZ₂₅, 13, 3, 106; 1999 XC₂₆, 5, 1, 0; 1999 XD₂₆, 5, 1, 0; 1999 XH₂₆, 4, 1, 0; 1999 XJ₂₆, 13, 3, 63; 1999 XL₂₆, 19, 4, 44; 1999 XQ₂₆, 5, 1, 0; 1999 XR₂₆, 4, 1, 0; 1999 XU₂₆, 3, 1, 0; 1999 XE₂₇, 3, 1, 0; 1999 XH₂₇, 8, 2, 15; 1999 XJ₂₇, 5, 1, 0; 1999 XO₂₇, 5, 1, 0; 1999 XR₂₇, 13, 3, 80; 1999 XY₂₇, 5, 1, 0; 1999 XK₂₈, 18, 3, 11; 1999 XN₂₈, 3, 1, 0; 1999 XS₂₈, 10, 2, 444; 1999 XU₂₈, 9, 2, 102; 1999 XF₂₉, 5, 1, 0; 1999 XN₂₉, 5, 1, 0; 1999 XQ₂₉, 5, 1, 0; 1999 XR₂₉, 4, 1, 0; 1999 XS₂₉, 4, 1, 0; 1999 XZ₂₉, 4, 1, 0; 1999 XC₃₀, 5, 1, 0; 1999 XM₃₀, 15, 3, 106; 1999 XT₃₀, 4, 1, 0; 1999 XW₃₀, 5, 1, 0; 1999 XG₃₁, 14, 3, 102; 1999 XJ₃₁, 8, 2, 56; 1999 XK₃₁, 9, 2, 1; 1999 XL₃₁, 17, 4, 115; 1999 XM₃₁, 15, 3, 29; 1999 XN₃₁, 9, 2, 1; 1999 XO₃₁, 12, 3, 12; 1999 XP₃₁, 14, 3, 12; 1999 XQ₃₁, 5, 1, 0; 1999 XR₃₁, 20, 5, 114; 1999 XS₃₁, 10, 2, 65; 1999 XT₃₁, 15, 3, 10; 1999 XU₃₁, 19, 4, 10; 1999 XW₃₁, 15, 3, 10; 1999 XX₃₁, 24, 5, 114; 1999 XY₃₁, 10, 2, 28; 1999 XA₃₂, 27, 6, 10; 1999 XB₃₂, 13, 3, 28; 1999 XC₃₂, 9, 2, 2; 1999 XD₃₂, 31, 6, 10; 1999 XF₃₂, 23, 5, 596; 1999 XH₃₂, 9, 2, 1; 1999 XJ₃₂, 12, 3, 6; 1999 XK₃₂, 12, 3, 12; 1999 XL₃₂, 12, 3, 12; 1999 XM₃₂, 9, 2, 2; 1999 XN₃₂, 18, 4, 12; 1999 XO₃₂, 30, 6, 10; 1999 XP₃₂, 25, 5, 9; 1999 XQ₃₂, 12, 3, 12; 1999 XS₃₂, 8, 2, 2; 1999 XT₃₂, 27, 6, 84; 1999 XU₃₂, 18, 4, 29; 1999 XV₃₂, 22, 5, 10; 1999 XW₃₂, 9, 2, 2; 1999 XX₃₂, 8, 2, 2; 1999 XY₃₂, 9, 2, 2; 1999 XZ₃₂, 9, 2, 2; 1999 XA₃₃, 31, 6, 84; 1999 XB₃₃, 15, 3, 12; 1999 XC₃₃, 16, 4, 10; 1999 XE₃₃, 5, 1, 0; 1999 XF₃₃, 18, 4, 12; 1999 XG₃₃, 23, 5, 12; 1999 XH₃₃, 68, 8, 36; 1999 XJ₃₃, 34, 6, 8; 1999 XK₃₃, 12, 3, 12; 1999 XL₃₃, 10, 2, 2; 1999 XM₃₃, 18, 4, 12; 1999 XN₃₃, 28, 6, 88; 1999 XO₃₃, 55, 8, 114; 1999 XP₃₃, 33, 6, 12; 1999 XQ₃₃, 5, 1, 0; 1999 XR₃₃, 19, 4, 11; 1999 XS₃₃, 15, 3, 12; 1999 XU₃₃, 13, 3, 79; 1999 XV₃₃, 13, 3, 10; 1999 XX₃₃, 20, 4, 35; 1999 XA₃₄, 19, 4, 87; 1999 XH₃₄, 14, 3, 12; 1999 XC₃₄, 13, 3, 12; 1999 XD₃₄, 23, 5, 87; 1999 XF₃₄, 5, 1, 0; 1999 XG₃₄, 14, 3, 12; 1999 XH₃₄, 14, 3, 12; 1999 XJ₃₄, 9, 2, 11; 1999 XK₃₄, 15, 3, 4; 1999 XL₃₄, 15, 3, 6; 1999 XN₃₄, 9, 2, 6; 1999 XO₃₄, 19, 4, 535; 1999 XF₃₄, 29, 5, 82; 1999 XQ₃₄, 22, 5, 10; 1999 XR₃₄, 25, 4, 4; 1999 XS₃₄, 9, 2, 12; 1999 XT₃₄, 18, 4, 6; 1999 XU₃₄, 14, 3, 82; 1999 XV₃₄, 15, 3, 12; 1999 XW₃₄, 18, 4, 87; 1999 XX₃₄, 13, 3, 10; 1999 XZ₃₄, 8, 2, 79; 1999 XA₃₅, 19, 4, 87; 1999 XB₃₅, 13, 3, 3; 1999 XL₃₅, 12, 3, 88; 1999 XN₃₅, 8, 2, 1; 1999 XQ₃₅, 4, 1, 0; 1999 XU₃₅, 10, 2, 106; 1999 XW₃₅, 13, 3, 6; 1999 XZ₃₅, 15, 3, 12; 1999 XA₃₆, 3, 1, 0; 1999 XB₃₆, 8, 2, 1; 1999 XC₃₆, 17, 4, 114; 1999 XD₃₆, 15, 3, 13; 1999 XF₃₆, 13, 3, 12; 1999 XG₃₆, 5, 1, 0; 1999 XH₃₆, 5, 1, 0; 1999 XJ₃₆, 3, 1, 0; 1999 XL₃₆, 5, 1, 0; 1999 XM₃₆, 5, 1, 0; 1999 XN₃₆, 5, 1, 0; 1999 XP₃₆, 5, 1, 0; 1999 XQ₃₆, 5, 1, 0; 1999 XR₃₆, 4, 1, 0; 1999 XS₃₆, 5, 1, 0; 1999 XT₃₆, 5, 1, 0; 1999 XU₃₆, 7, 2, 1; 1999 XV₃₆, 12, 3, 118; 1999 XX₃₆, 7, 2, 1; 1999 XC₃₇, 5, 1, 0; 1999 XD₃₇, 3, 1, 0; 1999 XE₃₇, 10, 2, 107; 1999 XF₃₇, 8, 2, 1; 1999 XG₃₇, 5, 1, 0; 1999 XH₃₇, 5, 1, 0; 1999 XJ₃

5, 1, 0; 1999 XK₆₁, 9, 2, 80; 1999 XO₆₁, 5, 1, 0; 1999 XQ₆₁, 5, 1, 0; 1999 XW₆₁, 3, 1, 0; 1999 XG₆₂, 4, 1, 0; 1999 XY₆₃, 4, 1, 0; 1999 XL₆₄, 7, 2, 8; 1999 XS₆₄, 5, 1, 0; 1999 XU₆₄, 3, 1, 0; 1999 XB₆₅, 9, 2, 3; 1999 XF₆₆, 4, 1, 0; 1999 XZ₆₆, 4, 1, 0; 1999 XB₆₇, 3, 1, 0; 1999 XD₆₇, 5, 1, 0; 1999 XW₆₇, 5, 1, 0; 1999 XC₆₈, 7, 2, 3; 1999 XN₆₈, 4, 1, 0; 1999 XU₆₈, 9, 2, 12; 1999 XZ₆₈, 3, 1, 0; 1999 XB₆₉, 4, 1, 0; 1999 XM₆₉, 4, 1, 0; 1999 XD₇₀, 5, 1, 0; 1999 XG₇₀, 4, 1, 0; 1999 XN₇₀, 3, 1, 0; 1999 XO₇₀, 3, 1, 0; 1999 XR₇₀, 7, 2, 53; 1999 XV₇₀, 4, 1, 0; 1999 XA₇₁, 9, 2, 1; 1999 XH₇₁, 3, 1, 0; 1999 XK₇₁, 4, 1, 0; 1999 XM₇₁, 5, 1, 0; 1999 XR₇₁, 3, 1, 0; 1999 XS₇₁, 9, 2, 88; 1999 XT₇₁, 3, 1, 0; 1999 XU₇₁, 5, 1, 0; 1999 XX₇₁, 3, 1, 0; 1999 XE₇₂, 12, 3, 88; 1999 XH₇₂, 3, 1, 0; 1999 XM₇₂, 4, 1, 0; 1999 XO₇₂, 5, 1, 0; 1999 XP₇₂, 13, 3, 87; 1999 XS₇₂, 4, 1, 0; 1999 XZ₇₂, 5, 1, 0; 1999 XO₇₃, 9, 2, 76; 1999 XQ₇₃, 5, 1, 0; 1999 XV₇₃, 3, 1, 0; 1999 XY₇₃, 15, 3, 79; 1999 XZ₇₃, 5, 1, 0; 1999 XG₇₄, 9, 2, 10; 1999 XH₇₄, 4, 1, 0; 1999 XR₇₄, 9, 2, 80; 1999 XT₇₄, 5, 1, 0; 1999 XA₇₅, 4, 1, 0; 1999 XD₇₅, 5, 1, 0; 1999 XJ₇₅, 5, 1, 0; 1999 XO₇₅, 4, 1, 0; 1999 XU₇₅, 9, 2, 12; 1999 XW₇₅, 4, 1, 0; 1999 XX₇₅, 5, 1, 0; 1999 XF₇₆, 4, 1, 0; 1999 XO₇₆, 5, 1, 0; 1999 XR₇₆, 5, 1, 0; 1999 XV₇₆, 4, 1, 0; 1999 XZ₇₆, 4, 1, 0; 1999 XD₇₇, 4, 1, 0; 1999 XK₇₇, 8, 2, 390; 1999 XR₇₇, 13, 3, 17; 1999 XU₇₇, 8, 2, 1; 1999 XA₇₈, 4, 1, 0; 1999 XB₇₈, 8, 2, 1; 1999 XD₇₈, 4, 1, 0; 1999 XE₇₈, 4, 1, 0; 1999 XB₈₀, 3, 1, 0; 1999 XR₈₁, 15, 3, 99; 1999 XV₈₁, 13, 2, 1; 1999 XS₈₂, 14, 3, 12; 1999 XT₈₂, 9, 2, 1; 1999 XU₈₂, 10, 2, 1; 1999 XV₈₂, 10, 2, 1; 1999 XW₈₂, 14, 3, 27; 1999 XZ₈₂, 10, 2, 1; 1999 XY₈₂, 7, 2, 11; 1999 XZ₈₂, 3, 1, 0; 1999 XA₈₃, 8, 2, 1; 1999 XD₈₃, 14, 3, 6; 1999 XE₈₃, 5, 1, 0; 1999 XG₈₃, 20, 4, 34; 1999 XJ₈₃, 9, 2, 6; 1999 XK₈₃, 10, 2, 8; 1999 XM₈₃, 12, 3, 6; 1999 XN₈₃, 13, 3, 6; 1999 XP₈₃, 10, 2, 1; 1999 XQ₈₃, 8, 2, 8; 1999 XR₈₃, 4, 1, 0; 1999 XU₈₃, 8, 2, 1; 1999 XV₈₃, 25, 4, 6; 1999 XX₈₃, 5, 1, 0; 1999 XY₈₃, 7, 2, 1; 1999 XZ₈₃, 18, 4, 17; 1999 XA₈₄, 4, 1, 0; 1999 XB₈₄, 5, 1, 0; 1999 XC₈₄, 9, 2, 1; 1999 XG₈₄, 12, 3, 79; 1999 XH₈₄, 4, 1, 0; 1999 XJ₈₄, 15, 3, 13; 1999 XK₈₄, 10, 2, 1; 1999 XM₈₄, 8, 2, 1; 1999 XN₈₄, 10, 2, 1; 1999 XO₈₄, 13, 3, 6; 1999 XP₈₄, 12, 2, 1; 1999 XR₈₄, 8, 2, 2; 1999 XS₈₄, 10, 2, 1; 1999 XV₈₄, 4, 1, 0; 1999 XX₈₄, 12, 3, 12; 1999 XY₈₄, 18, 3, 27; 1999 XA₈₅, 19, 3, 27; 1999 XC₈₅, 5, 1, 0; 1999 XD₈₅, 8, 2, 2; 1999 XE₈₅, 5, 1, 0; 1999 XF₈₅, 4, 1, 0; 1999 XG₈₅, 15, 3, 13; 1999 XH₈₅, 13, 2, 9; 1999 XJ₈₅, 11, 3, 25; 1999 XL₈₅, 11, 3, 23; 1999 XM₈₅, 19, 3, 27; 1999 XN₈₅, 19, 3, 12; 1999 XP₈₅, 8, 2, 1; 1999 XQ₈₅, 4, 1, 0; 1999 XR₈₅, 10, 2, 1; 1999 XS₈₅, 11, 3, 12; 1999 XU₈₅, 9, 2, 1; 1999 XW₈₅, 10, 2, 1; 1999 XZ₈₅, 6, 2, 1; 1999 XA₈₆, 10, 2, 1; 1999 XB₈₆, 14, 3, 29; 1999 XC₈₆, 17, 4, 79; 1999 XE₈₆, 9, 2, 1; 1999 XH₈₆, 8, 2, 1; 1999 XJ₈₆, 10, 3, 12; 1999 XK₈₆, 9, 2, 1; 1999 XL₈₆, 5, 1, 0; 1999 XM₈₆, 10, 2, 1; 1999 XO₈₆, 10, 2, 1; 1999 XQ₈₆, 14, 3, 12; 1999 XR₈₆, 10, 3, 12; 1999 XS₈₆, 8, 2, 1; 1999 XU₈₆, 9, 2, 1; 1999 XV₈₆, 29, 6, 583; 1999 XW₈₆, 19, 4, 34; 1999 XX₈₆, 13, 3, 10; 1999 XY₈₆, 16, 3, 12; 1999 XZ₈₆, 15, 3, 10; 1999 XA₈₇, 15, 3, 84; 1999 XB₈₇, 12, 3, 37; 1999 XC₈₇, 14, 3, 12; 1999 XF₈₇, 10, 2, 1; 1999 XJ₈₇, 5, 1, 0; 1999 XN₈₇, 4, 1, 0; 1999 XN₈₇, 14, 3, 12; 1999 XY₈₇, 12, 3, 29; 1999 XA₈₈, 20, 4, 90; 1999 XB₈₈, 9, 2, 1; 1999 XE₈₈, 4, 1, 0; 1999 XH₈₈, 10, 2, 1; 1999 XJ₈₈, 9, 2, 1; 1999 XK₈₈, 4, 1, 0; 1999 XO₈₈, 8, 2, 2; 1999 XQ₈₈, 6, 2, 1; 1999 XR₈₈, 15, 4, 27; 1999 XS₈₈, 9, 2, 1; 1999 XV₈₈, 4, 1, 0; 1999 XW₈₈, 5, 1, 0; 1999 XY₈₈, 9, 2, 22; 1999 XZ₈₈, 4, 1, 0; 1999 XB₈₉, 7, 2, 8; 1999 XE₈₉, 13, 3, 6; 1999 XH₈₉, 5, 1, 0; 1999 XJ₈₉, 3, 1, 0; 1999 XM₈₉, 13, 3, 27; 1999 XO₈₉, 10, 2, 1; 1999 XP₈₉, 13, 3, 6; 1999 XS₈₉, 7, 2, 22; 1999 XT₈₉, 11, 3, 5; 1999 XW₈₉, 14, 3, 26; 1999 XZ₈₉, 12, 3, 27; 1999 XY₈₉, 13, 3, 22; 1999 XA₉₀, 11, 3, 27; 1999 XC₉₀, 15, 3, 9; 1999 XD₉₀, 14, 3, 9; 1999 XF₉₀, 14, 3, 27; 1999 XG₉₀, 4, 1, 0; 1999 XJ₉₀, 8, 2, 12; 1999 XL₉₀, 4, 1, 0; 1999 XM₉₀, 10, 2, 1; 1999 XN₉₀, 15, 3, 27; 1999 XP₉₀, 14, 3, 6; 1999 XS₉₀, 8, 2, 1; 1999 XT₉₀, 10, 2, 1; 1999 XV₉₀, 9, 2, 1; 1999 XW₉₀, 5, 1, 0; 1999 XY₉₀, 4, 1, 0; 1999 XA₉₁, 4, 1, 0; 1999 XB₉₁, 9, 2, 1; 1999 XC₉₁, 7, 2, 1; 1999 XE₉₁, 15, 3, 29; 1999 XF₉₁, 21, 4, 38; 1999 XG₉₁, 5, 1, 0; 1999 XH₉₁, 10, 2, 1; 1999 XJ₉₁, 8, 2, 12; 1999 XK₉₁, 8, 2, 12; 1999 XL₉₁, 9, 2, 12; 1999 XN₉₁, 15, 3, 29; 1999 XO₉₁, 10, 2, 1; 1999 XP₉₁, 11, 3, 12; 1999 XQ₉₁, 10, 2, 1; 1999 XR₉₁, 14, 3, 12; 1999 XS₉₁, 9, 2, 1; 1999 XT₉₁, 16, 4, 31; 1999 XA₉₂, 9, 2, 1; 1999 XB₉₂, 9, 2, 2; 1999 XD₉₂, 8, 2, 1; 1999 XK₉₂, 4, 1, 0; 1999 XM₉₂, 5, 1, 0; 1999 XN₉₂, 3, 1, 0; 1999 XP₉₂, 4, 1, 0; 1999 XS₉₂, 5, 1, 0; 1999 XV₉₂, 9, 2, 1; 1999 XW₉₂, 8, 2, 8; 1999 XZ₉₂, 14, 2, 18; 1999 XA₉₃, 8, 1, 0; 1999 XE₉₃, 10, 2, 1; 1999 XG₉₃, 15, 3, 10; 1999 XH₉₃, 13, 3, 12; 1999 XJ₉₃, 3, 1, 0; 1999 XK₉₃, 13, 3, 12; 1999 XL₉₃, 13, 3, 12; 1999 XM₉₃, 12, 3, 12; 1999 XN₉₃, 7, 2, 1; 1999 XO₉₃, 12, 3, 12; 1999 XP₉₃, 11, 3, 12; 1999 XQ₉₃, 14, 3, 13; 1999 XS₉₃, 13, 3, 12; 1999 XT₉₃, 10, 2, 1; 1999 XU₉₃, 8, 2, 11; 1999 XV₉₃, 12, 3, 12; 1999 XW₉₃, 19, 4, 38; 1999 XZ₉₃, 13, 3, 12; 1999 XA₉₄, 13, 3, 12; 1999 XA₉₄, 9, 2, 1; 1999 XB₉₄, 13, 3, 12; 1999 XD₉₄, 17, 4, 391; 1999 XF₉₄, 4, 1, 0; 1999 XG₉₄, 8, 2, 1; 1999 XH₉₄, 26, 6, 37; 1999 XJ₉₄, 10, 3, 12; 1999 XK₉₄, 11, 3, 12; 1999 XL₉₄, 7, 2, 12; 1999 XM₉₄, 15, 3, 79; 1999 XN₉₄, 8, 2, 12; 1999 XO₉₄, 13, 3, 12; 1999 XP₉₄, 13, 3, 12; 1999 XR₉₄, 14, 3, 87; 1999 XT₉₄, 19, 4, 87; 1999 XU₉₄, 23, 5, 87; 1999 XV₉₄, 10, 2, 7; 1999 XX₉₄, 5, 1, 0; 1999 XY₉₄, 13, 3, 12; 1999 XZ₉₄, 33, 5, 87; 1999 XA₉₅, 14, 3, 12; 1999 XB₉₅, 27, 6, 446; 1999 XE₉₅, 4, 1, 0; 1999 XG₉₅, 3, 1, 0; 1999 XJ₉₅, 5, 1, 0; 1999 XM₉₅, 9, 2, 13; 1999 XN₉₅, 13, 3, 12; 1999 XP₉₅, 3, 1, 0; 1999 XQ₉₅, 10, 2, 12; 1999 XR₉₅, 4, 1, 0; 1999 XT₉₅, 5, 1, 0; 1999 XU₉₅, 5, 1, 0; 1999 XW₉₅, 9, 2, 1; 1999 XY₉₅, 8, 2, 1; 1999 XZ₉₅, 5, 1, 0; 1999 XA₉₆, 13, 3, 13; 1999 XB₉₆, 7, 2, 13; 1999 XC₉₆, 9, 2, 1; 1999 XE₉₆, 4, 1, 0; 1999 XF₉₆, 3, 1, 0; 1999 XH₉₆, 19, 4, 121; 1999 XK₉₆, 14, 3, 87; 1999 XL₉₆, 4, 1, 0; 1999 XM₉₆, 9, 2, 87; 1999 XN₉₆, 21, 3, 79; 1999 XO₉₆, 4, 1, 0; 1999 XP₉₆, 5, 1, 0; 1999 XQ₉₆, 3, 1, 0; 1999 XR₉₆, 5, 1, 0; 1999 XS₉₆, 4, 1, 0; 1999 XT₉₆, 24, 5, 121; 1999 XA₉₇, 4, 1, 0; 1999 XB₉₇, 10, 2, 456; 1999 XC₉₇, 12, 3, 49; 1999 XF₉₇, 5, 1, 0; 1999 XG₉₇, 4, 1, 0; 1999 XJ₉₇, 4, 1, 0; 1999 XK₉₇, 4, 1, 0; 1999 XM₉₇, 3, 1, 0; 1999 XO₉₇, 9, 2, 510; 1999 XQ₉₇, 5, 1, 0; 1999 XR₉₇, 5, 1, 0; 1999 XS₉₇, 10, 2, 75; 1999 XT₉₇,

12, 3, 87; 1999 XU₉₇, 4, 1, 0; 1999 XV₉₇, 10, 2, 456; 1999 XX₉₇, 4, 1, 0; 1999 XY₉₇, 5, 1, 0; 1999 XZ₉₇, 5, 1, 0; 1999 XA₉₈, 8, 2, 12; 1999 XB₉₈, 9, 2, 79; 1999 XD₉₈, 5, 1, 0; 1999 XE₉₈, 5, 1, 0; 1999 XH₉₈, 4, 1, 0; 1999 XJ₉₈, 5, 1, 0; 1999 XK₉₈, 4, 1, 0; 1999 XQ₉₈, 8, 2, 87; 1999 XS₉₈, 4, 1, 0; 1999 XT₉₈, 10, 2, 75; 1999 XV₉₈, 4, 1, 0; 1999 XW₉₈, 5, 1, 0; 1999 XX₉₈, 5, 1, 0; 1999 XY₉₈, 5, 1, 0; 1999 XZ₉₈, 5, 1, 0; 1999 XC₉₉, 9, 2, 456; 1999 XD₉₉, 4, 1, 0; 1999 XH₉₉, 5, 1, 0; 1999 XJ₉₉, 5, 1, 0; 1999 XK₉₉, 10, 2, 75; 1999 XL₉₉, 4, 1, 0; 1999 XM₉₉, 13, 3, 76; 1999 XN₉₉, 5, 1, 0; 1999 XO₉₉, 9, 2, 75; 1999 XR₉₉, 9, 2, 87; 1999 XZ₉₉, 10, 2, 75; 1999 XB₁₀₀, 14, 3, 8; 1999 XC₁₀₀, 9, 2, 5; 1999 XE₁₀₀, 9, 2, 1; 1999 XF₁₀₀, 26, 6, 532; 1999 XH₁₀₀, 23, 5, 444; 1999 XM₁₀₀, 10, 2, 1; 1999 XO₁₀₀, 3, 1, 0; 1999 XQ₁₀₀, 14, 3, 79; 1999 XS₁₀₀, 16, 4, 586; 1999 XT₁₀₀, 15, 3, 79; 1999 XU₁₀₀, 12, 3, 23; 1999 XV₁₀₀, 8, 2, 1; 1999 XX₁₀₀, 9, 2, 1; 1999 XZ₁₀₀, 14, 3, 9; 1999 XA₁₀₁, 10, 2, 1; 1999 XB₁₀₁, 19, 3, 25; 1999 XC₁₀₁, 9, 2, 17; 1999 XD₁₀₁, 24, 5, 38; 1999 XE₁₀₁, 13, 3, 76; 1999 XF₁₀₁, 5, 1, 0; 1999 XG₁₀₁, 7, 2, 1; 1999 XH₁₀₁, 8, 2, 24; 1999 XK₁₀₁, 25, 5, 78; 1999 XL₁₀₁, 13, 3, 12; 1999 XM₁₀₁, 20, 4, 79; 1999 XO₁₀₁, 7, 2, 12; 1999 XP₁₀₁, 17, 4, 35; 1999 XQ₁₀₁, 14, 3, 35; 1999 XS₁₀₁, 20, 3, 35; 1999 XT₁₀₁, 5, 1, 0; 1999 XU₁₀₁, 9, 2, 12; 1999 XW₁₀₁, 8, 2, 1; 1999 XX₁₀₁, 14, 3, 12; 1999 XY₁₀₁, 9, 2, 12; 1999 XZ₁₀₁, 7, 2, 1; 1999 XA₁₀₂, 11, 3, 23; 1999 XB₁₀₂, 10, 3, 12; 1999 XC₁₀₂, 10, 3, 12; 1999 XD₁₀₂, 17, 4, 34; 1999 XF₁₀₂, 14, 3, 531; 1999 XG₁₀₂, 16, 4, 34; 1999 XH₁₀₂, 3, 1, 0; 1999 XP₁₀₂, 15, 3, 12; 1999 XQ₁₀₂, 5, 1, 0; 1999 XR₁₀₂, 10, 1, 0; 1999 XU₁₀₂, 9, 2, 5; 1999 XV₁₀₂, 3, 1, 0; 1999 XW₁₀₂, 8, 2, 1; 1999 XY₁₀₂, 8, 2, 1; 1999 XZ₁₀₂, 14, 3, 23; 1999 XA₁₀₃, 13, 3, 13; 1999 XB₁₀₃, 11, 3, 13; 1999 XG₁₀₃, 13, 3, 12; 1999 XH₁₀₃, 3, 1, 0; 1999 XK₁₀₃, 9, 2, 12; 1999 XL₁₀₃, 4, 1, 0; 1999 XM₁₀₃, 8, 2, 1; 1999 XO₁₀₃, 10, 3, 12; 1999 XP₁₀₃, 15, 3, 79; 1999 XQ₁₀₃, 13, 3, 13; 1999 XR₁₀₃, 3, 1, 0; 1999 XT₁₀₃, 3, 1, 0; 1999 XU₁₀₃, 5, 1, 0; 1999 XW₁₀₃, 14, 2, 22; 1999 XX₁₀₃, 5, 1, 0; 1999 XY₁₀₃, 5, 1, 0; 1999 XZ₁₀₃, 4, 1, 0; 1999 XB₁₀₄, 12, 3, 13; 1999 XC₁₀₄, 5, 1, 0; 1999 XD₁₀₄, 10, 2, 1; 1999 XE₁₀₄, 4, 1, 0; 1999 XG₁₀₄, 9, 2, 12; 1999 XH₁₀₄, 4, 1, 0; 1999 XJ₁₀₄, 5, 1, 0; 1999 XK₁₀₄, 10, 2, 1; 1999 XR₁₀₄, 8, 2, 1; 1999 XS₁₀₄, 15, 3, 13; 1999 XT₁₀₄, 18, 4, 87; 1999 XU₁₀₄, 10, 2, 1; 1999 XV₁₀₄, 10, 2, 1; 1999 XW₁₀₄, 20, 4, 87; 1999 XX₁₀₄, 10, 2, 1; 1999 XY₁₀₄, 26, 6, 561; 1999 XA₁₀₅, 8, 2, 1; 1999 XD₁₀₅, 10, 2, 26; 1999 XE₁₀₅, 9, 3, 12; 1999 XL₁₀₅, 5, 1, 0; 1999 XN₁₀₅, 14, 3, 13; 1999 XO₁₀₅, 9, 2, 12; 1999 XP₁₀₅, 4, 1, 0; 1999 XT₁₀₅, 4, 1, 0; 1999 XU₁₀₅, 9, 2, 5; 1999 XW₁₀₅, 11, 3, 12; 1999 XX₁₀₅, 18, 4, 537; 1999 XY₁₀₅, 4, 1, 0; 1999 XZ₁₀₅, 3, 1, 0; 1999 XA₁₀₆, 4, 1, 0; 1999 XB₁₀₆, 20, 4, 114; 1999 XC₁₀₆, 10, 2, 1; 1999 XJ₁₀₆, 3, 1, 0; 1999 XP₁₀₆, 13, 3, 120; 1999 XT₁₀₆, 4, 1, 0; 1999 XU₁₀₆, 27, 6, 64; 1999 XX₁₀₆, 5, 1, 0; 1999 XA₁₀₇, 5, 1, 0; 1999 XC₁₀₇, 10, 2, 106; 1999 XE₁₀₇, 10, 2, 48; 1999 XH₁₀₇, 19, 4, 77; 1999 XJ₁₀₇, 20, 4, 12; 1999 XK₁₀₇, 9, 2, 1; 1999 XL₁₀₇, 20, 4, 34; 1999 XQ₁₀₇, 5, 1, 0; 1999 XR₁₀₇, 5, 1, 0; 1999 XW₁₀₇, 24, 5, 62; 1999 XE₁₀₈, 15, 3, 11; 1999 XG₁₀₈, 27, 6, 891; 1999 XH₁₀₈, 14, 3, 23; 1999 XU₁₀₈, 4, 1, 0; 1999 XC₁₀₉, 10, 2, 33; 1999 XE₁₀₉, 5, 1, 0; 1999 XH₁₀₉, 3, 1, 0; 1999 XL₁₀₉, 10, 2, 106; 1999 XP₁₀₉, 4, 1, 0; 1999 XS₁₀₉, 10, 2, 106; 1999 XT₁₀₉, 10, 1, 0; 1999 XU₁₀₉, 9, 2, 32; 1999 XZ₁₀₉, 10, 2, 106; 1999 XB₁₁₀, 5, 1, 0; 1999 XE₁₁₀, 5, 1, 0; 1999 XK₁₁₀, 8, 2, 21; 1999 XM₁₁₀, 9, 2, 15; 1999 XT₁₁₀, 4, 1, 0; 1999 XW₁₁₀, 5, 1, 0; 1999 XB₁₁₁, 8, 2, 106; 1999 XF₁₁₁, 10, 3, 46; 1999 XG₁₁₁, 13, 3, 65; 1999 XJ₁₁₁, 31, 7, 52; 1999 XK₁₁₁, 10, 2, 27; 1999 XL₁₁₁, 10, 2, 4; 1999 XR₁₁₁, 4, 1, 0; 1999 XS₁₁₁, 5, 1, 0; 1999 XC₁₁₂, 17, 4, 62; 1999 XH₁₁₂, 13, 3, 13; 1999 XL₁₁₂, 5, 1, 0; 1999 XD₁₁₃, 5, 1, 0; 1999 XJ₁₁₃, 5, 1, 0; 1999 XL₁₁₃, 4, 1, 0; 1999 XM₁₁₃, 5, 1, 0; 1999 XU₁₁₃, 4, 1, 0; 1999 XR₁₁₄, 4, 1, 0; 1999 XV₁₁₄, 5, 1, 0; 1999 XW₁₁₄, 5, 1, 0; 1999 XA₁₁₅, 5, 1, 0; 1999 XJ₁₁₅, 4, 1, 0; 1999 XL₁₁₅, 3, 1, 0; 1999 XM<

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9, 2, 13; 1999 XZ₁₃₃, 11, 3, 30; 1999 XA₁₃₄, 13, 3, 13; 1999 XB₁₃₄, 14, 3, 12; 1999 XD₁₃₄, 3, 1, 0; 1999 XE₁₃₄, 4, 1, 0; 1999 XF₁₃₄, 4, 1, 0; 1999 XG₁₃₄, 16, 4, 13; 1999 XH₁₃₄, 5, 1, 0; 1999 XL₁₃₄, 13, 3, 13; 1999 XM₁₃₄, 14, 3, 34; 1999 XQ₁₃₄, 10, 2, 4; 1999 XU₁₃₄, 13, 3, 12; 1999 XW₁₃₄, 21, 4, 17; 1999 XX₁₃₄, 10, 2, 56; 1999 XA₁₃₅, 3, 1, 0; 1999 XC₁₃₅, 15, 2, 1; 1999 XE₁₃₅, 8, 2, 1; 1999 XG₁₃₅, 10, 2, 12; 1999 XH₁₃₅, 4, 1, 0; 1999 XP₁₃₅, 5, 1, 0; 1999 XQ₁₃₅, 14, 3, 114; 1999 XX₁₃₅, 4, 1, 0; 1999 XB₁₃₆, 5, 1, 0; 1999 XM₁₃₆, 8, 2, 12; 1999 XO₁₃₆, 5, 1, 0; 1999 XQ₁₃₆, 15, 3, 11; 1999 XR₁₃₆, 14, 3, 12; 1999 XS₁₃₆, 8, 2, 5; 1999 XT₁₃₆, 9, 2, 106; 1999 XU₁₃₆, 5, 1, 0; 1999 XW₁₃₆, 5, 1, 0; 1999 XX₁₃₆, 9, 2, 1; 1999 XB₁₃₇, 10, 2, 31; 1999 XC₁₃₇, 4, 1, 0; 1999 XD₁₃₇, 5, 1, 0; 1999 XH₁₃₇, 4, 1, 0; 1999 XK₁₃₇, 5, 1, 0; 1999 XL₁₃₇, 14, 3, 12; 1999 XQ₁₃₇, 10, 2, 1; 1999 XS₁₃₇, 4, 1, 0; 1999 XV₁₃₇, 5, 1, 0; 1999 XL₁₃₈, 13, 3, 12; 1999 XO₁₃₈, 13, 3, 6; 1999 XQ₁₃₈, 4, 1, 0; 1999 XU₁₃₈, 3, 1, 0; 1999 XZ₁₃₈, 10, 3, 87; 1999 XB₁₃₉, 18, 4, 87; 1999 XF₁₃₉, 13, 3, 12; 1999 XG₁₃₉, 10, 3, 12; 1999 XU₁₃₉, 3, 1, 0; 1999 XV₁₃₉, 6, 2, 1; 1999 XB₁₄₀, 4, 1, 0; 1999 XK₁₄₀, 5, 1, 0; 1999 XS₁₄₀, 9, 2, 12; 1999 XZ₁₄₀, 8, 2, 1; 1999 XH₁₄₁, 10, 2, 1; 1999 XP₁₄₁, 5, 1, 0; 1999 XS₁₄₁, 9, 3, 72; 1999 XT₁₄₁, 22, 6, 6; 1999 XU₁₄₁, 5, 1, 0; 1999 XV₁₄₁, 9, 2, 4; 1999 XC₁₄₂, 4, 1, 0; 1999 XG₁₄₂, 10, 2, 13; 1999 XK₁₄₂, 17, 4, 682; 1999 XM₁₄₂, 3, 1, 0; 1999 XP₁₄₂, 3, 1, 0; 1999 XR₁₄₂, 23, 5, 75; 1999 XT₁₄₂, 15, 3, 13; 1999 XV₁₄₂, 17, 4, 17; 1999 XC₁₄₃, 3, 1, 0; 1999 XG₁₄₃, 10, 2, 105; 1999 XH₁₄₃, 5, 1, 0; 1999 XJ₁₄₃, 10, 2, 109; 1999 XK₁₄₃, 8, 2, 2; 1999 XL₁₄₃, 4, 1, 0; 1999 XO₁₄₃, 4, 1, 0; 1999 XP₁₄₃, 5, 1, 0; 1999 XQ₁₄₃, 10, 2, 1; 1999 XS₁₄₃, 15, 3, 13; 1999 XU₁₄₃, 12, 3, 12; 1999 XA₁₄₄, 12, 3, 116; 1999 XE₁₄₄, 10, 2, 1; 1999 XF₁₄₄, 5, 1, 0; 1999 XG₁₄₄, 5, 1, 0; 1999 XH₁₄₄, 10, 1, 0; 1999 XJ₁₄₄, 4, 1, 0; 1999 XK₁₄₄, 14, 3, 13; 1999 XL₁₄₄, 5, 1, 0; 1999 XM₁₄₄, 4, 1, 0; 1999 XN₁₄₄, 5, 1, 0; 1999 XP₁₄₄, 5, 1, 0; 1999 XQ₁₄₄, 8, 2, 12; 1999 XR₁₄₄, 13, 3, 12; 1999 XT₁₄₄, 9, 2, 22; 1999 XV₁₄₄, 15, 3, 25; 1999 XA₁₄₅, 3, 1, 0; 1999 XL₁₄₅, 4, 1, 0; 1999 XG₁₄₆, 13, 3, 11; 1999 XC₁₄₇, 4, 1, 0; 1999 XH₁₄₈, 8, 2, 3; 1999 XZ₁₄₈, 4, 1, 0; 1999 XA₁₄₉, 3, 1, 0; 1999 XJ₁₅₁, 4, 1, 0; 1999 XM₁₅₁, 7, 2, 1; 1999 XO₁₅₁, 3, 1, 0; 1999 XP₁₅₁, 18, 5, 543; 1999 XT₁₅₁, 7, 2, 1; 1999 XV₁₅₁, 4, 1, 0; 1999 XW₁₅₁, 3, 1, 0; 1999 XX₁₅₁, 15, 3, 12; 1999 XQ₁₅₂, 5, 1, 0; 1999 XN₁₅₃, 9, 2, 2; 1999 XO₁₅₃, 3, 1, 0; 1999 XP₁₅₃, 9, 2, 28; 1999 XS₁₅₃, 13, 3, 106; 1999 XT₁₅₃, 21, 5, 10; 1999 XZ₁₅₃, 5, 1, 0; 1999 XA₁₅₄, 9, 2, 8; 1999 XC₁₅₄, 8, 2, 1; 1999 XD₁₅₄, 3, 1, 0; 1999 XJ₁₅₄, 5, 1, 0; 1999 XD₁₅₅, 5, 1, 0; 1999 XF₁₅₅, 3, 1, 0; 1999 XH₁₅₅, 4, 1, 0; 1999 XL₁₅₅, 5, 1, 0; 1999 XP₁₅₅, 4, 1, 0; 1999 XT₁₅₅, 12, 3, 80; 1999 XB₁₅₆, 5, 1, 0; 1999 XD₁₅₆, 3, 1, 0; 1999 XE₁₅₆, 4, 1, 0; 1999 XG₁₅₆, 4, 1, 0; 1999 XR₁₅₆, 4, 1, 0; 1999 XK₁₅₇, 14, 3, 10; 1999 XM₁₅₇, 4, 1, 0; 1999 XT₁₅₇, 4, 1, 0; 1999 XW₁₅₇, 14, 3, 114; 1999 XY₁₅₇, 4, 1, 0; 1999 XC₁₅₈, 5, 1, 0; 1999 XD₁₅₈, 4, 1, 0; 1999 XF₁₅₈, 5, 1, 0; 1999 XH₁₅₈, 3, 1, 0; 1999 XA₁₅₉, 4, 1, 0; 1999 XG₁₅₉, 9, 2, 1; 1999 XJ₁₅₉, 10, 2, 1; 1999 XQ₁₅₉, 9, 2, 2; 1999 XR₁₅₉, 10, 2, 1; 1999 XV₁₅₉, 17, 4, 35; 1999 XA₁₆₀, 15, 3, 12; 1999 XB₁₆₀, 5, 1, 0; 1999 XC₁₆₀, 10, 2, 2; 1999 XD₁₆₀, 8, 2, 1; 1999 XE₁₆₀, 4, 1, 0; 1999 XH₁₆₀, 9, 2, 1; 1999 XJ₁₆₀, 5, 1, 0; 1999 XK₁₆₀, 10, 2, 1; 1999 XL₁₆₀, 4, 1, 0; 1999 XP₁₆₀, 9, 2, 1; 1999 XR₁₆₀, 9, 2, 1; 1999 XT₁₆₀, 9, 2, 1; 1999 XV₁₆₀, 9, 2, 1; 1999 XY₁₆₀, 10, 2, 1; 1999 XZ₁₆₀, 4, 1, 0; 1999 XB₁₆₁, 8, 2, 115; 1999 XE₁₆₁, 14, 3, 13; 1999 XJ₁₆₁, 14, 3, 13; 1999 XU₁₆₁, 4, 1, 0; 1999 XF₁₆₂, 7, 2, 59; 1999 XJ₁₆₂, 5, 1, 0; 1999 XK₁₆₂, 5, 1, 0; 1999 XW₁₆₂, 7, 2, 1; 1999 XA₁₆₃, 25, 5, 58; 1999 XG₁₆₃, 7, 2, 1; 1999 XO₁₆₃, 9, 2, 12; 1999 XU₁₆₃, 7, 2, 75; 1999 XV₁₆₃, 16, 4, 87; 1999 XW₁₆₃, 21, 5, 89; 1999 XX₁₆₃, 5, 1, 0; 1999 XE₁₆₄, 24, 5, 543; 1999 XF₁₆₄, 5, 1, 0; 1999 XG₁₆₄, 15, 3, 75; 1999 XH₁₆₄, 24, 5, 87; 1999 XJ₁₆₄, 13, 3, 10; 1999 XK₁₆₄, 13, 3, 12; 1999 XL₁₆₄, 29, 6, 87; 1999 XM₁₆₄, 17, 4, 76; 1999 XN₁₆₄, 14, 3, 87; 1999 XO₁₆₄, 7, 2, 12; 1999 XP₁₆₄, 5, 1, 0; 1999 XQ₁₆₄, 14, 3, 10; 1999 XR₁₆₄, 10, 2, 26; 1999 XS₁₆₄, 3, 1, 0; 1999 XT₁₆₄, 18, 4, 87; 1999 XU₁₆₄, 15, 3, 79; 1999 XV₁₆₄, 14, 3, 87; 1999 XW₁₆₄, 7, 2, 90; 1999 XX₁₆₄, 14, 3, 7; 1999 XY₁₆₄, 13, 3, 12; 1999 XB₁₆₅, 24, 5, 87; 1999 XC₁₆₅, 15, 3, 12; 1999 XD₁₆₅, 15, 3, 12; 1999 XE₁₆₅, 14, 3, 12; 1999 XJ₁₆₅, 14, 3, 12; 1999 XK₁₆₅, 5, 1, 0; 1999 XM₁₆₅, 15, 3, 12; 1999 XN₁₆₅, 5, 1, 0; 1999 XQ₁₆₅, 22, 5, 87; 1999 XR₁₆₅, 14, 3, 10; 1999 XS₁₆₅, 21, 5, 92; 1999 XT₁₆₅, 20, 4, 87; 1999 XU₁₆₅, 17, 4, 87; 1999 XA₁₆₆, 8, 2, 118; 1999 XD₁₆₆, 14, 3, 120; 1999 XE₁₆₆, 5, 1, 0; 1999 XJ₁₆₆, 9, 2, 1; 1999 XL₁₆₆, 6, 2, 4; 1999 XN₁₆₆, 24, 5, 31; 1999 XP₁₆₆, 5, 1, 0; 1999 XR₁₆₆, 8, 2, 1; 1999 XU₁₆₆, 20, 4, 4; 1999 XV₁₆₆, 4, 1, 0; 1999 XX₁₆₆, 5, 1, 0; 1999 XA₁₆₇, 8, 2, 1; 1999 XB₁₆₇, 23, 5, 425; 1999 XC₁₆₇, 8, 2, 1; 1999 XG₁₆₇, 10, 2, 75; 1999 XK₁₆₇, 13, 3, 129; 1999 XM₁₆₇, 14, 2, 75; 1999 XN₁₆₇, 5, 1, 0; 1999 XU₁₆₇, 6, 2, 87; 1999 XV₁₆₇, 5, 1, 0; 1999 XX₁₆₇, 3, 1, 0; 1999 XY₁₆₇, 10, 2, 87; 1999 XZ₁₆₇, 14, 3, 87; 1999 XA₁₆₈, 9, 2, 87; 1999 XD₁₆₈, 5, 1, 0; 1999 XE₁₆₈, 10, 1, 0; 1999 XF₁₆₈, 18, 4, 89; 1999 XG₁₆₈, 9, 2, 75; 1999 XJ₁₆₈, 8, 2, 76; 1999 XL₁₆₈, 10, 2, 1; 1999 XN₁₆₈, 15, 3, 30; 1999 XP₁₆₈, 6, 2, 1; 1999 XS₁₆₈, 8, 2, 1; 1999 XU₁₆₈, 5, 1, 0; 1999 XV₁₆₈, 8, 2, 12; 1999 XW₁₆₈, 17, 4, 87; 1999 XY₁₆₈, 11, 3, 13; 1999 XZ₁₆₈, 20, 4, 87; 1999 XB₁₆₉, 7, 2, 87; 1999 XC₁₆₉, 5, 1, 0; 1999 XE₁₆₉, 4, 1, 0; 1999 XF₁₆₉, 10, 2, 12; 1999 XG₁₆₉, 14, 3, 1018; 1999 XH₁₆₉, 26, 6, 129; 1999 XK₁₆₉, 15, 3, 87; 1999 XL₁₆₉, 3, 1, 0; 1999 XM₁₆₉, 19, 4, 78; 1999 XN₁₆₉, 10, 2, 87; 1999 XO₁₆₉, 24, 5, 597; 1999 XP₁₆₉, 10, 2, 87; 1999 XQ₁₆₉, 10, 2, 75; 1999 XR₁₆₉, 12, 3, 25; 1999 XS₁₆₉, 10, 2, 1; 1999 XT₁₆₉, 19, 4, 531; 1999 XU₁₆₉, 24, 5, 430; 1999 XV₁₆₉, 18, 4, 22; 1999 XW₁₆₉, 9, 2, 75; 1999 XZ₁₆₉, 4, 1, 0; 1999 XA₁₇₀, 14, 3, 595; 1999 XE₁₇₀, 4, 1, 0; 1999 XF₁₇₀, 9, 2, 12; 1999 XG₁₇₀, 3, 1, 0; 1999 XM₁₇₀, 5, 1, 0; 1999 XN₁₇₀, 14, 3, 87; 1999 XS₁₇₀, 4, 1, 0; 1999 XT₁₇₀, 13, 2, 75; 1999 XU₁₇₀, 10, 2, 75; 1999 XV₁₇₀, 19, 4, 78; 1999 XW₁₇₀, 28, 5, 580; 1999 XY₁₇₀, 5, 1, 0; 1999 XZ₁₇₀, 12, 3, 4; 1999 XA₁₇₁, 4, 1, 0; 1999 XD₁₇₁, 4, 1, 0; 1999 XE₁₇₁, 16, 4, 6; 1999 XH₁₇₁, 13, 3, 12; 1999 XJ₁₇₁, 4, 1, 0; 1999 XK₁₇₁, 6, 2, 1; 1999 XM₁₇₁, 18, 4, 76; 1999 XO₁₇₁, 8, 2, 1; 1999 XQ₁₇₁, 13, 2, 6; 1999 XR₁₇₁, 6, 2, 1; 1999 XS₁₇₁, 10, 2, 22; 1999 XU₁₇₁, 21, 5, 87;

1999 XV₁₇₁, 10, 2, 8; 1999 XW₁₇₁, 23, 4, 82; 1999 XX₁₇₁, 7, 2, 5; 1999 XZ₁₇₁, 7, 2, 1; 1999 XA₁₇₂, 23, 5, 624; 1999 XB₁₇₂, 12, 3, 13; 1999 XC₁₇₂, 8, 2, 1; 1999 XD₁₇₂, 8, 2, 22; 1999 XE₁₇₂, 14, 3, 12; 1999 XF₁₇₂, 15, 3, 13; 1999 XG₁₇₂, 5, 1, 0; 1999 XJ₁₇₂, 32, 4, 35; 1999 XK₁₇₂, 5, 1, 0; 1999 XL₁₇₂, 19, 2, 23; 1999 XM₁₇₂, 14, 3, 12; 1999 XN₁₇₂, 19, 4, 87; 1999 XR₁₇₂, 5, 1, 0; 1999 XT₁₇₂, 9, 2, 74; 1999 XV₁₇₂, 15, 3, 13; 1999 XW₁₇₂, 14, 3, 23; 1999 XX₁₇₂, 12, 3, 12; 1999 XY₁₇₂, 17, 4, 87; 1999 XZ₁₇₂, 13, 3, 87; 1999 XA₁₇₃, 12, 3, 12; 1999 XB₁₇₃, 19, 4, 87; 1999 XC₁₇₃, 20, 4, 87; 1999 XD₁₇₃, 10, 2, 74; 1999 XF₁₇₃, 4, 1, 0; 1999 XJ₁₇₃, 14, 3, 12; 1999 XK₁₇₃, 10, 2, 1; 1999 XL₁₇₃, 11, 3, 23; 1999 XM₁₇₃, 5, 1, 0; 1999 XN₁₇₃, 17, 4, 87; 1999 XO₁₇₃, 16, 4, 87; 1999 XP₁₇₃, 12, 3, 12; 1999 XR₁₇₃, 10, 2, 75; 1999 XS₁₇₃, 19, 4, 87; 1999 XT₁₇₃, 8, 2, 11; 1999 XU₁₇₃, 10, 2, 74; 1999 XV₁₇₃, 10, 2, 74; 1999 XW₁₇₃, 8, 2, 25; 1999 XY₁₇₃, 14, 3, 12; 1999 XA₁₇₄, 5, 1, 0; 1999 XC₁₇₄, 12, 3, 74; 1999 XF₁₇₄, 4, 1, 0; 1999 XG₁₇₄, 9, 2, 12; 1999 XH₁₇₄, 4, 1, 0; 1999 XJ₁₇₄, 20, 4, 87; 1999 XK₁₇₄, 18, 4, 87; 1999 XL₁₇₄, 10, 3, 12; 1999 XM₁₇₄, 5, 1, 0; 1999 XO₁₇₄, 10, 2, 13; 1999 XP₁₇₄, 8, 2, 1; 1999 XQ₁₇₄, 8, 2, 74; 1999 XR₁₇₄, 19, 4, 87; 1999 XS₁₇₄, 21, 4, 87; 1999 XT₁₇₄, 11, 3, 12; 1999 XU₁₇₄, 4, 1, 0; 1999 XV₁₇₄, 10, 3, 13; 1999 XX₁₇₄, 14, 3, 13; 1999 XA₁₇₅, 5, 1, 0; 1999 XC₁₇₅, 3, 1, 0; 1999 XE₁₇₅, 15, 3, 13; 1999 XH₁₇₅, 17, 4, 11; 1999 XJ₁₇₅, 15, 3, 87; 1999 XK₁₇₅, 17, 4, 87; 1999 XL₁₇₅, 13, 3, 87; 1999 XM₁₇₅, 20, 5, 87; 1999 XO₁₇₅, 20, 5, 87; 1999 XP₁₇₅, 12, 3, 12; 1999 XQ₁₇₅, 18, 4, 87; 1999 XS₁₇₅, 10, 2, 2; 1999 XZ₁₇₅, 19, 4, 29; 1999 XD₁₇₆, 5, 1, 0; 1999 XE₁₇₆, 13, 3, 74; 1999 XG₁₇₆, 20, 4, 518; 1999 XH₁₇₆, 16, 4, 87; 1999 XK₁₇₆, 15, 3, 31; 1999 XL₁₇₆, 15, 3, 79; 1999 XM₁₇₆, 10, 2, 27; 1999 XN₁₇₆, 18, 4, 5; 1999 XQ₁₇₆, 9, 2, 1; 1999 XR₁₇₆, 10, 2, 27; 1999 XU₁₇₆, 18, 3, 7; 1999 XV₁₇₆, 15, 3, 7; 1999 XW₁₇₆, 9, 2, 75; 1999 XX₁₇₆, 10, 2, 2; 1999 XY₁₇₆, 15, 3, 32; 1999 XC₁₇₇, 5, 1, 0; 1999 XD₁₇₇, 10, 2, 16; 1999 XE₁₇₇, 14, 3, 74; 1999 XF₁₇₇, 10, 2, 26; 1999 XK₁₇₇, 25, 5, 87; 1999 XL₁₇₇, 9, 2, 12; 1999 XM₁₇₇, 10, 3, 12; 1999 XN₁₇₇, 9, 2, 12; 1999 XP₁₇₇, 3, 1, 0; 1999 XQ₁₇₇, 10, 2, 13; 1999 XR₁₇₇, 10, 3, 22; 1999 XS₁₇₇, 4, 1, 0; 1999 XT₁₇₇, 11, 3, 22; 1999 XU₁₇₇, 7, 2, 1; 1999 XW₁₇₇, 8, 2, 1; 1999 XY₁₇₇, 14, 4, 87; 1999 XZ₁₇₇, 11, 3, 12; 1999 XA₁₇₈, 4, 1, 0; 1999 XB₁₇₈, 11, 3, 12; 1999 XD₁₇₈, 3, 1, 0; 1999 XE₁₇₈, 8, 2, 1; 1999 XF₁₇₈, 11, 3, 12; 1999 XH₁₇₈, 10, 2, 74; 1999 XJ₁₇₈, 15, 4, 87; 1999 XK₁₇₈, 19, 5, 595; 1999 XL₁₇₈, 12, 3, 12; 1999 XM₁₇₈, 15, 3, 13; 1999 XO₁₇₈, 13, 3, 13; 1999 XP₁₇₈, 9, 2, 12; 1999 XQ₁₇₈, 3, 1, 0; 1999 XR₁₇₈, 17, 4, 87; 1999 XS₁₇₈, 14, 3, 12; 1999 XT₁₇₈, 7, 2, 11; 1999 XU₁₇₈, 3, 1, 0; 1999 XW₁₇₈, 13, 3, 5; 1999 XX₁₇₈, 9, 2, 1; 1999 XZ₁₇₈, 5, 1, 0; 1999 XD₁₇₉, 9, 2, 74; 1999 XE₁₇₉, 17, 4, 416; 1999 XF₁₇₉, 5, 1, 0; 1999 XJ₁₇₉, 8, 2, 4; 1999 XK₁₇₉, 9, 2, 1; 1999 XO₁₇₉, 17, 4, 87; 1999 XQ₁₇₉, 3, 1, 0; 1999 XS₁₇₉, 12, 3, 12; 1999 XT₁₇₉, 6, 2, 1; 1999 XU₁₇₉, 7, 2, 1; 1999 XV₁₇₉, 10, 3, 12; 1999 XW₁₈₀, 4, 1, 0; 1999 XD₁₈₀, 5, 1, 0; 1999 XG₁₈₀, 8, 2, 2; 1999 XK₁₈₀, 5, 1, 0; 1999 XZ₁₈₀, 8, 2, 121; 1999 XB₁₈₁, 8, 2, 1; 1999 XN₁₈₁, 9, 2, 1; 1999 XT₁₈₁, 10, 2, 12; 1999 XV₁₈₁, 7, 2, 1; 1999 XJ₁₈₂, 9, 2, 12; 1999 XK₁₈₂, 7, 2, 1; 1999 XQ₁₈₂, 11, 3, 13; 1999 XZ₁₈₂, 20, 5, 129; 1999 XB₁₈₃, 4, 1, 0; 1999 XJ₁₈₃, 5, 1, 0; 1999 XT₁₈₃, 14, 3, 13; 1999 XU₁₈₃, 14, 3, 12; 1999 XZ₁₈₃, 9, 2, 1; 1999 XN₁₈₄, 4, 1, 0; 1999 XP₁₈₄, 3, 1, 0; 1999 XQ₁₈₄, 12, 3, 87; 1999 XT₁₈₄, 5, 1, 0; 1999 XF₁₈₆, 10, 2, 12; 1999 XQ₁₈₆, 4, 1, 0; 1999 XZ₁₈₆, 5, 1, 0; 1999 XA₁₈₇, 29, 6, 450; 1999 XE₁₈₇, 10, 2, 1; 1999 XF₁₈₇, 9, 2, 1; 1999 XM₁₈₇, 8, 2, 22; 1999 XN₁₈₇, 13, 3, 13; 1999 XP₁₈₇, 5, 1, 0; 1999 XQ₁₈₇, 4, 1, 0; 1999 XF₁₈₈, 9, 2, 13; 1999 XG₁₈₈, 14, 3, 12; 1999 XK₁₈₈, 10, 2, 12; 1999 XL₁₈₈, 10, 2, 12; 1999 XP₁₈₈, 12, 3, 12; 1999 XQ₁₈₈, 9, 2, 12; 1999 XR₁₈₈, 8, 2, 87; 1999 XS₁₈₈, 3, 1, 0; 1999 XU₁₈₈, 10, 2, 1; 1999 XA₁₈₉, 10, 2, 1; 1999 XC₁₈₉, 13, 3, 530; 1999 XF₁₈₉, 13, 3, 13; 1999 XH₁₈₉, 6, 2, 1; 1999 XK₁₈₉, 4, 1, 0; 1999 XM₁₈₉, 5, 1, 0; 1999 XQ₁₈₉, 3, 1, 0; 1999 XR₁₈₉, 4, 1, 0; 1999 XU₁₈₉, 3, 1, 0; 1999 XV₁₈₉, 9, 2, 1; 1999 XZ₁₈₉, 17, 4, 38; 1

13, 3, 28; 1999 XU₂₁₁, 5, 1, 0; 1999 XW₂₁₁, 4, 1, 0; 1999 XD₂₁₂, 7, 2, 3; 1999 XH₂₁₂, 5, 1, 0; 1999 XK₂₁₂, 3, 1, 0; 1999 XM₂₁₂, 5, 1, 0; 1999 XN₂₁₂, 9, 2, 106; 1999 XT₂₁₂, 5, 1, 0; 1999 XV₂₁₂, 8, 2, 106; 1999 XY₂₁₂, 5, 1, 0; 1999 XB₂₁₃, 19, 3, 106; 1999 XH₂₁₃, 4, 1, 0; 1999 XL₂₁₃, 23, 5, 587; 1999 XO₂₁₃, 5, 1, 0; 1999 XP₂₁₃, 5, 1, 0; 1999 XV₂₁₄, 10, 2, 1; 1999 XW₂₁₄, 9, 2, 1; 1999 XA₂₁₅, 9, 2, 8; 1999 XH₂₁₅, 9, 2, 1; 1999 XJ₂₁₅, 9, 2, 1; 1999 XL₂₁₅, 11, 3, 6; 1999 XS₂₁₅, 7, 2, 107; 1999 XT₂₁₅, 3, 1, 0; 1999 XZ₂₁₅, 17, 4, 57; 1999 XF₂₁₆, 8, 2, 1; 1999 XK₂₁₆, 9, 2, 12; 1999 XL₂₁₆, 8, 2, 1; 1999 XQ₂₁₆, 7, 2, 12; 1999 XU₂₁₆, 12, 3, 532; 1999 XJ₂₁₇, 3, 1, 0; 1999 XN₂₁₇, 12, 3, 12; 1999 XO₂₁₇, 6, 2, 11; 1999 XW₂₁₇, 4, 1, 0; 1999 XD₂₁₈, 7, 2, 1; 1999 XJ₂₁₈, 3, 1, 0; 1999 XN₂₁₈, 6, 2, 1; 1999 XT₂₁₈, 8, 2, 1; 1999 XV₂₁₈, 4, 1, 0; 1999 XW₂₁₈, 4, 1, 0; 1999 XR₂₁₉, 5, 1, 0; 1999 XL₂₂₀, 5, 1, 0; 1999 XO₂₂₀, 3, 1, 0; 1999 XP₂₂₀, 29, 6, 143; 1999 XZ₂₂₀, 10, 2, 28; 1999 XA₂₂₁, 8, 2, 28; 1999 XC₂₂₁, 10, 2, 28; 1999 XD₂₂₁, 10, 2, 28; 1999 XO₂₂₁, 3, 1, 0; 1999 XR₂₂₁, 10, 2, 75; 1999 XU₂₂₁, 9, 2, 75; 1999 XP₂₂₂, 5, 1, 0; 1999 XY₂₂₂, 14, 3, 543; 1999 XC₂₂₃, 15, 3, 417; 1999 XD₂₂₃, 10, 2, 26; 1999 XU₂₂₃, 15, 3, 79; 1999 XG₂₂₄, 8, 2, 12; 1999 XK₂₂₄, 6, 2, 12; 1999 XM₂₂₄, 10, 2, 1; 1999 XY₂₂₄, 20, 4, 57; 1999 XE₂₂₅, 4, 1, 0; 1999 XJ₂₂₅, 11, 3, 76; 1999 XN₂₂₅, 4, 1, 0; 1999 XQ₂₂₅, 4, 1, 0; 1999 XU₂₂₅, 12, 3, 87; 1999 XV₂₂₅, 12, 3, 87; 1999 XY₂₂₅, 10, 2, 1; 1999 XF₂₂₆, 4, 1, 0; 1999 XK₂₂₆, 4, 1, 0; 1999 XM₂₂₆, 19, 4, 87; 1999 XQ₂₂₆, 8, 2, 1; 1999 XS₂₂₆, 3, 1, 0; 1999 XX₂₂₆, 11, 3, 12; 1999 XF₂₂₇, 4, 1, 0; 1999 XL₂₂₇, 3, 1, 0; 1999 XM₂₂₇, 4, 1, 0; 1999 XS₂₂₇, 3, 1, 0; 1999 XU₂₂₇, 14, 3, 12; 1999 XA₂₂₈, 9, 2, 18; 1999 XD₂₂₈, 9, 3, 12; 1999 XG₂₂₈, 15, 4, 87; 1999 XQ₂₂₈, 13, 3, 12; 1999 XR₂₂₈, 3, 1, 0; 1999 XS₂₂₈, 11, 3, 76; 1999 XG₂₂₉, 26, 6, 524; 1999 XH₂₂₉, 18, 4, 65; 1999 XJ₂₃₀, 9, 2, 31; 1999 XP₂₃₀, 15, 3, 13; 1999 XR₂₃₀, 5, 1, 0; 1999 XW₂₃₀, 38, 6, 34; 1999 XQ₂₃₁, 18, 4, 7; 1999 XV₂₃₁, 5, 1, 0; 1999 XA₂₃₂ *, 8, 2, 13; 1999 XB₂₃₂ *, 11, 3, 22; 1999 YE₄, 4, 1, 0; 1999 YG₄, 10, 2, 22; 1999 YH₄, 3, 1, 0; 1999 YJ₄, 3, 1, 0; 1999 YK₄, 9, 2, 22; 1999 YM₄, 9, 2, 1; 1999 YN₄, 14, 3, 10; 1999 YT₄, 5, 1, 0; 1999 YD₁, 4, 1, 0; 1999 YO₁, 13, 3, 12; 1999 YP₁, 5, 1, 0; 1999 YU₁, 14, 3, 10; 1999 YO₂, 3, 1, 0; 1999 YQ₂, 10, 3, 12; 1999 YT₂, 13, 3, 12; 1999 YV₂, 3, 1, 0; 1999 YY₂, 18, 5, 414; 1999 YD₃, 11, 3, 2; 1999 YE₃, 19, 4, 1; 1999 YF₃, 18, 4, 9; 1999 YJ₃, 3, 1, 0; 1999 YP₃, 13, 3, 29; 1999 YQ₃, 26, 6, 23; 1999 YV₃, 4, 1, 0; 1999 YW₃, 4, 1, 0; 1999 YY₃, 4, 1, 0; 1999 YZ₃, 18, 4, 5; 1999 YC₄, 4, 1, 0; 1999 YD₄, 4, 1, 0; 1999 YJ₄, 8, 2, 11; 1999 YM₄, 5, 1, 0; 1999 YO₄, 3, 1, 0; 1999 YQ₄, 13, 3, 76; 1999 YU₄, 8, 2, 4; 1999 YV₄, 13, 3, 535; 1999 YZ₄, 8, 2, 1; 1999 YA₅, 18, 4, 87; 1999 YB₅, 4, 1, 0; 1999 YC₅, 8, 2, 1; 1999 YD₅, 9, 2, 1; 1999 YF₅, 8, 2, 12; 1999 YG₅, 4, 1, 0; 1999 YH₅, 4, 1, 0; 1999 YJ₅, 4, 1, 0; 1999 YK₅, 3, 1, 0; 1999 YM₅, 8, 2, 1; 1999 YQ₅, 12, 3, 37; 1999 YW₅, 5, 1, 0; 1999 YA₆, 18, 4, 101; 1999 YC₆, 18, 4, 125; 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2000 AL₁, 7, 2, 1; 2000 AN₁, 17, 4, 50; 2000 AO₁, 5, 1, 0; 2000 AQ₁, 5, 1, 0; 2000 AR₁, 13, 3, 79; 2000 AS₁, 13, 3, 12; 2000 AU₁, 17, 4, 12; 2000 AX₁, 13, 3, 12; 2000 AY₁, 9, 2, 8; 2000 AZ₁, 9, 2, 8; 2000 AB₂, 16, 4, 65; 2000 AC₂, 9, 2, 1; 2000 AE₂, 5, 1, 0; 2000 AG₂, 16, 4, 1032; 2000 AJ₂, 20, 4, 58; 2000 AK₂, 10, 2, 39; 2000 AL₂, 5, 1, 0; 2000 AN₂, 34, 6, 39; 2000 AO₂, 14, 3, 87; 2000 AS₂, 19, 4, 87; 2000 AU₂, 19, 4, 87; 2000 AW₂, 22, 5, 66; 2000 AX₂, 19, 4, 87; 2000 AY₂, 15, 4, 1041; 2000 AZ₂, 8, 2, 3; 2000 AA₃, 10, 2, 6; 2000 AB₃, 20, 5, 87; 2000 AD₃, 17, 4, 44; 2000 AE₃, 5, 1, 0; 2000 AL₃, 12, 3, 75; 2000 AV₃, 5, 1, 0; 2000 AA₄, 19, 4, 65; 2000 AD₄, 7, 2, 54; 2000 AJ₄, 4, 1, 0; 2000 AN₄, 10, 2, 7; 2000 AP₄, 7, 2, 2; 2000 AR₄, 23, 6, 87; 2000 AS₄, 27, 6, 87; 2000 AT₄, 4, 1, 0; 2000 AV₄, 18, 4, 442; 2000 AW₄, 11, 3, 12; 2000 AX₄, 17, 4, 87; 2000 AY₄, 12, 3, 87; 2000 AZ₄, 12, 3, 30; 2000 AA₅, 28, 6, 15; 2000 AB₅, 9, 2, 12; 2000 AC₅, 4, 1, 0; 2000 AD₅, 27, 6, 66; 2000 AE₅, 21, 5, 87; 2000 AF₅, 34, 7, 535; 2000 AH₅, 17, 4, 58; 2000 AJ₅, 17, 4, 38; 2000 AK₅, 8, 2, 11; 2000 AL₅, 9, 2, 531; 2000 AN₅, 12, 3, 12; 2000 AO₅, 24, 5, 444; 2000 AT₅, 15, 3, 6; 2000 AX₅, 3, 1, 0; 2000 AY₅, 4, 1, 0; 2000 AC₆, 5, 1, 0; 2000 AE₆, 4, 1, 0; 2000 AF₆, 7, 2, 1; 2000 AH₆, 3, 1, 0; 2000 AK₆, 7, 2, 27; 2000 AL₆, 4, 1, 0; 2000 AM₆, 20, 5, 87; 2000 AN₆, 9, 2, 12; 2000 AZ₆, 4, 1, 0; 2000 AR₇, 10, 2, 1; 2000 AS₇, 12, 3,

13; 2000 AT₇, 13, 3, 46; 2000 AA₈, 18, 4, 74; 2000 AE₈, 13, 3, 48; 2000 AO₈, 8, 2, 1; 2000 AY₈, 4, 1, 0; 2000 AH₉, 10, 2, 12; 2000 AJ₉, 9, 2, 1; 2000 AK₉, 11, 3, 46; 2000 AL₉, 8, 2, 519; 2000 AQ₉, 18, 4, 75; 2000 AR₉, 24, 5, 543; 2000 AZ₁₀, 4, 1, 0; 2000 AB₁₁, 10, 3, 12; 2000 AQ₁₂, 5, 1, 0; 2000 AK₁₃, 23, 4, 34; 2000 AN₁₃, 9, 2, 87; 2000 AO₁₄, 9, 2, 65; 2000 AP₁₄, 10, 2, 50; 2000 AR₁₄, 7, 2, 944; 2000 AU₁₄, 7, 2, 21; 2000 AF₁₅, 5, 1, 0; 2000 AK₁₅, 4, 1, 0; 2000 AF₁₆, 8, 2, 24; 2000 AG₁₆, 10, 3, 72; 2000 AM₁₆, 15, 3, 75; 2000 AQ₁₆, 8, 2, 1; 2000 AR₁₆, 9, 2, 1; 2000 AS₁₆, 9, 2, 1; 2000 AU₁₆, 13, 3, 12; 2000 AW₁₆, 9, 2, 1; 2000 AG₁₇, 8, 2, 1; 2000 AH₁₇, 9, 2, 1; 2000 AO₁₇, 24, 5, 65; 2000 AS₁₇, 15, 3, 78; 2000 AB₁₈, 14, 3, 76; 2000 AC₁₈, 9, 2, 2; 2000 AN₁₈, 11, 3, 75; 2000 AP₂₁, 4, 1, 0; 2000 AO₂₂, 22, 5, 79; 2000 AR₂₂, 12, 3, 6; 2000 AS₂₂, 9, 2, 1; 2000 AU₂₂, 8, 2, 2; 2000 AW₂₂, 7, 2, 1; 2000 AZ₂₂, 11, 3, 55; 2000 AA₂₃, 10, 2, 5; 2000 AC₂₃, 9, 2, 1; 2000 AD₂₃, 12, 3, 6; 2000 AE₂₃, 7, 2, 1; 2000 AO₂₃, 9, 2, 1; 2000 AS₂₃, 8, 2, 1; 2000 AA₂₄, 14, 3, 12; 2000 AH₂₄, 9, 2, 5; 2000 AL₂₄, 15, 4, 998; 2000 AZ₂₄, 7, 2, 57; 2000 AE₂₅, 13, 3, 8; 2000 AF₂₅, 16, 4, 55; 2000 AJ₂₅, 4, 1, 0; 2000 AN₂₅, 9, 2, 1; 2000 AQ₂₅, 5, 1, 0; 2000 AR₂₅, 19, 4, 52; 2000 AS₂₅, 13, 3, 12; 2000 AX₂₅, 5, 1, 0; 2000 AY₂₅, 4, 1, 0; 2000 AB₂₆, 5, 1, 0; 2000 AY₂₆, 5, 1, 0; 2000 AC₂₇, 5, 1, 0; 2000 AH₂₇, 4, 1, 0; 2000 AL₂₇, 8, 2, 1; 2000 AQ₂₇, 7, 2, 1; 2000 AS₂₇, 21, 5, 63; 2000 AT₂₇, 10, 3, 12; 2000 AU₂₇, 26, 6, 424; 2000 AV₂₇, 18, 4, 58; 2000 AA₂₈, 4, 1, 0; 2000 AG₂₈, 8, 2, 1; 2000 AO₂₈, 3, 1, 0; 2000 AP₂₈, 4, 1, 0; 2000 AT₂₈, 11, 3, 12; 2000 AX₂₈, 12, 3, 12; 2000 AB₂₉, 15, 4, 63; 2000 AE₂₉, 9, 2, 12; 2000 AF₂₉, 11, 2, 12; 2000 AH₂₉, 11, 3, 12; 2000 AJ₂₉, 8, 2, 12; 2000 AK₂₉, 5, 1, 0; 2000 AP₂₉, 9, 2, 12; 2000 AQ₂₉, 12, 3, 12; 2000 AS₂₉, 13, 3, 13; 2000 AT₂₉, 11, 3, 58; 2000 AV₂₉, 13, 3, 12; 2000 AW₂₉, 7, 2, 1; 2000 AX₂₉, 3, 1, 0; 2000 AY₂₉, 10, 3, 12; 2000 AB₃₀, 10, 3, 12; 2000 AD₃₀, 7, 2, 1; 2000 AE₃₀, 11, 3, 12; 2000 AF₃₀, 12, 3, 12; 2000 AK₃₀, 8, 2, 1; 2000 AL₃₀, 14, 3, 12; 2000 AM₃₀, 14, 3, 12; 2000 AR₃₀, 6, 2, 1; 2000 AS₃₀, 12, 3, 12; 2000 AV₃₀, 7, 2, 1; 2000 AX₃₀, 12, 3, 12; 2000 AY₃₀, 19, 5, 87; 2000 AZ₃₀, 10, 2, 1; 2000 AC₃₁, 12, 3, 12; 2000 AE₃₁, 19, 4, 87; 2000 AG₃₁, 13, 3, 12; 2000 AH₃₁, 16, 4, 58; 2000 AJ₃₁, 6, 2, 1; 2000 AK₃₁, 17, 4, 87; 2000 AL₃₁, 6, 2, 1; 2000 AM₃₁, 17, 4, 87; 2000 AO₃₁, 19, 4, 66; 2000 AR₃₁, 22, 5, 87; 2000 AS₃₁, 36, 8, 1019; 2000 AU₃₁, 13, 3, 58; 2000 AV₃₁, 6, 2, 1; 2000 AB₃₂, 16, 3, 12; 2000 AC₃₂, 9, 2, 1; 2000 AE₃₂, 6, 2, 1; 2000 AG₃₂, 11, 3, 12; 2000 AH₃₂, 11, 3, 12; 2000 AJ₃₂, 16, 4, 87; 2000 AL₃₂, 12, 3, 12; 2000 AM₃₂, 12, 3, 12; 2000 AN₃₂, 9, 2, 3; 2000 AP₃₂, 11, 3, 12; 2000 AR₃₂, 22, 5, 87; 2000 AS₃₂, 7, 2, 1; 2000 AT₃₂, 12, 3, 15; 2000 AV₃₂, 15, 4, 15; 2000 AX₃₂, 24, 5, 15; 2000 AY₃₂, 21, 5, 7; 2000 AZ₃₂, 43, 8, 543; 2000 AB₃₃, 6, 2, 1; 2000 AD₃₃, 20, 5, 13; 2000 AF₃₃, 11, 3, 12; 2000 AG₃₃, 13, 3, 12; 2000 AK₃₃, 14, 3, 13; 2000 AM₃₃, 14, 3, 12; 2000 AS₃₃, 37, 8, 597; 2000 AU₃₃, 11, 3, 12; 2000 AV₃₃, 6, 2, 11; 2000 AW₃₃, 6, 2, 1; 2000 AX₃₃, 10, 3, 12; 2000 AY₃₃, 11, 3, 12; 2000 AZ₃₃, 3, 1, 0; 2000 AC₃₄, 12, 3, 12; 2000 AE₃₄, 18, 4, 87; 2000 AF₃₄, 9, 2, 75; 2000 AG₃₄, 4, 1, 0; 2000 AJ₃₄, 11, 3, 12; 2000 AL₃₄, 13, 3, 12; 2000 AM₃₄, 12, 3, 12; 2000 AQ₃₄, 13, 3, 58; 2000 AR₃₄, 17, 4, 58; 2000 AT₃₄, 12, 3, 12; 2000 AU₃₄, 6, 2, 1; 2000 AA₃₅, 3, 1, 0; 2000 AG₃₅, 9, 2, 1; 2000 AK₃₆, 9, 1, 0; 2000 AN₃₆, 8, 2, 1; 2000 AS₃₆, 4, 1, 0; 2000 AW₃₆, 5, 1, 0; 2000 AY₃₆, 4, 1, 0; 2000 AB₃₇, 4, 1, 0; 2000 AC₃₇, 12, 3, 12; 2000 AD₃₇, 3, 1, 0; 2000 AM₃₇, 7, 2, 54; 2000 AS₃₇, 3, 1, 0; 2000 AY₃₇, 18, 4, 66; 2000 AZ₃₇, 7, 2, 1; 2000 AB₃₈, 7, 2, 1; 2000 AE₃₈, 6, 2, 1; 2000 AG₃₈, 9, 2, 1; 2000 AM₃₈, 6, 2, 1; 2000 AN₃₈, 7, 2, 1; 2000 AT₃₈, 9, 3, 12; 2000 AU₃₈, 9, 2, 8; 2000 AV₃₈, 6, 2, 1; 2000 AW₃₈, 8, 2, 1; 2000 AY₃₈, 13, 3, 12; 2000 AZ₃₈, 3, 1, 0; 2000 AL₃₉, 9, 2, 1; 2000 AM₃₉, 13, 3, 9; 2000 AP₃₉, 18, 4, 17; 2000 AE₄₀, 13, 3, 11; 2000 AF₄₀, 13, 3, 11; 2000 AG₄₀, 13, 3, 12; 2000 AL₄₀, 11, 3, 12; 2000 AM₄₀, 10, 3, 12; 2000 AZ₄₀, 19, 4, 87; 2000 AA₄₁, 14, 3, 87; 2

16, 4, 66; 2000 AD₅₄, 13, 3, 12; 2000 AE₅₄, 15, 3, 79; 2000 AF₅₄, 13, 3, 12; 2000 AH₅₄, 13, 3, 8; 2000 AJ₅₄, 16, 4, 79; 2000 AK₅₄, 8, 2, 1; 2000 AM₅₄, 25, 5, 15; 2000 AN₅₄, 11, 3, 12; 2000 AO₅₄, 10, 3, 87; 2000 AP₅₄, 12, 3, 12; 2000 AQ₅₄, 4, 1, 0; 2000 AT₅₄, 10, 2, 1; 2000 AU₅₄, 13, 3, 7; 2000 AV₅₄, 12, 3, 15; 2000 AW₅₄, 20, 4, 15; 2000 AX₅₄, 17, 4, 12; 2000 AY₅₄, 10, 2, 1; 2000 AA₅₅, 10, 3, 12; 2000 AE₅₅, 12, 3, 11; 2000 AF₅₅, 13, 3, 12; 2000 AG₅₅, 9, 3, 12; 2000 AH₅₅, 25, 4, 421; 2000 AK₅₅, 17, 4, 11; 2000 AO₅₅, 4, 1, 0; 2000 AP₅₅, 12, 3, 12; 2000 AR₅₅, 10, 2, 1; 2000 AS₅₅, 11, 3, 9; 2000 AU₅₅, 4, 1, 0; 2000 AV₅₅, 15, 4, 87; 2000 AW₅₅, 6, 2, 1; 2000 AX₅₅, 11, 3, 12; 2000 AY₅₅, 13, 3, 12; 2000 AZ₅₅, 17, 4, 87; 2000 AA₅₆, 13, 3, 12; 2000 AB₅₆, 16, 4, 12; 2000 AC₅₆, 13, 3, 12; 2000 AD₅₆, 12, 3, 12; 2000 AE₅₆, 10, 2, 1; 2000 AF₅₆, 13, 3, 9; 2000 AG₅₆, 19, 4, 12; 2000 AH₅₆, 13, 3, 12; 2000 AJ₅₆, 12, 3, 12; 2000 AK₅₆, 12, 3, 9; 2000 AM₅₆, 14, 3, 12; 2000 AN₅₆, 8, 2, 8; 2000 AO₅₆, 11, 3, 12; 2000 AR₅₆, 14, 4, 12; 2000 AT₅₆, 6, 2, 57; 2000 AW₅₆, 3, 1, 0; 2000 AX₅₆, 3, 1, 0; 2000 AY₅₆, 8, 2, 11; 2000 AB₅₇, 9, 2, 3; 2000 AE₅₇, 8, 2, 4; 2000 AH₅₇, 10, 2, 1; 2000 AK₅₇, 14, 3, 9; 2000 AL₅₇, 20, 5, 87; 2000 AM₅₇, 9, 2, 1; 2000 AP₅₇, 9, 2, 4; 2000 AQ₅₇, 20, 4, 6; 2000 AR₅₇, 9, 2, 8; 2000 AS₅₇, 18, 4, 87; 2000 AU₅₇, 8, 2, 8; 2000 AV₅₇, 19, 4, 454; 2000 AA₅₈, 13, 3, 87; 2000 AC₅₈, 15, 3, 8; 2000 AE₅₈, 27, 6, 87; 2000 AF₅₈, 15, 3, 3; 2000 AJ₅₈, 11, 3, 12; 2000 AL₅₈, 17, 4, 87; 2000 AM₅₈, 17, 4, 87; 2000 AN₅₈, 12, 3, 8; 2000 AO₅₈, 13, 3, 12; 2000 AQ₅₈, 8, 2, 12; 2000 AS₅₈, 14, 3, 50; 2000 AT₅₈, 16, 4, 12; 2000 AU₅₈, 14, 3, 9; 2000 AW₅₈, 12, 3, 12; 2000 AB₅₉, 12, 3, 12; 2000 AM₅₉, 19, 4, 4; 2000 AP₅₉, 8, 2, 8; 2000 AQ₅₉, 8, 2, 1; 2000 AR₅₉, 13, 3, 12; 2000 AS₅₉, 19, 3, 3; 2000 AU₅₉, 17, 4, 87; 2000 AV₅₉, 17, 4, 88; 2000 AZ₅₉, 12, 3, 12; 2000 AA₆₀, 16, 4, 88; 2000 AG₆₀, 22, 5, 35; 2000 AH₆₀, 5, 1, 0; 2000 AJ₆₀, 27, 6, 87; 2000 AK₆₀, 44, 6, 12; 2000 AL₆₀, 14, 3, 12; 2000 AN₆₀, 10, 2, 1; 2000 AO₆₀, 17, 4, 10; 2000 AP₆₀, 47, 7, 88; 2000 AQ₆₀, 14, 3, 12; 2000 AS₆₀, 20, 3, 12; 2000 AT₆₀, 12, 3, 12; 2000 AV₆₀, 24, 5, 87; 2000 AW₆₀, 11, 3, 12; 2000 AX₆₀, 17, 4, 12; 2000 AG₆₁, 14, 3, 12; 2000 AP₆₁, 10, 2, 12; 2000 AR₆₁, 17, 4, 457; 2000 AS₆₁, 44, 5, 8; 2000 AT₆₁, 60, 9, 543; 2000 AU₆₁, 26, 6, 89; 2000 AV₆₁, 26, 4, 6; 2000 AW₆₁, 30, 5, 81; 2000 AY₆₁, 15, 3, 12; 2000 AZ₆₁, 9, 2, 3; 2000 AA₆₂, 25, 4, 12; 2000 AB₆₂, 25, 5, 12; 2000 AC₆₂, 13, 3, 12; 2000 AD₆₂, 24, 4, 81; 2000 AE₆₂, 27, 5, 62; 2000 AF₆₂, 30, 6, 114; 2000 AG₆₂, 9, 2, 8; 2000 AH₆₂, 7, 2, 8; 2000 AJ₆₂, 13, 3, 8; 2000 AK₆₂, 29, 6, 87; 2000 AL₆₂, 14, 3, 8; 2000 AM₆₂, 26, 5, 13; 2000 AN₆₂, 14, 3, 12; 2000 AO₆₂, 14, 3, 12; 2000 AQ₆₂, 32, 7, 87; 2000 AR₆₂, 24, 4, 12; 2000 AS₆₂, 12, 3, 12; 2000 AV₆₂, 5, 1, 0; 2000 AY₆₂, 23, 4, 87; 2000 AZ₆₂, 14, 3, 12; 2000 AB₆₃, 34, 4, 8; 2000 AC₆₃, 11, 3, 12; 2000 AD₆₃, 38, 7, 12; 2000 AE₆₃, 13, 3, 9; 2000 AJ₆₃, 28, 5, 12; 2000 AK₆₃, 15, 3, 12; 2000 AL₆₃, 17, 4, 66; 2000 AM₆₃, 13, 3, 12; 2000 AN₆₃, 14, 3, 12; 2000 AT₆₃, 24, 5, 81; 2000 AU₆₃, 12, 3, 12; 2000 AV₆₃, 15, 3, 12; 2000 AX₆₃, 33, 6, 87; 2000 AZ₆₃, 24, 4, 65; 2000 AA₆₄, 14, 3, 835; 2000 AB₆₄, 16, 4, 87; 2000 AC₆₄, 9, 2, 8; 2000 AD₆₄, 10, 2, 8; 2000 AE₆₄, 19, 4, 66; 2000 AF₆₄, 19, 4, 66; 2000 AG₆₄, 19, 4, 66; 2000 AJ₆₄, 14, 3, 12; 2000 AK₆₄, 23, 5, 12; 2000 AL₆₄, 28, 5, 457; 2000 AM₆₄, 14, 3, 12; 2000 AN₆₄, 17, 4, 87; 2000 AQ₆₄, 12, 3, 11; 2000 AR₆₄, 13, 3, 12; 2000 AT₆₄, 28, 6, 454; 2000 AU₆₄, 28, 4, 10; 2000 AY₆₄, 9, 2, 12; 2000 AZ₆₄, 13, 3, 12; 2000 AA₆₅, 13, 3, 66; 2000 AB₆₅, 15, 3, 80; 2000 AD₆₅, 12, 3, 12; 2000 AE₆₅, 14, 3, 12; 2000 AJ₆₅, 14, 3, 12; 2000 AM₆₅, 4, 1, 0; 2000 AN₆₅, 13, 3, 12; 2000 AR₆₅, 30, 6, 12; 2000 AV₆₅, 13, 3, 12; 2000 AZ₆₅, 14, 3, 12; 2000 AC₆₆, 24, 5, 87; 2000 AD₆₆, 21, 5, 1044; 2000 AE₆₆, 13, 3, 12; 2000 AG₆₆, 9, 2, 4; 2000 AR₆₆, 21, 5, 65; 2000 AV₆₆, 9, 2, 8; 2000 AX₆₆, 14, 3, 8; 2000 AZ₆₆, 20, 5, 106; 2000 AF₆₇, 5, 1, 0; 2000 AG₆₇, 18, 4, 12; 2000 AK₆₇, 17, 3, 8; 2000 AL₆₇, 20, 3, 8; 2000 AM₆₇, 33, 5, 66; 2000 AN₆₇, 17, 3, 8; 2000 AP₆₇, 13, 3, 8; 2000 AQ₆₇, 17, 4, 87; 2000 AZ₆₇, 9, 2, 8; 2000 AA₆₈, 15, 3, 67; 2000 AD₆₈, 19, 4, 79; 2000 AE₆₈, 5, 1, 0; 2000 AM₆₈, 28, 6, 64; 2000 AP₆₈, 19, 4, 91; 2000 AQ₆₉, 19, 3, 3; 2000 AR₆₉, 8, 2, 3; 2000 AS₆₉, 7, 2, 1; 2000 AX₆₉, 10, 2, 1; 2000 AU₇₀, 10, 2, 1; 2000 AD₇₀, 13, 2, 1; 2000 AP₇₀, 19, 4, 59; 2000 AQ₇₀, 10, 2, 1; 2000 AS₇₀, 24, 5, 106; 2000 AU₇₁, 20, 4, 62; 2000 AK₇₁, 3, 1, 0; 2000 AS₇₁, 8, 2, 1; 2000 AD₇₁, 10, 2, 1; 2000 AU₇₅, 9, 2, 1; 2000 AF₇₅, 10, 2, 1; 2000 AH₇₅, 20, 4, 59; 2000 AT₇₅, 23, 5, 106; 2000 AU₇₆, 10, 2, 1; 2000 AF₇₆, 10, 2, 1; 2000 AG₇₆, 21, 5, 106; 2000 AN₇₆, 10, 2, 1; 2000 AO₇₆, 35, 5, 59; 2000 AF₇₇, 17, 4, 59; 2000 AM₇₇, 30, 6, 106; 2000 AC₇₈, 9, 2, 1; 2000 AT₇₈, 13, 3, 57; 2000 AU₇₈, 8, 2, 49; 2000 AY₇₈, 9, 2, 1; 2000 AZ₇₈, 9, 2, 1; 2000 AA₇₉, 9, 2, 1; 2000 AB₇₉, 9, 2, 1; 2000 AJ₇₉, 22, 5, 58; 2000 AK₇₉, 9, 2, 1; 2000 AM₇₉, 18, 4, 587; 2000 AT₇₉, 7, 2, 48; 2000 AU₇₉, 4, 1, 0; 2000 AS₈₀, 12, 3, 27; 2000 AE₈₀, 17, 4, 60; 2000 AH₈₀, 32, 6, 60; 2000 AH₈₁, 7, 2, 1; 2000 AU₈₁, 17, 4, 535; 2000 AC₈₂, 5, 1, 0; 2000 AL₈₂, 6, 2, 8; 2000 AS₈₂, 5, 1, 0; 2000 AW₈₂, 14, 3, 562; 2000 AZ₈₂, 3, 1, 0; 2000 AC₈₃, 9, 2, 59; 2000 AF₈₃, 7, 2, 5; 2000 AK₈₃, 8, 2, 1; 2000 AM₈₃, 8, 2, 66; 2000 AN₈₃, 9, 2, 26; 2000 AQ₈₃, 9, 2, 30; 2000 AW₈₃, 28, 6, 557; 2000 AZ₈₃, 16, 4, 57; 2000 AA₈₄, 4, 1, 0; 2000 AF₈₄, 4, 1, 0; 2000 AJ₈₄, 13, 3, 51; 2000 AK₈₄, 21, 5, 106; 2000 AM₈₄, 9, 2, 1; 2000 AN₈₄, 9, 2, 1; 2000 AO₈₄, 7, 2, 1; 2000 AP₈₄, 15, 2, 1; 2000 AT₈₄, 14, 3, 535; 2000 AU₈₄, 9, 2, 1; 2000 AW₈₄, 15, 3, 27; 2000 AX₈₄, 10, 2, 1; 2000 AZ₈₄, 9, 2, 1; 2000 AA₈₅, 5, 1, 0; 2000 AB₈₅, 10, 2, 1; 2000 AC₈₅, 14, 3, 79; 2000 AD₈₅, 9, 2, 1; 2000 AE₈₅, 9, 2, 1; 2000 AG₈₅, 9, 2, 1; 2000 AH₈₅, 15, 3, 12; 2000 AJ₈₅, 14, 3, 12; 2000 AK₈₅, 9, 2, 1; 2000 AL₈₅, 9, 2, 1; 2000 AO₈₅, 10, 2, 1; 2000 AP₈₅, 3, 1, 0; 2000 AQ₈₅, 8, 2, 1; 2000 AR₈₅, 9, 2, 1; 2000 AS₈₅, 8, 2, 1; 2000 AT₈₅, 8, 2, 1; 2000 AU₈₅, 10, 2, 1; 2000 AV₈₅, 9, 2, 1; 2000 AX₈₅, 28, 6, 114; 2000 AZ₈₅, 20, 5, 66; 2000 AB₈₆, 10, 2, 1; 2000 AC₈₆, 7, 2, 1; 2000 AE₈₆, 14, 3, 12; 2000 AG₈₆, 12, 3, 12; 2000 AH₈₆, 9, 2, 1; 2000 AJ₈₆, 13, 3, 79; 2000 AK₈₆, 9, 2, 1; 2000 AL₈₆, 9, 2, 1; 2000 AO₈₆, 10, 2, 1; 2000 AP₈₆, 8, 2, 1; 2000 AQ₈₆, 14, 3, 8; 2000 AU₈₆, 19, 4, 9; 2000 AV₈₆, 10, 2, 1; 2000 AW₈₆, 10, 2, 1; 2000 AX₈₆, 10, 2, 1; 2000 AZ₈₆, 10, 2, 1; 2000 AE₈₇, 10, 2, 1; 2000 AF₈₇, 12, 3, 449; 2000 AG₈₇, 12, 2, 1; 2000 AH₈₇, 8, 2, 12;

2000 AJ₈₇, 14, 3, 416; 2000 AP₈₇, 10, 2, 1; 2000 AR₈₇, 10, 2, 1; 2000 AT₈₇, 13, 3, 58; 2000 AU₈₇, 10, 2, 1; 2000 AV₈₇, 10, 2, 1; 2000 AX₈₇, 19, 4, 79; 2000 AA₈₈, 8, 2, 12; 2000 AB₈₈, 10, 2, 1; 2000 AC₈₈, 10, 2, 1; 2000 AE₈₈, 10, 2, 1; 2000 AG₈₈, 9, 2, 1; 2000 AH₈₈, 15, 3, 6; 2000 AJ₈₈, 10, 2, 1; 2000 AK₈₈, 10, 2, 1; 2000 AL₈₈, 15, 2, 1; 2000 AN₈₈, 5, 1, 0; 2000 AO₈₈, 17, 3, 12; 2000 AR₈₈, 8, 2, 1; 2000 AS₈₈, 10, 2, 1; 2000 AT₈₈, 17, 4, 4; 2000 AV₈₈, 24, 5, 30; 2000 AW₈₈, 10, 2, 1; 2000 AX₈₈, 10, 2, 1; 2000 AY₈₈, 9, 2, 1; 2000 AZ₈₈, 23, 5, 32; 2000 AA₈₉, 15, 3, 27; 2000 AB₈₉, 12, 3, 12; 2000 AG₈₉, 16, 4, 6; 2000 AH₈₉, 15, 3, 27; 2000 AJ₈₉, 13, 3, 27; 2000 AK₈₉, 9, 2, 1; 2000 AM₈₉, 10, 2, 1; 2000 AN₈₉, 10, 2, 2; 2000 AO₈₉, 33, 5, 10; 2000 AR₈₉, 22, 5, 88; 2000 AS₈₉, 15, 3, 8; 2000 AT₈₉, 13, 3, 3; 2000 AU₈₉, 14, 2, 24; 2000 AY₈₉, 14, 3, 51; 2000 AZ₈₉, 20, 4, 59; 2000 AA₉₀, 16, 4, 106; 2000 AB₉₀, 4, 1, 0; 2000 AG₉₀, 7, 2, 8; 2000 AH₉₀, 8, 2, 1; 2000 AJ₉₀, 8, 2, 1; 2000 AK₉₀, 8, 2, 1; 2000 AL₉₀, 25, 5, 60; 2000 AM₉₀, 8, 2, 1; 2000 AN₉₀, 5, 1, 0; 2000 AO₉₀, 3, 1, 0; 2000 AP₉₀, 8, 2, 1; 2000 AR₉₀, 13, 3, 8; 2000 AS₉₀, 13, 3, 79; 2000 AT₉₀, 13, 3, 8; 2000 AU₉₀, 15, 3, 9; 2000 AV₉₀, 12, 3, 8; 2000 AY₉₀, 9, 2, 2; 2000 AZ₉₀, 10, 2, 1; 2000 AD₉₁, 9, 2, 1; 2000 AH₉₁, 14, 3, 51; 2000 AK₉₁, 18, 4, 38; 2000 AL₉₁, 14, 3, 12; 2000 AP₉₁, 14, 3, 3; 2000 AR₉₁, 15, 3, 1009; 2000 AS₉₁, 9, 2, 1; 2000 AU₉₁, 20, 4, 4; 2000 AV₉₁, 13, 3, 8; 2000 AW₉₁, 19, 4, 4; 2000 AZ₉₁, 13, 3, 8; 2000 AB₉₂, 10, 2, 4; 2000 AC₉₂, 15, 3, 10; 2000 AE₉₂, 11, 3, 8; 2000 AF₉₂, 5, 1, 0; 2000 AG₉₂, 25, 4, 62; 2000 AJ₉₂, 14, 3, 12; 2000 AY₉₂, 4, 1, 0; 2000 AZ₉₂, 21, 5, 15; 2000 AB₉₃, 3, 1, 0; 2000 AG₉₃, 10, 2, 30; 2000 AH₉₃, 5, 1, 0; 2000 AJ₉₃, 21, 5, 50; 2000 AR₉₃, 8, 2, 10; 2000 AV₉₃, 7, 2, 38; 2000 AW₉₃, 3, 1, 0; 2000 AK₉₄, 13, 3, 12; 2000 AP₉₄, 12, 3, 12; 2000 AY₉₄, 37, 7, 67; 2000 AB₉₅, 8, 2, 30; 2000 AC₉₅, 18, 4, 67; 2000 AD₉₅, 23, 5, 87; 2000 AE₉₅, 10, 2, 8; 2000 AJ₉₅, 13, 3, 439; 2000 AK₉₅, 12, 3, 12; 2000 AM₉₅, 14, 3, 12; 2000 AO₉₅, 24, 5, 1018; 2000 AP₉₅, 22, 5, 457; 2000 AQ₉₅, 18, 4, 12; 2000 AR₉₅, 19, 4, 67; 2000 AS₉₅, 32, 7, 455; 2000 AT₉₅, 13, 3, 12; 2000 AU₉₅, 14, 3, 10; 2000 AV₉₅, 11, 3, 8; 2000 AW₉₅, 18, 4, 12; 2000 AX₉₅, 13, 3, 12; 2000 AY₉₅, 18, 4, 87; 2000 AZ₉₅, 13, 3, 67; 2000 AA₉₆, 15, 3, 87; 2000 AF₉₆, 10, 2, 7; 2000 AG₉₆, 5, 1, 0; 2000 AK₉₆, 14, 3, 12; 2000 AM₉₆, 17, 4, 68; 2000 AN₉₆, 9, 2, 61; 2000 AO₉₆, 24, 5, 454; 2000 AP₉₆, 13, 3, 87; 2000 AQ₉₆, 5, 1, 0; 2000 AR₉₆, 9, 2, 67; 2000 AS₉₆, 10, 2, 8; 2000 AT₉₆, 11, 3, 59; 2000 AW₉₆, 9, 2, 7; 2000 AX₉₆, 18, 4, 60; 2000 AY₉₆, 14, 3, 79; 2000 AZ₉₆, 10, 2, 7; 2000 AB₉₇, 13, 2, 7; 2000 AC₉₇, 20, 3, 87; 2000 AD₉₇, 17, 4, 87; 2000 AG₉₇, 5, 1, 0; 2000 AH₉₇, 17, 4, 10; 2000 AJ₉₇, 10, 2, 7; 2000 AK₉₇, 15, 3, 68; 2000 AM₉₇, 17, 4, 68; 2000 AN₉₇, 19, 4, 87; 2000 AQ₉₇, 7, 2, 1; 2000 AR₉₇, 15, 3, 87; 2000 AT₉₇, 9, 2, 61; 2000 AU₉₇, 9, 2, 5; 2000 AV₉₇, 15, 3, 87; 2000 AW₉₇, 10, 2, 5; 2000 AX₉₇, 11, 3, 4; 2000 AY₉₇, 10, 2, 7; 2000 AZ₉₇, 18, 4, 87; 2000 AB₉₈, 15, 3, 79; 2000 AC₉₈, 14, 3, 7; 2000 AD₉₈, 13, 3, 7; 2000 AF₉₈, 10, 2, 5; 2000 AG₉₈, 13, 3, 2; 2000 AN₉₈, 10, 2, 7; 2000 AF₉₉, 11, 2, 37; 2000 AL₉₉, 20, 4, 63; 2000 AS₉₉, 9, 2, 9; 2000 AE₁₀₀, 4, 1, 0; 2000 AH₁₀₀, 4, 1, 0; 2000 AN₁₀₀, 18, 4, 90; 2000 AP₁₀₂, 11, 3, 60; 2000 AQ₁₀₃, 17, 4, 89; 2000 AA₁₀₄, 10, 2, 1; 2000 AH₁₀₄, 5, 1, 0; 2000 AM₁₀₅, 9, 2, 1; 2000 AS₁₀₅, 10, 2, 1; 2000 AX₁₀₅, 5, 1, 0; 2000 AA₁₀₆, 4, 1, 0; 2000 AG₁₀₆, 9, 2, 1; 2000 AM₁₀₆, 14, 3, 33; 2000 AP₁₀₆, 20, 5, 535; 2000 AB₁₀₇, 20, 5, 106; 2000 AC₁₀₇, 9, 2, 1; 2000 AL₁₀₇, 7, 2, 1; 2000 AN₁₀₇, 15, 2, 1; 2000 AP₁₀₇, 20, 5, 106; 2000 AF₁₀₈, 3, 1, 0; 2000 AJ₁₀₉, 5, 1, 0; 2000 AF₁₁₀, 16, 4, 59; 2000 AS₁₁₀, 11, 3, 46; 2000 AA₁₁₁, 13, 3, 57; 2000 AG₁₁₁, 8, 2, 12; 2000 AJ₁₁₁, 18, 4, 59; 2000 AO₁₁₁, 10, 2, 1; 2000 AX₁₁₁, 5, 1, 0; 2000 AA₁₁₂, 10, 2, 1; 2000 AC₁₁₂, 13, 3, 51; 2000 AE₁₁₂, 8, 2, 1; 2000 AG₁₁₂, 8, 2, 1; 2000 AJ₁₁₂, 9, 2, 1; 2000 AL₁₁₂, 10, 2, 1; 2000 AR₁₁₂, 5, 1, 0; 2000 AT₁₁₂, 19, 4, 105; 2000 AX₁₁₂, 17, 4, 447; 2000 AZ₁₁₂, 8, 2, 1; 2000 AA₁₁₃, 5, 1, 0; 2000 AB₁₁₃, 25, 5, 106; 2000 AC₁₁₃, 11, 3, 58; 2000 AL₁₁₃, 4, 1, 0; 2000 AM₁₁₃, 10, 2, 1; 2000 AO₁₁₃, 10, 2, 1; 2000 AP₁₁₃, 10, 2, 1; 2000 AR₁₁₃, 10, 2, 1; 2000 AS₁₁₃, 9, 2, 1; 2000 AY₁₁₃, 14, 4, 56; 2000 AZ₁₁₃, 24,

2000 AK₁₂₂, 15, 3, 6; 2000 AN₁₂₂, 14, 3, 51; 2000 AO₁₂₂, 6, 2, 1; 2000 AS₁₂₂, 14, 3, 538; 2000 AT₁₂₂, 7, 2, 1; 2000 AU₁₂₂, 8, 2, 1; 2000 AE₁₂₃, 11, 3, 4; 2000 AG₁₂₃, 10, 2, 1; 2000 AO₁₂₃, 18, 4, 38; 2000 AP₁₂₃, 25, 5, 9; 2000 AQ₁₂₃, 25, 5, 9; 2000 AR₁₂₃, 17, 4, 8; 2000 AS₁₂₃, 9, 2, 2; 2000 AT₁₂₃, 20, 4, 8; 2000 AY₁₂₃, 10, 2, 2; 2000 AW₁₂₃, 19, 4, 8; 2000 AZ₁₂₃, 8, 2, 2; 2000 AQ₁₂₃, 21, 5, 63; 2000 AB₁₂₄, 8, 2, 2; 2000 AC₁₂₄, 9, 2, 2; 2000 AE₁₂₄, 50, 9, 115; 2000 AF₁₂₄, 10, 2, 2; 2000 AG₁₂₄, 13, 3, 9; 2000 AH₁₂₄, 14, 3, 4; 2000 AJ₁₂₄, 20, 3, 3; 2000 AK₁₂₄, 16, 4, 8; 2000 AL₁₂₄, 18, 4, 8; 2000 AM₁₂₄, 9, 2, 2; 2000 AN₁₂₄, 17, 4, 8; 2000 AO₁₂₄, 19, 4, 61; 2000 AU₁₂₄, 10, 2, 1; 2000 AQ₁₂₄, 5, 1, 0; 2000 AS₁₂₄, 23, 5, 63; 2000 AT₁₂₄, 16, 4, 6; 2000 AV₁₂₄, 14, 2, 1; 2000 AW₁₂₄, 39, 6, 115; 2000 AX₁₂₄, 10, 2, 2; 2000 AY₁₂₄, 13, 3, 448; 2000 AZ₁₂₄, 20, 4, 6; 2000 AB₁₂₅, 8, 2, 2; 2000 AC₁₂₅, 26, 6, 536; 2000 AE₁₂₅, 15, 3, 10; 2000 AF₁₂₅, 8, 2, 2; 2000 AJ₁₂₅, 27, 6, 116; 2000 AK₁₂₅, 43, 4, 4; 2000 AL₁₂₅, 12, 3, 6; 2000 AN₁₂₅, 10, 2, 1; 2000 AO₁₂₅, 8, 2, 2; 2000 AP₁₂₅, 14, 2, 2; 2000 AQ₁₂₅, 13, 3, 4; 2000 AR₁₂₅, 9, 2, 1; 2000 AS₁₂₅, 15, 3, 4; 2000 AU₁₂₅, 12, 3, 58; 2000 AV₁₂₅, 39, 4, 4; 2000 AX₁₂₅, 8, 2, 2; 2000 AY₁₂₅, 19, 4, 61; 2000 AZ₁₂₅, 34, 4, 4; 2000 AA₁₂₆, 24, 5, 6; 2000 AD₁₂₆, 9, 2, 2; 2000 AE₁₂₆, 9, 2, 2; 2000 AF₁₂₆, 13, 2, 3; 2000 AG₁₂₆, 8, 2, 2; 2000 AJ₁₂₆, 10, 2, 5; 2000 AL₁₂₆, 9, 2, 2; 2000 AM₁₂₆, 32, 6, 10; 2000 AN₁₂₆, 20, 2, 1; 2000 AP₁₂₆, 29, 6, 421; 2000 AQ₁₂₆, 12, 3, 80; 2000 AS₁₂₆, 36, 5, 6; 2000 AT₁₂₆, 13, 3, 81; 2000 AU₁₂₆, 40, 5, 6; 2000 AV₁₂₆, 9, 2, 2; 2000 AX₁₂₆, 36, 6, 12; 2000 AZ₁₂₆, 22, 5, 9; 2000 AA₁₂₇, 14, 3, 3; 2000 AB₁₂₇, 28, 6, 454; 2000 AC₁₂₇, 33, 6, 59; 2000 AD₁₂₇, 18, 4, 417; 2000 AE₁₂₇, 16, 4, 4; 2000 AF₁₂₇, 10, 2, 4; 2000 AJ₁₂₇, 13, 3, 62; 2000 AK₁₂₇, 23, 4, 6; 2000 AL₁₂₇, 13, 3, 8; 2000 AM₁₂₇, 9, 2, 455; 2000 AN₁₂₇, 32, 6, 9; 2000 AO₁₂₇, 16, 4, 61; 2000 AP₁₂₇, 13, 3, 9; 2000 AQ₁₂₇, 8, 2, 2; 2000 AR₁₂₇, 32, 7, 9; 2000 AS₁₂₇, 19, 4, 64; 2000 AT₁₂₇, 20, 4, 450; 2000 AU₁₂₇, 25, 5, 9; 2000 AV₁₂₇, 10, 2, 2; 2000 AX₁₂₇, 22, 5, 68; 2000 AY₁₂₇, 28, 6, 543; 2000 AZ₁₂₇, 25, 5, 9; 2000 AA₁₂₈, 20, 4, 450; 2000 AB₁₂₈, 13, 3, 8; 2000 AE₁₂₈, 19, 4, 530; 2000 AF₁₂₈, 15, 3, 9; 2000 AG₁₂₈, 13, 3, 10; 2000 AH₁₂₈, 10, 2, 2; 2000 AJ₁₂₈, 20, 5, 67; 2000 AK₁₂₈, 14, 3, 4; 2000 AM₁₂₈, 14, 3, 63; 2000 AO₁₂₈, 10, 2, 2; 2000 AP₁₂₈, 9, 2, 2; 2000 AQ₁₂₈, 9, 2, 2; 2000 AR₁₂₈, 14, 3, 414; 2000 AS₁₂₈, 15, 3, 60; 2000 AT₁₂₈, 10, 2, 2; 2000 AU₁₂₈, 5, 1, 0; 2000 AV₁₂₈, 10, 2, 2; 2000 AW₁₂₈, 23, 5, 89; 2000 AX₁₂₈, 4, 1, 0; 2000 AY₁₂₈, 18, 4, 537; 2000 AZ₁₂₈, 8, 2, 2; 2000 AA₁₂₉, 15, 3, 447; 2000 AB₁₂₉, 14, 3, 59; 2000 AC₁₂₉, 6, 2, 2; 2000 AD₁₂₉, 10, 2, 1; 2000 AE₁₂₉, 25, 4, 10; 2000 AF₁₂₉, 10, 2, 2; 2000 AG₁₂₉, 13, 3, 8; 2000 AH₁₂₉, 8, 2, 2; 2000 AJ₁₂₉, 9, 2, 2; 2000 AN₁₂₉, 20, 2, 1; 2000 AO₁₂₉, 13, 2, 3; 2000 AP₁₂₉, 10, 2, 1; 2000 AQ₁₂₉, 5, 1, 0; 2000 AR₁₂₉, 33, 6, 68; 2000 AS₁₂₉, 17, 4, 68; 2000 AV₁₂₉, 19, 4, 8; 2000 AW₁₂₉, 30, 6, 66; 2000 AX₁₂₉, 10, 2, 8; 2000 AY₁₂₉, 9, 2, 2; 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2000 AT₁₃₁, 27, 6, 454; 2000 AU₁₃₁, 15, 3, 68; 2000 AV₁₃₁, 10, 2, 7; 2000 AW₁₃₁, 14, 3, 391; 2000 AX₁₃₁, 10, 2, 5; 2000 AY₁₃₁, 10, 2, 5; 2000 AZ₁₃₁, 15, 3, 592; 2000 AA₁₃₂, 10, 2, 5; 2000 AB₁₃₂, 10, 2, 61; 2000 AC₁₃₂, 9, 2, 5; 2000 AD₁₃₂, 10, 2, 5; 2000 AE₁₃₂, 15, 3, 537; 2000 AF₁₃₂, 10, 2, 7; 2000 AG₁₃₂, 5, 1, 0; 2000 AH₁₃₂, 9, 2, 5; 2000 AI₁₃₂, 10, 2, 5; 2000 AJ₁₃₂, 10, 2, 5; 2000 AK₁₃₂, 10, 2, 5; 2000 AL₁₃₂, 9, 2, 5; 2000 AM₁₃₂, 10, 2, 5; 2000 AN₁₃₂, 10, 2, 5; 2000 AO₁₃₂, 10, 2, 5; 2000 AP₁₃₂, 10, 2, 5; 2000 AQ₁₃₂, 10, 2, 5; 2000 AR₁₃₂, 10, 2, 5; 2000 AS₁₃₂, 10, 2, 5; 2000 AT₁₃₂, 10, 2, 5; 2000 AU₁₃₂, 10, 2, 5; 2000 AV₁₃₂, 10, 2, 5; 2000 AW₁₃₂, 10, 2, 5; 2000 AX₁₃₂, 10, 2, 5; 2000 AY₁₃₂, 10, 2, 5; 2000 AZ₁₃₂, 10, 2, 5; 2000 AA₁₃₃, 10, 2, 5; 2000 AB₁₃₃, 10, 2, 5; 2000 AC₁₃₃, 10, 2, 5; 2000 AD₁₃₃, 10, 2, 5; 2000 AE₁₃₃, 10, 2, 5; 2000 AF₁₃₃, 10, 2, 5; 2000 AG₁₃₃, 10, 2, 5; 2000 AH₁₃₃, 10, 2, 5; 2000 AI₁₃₃, 10, 2, 5; 2000 AJ₁₃₃, 10, 2, 5; 2000 AK₁₃₃, 10, 2, 5; 2000 AL₁₃₃, 10, 2, 5; 2000 AM₁₃₃, 10, 2, 5; 2000 AN₁₃₃, 10, 2, 5; 2000 AO₁₃₃, 10, 2, 5; 2000 AP₁₃₃, 10, 2, 5; 2000 AQ₁₃₃, 10, 2, 5; 2000 AR₁₃₃, 10, 2, 5; 2000 AS₁₃₃, 10, 2, 5; 2000 AT₁₃₃, 10, 2, 5; 2000 AU₁₃₃, 10, 2, 5; 2000 AV₁₃₃, 10, 2, 5; 2000 AW₁₃₃, 10, 2, 5; 2000 AX₁₃₃, 10, 2, 5; 2000 AY₁₃₃, 10, 2, 5; 2000 AZ₁₃₃, 10, 2, 5; 2000 AA₁₃₄, 10, 2, 5; 2000 AB₁₃₄, 10, 2, 5; 2000 AC₁₃₄, 10, 2, 5; 2000 AD₁₃₄, 10, 2, 5; 2000 AE₁₃₄, 10, 2, 5; 2000 AF₁₃₄, 10, 2, 5; 2000 AG₁₃₄, 10, 2, 5; 2000 AH₁₃₄, 10, 2, 5; 2000 AI₁₃₄, 10, 2, 5; 2000 AJ₁₃₄, 10, 2, 5; 2000 AK₁₃₄, 10, 2, 5; 2000 AL₁₃₄, 10, 2, 5; 2000 AM₁₃₄, 10, 2, 5; 2000 AN₁₃₄, 10, 2, 5; 2000 AO₁₃₄, 10, 2, 5; 2000 AP₁₃₄, 10, 2, 5; 2000 AQ₁₃₄, 10, 2, 5; 2000 AR₁₃₄, 10, 2, 5; 2000 AS₁₃₄, 10, 2, 5; 2000 AT₁₃₄, 10, 2, 5; 2000 AU₁₃₄, 10, 2, 5; 2000 AV₁₃₄, 10, 2, 5; 2000 AW₁₃₄, 10, 2, 5; 2000 AX₁₃₄, 10, 2, 5; 2000 AY₁₃₄, 10, 2, 5; 2000 AZ₁₃₄, 10, 2, 5; 2000 AA₁₃₅, 10, 2, 5; 2000 AB₁₃₅, 10, 2, 5; 2000 AC₁₃₅, 10, 2, 5; 2000 AD₁₃₅, 10, 2, 5; 2000 AE₁₃₅, 10, 2, 5; 2000 AF₁₃₅, 10, 2, 5; 2000 AG₁₃₅, 10, 2, 5; 2000 AH₁₃₅, 10, 2, 5; 2000 AI₁₃₅, 10, 2, 5; 2000 AJ₁₃₅, 10, 2, 5; 2000 AK₁₃₅, 10, 2, 5; 2000 AL₁₃₅, 10, 2, 5; 2000 AM₁₃₅, 10, 2, 5; 2000 AN₁₃₅, 10, 2, 5; 2000 AO₁₃₅, 10, 2, 5; 2000 AP₁₃₅, 10, 2, 5; 2000 AQ₁₃₅, 10, 2, 5; 2000 AR₁₃₅, 10, 2, 5; 2000 AS₁₃₅, 10, 2, 5; 2000 AT₁₃₅, 10, 2, 5; 2000 AU₁₃₅, 10, 2, 5; 2000 AV₁₃₅, 10, 2, 5; 2000 AW₁₃₅, 10, 2, 5; 2000 AX₁₃₅, 10, 2, 5; 2000 AY₁₃₅, 10, 2, 5; 2000 AZ₁₃₅, 10, 2, 5; 2000 AA₁₃₆, 10, 2, 5; 2000 AB₁₃₆, 10, 2, 5; 2000 AC₁₃₆, 10, 2, 5; 2000 AD₁₃₆, 10, 2, 5; 2000 AE₁₃₆, 10, 2, 5; 2000 AF₁₃₆, 10, 2, 5; 2000 AG₁₃₆, 10, 2, 5; 2000 AH₁₃₆, 10, 2, 5; 2000 AI₁₃₆, 10, 2, 5; 2000 AJ₁₃₆, 10, 2, 5; 2000 AK₁₃₆, 10, 2, 5; 2000 AL₁₃₆, 10, 2, 5; 2000 AM₁₃₆, 10, 2, 5; 2000 AN₁₃₆, 10, 2, 5; 2000 AO₁₃₆, 10, 2, 5; 2000 AP₁₃₆, 10, 2, 5; 2000 AQ₁₃₆, 10, 2, 5; 2000 AR₁₃₆, 10, 2, 5; 2000 AS₁₃₆, 10, 2, 5; 2000 AT₁₃₆, 10, 2, 5; 2000 AU₁₃₆, 10, 2, 5; 2000 AV₁₃₆, 10, 2, 5; 2000 AW₁₃₆, 10, 2, 5; 2000 AX₁₃₆, 10, 2, 5; 2000 AY₁₃₆, 10, 2, 5; 2000 AZ₁₃₆, 10, 2, 5; 2000 AA₁₃₇, 10, 2, 5; 2000 AB₁₃₇, 10, 2, 5; 2000 AC₁₃₇, 10, 2, 5; 2000 AD₁₃₇, 10, 2, 5; 2000 AE₁₃₇, 10, 2, 5; 2000 AF₁₃₇, 10, 2, 5; 2000 AG₁₃₇, 10, 2, 5; 2000 AH₁₃₇, 10, 2, 5; 2000 AI₁₃₇, 10, 2, 5; 2000 AJ₁₃₇, 10, 2, 5; 2000 AK₁₃₇, 10, 2, 5; 2000 AL₁₃₇, 10, 2, 5; 2000 AM₁₃₇, 10, 2, 5; 2000 AN₁₃₇, 10, 2, 5; 2000 AO₁₃₇, 10, 2, 5; 2000 AP₁₃₇, 10, 2, 5; 2000 AQ₁₃₇, 10, 2, 5; 2000 AR₁₃₇, 10, 2, 5; 2000 AS₁₃₇, 10, 2, 5; 2000 AT₁₃₇, 10, 2, 5; 2000 AU₁₃₇, 10, 2, 5; 2000 AV₁₃₇, 10, 2, 5; 2000 AW₁₃₇, 10, 2, 5; 2000 AX₁₃₇, 10, 2, 5; 2000 AY₁₃₇, 10, 2, 5; 2000 AZ₁₃₇, 10, 2, 5; 2000 AA₁₃₈, 10, 2, 5; 2000 AB₁₃₈, 10, 2, 5; 2000 AC₁₃₈, 10, 2, 5; 2000 AD₁₃₈, 10, 2, 5; 2000 AE₁₃₈, 10, 2, 5; 2000 AF₁₃₈, 10, 2, 5; 2000 AG₁₃₈, 10, 2, 5; 2000 AH₁₃₈, 10, 2, 5; 2000 AI₁₃₈, 10, 2, 5; 2000 AJ₁₃₈, 10, 2, 5; 2000 AK₁₃₈, 10, 2, 5; 2000 AL₁₃₈, 10, 2, 5; 2000 AM₁₃₈, 10, 2, 5; 2000 AN₁₃₈, 10, 2, 5; 2000 AO₁₃₈, 10, 2, 5; 2000 AP₁₃₈, 10, 2, 5; 2000 AQ₁₃₈, 10, 2, 5; 2000 AR₁₃₈, 10, 2, 5; 2000 AS₁₃₈, 10, 2, 5; 2000 AT₁₃₈, 10, 2, 5; 2000 AU₁₃₈, 10, 2, 5; 2000 AV₁₃₈, 10, 2, 5; 2000 AW₁₃₈, 10, 2, 5; 2000 AX₁₃₈, 10, 2, 5; 2000 AY₁₃₈, 10, 2, 5; 2000 AZ₁₃₈, 10, 2, 5; 2000 AA₁₃₉, 10, 2, 5; 2000 AB₁₃₉, 10, 2, 5; 2000 AC₁₃₉, 10, 2, 5; 2000 AD₁₃₉, 10, 2, 5; 2000 AE₁₃₉, 10, 2, 5; 2000 AF₁₃₉, 10, 2, 5; 2000 AG₁₃₉, 10, 2, 5; 2000 AH₁₃₉, 10, 2, 5; 2000 AI₁₃₉, 10, 2, 5; 2000 AJ₁₃₉, 10, 2, 5; 2000 AK₁₃₉, 10, 2, 5; 2000 AL₁₃₉, 10, 2, 5; 2000 AM₁₃₉, 10, 2, 5; 2000 AN₁₃₉, 10, 2, 5; 2000 AO₁₃₉, 10, 2, 5; 2000 AP₁₃₉, 10, 2, 5; 2000 AQ₁₃₉, 10, 2, 5; 2000 AR₁₃₉, 10, 2, 5; 2000 AS₁₃₉, 10, 2, 5; 2000 AT₁₃₉, 10, 2, 5; 2000 AU₁₃₉, 10, 2, 5; 2000 AV₁₃₉, 10, 2, 5; 2000 AW₁₃₉, 10, 2, 5; 2000 AX₁₃₉, 10, 2, 5; 2000 AY₁₃₉, 10, 2, 5; 2000 AZ₁₃₉, 10, 2, 5; 2000 AA₁₄₀, 10, 2, 5; 2000 AB₁₄₀, 10, 2, 5; 2000 AC₁₄₀, 10, 2, 5; 2000 AD₁₄₀, 10, 2, 5; 2000 AE₁₄₀, 10, 2, 5; 2000 AF₁₄₀, 10, 2, 5; 2000 AG₁₄₀, 10, 2, 5; 2000 AH₁₄₀, 10, 2, 5; 2000 AI₁₄₀, 10, 2, 5; 2000 AJ₁₄₀, 10, 2, 5; 2000 AK₁₄₀, 10, 2, 5; 2000 AL₁₄₀, 10, 2, 5; 2000 AM₁₄₀, 10, 2, 5; 2000 AN₁₄₀, 10, 2, 5; 2000 AO₁₄₀, 10, 2, 5; 2000 AP₁₄₀, 10, 2, 5; 2000 AQ₁₄₀, 10, 2, 5; 2000 AR₁₄₀, 10, 2, 5; 2000 AS₁₄₀, 10, 2, 5; 2000 AT₁₄₀, 10, 2, 5; 2000 AU₁₄₀, 10, 2, 5; 2000 AV₁₄₀, 10, 2, 5; 2000 AW₁₄₀, 10, 2, 5; 2000 AX₁₄₀, 10, 2, 5; 2000 AY₁₄₀, 10, 2, 5; 2000 AZ₁₄₀, 10, 2, 5; 2000 AA₁₄₁, 10, 2, 5; 2000 AB₁₄₁, 10, 2, 5; 2000 AC₁₄₁, 10, 2, 5; 2000 AD₁₄₁, 10, 2, 5; 2000 AE₁₄₁, 10, 2, 5; 2000 AF₁₄₁, 10, 2, 5; 2000 AG₁₄₁, 10, 2, 5; 2000 AH₁₄₁, 10, 2, 5; 2000 AI₁₄₁, 10, 2, 5; 2000 AJ₁₄₁, 10, 2, 5; 2000 AK₁₄₁, 10, 2, 5; 2000 AL₁₄₁, 10, 2, 5; 2000 AM₁₄₁, 10, 2, 5; 2000 AN₁₄₁, 10, 2, 5; 2000 AO₁₄₁, 10, 2, 5; 2000 AP₁₄₁, 10, 2, 5; 2000 AQ₁₄₁, 10, 2, 5; 2000 AR₁₄₁, 10, 2, 5; 2000 AS₁₄₁, 10, 2, 5; 2000 AT₁₄₁, 10, 2, 5; 2000 AU₁₄₁, 10, 2, 5; 2000 AV₁₄₁, 10, 2, 5; 2000 AW₁₄₁, 10, 2, 5; 2000 AX₁₄₁, 10, 2, 5; 2000 AY₁₄₁, 10, 2, 5; 2000 AZ₁₄₁, 10, 2, 5; 2000 AA₁₄₂, 10, 2, 5; 2000 AB₁₄₂, 10, 2, 5; 2000 AC₁₄₂, 10, 2, 5; 2000 AD₁₄₂, 10, 2, 5; 2000 AE₁₄₂, 10, 2, 5; 2000 AF₁₄₂, 10, 2, 5; 2000 AG₁₄₂, 10, 2, 5; 2000 AH₁₄₂, 10, 2, 5; 2000 AI₁₄₂, 10, 2, 5; 2000 AJ₁₄₂, 10, 2, 5; 2000 AK₁₄₂, 10, 2, 5; 2000 AL₁₄₂, 10, 2, 5; 2000 AM₁₄₂, 10, 2, 5; 2000 AN₁₄₂, 10, 2, 5; 2000 AO₁₄₂, 10, 2, 5; 2000 AP₁₄₂, 10, 2, 5; 2000 AQ₁₄₂, 10, 2, 5; 2000 AR₁₄₂, 10, 2, 5; 2000 AS₁₄₂, 10, 2, 5; 2000 AT₁₄₂, 10, 2, 5; 2000 AU₁₄₂, 10, 2, 5; 2000 AV₁₄₂, 10, 2, 5; 2000 AW₁₄₂, 10, 2, 5; 2000 AX₁₄₂, 10, 2, 5; 2000 AY₁₄₂, 10, 2, 5; 2000 AZ₁₄₂, 10, 2, 5; 2000 AA₁₄₃, 10, 2, 5; 2000 AB₁₄₃, 10, 2, 5; 2000 AC₁₄₃, 10, 2, 5; 2000 AD₁₄₃, 10, 2, 5; 2000 AE₁₄₃, 10, 2, 5; 2000 AF₁₄₃, 10, 2, 5; 2000 AG₁₄₃, 10, 2, 5; 2000 AH₁₄₃, 10, 2, 5; 2000 AI₁₄₃, 10, 2, 5; 2000 AJ₁₄₃, 10, 2, 5; 2000 AK₁₄₃, 10, 2, 5; 2000 AL₁₄₃, 10, 2, 5; 2000 AM₁₄₃, 10, 2, 5; 2000 AN₁₄₃, 10, 2, 5; 2000 AO₁₄

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2000 AR₂₀₅ *, 10, 2, 1; 2000 AS₂₀₅ *, 8, 2, 12; 2000 AT₂₀₅ *, 4, 1, 0; 2000 AU₂₀₅ *, 10, 3, 31; 2000 AV₂₀₅ *, 20, 5, 39; 2000 AG₂₀₆ *, 7, 2, 1; 2000 AE₂₀₇ *, 10, 2, 1; 2000 AF₂₀₇ *, 14, 3, 4; 2000 AH₂₀₇ *, 8, 2, 3; 2000 AK₂₀₇ *, 13, 3, 11; 2000 AL₂₀₇ *, 9, 2, 8; 2000 AM₂₀₇ *, 10, 2, 2; 2000 AC₂₀₉ *, 8, 2, 4; 2000 AD₂₀₉ *, 62, 8, 66; 2000 AE₂₀₉ *, 18, 4, 11; 2000 AM₂₁₁ *, 11, 3, 3; 2000 AW₂₁₁ *, 18, 4, 35; 2000 AB₂₁₂ *, 10, 2, 7; 2000 AC₂₁₂ *, 7, 2, 7; 2000 AD₂₁₂ *, 10, 2, 7; 2000 AM₂₁₂ *, 6, 2, 7; 2000 AC₂₁₄ *, 3, 1, 0; 2000 AF₂₁₄ *, 4, 1, 0; 2000 AG₂₁₄ *, 15, 4, 8; 2000 AH₂₁₄ *, 11, 3, 28; 2000 AK₂₁₄ *, 10, 2, 1; 2000 AL₂₁₄ *, 4, 1, 0; 2000 AO₂₁₄ *, 8, 2, 2; 2000 AJ₂₁₅ *, 8, 2, 1; 2000 AK₂₁₅ *, 17, 4, 36; 2000 AW₂₁₅ *, 10, 2, 2; 2000 AA₂₁₆ *, 11, 3, 5; 2000 AB₂₁₆ *, 7, 2, 7; 2000 AC₂₁₆ *, 12, 3, 30; 2000 AJ₂₁₇ *, 4, 1, 0; 2000 AC₂₁₈ *, 3, 1, 0; 2000 AJ₂₁₈ *, 9, 3, 28; 2000 AQ₂₁₉ *, 3, 1, 0; 2000 AF₂₂₂ *, 29, 6, 9; 2000 AG₂₂₅ *, 4, 1, 0; 2000 AU₂₂₅ *, 3, 1, 0; 2000 AU₂₂₆ *, 8, 2, 1; 2000 AW₂₂₆ *, 8, 2, 1; 2000 AA₂₂₇ *, 9, 2, 2; 2000 AF₂₂₇ *, 10, 2, 2; 2000 AG₂₂₇ *, 8, 2, 2; 2000 AK₂₂₇ *, 24, 5, 10; 2000 AS₂₂₇ *, 8, 2, 4; 2000 AL₂₂₈ *, 5, 1, 0; 2000 AN₂₂₈ *, 13, 2, 3; 2000 AA₂₂₉ *, 19, 4, 65; 2000 AB₂₂₉ *, 10, 2, 6; 2000 AC₂₂₉ *, 5, 1, 0; 2000 AE₂₂₉ *, 4, 1, 0; 2000 AF₂₂₉ *, 19, 4, 31; 2000 AG₂₂₉ *, 4, 1, 0; 2000 AH₂₂₉ *, 4, 1, 0; 2000 AJ₂₂₉ *, 4, 1, 0; 2000 AK₂₂₉ *, 4, 1, 0; 2000 AL₂₂₉ *, 5, 1, 0; 2000 AM₂₂₉ *, 3, 1, 0; 2000 AN₂₂₉ *, 4, 1, 0; 2000 AO₂₂₉ *, 17, 4, 38; 2000 AP₂₂₉ *, 4, 1, 0; 2000 AQ₂₂₉ *, 4, 1, 0; 2000 AR₂₂₉ *, 4, 1, 0; 2000 AS₂₂₉ *, 3, 1, 0; 2000 AT₂₂₉ *, 3, 1, 0; 2000 AU₂₂₉ *, 23, 5, 87; 2000 AV₂₂₉ *, 5, 1, 0; 2000 AW₂₂₉ *, 5, 1, 0; 2000 AX₂₂₉ *, 4, 1, 0; 2000 AY₂₂₉ *, 4, 1, 0; 2000 AZ₂₂₉ *, 4, 1, 0; 2000 AA₂₃₀ *, 4, 1, 0; 2000 AB₂₃₀ *, 16, 4, 39; 2000 AC₂₃₀ *, 3, 1, 0; 2000 AD₂₃₀ *, 5, 1, 0; 2000 AE₂₃₀ *, 5, 1, 0; 2000 AF₂₃₀ *, 5, 1, 0; 2000 AG₂₃₀ *, 5, 1, 0; 2000 AH₂₃₀ *, 5, 1, 0; 2000 AJ₂₃₀ *, 10, 2, 26; 2000 AK₂₃₀ *, 10, 2, 26; 2000 AL₂₃₀ *, 5, 1, 0; 2000 AM₂₃₀ *, 14, 3, 50; 2000 AN₂₃₀ *, 4, 1, 0; 2000 AO₂₃₀ *, 5, 1, 0; 2000 AP₂₃₀ *, 39, 7, 39; 2000 AQ₂₃₀ *, 4, 1, 0; 2000 AR₂₃₀ *, 3, 1, 0; 2000 AS₂₃₀ *, 13, 3, 29; 2000 AT₂₃₀ *, 17, 4, 36; 2000 AV₂₃₀ *, 3, 1, 0; 2000 AX₂₃₀ *, 5, 1, 0; 2000 AY₂₃₀ *, 24, 5, 89; 2000 AZ₂₃₀ *, 5, 1, 0; 2000 AA₂₃₁ *, 5, 1, 0; 2000 AB₂₃₁ *, 4, 1, 0; 2000 AC₂₃₁ *, 25, 5, 536; 2000 AD₂₃₁ *, 24, 5, 36; 2000 AE₂₃₁ *, 5, 1, 0; 2000 AF₂₃₁ *, 5, 1, 0; 2000 AG₂₃₁ *, 4, 1, 0; 2000 AH₂₃₁ *, 5, 1, 0; 2000 AJ₂₃₁ *, 5, 1, 0; 2000 AK₂₃₁ *, 3, 1, 0; 2000 AL₂₃₁ *, 5, 1, 0; 2000 AM₂₃₁ *, 4, 1, 0; 2000 AN₂₃₁ *, 3, 1, 0; 2000 AO₂₃₁ *, 3, 1, 0; 2000 AP₂₃₁ *, 4, 1, 0; 2000 AR₂₃₁ *, 4, 1, 0; 2000 AS₂₃₁ *, 5, 1, 0; 2000 AT₂₃₁ *, 10, 3, 27; 2000 AU₂₃₁ *, 3, 1, 0; 2000 AV₂₃₁ *, 13, 3, 30; 2000 AW₂₃₁ *, 5, 1, 0; 2000 AX₂₃₁ *, 7, 2, 26; 2000 AY₂₃₁ *, 5, 1, 0; 2000 AZ₂₃₁ *, 5, 1, 0; 2000 AA₂₃₂ *, 21, 5, 38; 2000 AB₂₃₂ *, 3, 1, 0; 2000 AC₂₃₂ *, 3, 1, 0; 2000 AD₂₃₂ *, 4, 1, 0; 2000 AE₂₃₂ *, 3, 1, 0; 2000 AF₂₃₂ *, 3, 1, 0; 2000 AG₂₃₂ *, 3, 1, 0; 2000 AH₂₃₂ *, 3, 1, 0; 2000 AJ₂₃₂ *, 4, 1, 0; 2000 AK₂₃₂ *, 3, 1, 0; 2000 AL₂₃₂ *, 3, 1, 0; 2000 AM₂₃₂ *, 3, 1, 0; 2000 AN₂₃₂ *, 13, 3, 30; 2000 AO₂₃₂ *, 3, 1, 0; 2000 AP₂₃₂ *, 18, 4, 38; 2000 AQ₂₃₂ *, 23, 5, 87; 2000 AR₂₃₂ *, 5, 1, 0; 2000 AS₂₃₂ *, 5, 1, 0; 2000 AT₂₃₂ *, 5, 1, 0; 2000 AU₂₃₂ *, 3, 1, 0; 2000 AV₂₃₂ *, 5, 1, 0; 2000 AW₂₃₂ *, 5, 1, 0; 2000 AX₂₃₂ *, 5, 1, 0; 2000 AY₂₃₂ *, 5, 1, 0; 2000 AZ₂₃₂ *, 5, 1, 0; 2000 AA₂₃₃ *, 5, 1, 0; 2000 AB₂₃₃ *, 5, 1, 0; 2000 AC₂₃₃ *, 23, 5, 38; 2000 AD₂₃₃ *, 19, 4, 38; 2000 AE₂₃₃ *, 19, 4, 38; 2000 AF₂₃₃ *, 4, 1, 0; 2000 AG₂₃₃ *, 3, 1, 0; 2000 AH₂₃₃ *, 22, 5, 31; 2000 AJ₂₃₃ *, 4, 1, 0; 2000 AK₂₃₃ *, 13, 3, 38; 2000 AL₂₃₃ *, 16, 4, 35; 2000 AM₂₃₃ *, 3, 1, 0; 2000 AN₂₃₃ *, 13, 3, 38; 2000 AO₂₃₃ *, 12, 3, 38; 2000 AP₂₃₃ *, 16, 4, 511; 2000 AQ₂₃₃ *, 5, 1, 0; 2000 AR₂₃₃ *, 8, 2, 30; 2000 AS₂₃₃ *, 5, 1, 0; 2000 AT₂₃₃ *, 5, 1, 0; 2000 AU₂₃₃ *, 5, 1, 0; 2000 AV₂₃₃ *, 5, 1, 0; 2000 AW₂₃₃ *, 3, 1, 0; 2000 AX₂₃₃ *, 4, 1, 0; 2000 AY₂₃₃ *, 3, 1, 0; 2000 AZ₂₃₃ *, 4, 1, 0; 2000 AB₂₃₄ *, 5, 1, 0; 2000 AC₂₃₄ *, 4, 1, 0; 2000 AE₂₃₄ *, 5, 1, 0; 2000 AF₂₃₄ *, 3, 1, 0; 2000 AG₂₃₄ *, 5, 1, 0; 2000 AH₂₃₄ *, 4, 1, 0; 2000 AJ₂₃₄ *, 5, 1, 0; 2000 AK₂₃₄ *, 5, 1, 0; 2000 AL₂₃₄ *, 5, 1, 0; 2000 AM₂₃₄ *, 7, 2, 4; 2000 AN₂₃₄ *, 4, 1, 0; 2000 AO₂₃₄ *, 4, 1, 0; 2000 AP₂₃₄ *, 4, 1, 0; 2000 AQ₂₃₄ *, 4, 1, 0; 2000 AR₂₃₄ *, 4, 1, 0; 2000 AS₂₃₄ *, 4, 1, 0; 2000 AT₂₃₄ *, 3, 1, 0; 2000 AU₂₃₄ *, 13, 3, 29; 2000 AV₂₃₄ *, 15, 3, 29; 2000 AW₂₃₄ *, 14, 3, 29; 2000 AX₂₃₄ *, 3, 1, 0; 2000 AY₂₃₄ *, 14, 3, 29; 2000 AZ₂₃₄ *, 19, 5, 449; 2000 AA₂₃₅ *, 4, 1, 0; 2000 AB₂₃₅ *, 9, 2, 28; 2000 AC₂₃₅ *, 5, 1, 0; 2000 AD₂₃₅ *, 5, 1, 0; 2000 AE₂₃₅ *, 4, 1, 0; 2000 AF₂₃₅ *, 4, 1, 0; 2000 AG₂₃₅ *, 4, 1, 0; 2000 AH₂₃₅ *, 3, 1, 0; 2000 AJ₂₃₅ *, 4, 1, 0; 2000 AK₂₃₅ *, 4, 1, 0; 2000 AL₂₃₅ *, 3, 1, 0; 2000 AM₂₃₅ *, 5, 1, 0; 2000 AN₂₃₅ *, 13, 3, 29; 2000 AO₂₃₅ *, 3, 1, 0; 2000 AP₂₃₅ *, 3, 1, 0; 2000 AQ₂₃₅ *, 6, 1, 0; 2000 AR₂₃₅ *, 3, 1, 0; 2000 AS₂₃₅ *, 3, 1, 0; 2000 AT₂₃₅ *, 3, 1, 0; 2000 AU₂₃₅ *, 3, 1, 0; 2000 AV₂₃₅ *, 12, 3, 29; 2000 AW₂₃₅ *, 3, 1, 0; 2000 AX₂₃₅ *, 17, 4, 36; 2000 AY₂₃₅ *, 4, 1, 0; 2000 AZ₂₃₅ *, 4, 1, 0; 2000 AB₂₃₆ *, 4, 1, 0; 2000 AC₂₃₆ *, 13, 3, 28; 2000 AD₂₃₆ *, 5, 1, 0; 2000 AG₂₃₆ *, 11, 3, 33; 2000 AH₂₃₆ *, 4, 1, 0; 2000 AJ₂₃₆ *, 5, 1, 0; 2000 AK₂₃₆ *, 4, 1, 0; 2000 AL₂₃₆ *, 8, 2, 1; 2000 AN₂₃₆ *, 5, 1, 0; 2000 AO₂₃₆ *, 4, 1, 0; 2000 AP₂₃₆ *, 9, 2, 34; 2000 AQ₂₃₆ *, 17, 4, 37; 2000 AR₂₃₆ *, 3, 1, 0; 2000 AS₂₃₆ *, 4, 1, 0; 2000 AT₂₃₆ *, 19, 4, 34; 2000 AU₂₃₆ *, 20, 5, 39; 2000 AV₂₃₆ *, 12, 3, 32; 2000 AY₂₃₆ *, 18, 4, 34; 2000 AZ₂₃₆ *, 17, 4, 37; 2000 AA₂₃₇ *, 19, 4, 34; 2000 AB₂₃₇ *, 15, 4, 34; 2000 AC₂₃₇ *, 22, 5, 33; 2000 AD₂₃₇ *, 4, 1, 0; 2000 AE₂₃₇ *, 19, 4, 34; 2000 AF₂₃₇ *, 23, 5, 54; 2000 AG₂₃₇ *, 18, 4, 34; 2000 AH₂₃₇ *, 19, 4, 34; 2000 AJ₂₃₇ *, 18, 4, 34; 2000 AK₂₃₇ *, 19, 4, 34; 2000 AL₂₃₇ *, 27, 6, 59; 2000 AM₂₃₇ *, 14, 3, 34; 2000 AN₂₃₇ *, 15, 3, 68; 2000 AO₂₃₇ *, 42, 8, 454; 2000 AP₂₃₇ *, 5, 1, 0; 2000 AQ₂₃₇ *, 4, 1, 0; 2000 AR₂₃₇ *, 29, 6, 528; 2000 AS₂₃₇ *, 4, 1, 0; 2000 AT₂₃₇ *, 4, 1, 0; 2000 AU₂₃₇ *, 12, 3, 34; 2000 AV₂₃₇ *, 3, 1, 0; 2000 AW₂₃₇ *, 17, 4, 30; 2000 AX₂₃₇ *, 8, 2, 3; 2000 AY₂₃₇ *, 5, 1, 0; 2000 AZ₂₃₇ *, 4, 1, 0; 2000 AA₂₃₈ *, 5, 1, 0; 2000 AB₂₃₈ *, 5, 1, 0; 2000 AC₂₃₈ *, 5, 1, 0; 2000 AD₂₃₈ *, 3, 1, 0; 2000 AE₂₃₈ *, 5, 1, 0; 2000 AF₂₃₈ *, 4, 1, 0; 2000 AG₂₃₈ *, 5, 1, 0; 2000 AH₂₃₈ *, 17, 4, 67; 2000 AJ₂₃₈ *, 4, 1, 0; 2000 AM₂₃₈ *, 3, 1, 0; 2000 AN₂₃₈ *, 3, 1, 0; 2000 AO₂₃₈ *, 4, 1, 0; 2000 AP₂₃₈ *, 8, 2, 3; 2000 AQ₂₃₈ *, 18, 4, 58; 2000 AR₂₃₈ *, 14, 3, 28; 2000 AS₂₃₈ *, 3, 1, 0; 2000 AT₂₃₈ *, 13, 3, 87; 2000 AU₂₃₈ *, 28, 6, 36; 2000 AV₂₃₈ *, 3, 1,

0; 2000 AW₂₃₈ *, 3, 1, 0; 2000 AX₂₃₈ *, 3, 1, 0; 2000 AY₂₃₈ *, 8, 2, 28; 2000 AZ₂₃₈ *, 15, 4, 36; 2000 AA₂₃₉ *, 3, 1, 0; 2000 AB₂₃₉ *, 3, 1, 0; 2000 AC₂₃₉ *, 3, 1, 0; 2000 AD₂₃₉ *, 3, 1, 0; 2000 AE₂₃₉ *, 12, 3, 28; 2000 AF₂₃₉ *, 3, 1, 0; 2000 AG₂₃₉ *, 6, 2, 25; 2000 AH₂₃₉ *, 3, 1, 0; 2000 AJ₂₃₉ *, 3, 1, 0; 2000 AK₂₃₉ *, 13, 4, 24; 2000 AL₂₃₉ *, 5, 1, 0; 2000 AM₂₃₉ *, 5, 1, 0; 2000 AN₂₃₉ *, 3, 1, 0; 2000 AO₂₃₉ *, 16, 4, 61; 2000 AP₂₃₉ *, 3, 1, 0; 2000 AQ₂₃₉ *, 3, 1, 0; 2000 AR₂₃₉ *, 3, 1, 0; 2000 AS₂₃₉ *, 3, 1, 0; 2000 AU₂₃₉ *, 20, 5, 30; 2000 AV₂₃₉ *, 20, 4, 63; 2000 AW₂₃₉ *, 5, 1, 0; 2000 AX₂₃₉ *, 3, 1, 0; 2000 AY₂₃₉ *, 12, 3, 27; 2000 AZ₂₃₉ *, 5, 1, 0; 2000 AA₂₄₀ *, 13, 3, 34; 2000 AB₂₄₀ *, 14, 3, 34; 2000 AC₂₄₀ *, 12, 3, 28; 2000 AD₂₄₀ *, 14, 3, 31; 2000 AE₂₄₀ *, 5, 1, 0; 2000 AF₂₄₀ *, 9, 2, 4; 2000 AG₂₄₀ *, 9, 2, 4; 2000 AH₂₄₀ *, 8, 2, 4; 2000 AJ₂₄₀ *, 9, 2, 4; 2000 AK₂₄₀ *, 20, 5, 67; 2000 AL₂₄₀ *, 9, 2, 4; 2000 AM₂₄₀ *, 8, 2, 4; 2000 AN₂₄₀ *, 9, 2, 4; 2000 AO₂₄₀ *, 5, 1, 0; 2000 AP₂₄₀ *, 7, 2, 4; 2000 AQ₂₄₀ *, 5, 1, 0; 2000 AR₂₄₀ *, 9, 2, 4; 2000 AS₂₄₀ *, 5, 1, 0; 2000 AT₂₄₀ *, 10, 2, 4; 2000 AU₂₄₀ *, 5, 1, 0; 2000 AV₂₄₀ *, 5, 1, 0; 2000 AW₂₄₀ *, 4, 1, 0; 2000 AX₂₄₀ *, 5, 1, 0; 2000 AY₂₄₀ *, 7, 2, 4; 2000 AZ₂₄₀ *, 5, 1, 0; 2000 AA₂₄₁ *, 8, 2, 4; 2000 AB₂₄₁ *, 4, 1, 0; 2000 AC₂₄₁ *, 5, 1, 0; 2000 AD₂₄₁ *, 3, 1, 0; 2000 AE₂₄₁ *, 10, 2, 4; 2000 AF₂₄₁ *, 10, 2, 4; 2000 AG₂₄₁ *, 10, 2, 4; 2000 AH₂₄₁ *, 10, 2, 4; 2000 AJ₂₄₁ *, 15, 3, 28; 2000 AK₂₄₁ *, 8, 2, 4; 2000 AL₂₄₁ *, 8, 2, 4; 2000 AM₂₄₁ *, 7, 2, 4; 2000 AN₂₄₁ *, 7, 2, 4; 2000 AO₂₄₁ *, 7, 2, 4; 2000 AP₂₄₁ *, 8, 2, 4; 2000 AQ₂₄₁ *, 8, 2, 4; 2000 AR₂₄₁ *, 7, 2, 4; 2000 AS₂₄₁ *, 4, 1, 0; 2000 AT₂₄₁ *, 18, 4, 57; 2000 AU₂₄₁ *, 3, 1, 0; 2000 AV₂₄₁ *, 5, 1, 0; 2000 AW₂₄₁ *, 10, 2, 26; 2000 AX₂₄₁ *, 14, 3, 31; 2000 AY₂₄₁ *, 10, 2, 28; 2000 AZ₂₄₁ *, 5, 1, 0; 2000 AA₂₄₂ *, 15, 3, 28; 2000 AB₂₄₂ *, 13, 3, 54; 2000 AC₂₄₂ *, 5, 1, 0; 2000 AD₂₄₂ *, 5, 1, 0; 2000 AE₂₄₂ *, 15, 3, 54; 2000 AF₂₄₂ *, 5, 1, 0; 2000 AG₂₄₂ *, 4, 1, 0; 2000 AH₂₄₂ *, 5, 1, 0; 2000 AJ₂₄₂ *, 5, 1, 0; 2000 AK₂₄₂ *, 3, 1, 0; 2000 AL₂₄₂ *, 3, 1, 0; 2000 AM₂₄₂ *, 3, 1, 0; 2000 AN₂₄₂ *, 21, 5, 429; 2000 AO₂₄₂ *, 17, 3, 29; 2000 AP₂₄₂ *, 5, 1, 0; 2000 AQ₂₄₂ *, 24, 5, 595; 2000 AR₂₄₂ *, 20, 4, 87; 2000 AS₂₄₂ *, 10, 2, 35; 2000 AT₂₄₂ *, 3, 1, 0; 2000 AU₂₄₂ *, 2, 28; 2000 AV₂₄₂ *, 3, 1, 0; 2000 AW₂₄₂ *, 8, 2, 29; 2000 AX₂₄₂ *, 4, 1, 0; 2000 AY₂₄₂ *, 5, 1, 0; 2000 AZ₂₄₂ *, 5, 1, 0; 2000 AA₂₄₃ *, 10, 1, 0; 2000 AB₂₄₃ *, 4, 1, 0; 2000 AC₂₄₃ *, 5, 1, 0; 2000 AD₂₄₃ *, 15, 3, 56; 2000 AE₂₄₃ *, 23, 4, 59; 2000 AF₂₄₃ *, 5, 1, 0; 2000 AG₂₄₃ *, 50, 9, 34; 2000 AH₂₄₃ *, 5, 1, 0; 2000 AJ₂₄₃ *, 8, 2, 31; 2000 AK₂₄₃ *, 14, 3, 56; 2000 AL₂₄₃ *, 14, 3, 54; 2000 AM₂₄₃ *, 5, 1, 0; 2000 AN₂₄₃ *, 4, 1, 0; 2000 AO₂₄₃ *, 14, 3, 35; 2000 AP₂₄₃ *, 4, 1, 0; 2000 AQ₂₄₃ *, 4, 1, 0; 2000 AR₂₄₃ *, 4, 1, 0; 2000 AS₂₄₃ *, 15, 3, 35; 2000 AT₂₄₃ *, 4, 1, 0; 2000 AU₂₄₃ *, 9, 2, 30; 2000 AV₂₄₃ *, 23, 5, 834; 2000 AW₂₄₃ *, 8, 2, 28; 2000 AX₂₄₃ *, 5, 1, 0; 2000 AY₂₄₃ *, 9, 2, 35; 2000 AZ₂₄₃ *, 18, 4, 68; 2000 AA₂₄₄ *, 9, 2, 34; 2000 AB₂₄₄ *, 14, 2, 2; 2000 AC₂₄₄ *, 5, 1, 0; 2000 AD₂₄₄ *, 5, 1, 0; 2000 AE₂₄₄ *, 9, 2, 3; 2000 AF₂₄₄ *, 10, 2, 3; 2000 AG₂₄₄ *, 5, 1, 0; 2000 AH₂₄₄ *, 9, 2, 3; 2000 AJ₂₄₄ *, 5, 1, 0; 2000 AK₂₄₄ *, 4, 1, 0; 2000 AM₂₄₄ *, 8, 2, 3; 2000 AN₂₄₄ *, 10, 2, 4; 2000 AO₂₄₄ *, 13, 3, 25; 2000 AP₂₄₄ *, 10, 2, 3; 2000 AQ₂₄₄ *, 7, 2, 3; 2000 AR₂₄₄ *, 9, 2, 3; 2000 AS₂₄₄ *, 10, 2, 3; 2000 AT₂₄₄ *, 23, 5, 34; 2000 AU₂₄₄ *, 13, 4, 26; 2000 AV₂₄₄ *, 8, 2, 3; 2000 AW₂₄₄ *, 9, 2, 3; 2000 AX₂₄₄ *, 25, 5, 54; 2000 AY₂₄₄ *, 5, 1, 0; 2000 AA₂₄₅ *, 13, 3, 34; 2000 AB₂₄₅ *, 5, 1, 0; 2000 AC₂₄₅ *, 5, 1, 0; 2000 AD₂₄₅ *, 4, 1, 0; 2000 AE₂₄₅ *, 4, 1, 0; 2000 AF₂₄₅ *, 4, 1, 0; 2000 AG₂₄₅ *, 5, 1, 0; 2000 AH₂₄₅ *, 4, 1, 0; 2000 AJ₂₄₅ *, 5, 1, 0; 2000 AK₂₄₅ *, 20, 4, 63; 2000 AL₂₄₅ *, 4, 1, 0; 2000 AM₂₄₅ *, 4, 1, 0; 2000 AN₂₄₅ *, 10, 2, 1; 2000 AO₂₄₅ *, 23, 5, 56; 2000 AP₂₄₅ *, 10, 2, 1; 2000 AQ₂₄₅ *, 9, 2, 1; 2000 AR₂₄₅ *, 13, 3, 18; 2000 AS₂₄₆ *, 6, 2, 2; 2000 BA₈ *, 2, 1; 2000 BB₆ *, 2, 26; 2000 BC₁₃ *, 3, 38; 2000 BD₉ *, 3, 66; 2000 BE₅ *, 1, 0; 2000 BF₂₆ *, 6, 39; 2000 BH₉ *, 2, 27; 2000 BJ₁₃ *, 3, 6; 2000 BK₁₈ *, 4, 43; 2000 BL₈ *, 2, 1; 2000 BN₁₁ *, 3, 30; 2000 BO₁₄ *, 3, 35; 2000 BP₅ *, 1, 0; 2000 BR₄ *, 1, 0; 2000 BT₉ *, 2, 1; 2000 BU₂₅ *, 6, 35; 2000 BV₂₉ *, 29, 7, 42; 2000 BW₂₄ *, 24, 5, 60; 2000 BX₈ *, 8, 2, 1; 2000 BY₉ *, 9, 2, 1; 2000 BZ₇ *, 7, 2, 1; 2000 BA₁ *, 7, 2, 1; 2000 BB₁ *, 8, 2, 1; 2000 BC₁ *, 6, 2, 1; 2000 BD₁ *, 28, 6, 43; 2000 BE₁ *, 8, 2, 1; 2000 BF₁ *, 15, 3, 9; 2000 BK₁ *, 6, 2, 3; 2000 BO₁ *, 4, 1, 0; 2000 BR₁ *, 4, 1, 0; 2000 BC₂ *, 6, 2,

8, 2, 1; 2000 BF₆ *, 23, 6, 6; 2000 BG₆ *, 6, 2, 1; 2000 BH₆ *, 8, 2, 1; 2000 BJ₆ *, 10, 2, 1; 2000 BK₆ *, 36, 8, 52; 2000 BL₆ *, 9, 2, 1; 2000 BM₆ *, 9, 2, 1; 2000 BN₆ *, 25, 6, 13; 2000 BO₆ *, 38, 7, 37; 2000 BP₆ *, 30, 6, 7; 2000 BQ₆ *, 16, 4, 5; 2000 BR₆ *, 6, 2, 5; 2000 BS₆ *, 9, 3, 6; 2000 BT₆ *, 21, 5, 8; 2000 BU₆ *, 7, 2, 3; 2000 BV₆ *, 6, 2, 1; 2000 BW₆ *, 13, 3, 6; 2000 BX₆ *, 18, 4, 6; 2000 BY₆ *, 18, 4, 6; 2000 BZ₆ *, 24, 4, 6; 2000 BA₇ *, 8, 2, 3; 2000 BB₇ *, 11, 3, 6; 2000 BC₇ *, 10, 2, 1; 2000 BD₇ *, 9, 2, 1; 2000 BE₇ *, 8, 2, 1; 2000 BF₇ *, 10, 2, 1; 2000 BG₇ *, 10, 2, 1; 2000 BH₇ *, 10, 2, 1; 2000 BJ₇ *, 13, 3, 13; 2000 BK₇ *, 6, 2, 1; 2000 BL₇ *, 11, 3, 8; 2000 BM₇ *, 19, 4, 13; 2000 BN₇ *, 10, 2, 1; 2000 BO₇ *, 15, 2, 1; 2000 BP₇ *, 7, 2, 1; 2000 BQ₇ *, 8, 2, 1; 2000 BR₇ *, 7, 2, 1; 2000 BS₇ *, 7, 2, 1; 2000 BT₇ *, 9, 2, 1; 2000 BU₇ *, 7, 2, 1; 2000 BV₇ *, 9, 2, 1; 2000 BW₇ *, 8, 2, 1; 2000 BX₇ *, 8, 2, 1; 2000 BY₇ *, 16, 4, 46; 2000 BZ₇ *, 7, 2, 1; 2000 BA₈ *, 9, 2, 1; 2000 BB₈ *, 7, 2, 1; 2000 BC₈ *, 7, 2, 1; 2000 BD₈ *, 10, 2, 1; 2000 BE₈ *, 8, 2, 1; 2000 BF₈ *, 8, 2, 1; 2000 BG₈ *, 9, 2, 1; 2000 BH₈ *, 7, 2, 1; 2000 BJ₈ *, 19, 5, 13; 2000 BK₈ *, 15, 4, 13; 2000 BL₈ *, 9, 2, 1; 2000 BM₈ *, 54, 11, 57; 2000 BN₈ *, 6, 2, 1; 2000 BO₈ *, 7, 2, 1; 2000 BP₈ *, 7, 2, 1; 2000 BQ₈ *, 9, 2, 1; 2000 BR₈ *, 12, 3, 2; 2000 BS₈ *, 18, 4, 4; 2000 BT₈ *, 12, 3, 2; 2000 BU₈ *, 13, 3, 2; 2000 BV₈ *, 14, 4, 4; 2000 BW₈ *, 21, 5, 5; 2000 BX₈ *, 39, 7, 57; 2000 BY₈ *, 18, 3, 4; 2000 BZ₈ *, 13, 3, 4; 2000 BA₉ *, 10, 3, 2; 2000 BF₉ *, 9, 2, 1; 2000 BG₉ *, 12, 3, 11; 2000 BS₉ *, 15, 3, 5; 2000 BU₉ *, 21, 4, 8; 2000 BV₉ *, 4, 1, 0; 2000 BY₉ *, 4, 1, 0; 2000 BD₁₀ *, 8, 2, 8; 2000 BF₁₀ *, 10, 2, 8; 2000 BG₁₀ *, 3, 1, 0; 2000 BK₁₀ *, 4, 1, 0; 2000 BQ₁₀ *, 3, 1, 0; 2000 BR₁₀ *, 15, 3, 8; 2000 BS₁₀ *, 13, 3, 8; 2000 BV₁₀ *, 8, 2, 3; 2000 BX₁₀ *, 19, 4, 4; 2000 BY₁₀ *, 24, 5, 63; 2000 BZ₁₀ *, 4, 1, 0; 2000 BB₁₁ *, 10, 2, 28; 2000 BG₁₁ *, 8, 2, 2; 2000 BR₁₁ *, 7, 2, 30; 2000 BY₁₁ *, 4, 1, 0; 2000 BG₁₂ *, 8, 2, 8; 2000 BJ₁₂ *, 6, 2, 8; 2000 BL₁₂ *, 4, 1, 0; 2000 BP₁₂ *, 8, 2, 8; 2000 BU₁₂ *, 9, 2, 8; 2000 BZ₁₂ *, 5, 1, 0; 2000 BB₁₃ *, 4, 1, 0; 2000 BE₁₃ *, 10, 2, 8; 2000 BF₁₃ *, 4, 1, 0; 2000 BG₁₃ *, 3, 1, 0; 2000 BH₁₃ *, 12, 3, 11; 2000 BJ₁₃ *, 4, 1, 0; 2000 BO₁₃ *, 13, 3, 8; 2000 BT₁₃ *, 13, 3, 8; 2000 BW₁₃ *, 14, 3, 36; 2000 BY₁₃ *, 12, 3, 12; 2000 BZ₁₃ *, 19, 4, 66; 2000 BA₁₄ *, 10, 2, 8; 2000 BB₁₄ *, 9, 2, 8; 2000 BC₁₄ *, 10, 2, 8; 2000 BD₁₄ *, 10, 2, 8; 2000 BE₁₄ *, 10, 2, 8; 2000 BF₁₄ *, 8, 2, 8; 2000 BH₁₄ *, 5, 1, 0; 2000 BJ₁₄ *, 23, 5, 420; 2000 BK₁₄ *, 4, 1, 0; 2000 BM₁₄ *, 9, 2, 7; 2000 BN₁₄ *, 10, 2, 8; 2000 BO₁₄ *, 4, 1, 0; 2000 BT₁₄ *, 10, 2, 8; 2000 BY₁₄ *, 4, 1, 0; 2000 BG₁₅ *, 9, 2, 19; 2000 BL₁₅ *, 4, 1, 0; 2000 BN₁₅ *, 11, 3, 6; 2000 BO₁₅ *, 12, 3, 6; 2000 BP₁₅ *, 7, 2, 2; 2000 BQ₁₅ *, 9, 2, 2; 2000 BR₁₅ *, 8, 2, 2; 2000 BS₁₅ *, 10, 2, 2; 2000 BT₁₅ *, 12, 3, 4; 2000 BU₁₅ *, 17, 4, 13; 2000 BV₁₅ *, 8, 2, 2; 2000 BW₁₅ *, 6, 2, 2; 2000 BX₁₅ *, 48, 8, 97; 2000 BY₁₅ *, 7, 2, 2; 2000 BZ₁₅ *, 7, 2, 2; 2000 BA₁₆ *, 7, 2, 2; 2000 BB₁₆ *, 17, 4, 5; 2000 BC₁₆ *, 23, 5, 31; 2000 BD₁₆ *, 9, 2, 2; 2000 BE₁₆ *, 9, 2, 2; 2000 BF₁₆ *, 20, 5, 89; 2000 BG₁₆ *, 8, 2, 1; 2000 BH₁₆ *, 16, 4, 4; 2000 BJ₁₆ *, 8, 2, 1; 2000 BK₁₆ *, 9, 2, 1; 2000 BL₁₆ *, 7, 2, 1; 2000 BM₁₆ *, 11, 3, 27; 2000 BN₁₆ *, 15, 4, 4; 2000 BO₁₆ *, 13, 3, 49; 2000 BP₁₆ *, 18, 4, 52; 2000 BQ₁₆ *, 7, 2, 1; 2000 BR₁₆ *, 7, 2, 1; 2000 BS₁₆ *, 12, 3, 12; 2000 BT₁₆ *, 6, 2, 1; 2000 BU₁₆ *, 6, 2, 1; 2000 BV₁₆ *, 7, 2, 1; 2000 BW₁₆ *, 6, 2, 1; 2000 BX₁₆ *, 7, 2, 1; 2000 BY₁₆ *, 6, 2, 1; 2000 BZ₁₆ *, 6, 2, 1; 2000 BB₁₇ *, 12, 3, 12; 2000 BC₁₇ *, 6, 2, 1; 2000 BD₁₇ *, 6, 2, 1; 2000 BE₁₇ *, 14, 3, 12; 2000 BF₁₇ *, 12, 3, 12; 2000 BG₁₇ *, 7, 2, 1; 2000 BH₁₇ *, 8, 2, 1; 2000 BJ₁₇ *, 8, 2, 1; 2000 BK₁₇ *, 6, 2, 1; 2000 BL₁₇ *, 6, 2, 1; 2000 BM₁₇ *, 12, 3, 12; 2000 BO₁₇ *, 6, 2, 1; 2000 BP₁₇ *, 7, 2, 1; 2000 BQ₁₇ *, 7, 2, 1; 2000 BR₁₇ *, 10, 3, 12; 2000 BS₁₇ *, 6, 2, 1; 2000 BT₁₇ *, 9, 3, 27; 2000 BU₁₇ *, 21, 5, 39; 2000 BV₁₇ *, 10, 3, 12; 2000 BW₁₇ *, 19, 5, 12; 2000 BX₁₇ *, 17, 5, 12; 2000 BY₁₇ *, 30, 7, 38; 2000 BZ₁₇ *, 7, 2, 1; 2000 BA₁₈ *, 6, 2, 1; 2000 BB₁₈ *, 16, 4, 87; 2000 BC₁₈ *, 7, 2, 1; 2000 BD₁₈ *, 6, 2, 1; 2000 BE₁₈ *, 16, 4, 39; 2000 BF₁₈ *, 7, 2, 1; 2000 BG₁₈ *, 12, 3, 12; 2000 BH₁₈ *, 6, 2, 1; 2000 BL₁₈ *, 6, 2, 1; 2000 BM₁₈ *, 7, 2, 1; 2000 BN₁₈ *, 9, 3, 12; 2000 BO₁₈ *, 12, 3, 12; 2000 BP₁₈ *, 9, 3, 12; 2000 BQ₁₈ *, 6, 2, 1; 2000 BR₁₈ *, 9, 3, 12; 2000 BS₁₈ *, 7, 2, 1; 2000 BT₁₈ *, 14, 4, 39; 2000 BU₁₈ *, 15, 3, 12; 2000 BV₁₈ *, 14, 3, 5; 2000 BW₁₈ *, 20, 5, 34; 2000 BX₁₈ *, 8, 2, 4; 2000 BY₁₈ *, 13, 3, 4; 2000 BZ₁₈ *, 40, 7, 12; 2000 BA₁₉ *, 12, 3, 3; 2000 BB₁₉ *, 15, 3, 3; 2000 BC₁₉ *, 9, 2, 1; 2000 BD₁₉ *, 26, 7, 8; 2000 BE₁₉ *, 32, 7, 7; 2000 BF₁₉ *, 73, 12, 89; 2000 BG₁₉ *, 65, 7, 11; 2000 BH₁₉ *, 17, 4, 4; 2000 BI₁₉ *, 15, 3, 4; 2000 BJ₁₉ *, 14, 3, 3; 2000 BK₁₉ *, 4, 1, 0; 2000 BL₁₉ *, 10, 2, 1; 2000 BM₁₉ *, 14, 3, 3; 2000 BN₁₉ *, 4, 1, 0; 2000 BO₁₉ *, 3, 1, 0; 2000 BR₁₉ *, 3, 1, 0; 2000 BU₁₉ *, 16, 3, 3; 2000 BV₁₉ *, 4, 1, 0; 2000 BW₁₉ *, 4, 1, 0; 2000 BX₁₉ *, 8, 2, 8; 2000 BY₁₉ *, 5, 1, 0; 2000 BZ₁₉ *, 3, 1, 0; 2000 BA₂₀ *, 30, 7, 38; 2000 BB₂₀ *, 4, 1, 0; 2000 BC₂₀ *, 6, 2, 28; 2000 BD₂₀ *, 7, 2, 8; 2000 BE₂₀ *, 4, 1, 0; 2000 BF₂₀ *, 4, 1, 0; 2000 BG₂₀ *, 4, 1, 0; 2000 BH₂₀ *, 4, 1, 0; 2000 BI₂₀ *, 5, 1, 0; 2000 BJ₂₀ *, 10, 3, 3; 2000 BK₂₀ *, 24, 5, 6; 2000 BL₂₀ *, 67, 13, 454; 2000 BM₂₀ *, 14, 3, 4; 2000 BN₂₀ *, 24, 5, 36; 2000 BO₂₀ *, 3, 1, 0; 2000 BR₂₀ *, 10, 2, 8; 2000 BU₂₀ *, 4, 1, 0; 2000 BV₂₀ *, 8, 2, 1; 2000 BW₂₀ *, 10, 2, 1; 2000 BX₂₀ *, 10, 2, 1; 2000 BY₂₀ *, 10, 2, 1; 2000 BZ₂₀ *, 10, 2, 1; 2000 BA₂₁ *, 10, 2, 1; 2000 BB₂₁ *, 10, 2, 1; 2000 BC₂₁ *, 10, 2, 1; 2000 BD₂₁ *, 10, 2, 1; 2000 BE₂₁ *, 10, 2, 1; 2000 BF₂₁ *, 10, 2, 1; 2000 BG₂₁ *, 10, 2, 1; 2000 BH₂₁ *, 10, 2, 1; 2000 BI₂₁ *, 10, 2, 1; 2000 BJ₂₁ *, 10, 2, 1; 2000 BK₂₁ *, 10, 2, 1; 2000 BL₂₁ *, 10, 2, 1; 2000 BM₂₁ *, 10, 2, 1; 2000 BN₂₁ *, 10, 2, 1; 2000 BO₂₁ *, 10, 2, 1; 2000 BR₂₁ *, 10, 2, 1; 2000 BS₂₁ *, 10, 2, 1; 2000 BT₂₁ *, 10, 2, 1; 2000 BU₂₁ *, 10, 2, 1; 2000 BV₂₁ *, 10, 2, 1; 2000 BW₂₁ *, 10, 2, 1; 2000 BX₂₁ *, 10, 2, 1; 2000 BY₂₁ *, 10, 2, 1; 2000 BZ₂₁ *, 10, 2, 1; 2000 BA₂₂ *, 10, 2, 1; 2000 BB₂₂ *, 10, 2, 1; 2000 BC₂₂ *, 10, 2, 1; 2000 BD₂₂ *, 10, 2, 1; 2000 BE₂₂ *, 10, 2, 1; 2000 BF₂₂ *, 10, 2, 1; 2000 BG₂₂ *, 10, 2, 1; 2000 BH₂₂ *, 10, 2, 1; 2000 BI₂₂ *, 10, 2, 1; 2000 BJ₂₂ *, 10, 2, 1; 2000 BK₂₂ *, 10, 2, 1; 2000 BL₂₂ *, 10, 2, 1; 2000 BM₂₂ *, 10, 2, 1; 2000 BN₂₂ *, 10, 2, 1; 2000 BO₂₂ *, 10, 2, 1; 2000 BR₂₂ *, 10, 2, 1; 2000 BS₂₂ *, 10, 2, 1; 2000 BT₂₂ *, 10, 2, 1; 2000 BU₂₂ *, 10, 2, 1; 2000 BV₂₂ *, 10, 2, 1; 2000 BW₂₂ *, 10, 2, 1; 2000 BX₂₂ *, 10, 2, 1; 2000 BY₂₂ *, 10, 2, 1; 2000 BZ₂₂ *, 10, 2, 1; 2000 BA₂₃ *, 10, 2, 1; 2000 BB₂₃ *, 10, 2, 1; 2000 BC₂₃ *, 10, 2, 1; 2000 BD₂₃ *, 10, 2, 1; 2000 BE₂₃ *, 10, 2, 1; 2000 BF₂₃ *, 10, 2, 1; 2000 BG₂₃ *, 10, 2, 1; 2000 BH₂₃ *, 10, 2, 1; 2000 BI₂₃ *, 10, 2, 1; 2000 BJ₂₃ *, 10, 2, 1; 2000 BK₂₃ *, 10, 2, 1; 2000 BL₂₃ *, 10, 2, 1; 2000 BM₂₃ *, 10, 2, 1; 2000 BN₂₃ *, 10, 2, 1; 2000 BO₂₃ *, 10, 2, 1; 2000 BR₂₃ *, 10, 2, 1; 2000 BS₂₃ *, 10, 2, 1; 2000 BT₂₃ *, 10, 2, 1; 2000 BU₂₃ *, 10, 2, 1; 2000 BV₂₃ *, 10, 2, 1; 2000 BW₂₃ *, 10, 2, 1; 2000 BX₂₃ *, 10, 2, 1; 2000 BY₂₃ *, 10, 2, 1; 2000 BZ₂₃ *, 10, 2, 1; 2000 BA₂₄ *, 10, 2, 1; 2000 BB₂₄ *, 10, 2, 1; 2000 BC₂₄ *, 10, 2, 1; 2000 BD₂₄ *, 10, 2, 1; 2000 BE₂₄ *, 10, 2, 1; 2000 BF₂₄ *, 10, 2, 1; 2000 BG₂₄ *, 10, 2, 1; 2000 BH₂₄ *, 10, 2, 1; 2000 BI₂₄ *, 10, 2, 1; 2000 BJ₂₄ *, 10, 2, 1; 2000 BK₂₄ *, 10, 2, 1; 2000 BL₂₄ *, 10, 2, 1; 2000 BM₂₄ *, 10, 2, 1;

4; 2000 BN₂₄ *, 10, 2, 4; 2000 BO₂₄ *, 14, 3, 13; 2000 BP₂₄ *, 18, 4, 35; 2000 BQ₂₄ *, 10, 2, 4; 2000 BR₂₄ *, 18, 4, 8; 2000 BS₂₄ *, 28, 6, 33; 2000 BT₂₄ *, 8, 2, 4; 2000 BU₂₄ *, 8, 2, 5; 2000 BV₂₄ *, 7, 2, 4; 2000 BW₂₄ *, 8, 2, 4; 2000 BX₂₄ *, 25, 5, 10; 2000 BY₂₄ *, 7, 2, 4; 2000 BZ₂₄ *, 7, 2, 4; 2000 BA₂₅ *, 16, 4, 37; 2000 BB₂₅ *, 15, 4, 12; 2000 BC₂₅ *, 32, 7, 37; 2000 BD₂₅ *, 8, 2, 4; 2000 BE₂₅ *, 7, 2, 4; 2000 BF₂₅ *, 20, 5, 38; 2000 BG₂₅ *, 11, 3, 12; 2000 BH₂₅ *, 6, 2, 4; 2000 BI₂₅ *, 6, 2, 4; 2000 BJ₂₅ *, 9, 2, 4; 2000 BK₂₅ *, 9, 2, 4; 2000 BL₂₅ *, 7, 2, 4; 2000 BM₂₅ *, 18, 4, 36; 2000 BN₂₅ *, 7, 2, 4; 2000 BO₂₅ *, 11, 3, 12; 2000 BP₂₅ *, 17, 4, 38; 2000 BQ₂₅ *, 8, 2, 4; 2000 BS₂₅ *, 7, 2, 4; 2000 BT₂₅ *, 10, 3, 30; 2000 BU₂₅ *, 11, 3, 6; 2000 BV₂₅ *, 14, 3, 12; 2000 BW₂₅ *, 11, 3, 12; 2000 BX₂₅ *, 13, 3, 12; 2000 BY₂₅ *, 13, 3, 12; 2000 BZ₂₅ *, 8, 2, 4; 2000 BA₂₆ *, 13, 3, 12; 2000 BB₂₆ *, 28, 5, 12; 2000 BC₂₆ *, 14, 3, 12; 2000 BE₂₆ *, 13, 3, 12; 2000 BF₂₆ *, 13, 3, 12; 2000 BG₂₆ *, 8, 2, 3; 2000 BH₂₆ *, 12, 3, 12; 2000 BI₂₆ *, 28, 5, 12; 2000 BK₂₆ *, 17, 4, 12; 2000 BL₂₆ *, 13, 3, 12; 2000 BM₂₆ *, 11, 2, 4; 2000 BN₂₆ *, 13, 3, 12; 2000 BO₂₆ *, 6, 2, 4; 2000 BP₂₆ *, 9, 2, 4; 2000 BQ₂₆ *, 25, 6, 1016; 2000 BR₂₆ *, 13, 3, 12; 2000 BS₂₆ *, 16, 4, 12; 2000 BT₂₆ *, 13, 3, 12; 2000 BU₂₆ *, 14, 3, 5; 2000 BV₂₆ *, 9, 2, 5; 2000 BW₂₆ *, 8, 2, 4; 2000 BX₂₆ *, 16, 4, 38; 2000 BY₂₆ *, 14, 3, 12; 2000 BZ₂₆ *, 14, 3, 12; 2000 BA₂₇ *, 26, 6, 421; 2000 BB₂₇ *, 14, 3, 12; 2000 BC₂₇ *, 12, 3, 12; 2000 BD₂₇ *, 12, 3, 12; 2000 BE₂₇ *, 18, 4, 38; 2000 BF₂₇ *, 12, 3, 12; 2000 BG₂₇ *, 14, 3, 12; 2000 BH₂₇ *, 14, 3, 12; 2000 BI₂₇ *, 9, 2, 4; 2000 BJ₂₇ *, 30, 7, 36; 2000 BK₂₇ *, 19, 4, 12; 2000 BL₂₇ *, 19, 5, 66; 2000 BM₂₇ *, 19, 4, 12; 2000 BN₂₇ *, 8, 2, 4; 2000 BO₂₇ *, 8, 2, 4; 2000 BP₂₇ *, 24, 5, 12; 2000 BQ₂₇ *, 13, 3, 12; 2000 BR₂₇ *, 14, 3, 59; 2000 BS₂₇ *, 12, 3, 12; 2000 BT₂₇ *, 12, 3, 12; 2000 BU₂₇ *, 13, 3, 12; 2000 BV₂₇ *, 17, 4, 87; 2000 BW₂₇ *, 13, 3, 12; 2000 BX₂₇ *, 13, 3, 12; 2000 BY₂₇ *, 23, 5, 87; 2000 BZ₂₇ *, 12, 3, 12; 2000 BA₂₈ *, 10, 2, 2; 2000 BB₂₈ *, 13, 3, 12; 2000 BC₂₈ *, 32, 5, 6; 2000 BD₂₈ *, 13, 2, 2; 2000 BE₂₈ *, 26, 5, 11; 2000 BF₂₈ *, 8, 2, 3; 2000 BG₂₈ *, 22, 5, 11; 2000 BH₂₈ *, 14, 4, 11; 2000 BI₂₈ *, 7, 2, 2; 2000 BJ₂₈ *, 10, 2, 2; 2000 BK₂₈ *, 8, 2, 2; 2000 BL₂₈ *, 23, 5, 10; 2000 BM₂₈ *, 21, 5, 52; 2000 BN₂₈ *, 13, 2, 7; 2000 BO₂₈ *, 9, 2, 7; 2000 BR₂₈ *, 15, 4, 12; 2000 BS₂₈ *, 7, 2, 6; 2000 BT₂₈ *, 16, 4, 35; 2000 BU₂₈ *, 14, 3, 12; 2000 BV₂₈ *, 5, 1, 0; 2000 BX₂₈ *, 25, 5, 87; 2000 BY₂₈ *, 29, 6, 72; 2000 BZ₂₈ *, 13, 3, 65; 2000 BA₂₉ *, 4, 1, 0; 2000 BE₂₉ *, 5, 1, 0; 2000 BG₂₉ *, 6, 2, 7; 2000 BH₂₉ *, 7, 2, 7; 2000 BI₂₉ *, 8, 2, 6; 2000 BK₂₉ *, 7, 2, 6; 2000 BL₂₉ *, 5, 1, 0; 2000 BM₂₉ *, 6, 2, 6; 2000 BN₂₉ *, 8, 2, 1; 2000 BO₂₉ *, 6, 2, 6; 2000 BP₂₉ *, 10, 2, 1; 2000 BQ₂₉ *, 14, 2, 5; 2000 BR₂₉ *, 6, 2, 1; 2000 BS₂₉ *, 9, 2, 4; 2000 BT₂₉ *, 8, 2, 4; 2000 BU₂₉ *, 9, 2, 1; 2000 BV₂₉ *, 6, 2, 1; 2000 BW₂₉ *, 6, 2, 1; 2000 BX₂₉ *, 16, 4, 38; 2000 BY₂₉ *, 11, 3, 12; 2000 BZ₂₉ *, 21, 5, 67; 2000 BA₃₀ *, 11, 3, 12; 2000 BB₃₀ *, 16, 4, 67; 2000 BC₃₀ *, 13, 3, 12; 2000 BD₃₀ *, 14, 3, 12; 2000 BE₃₀ *, 18, 4, 87; 2000 BF₃₀ *, 14, 3, 12; 2000 BG₃₀ *, 15, 3, 12; 2000 BH₃₀ *, 8, 2, 7; 2000 BI₃₀ *, 10, 2, 5; 2000 BO₃₀ *, 4, 1, 0; 2000 BP₃₀ *, 3, 1, 0; 2000 BQ₃₀ *, 3, 1, 0; 2000 CC₁ *, 4, 1, 0; 2000 CD₁ *, 9, 2, 2; 2000 CF₁ *, 8, 2, 8; 2000 CG₁ *, 4, 1, 0; 2000 CH₁ *, 12, 3, 8; 2000 CJ₁ *, 12, 3, 9; 2000 CL₁ *, 3, 1, 0; 2000 CN₁ *, 8, 2, 2; 2000 CP₁ *, 8, 2, 2; 2000 CQ₁ *, 10, 2, 7; 2000 CR₁ *, 9, 2, 7; 2000 CS₁

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7, 2, 1; 2000 CG₇ *, 19, 5, 9; 2000 CH₇ *, 12, 3, 6; 2000 CJ₇ *, 9, 2, 1; 2000 CK₇ *, 17, 2, 1; 2000 CL₇ *, 12, 3, 9; 2000 CM₇ *, 16, 4, 87; 2000 CN₇ *, 15, 3, 9; 2000 CO₇ *, 14, 3, 9; 2000 CP₇ *, 13, 3, 9; 2000 CQ₇ *, 29, 5, 9; 2000 CR₇ *, 12, 3, 9; 2000 CS₇ *, 9, 2, 1; 2000 CT₇ *, 27, 5, 9; 2000 CU₇ *, 18, 4, 8; 2000 CV₇ *, 9, 2, 1; 2000 CW₇ *, 10, 2, 1; 2000 CX₇ *, 23, 4, 6; 2000 CY₇ *, 10, 2, 1; 2000 CZ₇ *, 10, 2, 1; 2000 CA₈ *, 10, 2, 1; 2000 CB₈ *, 13, 3, 4; 2000 CC₈ *, 9, 2, 1; 2000 CD₈ *, 8, 2, 1; 2000 CE₈ *, 9, 2, 1; 2000 CF₈ *, 10, 2, 1; 2000 CG₈ *, 9, 2, 1; 2000 CH₈ *, 10, 2, 1; 2000 CJ₈ *, 9, 2, 1; 2000 CK₈ *, 9, 2, 1; 2000 CL₈ *, 9, 2, 1; 2000 CM₈ *, 9, 2, 1; 2000 CN₈ *, 10, 2, 1; 2000 CO₈ *, 9, 2, 1; 2000 CP₈ *, 9, 2, 1; 2000 CQ₈ *, 9, 2, 1; 2000 CR₈ *, 9, 2, 1; 2000 CS₈ *, 9, 2, 1; 2000 CT₈ *, 7, 2, 1; 2000 CU₈ *, 9, 2, 1; 2000 CV₈ *, 8, 2, 1; 2000 CW₈ *, 10, 2, 1; 2000 CX₈ *, 9, 2, 1; 2000 CY₈ *, 8, 2, 1; 2000 CZ₈ *, 10, 2, 1; 2000 CA₉ *, 10, 2, 1; 2000 CB₉ *, 10, 2, 1; 2000 CC₉ *, 13, 3, 9; 2000 CD₉ *, 8, 2, 1; 2000 CE₉ *, 8, 2, 1; 2000 CF₉ *, 10, 2, 1; 2000 CG₉ *, 9, 2, 1; 2000 CH₉ *, 8, 2, 1; 2000 CJ₉ *, 9, 2, 1; 2000 CK₉ *, 9, 2, 1; 2000 CL₉ *, 9, 2, 1; 2000 CM₉ *, 10, 2, 1; 2000 CN₉ *, 8, 2, 1; 2000 CO₉ *, 10, 2, 1; 2000 CP₉ *, 14, 3, 29; 2000 CQ₉ *, 18, 5, 9; 2000 CR₉ *, 15, 3, 6; 2000 CS₉ *, 14, 3, 6; 2000 CT₉ *, 14, 3, 6; 2000 CU₉ *, 12, 3, 4; 2000 CV₉ *, 9, 2, 1; 2000 CW₉ *, 7, 2, 1; 2000 CX₉ *, 7, 2, 1; 2000 CY₉ *, 10, 2, 1; 2000 CZ₉ *, 7, 2, 1; 2000 CA₁₀ *, 10, 2, 1; 2000 CB₁₀ *, 9, 2, 1; 2000 CC₁₀ *, 14, 3, 29; 2000 CD₁₀ *, 9, 2, 1; 2000 CE₁₀ *, 8, 2, 1; 2000 CF₁₀ *, 10, 2, 1; 2000 CG₁₀ *, 8, 2, 1; 2000 CH₁₀ *, 8, 2, 1; 2000 CJ₁₀ *, 9, 2, 1; 2000 CK₁₀ *, 10, 2, 1; 2000 CL₁₀ *, 9, 2, 1; 2000 CM₁₀ *, 10, 2, 1; 2000 CN₁₀ *, 10, 2, 1; 2000 CO₁₀ *, 9, 2, 1; 2000 CP₁₀ *, 10, 2, 1; 2000 CQ₁₀ *, 9, 2, 1; 2000 CR₁₀ *, 10, 2, 1; 2000 CS₁₀ *, 10, 2, 1; 2000 CT₁₀ *, 6, 2, 1; 2000 CU₁₀ *, 19, 4, 9; 2000 CV₁₀ *, 21, 5, 9; 2000 CW₁₀ *, 8, 2, 1; 2000 CX₁₀ *, 8, 2, 1; 2000 CY₁₀ *, 9, 2, 1; 2000 CZ₁₀ *, 7, 2, 1; 2000 CA₁₁ *, 13, 3, 6; 2000 CB₁₁ *, 7, 2, 1; 2000 CC₁₁ *, 14, 2, 1; 2000 CD₁₁ *, 7, 2, 2; 2000 CE₁₁ *, 9, 2, 2; 2000 CF₁₁ *, 8, 2, 2; 2000 CG₁₁ *, 8, 2, 2; 2000 CH₁₁ *, 8, 2, 2; 2000 CJ₁₁ *, 8, 2, 2; 2000 CK₁₁ *, 7, 2, 2; 2000 CL₁₁ *, 8, 2, 1; 2000 CM₁₁ *, 8, 2, 2; 2000 CN₁₁ *, 8, 2, 2; 2000 CO₁₁ *, 9, 2, 2; 2000 CP₁₁ *, 24, 5, 9; 2000 CQ₁₁ *, 19, 3, 6; 2000 CR₁₁ *, 15, 3, 9; 2000 CS₁₁ *, 10, 2, 1; 2000 CT₁₁ *, 10, 2, 1; 2000 CU₁₁ *, 10, 2, 1; 2000 CV₁₁ *, 8, 2, 1; 2000 CW₁₁ *, 9, 2, 1; 2000 CX₁₁ *, 8, 2, 1; 2000 CY₁₁ *, 10, 2, 1; 2000 CZ₁₁ *, 9, 2, 1; 2000 CA₁₂ *, 10, 2, 1; 2000 CB₁₂ *, 9, 2, 1; 2000 CC₁₂ *, 17, 4, 6; 2000 CD₁₂ *, 10, 2, 1; 2000 CE₁₂ *, 10, 2, 1; 2000 CF₁₂ *, 9, 2, 1; 2000 CG₁₂ *, 10, 2, 1; 2000 CH₁₂ *, 9, 2, 1; 2000 CJ₁₂ *, 9, 2, 2; 2000 CK₁₂ *, 8, 2, 2; 2000 CL₁₂ *, 8, 2, 2; 2000 CM₁₂ *, 9, 2, 2; 2000 CN₁₂ *, 8, 2, 2; 2000 CO₁₂ *, 8, 2, 2; 2000 CP₁₂ *, 7, 2, 2; 2000 CQ₁₂ *, 9, 2, 2; 2000 CR₁₂ *, 17, 4, 6; 2000 CS₁₂ *, 10, 3, 9; 2000 CT₁₂ *, 9, 2, 2; 2000 CU₁₂ *, 7, 2, 2; 2000 CV₁₂ *, 9, 2, 2; 2000 CW₁₂ *, 10, 2, 2; 2000 CX₁₂ *, 9, 2, 1; 2000 CY₁₂ *, 9, 2, 1; 2000 CZ₁₂ *, 7, 2, 1; 2000 CA₁₃ *, 26, 5, 8; 2000 CB₁₃ *, 9, 2, 1; 2000 CC₁₃ *, 9, 2, 1; 2000 CD₁₃ *, 12, 3, 4; 2000 CE₁₃ *, 10, 2, 1; 2000 CF₁₃ *, 23, 5, 9; 2000 CG₁₃ *, 31, 6, 9; 2000 CH₁₃ *, 8, 2, 1; 2000 CJ₁₃ *, 29, 6, 1037; 2000 CK₁₃ *, 8, 2, 1; 2000 CL₁₃ *, 32, 6, 38; 2000 CM₁₃ *, 23, 5, 9; 2000 CN₁₃ *, 9, 2, 2; 2000 CO₁₃ *, 13, 3, 9; 2000 CP₁₃ *, 7, 2, 2; 2000 CQ₁₃ *, 10, 2, 2; 2000 CR₁₃ *, 26, 5, 8; 2000 CS₁₃ *, 42, 8, 457; 2000 CT₁₃ *, 19, 5, 6; 2000 CU₁₃ *, 17, 4, 6; 2000 CV₁₃ *, 8, 2, 2; 2000 CW₁₃ *, 17, 4, 8; 2000 CX₁₃ *, 9, 2, 2; 2000 CY₁₃ *, 8, 2, 2; 2000 CZ₁₃ *, 12, 3, 4; 2000 CA₁₄ *, 18, 4, 4; 2000 CB₁₄ *, 9, 2, 2; 2000 CC₁₄ *, 8, 2, 2; 2000 CD₁₄ *, 11, 3, 4; 2000 CE₁₄ *, 8, 2, 2; 2000 CF₁₄ *, 9, 2, 2; 2000 CG₁₄ *, 8, 2, 2; 2000 CH₁₄ *, 13, 3, 4; 2000 CJ₁₄ *, 7, 2, 2; 2000 CK₁₄ *, 10, 2, 2; 2000 CL₁₄ *, 11, 3, 4; 2000 CM₁₄ *, 9, 2, 2; 2000 CN₁₄ *, 8, 2, 2; 2000 CO₁₄ *, 15, 3, 9; 2000 CP₁₄ *, 17, 4, 9; 2000 CQ₁₄ *, 10, 2, 1; 2000 CR₁₄ *, 10, 2, 1; 2000 CS₁₄ *, 8, 2, 1; 2000 CT₁₄ *, 13, 3, 9; 2000 CU₁₄ *, 8, 2, 1; 2000 CV₁₄ *, 9, 2, 1; 2000 CW₁₄ *, 10, 2, 1; 2000 CX₁₄ *, 13, 3, 9; 2000 CY₁₄ *, 8, 2, 1; 2000 CZ₁₄ *, 11, 3, 4; 2000 CA₁₅ *, 8, 2, 1; 2000 CB₁₅ *, 11, 3, 9; 2000 CC₁₅ *, 11, 3, 9; 2000 CD₁₅ *, 9, 2, 1; 2000 CE₁₅ *, 9, 2, 1; 2000 CF₁₅ *, 8, 2, 1; 2000 CG₁₅ *, 12, 2, 1; 2000 CH₁₅ *, 17, 3, 9; 2000 CJ₁₅ *, 12, 3, 9; 2000 CK₁₅ *, 13, 3, 9; 2000 CL₁₅ *, 8, 2, 1; 2000 CM₁₅ *, 8, 2, 1; 2000 CN₁₅ *, 8, 2, 1; 2000 CO₁₅ *, 7, 2, 1; 2000 CP₁₅ *, 8, 2, 1; 2000 CQ₁₅ *, 7, 2, 1; 2000 CR₁₅ *, 7, 2, 1; 2000 CS₁₅ *, 8, 2, 1; 2000 CT₁₅ *, 7, 2, 1; 2000 CU₁₅ *, 7, 2, 1; 2000 CV₁₅ *, 8, 2, 1; 2000 CW₁₅ *, 7, 2, 1; 2000 CX₁₅ *, 7, 2, 1; 2000 CY₁₅ *, 8, 2, 1; 2000 CZ₁₅ *, 8, 2, 1; 2000 CA₁₆ *, 9, 2, 1; 2000 CB₁₆ *, 8, 2, 1; 2000 CC₁₆ *, 9, 2, 1; 2000 CD₁₆ *, 8, 2, 2; 2000 CE₁₆ *, 8, 2, 1; 2000 CF₁₆ *, 7, 2, 1; 2000 CG₁₆ *, 9, 2, 1; 2000 CH₁₆ *, 13, 2, 1; 2000 CJ₁₆ *, 8, 2, 1; 2000 CK₁₆ *, 7, 2, 1; 2000 CL₁₆ *, 11, 3, 4; 2000 CM₁₆ *, 8, 2, 1; 2000 CN₁₆ *, 7, 2, 2; 2000 CO₁₆ *, 9, 2, 2; 2000 CP₁₆ *, 7, 2, 1; 2000 CQ₁₆ *, 7, 2, 1; 2000 CR₁₆ *, 6, 2, 1; 2000 CS₁₆ *, 8, 2, 2; 2000 CT₁₆ *, 8, 2, 2; 2000 CU₁₆ *, 7, 2, 2; 2000 CV₁₆ *, 8, 2, 2; 2000 CW₁₆ *, 8, 2, 2; 2000 CX₁₆ *, 8, 2, 2; 2000 CY₁₆ *, 8, 2, 1; 2000 CZ₁₆ *, 6, 2, 1; 2000 CA₁₇ *, 6, 2, 1; 2000 CB₁₇ *, 7, 2, 1; 2000 CC₁₇ *, 6, 2, 1; 2000 CD₁₇ *, 8, 2, 1; 2000 CE₁₇ *, 9, 3, 4; 2000 CF₁₇ *, 9, 3, 4; 2000 CG₁₇ *, 9, 2, 1; 2000 CH₁₇ *, 7, 2, 1; 2000 CJ₁₇ *, 10, 2, 1; 2000 CK₁₇ *, 10, 2, 1; 2000 CL₁₇ *, 6, 2, 1; 2000 CM₁₇ *, 18, 4, 8; 2000 CN₁₇ *, 10, 2, 2; 2000 CO₁₇ *, 19, 4, 4; 2000 CP₁₇ *, 15, 4, 4; 2000 CQ₁₇ *, 20, 4, 4; 2000 CR₁₇ *, 18, 4, 4; 2000 CS₁₇ *, 14, 3, 4; 2000 CT₁₇ *, 22, 4, 4; 2000 CU₁₇ *, 10, 2, 1; 2000 CV₁₇ *, 9, 2, 1; 2000 CW₁₇ *, 10, 2, 1; 2000 CX₁₇ *, 13, 3, 4; 2000 CY₁₇ *, 33, 4, 4; 2000 CZ₁₇ *, 23, 4, 4; 2000 CA₁₈ *, 8, 2, 2; 2000 CB₁₈ *, 9, 2, 2; 2000 CC₁₈ *, 22, 4, 4; 2000 CD₁₈ *, 19, 4, 4; 2000 CE₁₈ *, 9, 2, 2; 2000 CF₁₈ *, 35, 7, 38; 2000 CG₁₈ *, 9, 2, 2; 2000 CH₁₈ *, 16, 4, 4; 2000 CJ₁₈ *, 8, 2, 2; 2000 CK₁₈ *, 9, 2, 2; 2000 CL₁₈ *, 9, 2, 2; 2000 CM₁₈ *, 8, 2, 2; 2000 CN₁₈ *, 8, 2, 2; 2000 CO₁₈ *, 10, 2, 2; 2000 CP₁₈ *, 8, 2, 2; 2000 CQ₁₈ *, 9, 2, 2; 2000 CR₁₈ *, 8, 2, 2; 2000 CS₁₈ *, 8, 2, 2; 2000 CT₁₈ *, 9, 2, 2; 2000 CU₁₈ *, 8, 2, 2; 2000 CV₁₈ *, 10, 2, 2; 2000 CW₁₈ *, 10, 2,

1; 2000 CX₁₈ *, 15, 3, 9; 2000 CY₁₈ *, 14, 3, 9; 2000 CZ₁₈ *, 15, 3, 9; 2000 CA₁₉ *, 9, 2, 1; 2000 CB₁₉ *, 9, 2, 1; 2000 CC₁₉ *, 10, 2, 1; 2000 CD₁₉ *, 10, 2, 1; 2000 CE₁₉ *, 9, 2, 1; 2000 CF₁₉ *, 21, 5, 6; 2000 CG₁₉ *, 25, 5, 10; 2000 CH₁₉ *, 22, 5, 36; 2000 CJ₁₉ *, 10, 2, 1; 2000 CK₁₉ *, 10, 2, 1; 2000 CL₁₉ *, 9, 2, 1; 2000 CM₁₉ *, 7, 2, 1; 2000 CN₁₉ *, 13, 2, 2; 2000 CO₁₉ *, 17, 4, 4; 2000 CP₁₉ *, 17, 4, 6; 2000 CQ₁₉ *, 15, 4, 4; 2000 CR₁₉ *, 7, 2, 2; 2000 CS₁₉ *, 28, 6, 10; 2000 CT₁₉ *, 9, 2, 2; 2000 CU₁₉ *, 14, 3, 6; 2000 CV₁₉ *, 8, 2, 2; 2000 CW₁₉ *, 8, 2, 2; 2000 CX₁₉ *, 8, 2, 2; 2000 CY₁₉ *, 9, 2, 2; 2000 CZ₁₉ *, 8, 2, 2; 2000 CA₂₀ *, 13, 3, 4; 2000 CB₂₀ *, 9, 2, 2; 2000 CC₂₀ *, 9, 2, 2; 2000 CD₂₀ *, 32, 5, 8; 2000 CE₂₀ *, 7, 2, 2; 2000 CF₂₀ *, 8, 2, 2; 2000 CG₂₀ *, 18, 4, 10; 2000 CH₂₀ *, 8, 2, 2; 2000 CJ₂₀ *, 9, 2, 1; 2000 CK₂₀ *, 13, 3, 3; 2000 CL₂₀ *, 10, 2, 1; 2000 CM₂₀ *, 13, 3, 9; 2000 CN₂₀ *, 26, 5, 9; 2000 CO₂₀ *, 9, 2, 1; 2000 CP₂₀ *, 30, 5, 9; 2000 CQ₂₀ *, 15, 3, 9; 2000 CR₂₀ *, 9, 2, 1; 2000 CS₂₀ *, 28, 5, 9; 2000 CT₂₀ *, 14, 3, 9; 2000 CU₂₀ *, 29, 5, 9; 2000 CV₂₀ *, 15, 3, 9; 2000 CW₂₀ *, 22, 5, 9; 2000 CX₂₀ *, 21, 5, 9; 2000 CY₂₀ *, 13, 3, 6; 2000 CZ₂₀ *, 24, 4, 6; 2000 CA₂₁ *, 41, 5, 6; 2000 CB₂₁ *, 16, 4, 4; 2000 CC₂₁ *, 13, 3, 4; 2000 CD₂₁ *, 8, 2, 2; 2000 CE₂₁ *, 11, 3, 8; 2000 CF₂₁ *, 15, 4, 34; 2000 CG₂₁ *, 6, 2, 2; 2000 CH₂₁ *, 7, 2, 2; 2000 CJ₂₁ *, 14, 3, 6; 2000 CK₂₁ *, 10, 2, 2; 2000 CL₂₁ *, 8, 2, 2; 2000 CM₂₁ *, 9, 2, 2; 2000 CN₂₁ *, 10, 2, 2; 2000 CO₂₁ *, 10, 2, 2; 2000 CP₂₁ *, 9, 2, 2; 2000 CQ₂₁ *, 10, 2, 2; 2000 CR₂₁ *, 8, 2, 2; 2000 CS₂₁ *, 10, 2, 2; 2000 CT₂₁ *, 10, 2, 2; 2000 CU₂₁ *, 10, 2, 2; 2000 CV₂₁ *, 30, 5, 8; 2000 CW₂₁ *, 35, 5, 8; 2000 CX₂₁ *, 27, 5, 8; 2000 CY₂₁ *, 28, 5, 8; 2000 CZ₂₁ *, 14, 3, 4; 2000 CA₂₂ *, 14, 3, 4; 2000 CB₂₂ *, 9, 2, 2; 2000 CC₂₂ *, 9, 2, 2; 2000 CD₂₂ *, 8, 2, 2; 2000 CE₂₂ *, 12, 3, 4; 2000 CF₂₂ *, 10, 2, 2; 2000 CG₂₂ *, 10, 2, 2; 2000 CH₂₂ *, 10, 2, 1; 2000 CJ₂₂ *, 9, 2, 2; 2000 CK₂₂ *, 9, 2, 2; 2000 CL₂₂ *, 20, 4, 6; 2000 CM₂₂ *, 23, 4, 6; 2000 CN₂₂ *, 20, 4, 6; 2000 CO₂₂ *, 11, 3, 4; 2000 CP₂₂ *, 18, 4, 6; 2000 CQ₂₂ *, 20, 4, 10; 2000 CR₂₂ *, 12, 3, 8; 2000 CS₂₂ *, 10, 2, 2; 2000 CT₂₂ *, 12, 3, 4; 2000 CU₂₂ *, 19, 4, 9; 2000 CV₂₂ *, 13, 3, 4; 2000 CW₂₂ *, 15, 3, 4; 2000 CX₂₂ *, 10, 2, 2; 2000 CY₂₂ *, 7, 2, 2; 2000 CZ₂₂ *, 8, 2, 2; 2000 CA₂₃ *, 9, 2, 2; 2000 CB₂₃ *, 17, 4, 4; 2000 CC₂₃ *, 8, 2, 2; 2000 CD₂₃ *, 9, 2, 2; 2000 CE₂₃ *, 9, 2, 2; 2000 CF₂₃ *, 19, 4, 6; 2000 CG₂₃ *, 18, 4, 6; 2000 CH₂₃ *, 17, 3, 4; 2000 CJ₂₃ *, 26, 5, 6; 2000 CK₂₃ *, 18, 4, 6; 2000 CL₂₃ *, 15, 3, 4; 2000 CM₂₃ *, 17, 4, 6; 2000 CN₂₃ *, 17, 4, 10; 2000 CO₂₃ *, 10, 2, 2; 2000 CP₂₃ *, 10, 2, 2; 2000 CQ₂₃ *, 10, 2, 2; 2000 CR₂₃ *, 8, 2, 2; 2000 CS₂₃ *, 9, 2, 2; 2000 CT₂₃ *, 10, 2, 2; 2000 CU₂₃ *, 9, 2, 2; 2000 CV₂₃ *, 7, 2, 2; 2000 CW₂₃ *, 9, 2, 2; 2000 CX₂₃ *, 8, 2, 2; 2000 CY₂₃ *, 9, 2, 2; 2000 CZ₂₃ *, 10, 2, 2; 2000 CA₂₄ *, 9, 2, 2; 2000 CB₂₄ *, 8, 2, 2; 2000 CC₂₄ *, 14, 3, 9; 2000 CD₂₄ *, 6, 2, 1; 2000 CE₂₄ *, 8, 2, 2; 2000 CF₂₄ *, 9, 2, 2; 2000 CG₂₄ *, 9, 2, 2; 2000 CH₂₄ *, 10, 2, 2; 2000 CJ₂₄ *, 10, 2, 2; 2000 CK₂₄ *, 9, 2, 2; 2000 CL₂₄ *, 10, 2, 2; 2000 CM₂₄ *, 10, 2, 2; 2000 CN₂₄ *, 8, 2, 2; 2000 CO₂₄ *, 10, 2, 2; 2000 CP₂₄ *, 15, 3, 9; 2000 CQ₂₄ *, 10, 2, 2; 2000 CR₂₄ *, 7, 2, 2; 2000 CS₂₄ *, 9, 2, 2; 2000 CT₂₄ *, 9, 2, 2; 2000 CU₂₄ *, 10, 2, 2; 2000 CV₂₄ *, 14, 3, 4; 2000 CW₂₄ *, 15, 3, 8; 2000 CX₂₄ *, 15, 3, 4; 2000 CY₂₄ *, 13, 3, 6; 2000 CZ₂₄ *, 20, 4, 8; 2000 CA₂₅ *, 20, 4, 8; 2000 CB₂₅ *, 25, 5, 10; 2000 CC₂₅ *, 13, 3, 4; 2000 CD₂₅ *, 17, 4, 8; 2000 CE₂₅ *, 10, 2, 2; 2000 CF₂₅ *, 15, 3, 6; 2000 CG₂₅ *, 19, 4, 31; 2000 CH₂₅ *, 19, 4, 10; 2000 CJ₂₅ *, 10, 2, 2; 2000 CK₂₅ *, 10, 2, 2; 2000 CL₂₅ *, 10, 2, 2; 2000 CM₂₅ *, 10, 2, 2; 2000 CN₂₅ *, 14, 3, 4; 2000 CO₂₅ *, 10, 2, 2; 2000 CP₂₅ *, 10, 2, 2; 2000 CQ₂₅ *, 10, 2, 2; 2000 CR₂₅ *, 9, 2, 2; 2000 CS₂₅ *, 6, 2, 2; 2000 CT₂₅ *, 10, 2, 2; 2000 CU₂₅ *, 8, 2, 2; 2000 CV₂₅ *, 9, 2, 2; 2000 CW₂₅ *, 10, 2, 2; 2000 CX₂₅ *, 10, 2, 2; 2000 CY₂₅ *, 8, 2, 2; 2000 CZ₂₅ *, 13, 3, 10; 2000 CA₂₆ *, 9, 2, 2; 2000 CB₂₆ *, 9, 2, 2; 2000 CC₂₆ *, 10, 2, 2; 2000 CD₂₆ *, 9, 2, 2; 2000 CE₂₆ *, 9, 2, 2; 2000 CF₂₆ *, 10, 2, 2; 2000 CG₂₆ *, 10, 2, 2; 2000 CH₂₆ *, 9, 2, 2; 2000 CJ₂₆ *, 10, 2, 2; 2000 CK₂₆ *, 8, 2, 2; 2000 CL₂₆ *, 10, 2, 2; 2000 CM₂₆ *, 10, 2, 2; 2000 CN₂₆ *, 10, 2, 2; 2000 CO₂₆ *, 10, 2, 2; 2000 CP₂₆ *, 14, 3, 4; 2000 CQ₂₆ *, 8, 2, 2; 2000 CR₂₆ *, 23, 5, 8; 2000 CS₂₆ *, 10, 2, 2; 2000 CT₂₆ *, 9, 2, 2; 2000 CU₂₆ *, 10, 2, 2; 2000 CV₂₆ *, 18, 4, 6; 2000 CW₂₆ *, 10, 2, 2; 2000 CX₂₆ *, 10, 2, 2; 2000 CY₂₆ *, 9, 2, 2; 2000 CZ₂₆ *, 10, 2, 2; 2000 CA₂₇ *, 8, 2, 2; 2000 CB₂₇ *, 10, 2, 2; 2000 CC₂₇ *, 10, 2, 2; 2000 CD₂₇ *, 9, 2, 2; 2000 CE₂₇ *, 9, 2, 2; 2000 CF₂₇ *, 10, 2, 2; 2000 CG

4, 9; 2000 CC₃₀ *, 9, 2, 2; 2000 CD₃₀ *, 10, 2, 2; 2000 CE₃₀ *, 9, 2, 2; 2000 CF₃₀ *, 10, 2, 2; 2000 CG₃₀ *, 10, 2, 2; 2000 CH₃₀ *, 10, 2, 2; 2000 CJ₃₀ *, 10, 2, 2; 2000 CK₃₀ *, 15, 3, 9; 2000 CL₃₀ *, 10, 2, 2; 2000 CM₃₀ *, 29, 6, 9; 2000 CN₃₀ *, 24, 5, 9; 2000 CO₃₀ *, 10, 2, 2; 2000 CP₃₀ *, 17, 4, 4; 2000 CQ₃₀ *, 7, 2, 2; 2000 CR₃₀ *, 8, 2, 2; 2000 CS₃₀ *, 7, 2, 2; 2000 CT₃₀ *, 8, 2, 2; 2000 CU₃₀ *, 23, 5, 6; 2000 CV₃₀ *, 6, 2, 1; 2000 CW₃₀ *, 16, 5, 6; 2000 CX₃₀ *, 7, 2, 2; 2000 CY₃₀ *, 8, 2, 2; 2000 CZ₃₀ *, 9, 2, 1; 2000 CA₃₁ *, 14, 4, 6; 2000 CB₃₁ *, 7, 2, 2; 2000 CC₃₁ *, 9, 2, 2; 2000 CD₃₁ *, 11, 3, 4; 2000 CE₃₁ *, 6, 2, 2; 2000 CF₃₁ *, 8, 2, 2; 2000 CG₃₁ *, 9, 2, 2; 2000 CH₃₁ *, 8, 2, 2; 2000 CJ₃₁ *, 6, 2, 2; 2000 CK₃₁ *, 16, 4, 9; 2000 CL₃₁ *, 14, 3, 4; 2000 CM₃₁ *, 8, 2, 2; 2000 CN₃₁ *, 9, 2, 2; 2000 CO₃₁ *, 11, 3, 4; 2000 CP₃₁ *, 9, 2, 2; 2000 CQ₃₁ *, 9, 2, 2; 2000 CR₃₁ *, 8, 2, 2; 2000 CS₃₁ *, 15, 4, 8; 2000 CT₃₁ *, 7, 2, 2; 2000 CU₃₁ *, 9, 2, 2; 2000 CV₃₁ *, 7, 2, 2; 2000 CW₃₁ *, 7, 2, 2; 2000 CX₃₁ *, 7, 2, 2; 2000 CY₃₁ *, 8, 2, 2; 2000 CZ₃₁ *, 8, 2, 2; 2000 CA₃₂ *, 8, 2, 2; 2000 CB₃₂ *, 9, 2, 2; 2000 CC₃₂ *, 9, 2, 2; 2000 CD₃₂ *, 11, 3, 4; 2000 CE₃₂ *, 11, 3, 10; 2000 CF₃₂ *, 12, 3, 8; 2000 CG₃₂ *, 8, 2, 2; 2000 CH₃₂ *, 9, 2, 2; 2000 CJ₃₂ *, 14, 3, 4; 2000 CK₃₂ *, 6, 2, 1; 2000 CL₃₂ *, 8, 2, 1; 2000 CM₃₂ *, 7, 2, 1; 2000 CN₃₂ *, 14, 4, 6; 2000 CO₃₂ *, 13, 3, 4; 2000 CP₃₂ *, 7, 2, 2; 2000 CQ₃₂ *, 8, 2, 2; 2000 CR₃₂ *, 9, 2, 2; 2000 CS₃₂ *, 9, 2, 2; 2000 CT₃₂ *, 10, 2, 2; 2000 CU₃₂ *, 8, 2, 2; 2000 CV₃₂ *, 13, 3, 13; 2000 CW₃₂ *, 10, 2, 2; 2000 CX₃₂ *, 9, 2, 2; 2000 CY₃₂ *, 8, 2, 2; 2000 CZ₃₂ *, 14, 3, 13; 2000 CA₃₃ *, 6, 2, 2; 2000 CB₃₃ *, 10, 2, 2; 2000 CC₃₃ *, 7, 2, 2; 2000 CD₃₃ *, 10, 2, 2; 2000 CE₃₃ *, 9, 2, 2; 2000 CF₃₃ *, 14, 3, 9; 2000 CG₃₃ *, 3, 1, 0; 2000 CH₃₃ *, 4, 1, 0; 2000 CJ₃₃ *, 25, 5, 9; 2000 CK₃₃ *, 24, 4, 4; 2000 CL₃₃ *, 16, 3, 4; 2000 CM₃₃ *, 12, 3, 37; 2000 CN₃₃ *, 18, 4, 3; 2000 CO₃₃ *, 19, 3, 3; 2000 CQ₃₃ *, 5, 1, 0; 2000 CR₃₃ *, 5, 1, 0; 2000 CS₃₃ *, 15, 3, 5; 2000 CT₃₃ *, 10, 2, 5; 2000 CV₃₃ *, 5, 1, 0; 2000 CW₃₃ *, 5, 1, 0; 2000 CX₃₃ *, 5, 1, 0; 2000 CY₃₃ *, 5, 1, 0; 2000 CZ₃₃ *, 5, 1, 0; 2000 CA₃₄ *, 5, 1, 0; 2000 CB₃₄ *, 5, 1, 0; 2000 CE₃₄ *, 6, 2, 5; 2000 CF₃₄ *, 3, 1, 0; 2000 CH₃₄ *, 3, 1, 0; 2000 CJ₃₄ *, 4, 1, 0; 2000 CK₃₄ *, 6, 2, 1; 2000 CL₃₄ *, 4, 1, 0; 2000 CM₃₄ *, 5, 1, 0; 2000 CN₃₄ *, 3, 1, 0; 2000 CO₃₄ *, 8, 2, 4; 2000 CB₃₅ *, 12, 2, 3; 2000 CV₃₄ *, 11, 3, 4; 2000 CW₃₄ *, 19, 5, 8; 2000 CX₃₄ *, 22, 5, 9; 2000 CY₃₄ *, 24, 5, 8; 2000 CZ₃₄ *, 8, 2, 3; 2000 CA₃₅ *, 8, 2, 3; 2000 CB₃₅ *, 21, 4, 30; 2000 CC₃₅ *, 22, 3, 4; 2000 CD₃₅ *, 7, 2, 3; 2000 CE₃₅ *, 18, 4, 6; 2000 CF₃₅ *, 14, 3, 4; 2000 CG₃₅ *, 9, 3, 4; 2000 CH₃₅ *, 14, 3, 4; 2000 CJ₃₅ *, 12, 3, 4; 2000 CK₃₅ *, 18, 4, 4; 2000 CL₃₅ *, 22, 5, 9; 2000 CM₃₅ *, 38, 6, 9; 2000 CN₃₅ *, 13, 3, 4; 2000 CO₃₅ *, 13, 3, 4; 2000 CP₃₅ *, 9, 2, 3; 2000 CQ₃₅ *, 13, 3, 4; 2000 CR₃₅ *, 16, 4, 10; 2000 CS₃₅ *, 18, 4, 10; 2000 CT₃₅ *, 21, 5, 11; 2000 CU₃₅ *, 18, 4, 10; 2000 CV₃₅ *, 11, 2, 3; 2000 CW₃₅ *, 17, 4, 6; 2000 CX₃₅ *, 22, 5, 11; 2000 CY₃₅ *, 11, 3, 4; 2000 CZ₃₅ *, 21, 5, 11; 2000 CA₃₆ *, 21, 5, 11; 2000 CB₃₆ *, 26, 6, 39; 2000 CC₃₆ *, 13, 3, 4; 2000 CD₃₆ *, 20, 5, 11; 2000 CE₃₆ *, 25, 6, 70; 2000 CF₃₆ *, 15, 4, 11; 2000 CG₃₆ *, 17, 4, 10; 2000 CH₃₆ *, 11, 3, 4; 2000 CJ₃₆ *, 11, 3, 4; 2000 CK₃₆ *, 14, 4, 10; 2000 CL₃₆ *, 10, 3, 4; 2000 CM₃₆ *, 17, 4, 5; 2000 CN₃₆ *, 12, 3, 4; 2000 CO₃₆ *, 12, 3, 4; 2000 CP₃₆ *, 12, 3, 4; 2000 CQ₃₆ *, 12, 3, 4; 2000 CR₃₆ *, 10, 3, 4; 2000 CS₃₆ *, 12, 3, 4; 2000 CT₃₆ *, 8, 2, 3; 2000 CV₃₆ *, 11, 3, 4; 2000 CW₃₆ *, 11, 3, 4; 2000 CX₃₆ *, 12, 3, 4; 2000 CY₃₆ *, 10, 3, 4; 2000 CZ₃₆ *, 17, 4, 5; 2000 CA₃₇ *, 8, 2, 3; 2000 CB₃₇ *, 11, 3, 4; 2000 CC₃₇ *, 8, 2, 3; 2000 CD₃₇ *, 12, 3, 4; 2000 CE₃₇ *, 12, 3, 4; 2000 CF₃₇ *, 10, 3, 4; 2000 CG₃₇ *, 7, 2, 3; 2000 CH₃₇ *, 9, 3, 4; 2000 CJ₃₇ *, 23, 4, 8; 2000 CK₃₇ *, 13, 3, 3; 2000 CL₃₇ *, 11, 3, 8; 2000 CM₃₇ *, 16, 4, 5; 2000 CN₃₇ *, 8, 2, 2; 2000 CO₃₇ *, 9, 2, 2; 2000 CP₃₇ *, 10, 2, 2; 2000 CQ₃₇ *, 13, 3, 8; 2000 CR₃₇ *, 9, 2, 2; 2000 CS₃₇ *, 19, 4, 4; 2000 CT₃₇ *, 13, 3, 8; 2000 CU₃₇ *, 9, 2, 2; 2000 CV₃₇ *, 12, 3, 8; 2000 CW₃₇ *, 21, 4, 8; 2000 CX₃₇ *, 7, 2, 2; 2000 CY₃₇ *, 16, 3, 8; 2000 CZ₃₇ *, 15, 4, 8; 2000 CA₃₈ *, 16, 3, 8; 2000 CB₃₈ *, 21, 4, 8; 2000 CC₃₈ *, 13, 2, 2; 2000 CD₃₈ *, 18, 3, 8; 2000 CE₃₈ *, 14, 3, 8; 2000 CF₃₈ *, 20, 3, 8; 2000 CG₃₈ *, 8, 2, 2; 2000 CH₃₈ *, 13, 3, 8; 2000 CJ₃₈ *, 13, 3, 8; 2000 CK₃₈ *, 6, 2, 2; 2000 CL₃₈ *, 14, 3, 8; 2000 CM₃₈ *, 14, 3, 8; 2000 CN₃₈ *, 7, 2, 2; 2000 CO₃₈ *, 10, 3, 8; 2000 CP₃₈ *, 8, 2, 2; 2000 CQ₃₈ *, 7, 2, 2; 2000 CR₃₈ *, 12, 3, 8; 2000 CS₃₈ *, 12, 3, 8; 2000 CT₃₈ *, 6, 2, 2; 2000 CU₃₈ *, 22, 5, 8; 2000 CV₃₈ *, 18, 4, 8; 2000 CW₃₈ *, 13, 3, 8; 2000 CX₃₈ *, 13, 3, 8; 2000 CY₃₈ *, 23, 5, 8; 2000 CZ₃₈ *, 8, 2, 2; 2000 CA₃₉ *, 6, 2, 2; 2000 CB₃₉ *, 8, 2, 2; 2000 CC₃₉ *, 17, 4, 5; 2000 CD₃₉ *, 22, 5, 6; 2000 CE₃₉ *, 7, 2, 1; 2000 CF₃₉ *, 9, 3, 2; 2000 CG₃₉ *, 14, 4, 4; 2000 CH₃₉ *, 20, 5, 6; 2000 CJ₃₉ *, 17, 4, 7; 2000 CK₃₉ *, 16, 4, 7; 2000 CL₃₉ *, 9, 2, 1; 2000 CM₃₉ *, 9, 2, 1; 2000 CN₃₉ *, 14, 3, 4; 2000 CO₃₉ *, 5, 1, 0; 2000 CP₃₉ *, 4, 1, 0; 2000 CR₃₉ *, 15, 3, 7; 2000 CS₃₉ *, 13, 3, 6; 2000 CT₃₉ *, 9, 2, 4; 2000 CU₃₉ *, 10, 2, 4; 2000 CV₃₉ *, 13, 3, 6; 2000 CW₃₉ *, 9, 2, 4; 2000 CX₃₉ *, 14, 3, 6; 2000 CY₃₉ *, 10, 2, 4; 2000 CZ₃₉ *, 6, 2, 4; 2000 CA₄₀ *, 8, 2, 4; 2000 CB₄₀ *, 6, 2, 4; 2000 CC₄₀ *, 12, 3, 5; 2000 CD₄₀ *, 10, 2, 3; 2000 CE₄₀ *, 12, 3, 4; 2000 CF₄₀ *, 16, 3, 4; 2000 CG₄₀ *, 25, 4, 7; 2000 CH₄₀ *, 13, 3, 7; 2000 CJ₄₀ *, 13, 3, 4; 2000 CK₄₀ *, 11, 3, 4; 2000 CL₄₀ *, 13, 3, 4; 2000 CM₄₀ *, 7, 2, 1; 2000 CN₄₀ *, 10, 2, 3; 2000 CP₄₀ *, 5, 1, 0; 2000 CQ₄₀ *, 9, 2, 7; 2000 CR₄₀ *, 5, 1, 0; 2000 CS₄₀ *, 3, 1, 0; 2000 CT₄₀ *, 5, 1, 0; 2000 CU₄₀ *, 13, 3, 7; 2000 CV₄₀ *, 17, 4, 87; 2000 CW₄₀ *, 5, 1, 0; 2000 CX₄₀ *, 10, 2, 5; 2000 CA₄₁ *, 13, 3, 6; 2000 CB₄₁ *, 5, 1, 0; 2000 CC₄₁ *, 3, 1, 0; 2000 CD₄₁ *, 8, 2, 4; 2000 CE₄₁ *, 8, 2, 4; 2000 CF₄₁ *, 11, 2, 4; 2000 CG₄₁ *, 9, 2, 4; 2000 CH₄₁ *, 9, 2, 4; 2000 CI₄₁ *, 9, 2, 4; 2000 CJ₄₁ *, 8, 2, 4; 2000 CK₄₁ *, 12, 3, 6; 2000 CL₄₁ *, 10, 2, 4; 2000 CM₄₁ *, 11, 2, 4; 2000 CN₄₁ *, 9, 2, 4; 2000 CO₄₁ *, 9, 2, 4; 2000 CP₄₁ *, 8, 2, 4; 2000 CQ₄₁ *, 12, 3, 6; 2000 CR₄₁ *, 8, 2, 4; 2000 CS₄₁ *, 10, 2, 4; 2000 CT₄₁ *, 12, 3, 6; 2000 CU₄₁ *, 11, 3, 8; 2000 CV₄₁ *, 9, 2, 4; 2000 CW₄₁ *, 14, 3, 6; 2000 CX₄₁ *, 25, 5, 9; 2000 CY₄₁ *, 14, 3, 6; 2000 CZ₄₁ *, 18, 3, 6; 2000 CA₄₂ *, 18, 3, 9; 2000 CB₄₂ *, 10, 2, 4; 2000 CC₄₂ *, 8, 2, 4; 2000 CD₄₂ *, 7, 2, 4; 2000 CE₄₂ *, 10, 2, 4;

2000 CF₄₂ *, 9, 2, 4; 2000 CG₄₂ *, 9, 2, 4; 2000 CH₄₂ *, 13, 3, 6; 2000 CJ₄₂ *, 9, 2, 4; 2000 CK₄₂ *, 10, 2, 4; 2000 CL₄₂ *, 19, 4, 9; 2000 CM₄₂ *, 8, 2, 4; 2000 CN₄₂ *, 18, 3, 6; 2000 CO₄₂ *, 14, 3, 6; 2000 CP₄₂ *, 13, 3, 9; 2000 CQ₄₂ *, 9, 2, 4; 2000 CR₄₂ *, 8, 2, 4; 2000 CS₄₂ *, 8, 2, 4; 2000 CT₄₂ *, 13, 3, 6; 2000 CU₄₂ *, 17, 4, 10; 2000 CV₄₂ *, 20, 5, 35; 2000 CW₄₂ *, 7, 2, 4; 2000 CX₄₂ *, 16, 4, 31; 2000 CY₄₂ *, 7, 2, 4; 2000 CZ₄₂ *, 9, 2, 4; 2000 CA₄₃ *, 9, 2, 4; 2000 CB₄₃ *, 14, 3, 8; 2000 CC₄₃ *, 17, 4, 6; 2000 CD₄₃ *, 13, 3, 6; 2000 CE₄₃ *, 9, 2, 4; 2000 CF₄₃ *, 10, 2, 4; 2000 CG₄₃ *, 10, 2, 4; 2000 CH₄₃ *, 8, 2, 4; 2000 CJ₄₃ *, 9, 2, 4; 2000 CK₄₃ *, 9, 2, 4; 2000 CL₄₃ *, 13, 3, 6; 2000 CM₄₃ *, 7, 2, 4; 2000 CN₄₃ *, 10, 2, 4; 2000 CO₄₃ *, 10, 2, 4; 2000 CP₄₃ *, 19, 4, 32; 2000 CQ₄₃ *, 9, 2, 4; 2000 CR₄₃ *, 10, 2, 4; 2000 CS₄₃ *, 9, 2, 4; 2000 CT₄₃ *, 9, 2, 4; 2000 CU₄₃ *, 9, 2, 4; 2000 CV₄₃ *, 9, 2, 4; 2000 CW₄₃ *, 23, 5, 63; 2000 CX₄₃ *, 14, 3, 6; 2000 CY₄₃ *, 14, 3, 6; 2000 CZ₄₃ *, 10, 2, 4; 2000 CA₄₄ *, 9, 2, 4; 2000 CB₄₄ *, 8, 2, 4; 2000 CC₄₄ *, 10, 2, 4; 2000 CD₄₄ *, 10, 2, 4; 2000 CE₄₄ *, 10, 2, 4; 2000 CF₄₄ *, 10, 2, 4; 2000 CG₄₄ *, 10, 2, 4; 2000 CH₄₄ *, 10, 2, 4; 2000 CJ₄₄ *, 10, 2, 4; 2000 CK₄₄ *, 9, 2, 4; 2000 CL₄₄ *, 10, 2, 4; 2000 CM₄₄ *, 10, 2, 4; 2000 CN₄₄ *, 10, 2, 4; 2000 CO₄₄ *, 10, 2, 4; 2000 CP₄₄ *, 10, 2, 4; 2000 CQ₄₄ *, 8, 2, 4; 2000 CR₄₄ *, 9, 2, 4; 2000 CS₄₄ *, 13, 3, 63; 2000 CT₄₄ *, 7, 2, 4; 2000 CU₄₄ *, 10, 2, 4; 2000 CV₄₄ *, 9, 2, 4; 2000 CW₄₄ *, 9, 2, 4; 2000 CX₄₄ *, 10, 2, 4; 2000 CY₄₄ *, 9, 2, 4; 2000 CZ₄₄ *, 9, 2, 4; 2000 CA₄₅ *, 10, 2, 4; 2000 CB₄₅ *, 18, 3, 54; 2000 CC₄₅ *, 8, 2, 4; 2000 CD₄₅ *, 10, 2, 4; 2000 CE₄₅ *, 9, 2, 4; 2000 CF₄₅ *, 10, 2, 4; 2000 CG₄₅ *, 9, 2, 4; 2000 CH₄₅ *, 8, 2, 4; 2000 CJ₄₅ *, 9, 2, 4; 2000 CK₄₅ *, 14, 3, 63; 2000 CL₄₅ *, 9, 2, 4; 2000 CM₄₅ *, 10, 2, 4; 2000 CN₄₅ *, 8, 2, 4; 2000 CO₄₅ *, 8, 2, 4; 2000 CP₄₅ *, 10, 2, 4; 2000 CQ₄₅ *, 10, 2, 4; 2000 CR₄₅ *, 9, 2, 4; 2000 CS₄₅ *, 9, 2, 4; 2000 CT₄₅ *, 8, 2, 4; 2000 CU₄₅ *, 7, 2, 4; 2000 CV₄₅ *, 8, 2, 4; 2000 CW₄₅ *, 9, 2, 4; 2000 CX₄₅ *, 9, 2, 4; 2000 CY₄₅ *, 9, 2, 4; 2000 CZ₄₅ *, 10, 2, 4; 2000 CA₄₆ *, 8, 2, 4; 2000 CB₄₆ *, 9, 2, 4; 2000 CC₄₆ *, 9, 2, 4; 2000 CD₄₆ *, 9, 2, 4; 2000 CE₄₆ *, 13, 3, 63; 2000 CF₄₆ *, 10, 2, 4; 2000 CG₄₆ *, 9, 2, 4; 2000 CH₄₆ *, 10, 2, 4; 2000 CJ₄₆ *, 13, 3, 9; 2000 CK₄₆ *, 8, 2, 4; 2000 CL₄₆ *, 10, 2, 4; 2000 CM₄₆ *, 9, 2, 4; 2000 CN₄₆ *, 8, 2, 4; 2000 CO₄₆ *, 9, 2, 4; 2000 CP₄₆ *, 9, 2, 4; 2000 CQ₄₆ *, 7, 2, 4; 2000 CR₄₆ *, 8, 2, 4; 2000 CS₄₆ *, 8, 2, 4; 2000 CT₄₆ *, 7, 2, 4; 2000 CU₄₆ *, 9, 2, 4; 2000 CV₄₆ *, 8, 2, 4; 2000 CW₄₆ *, 7, 2, 4; 2000 CX₄₆ *, 9, 2, 4; 2000 CY₄₆ *, 9, 2, 4; 2000 CZ₄₆ *, 9, 2, 4; 2000 CA₄₇ *, 7, 2, 4; 2000 CB₄₇ *, 8, 2, 4; 2000 CC₄₇ *, 9, 2, 4; 2000 CD₄₇ *, 6, 2, 4; 2000 CE₄₇ *, 8, 2, 4; 2000 CF₄₇ *, 8, 2, 4; 2000 CG₄₇ *, 9, 2, 4; 2000 CH₄₇ *, 8, 2, 4; 2000 CJ₄₇ *, 9, 2, 4; 2000 CK₄₇ *, 15, 4, 8; 2000 CL₄₇ *, 11, 3, 9; 2000 CM₄₇ *, 8, 2, 4; 2000 CN₄₇ *, 7, 2, 4; 2000 CO₄₇ *, 7, 2, 4; 2000 CP₄₇ *, 10, 2, 4; 2000 CQ₄₇ *, 13, 3, 6; 2000 CR₄₇ *, 10, 2, 4; 2000 CS₄₇ *, 10, 2, 4; 2000 CT₄₇ *, 10, 2, 4; 2000 CU₄₇ *, 12, 3, 54; 2000 CV₄₇ *, 10, 2, 4; 2000 CW₄₇ *, 7, 2, 4; 2000 CX₄₇ *, 9, 2, 4; 2000 CY₄₇ *, 9, 2, 4; 2000 CZ₄₇ *, 10, 2, 4; 2000 CA₄₈ *, 8, 2, 4; 2000 CB₄₈ *, 10, 2, 4; 2000 CC₄₈ *, 18, 4, 9; 2000 CD₄₈ *, 10, 2, 4; 2000 CE₄₈ *, 26, 6, 60; 2000 CF₄₈ *, 10, 2, 4; 2000 CG₄₈ *, 9, 2, 4; 2000 CH₄₈ *, 10, 2, 4; 2000 CJ₄₈ *, 8, 2, 4; 2000 CK₄₈ *, 10, 2, 4; 2000 CL₄₈ *, 10, 2, 4; 2000 CM₄₈ *, 10, 2, 4; 2000 CN₄₈ *, 9, 2, 4; 2000 CO₄₈ *, 9, 2, 4; 2000 CP₄₈ *, 8, 2, 4; 2000 CQ₄₈ *, 8, 2, 4; 2000 CR₄₈ *, 10, 2, 4; 2000 CS₄₈ *, 7, 2, 4; 2000 CT₄₈ *, 10, 2, 4; 2000 CU₄₈ *, 10, 2, 4; 2000 CV₄₈ *, 10, 2, 4; 2000 CW₄₈ *, 9, 2, 4; 2000 CX₄₈ *, 10, 2, 4; 2000 CY₄₈ *, 10, 2, 4; 2000 CZ₄₈ *, 17, 4, 14; 2000 CA₄₉ *, 10, 2, 4; 2000 CB₄₉ *, 10, 2, 4; 2000 CC₄₉ *, 10, 2, 4; 2000 CD₄₉ *, 10, 2, 4; 2000 CE₄₉ *, 10, 2, 4; 2000 CF₄₉ *, 10, 2, 4; 2000 CG₄₉ *, 9, 2, 4; 2000 CH₄₉ *, 10, 2, 4; 2000 CJ₄₉ *, 9, 2, 4; 2000 CK₄₉ *, 10, 2, 4; 2000 CL₄₉ *, 10, 2, 4; 2000 CM₄₉ *, 10, 2, 4; 2000 CN₄₉ *, 9, 2, 4; 2000 CO₄₉ *, 8, 2, 4; 2000 CP₄₉ *, 17, 4, 54; 2000 CQ₄₉ *, 9, 2, 4; 2000 CR₄₉ *, 10, 2, 4; 2000 CS₄₉ *, 8, 2, 4; 2000 CT₄₉ *, 7, 2, 4; 2000 CU₄₉ *, 9, 2, 4; 2000 CV₄₉ *, 8, 2, 4; 2000 CW₄₉ *, 10, 2, 4; 2000 CX₄₉ *, 8, 2, 4; 2000 CY₄₉ *, 10, 2, 4; 2000 CZ₄₉ *, 8, 2, 4; 2000 CA₅₀ *, 9, 2, 4; 2000 CB₅₀ *, 7, 2, 4; 2000 CC₅₀ *, 9, 2, 4; 2000 CD₅₀ *, 9, 2, 4; 2000 CE₅₀ *, 17, 4, 54; 2000 CF₅₀ *, 14, 3, 6; 2000 CG₅₀ *, 9, 2, 4; 2000 CH₅₀ *, 10, 2, 4; 2000 CJ₅₀ *, 8, 2, 4; 2000 CK₅₀ *, 10, 2, 4; 2000 CL₅₀ *, 8, 2, 4; 2000 CM₅₀ *, 8, 2, 4; 2000 CN₅₀ *, 8, 2,

2, 4; 2000 CU₅₃ *, 12, 3, 5; 2000 CV₅₃ *, 8, 2, 4; 2000 CW₅₃ *, 9, 2, 4; 2000 CX₅₃ *, 8, 2, 4; 2000 CY₅₃ *, 8, 2, 4; 2000 CZ₅₃ *, 6, 2, 4; 2000 CA₅₄ *, 9, 2, 4; 2000 CB₅₄ *, 9, 2, 4; 2000 CC₅₄ *, 7, 2, 4; 2000 CD₅₄ *, 7, 2, 4; 2000 CE₅₄ *, 8, 2, 4; 2000 CF₅₄ *, 7, 2, 4; 2000 CG₅₄ *, 6, 2, 4; 2000 CH₅₄ *, 8, 2, 4; 2000 CJ₅₄ *, 7, 2, 4; 2000 CK₅₄ *, 6, 2, 4; 2000 CL₅₄ *, 8, 2, 4; 2000 CM₅₄ *, 8, 2, 4; 2000 CN₅₄ *, 7, 2, 4; 2000 CO₅₄ *, 7, 2, 4; 2000 CP₅₄ *, 8, 2, 4; 2000 CQ₅₄ *, 6, 2, 4; 2000 CR₅₄ *, 7, 2, 4; 2000 CS₅₄ *, 6, 2, 4; 2000 CU₅₄ *, 6, 2, 4; 2000 CV₅₄ *, 6, 2, 4; 2000 CW₅₄ *, 10, 3, 6; 2000 CX₅₄ *, 17, 3, 5; 2000 CY₅₄ *, 8, 2, 3; 2000 CZ₅₄ *, 9, 2, 3; 2000 CA₅₅ *, 19, 4, 8; 2000 CB₅₅ *, 10, 2, 3; 2000 CC₅₅ *, 7, 2, 3; 2000 CD₅₅ *, 15, 4, 8; 2000 CE₅₅ *, 12, 3, 5; 2000 CF₅₅ *, 7, 2, 3; 2000 CG₅₅ *, 15, 3, 8; 2000 CH₅₅ *, 8, 2, 3; 2000 CJ₅₅ *, 7, 2, 2; 2000 CK₅₅ *, 7, 2, 2; 2000 CL₅₅ *, 7, 2, 2; 2000 CM₅₅ *, 12, 3, 4; 2000 CN₅₅ *, 15, 3, 6; 2000 CO₅₅ *, 8, 2, 2; 2000 CP₅₅ *, 18, 4, 7; 2000 CQ₅₅ *, 18, 4, 34; 2000 CR₅₅ *, 9, 2, 2; 2000 CS₅₅ *, 11, 3, 7; 2000 CT₅₅ *, 15, 3, 7; 2000 CU₅₅ *, 20, 4, 35; 2000 CV₅₅ *, 13, 3, 7; 2000 CW₅₅ *, 15, 2, 2; 2000 CX₅₅ *, 23, 4, 7; 2000 CY₅₅ *, 12, 3, 12; 2000 CZ₅₅ *, 15, 3, 7; 2000 CA₅₆ *, 13, 3, 7; 2000 CB₅₆ *, 13, 3, 7; 2000 CC₅₆ *, 11, 3, 7; 2000 CD₅₆ *, 14, 3, 7; 2000 CE₅₆ *, 9, 2, 2; 2000 CF₅₆ *, 10, 2, 2; 2000 CG₅₆ *, 27, 4, 7; 2000 CH₅₆ *, 28, 5, 7; 2000 CJ₅₆ *, 29, 5, 7; 2000 CK₅₆ *, 25, 4, 7; 2000 CL₅₆ *, 16, 4, 7; 2000 CM₅₆ *, 17, 4, 7; 2000 CN₅₆ *, 6, 2, 1; 2000 CO₅₆ *, 8, 2, 2; 2000 CP₅₆ *, 14, 3, 7; 2000 CQ₅₆ *, 12, 3, 4; 2000 CR₅₆ *, 7, 2, 2; 2000 CS₅₆ *, 7, 2, 2; 2000 CT₅₆ *, 8, 2, 2; 2000 CU₅₆ *, 9, 2, 2; 2000 CV₅₆ *, 7, 2, 2; 2000 CW₅₆ *, 7, 2, 2; 2000 CX₅₆ *, 9, 2, 1; 2000 CY₅₆ *, 7, 2, 1; 2000 CZ₅₆ *, 8, 2, 1; 2000 CA₅₇ *, 20, 1, 0; 2000 CB₅₇ *, 17, 4, 6; 2000 CC₅₇ *, 8, 2, 1; 2000 CD₅₇ *, 30, 4, 6; 2000 CE₅₇ *, 21, 4, 5; 2000 CF₅₇ *, 19, 4, 5; 2000 CG₅₇ *, 7, 2, 1; 2000 CH₅₇ *, 14, 3, 29; 2000 CJ₅₇ *, 8, 2, 1; 2000 CK₅₇ *, 8, 2, 1; 2000 CL₅₇ *, 9, 2, 1; 2000 CM₅₇ *, 10, 2, 1; 2000 CN₅₇ *, 8, 2, 1; 2000 CO₅₇ *, 7, 2, 1; 2000 CP₅₇ *, 15, 3, 3; 2000 CQ₅₇ *, 7, 2, 1; 2000 CR₅₇ *, 9, 3, 6; 2000 CS₅₇ *, 12, 3, 6; 2000 CT₅₇ *, 11, 3, 6; 2000 CU₅₇ *, 6, 2, 1; 2000 CV₅₇ *, 6, 2, 1; 2000 CW₅₇ *, 8, 2, 1; 2000 CX₅₇ *, 12, 3, 6; 2000 CY₅₇ *, 11, 3, 6; 2000 CZ₅₇ *, 6, 2, 1; 2000 CA₅₈ *, 6, 2, 1; 2000 CB₅₈ *, 10, 3, 6; 2000 CC₅₈ *, 14, 3, 6; 2000 CD₅₈ *, 9, 2, 1; 2000 CE₅₈ *, 9, 2, 1; 2000 CF₅₈ *, 9, 2, 1; 2000 CG₅₈ *, 8, 2, 1; 2000 CH₅₈ *, 8, 2, 1; 2000 CJ₅₈ *, 8, 2, 1; 2000 CK₅₈ *, 8, 2, 1; 2000 CL₅₈ *, 9, 2, 1; 2000 CM₅₈ *, 8, 2, 1; 2000 CN₅₈ *, 8, 2, 1; 2000 CO₅₈ *, 8, 2, 1; 2000 CP₅₈ *, 7, 2, 1; 2000 CQ₅₈ *, 7, 2, 1; 2000 CR₅₈ *, 21, 5, 35; 2000 CS₅₈ *, 14, 3, 11; 2000 CT₅₈ *, 14, 3, 9; 2000 CU₅₈ *, 8, 2, 6; 2000 CV₅₈ *, 19, 4, 5; 2000 CW₅₈ *, 17, 4, 5; 2000 CX₅₈ *, 11, 3, 5; 2000 CY₅₈ *, 20, 5, 32; 2000 CZ₅₈ *, 11, 2, 2; 2000 CA₅₉ *, 17, 4, 5; 2000 CB₅₉ *, 7, 2, 2; 2000 CC₅₉ *, 3, 1, 0; 2000 CD₅₉ *, 4, 1, 0; 2000 CE₅₉ *, 17, 4, 6; 2000 CF₅₉ *, 6, 2, 1; 2000 CG₅₉ *, 10, 2, 5; 2000 CH₅₉ *, 13, 3, 4; 2000 CJ₅₉ *, 13, 3, 4; 2000 CK₅₉ *, 10, 3, 2; 2000 CL₅₉ *, 8, 2, 2; 2000 CM₅₉ *, 8, 2, 6; 2000 CN₅₉ *, 14, 3, 9; 2000 CO₅₉ *, 12, 3, 8; 2000 CP₅₉ *, 8, 2, 6; 2000 CQ₅₉ *, 7, 2, 6; 2000 CR₅₉ *, 9, 2, 6; 2000 CS₅₉ *, 9, 2, 6; 2000 CT₅₉ *, 13, 3, 8; 2000 CU₅₉ *, 8, 2, 6; 2000 CV₅₉ *, 16, 4, 9; 2000 CW₅₉ *, 8, 2, 6; 2000 CX₅₉ *, 8, 2, 6; 2000 CY₅₉ *, 16, 4, 10; 2000 CZ₅₉ *, 10, 2, 6; 2000 CA₆₀ *, 9, 2, 6; 2000 CB₆₀ *, 10, 2, 6; 2000 CC₆₀ *, 9, 2, 6; 2000 CD₆₀ *, 10, 2, 6; 2000 CE₆₀ *, 10, 2, 6; 2000 CF₆₀ *, 9, 2, 6; 2000 CG₆₀ *, 14, 3, 9; 2000 CH₆₀ *, 8, 2, 6; 2000 CJ₆₀ *, 8, 2, 6; 2000 CK₆₀ *, 7, 2, 6; 2000 CL₆₀ *, 8, 2, 6; 2000 CM₆₀ *, 15, 3, 6; 2000 CN₆₀ *, 17, 4, 9; 2000 CO₆₀ *, 7, 2, 6; 2000 CP₆₀ *, 9, 2, 6; 2000 CQ₆₀ *, 10, 2, 6; 2000 CR₆₀ *, 9, 2, 6; 2000 CS₆₀ *, 10, 2, 6; 2000 CT₆₀ *, 8, 2, 6; 2000 CU₆₀ *, 8, 2, 6; 2000 CV₆₀ *, 8, 2, 6; 2000 CW₆₀ *, 7, 2, 6; 2000 CX₆₀ *, 8, 2, 6; 2000 CY₆₀ *, 10, 2, 6; 2000 CZ₆₀ *, 8, 2, 6; 2000 CA₆₁ *, 6, 2, 6; 2000 CB₆₁ *, 13, 3, 10; 2000 CC₆₁ *, 12, 3, 6; 2000 CD₆₁ *, 10, 2, 6; 2000 CE₆₁ *, 8, 2, 6; 2000 CF₆₁ *, 9, 2, 6; 2000 CG₆₁ *, 10, 2, 6; 2000 CH₆₁ *, 9, 2, 6; 2000 CJ₆₁ *, 10, 2, 6; 2000 CK₆₁ *, 10, 2, 6; 2000 CL₆₁ *, 9, 2, 6; 2000 CM₆₁ *, 10, 2, 6; 2000 CN₆₁ *, 8, 2, 6; 2000 CO₆₁ *, 10, 2, 6; 2000 CP₆₁ *, 9, 2, 6; 2000 CQ₆₁ *, 9, 2, 6; 2000 CR₆₁ *, 14, 3, 34; 2000 CS₆₁ *, 7, 2, 6; 2000 CT₆₁ *, 10, 2, 6; 2000 CU₆₁ *, 10, 2, 6; 2000 CV₆₁ *, 9, 2, 6; 2000 CW₆₁ *, 10, 2, 6; 2000 CX₆₁ *, 6, 2, 6; 2000 CY₆₁ *, 10, 2, 6; 2000 CZ₆₁ *, 9, 2, 6; 2000 CA₆₂ *, 10, 2, 6; 2000 CB₆₂ *, 10, 2, 6; 2000 CC₆₂ *, 10, 2, 6; 2000 CD₆₂ *, 10, 2, 6; 2000 CE₆₂ *, 10, 2, 6; 2000 CF₆₂ *, 8, 2, 6; 2000 CG₆₂ *, 10, 2, 6; 2000 CH₆₂ *, 7, 2, 6; 2000 CJ₆₂ *, 10, 2, 6; 2000 CK₆₂ *, 9, 2, 6; 2000 CL₆₂ *, 10, 2, 6; 2000 CM₆₂ *, 10, 2, 6; 2000 CN₆₂ *, 9, 2, 6; 2000 CO₆₂ *, 7, 2, 6; 2000 CP₆₂ *, 9, 2, 6; 2000 CQ₆₂ *, 8, 2, 6; 2000 CR₆₂ *, 12, 3, 9; 2000 CS₆₂ *, 8, 2, 6; 2000 CT₆₂ *, 10, 2, 6; 2000 CU₆₂ *, 7, 2, 6; 2000 CV₆₂ *, 8, 2, 6; 2000 CW₆₂ *, 10, 2, 6; 2000 CX₆₂ *, 10, 2, 6; 2000 CY₆₂ *, 8, 2, 6; 2000 CZ₆₂ *, 8, 2, 6; 2000 CA₆₃ *, 10, 2, 6; 2000 CB₆₃ *, 9, 2, 6; 2000 CC₆₃ *, 9, 2, 6; 2000 CD₆₃ *, 8, 2, 6; 2000 CE₆₃ *, 9, 2, 6; 2000 CF₆₃ *, 15, 3, 6; 2000 CG₆₃ *, 7, 2, 6; 2000 CH₆₃ *, 8, 2, 6; 2000 CJ₆₃ *, 10, 2, 6; 2000 CK₆₃ *, 9, 2, 6; 2000 CL₆₃ *, 8, 2, 6; 2000 CM₆₃ *, 7, 2, 6; 2000 CN₆₃ *, 10, 2, 6; 2000 CO₆₃ *, 14, 3, 34; 2000 CP₆₃ *, 9, 2, 6; 2000 CQ₆₃ *, 9, 2, 6; 2000 CR₆₃ *, 7, 2, 6; 2000 CS₆₃ *, 9, 2, 6; 2000 CT₆₃ *, 7, 2, 6; 2000 CU₆₃ *, 7, 2, 6; 2000 CV₆₃ *, 7, 2, 6; 2000 CW₆₃ *, 8, 2, 6; 2000 CX₆₃ *, 9, 2, 6; 2000 CY₆₃ *, 7, 2, 6; 2000 CZ₆₃ *, 9, 2, 6; 2000 CA₆₄ *, 8, 2, 6; 2000 CB₆₄ *, 12, 3, 9; 2000 CC₆₄ *, 8, 2, 6; 2000 CD₆₄ *, 6, 2, 6; 2000 CE₆₄ *, 16, 3, 8; 2000 CF₆₄ *, 10, 2, 5; 2000 CG₆₄ *, 6, 2, 5; 2000 CH₆₄ *, 7, 2, 5; 2000 CJ₆₄ *, 9, 2, 5; 2000 CK₆₄ *, 11, 3, 8; 2000 CL₆₄ *, 14, 3, 8; 2000 CM₆₄ *, 12, 3, 8; 2000 CN₆₄ *, 8, 2, 5; 2000 CO₆₄ *, 20, 3, 8; 2000 CP₆₄ *, 14, 3, 8; 2000 CQ₆₄ *, 24, 4, 8; 2000 CR₆₄ *, 23, 4, 8; 2000 CS₆₄ *, 25, 4, 8; 2000 CT₆₄ *, 16, 4, 8; 2000 CU₆₄ *, 18, 4, 8; 2000 CV₆₄ *, 12, 3, 8; 2000 CW₆₄ *, 16, 3, 8; 2000 CX₆₄ *, 13, 3, 8; 2000 CY₆₄ *, 11, 3, 8; 2000 CZ₆₄ *, 7, 2, 5; 2000 CA₆₅ *, 14, 3, 8; 2000 CB₆₅ *, 15, 3, 8; 2000 CC₆₅ *, 12, 3, 8; 2000 CD₆₅ *, 19, 4, 38; 2000 CE₆₅ *, 13, 3, 8; 2000 CF₆₅ *, 10, 2, 5; 2000 CG₆₅ *, 13,

3, 8; 2000 CH₆₅ *, 7, 2, 5; 2000 CJ₆₅ *, 10, 3, 8; 2000 CK₆₅ *, 12, 3, 7; 2000 CL₆₅ *, 15, 3, 7; 2000 CM₆₅ *, 12, 3, 7; 2000 CN₆₅ *, 11, 3, 7; 2000 CO₆₅ *, 13, 3, 7; 2000 CP₆₅ *, 8, 2, 4; 2000 CQ₆₅ *, 15, 3, 7; 2000 CR₆₅ *, 12, 3, 7; 2000 CS₆₅ *, 13, 3, 7; 2000 CT₆₅ *, 13, 3, 7; 2000 CU₆₅ *, 7, 2, 4; 2000 CV₆₅ *, 8, 2, 4; 2000 CW₆₅ *, 8, 2, 4; 2000 CX₆₅ *, 15, 4, 6; 2000 CY₆₅ *, 8, 2, 3; 2000 CZ₆₅ *, 9, 2, 2; 2000 CA₆₆ *, 8, 2, 2; 2000 CB₆₆ *, 8, 2, 2; 2000 CC₆₆ *, 7, 2, 2; 2000 CD₆₆ *, 9, 2, 2; 2000 CE₆₆ *, 9, 2, 2; 2000 CF₆₆ *, 11, 3, 4; 2000 CG₆₆ *, 15, 3, 5; 2000 CH₆₆ *, 14, 3, 5; 2000 CJ₆₆ *, 18, 4, 5; 2000 CK₆₆ *, 13, 2, 2; 2000 CL₆₆ *, 6, 2, 2; 2000 CM₆₆ *, 8, 2, 2; 2000 CN₆₆ *, 7, 2, 2; 2000 CO₆₆ *, 8, 2, 2; 2000 CP₆₆ *, 8, 2, 2; 2000 CQ₆₆ *, 8, 2, 2; 2000 CR₆₆ *, 7, 2, 2; 2000 CS₆₆ *, 8, 2, 2; 2000 CT₆₆ *, 9, 2, 2; 2000 CU₆₆ *, 14, 3, 5; 2000 CV₆₆ *, 20, 5, 34; 2000 CW₆₆ *, 20, 4, 5; 2000 CX₆₆ *, 13, 3, 5; 2000 CY₆₆ *, 8, 2, 2; 2000 CZ₆₆ *, 9, 2, 2; 2000 CA₆₇ *, 14, 3, 5; 2000 CB₆₇ *, 9, 2, 2; 2000 CC₆₇ *, 9, 2, 2; 2000 CD₆₇ *, 9, 2, 2; 2000 CE₆₇ *, 11, 3, 5; 2000 CF₆₇ *, 8, 2, 2; 2000 CG₆₇ *, 9, 2, 2; 2000 CH₆₇ *, 16, 4, 5; 2000 CI₆₇ *, 4, 1, 0; 2000 CJ₆₇ *, 9, 2, 8; 2000 CK₆₇ *, 9, 2, 8; 2000 CL₆₇ *, 4, 1, 0; 2000 CM₆₇ *, 4, 1, 0; 2000 CN₆₇ *, 10, 2, 5; 2000 CO₆₇ *, 9, 2, 5; 2000 CP₆₇ *, 9, 2, 5; 2000 CQ₆₇ *, 10, 2, 5; 2000 CR₆₇ *, 10, 2, 5; 2000 CS₆₇ *, 10, 2, 5; 2000 CT₆₇ *, 10, 2, 5; 2000 CU₆₇ *, 10, 2, 5; 2000 CV₆₇ *, 10, 2, 5; 2000 CW₆₇ *, 10, 2, 5; 2000 CX₆₇ *, 10, 2, 5; 2000 CY₆₇ *, 10, 2, 5; 2000 CZ₆₇ *, 10, 2, 5; 2000 CA₆₈ *, 10, 2, 5; 2000 CB₆₈ *, 10, 2, 5; 2000 CC₆₈ *, 10, 2, 5; 2000 CD₆₈ *, 10, 2, 5; 2000 CE₆₈ *, 10, 2, 5; 2000 CF₆₈ *, 10, 2, 5; 2000 CG₆₈ *, 10, 2, 5; 2000 CH₆₈ *, 10, 2, 5; 2000 CJ₆₈ *, 10, 2, 5; 2000 CK₆₈ *, 10, 2, 5; 2000 CL₆₈ *, 10, 2, 5; 2000 CM₆₈ *, 10, 2, 5; 2000 CN₆₈ *, 10, 2, 5; 2000 CO₆₈ *, 10, 2, 5; 2000 CP₆₈ *, 10, 2, 5; 2000 CQ₆₈ *, 10, 2, 5; 2000 CR₆₈ *, 10, 2, 5; 2000 CS₆₈ *, 10, 2, 5; 2000 CT₆₈ *, 10, 2, 5; 2000 CU₆₈ *, 10, 2, 5; 2000 CV₆₈ *, 10, 2, 5; 2000 CW₆₈ *, 10, 2, 5; 2000 CX₆₈ *, 10, 2, 5; 2000 CY₆₈ *, 10, 2, 5; 2000 CZ₆₈ *, 10, 2, 5; 2000 CA₆₉ *, 10, 2, 5; 2000 CB₆₉ *, 10, 2, 5; 2000 CC₆₉ *, 10, 2, 5; 2000 CD₆₉ *, 10, 2, 5; 2000 CE₆₉ *, 10, 2, 5; 2000 CF₆₉ *, 10, 2, 5; 2000 CG₆₉ *, 10, 2, 5; 2000 CH₆₉ *, 10, 2, 5; 2000 CJ₆₉ *, 10, 2, 5; 2000 CK₆₉ *, 10, 2, 5; 2000 CL₆₉ *, 10, 2, 5; 2000 CM₆₉ *, 10, 2, 5; 2000 CN₆₉ *, 10, 2, 5; 2000 CO₆₉ *, 10, 2, 5; 2000 CP₆₉ *, 10, 2, 5; 2000 CQ₆₉ *, 10, 2, 5; 2000 CR₆₉ *, 10, 2, 5; 2000 CS₆₉ *, 10, 2, 5; 2000 CT₆₉ *, 10, 2, 5; 2000 CU₆₉ *, 10, 2, 5; 2000 CV₆₉ *, 10, 2, 5; 2000 CW₆₉ *, 10, 2, 5; 2000 CX₆₉ *, 10, 2, 5; 2000 CY₆₉ *, 10, 2, 5; 2000 CZ₆₉ *, 10, 2, 5; 2000 CA₇₀ *, 10, 2, 5; 2000 CB₇₀ *, 10, 2, 5; 2000 CC₇₀ *, 10, 2, 5; 2000 CD₇₀ *, 10, 2, 5; 2000 CE₇₀ *, 10, 2, 5; 2000 CF₇₀ *, 10, 2, 5; 2000 CG₇₀ *, 10, 2, 5; 2000 CH₇₀ *, 10, 2, 5; 2000 CJ₇₀ *, 10, 2, 5; 2000 CK₇₀ *, 10, 2, 5; 2000 CL₇₀ *, 10, 2, 5; 2000 CM₇₀ *, 10, 2, 5; 2000 CN₇₀ *, 10, 2, 5; 2000 CO₇₀ *, 10, 2, 5; 2000 CP₇₀ *, 10, 2, 5; 2000 CQ₇₀ *, 10, 2, 5; 2000 CR₇₀ *, 10, 2, 5; 2000 CS₇₀ *, 10, 2, 5; 2000 CT₇₀ *, 10, 2, 5; 2000 CU₇₀ *, 10, 2, 5; 2000 CV₇₀ *, 10, 2, 5; 2000 CW₇₀ *, 10, 2, 5; 2000 CX₇₀ *, 10, 2, 5; 2000 CY₇₀ *, 10, 2, 5; 2000 CZ₇₀ *, 10, 2, 5; 2000 CA₇₁ *, 10, 2, 5; 2000 CB₇₁ *, 10, 2, 5; 2000 CC₇₁ *, 10, 2, 5; 2000 CD₇₁ *, 10, 2, 5; 2000 CE₇₁ *, 10, 2, 5; 2000 CF₇₁ *, 10, 2, 5; 2000 CG₇₁ *, 10, 2, 5; 2000 CH₇₁ *, 10, 2, 5; 2000 CJ₇₁ *, 10, 2, 5; 2000 CK₇₁ *, 10, 2, 5; 2000 CL₇₁ *, 10, 2, 5; 2000 CM₇₁ *, 10, 2, 5; 2000 CN₇₁ *, 10, 2, 5; 2000 CO₇₁ *, 10, 2, 5; 2000 CP₇₁ *, 10, 2, 5; 2000 CQ₇₁ *, 10, 2, 5; 2000 CR₇₁ *, 10, 2, 5; 2000 CS₇₁ *, 10, 2, 5; 2000 CT₇₁ *, 10, 2, 5; 2000 CU₇₁ *, 10, 2, 5; 2000 CV₇₁ *, 10, 2, 5; 2000 CW₇₁ *, 10, 2, 5; 2000 CX₇₁ *, 10, 2, 5; 2000 CY₇₁ *, 10, 2, 5; 2000 CZ₇₁ *, 10, 2, 5; 2000 CA₇₂ *, 10, 2, 5; 2000 CB₇₂ *, 10, 2, 5; 2000 CC₇₂ *, 10, 2, 5; 2000 CD₇₂ *, 10, 2, 5; 2000 CE₇₂ *, 10, 2, 5; 2000 CF₇₂ *, 10, 2, 5; 2000 CG₇₂ *, 10, 2, 5; 2000 CH₇₂ *, 10, 2, 5; 2000 CJ₇₂ *, 10, 2, 5; 2000 CK₇₂ *, 10, 2, 5; 2000 CL₇₂ *, 10, 2, 5; 2000 CM₇₂ *, 10, 2, 5; 2000 CN₇₂ *, 10, 2, 5; 2000 CO₇₂ *, 10, 2, 5; 2000 CP₇₂ *, 10, 2, 5; 2000 CQ₇₂ *, 10, 2, 5; 2000 CR₇₂ *, 10, 2, 5; 2000 CS₇₂ *, 10, 2, 5; 2000 CT₇₂ *, 10, 2, 5; 2000 CU₇₂ *, 10, 2, 5; 2000 CV₇₂ *, 10, 2, 5; 2000 CW₇₂ *, 10, 2, 5; 2000 CX₇₂ *, 10, 2, 5; 2000 CY₇₂ *, 10, 2, 5; 2000 CZ₇₂ *, 10, 2, 5; 2000 CA₇₃ *, 10, 2, 5; 2000 CB₇₃ *, 10, 2, 5; 2000 CC₇₃ *, 10, 2, 5; 2000 CD₇₃ *, 10, 2, 5; 2000 CE₇₃ *, 10, 2, 5; 2000 CF₇₃ *, 10, 2, 5; 2000 CG₇₃ *, 10, 2, 5; 2000 CH₇₃ *, 10, 2, 5; 2000 CJ₇₃ *, 10, 2, 5; 2000 CK₇₃ *, 10, 2, 5; 2000 CL₇₃ *, 10, 2, 5; 2000 CM₇₃ *, 10, 2, 5; 2000 CN₇₃ *, 10, 2, 5; 2000 CO₇₃ *, 10, 2, 5; 2000 CP₇₃ *, 10, 2,

2000 CA₈₅ *, 9, 2, 7; 2000 CB₈₅ *, 10, 2, 7; 2000 CC₈₅ *, 9, 2, 7; 2000 CD₈₅ *, 9, 2, 7; 2000 CE₈₅ *, 10, 2, 7; 2000 CF₈₅ *, 9, 2, 7; 2000 CG₈₅ *, 14, 2, 7; 2000 CH₈₅ *, 10, 2, 7; 2000 CJ₈₅ *, 10, 2, 7; 2000 CK₈₅ *, 8, 2, 7; 2000 CL₈₅ *, 10, 2, 7; 2000 CM₈₅ *, 8, 2, 7; 2000 CN₈₅ *, 10, 2, 7; 2000 CO₈₅ *, 10, 2, 7; 2000 CP₈₅ *, 9, 2, 7; 2000 CQ₈₅ *, 15, 2, 7; 2000 CR₈₅ *, 10, 2, 7; 2000 CS₈₅ *, 9, 2, 7; 2000 CT₈₅ *, 10, 2, 7; 2000 CU₈₅ *, 10, 2, 7; 2000 CV₈₅ *, 10, 2, 7; 2000 CW₈₅ *, 7, 2, 7; 2000 CX₈₅ *, 9, 2, 7; 2000 CY₈₅ *, 10, 2, 7; 2000 CZ₈₅ *, 7, 2, 7; 2000 CA₈₆ *, 10, 2, 7; 2000 CB₈₆ *, 10, 2, 7; 2000 CC₈₆ *, 8, 2, 7; 2000 CD₈₆ *, 10, 2, 7; 2000 CE₈₆ *, 6, 2, 7; 2000 CF₈₆ *, 7, 2, 7; 2000 CG₈₆ *, 7, 2, 7; 2000 CH₈₆ *, 8, 2, 7; 2000 CJ₈₆ *, 8, 2, 7; 2000 CK₈₆ *, 10, 2, 7; 2000 CL₈₆ *, 10, 2, 7; 2000 CM₈₆ *, 14, 2, 7; 2000 CN₈₆ *, 10, 2, 7; 2000 CO₈₆ *, 12, 2, 7; 2000 CP₈₆ *, 10, 2, 7; 2000 CQ₈₆ *, 10, 2, 7; 2000 CR₈₆ *, 9, 2, 7; 2000 CS₈₆ *, 10, 2, 7; 2000 CT₈₆ *, 10, 2, 7; 2000 CU₈₆ *, 10, 2, 7; 2000 CV₈₆ *, 10, 2, 7; 2000 CW₈₆ *, 9, 2, 7; 2000 CX₈₆ *, 10, 2, 7; 2000 CY₈₆ *, 9, 2, 7; 2000 CZ₈₆ *, 10, 2, 7; 2000 CA₈₇ *, 9, 2, 7; 2000 CB₈₇ *, 10, 2, 7; 2000 CC₈₇ *, 8, 2, 7; 2000 CD₈₇ *, 10, 2, 7; 2000 CE₈₇ *, 8, 2, 7; 2000 CF₈₇ *, 9, 2, 7; 2000 CG₈₇ *, 7, 2, 7; 2000 CH₈₇ *, 8, 2, 7; 2000 CJ₈₇ *, 8, 2, 7; 2000 CK₈₇ *, 10, 2, 7; 2000 CL₈₇ *, 10, 2, 7; 2000 CM₈₇ *, 10, 2, 7; 2000 CN₈₇ *, 10, 2, 7; 2000 CO₈₇ *, 8, 2, 7; 2000 CP₈₇ *, 9, 2, 7; 2000 CQ₈₇ *, 6, 2, 7; 2000 CR₈₇ *, 7, 2; 2000 CS₈₇ *, 8, 2, 7; 2000 CT₈₇ *, 9, 2, 7; 2000 CU₈₇ *, 8, 2, 7; 2000 CV₈₇ *, 8, 2, 7; 2000 CW₈₇ *, 9, 2, 7; 2000 CX₈₇ *, 8, 2, 7; 2000 CY₈₇ *, 6, 2, 7; 2000 CZ₈₇ *, 7, 2, 7; 2000 CA₈₈ *, 9, 2, 7; 2000 CB₈₈ *, 8, 2, 7; 2000 CG₈₈ *, 7, 2, 7; 2000 CD₈₈ *, 8, 2, 7; 2000 CE₈₈ *, 8, 2, 7; 2000 CF₈₈ *, 7, 2, 7; 2000 CG₈₈ *, 8, 2, 7; 2000 CH₈₈ *, 9, 2, 7; 2000 CJ₈₈ *, 10, 2, 7; 2000 CK₈₈ *, 13, 3, 38; 2000 CL₈₈ *, 8, 2, 7; 2000 CM₈₈ *, 10, 2, 7; 2000 CN₈₈ *, 10, 2, 7; 2000 CO₈₈ *, 9, 2, 7; 2000 CP₈₈ *, 10, 2, 7; 2000 CQ₈₈ *, 9, 2, 7; 2000 CR₈₈ *, 8, 2, 7; 2000 CS₈₈ *, 7, 2, 7; 2000 CT₈₈ *, 10, 2, 7; 2000 CU₈₈ *, 9, 2, 7; 2000 CV₈₈ *, 8, 2, 7; 2000 CW₈₈ *, 8, 2, 7; 2000 CX₈₈ *, 9, 2, 7; 2000 CY₈₈ *, 9, 2, 7; 2000 CZ₈₈ *, 9, 2, 7; 2000 CA₈₉ *, 10, 2, 7; 2000 CB₈₉ *, 8, 2, 7; 2000 CC₈₉ *, 8, 2, 7; 2000 CD₈₉ *, 10, 2, 7; 2000 CE₈₉ *, 12, 2, 7; 2000 CF₈₉ *, 10, 2, 7; 2000 CG₈₉ *, 8, 2, 7; 2000 CH₈₉ *, 9, 2, 7; 2000 CJ₈₉ *, 8, 2, 7; 2000 CK₈₉ *, 7, 2, 7; 2000 CL₈₉ *, 7, 2, 7; 2000 CM₈₉ *, 8, 2, 7; 2000 CN₈₉ *, 7, 2, 7; 2000 CO₈₉ *, 8, 2, 7; 2000 CP₈₉ *, 8, 2, 7; 2000 CQ₈₉ *, 8, 2, 7; 2000 CR₈₉ *, 14, 3, 38; 2000 CS₈₉ *, 9, 2, 7; 2000 CT₈₉ *, 7, 2, 7; 2000 CU₈₉ *, 9, 2, 6; 2000 CV₈₉ *, 9, 2, 6; 2000 CW₈₉ *, 6, 2, 6; 2000 CX₈₉ *, 8, 2, 6; 2000 CY₈₉ *, 8, 2, 6; 2000 CZ₈₉ *, 6, 2, 6; 2000 CA₉₀ *, 7, 2, 5; 2000 CB₉₀ *, 6, 2, 5; 2000 CC₉₀ *, 6, 2, 5; 2000 CD₉₀ *, 8, 2, 5; 2000 CE₉₀ *, 8, 2, 5; 2000 CF₉₀ *, 8, 2, 5; 2000 CG₉₀ *, 9, 2, 5; 2000 CH₉₀ *, 8, 2, 5; 2000 CJ₉₀ *, 10, 2, 5; 2000 CK₉₀ *, 10, 2, 5; 2000 CL₉₀ *, 8, 2, 5; 2000 CM₉₀ *, 7, 2, 5; 2000 CN₉₀ *, 8, 2, 5; 2000 CO₉₀ *, 8, 2, 5; 2000 CP₉₀ *, 9, 2, 5; 2000 CQ₉₀ *, 9, 2, 5; 2000 CR₉₀ *, 9, 2, 5; 2000 CS₉₀ *, 10, 2, 5; 2000 CT₉₀ *, 8, 2, 5; 2000 CU₉₀ *, 9, 2, 5; 2000 CV₉₀ *, 8, 2, 5; 2000 CW₉₀ *, 8, 2, 5; 2000 CX₉₀ *, 6, 2, 5; 2000 CY₉₀ *, 8, 2, 5; 2000 CZ₉₀ *, 7, 2, 5; 2000 CA₉₁ *, 8, 2, 5; 2000 CB₉₁ *, 9, 2, 5; 2000 CC₉₁ *, 10, 3, 9; 2000 CD₉₁ *, 6, 2, 5; 2000 CE₉₁ *, 8, 2, 5; 2000 CF₉₁ *, 7, 2, 5; 2000 CG₉₁ *, 9, 2, 5; 2000 CH₉₁ *, 9, 2, 5; 2000 CJ₉₁ *, 8, 2, 5; 2000 CK₉₁ *, 8, 2, 5; 2000 CL₉₁ *, 10, 2, 5; 2000 CM₉₁ *, 9, 2, 5; 2000 CN₉₁ *, 8, 2, 5; 2000 CO₉₁ *, 9, 2, 5; 2000 CP₉₁ *, 7, 2, 5; 2000 CQ₉₁ *, 7, 2, 5; 2000 CR₉₁ *, 9, 2, 5; 2000 CS₉₁ *, 7, 2, 5; 2000 CT₉₁ *, 8, 2, 5; 2000 CU₉₁ *, 7, 2, 5; 2000 CV₉₁ *, 6, 2, 5; 2000 CW₉₁ *, 8, 2, 5; 2000 CX₉₁ *, 8, 2, 5; 2000 CY₉₁ *, 7, 2, 5; 2000 CZ₉₁ *, 9, 2, 5; 2000 CA₉₂ *, 10, 2, 5; 2000 CB₉₂ *, 9, 2, 5; 2000 CC₉₂ *, 7, 2, 5; 2000 CD₉₂ *, 12, 2, 5; 2000 CE₉₂ *, 7, 2, 5; 2000 CF₉₂ *, 7, 2, 5; 2000 CG₉₂ *, 7, 2, 5; 2000 CH₉₂ *, 6, 2, 5; 2000 CJ₉₂ *, 9, 2, 5; 2000 CK₉₂ *, 10, 2, 5; 2000 CL₉₂ *, 12, 3, 34; 2000 CM₉₂ *, 10, 2, 5; 2000 CN₉₂ *, 12, 3, 38; 2000 CO₉₂ *, 8, 2, 5; 2000 CP₉₂ *, 13, 3, 34; 2000 CQ₉₂ *, 9, 2, 5; 2000 CR₉₂ *, 10, 2, 5; 2000 CS₉₂ *, 15, 4, 67; 2000 CT₉₂ *, 9, 2, 5; 2000 CU₉₂ *, 8, 2, 5; 2000 CV₉₂ *, 9, 2, 5; 2000 CW₉₂ *, 10, 2, 5; 2000 CX₉₂ *, 9, 2, 5; 2000 CY₉₂ *, 8, 2, 5; 2000 CZ₉₂ *, 7, 2, 5; 2000 CA₉₃ *, 11, 3, 34; 2000 CB₉₃ *, 14, 3, 34; 2000 CC₉₃ *, 7, 2, 5; 2000 CD₉₃ *, 9, 2, 5; 2000 CE₉₃ *, 10, 2, 5; 2000 CF₉₃ *, 8, 2, 5; 2000 CG₉₃ *, 8, 2, 5; 2000 CH₉₃ *, 10, 2, 5; 2000 CJ₉₃ *, 13, 3, 34; 2000 CK₉₃ *, 8, 2, 5; 2000 CL₉₃ *, 7, 2, 5; 2000 CM₉₃ *, 13, 3, 34; 2000 CN₉₃ *, 7, 2, 5; 2000 CO₉₃ *, 9, 2, 5; 2000 CP₉₃ *, 10, 2, 3; 2000 CQ₉₃ *, 8, 2, 3; 2000 CR₉₃ *, 10, 2, 3; 2000 CS₉₃ *, 8, 2, 3; 2000 CT₉₃ *, 10, 2, 3; 2000 CU₉₃ *, 9, 2, 3; 2000 CV₉₃ *, 10, 2, 3; 2000 CW₉₃ *, 14, 3, 8; 2000 CX₉₃ *, 9, 2, 3; 2000 CY₉₃ *, 9, 2, 3; 2000 CZ₉₃ *, 9, 2, 3; 2000 CA₉₄ *, 10, 2, 3; 2000 CB₉₄ *, 9, 2, 3; 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705 Apache Point

M. Holman, Harvard-Smithsonian Center for Astrophysics, 60 Garden Street,
Cambridge, MA 02138, U.S.A. [mholman@cfa.harvard.edu]

Observers M. Holman, N. Haug, K. Loomis

Measurers M. Holman, N. Haug

3.5-m reflector + CCD

1997 CT₂₉, 3, 1, 0; 1998 XY₉₅, 3, 1, 0; 1999 CV₁₁₈, 6, 2, 1; 1999 CF₁₁₉, 6, 2, 1; 1999 CG₁₁₉, 6, 2, 1; 1999 XX₁₄₃, 3, 1, 0; 1999 XY₁₄₃, 3, 1, 0; [30, 7, 0*, 2000/01/29–2000/01/30]

706 Salinas

J. E. Hall, 10180 County Rd. 190, Salida, CO 81201, U.S.A. [teila@rmi.net]

0.25-m *f*/6 Newtonian reflector + CCD

GSC

1999 WA₂, 2, 1, 0; (12391), 2, 1, 0; [4, 2, 0*, 2000/01/31–2000/02/10]

707 Barnard Observatory, Golden

G. Emerson, 34296 Gap Road, Golden, CO 80403, U.S.A. [gemerson@ball.com]

0.25-m $f/4.5$ reflector + CCD
GSC
(4891), 2, 1, 0; [2, 1, 0*, 2000/02/08]

711 McDonald Observatory

J. G. Ries, McDonald Observatory, University of Texas, Austin, TX 78712, U.S.A.
[moon@astro.as.utexas.edu]

0.76-m $f/3.0$ reflector + CCD
GSC

1992 FL₁, 2, 1, 0; 1992 JE, 2, 2, 1; 1994 VU₆, 3, 1, 0; 1999 GJ₄, 4, 2, 2; 1999 JM₈, 2, 2, 1; 1999 ND₄₃, 2, 2, 1; 1999 TX₁₆, 3, 1, 0; 1999 XO₁₃₅, 2, 2, 1; 1999 YD, 2, 2, 2; 2000 AZ₁₆₇, 2, 1, 0; 2000 AU₂₄₂, 3, 1, 0; 2000 CA₁₃, 3, 1, 0; 2000 CD₃₂, 3, 1, 0; 2000 CE₅₉, 3, 1, 0; 2000 CG₅₉, 3, 1, 0; 2000 CH₅₉, 3, 1, 0; 2000 CJ₅₉, 3, 1, 0; 2000 CN₁₀₁, 3, 1, 0; 2000 CO₁₀₁, 3, 1, 0; [51, 19, 0*, 1996/12/06–2000/02/12]

715 Las Cruces

D. S. Dixon, 5975 Moonrise Vista, Las Cruces, NM 88012, U.S.A.
[ddixon@lascruces.com]

0.3-m $f/3.5$ Schmidt-Cassegrain + CCD
USNO-A2.0
1999 VG₂, 3, 1, 0; [3, 1, 0*, 2000/01/30]

718 University of Utah Hansen Planetarium, Tooele

P. Wiggins, University of Utah Hansen Planetarium, 15 South State Street, Salt Lake City, UT 84111-1590, U.S.A. [p.wiggins@m.cc.utah.edu]

Observers P. Wiggins, H. Phaneuf
0.35-m $f/4.1$ Schmidt-Cassegrain + CCD
GSC

1995 DG, 8, 2, 5; [8, 1, 0*, 2000/01/30–2000/02/04]

720 Universidad de Monterrey

P. V. Sada, Apartado Postal 134-C, MX-66270 San Pedro Garza García, Nuevo Leon, Mexico [psada@ix.netcom.com]

0.18-m $f/15.0$ Maksutov + focal reducer + CCD
USNO-A2.0

1986 EK₁, 5, 2, 1; 1991 VA₅, 6, 2, 1; 1998 TZ₁₇, 5, 2, 1; 2000 AX₉₆, 5, 2, 1; 2000 AB₉₈, 6, 2, 1; 2000 BE₃₀, 5, 2, 1; (3800), 5, 2, 1; (9991), 3, 1, 0; [40, 8, 0*, 2000/02/08–2000/02/10]

721 Lime Creek

R. Linderholm, R2 Box 79, Cambridge, NE 69022, U.S.A. [lindh@swnebr.net]

0.25-m $f/3.3$ Schmidt-Cassegrain + CCD
GSC

1997 EO₁₇, 2, 1, 0; [2, 1, 0*, 2000/02/04]

725 Fair Oaks Ranch

J. V. McClusky, McClusky Observatory, 31789 Sunland, Fair Oaks Ranch, TX 78015, U.S.A. [mcclusky@lonestar.utsa.edu]

0.46-m $f/4.5$ Newtonian reflector + CCD
GSC-ACT

1979 ML₆, 3, 2, 1; 1996 HT₁₅, 2, 1, 0; 1998 QW₄₇, 5, 2, 1; 1998 SL₇₁, 5, 2, 1; 1998 UG₁₇, 4, 2, 1; 1998 WG₁₇, 2, 1, 0; 2000 AB₉₅, 3, 1, 0; 2000 AN₁₆₈, 4, 2, 1; 2000 CX₂₅, 5, 2, 1; 2000 CO₃₂, 3, 1, 0; 2000 CS₁₀₁ *, 6, 2, 1; 2124 T-2, 5, 2, 1; (1820), 3, 2, 1; (4932), 3, 1, 0; (7147), 1, 1, 0; [54, 15, 1*, 2000/02/04–2000/02/05]

726 Brainerd

J. E. Wentworth, 6469 Madson Ave. N.W., Brainerd, MN 56401, U.S.A.
[jimw@brainerd.net]

0.280-m Schmidt-Cassegrain + CCD
GSC-1.1

2000 BH₁₉, 5, 1, 0; [5, 1, 0*, 2000/02/09]

727 Zeno Observatory, Edmond

T. Stafford, 2947 Village Circle, Edmond, OK 73013, U.S.A.
[tstaffor@aignetplex.com]

0.15-m $f/6$ refractor + CCD
GSC

1977 DG₃, 2, 1, 0; 1998 YL₁, 3, 1, 0; 2000 CG₁ *, 8, 3, 4; (3364), 2, 1, 0; (4536), 5, 2, 1; (5110), 3, 1, 0; (5618), 5, 2, 1; (9738), 3, 1, 0; [31, 8, 1*, 2000/02/03–2000/02/08]

732 Oaxaca

J. Roe, Apdo. No. 221, MX-68000 Oaxaca, Mexico [jamesroe@antequera.com]

0.25-m $f/3.4$ reflector + CCD
GSC-ACT

1991 RC₂, 3, 1, 0; 1991 TK₈, 3, 1, 0; 1992 RB₃, 3, 1, 0; 1994 AC₃, 6, 2, 2; 1994 BD₄, 3, 1, 0; 1994 PK₈, 8, 3, 5; 1996 EP₁, 7, 3, 3; 1996 HC₂₅, 3, 1, 0; 1997 GL₆, 3, 1, 0; 1998 QV₁₂, 3, 1, 0; 1998 QF₄₈, 3, 1, 0; 1998 QQ₉₇, 6, 2, 1; 1998 QC₉₈, 3, 1, 0; 1998 RB₇₁, 2, 1, 0; 1998 RL₇₃, 5, 2, 1; 1998 SL₂, 3, 1, 0; 1998 SK₁₃₂, 9, 3, 11; 1998 TP₂, 3, 1, 0; 1999 XS₁, 4, 2, 1; 1999 XQ₅, 5, 2, 3; 1999 XQ₁₀₅, 5, 2, 1; 1999 XX₁₆₄, 6, 2, 2; 2000 AA, 9, 2, 4; 2000 AV₄, 18, 6, 22; 2000 AG₆₀, 6, 2, 4; 2000 AQ₈₉, 6, 2, 5; 2000 AV₉₃, 8, 4, 16; 2000 AH₁₆₂, 5, 2, 4; 2000 AO₂₀₅, 5, 2, 5; 2000 AW₂₁₅, 6, 2, 1; 2000 AF₂₂₇, 6, 2, 1; 2000 BY₁₃, 9, 2, 1; 2000 CP₂₇, 6, 2, 1; 2000 CW₂₇, 6, 2, 1; 2000 CE₃₂, 7, 2, 1; 2000 CF₃₂, 6, 2, 1; 2000 CH₃₃, 3, 1, 0; 2000 CP₃₃ *, 12, 4, 11; 2000 CF₅₆, 3, 1, 0; 2000 CT₅₇, 6, 2, 1; 2000 CO₆₃, 3, 1, 0; 2000 CK₇₇ *, 11, 4, 5; 2000 CY₈₀ *, 13, 5, 4; 2000 CB₉₄, 12, 3, 2; 2000 CG₉₇ *, 10, 4, 3; 2000 CH₉₇ *, 5, 2, 1; 2000 CO₉₇ *, 7, 3, 2; 2000 CP₉₇ *, 16, 5, 4; 2000 CM₁₀₁ *, 11, 3, 2; (791), 3, 1, 0; (2524), 3, 1, 0; (2609), 3, 1, 0; (2953), 15, 5, 11; (5815), 1, 1, 0; (6435), 5, 2, 4; (6482), 9, 2, 1; (7008), 3, 1, 0; (7863), 3, 1, 0; (8317), 6, 2, 4; (9303), 6, 2, 4; (9308), 6, 2, 4; (9311), 6, 2, 4; (9528), 4, 2, 4; (9629), 9, 3, 4; (9662), 6, 2, 4; (9669), 6, 2, 2; (9715), 6, 2, 4; (9725), 6, 2, 2; (9726), 5, 2, 2; (9751), 8, 2, 2; (9775), 11, 3, 3; (9948), 3, 1, 0; (10247), 9, 3, 3; (10500), 6, 2, 2; (12569), 6, 2, 5; (12657), 10, 4, 12; (12800), 9, 2, 4; (12999), 3, 1, 0; (13075), 3, 1, 0; (13139), 3, 1, 0; [493, 80, 8*, 2000/01/18–2000/02/17]

734 Farpoint Observatory, Eskridge

G. Hug, RTE 1 Box 35c, Eskridge, KS 66423, U.S.A. [frogstar@inlandnet.net]

Observers D. Brunken, G. Hug

Measurer G. Hug

0.30-m Schmidt-Cassegrain + CCD

GSC-1.1, USNO-SA1.0

1991 RC₂, 3, 1, 0; 1993 BD, 4, 1, 0; 1998 VZ₅, 8, 2, 2; 1999 VV₈, 3, 1, 0; 1999 VX₂₇, 3, 1, 0; 1999 VQ₉₁, 6, 1, 0; 1999 XM₁₂₇, 3, 1, 0; 1999 XU₁₄₃, 3, 1, 0; 1999 XW₁₄₃, 4, 1, 0; 1999 YG₄, 3, 1, 0; 1999 YJ₄, 2, 1, 0; 1999 YD₉, 3, 1, 0; 1999 YH₁₃, 3, 1, 0; 1999 YK₁₃, 2, 1, 0; 1999 YU₁₄, 4, 1, 0; 2000 AJ₃₁, 3, 1, 0; 2000 AJ₄₈, 3, 1, 0; 2000 AF₆₈, 2, 1, 0; 2000 AB₁₄₇, 10, 3, 8; 2000 AB₁₄₈, 8, 2, 1; 2000 AG₁₆₈, 3, 1, 0; 2000 AX₂₀₅, 5, 1, 0; 2000 AZ₂₁₈, 3, 1, 0; 2000 AF₂₁₉, 4, 1, 0; 2000 BG, 3, 1, 0; 2000 CY₁ *, 13, 4, 13; 2000 CK₃₃, 3, 1, 0; 2000 CC₅₉ *, 9, 3, 11; 2000 CJ₆₇ *, 7, 2, 1; 2000 CK₆₇ *, 9, 2, 1; (12982), 4, 1, 0; [143, 31, 4*, 1999/10/01–2000/02/16]

735 George Observatory, Needville

W. G. Dillon, 4703 Birkenhead Circle, Missouri City, TX 77459, U.S.A.

[bdillon@houston.geoquest.slb.com]

Observers J. Dellinger, W. G. Dillon, M. Eastman

Measurers W. G. Dillon, R. Pepper

0.46-m reflector + CCD

USNO-A2.0

1999 XV₃₅, 2, 1, 0; 2000 CB₄₁ *, 5, 2, 3; 2000 CD₅₉ *, 5, 2, 3; (5618), 3, 1, 0; (7901), 2, 1, 0; [17, 5, 2*, 2000/02/06–2000/02/09]

739 Sunflower Observatory, Olathe

L. Robinson, Sunflower Observatory, 14680 W. 144 St., Olathe, KS 66062, U.S.A.
[lrobinson@ix.netcom.com]

2000 FEB. 22

M.P.C. 38305

0.30-m Schmidt-Cassegrain + CCD
GSC-1.1

1991 RC₂, 6, 1, 0; 1996 AS, 3, 1, 0; 1999 TS₁₁, 3, 1, 0; 1999 WA₈, 3, 1, 0; 1999 YC₅, 3, 1, 0;
1999 YU₈, 5, 2, 6; 2000 AT₄, 4, 1, 0; 2000 AH₅, 13, 4, 7; 2000 AW₅₀, 3, 1, 0; 2000 AR₉₆, 3, 1, 0;
2000 BH, 18, 6, 14; 2000 BK₁₉, 3, 1, 0; 2000 CH₃₃ *, 11, 3, 2; 2000 CM₃₃, 3, 1, 0; 2000 CO₃₃, 3,
1, 0; 2000 CE₅₉, 3, 1, 0; (809), 2, 1, 0; (2524), 3, 1, 0; [92, 18, 1*, 2000/01/25-2000/02/09]

740 SFA Observatory, Nacogdoches

W. D. Bruton, Box 13044, Nacogdoches, TX 75962 U.S.A.

[f-brutonwd@titan.sfasu.edu]

Observers W. D. Bruton, C. Porter

0.46-m Cassegrain reflector + CCD

GSC-1.1

1999 XN₃₇, 7, 2, 2; [7, 1, 0*, 2000/01/11-2000/01/13]

747 Baton Rouge Observatory

W. R. Cooney, Jr., 10330 Dunn Dr., Baton Rouge, LA 70810, U.S.A.

[walt@sprintmail.com]

Observers W. R. Cooney, Jr., D. Thomas, M. Hess

Measurers W. R. Cooney, Jr.

0.51-m $f/8.4$ reflector + CCD

USNO-A2.0

1998 SK₃₅, 8, 2, 11; 2000 AX₉₅, 3, 1, 0; 2000 BW₃, 10, 3, 2; 2000 BN₁₉, 6, 1, 0; 2000 BW₂₈, 3, 1,
0; 2000 CH₁ *, 11, 3, 11; 2000 CG₃₃ *, 5, 2, 1; 2000 CJ₃₃, 2, 1, 0; 2000 CL₃₃, 3, 1, 0; 2000 CE₅₉,
3, 1, 0; [54, 10, 2*, 2000/01/15-2000/02/15]

750 Hobbs Observatory, Fall Creek

R. Elliott, S475 County Road K, Fall Creek, WI 54742, U.S.A.

[elliottb@uwec.edu]

0.30-m $f/3.3$ reflector + CCD

GSC-ACT

2000 CM₃₃, 17, 3, 5; (699), 6, 2, 1; [23, 2, 0*, 2000/01/26-2000/02/08]

757 High Point

D. K. Chesney, 4210 Lauren Place, High Point, NC 27265, U.S.A.

[dkchesney@hpe.infi.net]

0.25-m Schmidt-Cassegrain + CCD

GSC

1999 XG₈₃, 4, 2, 1; 2000 AS₁₂₈, 4, 2, 1; (3128), 2, 1, 0; (4259), 2, 1, 0; [12, 4, 0*, 2000/01/28-
2000/02/06]

801 Oak Ridge

R. E. McCrosky, Harvard-Smithsonian Center for Astrophysics, 60 Garden Street,
Cambridge, MA 02138, U.S.A.

1.5-m reflector + CCD

GSC

1996 YQ₁, 2, 1, 0; 1999 VM₆, 2, 1, 0; [4, 2, 0*, 1993/02/26-1993/11/11]

808 Carlos U. Cesco Observatory, El Leoncito

C. E. Lopez, Felix Aguilar Observatory, Benavidez 8175 (Oeste), AR-5407

Marquesado-San Juan, Argentina [clopez@iinfo.unsj.edu.ar]

Observers M. R. Cesco, H. S. Lopez, C. E. Lopez, J. E. Torres, J. A. Vicentela

Measurers C. E. Lopez, R. A. Gil-Hutton

0.5-m $f/7.5$ double astrograph + CCD

PPM

1998 QP₃₈, 2, 1, 0; 1999 RR₉₀, 2, 2, 10; [4, 2, 0*, 1992/09/20-1994/11/07]

809 European Southern Observatory

C. Cavadore, MitterWeg Str. 2, Garching bei Muenchen, 85748 Germany

[ccavadore@eso.org] (1)

H. Debehogne, Observatoire Royal de Belgique, Avenue Circulaire 3, B-1180

Brussels, Belgium [henri@astro.oma.be] (3)

E. W. Elst, Observatoire Royal de Belgique, Avenue Circulaire 3, B-1180 Brussels,

Belgium [elst@atmos.oma.be] (4)

7 = 3 + 4

C.-I. Lagerkvist, Uppsala Observatory, Box 515, S-75120 Uppsala, Sweden

[classe@astro.uu.se] (8)

Observers G. Pizarro, O. Pizarro, A. Nathues, H. Debehogne, C.Cavadore, F.Colas

Measurers E. W. Elst, O. Hernius, C.-I. Lagerkvist, A. Niemi, O. Karlsson,

H. Debehogne, C.Cavadore, F.Colas

1.0-m Schmidt, Bochum telescope + CCD, 2.2-m MPG/ESO reflector + CCD

USNO-A2.0

{1} 1997 CS₂₉, 3, 1, 0; 1998 QN₄₀, 4, 1, 0; 2000 AQ₁₂₃, 4, 1, 0; 2000 AT₁₂₃, 4, 1, 0; 2000 AW₁₂₃,
4, 1, 0; 2000 CS₁₂, 4, 1, 0; 2000 CJ₇₁, 4, 1, 0; 2000 CT₈₀ *, 8, 2, 1; 2000 CU₈₀ *, 10, 3, 2;
2000 CV₈₀ *, 11, 3, 2; 2000 CB₉₇ *, 7, 2, 2; 2000 CC₉₇ *, 6, 2, 2; [69, 12, 5*, 2000/02/10-
2000/02/15]

{4} 1981 ET₃₀, 3, 1, 0; 1981 EF₃₁, 6, 2, 1; 1981 QS₂, 6, 2, 1; 1989 SA₁₀, 3, 1, 0; 1989 WZ₁, 6, 2,
1; 1990 QX₈, 6, 2, 1; 1990 TT₄, 6, 2, 1; 1991 FS, 6, 2, 1; 1991 RP₂₃, 6, 2, 1; 1992 DX₅, 6, 2, 1;
1992 EQ₂₆, 9, 2, 1; 1992 PC₁, 3, 1, 0; 1993 OV₁₁, 3, 1, 0; 1993 TA₁₅, 6, 2, 1; 1993 TZ₂₉, 3, 1, 0;
1993 TY₃₅, 3, 1, 0; 1994 CM₁₃, 6, 2, 1; 1994 PD₃₈, 6, 2, 1; 1995 KM₁, 6, 2, 1; 1995 ON₄, 6, 2, 1;
1995 QP₁₀, 6, 2, 1; 1996 HY₁₄, 3, 1, 0; 1996 XM₁₃, 6, 2, 1; 1997 GG₃₆, 3, 1, 0; 1997 GQ₃₆, 3, 1,
0; 1997 GO₄₁, 3, 1, 0; 1997 JY₁₃, 3, 1, 0; 1997 LG₃, 3, 1, 0; 1997 LY₁₀, 3, 1, 0; 1997 LN₁₃, 3, 1,
0; 1998 DR₇, 6, 2, 1; 1998 DK₁₀, 6, 2, 1; 1998 DZ₃₃, 6, 2, 1; 1998 DK₃₄, 6, 2, 1; 1998 DM₃₄, 6, 2,
1; 1998 DQ₃₄, 6, 2, 1; 1998 DV₃₄, 6, 2, 1; 1998 DW₃₄, 6, 2, 1; 1998 DY₃₄, 6, 2, 1; 1998 DB₃₅, 6,
2, 1; 1998 DC₃₅, 6, 2, 1; 1998 DD₃₅, 6, 2, 1; 1998 DE₃₅, 6, 2, 1; 1998 DF₃₅, 6, 2, 1; 1998 DG₃₅, 6,
2, 1; 1998 EJ₈, 3, 1, 0; 1998 EV₉, 6, 2, 1; 1998 EQ₁₁, 6, 2, 1; 1998 ES₁₁, 6, 2, 1; 1998 ER₁₂, 6, 2,
1; 1998 EU₁₂, 3, 1, 0; 1998 EV₁₂, 6, 2, 1; 1998 EZ₁₂, 6, 2, 1; 1998 ED₁₃, 6, 2, 1; 1998 EJ₁₃, 6, 2,
1; 1998 EY₁₃, 3, 1, 0; 1998 FQ₁₂, 6, 2, 1; 1998 FG₂₆, 3, 1, 0; 1998 FV₂₈, 6, 2, 1; 1998 FW₂₈, 6, 2,
1; 1998 FX₂₈, 6, 2, 1; 1998 FA₂₉, 6, 2, 1; 1998 FC₂₉, 6, 2, 1; 1998 FD₂₉, 6, 2, 1; 1998 FE₂₉, 6, 2,
1; 1998 FB₃₁, 6, 2, 1; 1998 FD₃₁, 6, 2, 1; 1998 FF₃₁, 6, 2, 1; 1998 FG₃₁, 6, 2, 1; 1998 FK₃₁, 6, 2,
1; 1998 FM₃₁, 6, 2, 1; 1998 FO₃₁, 6, 2, 1; 1998 FQ₃₁, 6, 2, 1; 1998 FC₃₃, 6, 2, 1; 1998 FF₃₃, 3, 1,
0; 1998 FH₃₃, 6, 2, 1; 1998 FJ₃₉, 6, 2, 1; 1998 FS₃₉, 6, 2, 1; 1998 FL₉₀, 6, 2, 1; 1998 FP₉₀, 6, 2,
1; 1998 FT₉₂, 6, 2, 1; 1998 FB₁₂₀, 6, 2, 1; 1998 FC₁₂₀, 6, 2, 1; 1998 FQ₁₂₀, 6, 2, 1; 1998 FR₁₂₀,
6, 2, 1; 1998 FH₁₂₄, 6, 2, 1; 1998 FN₁₂₇, 6, 2, 1; 1998 FO₁₂₇, 6, 2, 1; 1998 FC₁₂₈, 6, 2, 1;
1998 FT₁₂₉, 6, 2, 1; 1998 FL₁₃₃, 6, 2, 1; 1998 FM₁₃₃, 6, 2, 1; 1998 FN₁₃₃, 6, 2, 1; 1998 GP₁₁ *,
6, 2, 1; 1998 GQ₁₁ *, 6, 2, 1; 1998 GR₁₁ *, 6, 2, 1; 1998 GS₁₁ *, 6, 2, 1; 1998 GT₁₁ *, 6,
2, 1; 1998 GU₁₁ *, 6, 2, 1; 1998 GV₁₁ *, 6, 2, 1; 1998 GW₁₁ *, 6, 2, 1; 1998 GX₁₁ *, 6, 2, 1;
1998 GY₁₁ *, 6, 2, 1; 1998 GZ₁₁ *, 6, 2, 1; 1998 GA₁₂ *, 6, 2, 1; 1998 GB₁₂ *, 6, 2, 1; 1998 GC₁₂ *,
6, 2, 1; 1998 GD₁₂ *, 6, 2, 1; 1998 GE₁₂ *, 6, 2, 1; 1998 GF₁₂ *, 6, 2, 1; 1998 GG₁₂ *, 6, 2, 1;
1998 GH₁₂ *, 6, 2, 1; 1998 GJ₁₂ *, 6, 2, 1; 1998 GK₁₂ *, 6, 2, 1; 1998 GL₁₂ *, 6, 2, 1; 1998 GM₁₂ *,
6, 2, 1; 1998 GN₁₂ *, 6, 2, 1; 1998 GO₁₂ *, 6, 2, 1; 1998 GP₁₂ *, 6, 2, 1; 1998 GQ₁₂ *, 6, 2, 1;
1998 GR₁₂ *, 6, 2, 1; 1998 GS₁₂ *, 6, 2, 1; 1998 GT₁₂ *, 6, 2, 1; 1998 GU₁₂ *, 6, 2, 1; 1998 GV₁₂ *,
6, 2, 1; 1998 GW₁₂ *, 6, 2, 1; 1998 GX₁₂ *, 6, 2, 1; 1998 GY₁₂ *, 6, 2, 1; 1998 GZ₁₂ *, 6, 2, 1;
1998 GA₁₃ *, 6, 2, 1; 1998 GB₁₃ *, 6, 2, 1; 1998 OT₁₀, 3, 1, 0; 1998 QW₆₂, 3, 1, 0; 1998 RT₄₄, 3,
1, 0; 1998 RV₅₄, 3, 1, 0; 1998 SW₁, 3, 1, 0; 1998 SL₁₂₄, 3, 1, 0; 1998 US₁₃, 3, 1, 0; 1998 VQ₁₃, 3,
1, 0; 1998 WH₁₄, 3, 1, 0; 1998 XS₉, 3, 1, 0; 1998 YT₈, 6, 2, 3; 1999 JV₉₈, 3, 1, 0; 1999 NC₃, 6, 2,
1; 1999 NO₃, 6, 2, 1; 1999 NS₄, 6, 2, 1; 1999 NS₂₆, 6, 2, 1; 1999 PK₆, 6, 2, 1; 1999 RC₅₂, 6, 2, 1;
1999 RS₅₇, 3, 1, 0; 1999 RY₁₁₉, 3, 1, 0; 1999 SR₉, 6, 2, 1; 1999 SO₁₁, 6, 2, 1; 1999 VW₃₄, 3, 1, 0;
1999 VU₃₅, 3, 1, 0; 1999 VS₃₆, 4, 2, 11; 1999 WT₂, 3, 1, 0; 1999 XM₂₃, 3, 1, 0; 1999 XH₂₄, 3, 1,
0; 1999 XV₉₄, 3, 1, 0; 1999 XZ₁₀₅, 3, 1, 0; 1999 XC₁₈₉, 3, 1, 0; 1999 YZ₈, 3, 1, 0; 1999 YX₁₀, 3,
1, 0; 2000 AE₂₅, 3, 1, 0; 2000 AK₄₈, 6, 2, 9; 2000 AJ₆₅, 3, 1, 0; 2000 AQ₈₅, 3, 1, 0; 2000 AC₈₈, 3,
1, 0; 2000 AZ₈₈, 3, 1, 0; 2000 AL₉₉, 3, 1, 0; 2000 AP₁₂₄, 2, 1, 0; 2000 AV₁₂₆, 3, 1, 0; 2000 AO₁₄₃,
3, 1, 0; 2000 AF₁₆₉, 6, 2, 13; 2000 AO₂₀₂, 3, 1, 0; 2000 AK₂₁₄, 3, 1, 0; 2000 BY₁₄, 3, 1, 0;
2000 BB₃₀, 3, 1, 0; 2000 CJ₂₁, 3, 1, 0; 2583 P-L, 3, 1, 0; 5016 P-L, 6, 2, 1; 6584 P-L, 6, 2, 1;
2301 T-1, 6, 2, 1; 3286 T-1, 3, 1, 0; 1329 T-2, 3, 1, 0; 2208 T-3, 3, 1, 0; (90), 6, 2, 1; (671), 6, 2, 1;
(959), 6, 2, 1; (1076), 6, 2, 1; (1361), 6, 2, 1; (1675), 6, 2, 1; (1809), 6, 2, 1; (2361), 6, 2, 1; (2461),
6, 2, 1; (3053), 6, 2, 1; (3213), 6, 2, 1; (3497), 6, 2, 1; (3514), 6, 2, 1; (4194), 6, 2, 1; (4481), 6,
2, 1; (6508), 6, 2, 1; (6588), 6, 2, 1; (6653), 6, 2, 1; (7227), 6, 2, 1; (7281), 3, 1, 0; (8449), 6, 2,
1; (8504), 6, 2, 1; (8523), 6, 2, 1; (8564), 6, 2, 1; (8582), 6, 2, 1; (8599), 6, 2, 1; (8600), 6, 2, 1;

(9341), 6, 2, 1; (10884), 6, 2, 1; (10889), 6, 2, 1; (10934), 6, 2, 1; (11011), 6, 2, 1; (11322), 6, 2, 1; (11472), 6, 2, 1; (12058), 6, 2, 1; (12852), 6, 2, 1; [1155, 223, 38*, 1992/07/24–1998/08/27]

{7} 1993 SO₃, 6, 2, 10; 2000 AW₄₉, 6, 2, 10; 2000 AO₅₄, 6, 2, 1; 2208 T-3, 3, 1, 0; [21, 4, 0*, 1993/10/12–1994/06/09]

{8} 1981 UC₂₆, 4, 2, 2; 1988 RV₁₂, 6, 3, 21; 1990 TY, 2, 1, 0; 1995 GV₂, 4, 2, 2; 1995 QO₂, 1, 1, 0; 1996 RB₂₇, 1, 1, 0; 1996 RF₂₇, 1, 1, 0; 1996 RT₃₀, 1, 1, 0; 1996 RX₃₁, 1, 1, 0; 1996 RV₃₂, 1, 1, 0; 1997 QW₃, 4, 2, 2; 1997 RO₈, 2, 1, 0; 1997 RQ₈, 2, 1, 0; 1997 SF₁, 2, 1, 0; 1997 SC₃, 2, 1, 0; 1997 SQ₃₂, 2, 1, 0; 1997 SM₃₃, 4, 2, 2; 1997 SM₃₅, 1, 1, 0; 1997 TD₆, 4, 2, 2; 1997 TR₆, 4, 2, 2; 1997 TN₁₉, 4, 2, 2; 1997 TS₂₄, 1, 1, 0; 1997 TA₂₆, 2, 2, 1; 1997 TZ₂₇, 2, 1, 0; 1997 TX₂₈, 2, 1, 0; 1997 TY₂₉ *, 4, 2, 4; 1997 TZ₂₉ *, 3, 2, 1; 1997 TA₃₀ *, 6, 2, 1; 1997 TB₃₀ *, 4, 2, 1; 1997 UO₇, 4, 2, 2; 1997 UB₈, 4, 2, 2; 1997 UJ₂₂, 6, 3, 2; 1997 UE₂₅, 4, 2, 2; 1997 UY₂₆ *, 4, 2, 2; 1997 UZ₂₆ *, 4, 2, 2; 1997 VA₁, 2, 1, 0; 1997 VV₄, 4, 2, 2; 1997 WJ₅₈ *, 4, 2, 2; 1997 WK₅₈ *, 4, 2, 2; 1997 WL₅₈ *, 4, 2, 2; 1997 WM₅₈ *, 4, 2, 2; 1997 WN₅₈ *, 4, 2, 2; 1997 WO₅₈ *, 6, 3, 2; 1997 WP₅₈ *, 3, 2, 2; 1997 XX₁₃ *, 4, 2, 1; 1998 DU₂₀, 2, 1, 0; 1998 UF₃₁, 3, 3, 32; 1999 JL₈₀, 4, 3, 2; 1999 RP₈₆, 5, 5, 26; 1999 RM₁₅₁, 3, 3, 4; 1999 UV₂₈, 2, 2, 1; 1999 VZ₂, 8, 7, 27; 1999 WA₁₈, 11, 9, 30; 1999 XM₇₁, 2, 1, 0; 1999 XK₇₇, 3, 2, 408; 1999 YN₁₂, 2, 1, 0; 2000 AA₆₄, 1, 1, 0; 2000 AN₁₇₉, 1, 1, 0; 2000 CS₉₇ *, 8, 2, 1; 4595 P-L, 4, 2, 2; 2237 T-1, 9, 7, 26; 3078 T-1, 4, 2, 2; 4216 T-2, 4, 2, 2; (196), 4, 2, 2; (1162), 6, 3, 21; (1748), 2, 1, 0; (2413), 4, 2, 2; (2449), 2, 1, 0; (2577), 2, 1, 0; (2809), 4, 2, 2; (3290), 5, 2, 2; (4230), 4, 2, 1; (4232), 2, 1, 0; (4406), 2, 1, 0; (4614), 4, 2, 2; (5726), 4, 2, 2; (5928), 6, 3, 27; (6385), 3, 2, 1; (7958), 4, 2, 1; (7983), 2, 1, 0; (8016), 1, 1, 0; (8087), 4, 2, 2; (8130), 4, 2, 1; (8168), 4, 2, 2; (9829), 8, 2, 1; (10063), 4, 2, 1; (10667), 4, 2, 2; (10986), 4, 2, 2; (13096), 6, 3, 29; [317, 89, 15*, 1995/08/25–2000/02/15]

819 Val-des-Bois

D. Bergeron, 117 Ch. Guenette, C.P. 130, Val-des-Bois, Quebec JOX 3C0, Canada
[bergeron@achilles.net]

0.25-m *f*/10 Schmidt-Cassegrain + CCD
GSC-1.2

1993 FR₅₂, 4, 1, 0; 1994 PG₁₉, 5, 1, 0; 1998 TQ₃₀, 4, 1, 0; 1999 XE₃₃, 12, 3, 5; 2000 AW₂₆, 13, 2, 1; 2000 AA₂₈, 17, 3, 5; 2000 AZ₁₆₇, 11, 2, 2; 2000 CW₄₃, 13, 2, 2; 2000 CA₈₁ *, 13, 2, 4; 2000 CB₈₁ *, 11, 2, 2; (1643), 5, 1, 0; (5346), 4, 1, 0; [112, 12, 2*, 2000/01/25–2000/02/12]

830 Hudson

S. Brady, 5 Melba Drive, Hudson, NH 03051, U.S.A. [sebrady@worldnet.att.net]

0.25-m *f*/5.6 Newtonian reflector + CCD
GSC

2000 CH₅₉, 3, 1, 0; [3, 1, 0*, 2000/02/08]

849 Everstar Observatory, Olathe

G. Fedon, 21251 W. 123rd St., Olathe, KS 66061, U.S.A. [antares@everstar.com]
Observer M. Abraham

0.25-m Schmidt-Cassegrain + CCD
GSC-1.1

1999 XE₈₅, 3, 1, 0; 1999 XX₁₀₁, 3, 1, 0; 1999 XG₁₃₄, 2, 1, 0; 2000 AM₈₃, 10, 2, 2; 2000 AA₈₄, 3, 1, 0; (1039), 3, 1, 0; (1298), 3, 1, 0; (2071), 3, 1, 0; (5518), 3, 1, 0; [33, 9, 0*, 2000/02/01–2000/02/07]

850 Cordell-Lorenz Observatory, Sewanee

D. T. Durig, SPO 1242, Sewanee, TN 37383, U.S.A. [ddurig@sewanee.edu]

0.3-m *f*/6.1 Schmidt-Cassegrain + CCD
GSC-1.1

2000 AU₂₄₂, 2, 1, 0; 2000 BH₁₉, 2, 1, 0; 2000 CF₅₉, 2, 1, 0; [6, 3, 0*, 2000/02/02–2000/02/06]

854 Sabino Canyon Observatory, Tucson

J. E. McGaha, 5100 Sabino Foothills, Tucson, AZ 85750, U.S.A.

[jmcgaha@azstarnet.com]

0.30-m *f*/5.75 Schmidt-Cassegrain + CCD
GSC-1.1

2000 CN₁₀₁, 3, 1, 0; [3, 1, 0*, 2000/02/11]

858 Tebbutt Observatory, Edgewood

F. B. Zoltowski, Tebbutt Observatory, 70 Abajo Dr., Edgewood, NM 87015, U.S.A.
[fbzolt@compserve.com]

0.3-m *f*/3.3 Schmidt-Cassegrain + CCD
USNO-SA2.0

1998 MM₇, 6, 2, 1; 1998 PG₁, 7, 3, 25; 1998 QK₆₁, 6, 2, 1; 1998 SG₁₃, 9, 3, 4; 1998 TY₆, 7, 3, 13; 2000 AW₆₂, 9, 3, 4; 2000 BN₁₃, 6, 2, 3; 2000 BO₁₃, 5, 2, 3; 2000 BL₁₅ *, 10, 4, 12; 2000 BD₁₉, 3, 1, 0; 2000 BE₁₉, 6, 2, 3; 2000 BF₁₉, 6, 2, 4; 2000 BH₁₉, 7, 3, 3; 2000 BJ₁₉, 3, 1, 0; 2000 BM₁₉, 5, 2, 1; 2000 BN₁₉, 6, 2, 1; 2000 CC *, 6, 2, 1; 2000 CD *, 10, 4, 10; 2000 CJ₃₃, 6, 2, 4; 2000 CK₃₃, 9, 3, 3; 2000 CM₃₃, 5, 1, 0; 2000 CT₃₄ *, 6, 2, 3; 2000 CE₅₉, 3, 1, 0; 2000 CF₅₉, 3, 1, 0; 2000 CG₅₉, 2, 1, 0; 2000 CW₈₀ *, 6, 2, 1; 2000 CX₈₀ *, 5, 2, 1; 2000 CN₁₀₁, 6, 2, 1; 2000 CO₁₀₁, 3, 1, 0; 2000 CQ₁₀₁, 3, 1, 0; (2309), 6, 2, 1; (3364), 3, 1, 0; [183, 32, 6*, 2000/01/12–2000/02/12]

860 Valinhos

P. R. Holvorcem, Departamento de Matematica/IMECC, Universidade Estadual de
Campiñas SP, BR-13081-970, Brazil [canis@mpc.com.br]

0.36-m *f*/3.6 Schmidt-Cassegrain + CCD
GSC-ACT

1996 AX₁, 2, 1, 0; 1997 WU₂₂, 3, 1, 0; 1999 RH₂₇, 3, 1, 0; 1999 US₃, 5, 2, 5; 2000 AY₉₃, 2, 1, 0; 2000 BH₁₉, 2, 1, 0; 2000 CM₃₃, 3, 1, 0; (9840), 2, 1, 0; [22, 8, 0*, 2000/01/29–2000/02/03]

865 Emmy Observatory, New Paltz

L. Weber, 1 Emmy Lane, New Paltz, New York, U.S.A. [larryweber@mhv.net]

0.20-m *f*/6.3 Schmidt-Cassegrain + CCD
GSC

1992 EN₁₂, 3, 1, 0; 1999 YV₁₃, 9, 2, 1; 2000 AY₆₄, 18, 3, 17; 2000 AB₉₇, 9, 2, 1; 2000 AZ₁₃₆, 8, 2, 1; 2000 CZ₈₀ *, 19, 3, 5; (5993), 9, 2, 1; [75, 7, 1*, 2000/01/15–2000/02/15]

886 Susono

M. Akiyama, 1655-23, Chabatake, Susono, Shizuoka-Ken, 410-11 Japan

0.25-m *f*/6.3 reflector + CCD
GSC

1998 TA, 5, 2, 5; 1999 XD₁₀₄, 3, 1, 0; 2000 AE₅, 3, 1, 0; [11, 3, 0*, 2000/01/28–2000/02/02]

888 Gekko Observatory

T. Kagawa, 1308-222, Kuwahara, Kannami-cho, Tagata-gun, Shizuoka-Ken, 419-
010, Japan

0.50-m *f*/4.0 reflector + CCD
GSC-1.1

1988 XE₂, 5, 2, 5; 1989 WU, 3, 1, 0; 1990 ST₄, 2, 1, 0; 1991 AK₁, 6, 2, 5; 1991 YC, 3, 1, 0; 1994 NS, 6, 2, 4; 1994 QV, 6, 2, 8; 1994 UC₁, 3, 1, 0; 1995 GC₇, 3, 1, 0; 1995 UB₈, 5, 2, 13; 1995 WL₁₃, 3, 1, 0; 1995 YR, 3, 1, 0; 1995 YS₂, 3, 1, 0; 1995 YM₄, 3, 1, 0; 1996 BO₃, 2, 1, 0; 1997 AQ₆, 3, 1, 0; 1997 QG₄, 5, 2, 10; 1997 UB₁₁, 3, 1, 0; 1997 UC₁₁, 3, 1, 0; 1998 SS₂, 3, 1, 0; 1998 UP₆, 3, 1, 0; 1998 UT₆, 6, 2, 1; 1998 VC, 3, 1, 0; 1998 VX₅, 3, 1, 0; 1998 VF₆, 6, 2, 7; 1998 WE₃, 3, 1, 0; 1998 WL₅, 6, 2, 1; 1998 WN₅, 5, 2, 7; 1998 WW₅, 6, 2, 1; 1998 WE₇, 6, 2, 1; 1999 BC₄, 5, 2, 7; 1999 UC₃, 3, 1, 0; 1999 VW₁, 2, 1, 0; 1999 VR₈, 2, 1, 0; 1999 VB₂₁, 2, 1, 0; 1999 VD₂₆, 3, 1, 0; 1999 XF₂, 2, 1, 0; 1999 XL₈, 5, 2, 8; 1999 XD₃₆, 2, 1, 0; 1999 XF₃₈, 5, 2, 13; 1999 XC₁₀₄, 2, 1, 0; 1999 XD₁₀₄, 2, 1, 0; 1999 XN₁₀₅, 3, 1, 0; 2000 AG₂, 5, 2, 7; 2000 AE₅, 3, 1, 0; 2000 AS₁₄₂, 6, 2, 1; 2000 AK₁₄₄, 3, 1, 0; 2000 AY₁₄₄, 6, 2, 1; 2000 AY₁₆₄, 6, 2, 2; 2000 AA₂₀₅, 3, 1, 0; 2000 AS₂₄₂, 6, 2, 1; 2000 BB₁₁ *, 5, 2, 1; 2000 BC₁₁ *, 6, 2, 1; 2000 BD₁₁ *, 11, 4, 12; 2000 BE₁₁ *, 5, 2, 1; 2000 BE₁₄, 8, 3, 5; 2000 CH₂ *, 8, 3, 7; 2000 CN₂ *, 5, 2, 2; 2000 CT₂ *, 4, 2, 2; 2000 CU₂₇, 7, 2, 1; 2000 CZ₂₇, 3, 1, 0; 2000 CO₄₀ *, 12, 4, 8; 2000 CN₇₂, 6, 2, 1; 2000 CZ₇₄ *, 5, 2, 1; (993), 3, 1, 0; (1964), 2, 1, 0; (9422), 6, 2, 1; [292, 67, 9*, 2000/01/28–2000/02/16]

900 Moriyama

Y. Ikari, Katube-Cho 626, Moriyama, Shiga-Ken 524, Japan

[ikari@gold.ocn.ne.jp]

0.25-m *f*/6.3 Schmidt-Cassegrain + CCD
GSC

1999 GJ₄, 2, 1, 0; 1999 RH₂₇, 2, 1, 0; 1999 VM₄₀, 2, 1, 0; 1999 YO₁, 2, 1, 0; 1999 YE₅, 2, 1, 0; 2000 AX₉₃, 2, 1, 0; [12, 6, 0*, 2000/01/25–2000/02/10]

903 Fukuchiyama

M. Yoshimi, Osas 185-4-101, Fukuchiyama, Kyoto 620-0845, Japan
[myoshimi@silver.ocn.ne.jp]

Observer M. Yoshimi

0.25-m $f/6.3$ Schmidt-Cassegrain + CCD

GSC

2000 CM₃₃, 3, 1, 0; (7361), 2, 1, 0; [5, 2, 0*, 2000/01/18–2000/02/05]

910 Caussols-ODAS

A. Maury, Observatoire de la Côte d'Azur, B.P. 229, F-06304 Nice, France
[maury@obs-azur.fr]

G. Hahn, DLR Institute of Planetary Exploration, Rudower Chaussee 5, D-12489 Berlin, Germany [Gerhard.Hahn@DLR.de]

Observers A. Maury, D. Albanese, G. Hahn, M. Hoffmann

Measurers A. Maury, G. Hahn

0.90-m Schmidt + CCD

GSC

1993 FY₁₉, 3, 1, 0; 1994 UL₆, 3, 1, 0; 1997 FV₃, 3, 1, 0; 1997 GB₁₄, 3, 1, 0; 1997 TU₂₈, 3, 1, 0; 1998 AV₅, 3, 1, 0; 1998 GC₃, 3, 1, 0; 1998 HW₃₉, 3, 1, 0; 1998 HC₄₆, 3, 1, 0; 1998 HD₄₆, 3, 1, 0; 1998 HU₄₆, 3, 1, 0; 1998 HB₆₇, 3, 1, 0; 1998 HG₆₈, 3, 1, 0; 1998 HQ₇₀, 3, 1, 0; 1998 HG₈₉, 3, 1, 0; 1998 QM₂₁, 3, 1, 0; 1998 QA₉₄, 3, 1, 0; 1998 SQ₁₃, 3, 1, 0; 1998 SW₁₆₄, 3, 1, 0; 1998 TZ, 3, 1, 0; 1998 TQ₃₅ *, 3, 1, 0; 1998 TR₃₅ *, 3, 1, 0; 1998 TS₃₅ *, 3, 1, 0; 1998 TW₃₅, 3, 1, 0; 1998 TX₃₅, 3, 1, 0; 1998 TZ₃₅, 3, 1, 0; 1998 TA₃₆, 3, 1, 0; 1998 UF₄₄, 3, 1, 0; 1998 UW₄₄ *, 6, 2, 1; 1998 UY₄₄, 3, 1, 0; 1998 UZ₄₄, 3, 1, 0; 1998 UD₄₅ *, 3, 1, 0; 1998 VA₃, 3, 1, 0; 1998 VW₁₁, 3, 1, 0; 1998 VF₁₃, 6, 2, 31; 1998 VY₂₀, 3, 1, 0; 1998 VG₂₂, 3, 1, 0; 1998 VQ₂₈, 3, 1, 0; 1998 WZ₁₆, 3, 1, 0; 1998 XK₉₇, 3, 1, 0; 1999 CM₁₃₆, 3, 1, 0; 1999 FS₄₆, 3, 1, 0; 1999 GX₂₄, 3, 1, 0; 1999 XF₁₀₀, 3, 1, 0; 1999 XX₁₀₅, 3, 1, 0; 1999 XQ₁₆₉, 3, 1, 0; 2000 AO₃₁, 3, 1, 0; 2000 AR₄₁, 3, 1, 0; 2000 AJ₉₅, 3, 1, 0; 2000 AW₉₆, 3, 1, 0; 2000 AT₁₂₂, 3, 1, 0; 2000 AC₁₂₅, 3, 1, 0; 2000 AD₁₄₁, 3, 1, 0; 2000 AG₁₄₃, 3, 1, 0; 2000 AH₁₆₄, 3, 1, 0; 2000 AS₁₉₂, 3, 1, 0; [174, 56, 5*, 1997/01/31–1999/03/16]

931 Punaauia

J. C. Pelle, BP 130085, 98717 Punaauia, French Polynesia [jcpelle@mail.pf]

0.20-m $f/10$ reflector + CCD

GSC

1991 UE₁, 3, 1, 0; 1993 FL₅₄, 6, 2, 1; 1995 VD, 3, 1, 0; 1998 NA, 3, 1, 0; 1998 RY₅₁, 2, 1, 0; 1999 XX₁₇₆, 3, 1, 0; 9097 P-L, 2, 1, 0; (2609), 2, 1, 0; (9825), 3, 1, 0; (13308), 2, 1, 0; [29, 10, 0*, 2000/01/26–2000/02/14]

943 Peverell

L. D. J. Harris, 5 Burnham Park Road, Peverell, Plymouth PL3 5QB, England
[lawrence@peverell.greatxscape.net]

0.25-m $f/10$ Schmidt-Cassegrain + CCD

GSC-ACT, USNO-A2.0

1980 XB, 2, 1, 0; (532), 2, 1, 0; (542), 3, 3, 3; (552), 1, 1, 0; (554), 3, 1, 0; (647), 2, 1, 0; (677), 3, 1, 0; (679), 2, 1, 0; [18, 8, 0*, 2000/01/23–2000/02/19]

944 Observatorio Geminis, Dos Hermanas

J. M. Garcia J., c/Montserrat Caballe 8, E-41700 Dos Hermanas (Sevilla), Spain
[jmgarcia@wanadoo.es]

0.304-m $f/5.5$ reflector + CCD

USNO-SA2.0

1997 WU₂₂, 6, 1, 0; [6, 1, 0*, 2000/01/29]

946 Ametlla de Mar

J. Nomen, Rio de Oro 25, bjos2, E-08034 Barcelona, Spain

[jnomen@astro.gea.cesca.es]

0.30-m $f/5.0$ reflector + CCD

USNO-SA1.0

1999 XW₃₅, 3, 1, 0; [3, 1, 0*, 2000/02/04]

ORBITAL ELEMENTS

Orbital elements have been computed by the following contributors:

D. J. Asher, Armagh Observatory, College Hill, Armagh, BT61 9DG, U.K.

[dja@star.arm.ac.uk]

A. Doppler, c/o Archenhold-Sternwarte, Alt-Treptow 1, D-12435 Berlin, Germany
[doppler@aobs.de]

D. W. E. Green, Harvard-Smithsonian Center for Astrophysics, 60 Garden Street, Cambridge, MA 02138, U.S.A. [dgreen@cfa.harvard.edu]

T. Kobayashi, 1717-2 Shimo-Koizumi, Oizumi-machi, Ora-gun, Gunma-ken, 370-0515 Japan [kobataka@sannet.ne.jp]

B. G. Marsden, Harvard-Smithsonian Center for Astrophysics, 60 Garden Street, Cambridge, MA 02138, U.S.A. [bmarsden@cfa.harvard.edu]

S. Nakano, 3-19, 1 chome, Takenokuchi, Sumoto, Hyogo-ken 656, Japan
[snakano@cfa.harvard.edu]

T. B. Spahr, Harvard-Smithsonian Center for Astrophysics, 60 Garden Street, Cambridge, MA 02138, U.S.A. [tbs@astro.ufl.edu]

G. V. Williams, Harvard-Smithsonian Center for Astrophysics, 60 Garden Street, Cambridge, MA 02138, U.S.A. [gwilliams@cfa.harvard.edu]

C/1999 O1 (SOHO)

T 1999 Aug. 1.12 TT

q	0.0051	(2000.0)	P	Marsden	Q
		ω	78.96	+0.18225	−0.98323
		Ω	359.34	−0.96152	−0.17678
e	1.0	i	144.42	+0.20557	+0.04481
From 14 observations 1999 July 31.					

C/1999 P2 (SOHO)

T 1999 Aug. 6.18 TT

q	0.0084	(2000.0)	P	Marsden	Q
		ω	82.37	+0.19485	−0.97982
		Ω	4.43	−0.95857	−0.19986
e	1.0	i	144.76	+0.20778	−0.00317
From 23 observations 1999 Aug. 5.					

C/1999 P3 (SOHO)

T 1999 Aug. 4.06 TT

q	0.0063	(2000.0)	P	Marsden	Q
		ω	84.02	+0.18226	−0.98160
		Ω	5.59	−0.95851	−0.19030
e	1.0	i	144.16	+0.21919	−0.01597
From 19 observations 1999 Aug. 3.					

C/1999 S4 (LINEAR)

Epoch 2000 Aug. 4.0 TT = JDT 2451760.5

<i>T</i> 2000 July 26.1674 TT		Marsden	
<i>q</i>	(2000.0)	P	Q
<i>z</i>	−0.000003	ω 151.0672	+0.3096661 −0.8052814
	± 0.000007	Ω 83.1907	−0.9405860 −0.1815295
<i>e</i>	1.000002	<i>i</i> 149.3902	−0.1393012 −0.5644191

From 721 observations 1999 Sept. 27–2000 Feb. 19, mean residual 0".6.

P/1999 WJ₇ (Korlević)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>T</i> 2000 Feb. 15.2582 TT		Marsden	
<i>q</i>	(2000.0)	P	Q
<i>n</i>	0.0988225	ω 154.4221	+0.0874371 −0.9949801
<i>a</i>	4.633390	Ω 290.5303	+0.9048098 +0.0997650
<i>e</i>	0.316312	<i>i</i> 2.9794	+0.4167420 −0.0078469
<i>P</i>	9.97		

From 77 observations 1999 Nov. 3–2000 Feb. 11, mean residual 0".6.

C/1999 Y1 (LINEAR)*T* 2001 Mar. 24.2080 TT

<i>q</i> 3.091513		Nakano	
	(2000.0)	P	Q
	ω 184.2621	+0.9934160	+0.0347163
	Ω 188.8522	+0.1142893	−0.3661883
<i>e</i> 1.0	<i>i</i> 134.8089	−0.0079188	−0.9298930

From 217 observations 1999 Dec. 20–2000 Feb. 11.

C/2000 A1 (Montani)*T* 2000 July 14.5824 TT

<i>q</i> 9.754080		Nakano	
	(2000.0)	P	Q
	ω 14.2959	−0.5690611	−0.7258184
	Ω 111.8521	+0.7076215	−0.6716469
<i>e</i> 1.0	<i>i</i> 24.6066	+0.4188572	+0.1485870

From 64 observations 2000 Jan. 4–Feb. 12.

C/2000 B2 (LINEAR)*T* 1999 Nov. 9.2796 TT

<i>q</i> 3.774661		Nakano	
	(2000.0)	P	Q
	ω 154.4402	−0.2599406	−0.0559262
	Ω 284.9888	+0.6217203	+0.7541716
<i>e</i> 1.0	<i>i</i> 93.6621	+0.7388469	−0.6542916

From 69 observations 2000 Jan. 29–Feb. 11.

P/2000 B3 (LINEAR)*T* 2000 Feb. 14.1320 TT

<i>q</i> 1.699919		Nakano	
	(2000.0)	P	Q
<i>n</i>	0.1233531	ω 130.4773	−0.5413678 −0.8403748
<i>a</i>	3.996711	Ω 352.1669	+0.7012059 −0.4340215
<i>e</i>	0.574671	<i>i</i> 11.1215	+0.4639302 −0.3246468
<i>P</i>	7.99		

From 46 observations 2000 Jan. 27–Feb. 11.

C/2000 B4 (LINEAR)*T* 2000 June 24.6212 TT

<i>q</i> 6.818695		Marsden	
	(2000.0)	P	Q
<i>n</i>	0.0127745	ω 126.8741	−0.6083573 −0.7936577
<i>a</i>	18.123386	Ω 0.6207	+0.6126071 −0.4719498
<i>e</i>	0.623763	<i>i</i> 15.9088	+0.5045928 −0.3838891
<i>P</i>	77.2		

From 67 observations 2000 Jan. 2–Feb. 12.

P/2000 C1 (Hergenrother)*T* 2000 Mar. 19.7555 TT

<i>q</i> 2.095972		Nakano	
	(2000.0)	P	Q
<i>n</i>	0.1484214	ω 51.1166	−0.9959640 −0.0291121
<i>a</i>	3.532957	Ω 127.0522	−0.0011797 −0.9416076
<i>e</i>	0.406737	<i>i</i> 6.1067	+0.0897461 −0.3354513
<i>P</i>	6.64		

From 69 observations 2000 Jan. 4–Feb. 16.

C/2000 C2 (SOHO)*T* 2000 Feb. 3.76 TT

<i>q</i> 0.0344		Marsden	
	(2000.0)	P	Q
	ω 44.41	+0.72413	−0.33485
	Ω 41.27	−0.01777	−0.88299
<i>e</i> 1.0	<i>i</i> 113.92	+0.68944	+0.32894

From 10 observations 2000 Feb. 3.

C/2000 C3 (SOHO)*T* 2000 Feb. 4.84 TT

<i>q</i> 0.0460		Marsden	
	(2000.0)	P	Q
	ω 53.23	+0.65235	−0.75648
	Ω 4.81	−0.73972	−0.64889
<i>e</i> 1.0	<i>i</i> 146.19	+0.16508	+0.08172

From 35 observations 2000 Feb. 4–5.

C/2000 C4 (SOHO)*T* 2000 Feb. 5.44 TT

<i>q</i> 0.0460		Marsden	
	(2000.0)	P	Q
	ω 53.23	+0.65235	−0.75648
	Ω 4.81	−0.73972	−0.64889
<i>e</i> 1.0	<i>i</i> 146.19	+0.16508	+0.08172

From 54 observations 2000 Feb. 5.

C/2000 C5 (SOHO)*T* 2000 Feb. 7.88 TT

<i>q</i> 0.0344		Marsden	
	(2000.0)	P	Q
	ω 55.22	+0.53909	−0.53512
	Ω 41.67	−0.08816	−0.80383
<i>e</i> 1.0	<i>i</i> 101.94	+0.83762	+0.25980

From 7 observations 2000 Feb. 7.

2000 FEB. 22

M.P.C. 38309

C/2000 C6 (SOHO)

T 2000 Feb. 10.71 TT		Marsden	
q	0.0051	(2000.0)	
	ω	88.46	
	Ω	10.17	
e	1.0	i 144.12	
From 12 observations 2000 Feb. 9.			

C/2000 CT₅₄ (LINEAR)

T 2001 June 18.5513 TT		Marsden	
q	3.129709	(2000.0)	
	ω	273.0740	
	Ω	18.9613	
e	1.0	i 49.2184	
From 24 observations 2000 Jan. 28–Feb. 16.			

71P/Clark

Epoch 2000 Dec. 2.0 TT = JDT 2451880.5

T 2000 Dec. 2.0402 TT		Marsden	
q	1.559153	(2000.0)	
n	0.1787016	ω 208.8473	
a	3.121646	Ω 59.6925	
e	0.500535	i 9.4952	
P	5.52		

From 196 observations 1989–2000, mean residual 0''.9. Nongravitational parameters

$$A_1 = +0.20, A_2 = -0.4535.$$

(13473)* 1953 GJ = 1998 SP₁₄₁

Discovered 1953 Apr. 7 by K. Reinmuth at Heidelberg.

Id. A. Doppler (*MPC* 35275)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M 281.99358		Williams	
n	0.29140543	(2000.0)	
a	2.2532236	ω 62.86589	
e	0.1723959	Ω 173.21364	
P	3.38	i 4.80296	

Residuals in seconds of arc

P	3.38	H	14.4	G	0.15	U	2
1953 04 07	024	0.7–	0.5+	1998 09 27	704	0.1–	1.2+
1953 04 12	024	1.5+	2.0+	1998 10 11	699	0.2–	0.3+
1953 04 19	024	(2.6+	4.3–)	1998 10 11	699	0.2+	1.0+
1997 01 19	327	0.7+	0.1–	1998 10 11	699	0.4–	0.7+
1997 01 19	327	0.6–	0.1+	1998 10 15	704	0.2+	0.1+
1997 01 19	327	0.4–	0.2–	1998 10 15	704	0.8–	0.1–
1998 09 26	704	1.6+	0.2+	1998 10 15	704	1.2–	0.3+
1998 09 26	704	1.0+	1.2–	1998 10 15	704	1.2–	0.0
1998 09 26	704	0.4+	0.2–	1998 11 11	704	(2.4–	2.8–)
1998 09 26	704	1.4+	0.3+	1998 11 11	704	1.8–	1.6–
1998 09 26	704	0.5–	0.7–	1998 11 11	704	0.6–	0.4–
1998 09 27	704	0.4+	0.9+	1998 11 11	704	(2.5–	0.7+)
1998 09 27	704	0.7+	0.3–	2000 01 05	699	0.3–	0.4–
1998 09 27	704	0.9–	1.7+	2000 01 05	699	0.0	1.4+
1998 09 27	704	0.8+	0.2+	2000 01 05	699	0.7–	1.4+

(13474)* 1973 QO₁ = 1956 SA = 1990 RT₄

Discovered 1973 Aug. 29 by T. M. Smirnova at the Crimean Astrophysical Observatory.

Id. B. G. Marsden (*MPC* 17624, *MPC* 21925)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M 81.40848		(2000.0)	
n	0.23252066	ω 35.98061	
a	2.6191579	Ω 317.72473	
e	0.2944109	i 7.83218	
P	4.24	H 13.5	

Residuals in seconds of arc

1956 09 27	760	0.5–	0.3–	1999 12 12	704	0.0	0.2–	2000 01 25	704	0.1+	0.7+
1956 09 27	760	0.4–	2.4+	1999 12 12	704	0.1–	0.5–	2000 01 29	704	0.2–	0.3+
1973 08 29	095	1.0–	0.3–	1999 12 15	704	0.4+	0.2+	2000 01 29	704	0.1–	0.2+
1973 09 02	095	1.3+	1.1–	1999 12 15	704	0.3+	0.3+	2000 01 29	704	0.1–	0.5+
1973 09 27	095	(4.3+	1.3+)	1999 12 15	704	0.1+	0.0	2000 01 29	704	0.1+	0.2+
1990 08 29	095	(4.9–	7.6+)	1999 12 15	704	0.3+	0.4+	2000 01 29	704	0.1–	0.4+
1990 08 29	095	(5.9–	6.1+)	1999 12 15	704	0.5+	1.0+	2000 01 30	704	0.2+	0.3+
1990 09 15	675	0.4+	1.5–	2000 01 02	704	0.3–	0.1–	2000 01 30	704	0.5+	0.4+
1990 09 15	675	0.7+	1.1–	2000 01 02	704	0.5–	0.3–	2000 01 30	704	0.1–	0.2–
1990 09 17	675	0.7–	0.1–	2000 01 02	704	0.2–	0.2+	2000 01 30	704	0.0	0.4+
1990 09 17	675	0.8–	0.1+	2000 01 02	704	0.1–	0.2+	2000 01 30	704	0.2+	0.2–
1990 09 18	675	0.2+	0.5+	2000 01 02	704	0.4–	0.1+	2000 01 30	704	0.1+	0.3+
1990 09 18	675	1.4+	0.8+	2000 01 04	704	0.7–	0.8+	2000 01 30	704	0.1+	0.1–
1990 09 19	675	0.4+	0.3–	2000 01 04	704	1.0–	0.2+	2000 01 30	704	0.2+	0.0
1990 09 19	675	0.2–	0.1–	2000 01 04	704	1.8–	1.4–	2000 01 30	704	0.5+	0.7–
1997 05 14	688	0.2–	0.6–	2000 01 04	704	0.1+	1.1–	2000 01 30	704	0.1–	0.4+
1997 05 14	688	0.1+	0.6–	2000 01 04	704	0.3+	0.1+	2000 01 30	704	0.7–	0.6–
1997 05 14	688	0.9–	0.2–	2000 01 04	704	0.2–	0.7–	2000 01 30	704	0.2+	0.0
1997 05 14	688	0.2–	0.9–	2000 01 04	704	0.7+	0.2–	2000 01 30	704	0.1–	0.0
1999 10 09	703	0.3+	0.0	2000 01 04	704	0.3–	1.4–	2000 01 30	704	0.2–	0.3–
1999 10 09	703	0.2+	0.2+	2000 01 04	704	0.5+	0.1–	2000 02 11	704	0.6+	0.8+
1999 10 09	703	0.4+	0.5+	2000 01 04	704	0.3–	1.1–	2000 02 11	704	0.4+	0.3+
1999 10 09	703	0.1–	0.2+	2000 01 25	704	0.1–	0.3+	2000 02 11	704	0.1–	0.1+
1999 12 12	704	0.1+	0.1–	2000 01 25	704	0.1+	0.5+	2000 02 11	704	1.2+	0.5–
1999 12 12	704	0.0	0.4–	2000 01 25	704	0.2–	0.3+				
1999 12 12	704	0.2+	0.6–	2000 01 25	704	0.0	0.1+				

(13475)* 1973 SX = 1996 RO₁₄

Discovered 1973 Sept. 19 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. A. Gnädig (*MPC* 32916)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M 339.80885		Williams	
n	0.08343054	(2000.0)	
a	5.1870370	ω 121.43001	
e	0.0765844	Ω 353.51844	
P	11.81	i 7.93838	

Residuals in seconds of arc

P	11.81	H	11.4	G	0.15	U	0
1973 09 19	675	0.5+	2.3–	1996 09 08	691	0.8–	0.1+
1973 09 19	675	0.0	0.1+	1996 09 08	691	0.6–	0.0
1973 09 20	675	0.0	1.0+	1996 09 11	691	0.1+	0.6+
1973 09 24	675	0.1+	2.0–	1996 09 11	809	0.4–	0.3–
1973 09 24	675	0.0	0.0	1996 09 11	691	0.1–	0.1+
1973 09 25	675	1.9–	1.2–	1996 09 11	691	0.0	0.1+
1973 09 25	675	0.1+	1.5+	1996 09 12	809	0.0	0.1+
1973 09 29	675	1.1+	0.6–	1996 09 12	809	0.1+	0.3+
1973 09 29	675	0.0	1.3+	1996 09 13	809	0.0	0.6–
1973 09 30	675	1.0–	0.5+	1996 09 13	809	0.1+	0.5–
1973 09 30	675	0.5+	1.1+	1996 09 17	691	0.5–	0.6+
1973 10 04	675	0.2–	0.9–	1996 09 17	691	0.2–	0.6+
1973 10 04	675	0.3–	1.2+	1996 09 17	691	0.2–	0.5+
1973 10 05	675	(2.6+	2.3–)	1996 09 21	691	0.2–	0.4+
1973 10 05	675	1.9+	0.9–	1996 09 21	691	0.4–	0.4+
1989 01 31	675	1.2–	0.1–	1996 09 21	691	0.3–	0.2+
1989 01 31	675	1.0+	0.0	1997 10 07	809	1.5+	1.2+
1989 12 08	675	0.9+	0.4–	1997 10 07	809	1.1+	0.2+

1989 12 08	675	0.4+	0.4+	1997 10 28	809	0.7+	1.3-	2000 01 29	704	0.3-	0.5+
1991 02 12	675	0.6+	2.0+	1997 10 28	809	1.5-	0.3+	2000 01 29	704	0.5-	0.5+
1991 02 12	675	(2.2+	2.1+)	1997 10 30	704	1.1+	0.8+	2000 01 29	704	0.3-	1.1+

(13476)* 1974 QF = 1995 UO₄

Discovered 1974 Aug. 16 at El Leoncito.

Id. T. Kobayashi (*MPC* 26165)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams							
<i>M</i>	119.55368	(2000.0)	P	Q			
<i>n</i>	0.28567414	ω 109.13771	+0.99511675	-0.09072501			
<i>a</i>	2.2832603	Ω 256.08230	+0.06858760	+0.91884244			
<i>e</i>	0.2109911	<i>i</i> 2.29563	+0.07098161	+0.38405410			
<i>P</i>	3.45	<i>H</i> 14.9	<i>G</i> 0.15	<i>U</i> 1			

Residuals in seconds of arc

1974 08 16	808	0.6-	2.0-	1998 06 24	704	0.5+	0.2+	1998 07 26	704	1.3+	1.5+
1974 08 16	808	(0.1-	3.2-)	1998 06 24	704	0.6-	0.1+	1998 08 15	704	(3.0+	0.6+)
1974 08 17	808	0.7+	0.7+	1998 06 24	704	1.1+	0.1-	1998 08 15	704	1.0-	1.1-
1974 08 17	808	0.5+	1.2+	1998 06 24	704	0.7-	0.7+	1998 08 15	704	0.6-	0.6-
1974 08 18	808	0.1-	0.2+	1998 06 24	704	0.3-	0.5+	1998 08 15	704	1.0-	0.2-
1974 08 18	808	0.3-	0.5-	1998 06 26	704	0.3+	0.9+	2000 01 07	704	1.5-	0.8+
1995 10 25	411	0.3+	0.6-	1998 06 26	704	(0.9-	2.5+)	2000 01 07	704	1.0-	0.0
1995 10 25	411	0.2-	0.7+	1998 06 26	704	1.1-	0.6-	2000 01 07	704	0.4+	0.8-
1995 10 26	411	0.8-	0.8+	1998 06 26	704	0.6+	1.0+	2000 02 02	704	0.4+	0.6+
1995 10 26	411	0.9+	0.7-	1998 06 28	809	(6.0+	6.6+)	2000 02 02	704	0.8+	0.5+
1995 10 26	411	0.1+	0.5-	1998 06 28	809	(6.4+	5.6+)	2000 02 02	704	0.3+	0.2+
1995 11 02	411	0.1-	0.6+	1998 06 28	809	(6.2+	5.9+)	2000 02 02	704	0.2+	0.2+
1995 11 02	411	0.1-	0.4+	1998 07 01	809	(3.7+	2.3+)	2000 02 02	704	0.5-	0.0
1995 11 04	411	0.4-	0.7+	1998 07 01	809	(5.1+	1.8+)	2000 02 04	704	0.2-	0.9+
1995 11 04	411	0.0	1.0+	1998 07 01	809	(4.8+	2.0+)	2000 02 04	704	0.8+	0.0
1998 06 21	688	0.2-	0.4+	1998 07 26	704	(2.3+	1.4+)	2000 02 04	704	0.1+	0.2+
1998 06 21	688	0.0	0.4+	1998 07 26	704	(0.5+	2.6+)	2000 02 04	704	0.6+	0.6+
1998 06 21	688	0.5-	0.7+	1998 07 26	704	0.8+	0.7+	2000 02 04	704	0.5+	0.6+

(13477)* 1975 VW₅ = 1997 GS₄₄

Discovered 1975 Nov. 5 by L. I. Chernykh at the Crimean Astrophysical Observatory.

Id. B. G. Marsden (*MPC* 30866)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Marsden							
<i>M</i>	161.83658	(2000.0)	P	Q			
<i>n</i>	0.25742322	ω 269.98833	+0.91804772	+0.37216967			
<i>a</i>	2.4473959	Ω 68.16205	-0.27917538	+0.85158640			
<i>e</i>	0.1449707	<i>i</i> 8.46663	-0.28151285	+0.36917521			
<i>P</i>	3.83	<i>H</i> 13.3	<i>G</i> 0.15	<i>U</i> 2			

Residuals in seconds of arc

1975 11 05	095	1.2+	1.9-	1998 10 20	699	0.0	0.7+	1998 12 13	725	0.1-	0.3+
1975 11 06	095	(1.8+	5.5-)	1998 10 20	699	0.9+	0.2+	1998 12 14	725	0.2+	0.5+
1975 11 24	033	0.0	0.9-	1998 10 20	699	0.2+	0.9+	1998 12 14	725	0.2+	0.2+
1975 11 25	033	0.2+	0.1-	1998 11 10	704	0.8+	0.9-	1999 01 05	910	1.1-	0.3-
1997 04 11	809	0.4-	0.5+	1998 11 10	704	1.5+	0.2-	1999 01 05	910	1.0-	0.3-
1997 04 11	809	0.1-	0.1-	1998 11 10	704	0.5+	0.6-	1999 01 05	910	1.1-	0.2-
1997 04 11	809	0.4-	0.9-	1998 11 10	704	0.7-	0.6-	1999 12 08	704	0.4+	0.4-
1997 04 12	809	0.1-	1.7-	1998 11 10	704	0.2+	0.1-	1999 12 08	704	0.7-	0.6-
1997 04 12	809	1.2-	1.9-	1998 11 11	704	0.1-	0.6-	1999 12 08	704	0.2-	0.2-
1997 04 12	809	(0.4-	2.6-)	1998 11 11	704	0.6+	1.3-	1999 12 08	704	0.2+	0.1+
1998 09 24	699	0.5-	0.2+	1998 11 11	704	0.6+	1.0-	1999 12 08	704	0.0	0.2-
1998 09 24	699	0.4-	1.4+	1998 11 11	704	0.0	0.7-	2000 01 03	704	0.5-	0.0
1998 09 24	699	0.3-	0.5+	1998 11 11	704	0.3+	0.9-	2000 01 03	704	0.1+	0.2-
1998 10 16	704	0.4-	1.1+	1998 11 25	699	0.5+	0.5-	2000 01 03	704	1.0-	1.2-
1998 10 16	704	0.0	0.4+	1998 11 25	699	0.4+	0.7-	2000 01 03	704	1.2+	0.2+
1998 10 16	704	0.7-	0.7+	1998 11 25	699	0.5+	0.7-	2000 01 03	704	0.4-	0.4+
1998 10 16	704	0.8+	0.7-	1998 12 08	704	1.3-	1.7-	2000 01 31	704	0.6+	0.4+
1998 10 16	704	0.2+	0.7-	1998 12 08	704	0.2+	1.5+	2000 01 31	704	0.2+	0.6+
1998 10 17	699	0.0	0.2+	1998 12 08	704	0.6-	1.5+	2000 01 31	704	0.5+	0.9+

1998 10 17	699	0.3-	0.2+	1998 12 08	704	0.8-	1.0+
1998 10 17	699	0.3-	0.3+	1998 12 13	725	0.0	0.3+

(13478)* 1976 DB₁ = 1996 UP₃

Discovered 1976 Feb. 27 by F. Börngen and R. Ziener at Tautenburg.

Id. B. G. Marsden (*MPC* 28293)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Marsden							
<i>M</i>	82.28908	(2000.0)	P	Q			
<i>n</i>	0.36979410	ω 83.26826	+0.67556578	-0.70988851			
<i>a</i>	1.9223364	Ω 321.64535	+0.48317852	+0.63030668			
<i>e</i>	0.1152582	<i>i</i> 18.72165	+0.55691058	+0.31427980			
<i>P</i>	2.67	<i>H</i> 15.4	<i>G</i> 0.15	<i>U</i> 2			

Residuals in seconds of arc

1976 02 27	033	0.7-	1.4+	1999 11 09	703	0.8-	0.1-	2000 01 30	704	0.3+	0.6-
1976 03 01	033	0.2+	0.2+	1999 11 09	703	0.2+	1.1+	2000 01 30	704	0.1+	0.4-
1976 03 01	033	(2.9+	5.5+)	1999 11 09	703	0.0	0.5+	2000 01 30	704	0.6+	0.5-
1976 03 02	033	0.3-	1.0-	1999 11 09	703	0.2+	1.3+	2000 02 05	151	(2.3-	0.6-)
1976 03 02	033	1.2+	1.7+	2000 01 03	704	0.5+	0.1-	2000 02 05	151	1.5+	0.1+
1976 03 03	033	(3.0-	0.0)	2000 01 03	704	0.3-	0.2+	2000 02 05	151	1.5-	1.0-
1976 03 03	033	2.1+	1.7+	2000 01 03	704	0.4-	0.6-	2000 02 05	151	0.6+	0.3-
1977 08 08	413	1.2-	0.3+	2000 01 03	704	0.5-	0.2+	2000 02 11	704	0.2+	0.1-
1977 08 08	413	1.5+	0.7-	2000 01 03	704	0.7-	0.3+	2000 02 11	704	0.4+	0.2+
1996 10 18	693	1.2-	1.2-	2000 01 05	113	0.9-	0.3-	2000 02 11	704	0.2+	0.2-
1996 10 18	693	1.3-	0.4+	2000 01 05	113	1.3-	0.5-	2000 02 11	704	0.2+	0.2-
1996 11 01	693	0.4-	0.1-	2000 01 11	113	0.4-	0.4+	2000 02 12	113	0.3-	0.5-
1996 11 01	693	0.1-	0.3-	2000 01 11	113	0.0	0.5+	2000 02 12	113	0.3-	0.7-
1996 11 03	817	0.7+	0.3+	2000 01 27	151	0.0	0.1+	2000 02 14	704	0.1-	0.6-
1996 11 03	817	0.8+	0.4+	2000 01 27	151	0.4-	0.2-	2000 02 14	704	0.2+	0.0
1996 11 03	817	0.7+	0.2+	2000 01 27	151	(2.8+	1.6-)	2000 02 14	704	0.2-	0.2+
1996 11 03	817	0.8+	0.3+	2000 01 27	151	0.7-	0.5-	2000 02 14	704	0.5-	0.0
1996 11 05	658	0.4-	0.1+	2000 01 30	704	0.2+	0.1+				
1996 11 05	658	0.2+	0.4+	2000 01 30	704	0.7+	0.0				

(13479)* 1977 TO₆ = 1991 RV₂₅

Discovered 1977 Oct. 8 by L. I. Chernykh at the Crimean Astrophysical Observatory.

Id. E. Bowell (*MPC* 20139)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams							
<i>M</i>	165.70040	(2000.0)	P	Q			
<i>n</i>	0.28137390	ω 256.32129	+0.93648265	+0.32919521			
<i>a</i>	2.3064649	Ω 84.35287	-0.25600362	+0.87737528			
<i>e</i>	0.1880080	<i>i</i> 6.98143	-0.23971315	+0.34906036			
<i>P</i>	3.50	<i>H</i> 14.2	<i>G</i> 0.15	<i>U</i> 2			

Residuals in seconds of arc

1977 10 08	095	0.2+	1.1+	1991 09 16	675	0.5-	0.3-	1998 12 08	704	0.6-	0.6+
1977 10 11	675	0.5-	2.0-	1994 06 08	809	(1.6+	2.6+)	1998 12 08	704	0.2-	1.0-
1977 10 11	675	1.2-	1.4-	1994 06 08	809	(1.4+	2.6+)	1998 12 08	704	0.2+	1.0+
1977 10 12	675	0.6+	1.3-	1994 06 08	809	(1.0+	2.9+)	1998 12 08	704	0.5+	0.6-
1977 10 12	675	0.9+	1.0-	1994 06 09	809	0.8-	0.6-	2000 01 10	699	0.4+	0.9-
1977 10 16	675	1.2+	1.2-	1994 06 09	809	0.8+	1.3+	2000 01 10	699	0.8+	0.0
1977 10 16	675	1.5+	1.5-	1994 06 09	809	0.3+	0.6+	2000 01 10	699	0.7+	0.6+
1977 10 17	675	2.2+	2.2-	1998 10 16	704	1.4-	0.7+	2000 02 03	704	0.0	0.3+
1977 10 17	675	(2.7+	1.9-)	1998 10 16	704	0.2+	1.3+	2000 02 03	704	0.5+	0.3+
1977 10 21	675	0.1+	0.0	1998 10 16	704	0.4-	1.6+	2000 02 03	704	0.5+	0.2+
1977 10 21	675	1.1+	0.2+	1998 10 16	704	0.1-	1.1+	2000 02 03	704	0.1+	0.3+
1977 10 22	675	1.1-	1.5+	1998 10 16	704	0.1-	0.1+	2000 02 03	704	0.1-	0.6+
1977 10 22	675	0.3-	0.1-	1998 10 18	699	0.1-	0.8+	2000 02 06	703	0.9-	1.3-
1991 09 07	801	0.8-	0.9+	1998 10 18	699	0.1+	0.7+	2000 02 06	703	(1.5-	2.2+)
1991 09 07	801	0.8-	0.9+	1998 10 18	699	0.0	0.8+	2000 02 06	703	1.3-	1.7+
1991 09 12	675	0.2-	0.6-	1998 11 15	566	(2.2-	0.0)	2000 02 06	703	(2.1+	1.1+)
1991 09 12	675	0.2-	0.4-	1998 11 15	566	0.6-	1.1+				
1991 09 16	675	0.1-	0.5-	1998 11 15	566	0.7-	1.8+				

(13480)* 1978 PX₃ = 1988 PR₃

Discovered 1978 Aug. 9 by N. S. Chernykh and L. I. Chernykh at the Crimean Astrophysical Observatory.

Id. H. Kaneda (*MPC* 16021)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		160.39988		(2000.0)		P		Q	
<i>n</i>		0.29622887	ω	30.83816		+0.94060075		+0.33196041	
<i>a</i>		2.2286975	Ω	309.60190		−0.32729839		+0.83081516	
<i>e</i>		0.2187838	<i>i</i>	5.30379		−0.09025517		+0.44670846	
<i>P</i>		3.33	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	2	

Residuals in seconds of arc

1955 10 24	675	0.5+	0.1+	1998 09 10	610	0.9+	0.0	1998 12 09	704	0.4+	0.8+
1955 10 24	675	0.0	0.9−	1998 09 14	704	1.0+	0.4−	1998 12 09	704	1.6+	0.2−
1978 08 09	095	0.0	2.1+	1998 09 14	704	0.2+	0.0	1998 12 09	704	1.5−	1.1−
1978 08 31	095	(1.1−	3.8+)	1998 09 14	704	0.4+	1.1+	2000 01 07	704	1.0−	0.6−
1978 09 05	095	1.0−	0.3+	1998 09 14	704	0.3+	0.8+	2000 01 07	704	0.3−	0.3+
1988 08 09	095	0.8−	1.0+	1998 09 14	704	0.4+	0.0	2000 01 07	704	0.9−	0.0
1988 08 09	095	1.8−	1.0+	1998 09 15	699	0.3+	0.3+	2000 01 07	704	0.8−	0.6+
1988 08 11	413	0.9+	0.9−	1998 09 15	699	1.4−	0.0	2000 02 02	704	0.7+	0.1−
1988 08 11	413	(2.9+	0.3−)	1998 09 15	699	0.7−	0.5+	2000 02 02	704	0.0	1.7+
1995 10 25	596	0.9−	1.2−	1998 09 18	704	1.7+	0.2−	2000 02 02	704	0.4+	0.1+
1995 10 25	596	0.9−	0.6−	1998 09 18	704	0.4+	0.3+	2000 02 02	704	0.4+	0.6+
1998 08 03	699	0.3−	0.1−	1998 09 18	704	0.6+	0.4+	2000 02 02	704	0.7+	0.9+
1998 08 03	699	0.2−	0.1−	1998 09 18	704	0.6+	1.0+	2000 02 04	704	0.7−	0.9+
1998 08 03	699	0.3−	0.3−	1998 09 18	704	0.7−	1.6+	2000 02 04	704	0.1+	1.3+
1998 08 17	704	0.8−	0.1−	1998 09 25	704	0.1−	1.1+	2000 02 04	704	0.6−	0.8+
1998 08 17	704	0.3−	0.4+	1998 09 25	704	0.5+	0.8+	2000 02 04	704	0.8+	0.2−
1998 08 17	704	1.4−	0.1−	1998 09 25	704	0.2+	0.7−	2000 02 04	704	0.7+	0.3+
1998 08 17	704	1.8−	0.2−	1998 09 25	704	0.8+	0.7−	2000 02 08	704	0.9+	0.5+
1998 08 17	704	0.1−	0.2+	1998 09 25	704	1.6+	1.3−	2000 02 08	704	1.3+	1.4+
1998 08 23	704	1.1−	0.6−	1998 09 26	327	0.2+	0.4+	2000 02 08	704	1.9+	0.9+
1998 08 23	704	0.0	1.0−	1998 09 26	327	0.2+	0.2+	2000 02 08	704	1.0+	1.5+
1998 08 23	704	0.8−	0.6−	1998 09 26	327	0.1+	0.3+	2000 02 08	704	(2.5+	3.2+)
1998 08 23	704	(0.9−	2.4−)	1998 09 29	327	1.1−	0.3+	2000 02 11	704	0.6+	0.6+
1998 08 26	699	0.7−	1.0+	1998 09 29	327	1.3−	0.9+	2000 02 11	704	0.5+	0.6+
1998 08 26	699	0.8−	0.5+	1998 09 29	327	1.2−	0.4+	2000 02 11	704	1.1+	0.5+
1998 08 26	699	0.7−	0.4+	1998 10 09	689	0.1−	0.8−	2000 02 11	704	0.0	0.9+
1998 09 10	610	1.8+	0.6+	1998 12 09	704	0.7−	1.6−				
1998 09 10	610	1.3+	0.2+	1998 12 09	704	1.2+	1.8+				

(13481)* 1978 VM₁₁ = 1984 HZ

Discovered 1978 Nov. 6 by E. F. Helin and S. J. Bus at Palomar.

Id. A. Doppler (*MPC* 35906)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		338.76829		(2000.0)		P		Q	
<i>n</i>		0.23916190	ω	94.09315		−0.97516774		−0.20043103	
<i>a</i>		2.5704435	Ω	74.36397		+0.14359132		−0.89606389	
<i>e</i>		0.2111752	<i>i</i>	5.61417		+0.16861024		−0.39610214	
<i>P</i>		4.12	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	2	

Residuals in seconds of arc

1978 11 05	675	0.4−	0.9−	1999 12 08	703	0.5−	0.1+	2000 01 04	704	0.3−	0.4−
1978 11 06	675	0.9+	0.4+	1999 12 08	704	0.6+	0.7−	2000 01 04	704	0.5−	0.4−
1978 11 08	675	0.8−	0.4+	1999 12 08	703	0.5−	0.6+	2000 01 04	704	0.1−	0.7−
1978 11 29	675	0.8+	0.8+	1999 12 08	703	0.9−	1.2+	2000 01 06	699	0.1+	0.7−
1978 11 30	675	0.7−	0.5−	1999 12 08	704	0.0	0.4−	2000 01 06	699	0.6+	0.6+
1984 04 21	675	0.3−	1.0−	1999 12 15	703	0.1−	0.1+	2000 01 06	699	0.1+	0.1+
1998 10 15	327	0.4+	0.9−	1999 12 15	703	0.3−	0.1+	2000 01 30	704	0.0	0.2+
1998 10 15	327	0.5−	0.3−	1999 12 15	704	0.2+	1.0−	2000 01 30	704	0.2−	0.3+
1998 10 15	327	0.4+	0.3+	1999 12 15	703	0.0	0.1+	2000 01 30	704	0.8−	0.5+
1999 10 22	704	0.6−	1.1−	1999 12 15	704	1.8+	1.2−	2000 01 30	704	0.2+	0.5+
1999 10 22	704	0.3−	0.1−	1999 12 15	703	0.1−	0.1+	2000 01 30	704	0.6−	0.4+
1999 10 22	704	0.0	0.1−	1999 12 15	704	1.5+	0.3−	2000 01 31	704	0.2−	0.5+
1999 10 22	704	0.9−	0.9+	1999 12 15	704	2.0+	0.2−	2000 01 31	704	0.8−	0.6+

1999 11 16	704	0.2+	0.1+	1999 12 15	704	1.1+	0.6+	2000 01 31	704	0.3+	1.1+
1999 11 16	704	0.8+	0.4+	2000 01 03	704	0.0	0.3−	2000 02 05	106	0.3−	1.0+
1999 11 16	704	0.1−	0.3+	2000 01 03	704	0.2+	0.6−	2000 02 05	106	0.8−	0.7+
1999 11 16	704	0.5+	0.1+	2000 01 03	704	0.1+	0.2−	2000 02 11	704	0.0	0.1−
1999 11 16	704	1.1+	0.7+	2000 01 03	704	0.3−	0.9−	2000 02 11	704	0.2+	0.0
1999 12 08	704	0.1+	0.9−	2000 01 03	704	0.4−	1.0−	2000 02 11	704	0.2−	0.2−
1999 12 08	703	1.1−	0.9+	2000 01 04	704	0.4−	0.6−	2000 02 11	704	0.6−	0.6−
1999 12 08	704	0.3+	0.1−	2000 01 04	704	0.2+	0.5−				

(13482)* 1979 HN₅ = 1952 KY = 1995 GG

Discovered 1979 Apr. 25 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Id. T. Kobayashi (*MPC* 25326)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		257.90140		(2000.0)		P		Q	
<i>n</i>		0.18245269	ω	203.58232		+0.57016850		+0.81131600	
<i>a</i>		3.0787130	Ω	101.41836		−0.73122026		+0.57282955	
<i>e</i>		0.2419841	<i>i</i>	7.56992		−0.37446604		+0.11675893	
<i>P</i>		5.40	<i>H</i>	12.2	<i>G</i>	0.15	<i>U</i>	1	

Residuals in seconds of arc

1952 05 24	711	(2.0+	8.9−)	Y	1997 12 30	566	0.7−	1.1+	1999 02 13	704	0.1+	0.5−
1979 04 25	095	0.1−	1.2+		1997 12 30	566	0.8+	0.7+	1999 02 13	704	1.1+	0.6+
1979 04 28	095	0.4−	0.2−		1997 12 30	566	0.0	0.1+	1999 02 13	704	0.1−	0.7+
1979 04 30	095	1.0+	0.2−		1999 01 19	704	(2.0+	2.1−)	1999 02 13	704	0.5−	0.6−
1994 02 13	691	0.3−	0.6−		1999 01 19	704	0.3−	1.1+	2000 01 08	704	0.4−	0.3−
1994 02 13	691	0.3−	0.5−		1999 01 19	704	1.6+	1.5−	2000 01 08	704	0.5+	1.4−
1994 02 13	691	0.2−	0.4−		1999 01 19	704	(2.2−	1.0−)	2000 01 08	704	0.7−	0.4+
1995 04 03	411	0.0	1.1−		1999 02 10	704	0.8−	0.3+	2000 01 08	704	0.2−	0.1+
1995 04 03	411	0.8−	0.6+		1999 02 10	704	1.4−	1.0+	2000 02 05	704	0.6+	0.2+
1995 04 04	411	0.1+	0.8−		1999 02 10	704	1.2−	0.6+	2000 02 05	704	0.4−	0.2−
1995 04 04	411	0.2−	0.1+		1999 02 10	704	0.2+	0.1+	2000 02 05	704	0.1+	0.7+
1997 12 04	704	0.6−	0.4+		1999 02 10	704	0.5−	0.9+	2000 02 06	704	0.5+	0.5−
1997 12 04	704	0.1+	0.7+		1999 02 11	699	0.9+	0.8−	2000 02 06	704	0.5+	0.5+
1997 12 04	704	0.8−	0.3−		1999 02 11	699	0.3+	0.3−	2000 02 06	704	0.2+	0.3+
1997 12 04	704	1.1+	1.4−		1999 02 11	699	0.6+	0.5−	2000 02 06	704	0.0	0.4+
1997 12 04	704	0.2+	1.6−		1999 02 13	704	0.4+	0.8+				

(13483)* 1980 SF = 1997 ED₄₇ = 1998 OG₆

Discovered 1980 Sept. 16 by Z. Vávrová at Kleť.

Id. S. Nakano (*MPC* 35276)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		112.75813		(2000.0)		P		Q	
<i>n</i>		0.27009260	ω	216.46910		+0.97376763		−0.22692346	
<i>a</i>		2.3702506	Ω	156.63007		+0.21750183		+0.90655126	
<i>e</i>		0.2128178	<i>i</i>	2.42786		+0.06685481		+0.35590808	
<i>P</i>		3.65	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	2	

Residuals in seconds of arc

1980 09 16	046	0.9+	1.2−	1998 07 30	120	1.1+	0.3+	2000 01 14	046	0.4−	0.3+
1980 09 16	046	0.6+	0.8−	1998 07 31	120	1.9+	1.4−	2000 01 14	046	0.0	0.3+
1980 10 03	046	1.4+	0.6−	1998 07 31	120	1.7+	0.8+	2000 01 30	703	1.2−	0.8−
1980 10 03	046	1.1−	1.1−	1998 07 31	120	0.7+	0.9−	2000 01 30	703	0.7−	0.6+
1980 10 05	046	0.3−	0.6+	1998 07 31	120	0.4+	0.2−	2000 01 30	703	0.0	0.0
1980 10 05	046	1.0−	1.9+	1998 08 17	704	0.4−	0.2−	2000 01 30	703	0.1−	0.8+
1997 03 12	809	(2.3−	2.6−)	1998 08 17	704	1.9−	0.5+	2000 02 02	704	0.8+	0.1−
1997 03 12	809	(3.1−	1.2−)	1998 08 17	704	0.1−	0.1+	2000 02 02	704	0.0	0.2+
1997 03 12	809	(3.8−	1.1−)	1998 08 17	704	1.8−	0.2+	2000 02 02	704	0.9+	0.6+
1997 03 13	809	0.2−	0.2+	1998 08 17	704	1.1−	0.4+	2000 02 02	691	0.0	0.9−
1997 03 13	809	0.4+	1.7+	1998 08 27	699	1.1−	1.5+	2000 02 02	704	0.3+	0.2+
1997 03 13	809	0.2+	0.3+	1998 08 27	699	0.6+	0.0	2000 02 02	704	0.6+	0.1−
1997 04 11	704	1.0−	0.4−	1998 08 27	699	0.7−	0.5+	2000 02 02	691	0.0	0.1−
1997 04 11	704	0.4+	1.3−	2000 01 12	046	0.7−	0.2+	2000 02 02	691	0.1+	0.2−
1998 07 14	699	1.1+	0.4−	2000 01 12	046	0.8−	0.3+	2000 02 03	691	0.4−	0.4−
1998 07 14	699	(2.5+	0.6+)	2000 01 12	046	0.1+	0.5+	2000 02 03	691	0.2−	0.5−

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1998 07 14	699	0.6+	0.1-	2000 01 13	046	0.2+	0.2+	2000 02 03	691	0.2-	0.4-
1998 07 30	120	0.7+	0.2+	2000 01 13	046	0.3+	0.2-	2000 02 11	691	0.1+	0.7-
1998 07 30	120	1.4-	1.7-	2000 01 13	046	0.8+	0.8-	2000 02 11	691	0.0	0.7-
1998 07 30	120	0.1+	0.0	2000 01 14	046	0.0	0.5+	2000 02 11	691	0.2+	0.7-

(13484)* 1981 EA₁₆ = 1997 BA₅

Discovered 1981 Mar. 1 by S. J. Bus at Siding Spring in the course of the U.K. Schmidt-Caltech Asteroid Survey.

Id. T. Urata (*MPC* 29093)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams				Williams			
<i>M</i>	215.18348	(2000.0)	<i>P</i>	<i>Q</i>	<i>M</i>	215.18348	(2000.0)
<i>n</i>	0.30029816	ω	283.52317	-0.22675312	<i>n</i>	0.30029816	ω
<i>a</i>	2.2085179	Ω	333.20096	-0.84340785	<i>a</i>	2.2085179	Ω
<i>e</i>	0.1186669	<i>i</i>	6.57909	-0.48707928	<i>e</i>	0.1186669	<i>i</i>
<i>P</i>	3.28	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1981 02 12	413	1.1+	0.6+	1994 03 10	691	0.6-	0.9+	1999 12 15	704	0.1-	1.3+
1981 02 12	413	0.6+	0.5-	1994 03 10	691	0.3+	0.0	1999 12 15	704	0.3+	1.2+
1981 03 01	413	2.4+	0.0	1997 01 30	369	0.2+	0.9-	2000 01 04	704	0.5-	0.3+
1981 03 06	413	(3.1+	0.6-)	1997 01 30	369	0.2+	0.5-	2000 01 04	704	0.2-	0.8-
1981 03 08	413	0.3-	0.0	1997 02 01	369	1.2+	0.9-	2000 01 04	704	0.1-	0.4-
1981 03 08	413	0.8+	0.5+	1997 02 01	369	0.1-	0.6+	2000 01 04	704	1.0+	0.5+
1981 03 12	413	0.9-	0.8+	1997 02 04	566	0.0	0.1+	2000 01 04	704	0.7+	1.1-
1981 03 12	413	1.0+	0.5+	1997 02 04	566	0.3-	0.3+	2000 01 29	704	0.3+	0.6+
1981 04 06	413	0.3-	0.2-	1997 02 04	566	0.1-	0.2+	2000 01 29	704	1.0-	0.4-
1981 04 06	413	1.0+	0.4-	1998 08 17	704	0.2-	1.5+	2000 01 29	704	0.1-	0.3+
1981 04 08	413	1.0-	0.6+	1998 08 17	704	0.3+	0.3+	2000 01 29	704	(2.2-	0.8-)
1981 04 08	413	0.9+	0.1+	1998 08 17	704	0.5-	0.4+	2000 01 30	704	0.1+	0.1-
1981 04 09	413	1.2-	0.5+	1998 08 17	704	0.6-	0.7+	2000 01 30	704	0.1-	0.2+
1981 04 09	413	0.8+	0.5+	1998 08 17	704	0.1-	0.5+	2000 01 30	704	0.7-	0.0
1981 05 01	413	2.0-	0.7-	1999 12 15	704	0.6+	1.2+	2000 01 30	704	0.7-	0.5-
1981 05 03	413	1.9-	0.0	1999 12 15	704	0.3-	0.3+				

(13485)* 1981 QJ₃ = 1992 SO₃

Discovered 1981 Aug. 25 by H. Debehogne at the European Southern Observatory.

Id. G. V. Williams (*MPC* 21101)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams				Williams			
<i>M</i>	132.96069	(2000.0)	<i>P</i>	<i>Q</i>	<i>M</i>	132.96069	(2000.0)
<i>n</i>	0.17944840	ω	200.26045	+0.94119997	<i>n</i>	0.17944840	ω
<i>a</i>	3.1129799	Ω	140.03331	-0.30331370	<i>a</i>	3.1129799	Ω
<i>e</i>	0.1881602	<i>i</i>	2.62774	-0.14880665	<i>e</i>	0.1881602	<i>i</i>
<i>P</i>	5.49	<i>H</i>	13.1	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1981 08 25	809	0.0	2.1+	1981 09 06	809	0.7+	0.5+	1998 11 16	566	0.4-	1.4-
1981 08 25	809	0.2-	1.3+	1981 09 06	809	0.0	0.3-	1998 11 16	566	0.1-	1.2-
1981 08 25	809	0.4-	1.0+	1981 09 06	809	0.3-	0.9-	1998 11 28	120	(1.9-	2.3-)
1981 08 26	809	0.3-	0.9-	1981 09 07	809	0.8-	0.3+	1998 11 28	120	1.4+	0.2+
1981 08 26	809	0.1+	0.8-	1981 09 07	809	0.0	0.4+	1998 12 11	699	0.2+	0.4+
1981 08 26	809	0.0	0.6-	1981 09 07	809	0.6+	1.0+	1998 12 11	699	0.3-	0.1-
1981 08 26	809	0.3-	0.8+	1992 09 24	691	0.2-	0.4-	1998 12 11	699	0.1+	0.1-
1981 08 26	809	0.1+	0.9+	1992 09 24	691	0.3-	0.3-	1998 12 12	120	0.4-	0.1+
1981 08 26	809	0.4+	1.1+	1992 09 24	691	0.2-	0.3-	1998 12 12	120	0.5+	0.4-
1981 08 27	809	1.1-	0.7-	1992 09 25	691	0.5+	0.3-	1998 12 12	120	0.7+	0.4+
1981 08 27	809	1.0-	0.2-	1992 09 25	691	0.0	0.5-	1999 01 07	699	0.6+	0.7-
1981 08 27	809	1.0-	0.2+	1992 09 25	691	0.3-	0.7-	1999 01 07	699	0.6-	1.0-
1981 08 28	809	0.2-	0.7-	1992 10 01	691	0.3+	0.0	1999 01 07	699	0.2+	0.3+
1981 08 28	809	0.2-	0.5-	1992 10 01	691	0.3+	0.3+	1999 02 04	704	(2.9-	0.3-)
1981 08 28	809	0.2+	0.5-	1992 10 01	691	0.3+	0.1+	1999 02 04	704	0.7-	1.3+
1981 08 31	809	0.2-	0.5+	1995 02 02	691	0.2+	0.0	1999 02 04	704	1.0-	0.2+
1981 08 31	809	0.5+	0.3+	1995 02 02	691	0.2+	0.0	2000 01 05	704	0.2+	0.4+
1981 08 31	809	1.3+	0.3+	1995 02 02	691	0.5+	0.2-	2000 01 05	704	0.1+	0.5-
1981 09 01	809	0.2+	0.5+	1998 10 18	699	0.6+	0.2-	2000 01 05	704	0.7+	0.1+

1981 09 01	809	0.8+	0.4+	1998 10 18	699	0.4+	0.1+	2000 01 05	704	1.4-	0.2-
1981 09 01	809	0.4+	0.2+	1998 10 18	699	0.1+	0.1+	2000 01 06	704	0.2+	0.1-
1981 09 02	809	1.3+	0.6+	1998 10 29	704	0.1+	0.4+	2000 01 06	704	0.2+	0.1+
1981 09 02	809	0.5+	0.3+	1998 10 29	704	0.1+	0.1-	2000 01 06	704	0.7-	0.4+
1981 09 02	809	1.0+	0.7+	1998 10 29	704	0.7+	0.3+	2000 01 27	691	0.3-	0.3-
1981 09 02	809	0.2-	0.1+	1998 10 29	704	0.3+	0.3+	2000 01 27	691	0.3-	0.1-
1981 09 02	809	0.4-	0.1-	1998 10 29	704	0.5+	0.6+	2000 01 27	691	0.1-	0.2-
1981 09 02	809	0.2-	0.3-	1998 11 10	704	0.0	0.1+	2000 02 02	704	0.1+	0.3+
1981 09 03	809	1.2-	0.1+	1998 11 10	704	0.2+	0.2+	2000 02 02	704	0.1+	0.7+
1981 09 03	809	0.6-	0.0	1998 11 10	704	0.1+	0.3+	2000 02 02	704	0.7+	0.5+
1981 09 03	809	0.4-	0.1-	1998 11 11	704	0.1+	0.0	2000 02 02	704	0.5+	0.1+
1981 09 04	809	0.5-	0.2+	1998 11 11	699	0.1+	0.2+	2000 02 03	704	0.2+	0.8+
1981 09 04	809	0.3+	0.2-	1998 11 11	704	1.1-	0.3-	2000 02 03	704	0.0	0.8+
1981 09 04	809	0.1-	0.3-	1998 11 11	699	0.4+	0.1-	2000 02 03	704	0.1-	0.3+
1981 09 05	809	0.3-	0.4-	1998 11 11	704	1.4-	1.0-	2000 02 03	704	0.1+	0.3+
1981 09 05	809	0.5-	0.1-	1998 11 11	699	0.2+	0.5+	2000 02 03	704	0.5-	1.4+
1981 09 05	809	0.2-	0.5-	1998 11 16	566	0.6-	1.7-				

(13486)* 1981 UT₂₉ = 1986 RZ₁₇ = 1986 TN₆ = 1994 DU = 1997 SC₁₆

Discovered 1981 Oct. 24 by S. J. Bus at Palomar.

Id. K. Ichikawa (*MPC* 31097)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams				Williams			
<i>M</i>	271.89175	(2000.0)	<i>P</i>	<i>Q</i>	<i>M</i>	271.89175	(2000.0)
<i>n</i>	0.18592573	ω	49.88937	+0.06211267	<i>n</i>	0.18592573	ω
<i>a</i>	3.0402529	Ω	224.06518	-0.95747740	<i>a</i>	3.0402529	Ω
<i>e</i>	0.0940073	<i>i</i>	9.20692	-0.28174287	<i>e</i>	0.0940073	<i>i</i>
<i>P</i>	5.30	<i>H</i>	12.4	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1981 10 24	675	0.1+	1.7+	1997 10 22	704	0.4+	0.8+	1998 12 15	704	0.2-	0.8-
1981 10 25	675	0.6-	0.2-	1997 10 22	704	1.3+	0.4+	1998 12 15	704	1.2-	0.6+
1981 10 26	675	0.4-	0.1+	1997 10 22	704	1.0+	0.1+	1999 01 20	704	0.3+	0.8+
1986 09 11	095	(3.3-	0.2-)	1997 10 22	704	1.4+	0.2-	1999 01 20	704	0.2-	0.1+
1986 10 08	054	0.2-	1.2+	1997 10 22	704	0.6+	0.6-	1999 01 20	704	0.1+	1.0-
1986 10 11	054	(3.3-	3.6-)	1997 11 03	704	0.2-	1.2-	1999 01 20	704	1.4-	1.5+
1994 02 16	033	0.5+	0.6-	1997 11 03	704	0.3-	1.3-	2000 01 11	704	0.3-	0.4+
1994 02 16	033	1.6+	0.0	1997 11 03	704	(0.1-	2.1-)	2000 01 11	704	0.5-	0.6-
1994 02 17	033	0.9-	0.1-	1997 11 03	704	0.6+	1.4-	2000 01 11	704	1.2+	1.1-
1997 09 27	910	0.5+	0.4-	1997 11 03	704	1.1-	1.5-	2000 01 11	704	1.4+	0.4-
1997 09 29	910	0.0	0.3+	1997 11 30	566	1.1-	0.4+	2000 02 10	704	0.5-	1.5+
1997 09 30	910	0.3+	0.4+	1997 11 30	566	1.0-	0.5+	2000 02 10	704	0.7+	1.5+
1997 09 30	910	0.2+	0.5+	1997 11 30	566	1.1-	0.4+	2000 02 10	704	0.2+	0.2-
1997 10 01	910	0.3-	0.6+	1998 12 15	704	0.0	0.6-	2000 02 10	704	1.4-	0.6+
1997 10 01	910	0.2-	0.7+	1998 12 15	704	0.4+	0.8+				
1997 10 01	910	0.2-	0.5+	1998 12 15	704	0.4+	1.1-				

(13487)* 1981 VN = 1992 HF₅

Discovered 1981 Nov. 2 by B. A. Skiff at the Anderson Mesa Station of the Lowell Observatory.

Id. G. V. Williams (*MPC* 21564)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams				Williams			
<i>M</i>	101.41064	(2000.0)	<i>P</i>	<i>Q</i>	<i>M</i>	101.41064	(2000.0)
<i>n</i>	0.23222402	ω	16.48781	+0.56042653	<i>n</i>	0.23222402	ω
<i>a</i>	2.6213879	Ω	39.90798	+0.72555836	<i>a</i>	2.6213879	Ω
<i>e</i>	0.1051470	<i>i</i>	15.90860	+0.39935845	<i>e</i>	0.1051470	<i>i</i>
<i>P</i>	4.24	<i>H</i>	12.7	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

2000 FEB. 22

M.P.C. 38313

1981 11 24	095	(1.2+ 2.8-)	1998 10 14	691	0.9- 0.4+	1998 11 11	127	0.0 0.2+
1981 12 02	688	1.2+ 0.2-	1998 10 14	704	0.2+ 1.3-	1998 11 11	127	0.2+ 0.4+
1981 12 02	688	1.7+ 1.0-	1998 10 14	704	(0.3- 2.2-)	1998 11 15	699	0.1- 0.8+
1992 04 24	691	0.5- 0.5-	1998 10 14	704	0.4- 0.2+	1998 11 15	699	0.1- 0.8+
1992 04 24	691	0.5- 0.4-	1998 10 15	704	0.1+ 0.1+	1998 11 15	699	0.3- 0.7+
1992 04 24	691	0.8- 1.3-	1998 10 15	704	0.3+ 0.7-	1999 01 05	732	0.5- 0.4-
1992 04 25	809	0.0 1.6+	1998 10 15	704	0.1+ 0.1+	1999 01 05	732	0.7- 0.3-
1992 04 25	809	0.4+ 1.6+	1998 10 15	704	0.0 0.1+	1999 01 05	732	0.5- 0.1-
1992 04 25	809	0.7+ 1.7+	1998 10 15	704	0.3- 0.0	1999 01 06	732	0.2- 0.3-
1992 05 01	809	0.1- 1.1-	1998 10 18	699	0.2+ 0.2+	1999 01 06	732	0.2+ 0.5-
1992 05 01	809	0.1+ 1.2-	1998 10 18	699	0.1- 0.6+	1999 01 06	732	0.1- 0.2-
1992 05 01	809	0.0 1.2-	1998 10 18	699	0.3+ 0.3+	2000 01 06	704	0.5- 0.1-
1992 05 02	809	0.8- 0.7-	1998 10 19	691	0.3+ 0.7+	2000 01 06	704	0.1- 0.1-
1992 05 02	809	0.6- 0.7-	1998 10 19	691	0.5+ 0.6+	2000 01 06	704	0.0 0.2-
1992 05 02	809	0.5- 0.5-	1998 10 19	691	0.6+ 1.0+	2000 01 06	704	0.5- 0.2+
1992 05 03	809	0.4- 0.1+	1998 10 29	704	0.4- 0.1-	2000 02 03	704	1.0+ 1.1-
1992 05 03	809	0.1- 0.1+	1998 10 29	704	0.1+ 0.3+	2000 02 03	704	1.1+ 0.2+
1992 05 03	809	0.4+ 0.1+	1998 10 29	704	0.8+ 0.0	2000 02 03	704	0.0 0.8-
1998 09 29	704	0.1- 1.3-	1998 10 29	704	1.0+ 1.3-	2000 02 14	704	0.7+ 0.6-
1998 09 29	704	1.8- 0.7-	1998 10 29	704	0.4+ 0.3-	2000 02 14	704	0.4- 0.3+
1998 09 29	704	1.0- 0.2-	1998 11 10	704	0.4+ 0.2-	2000 02 14	704	0.4- 0.3-
1998 09 29	704	1.1- 0.0	1998 11 10	704	0.2+ 0.2+	2000 02 14	704	0.6+ 1.4+
1998 09 29	704	1.8- 1.6+	1998 11 10	704	0.4+ 0.1+	2000 02 14	704	0.0 1.6+

(13488)* 1982 TK₁ = 1930 VF = 1951 YX₂ = 1997 QC₄

Discovered 1982 Oct. 14 by L. G. Karachkina at the Crimean Astrophysical Observatory.

Id. T. Urata (*MPC* 30650)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	94.76244	(2000.0)	P	Q	
<i>n</i>	0.18871955	ω	176.34010	+0.49179352	-0.85716192
<i>a</i>	3.0101730	Ω	244.14631	+0.79448310	+0.51366137
<i>e</i>	0.0857562	<i>i</i>	9.78956	+0.35628041	+0.03775510
<i>P</i>	5.22	<i>H</i>	12.1	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1930 11 15	024	0.5- 0.6+	1998 09 29	704	(2.1+ 0.7+)	1998 12 22	704	0.4- 0.5+
1951 12 22	711	(6.1+ 5.3+)	1998 11 11	704	0.1+ 0.3+	1998 12 22	704	0.2+ 0.1+
1982 10 14	095	1.5- 0.2-	1998 11 11	704	1.3- 1.0+	1999 12 16	704	0.0 0.2-
1982 10 20	095	1.6+ 0.9-	1998 11 11	704	1.5- 0.1-	1999 12 16	704	0.8- 0.7+
1982 10 22	095	1.0+ 0.2+	1998 11 11	704	0.4+ 0.0	1999 12 16	704	(2.3+ 1.4-)
1982 10 24	095	1.3- 0.6-	1998 12 09	689	0.2+ 0.1+	1999 12 16	704	0.1+ 1.0-
1982 11 08	095	(1.2- 5.3-)	1998 12 15	704	0.5+ 0.0	2000 01 10	704	0.2+ 0.5+
1982 11 12	095	2.2+ 1.0+	1998 12 15	704	0.2- 0.0	2000 01 10	704	0.3+ 0.4-
1997 08 30	905	1.3- 0.8-	1998 12 15	704	0.9+ 0.3+	2000 01 10	704	1.7+ 0.0
1997 08 30	905	0.5- 1.3-	1998 12 15	704	0.4- 1.9-	2000 02 07	704	0.3- 0.1-
1997 09 03	385	0.5+ 0.1-	1998 12 17	145	0.2- 0.0	2000 02 07	704	0.6- 0.2+
1997 09 03	385	0.6+ 0.0	1998 12 17	145	0.2- 0.1+	2000 02 07	704	0.6- 0.3-
1997 09 03	385	0.7+ 0.1-	1998 12 17	145	0.1- 0.1+	2000 02 07	704	0.9- 1.4-
1998 09 29	704	0.7- 0.3+	1998 12 17	145	0.3+ 0.2-	2000 02 07	704	1.3- 1.4-
1998 09 29	704	(1.2- 3.0-)	1998 12 22	704	0.3+ 0.5-	2000 02 10	704	0.4+ 0.0
1998 09 29	704	1.4- 1.6-	1998 12 22	704	0.4+ 0.3-	2000 02 10	704	0.5+ 0.2+
1998 09 29	704	(2.7+ 3.7+)	1998 12 22	704	1.4+ 1.8+	2000 02 10	704	0.6+ 0.0

(13489)* 1982 UO₆ = 1998 XC₇₅

Discovered 1982 Oct. 20 by L. G. Karachkina at the Crimean Astrophysical Observatory.

Id. A. Doppler (*MPC* 34826)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	172.69182	(2000.0)	P	Q	
<i>n</i>	0.18890131	ω	98.19780	+0.90641390	+0.40019707
<i>a</i>	3.0082417	Ω	238.30792	-0.42222716	+0.84955729
<i>e</i>	0.1202487	<i>i</i>	9.13691	-0.01175043	+0.34364911
<i>P</i>	5.22	<i>H</i>	12.7	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1982 10 20	095	1.8- 1.7-	1998 12 16	704	0.6+ 0.4-	2000 01 07	699	0.0 0.4-
1982 10 25	095	0.6+ 1.4+	1998 12 22	704	1.6+ 0.7-	2000 01 11	704	0.7- 0.0
1982 11 09	095	1.5+ 0.6+	1998 12 22	704	0.4+ 1.5-	2000 01 11	704	0.2- 0.4-
1982 11 14	095	0.2- 0.9-	1998 12 22	704	0.9- 1.1-	2000 01 11	704	0.1- 0.1-
1992 09 29	675	0.1+ 0.3-	1998 12 22	704	0.4+ 0.9-	2000 01 11	704	0.9- 0.2-
1992 09 29	675	0.0 0.2-	1999 11 14	691	0.4- 0.3-	2000 01 11	704	0.7- 0.8+
1998 12 15	704	0.7- 1.0+	1999 11 14	691	0.5- 0.5-	2000 02 08	704	0.3+ 0.1+
1998 12 15	704	0.5- 0.5-	1999 11 14	691	0.6- 0.7-	2000 02 08	704	0.1+ 0.3+
1998 12 15	704	0.1- 0.4+	1999 12 14	704	0.2- 0.2-	2000 02 08	704	0.3- 0.4-
1998 12 15	704	0.6+ 0.9+	1999 12 14	704	0.4- 0.4-	2000 02 08	704	0.2+ 0.1-
1998 12 15	704	0.9- 1.5+	1999 12 14	704	0.7- 0.0	2000 02 13	704	0.9+ 0.9+
1998 12 16	704	0.1- 0.0	1999 12 14	704	0.6+ 0.8-	2000 02 13	704	1.3+ 0.8+
1998 12 16	704	0.4- 0.7+	1999 12 14	704	0.2+ 0.8-	2000 02 13	704	0.1- 0.2+
1998 12 16	704	0.1- 0.9+	2000 01 07	699	1.1+ 0.3-			
1998 12 16	704	0.2+ 1.4+	2000 01 07	699	0.1- 0.5+			

(13490)* 1984 BZ₆ = 1996 GZ₁₀ = 1998 RG₆

Discovered 1984 Jan. 26 by E. Bowell at Palomar.

Id. A. Doppler (*MPC* 33673)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	62.45005	(2000.0)	P	Q	
<i>n</i>	0.18322236	ω	260.99213	+0.80596020	-0.59168101
<i>a</i>	3.0700850	Ω	135.28155	+0.55292137	+0.74127515
<i>e</i>	0.2329635	<i>i</i>	1.50549	+0.21143822	+0.31689862
<i>P</i>	5.38	<i>H</i>	14.5	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1984 01 25	675	0.6- 0.3-	1998 09 14	704	0.3- 1.3+	2000 01 05	704	0.3- 0.2-
1984 01 26	675	0.5+ 0.4-	1998 09 14	704	0.1- 0.0	2000 01 05	704	1.1+ 0.3-
1996 04 13	691	0.0 0.6+	1998 09 14	704	0.8- 0.7+	2000 01 07	691	0.3+ 0.5+
1996 04 13	691	0.1+ 0.4+	1998 09 14	704	(1.8- 2.2+)	2000 01 07	691	0.0 0.7+
1996 04 13	691	0.3- 0.6+	1998 09 14	704	0.7- 0.9+	2000 01 07	691	0.2+ 0.7+
1996 04 20	691	0.6+ 0.0	1998 09 14	699	0.9+ 0.5+	2000 01 26	691	0.3+ 0.0
1996 04 20	691	0.1+ 0.7+	1998 09 14	699	0.1+ 0.2+	2000 01 26	691	0.4+ 0.0
1996 04 20	691	0.4+ 0.3+	1998 09 14	699	0.2+ 0.6+	2000 01 26	691	0.5+ 0.0
1998 08 17	704	0.7- 0.1-	1998 09 18	704	0.4+ 1.1+	2000 01 27	691	1.0- 0.2-
1998 08 17	704	0.3- 1.2+	1998 09 18	704	(0.8- 2.1-)	2000 01 27	691	1.1- 0.1+
1998 08 17	704	0.4+ 1.1-	1998 09 18	699	0.7- 1.3-	2000 01 27	691	1.2- 0.1-
1998 08 17	704	0.5+ 0.8-	1998 09 18	704	(3.0- 2.2-)	2000 02 03	704	0.1+ 0.5+
1998 08 17	704	1.2- 0.1+	1998 09 18	699	0.2- 0.9+	2000 02 03	704	0.4- 0.2-
1998 08 30	699	1.3+ 0.4-	1998 09 18	699	0.1+ 0.4-	2000 02 03	704	0.6- 0.1+
1998 08 30	699	0.1- 0.5-	2000 01 05	704	0.8+ 0.1+	2000 02 03	704	0.4+ 0.5+
1998 08 30	699	0.4+ 0.3-	2000 01 05	704	1.0+ 0.1+			

(13491)* 1984 UJ₁ = 1991 RO₃₀ = 1997 GC₂₀

Discovered 1984 Oct. 28 by A. Mrkos at Kleť.

Id. G. V. Williams (*MPC* 29610)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	105.00958	(2000.0)	P	Q	
<i>n</i>	0.27465746	ω	350.82002	+0.94119920	-0.33373045
<i>a</i>	2.3439146	Ω	28.84806	+0.31648199	+0.81640429
<i>e</i>	0.2409719	<i>i</i>	6.26019	+0.11825068	+0.47128338
<i>P</i>	3.59	<i>H</i>	14.3	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1984 10 26	688	2.0+ 1.3-	1997 05 09	691	1.2- 0.7-	2000 01 14	046	0.8- 0.3+
1984 10 26	688	1.2- 2.0-	1997 05 09	691	1.0- 0.3-	2000 02 03	704	0.1+ 0.7+
1984 10 28	046	1.9- 0.2+	1997 05 09	691	1.3- 0.7-	2000 02 03	704	0.8- 0.4+
1984 10 28	046	0.3- 1.9+	2000 01 08	704	0.2+ 0.1+	2000 02 03	704	0.3+ 0.4+
1984 10 29	046	1.9+ 1.6-	2000 01 08	704	0.3+ 0.7-	2000 02 03	704	0.0 0.0
1984 10 29	046	0.6+ 0.6-	2000 01 08	704	0.2+ 0.1-	2000 02 03	704	0.1+ 0.4+
1984 10 30	046	1.4+ 1.1-	2000 01 08	704	0.2+ 0.8-	2000 02 04	046	0.0 0.3+
1984 10 30	046	(3.2+ 0.5-)	2000 01 08	704	1.1+ 1.4-	2000 02 04	046	0.1- 0.3+
1991 09 14	675	0.1+ 0.4-	2000 01 09	704	0.8+ 0.2+	2000 02 04	046	0.2- 0.0

1991 09 14	675	0.4−	0.2+	2000 01 09	704	0.1−	0.3−	2000 02 06	703	0.0	0.6+
1991 09 15	675	0.8+	0.0	2000 01 09	704	0.1+	0.4−	2000 02 06	703	0.8−	0.1−
1991 09 15	675	0.4−	0.7−	2000 01 10	704	0.8+	0.1−	2000 02 06	703	0.2−	0.2+
1993 02 22	691	0.4−	0.5−	2000 01 10	704	0.4+	0.7−	2000 02 06	703	0.0	0.0
1993 02 22	691	1.1−	0.5−	2000 01 10	704	0.2+	0.5−	2000 02 11	704	0.2+	0.4+
1993 02 22	691	0.6−	0.6−	2000 01 10	704	0.1+	0.4−	2000 02 11	704	0.6+	1.0+
1997 04 03	704	0.6−	0.2−	2000 01 10	704	0.3−	1.2−	2000 02 11	704	0.7+	1.2+
1997 04 03	704	0.3+	0.0	2000 01 11	704	0.6+	0.4−	2000 02 11	704	0.3+	0.8+
1997 04 03	704	0.9−	1.5−	2000 01 11	704	0.8−	0.2−	2000 02 11	704	0.4+	0.8+
1997 04 03	704	0.0	1.2−	2000 01 11	704	0.4−	0.5−	2000 02 14	704	0.3+	0.4+
1997 04 05	704	0.3+	1.8−	2000 01 11	704	0.4−	0.8−	2000 02 14	704	0.4−	0.7+
1997 04 05	704	(1.5−	2.6−)	2000 01 11	704	0.6+	0.9+	2000 02 14	704	0.4−	0.5+
1997 04 07	704	0.2−	1.1−	2000 01 14	046	0.4−	0.3+				
1997 04 07	704	0.8+	0.8−	2000 01 14	046	0.5−	0.3+				

(13492)* 1984 YE₄ = 1989 EA

Discovered 1984 Dec. 27 by L. G. Karachkina at the Crimean Astrophysical Observatory.

Id. T. Kobayashi (*MPC* 15411)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		Williams		<i>P</i>		<i>Q</i>	
<i>n</i>	0.27254503	ω	348.42974	+0.45394799	−0.88428629				
<i>a</i>	2.3560104	Ω	74.49261	+0.82629348	+0.37183748				
<i>e</i>	0.1436079	<i>i</i>	6.51919	+0.33342212	+0.28244407				
<i>P</i>	3.62	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	2		

Residuals in seconds of arc

1984 12 27	095	0.0	0.6+	1993 04 15	675	0.1−	0.9−	1998 09 24	699	0.7−	0.2+
1984 12 29	095	1.6+	1.9−	1993 04 15	691	0.4−	0.5−	1998 09 24	699	0.1−	0.1+
1984 12 30	095	0.7−	1.6−	1993 04 15	675	0.1−	1.7−	1998 09 24	699	0.4−	0.4+
1984 12 31	095	0.4−	0.7−	1993 04 15	691	0.4−	0.3−	1998 12 08	704	0.4+	1.1+
1989 03 01	402(14.8−	0.6−)		1993 04 15	691	0.4−	0.5−	1998 12 08	704	0.3+	0.6+
1989 03 01	402(14.1−	2.5+)		1993 04 16	675	0.2+	0.7−	1998 12 08	704	0.1+	0.2−
1989 03 02	402 (3.6+	2.6+)		1993 04 16	675	0.1−	0.0	1998 12 08	704 (2.5−	3.4+)	
1989 03 02	402 (3.5+	3.4+)		1993 04 19	675 (3.3+	3.4−)		2000 01 08	704	0.6+	0.4−
1989 03 08	402 0.6−	0.4+		1998 09 01	426	0.2+	0.8−	2000 01 08	704	0.4−	0.3+
1989 03 08	402 0.2−	0.1+		1998 09 01	426	0.4+	0.5−	2000 01 08	704	0.7+	0.6+
1991 11 05	894	1.3+	0.4−	1998 09 01	426	0.6+	0.5−	2000 01 08	704	0.8+	0.5+
1991 11 05	894	0.7−	0.1−	1998 09 03	426	0.7−	0.7−	2000 01 08	704	0.2+	0.1−
1991 11 05	095 (2.2+	1.0+)		1998 09 03	426	0.3−	0.4−	2000 02 06	704	0.6+	0.5+
1991 11 05	095 (1.2+	2.5+)		1998 09 03	426	0.4−	0.4−	2000 02 06	704	0.4−	1.7+
1991 11 26	400 (1.1−	2.4+)		1998 09 21	704	0.2−	0.2+	2000 02 06	704	0.1+	0.3+
1991 11 26	400 0.5+	1.5+		1998 09 21	704	0.3+	1.1+	2000 02 06	704	0.8+	0.3+
1991 11 30	400 0.3+	0.2−		1998 09 21	704	0.0	0.1+	2000 02 06	704	0.3+	1.9+
1991 11 30	400	1.3−	0.7−	1998 09 21	704	0.4+	0.5+				

(13493)* 1985 PT = 1992 EP₅

Discovered 1985 Aug. 14 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Id. G. V. Williams (*MPC* 23779)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		Williams		<i>P</i>		<i>Q</i>	
<i>n</i>	0.22677772	ω	201.16953	+0.93854069	+0.31345888				
<i>a</i>	2.6631919	Ω	139.64129	−0.27587533	+0.93284342				
<i>e</i>	0.2012894	<i>i</i>	12.89508	−0.20744680	+0.17761388				
<i>P</i>	4.35	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	2		

Residuals in seconds of arc

1985 08 14	688	1.9+	1.7+	1998 07 26	809	(0.2+	2.7−)	1998 09 14	699	1.1−	0.5+
1985 08 14	688	0.1−	0.6−	1998 07 27	809	1.5+	0.6−	1998 09 14	699	1.1−	0.8+
1985 08 20	688	1.5−	0.1−	1998 07 27	809	1.3+	1.0−	1998 12 08	704	0.5+	0.4−
1985 08 20	688	0.6−	2.1+	1998 07 27	809	1.2+	0.9−	1998 12 08	704	0.5+	1.6−
1985 09 14	688	(2.5−	3.9+)	1998 08 17	704	0.2−	0.2−	1998 12 08	704	0.1−	1.6+
1992 03 01	809	0.1−	1.2+	1998 08 17	704	0.0	1.1+	1998 12 08	704	0.8−	0.5+
1992 03 04	809	0.1+	0.9+	1998 08 17	704	0.2+	0.7+	1998 12 08	704	1.5−	0.7−

1992 03 06	809	0.8+	0.4−	1998 08 17	704	1.1+	0.3+	2000 01 07	704	0.1+	0.1+
1992 04 04	809	1.6−	1.2+	1998 08 17	704	0.4+	0.9+	2000 01 07	704	0.0	0.2−
1998 06 19	699	0.7−	0.1+	1998 08 23	704	0.5+	1.0−	2000 01 07	704	0.2+	0.1+
1998 06 19	699	0.5−	0.3+	1998 08 23	704	0.4−	0.3+	2000 01 07	704	0.3+	0.2−
1998 06 19	699	0.3−	0.3−	1998 08 23	704	0.7+	0.3−	2000 01 07	704	0.4+	0.1−
1998 06 26	699	0.3−	0.1+	1998 08 23	704 (2.1−	2.8+)		2000 01 09	704	0.3−	0.6−
1998 06 26	699	0.4+	0.3+	1998 08 23	704	0.7+	0.2−	2000 01 09	704	0.4−	1.2+
1998 06 26	699	0.9−	0.4+	1998 08 27	699	0.4+	0.9−	2000 01 09	704	0.3−	0.7+
1998 07 03	699	0.2+	0.0	1998 08 27	699	0.4+	0.7−	2000 01 09	704	0.4+	0.9−
1998 07 03	699	0.0	0.3−	1998 08 27	699	0.3+	0.8−	2000 01 09	704	0.4+	0.5−
1998 07 03	699	0.4−	0.4−	1998 09 14	704	0.9+	0.3−	2000 02 02	704	0.4−	0.5−
1998 07 24	566	0.2+	0.2+	1998 09 14	704	0.9−	0.0	2000 02 02	704	0.1+	1.2+
1998 07 24	566	0.3+	0.0	1998 09 14	704	0.9−	0.1+	2000 02 02	704	0.4+	0.3+
1998 07 24	566	0.3+	0.1+	1998 09 14	704	1.2−	0.8+	2000 02 04	704	0.1+	0.3−
1998 07 26	809 (0.6+	2.1−)		1998 09 14	704	1.3−	0.2−	2000 02 04	704	0.0	0.3−
1998 07 26	809 (0.3+	2.6−)		1998 09 14	699	1.2−	0.4+	2000 02 04	704	0.0	0.0

(13494)* 1985 RT = 1955 OL = 2000 AC₉₆

Discovered 1985 Sept. 14 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Id. G. V. Williams (*MPC* 37622), E. Bowell (*ibid.*), M. E. Sansaturio (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		Williams		<i>P</i>		<i>Q</i>	
<i>n</i>	0.29714722	ω	21.37329	+0.96800925	−0.25082918				
<i>a</i>	2.2241032	Ω	353.14341	+0.22153419	+0.86661552				
<i>e</i>	0.1873667	<i>i</i>	3.14164	+0.11781632	+0.43134935				
<i>P</i>	3.32	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	1		

Residuals in seconds of arc

1955 07 24	675	0.3+	0.2−	1985 09 20	809	1.6−	0.7+	2000 01 07	704	0.7+	1.1−
1955 07 24	675	0.1−	0.0	1985 09 20	809	1.4−	0.5+	2000 01 07	704	0.3+	0.2+
1985 08 22	688	1.3−	0.8+	1985 09 20	809	1.1−	0.4+	2000 01 07	704	0.8−	1.2−
1985 08 22	688	2.2+	0.2−	1985 09 22	809	1.3−	0.1+	2000 01 07	704	0.9−	1.0−
1985 09 08	809	0.9−	0.4−	1985 09 22	809	0.9−	0.1+	2000 01 30	703	0.2−	0.2−
1985 09 08	809	0.7−	0.5−	1985 10 12	688	1.1−	0.3+	2000 01 30	703	0.3+	0.2+
1985 09 08	809	0.6−	0.6−	1998 06 26	704	0.1+	0.8+	2000 01 30	703	0.4−	0.6+
1985 09 10	809	0.1+	0.0	1998 06 26	704	0.2−	0.3−	2000 01 30	703	0.6−	0.0
1985 09 10	809	0.3+	0.0	1998 06 26	704	0.4+	1.5−	2000 02 03	704	0.7+	0.1+
1985 09 10	809	1.0+	0.1+	1998 06 26	704	0.8−	0.9−	2000 02 03	704	1.2+	0.1+
1985 09 11	809	1.0+	0.6−	1998 07 01	809	0.2−	0.8+	2000 02 03	704	0.3+	0.2+
1985 09 11	809	1.2+	0.6−	1998 07 01	809	0.9+	0.9−	2000 02 03	704	0.0	0.1−
1985 09 11	809	1.5+	0.6−	1998 07 01	809	0.2+	0.3+	2000 02 03	704	0.2+	0.1−
1985 09 11	054	2.2+	0.2+	1999 12 04	703	0.4+	0.7−	2000 02 06	703	0.2−	0.2+
1985 09 14	809	1.3−	0.2−	1999 12 04	703	0.1+	0.2−	2000 02 06	703	0.1−	0.8+
1985 09 14	809	0.6−	0.4−	1999 12 04	703	(0.5+	3.6+)	2000 02 06	703	0.5−	0.0
1985 09 14	809	0.0	0.6−	1999 12 04	703	0.5+	0.9+	2000 02 06	703	(1.4−	2.9−)
1985 09 14	688	(4.0+	0.2−)	2000 01 04	704	0.6+	0.2−	2000 02 09	120	2.0−	0.0
1985 09 14	688	1.0−	2.4−	2000 01 04	704	0.5+	0.4−	2000 02 09	120	1.4−	0.0
1985 09 18	809	1.6+	0.3+	2000 01 04	704	0.4+	0.2−	2000 02 11	704	0.3−	0.1−
1985 09 18	809	2.0+	0.2+	2000 01 04	704	0.3+	0.9−	2000 02 11	704	0.5+	0.3−
1985 09 18	809	2.2+	0.2+	2000 01 04	688	0.4−	0.1+	2000 02 11	704	0.3−	0.4−
1985 09 18	688	0.3+	1.3+	2000 01 04	704	0.7+	0.7+	2000 02 11	704	0.4−	1.0−
1985 09 18	688	0.8−	0.2−	2000 01 04	688	0.1−	0.1+	2000 02 11	704	0.3−	0.5−

Residuals in seconds of arc

1969 10 08	095	(3.7+ 3.8-)	1995 10 23	033	0.1+ 0.0	1998 09 27	704	0.3- 1.1-
1969 11 04	095	(31.7- 37.0+)	1995 10 24	033	0.4+ 0.5-	1998 09 27	704	0.2+ 0.5+
1969 11 13	095	0.1+ 0.4+	1995 10 24	033	0.2+ 0.4-	1998 10 10	699	0.0 0.2-
1985 09 06	809	0.5- 1.0+	1998 08 17	704	0.4+ 0.1+	1998 10 10	699	0.6- 0.5-
1985 09 06	809	0.3- 1.1+	1998 08 17	704	0.3+ 0.4-	1998 10 10	699	0.5+ 0.2-
1985 09 06	809	0.0 1.4+	1998 08 17	704	0.2+ 0.4-	1998 10 12	699	0.2+ 0.2+
1985 09 08	809	1.4- 0.3-	1998 08 17	704	0.0 0.1-	1998 10 12	699	0.1+ 0.1+
1985 09 08	809	1.1- 0.2-	1998 08 17	704	0.1- 0.3+	1998 10 12	699	0.7- 0.3+
1985 09 08	809	1.0- 0.2-	1998 08 23	704	0.2+ 0.5+	1998 11 23	699	0.4- 0.2+
1985 09 10	809	0.1+ 0.7+	1998 08 23	704	0.4+ 0.5-	1998 11 23	699	0.9- 0.3-
1985 09 10	809	0.4+ 0.5+	1998 08 23	704	0.2- 1.4-	1998 11 23	699	0.6- 0.5-
1985 09 10	809	0.7+ 0.5+	1998 08 23	704	0.9+ 0.9-	1998 12 08	704	(2.8- 1.2-)
1985 09 11	809	0.5- 1.4+	1998 08 23	704	0.2+ 0.1-	1998 12 08	704	(2.2- 2.1-)
1985 09 11	809	0.3- 1.5+	1998 09 13	699	0.2- 1.0+	1998 12 08	704	0.6- 0.6+
1985 09 11	809	0.2- 1.2+	1998 09 13	699	0.2+ 0.6+	2000 01 04	704	0.2+ 0.2-
1985 09 14	809	0.8+ 0.4-	1998 09 13	699	0.3+ 0.6+	2000 01 04	704	0.4- 0.7+
1985 09 14	809	0.8+ 0.2-	1998 09 14	704	0.7+ 0.3-	2000 01 04	704	0.5+ 0.4-
1985 09 14	809	0.8+ 0.0	1998 09 14	704	0.6+ 0.6-	2000 01 08	704	0.4+ 0.2-
1985 09 15	809	0.3- 0.7+	1998 09 14	704	0.9+ 0.1-	2000 01 08	704	0.6+ 0.7-
1985 09 15	809	0.1- 0.5+	1998 09 14	704	0.7+ 0.3-	2000 01 08	704	0.0 0.4-
1985 09 15	809	0.3+ 0.5+	1998 09 18	704	1.0- 0.4-	2000 01 08	704	1.2- 0.6+
1985 09 16	809	0.1- 0.6+	1998 09 18	704	0.0 0.2+	2000 01 08	704	0.3- 0.2-
1985 09 16	809	0.4+ 0.5+	1998 09 18	704	0.7- 0.7+	2000 02 06	704	0.1+ 0.9+
1985 09 16	809	0.6+ 0.5+	1998 09 18	704	1.2- 1.2+	2000 02 06	704	0.7+ 0.8+
1985 09 17	809	0.4+ 0.2+	1998 09 18	704	0.2+ 1.7+	2000 02 06	704	0.2+ 0.4+
1985 09 17	809	0.3+ 0.1-	1998 09 25	704	0.6- 0.0	2000 02 06	704	0.4- 0.0
1985 09 17	809	0.4+ 0.2-	1998 09 25	704	0.4- 0.8-	2000 02 06	704	0.9+ 0.2+
1985 09 21	809	0.9+ 1.7-	1998 09 25	704	0.1- 0.3-	2000 02 11	704	0.1+ 0.8+
1985 09 21	809	0.8+ 1.6-	1998 09 25	704	0.3- 0.8+	2000 02 11	704	0.8+ 1.1+
1985 09 21	809	0.9+ 1.8-	1998 09 25	704	0.6- 1.0+	2000 02 11	704	0.2+ 1.3+
1985 09 22	809	1.8- 1.2-	1998 09 27	704	0.1+ 0.3+	2000 02 11	704	0.1- 1.0+
1985 09 22	809	1.4- 1.3-	1998 09 27	704	0.5- 0.7+	2000 02 11	704	0.2+ 0.7+
1985 09 22	809	1.4- 1.3-	1998 09 27	704	0.6+ 0.5+			

(13496)* 1985 RF₃ = 1998 QX₁₀₂

Discovered 1985 Sept. 6 by H. Debehogne at the European Southern Observatory.

Id. B. G. Marsden (*MPC* 33474), S. Nakano (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	132.55173		(2000.0)	P	Q
n	0.22897821	ω	213.63955	+0.91355554	+0.39698967
a	2.6461022	Ω	122.72801	-0.34615370	+0.87305322
e	0.2494983	i	6.03226	-0.21352727	+0.28315593
P	4.30	H	13.9	G 0.15	U 2

Residuals in seconds of arc

1985 09 06	809	0.3+ 0.1-	1985 09 22	809	1.8+ 0.6-	1999 12 07	704	0.3+ 0.4-
1985 09 06	809	0.6+ 0.1+	1985 09 22	809	1.7+ 0.8-	1999 12 07	704	0.3- 0.4+
1985 09 06	809	0.8+ 0.1+	1992 03 02	809	0.0 0.3-	1999 12 07	704	0.3- 1.1-
1985 09 08	809	0.2+ 0.5+	1994 11 26	691	1.0- 0.9-	2000 01 16	691	0.3- 0.1+
1985 09 08	809	0.3+ 0.5+	1994 11 26	691	1.6+ 0.2+	2000 01 16	691	0.1- 0.3+
1985 09 08	809	0.5+ 0.6+	1994 11 26	691	0.3+ 0.4-	2000 01 16	691	0.2- 0.3+
1985 09 10	809	0.7- 0.4+	1998 06 29	704	1.3- 0.5+	2000 01 26	691	0.7- 0.6-
1985 09 10	809	0.6- 0.5+	1998 06 29	704	(3.0- 0.1+)	2000 01 26	691	0.6- 0.1-
1985 09 10	809	0.6- 0.4+	1998 06 29	704	1.0- 1.2-	2000 01 26	691	0.5- 0.1-
1985 09 11	809	0.0 0.9+	1998 08 26	809	1.8+ 1.2+	2000 02 02	704	0.6+ 0.6+
1985 09 11	809	0.1+ 0.9+	1998 08 26	809	1.3+ 0.4+	2000 02 02	704	0.4+ 0.6-
1985 09 11	809	0.5+ 0.8+	1998 08 26	809	1.2+ 0.3+	2000 02 02	704	1.7+ 0.3+
1985 09 14	809	0.1- 0.6+	1998 08 27	809	(4.4+ 5.0+)	2000 02 02	704	0.2+ 0.1-
1985 09 14	809	0.4- 0.6+	1998 08 27	809	(5.1+ 5.0+)	2000 02 02	704	0.0 0.6-
1985 09 14	809	0.3- 0.4+	1998 08 27	809	(4.6+ 4.8+)	2000 02 03	704	0.0 0.9+
1985 09 16	809	0.5- 0.0	1998 09 24	699	0.7- 0.6-	2000 02 03	704	0.2- 0.6+
1985 09 16	809	0.5- 0.1-	1998 09 24	699	0.6- 0.6-	2000 02 03	704	0.5- 1.2+
1985 09 16	809	0.3- 0.4-	1998 09 24	699	0.0 0.6-	2000 02 03	704	0.9+ 1.7+
1985 09 18	809	0.6- 0.2+	1998 09 27	699	0.0 0.1+	2000 02 03	704	1.0+ 0.4+

1985 09 18	809	0.4- 0.2+	1998 09 27	699	0.3- 1.1+	2000 02 06	704	0.6+ 0.7+
1985 09 18	809	0.3- 0.1+	1998 09 27	699	0.1- 0.4+	2000 02 06	704	0.6- 0.1+
1985 09 19	095	(3.1- 0.5-)	1998 12 08	704	0.8- 1.8-	2000 02 06	704	0.4- 0.0
1985 09 20	809	1.1- 0.6-	1998 12 08	704	0.4- 0.5-	2000 02 06	704	0.2+ 0.5-
1985 09 20	809	1.0- 0.6-	1998 12 08	704	0.1- 0.2-	2000 02 12	691	0.7- 0.9+
1985 09 20	809	1.0- 0.7-	1998 12 08	704	0.2+ 1.8-	2000 02 12	691	0.3- 0.3+
1985 09 20	095	(3.2- 1.8+)	1999 12 07	704	0.1+ 0.5+	2000 02 12	691	0.4- 0.2+

(13497)* 1986 EK₁ = 1993 FA

Discovered 1986 Mar. 5 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Id. S. Nakano (*MPC* 21934)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	28.90396		(2000.0)	P	Q
n	0.27871728	ω	107.84633	-0.40334672	-0.91395027
a	2.3210979	Ω	6.49365	+0.61500734	-0.30701194
e	0.2312177	i	23.33237	+0.67755250	-0.26540267
P	3.54	H	13.1	G 0.15	U 2

Residuals in seconds of arc

1986 03 05	688	0.8- 1.6-	1993 03 18	372	0.3- 0.2-	2000 01 03	704	0.3- 0.2-
1986 03 05	688	0.5- 1.8-	1995 10 25	072	1.4+ 0.3-	2000 01 03	704	0.6- 0.2-
1986 03 06	809	1.0- 0.4-	1995 10 25	072	0.7+ 0.7-	2000 01 03	704	0.7- 0.3-
1986 03 06	809	0.4+ 0.6-	1998 09 21	704	1.2+ 1.0+	2000 01 03	704	0.9- 0.1-
1986 03 07	809	0.3- 1.1+	1998 09 21	704	0.4- 0.3+	2000 01 03	704	0.4- 0.1+
1986 03 07	809	0.4- 0.1+	1998 09 21	704	1.1+ 0.5+	2000 01 31	704	1.2+ 0.8+
1986 03 10	809	0.7- 0.9-	1998 09 21	704	0.1+ 0.2+	2000 01 31	704	1.1+ 0.2+
1986 03 10	809	0.9- 1.8+	1998 12 08	704	0.5+ 1.6-	2000 01 31	704	1.0+ 0.4+
1986 04 08	675	(5.4+ 2.6+)	1998 12 08	704	1.5- 0.1+	2000 01 31	704	1.0+ 0.5+
1986 04 08	675	(3.4+ 2.7+)	1998 12 08	704	0.4- 1.3-	2000 02 09	720	0.3- 0.2+
1986 04 09	688	(5.0+ 2.8+)	1998 12 08	704	1.2- 0.4-	2000 02 09	720	0.2+ 0.2+
1986 04 09	688	(1.4+ 2.5+)	1998 12 09	704	1.2- 1.2+	2000 02 09	720	0.5- 0.3+
1993 03 17	372	0.9+ 0.5-	1998 12 09	704	0.6+ 1.4-	2000 02 10	720	0.3+ 0.4+
1993 03 17	372	0.4+ 0.4-	1998 12 09	704	0.8- 0.7-	2000 02 10	720	0.3+ 0.0

(13498)* 1986 PX = 1980 TJ₃ = 1994 CJ₅

Discovered 1986 Aug. 6 by E. W. Elst and V. Ivanova at Smolyan.

Id. K. Ichikawa (*MPC* 25327), S. Nakano (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	128.02369		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.32050119	ω	152.43383	+0.97829488	+0.20681140
a	2.1147041	Ω	195.64680	-0.19787018	+0.91374945
e	0.1784727	i	2.75598	-0.06153471	+0.34970129
P	3.08	H	15.1	G 0.15	U 1

Residuals in seconds of arc

1980 10 14	511	1.9- 1.4-	1998 05 22	704	0.6- 0.0	1999 12 31	699	0.4- 0.9+
1980 10 14	511	0.1+ 1.2-	1998 05 22	704	(2.4- 0.5+)	1999 12 31	699	0.3- 0.4-
1980 10 14	511	1.0+ 0.2-	1998 05 22	704	0.1+ 1.1-	1999 12 31	699	0.9+ 0.7+
1986 08 06	071	1.4+ 0.7+	1998 05 22	704	(0.6- 2.7-)	2000 01 05	704	0.3- 0.7-
1986 08 06	071	1.9+ 0.4-	1998 05 24	704	1.8- 0.2-	2000 01 05	704	0.0 1.0-
1986 08 08	071	(2.3- 0.8+)	1998 05 24	704	(2.2+ 0.0)	2000 01 05	704	0.0 0.2-
1986 08 08	071	0.3+ 0.3+	1998 05 24	704	(2.7- 2.3+)	2000 01 05	704	0.0 0.5-
1986 08 08	071	0.7- 1.2-	1998 05 24	704	(3.3- 0.0)	2000 01 05	704	0.1- 0.6-
1986 08 09	071	0.4- 0.4+	1998 05 24	704	0.0 0.5-	2000 01 07	704	0.8- 0.7-
1986 08 09	071	1.9- 1.9+	1998 06 03	704	0.4- 0.7-	2000 01 07	704	0.1- 0.7-
1986 08 09	071	1.0- 0.4+	1998 06 03	704	0.1+ 0.1+	2000 01 07	704	0.2+ 0.5-
1988 03 17	675	2.0+ 0.7+	1998 06 03	704	0.6- 0.6-	2000 01 07	704	0.2- 0.2+
1989 07 29	675	1.9+ 0.8-	1998 06 03	704	0.9- 0.6-	2000 01 07	704	0.1+ 0.1+
1989 07 29	675	1.3+ 0.2+	1998 06 20	566	0.3- 0.9-	2000 02 02	704	0.1- 0.8+
1994 02 11	691	0.4- 0.2-	1998 06 20	566	0.1+ 0.6-	2000 02 02	704	0.2+ 0.3+
1994 02 11	691	0.0 0.1-	1998 06 20	566	0.2+ 0.5+	2000 02 02	704	0.3+ 0.2-
1994 02 11	691	0.2- 0.0	1998 06 24	704	0.5+ 0.6+	2000 02 02	704	0.3- 0.2+
1994 02 12	691	0.7- 0.1+	1998 06 24	704	0.0 0.4-	2000 02 02	704	0.3+ 0.4-
1994 02 12	691	0.4+ 0.3-	1998 06 24	704	0.9+ 0.1+	2000 02 03	704	0.3+ 0.4+

1994 02 12	691	0.1−	0.5−	1998 06 24	704	0.1−	0.2+	2000 02 03	704	0.2+	0.1+
1997 03 02	691	0.0	0.1−	1998 06 24	704	0.3−	0.8−	2000 02 03	704	0.5+	0.3+
1997 03 02	691	0.0	0.1+	1998 06 26	704	0.1−	0.2+	2000 02 03	704	0.5+	0.2+
1997 03 02	691	0.2−	0.5+	1998 06 26	704	0.1+	1.2+	2000 02 03	704	0.2−	0.3−
1998 05 22	704	0.6−	0.2+	1998 06 26	704	0.3+	0.7+				

(13499)* 1986 TQ₅ = 1986 UB₂ = 1991 NX₅ = 1997 OS = 1998 XV₅₈

Discovered 1986 Oct. 1 at Caussols.

Id. A. Gnädig (*MPC* 34827), S. Nakano (d, *MPC* 14752)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	137.38311		(2000.0)		P		Q
<i>n</i>	0.17238230	ω	217.90718		+0.99832427		−0.05463474
<i>a</i>	3.1974782	Ω	145.21028		+0.05780554		+0.92628245
<i>e</i>	0.2037491	<i>i</i>	1.91545		+0.00267918		+0.37284832
<i>P</i>	5.72	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1986 10 01	010	(4.2+ 6.6−)	1991 07 12	809	1.7+	0.0	1998 12 16	704	0.0	1.2+
1986 10 01	010	(2.4+ 5.3−)	1991 08 02	413	0.1+	0.9−	1998 12 16	704	1.1+	0.8−
1986 10 03	095	1.5+ 0.1+	1991 08 02	413	0.4+	0.3−	1998 12 16	704	0.0	1.1+
1986 10 27	010	(15.8− 5.8−)	1997 07 27	910	0.2+	0.3−	1998 12 16	704	0.1+	0.1−
1986 10 27	010	(15.6− 4.5−)	1997 07 27	910	0.2+	0.3−	1998 12 16	704	0.6−	1.6+
1986 10 27	010	(11.2− 5.1−)	1997 07 27	910	0.3+	0.2−	1998 12 22	704	1.1−	1.6−
1986 11 02	675	1.3− 0.6+	1997 07 29	910	0.6+	0.2+	1998 12 22	704	0.5−	1.7−
1986 11 02	675	0.4− 0.7+	1997 07 29	910	0.5+	0.1−	1998 12 22	704	0.4−	0.7−
1986 11 02	675	0.6− 0.8+	1997 07 29	910	0.6+	0.1+	1998 12 22	704	0.0	1.2−
1991 07 10	809	0.6− 0.4−	1997 08 10	691	0.8−	0.5−	2000 01 10	691	0.1+	0.1−
1991 07 10	809	0.5− 0.3−	1997 08 10	691	0.6−	0.1+	2000 01 10	691	0.3−	0.1−
1991 07 10	809	0.7− 0.4−	1997 08 10	691	0.4−	0.0	2000 01 10	691	0.5−	0.1−
1991 07 11	809	1.4− 0.0	1998 12 15	704	0.0	0.7−	2000 01 16	691	0.2+	0.3−
1991 07 11	809	0.8− 0.1+	1998 12 15	704	0.8+	0.3+	2000 01 16	691	0.3+	0.1−
1991 07 11	809	0.4− 0.1+	1998 12 15	704	1.0+	0.5−	2000 01 16	691	0.3+	0.1−
1991 07 12	809	1.2+ 0.1+	1998 12 15	704	1.1−	0.1−	2000 02 04	120	0.1+	1.2+
1991 07 12	809	1.3+ 0.3+	1998 12 15	704	0.9+	0.7−	2000 02 04	120	0.2−	0.0

(13500)* 1987 PM = 1988 XK₄ = 1999 CN₇₀

Discovered 1987 Aug. 6 at Caussols.

Id. B. G. Marsden (*MPC* 33925), G. V. Williams (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	289.30927		(2000.0)		P		Q
<i>n</i>	0.21310429	ω	22.58090		+0.51143528		+0.84955508
<i>a</i>	2.7759262	Ω	278.39572		−0.80701532		+0.42319469
<i>e</i>	0.0645062	<i>i</i>	7.50367		−0.29522911		+0.31490064
<i>P</i>	4.63	<i>H</i>	12.4	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1987 08 06	010	1.2− 0.8−	1997 12 06	704	0.7−	0.7−	1999 02 16	704	0.3+	0.1−
1987 08 06	010	1.3+ 0.4−	1998 11 25	704	1.3−	0.4+	1999 02 16	704	0.8+	0.0
1987 08 06	010	0.9+ 0.8+	1998 11 25	704	1.2+	0.1+	1999 02 16	704	0.7+	0.1−
1987 09 02	095	(0.1+ 3.8+)	1998 11 25	704	0.6−	0.2+	1999 02 16	704	0.3+	0.0
1987 09 16	095	0.8− 1.3+	1998 11 25	704	0.8−	1.2−	1999 02 16	704	1.0+	0.8+
1987 09 20	095	1.0− 0.9+	1998 11 25	704	1.8−	1.8−	1999 02 20	699	0.7+	0.1+
1988 12 06	881	0.8+ 2.1−	1999 01 18	704	0.1+	0.3−	1999 02 20	699	1.0+	0.1−
1994 01 13	691	0.6− 0.7+	1999 01 18	704	(2.5+ 0.1+)		1999 02 20	699	0.9+	0.8+
1994 01 13	691	0.3+ 1.0+	1999 01 18	704	0.9−	0.5+	1999 03 22	699	0.1−	0.6+
1994 01 13	691	0.8− 0.8+	1999 01 18	704	0.5−	0.8+	1999 03 22	699	1.2+	0.6+
1996 08 16	095	0.4+ 0.9−	1999 01 18	704	0.1−	0.4−	1999 03 22	699	1.2+	0.7+
1996 08 16	095	0.3− 0.7+	1999 02 12	704	0.0	0.1+	1999 05 07	704	0.1−	1.1+
1997 12 06	704	0.1− 0.7+	1999 02 12	704	1.2−	0.4−	1999 05 07	704	0.1−	0.2−
1997 12 06	704	0.1− 1.1+	1999 02 12	704	0.0	0.2−	1999 05 07	704	0.7−	0.7+
1997 12 06	704	0.5+ 0.2+	1999 02 12	704	0.2−	0.6−	1999 05 07	704	1.5−	1.1−
1997 12 06	704	0.3+ 0.3−	1999 02 12	704	1.4−	0.9−	1999 05 07	704	1.8+	0.2−

(13501)* 1987 VR = 1992 TP₁

Discovered 1987 Nov. 15 by A. Mrkos at Kleť.

Id. E. Bowell (*MPC* 21787)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	83.17694		(2000.0)		P		Q
<i>n</i>	0.18406617	ω	219.13988		+0.31887123		−0.94405485
<i>a</i>	3.0606951	Ω	212.51815		+0.90415426		+0.32961899
<i>e</i>	0.0753723	<i>i</i>	9.00628		+0.28429953		+0.01057165
<i>P</i>	5.35	<i>H</i>	12.6	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1987 10 27	095	(4.2+ 5.8-)	1997 09 10	046	0.4-	0.5+	1998 12 15	704	0.3-	0.0	
1987 11 15	046	0.4+ 1.4-	1997 09 10	046	0.5-	0.5+	1998 12 16	699	0.1+	0.5+	
1987 11 15	046	0.0	2.0+	1997 09 10	046	0.5-	0.5+	1998 12 16	699	0.0	0.2+
1987 11 23	046	1.3+ 1.3+	1997 09 11	046	0.5-	0.4+	1998 12 16	699	0.3+	0.4+	
1987 11 23	046	0.5- 0.2-	1997 09 11	046	0.6-	0.3+	1998 12 22	704	(0.4- 2.1+)		
1987 11 25	046	1.9- 1.5-	1997 09 11	046	0.7-	0.2+	1998 12 22	704	(2.2+ 0.8+)		
1987 11 25	046	0.1+ 1.8-	1997 09 29	046	0.9-	0.3+	1998 12 22	704	0.6+	0.6+	
1992 10 01	675	1.0+ 0.7-	1997 09 29	046	0.5-	0.2-	1998 12 22	704	0.0	0.2+	
1992 10 04	675	0.5+ 0.8-	1997 09 29	046	0.2-	0.1-	1998 12 22	704	0.4+	0.2+	
1992 10 04	675	1.1+ 0.9-	1997 10 04	046	0.5-	0.6-	1999 01 05	046	0.0	0.0	
1997 08 06	046	0.5+ 0.2+	1997 10 04	046	0.8-	0.6-	1999 01 05	046	0.1+	0.1+	
1997 08 06	046	0.4+ 0.1+	1997 10 04	046	0.7-	0.2-	1999 01 05	046	0.0	0.0	
1997 08 06	046	0.6+ 0.1+	1997 10 31	910	0.8-	0.6+	1999 01 06	046	0.0	0.1+	
1997 08 07	046	0.5+ 0.5+	1997 10 31	910	0.7-	0.4+	1999 01 06	046	0.3-	0.3+	
1997 08 07	046	0.5+ 0.5+	1997 10 31	910	0.8-	0.5+	1999 01 06	046	0.1-	0.2+	
1997 08 07	046	0.4+ 0.4+	1998 11 13	046	0.3+	0.5-	1999 02 17	910	1.0-	0.0	
1997 08 14	596	0.1+ 0.1-	1998 11 13	046	0.6+	0.4-	1999 02 17	910	0.8-	0.1-	
1997 08 14	596	0.4+ 0.7-	1998 11 13	046	0.5+	0.4-	1999 02 17	910	0.6-	0.2-	
1997 08 14	596	0.1+ 0.1-	1998 11 18	046	0.1-	0.3-	1999 12 16	704	0.4-	0.4+	
1997 08 22	046	0.3+ 0.3-	1998 11 18	046	0.2+	0.4-	1999 12 16	704	0.1-	1.7-	
1997 08 22	046	0.5+ 0.6-	1998 11 18	046	0.1+	0.2-	1999 12 16	704	1.5-	0.5-	
1997 08 22	046	0.7+ 0.3-	1998 11 18	046	0.3-	0.0	1999 12 16	704	0.6+	0.4-	
1997 08 23	046	0.4+ 0.3-	1998 11 18	046	0.1+	0.6-	1999 12 16	704	0.4+	0.5-	
1997 08 23	046	0.3+ 0.4-	1998 11 18	046	0.0	0.3-	2000 02 07	704	0.5-	0.3-	
1997 08 23	046	0.2+ 0.5-	1998 12 08	046	0.1+	0.4+	2000 02 07	704	0.3-	0.9-	
1997 08 29	560	0.3+ 0.2-	1998 12 08	046	0.2+	0.5+	2000 02 07	704	0.5-	0.7-	
1997 08 29	560	0.2+ 0.5-	1998 12 08	046	0.3+	0.5+	2000 02 07	704	0.8-	1.1-	
1997 08 29	560	0.2+ 0.3-	1998 12 09	046	0.2+	0.3+	2000 02 07	704	0.7-	1.1-	
1997 08 30	566	0.7+ 0.3-	1998 12 09	046	0.1+	0.2+	2000 02 08	704	0.7+	0.1+	
1997 08 30	566	0.1+ 0.4-	1998 12 09	046	0.2+	0.1+	2000 02 08	704	0.3+	0.1-	
1997 08 30	566	0.2+ 0.3-	1998 12 15	704	1.3-	0.7+	2000 02 08	704	0.4+	0.0	
1997 08 31	560	0.2+ 0.3-	1998 12 15	704	0.4+	0.3-	2000 02 08	704	0.5+	0.1+	
1997 08 31	560	0.2- 0.4-	1998 12 15	704	0.7-	0.2+	2000 02 08	704	0.1+	0.3+	
1997 08 31	560	0.1+ 0.3-	1998 12 15	704	0.0	0.5+					

(13502)* 1987 WD = 1983 TJ = 1997 GZ₄₂

Discovered 1987 Nov. 17 by S. Ueda and H. Kaneda at Kushiro.

Id. T. B. Spahr (*MPC* 30447), G. V. Williams (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	176.62005		(2000.0)		P		Q
<i>n</i>	0.26528533	ω	307.73539		+0.78048768		+0.62407339
<i>a</i>	2.3987992	Ω	13.78026		−0.51347453		+0.67370621
<i>e</i>	0.1563243	<i>i</i>	8.94389		−0.35662710		+0.39579332
<i>P</i>	3.72	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1983 10 05	046	(32.3− 31.6−)	1998 09 26	704	0.5−	0.8−	1998 10 19	327	0.2−	0.7+
1983 10 05	046	(31.3− 29.7−)	1998 09 26	704	0.6+	1.1−	1998 10 20	327	0.3−	0.1+
1987 11 17	399	0.0 1.6+ Y	1998 09 26	704	0.5−	1.0+	1998 10 20	327	0.3−	0.4+
1987 11 17	399	0.9− 0.3− Y	1998 09 26	704	1.5−	0.4−	1998 10 20	327	0.4−	0.5+
1987 11 22	399	0.1+ 0.3+	1998 09 26	704	0.3−	1.4−	1998 10 28	704	0.7+ 0.5+	
1987 11 22	399	1.6+ 1.0−	1998 09 26	327	0.5−	0.2+	1998 10 28	704	0.7+ 0.3+	
1987 11 28	399	1.3+ 2.1−	1998 09 26	327	0.4−	0.1+	1998 10 28	704	0.1+ 0.4+	
1987 11 28	399	1.5+ 0.0	1998 09 26	327	0.5−	0.2+	1998 10 28	704	0.5− 0.0	
1987 12 09	399	(1.4− 2.7−)	1998 09 27	704	0.8+ 0.3−		1998 10 28	704	0.1+ 1.0+	
1987 12 09	399	0.1+ 2.4−	1998 09 27	704	0.3+ 0.1+		1998 10 29	704	1.2+ 1.2−	

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M.P.C. 38317

1987 12 09	399	0.5−	2.4−	1988 09 27	704	0.7+	0.7+	1988 10 29	704	1.0+	1.0−
1997 04 01	809	0.2−	0.4+	1988 09 27	704	1.0+	1.0−	1988 10 29	704	0.7+	1.0−
1997 04 01	809	0.5+	0.7−	1988 09 27	704	0.9+	0.8+	1988 10 29	704	0.3−	1.0−
1997 04 01	809	0.1+	1.0−	1988 09 29	727	0.0	0.2+	1988 10 29	704	0.7+	0.7−
1997 05 06	566	1.0−	0.5−	1988 09 29	727	0.2+	0.4+	1988 11 10	699	1.0+	0.5+
1997 05 06	566	0.8−	0.6−	1988 09 29	727	0.0	0.1+	1988 11 10	699	0.4+	0.4+
1997 05 06	566	0.7−	0.3−	1988 09 29	327	1.8−	0.3+	1988 11 10	699	0.9+	0.8+
1998 09 18	704	(1.1+	2.0+)	1988 09 29	327	1.6−	0.5+	1999 01 05	699	0.3−	0.7+
1998 09 18	704	0.7+	0.8+	1988 09 29	327	1.8−	0.5+	1999 01 05	699	0.1−	0.3+
1998 09 18	704	1.4+	0.8−	1988 10 14	704	0.4−	0.3−	1999 01 05	699	0.4−	0.3+
1998 09 18	704	0.8+	0.0	1988 10 14	704	0.4+	0.2−	2000 01 03	704	0.5+	0.4−
1998 09 18	699	1.1+	0.7+	1988 10 14	704	0.9−	0.0	2000 01 03	704	0.2−	0.8−
1998 09 18	704	0.2+	1.1+	1988 10 14	704	1.0−	0.4−	2000 01 03	704	0.3+	0.4−
1998 09 18	699	1.1+	0.6+	1988 10 14	704	0.7−	0.9−	2000 01 03	704	0.2−	0.2−
1998 09 18	699	0.6+	0.6+	1988 10 15	704	0.5−	0.8+	2000 01 03	704	0.0	0.5−
1998 09 23	120	0.7−	0.3+	1988 10 15	704	0.2−	0.2−	2000 01 31	704	0.3+	0.7+
1998 09 23	120	0.4−	0.1+	1988 10 15	704	0.8−	0.8−	2000 01 31	704	0.9+	1.5+
1998 09 23	120	0.1−	0.1+	1988 10 15	704	0.5−	0.3+	2000 01 31	704	0.0	1.0+
1998 09 24	120	0.6−	0.4−	1988 10 15	704	0.8−	0.9+	2000 02 14	704	0.3+	0.5+
1998 09 24	120	0.4−	0.6−	1988 10 19	327	0.0	0.1+	2000 02 14	704	0.1+	0.8+
1998 09 24	120	0.1+	0.6−	1988 10 19	327	0.1+	0.2+	2000 02 14	704	0.1−	1.2+

(13503)* 1988 RH₆ = 1958 VG = 1978 TA₁ = 1985 VN₅ = 1998 QQ₉
= 1998 QT₂₇

Discovered 1988 Sept. 6 by H. Debehogne at the European Southern Observatory.

Id. S. Nakano (*MPC* 33475)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	121.99699		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.29299295	ω	52.25511	+0.97756962	−0.19468428
a	2.2450771	Ω	318.79536	+0.13341766	+0.86761675
e	0.1304960	i	7.00576	+0.16296430	+0.45753602
P	3.36	H	14.2	G 0.15	U 2

Residuals in seconds of arc

1958 11 11	760	0.2+	1.5+	1998 08 23	704	0.1−	1.6+	2000 01 04	704	0.6+	0.1+
1958 11 11	760	0.6−	0.7+	1998 08 23	704	0.7−	0.4+	2000 01 04	704	0.3+	0.6+
1978 09 30	049(66.3+	48.1+)		1998 08 23	704	0.4+	0.8+	2000 01 07	704	0.3+	0.0
1978 09 30	049(66.2+	47.8+)		1998 08 23	704	1.0−	0.8+	2000 01 07	704	0.1+	0.0
1978 10 02	095	0.5+	0.8+	1998 08 27	691	0.5−	1.3+	2000 01 07	704	0.4+	0.0
1985 11 11	095	1.4+	2.3−	1998 08 27	691	0.5−	0.9+	2000 01 07	704	0.8+	0.3+
1988 09 06	809	1.4+	0.5−	1998 08 27	691	0.5−	0.9+	2000 01 07	704	0.8+	0.6+
1988 09 06	809	1.5+	0.7−	1998 08 27	699	0.5+	1.0+	2000 01 28	691	0.3+	0.4−
1988 09 06	809	1.7+	0.9−	1998 08 27	699	0.5+	0.8+	2000 01 28	691	0.1+	0.1−
1988 09 08	809	(2.7−	1.0+)	1998 08 27	699	(4.0+	1.1+)	2000 01 28	691	0.3+	0.2−
1988 09 08	809	2.1−	0.8+	1998 09 14	699	0.3−	0.8+	2000 01 30	704	0.1+	1.3+
1988 09 08	809	1.5−	0.8+	1998 09 14	699	0.2−	0.1+	2000 01 30	703	0.1+	0.7+
1988 09 10	809	0.8−	0.4−	1998 09 14	699	1.8−	0.5+	2000 01 30	704	0.1+	0.8+
1988 09 10	809	0.9−	0.4−	1998 10 14	699	0.8+	0.7−	2000 01 30	703	0.6+	0.5+
1988 09 10	809	1.2−	0.7−	1998 10 14	699	0.4−	0.9−	2000 01 30	703	0.1+	0.3+
1988 09 13	809	1.5−	0.6−	1998 10 14	699	1.4−	0.8−	2000 01 30	703	0.0	0.5+
1988 09 13	809	1.4−	0.6−	1999 11 16	704	0.0	0.9+	2000 01 30	704	0.3−	0.1+
1988 09 13	809	1.5−	0.7−	1999 11 16	704	0.1−	0.3+	2000 02 04	704	0.1+	0.5+
1988 09 17	809	1.4+	0.3−	1999 11 16	704	0.7+	0.5+	2000 02 04	704	0.3−	0.1+
1988 09 17	809	1.2+	0.4−	1999 11 16	704	0.6−	0.6−	2000 02 04	704	0.4+	0.1+
1988 09 17	809	1.1+	0.5−	1999 11 16	704	0.6−	0.3+	2000 02 04	704	0.0	0.3+
1998 08 17	704	0.2+	0.5+	1999 12 04	703	0.6+	1.1+	2000 02 04	704	0.3+	0.6+
1998 08 17	704	0.5+	0.8+	1999 12 04	703	0.1+	0.8+	2000 02 05	691	0.1+	0.2−
1998 08 17	704	0.6−	0.2+	1999 12 04	703	1.6+	0.9+	2000 02 05	691	0.3−	0.2−
1998 08 17	704	0.2+	0.0	1999 12 04	703	0.0	0.2−	2000 02 05	691	0.3−	0.2−
1998 08 17	704	0.1−	0.7+	2000 01 03	120	1.9−	0.4−	2000 02 12	704	0.1+	0.1+
1998 08 23	691	0.3+	1.3+	2000 01 03	120	0.4−	0.1−	2000 02 12	704	0.5−	1.3+
1998 08 23	691	0.5+	1.2+	2000 01 04	704	0.1+	0.8+	2000 02 12	704	0.8+	1.6+
1998 08 23	691	0.6+	1.0+	2000 01 04	704	0.5+	0.0	2000 02 12	704	0.8+	0.1+
1998 08 23	704	0.4+	0.6+	2000 01 04	704	0.2+	0.4+				

(13504)* 1988 RV₁₂

Discovered 1988 Sept. 14 by S. J. Bus at Cerro Tololo.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	23.09053	(2000.0)	P	Q			
<i>n</i>	0.12367353	ω	307.77273	−0.69258049	−0.72068056		
<i>a</i>	3.9898038	Ω	186.33877	+0.71788712	−0.68445394		
<i>e</i>	0.1669937	<i>i</i>	16.22630	+0.07050062	−0.11019227		
<i>P</i>	7.97	<i>H</i>	11.6	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1988 09 11	675	0.6+	1.6−	1996 09 17	809	0.2+	0.2+	2000 02 02	704	1.3+	0.1−
1988 09 14	807	0.2−	0.6+	1997 10 06	809	0.2+	1.1+	2000 02 02	704	1.0+	0.9+
1988 09 15	807	0.2+	0.2−	1997 10 06	809	(0.7−	2.2+)	2000 02 02	704	0.2−	1.7+
1988 09 16	675	0.8−	1.2−	1997 10 07	809	0.8+	0.1+	2000 02 04	106	0.7+	0.9−
1988 09 16	675	0.5+	2.4−	1997 10 07	809	1.1−	1.2+	2000 02 04	106	0.9+	1.2+
1988 10 05	807	0.1+	1.1−	1997 10 27	809	0.6−	0.1+	2000 02 07	704	1.9−	0.7−
1988 10 07	807	0.6+	0.5−	1997 10 27	809	0.0	0.5+	2000 02 07	704	0.9−	0.1−
1988 11 03	807	0.1−	0.5+	1998 12 19	704	0.3−	0.6−	2000 02 07	704	1.1−	0.2−
1988 11 05	807	0.2−	0.2+	1998 12 19	704	0.7+	1.2−	2000 02 07	704	0.5−	0.8+
1989 10 03	807	0.3+	0.8+	1998 12 19	704	0.1+	1.0−	2000 02 07	704	0.5−	1.0+
1989 10 06	807	0.4−	0.3+	1999 12 16	704	0.9−	0.3−	2000 02 08	704	0.9+	0.1−
1989 10 30	807	0.0	0.7+	1999 12 16	704	0.5−	0.6−	2000 02 08	704	0.4+	0.1−
1989 11 01	807	0.3−	0.8+	1999 12 16	704	0.4−	0.9−	2000 02 08	704	0.6+	0.1−
1989 11 22	675	0.6−	0.6+	1999 12 16	704	0.7−	1.1−	2000 02 08	704	0.1+	1.2−
1989 11 22	675	0.9+	1.3−	2000 02 02	704	0.5+	0.2−	2000 02 08	704	0.0	1.0−
1996 09 16	809	0.0	0.1−	2000 02 02	704	0.3+	0.1+				

(13505)* 1989 AB₃ = 1989 CD₁ = 1994 AK

Discovered 1989 Jan. 4 by R. H. McNaught at Siding Spring.

Id. S. Nakano (d, *MPC* 22572; *MPC* 22952)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

<i>M</i>	103.17289	(2000.0)	P	Q			
<i>n</i>	0.18830249	ω	300.34717	+0.57205960	−0.80093696		
<i>a</i>	3.0146160	Ω	113.71366	+0.80311606	+0.50319953		
<i>e</i>	0.0998520	<i>i</i>	11.13213	+0.16659054	+0.32448453		
<i>P</i>	5.23	<i>H</i>	12.5	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1955 07 24	675	0.6+	0.7+	1998 12 15	704	1.1+	1.0+	2000 01 07	704	0.5+	0.3-
1955 07 24	675	0.9-	0.0	1998 12 15	704	0.5+	0.4-	2000 01 07	704	0.2+	0.8-
1989 01 04	413	1.1-	0.7+	1998 12 15	704	0.2+	1.1+	2000 01 07	704	1.0+	0.4+
1989 01 04	413	2.0+	1.7-	1998 12 15	704	0.2+	0.3+	2000 02 01	703	0.3-	0.5+
1989 01 08	675	1.2+	0.5-	1998 12 22	704	0.5-	0.4+	2000 02 01	703	0.5+	0.5+
1989 01 08	675	0.1+	0.2-	1998 12 22	704	0.3+	0.9+	2000 02 01	703	0.1-	0.9+
1989 01 10	413	0.4+	1.5-	1998 12 22	704	0.5-	0.6+	2000 02 01	703	1.2-	1.0+
1989 01 10	413	(1.7+	2.8-)	1998 12 22	704	0.5+	0.5-	2000 02 04	704	1.2+	0.1+
1989 02 06	675	1.5-	1.2-	1998 12 22	704	1.1-	0.1+	2000 02 04	704	0.9+	0.2+
1994 01 02	411	0.3-	1.5-	1999 03 10	704	0.0	0.3+	2000 02 04	704	0.2-	0.2-
1994 01 02	411	1.5-	0.4-	1999 03 10	704	1.1+	1.5-	2000 02 04	704	0.0	0.7+
1994 01 03	411	0.0	0.5+	1999 03 10	704	1.9-	0.0	2000 02 04	704	0.1+	0.6+
1994 01 03	411	0.1+	0.1+	1999 03 10	704	0.7-	0.7+				
1994 01 03	411	0.1+	0.8+	2000 01 07	704	1.2-	0.3+				

Residuals in seconds of arc

1988 12 29	413	(1.5– 2.7+)	1997 06 28	704	0.9+ 0.0	1998 10 17	699	0.1+ 0.1+
1988 12 29	413	0.9– 0.2–	1997 06 28	704	0.4+ 0.1–	1999 11 16	703	0.2– 0.1–
1989 01 04	413	1.3– 1.5+	1997 07 02	704	0.2– 0.2+	1999 11 16	703	0.2– 0.3+
1989 01 04	413	0.9– 0.0	1997 07 02	704	0.4– 0.2–	1999 11 16	703	0.9+ 0.5+
1989 01 06	413	2.1+ 0.9–	1997 07 02	704	0.0 0.2–	1999 11 16	703	(2.1+ 0.9+)
1989 01 08	675	0.3– 0.4–	1997 07 02	704	0.0 0.6–	2000 01 10	699	1.4– 0.5+
1989 01 08	675	0.4– 0.5+	1998 09 21	699	0.4– 1.3+	2000 01 10	699	0.6– 0.4+
1989 01 10	413	0.9– 2.0+	1998 09 21	699	0.2– 1.1+	2000 01 10	699	0.7– 1.1+
1989 01 10	413	2.1+ 1.8–	1998 09 21	699	0.4+ 0.7+	2000 02 08	704	0.1+ 0.4+
1995 12 30	411	0.0 0.0	1998 10 16	704	0.2+ 0.0	2000 02 08	704	0.3+ 0.1+
1995 12 30	411	0.5+ 0.1–	1998 10 16	704	0.4– 0.7–	2000 02 08	704	0.2– 0.1–
1995 12 31	411	0.1– 1.0–	1998 10 16	704	0.4– 0.3+	2000 02 11	704	0.4– 0.8–
1995 12 31	411	0.1+ 1.2–	1998 10 16	704	0.6– 1.7–	2000 02 11	704	0.0 0.7–
1996 01 09	411	0.3+ 0.8+	1998 10 16	704	0.2+ 0.9–	2000 02 11	704	1.0+ 0.9–
1996 01 09	411	0.4+ 0.2+	1998 10 17	699	0.1– 0.3–			
1997 06 28	704	0.2+ 0.0	1998 10 17	699	0.3+ 0.3–			

(13507)* 1989 AN₅ = 1997 NH₆

Discovered 1989 Jan. 4 by R. H. McNaught at Siding Spring.

Id. G. V. Williams (*MPC* 30272)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	86.34714	(2000.0)	<i>P</i>	<i>Q</i>	
<i>n</i>	0.18327785	ω	281.53553	+0.62085083	–0.77244952
<i>a</i>	3.0694653	Ω	129.24899	+0.76957523	+0.56808002
<i>e</i>	0.1165204	<i>i</i>	9.93914	+0.14932586	+0.28391341
<i>P</i>	5.38	<i>H</i>	13.6	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1989 01 04	413	0.9– 2.1+	1997 08 08	816	0.1+ 0.7+	1999 12 06	704	0.3– 0.0
1989 01 04	413	0.7– 0.6+	1997 08 08	816	0.2– 0.3+	1999 12 06	704	1.0– 0.0
1989 01 10	413	0.6– 2.3+	1997 08 08	816	0.2+ 0.0	1999 12 06	704	0.2– 1.1–
1989 01 10	413	1.1+ 0.4–	1997 08 08	816	0.3+ 0.2+	2000 02 03	704	0.0 0.6+
1989 02 02	033	1.0+ 0.2–	1998 11 13	704	1.3– 0.3–	2000 02 03	704	0.3+ 0.3+
1989 02 03	033	0.6+ 0.1–	1998 11 13	704	0.5+ 0.1+	2000 02 03	704	0.2+ 0.9+
1997 07 11	816	0.1– 0.5+	1998 11 13	704	0.9– 1.0–	2000 02 03	704	0.0 1.0+
1997 07 11	816	0.1+ 0.6+	1998 11 13	704	0.1– 0.5–	2000 02 03	704	0.2+ 0.7+
1997 07 11	816	0.2– 0.4+	1998 11 13	704	0.1+ 0.2–	2000 02 06	703	0.1– 0.1–
1997 07 12	816	0.4+ 1.1+	1998 12 14	699	0.4+ 0.4+	2000 02 06	703	0.2+ 0.0
1997 07 12	816	0.3+ 0.6+	1998 12 14	699	0.6+ 1.5+	2000 02 06	703	0.1+ 1.1+
1997 07 12	816	0.4+ 0.4+	1998 12 14	699	0.4+ 1.8+	2000 02 06	703	0.2– 0.4+
1997 08 05	691	1.2– 1.1+	1999 12 05	703	0.2– 0.4+	2000 02 11	704	0.1+ 0.1+
1997 08 05	691	1.1– 0.9+	1999 12 05	703	0.2– 0.2–	2000 02 11	704	1.3+ 0.0
1997 08 05	691	0.5– 0.8+	1999 12 05	703	0.3– 0.8–	2000 02 11	704	0.3+ 0.8+
1997 08 07	816	0.1– 0.6+	1999 12 05	703	0.5– 0.6–	2000 02 11	704	0.8+ 0.7+
1997 08 07	816	0.4+ 0.6+	1999 12 06	704	0.9– 1.4–	2000 02 11	704	0.3+ 0.7+

(13508)* 1989 DC = 1975 GO = 1987 SP₃₀ = 1998 VV₃₈

Discovered 1989 Feb. 27 by A. Sugie at the Dync Astronomical Observatory.

Id. G. V. Williams (*MPC* 33222)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	4.23650	(2000.0)	<i>P</i>	<i>Q</i>	
<i>n</i>	0.27587807	ω	157.44010	–0.99500638	+0.08122346
<i>a</i>	2.3369958	Ω	27.41360	–0.09934740	–0.86191557
<i>e</i>	0.0745456	<i>i</i>	7.23818	+0.00961274	–0.50050405
<i>P</i>	3.57	<i>H</i>	13.4	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1975 04 15	805	1.2+ 1.0+	1994 11 01	033	1.3– 0.8+	1999 01 15	699	1.5+ 0.4–
1987 09 18	095	0.4– 1.6+	1998 11 10	704	0.1– 0.4–	1999 01 15	699	0.7– 0.7+
1989 02 27	402	0.5– 1.0+	1998 11 10	704	0.5+ 0.2–	2000 01 10	699	0.9– 0.1–
1989 02 27	402	1.8– 1.1+	1998 11 10	704	0.4+ 0.2+	2000 01 10	699	0.6– 0.3–
1989 03 01	402	(3.1– 1.1–)	1998 11 10	704	0.3+ 0.1+	2000 01 10	699	1.2– 0.1+
1989 03 02	402	(6.0– 0.7+)	1998 11 10	704	(0.1– 2.7+)	2000 02 10	704	0.3+ 0.6–
1989 03 02	402	(4.9– 1.8+)	1998 11 11	704	0.1– 0.4–	2000 02 10	704	1.1+ 0.1+

1989 03 02	402	(4.7– 0.2–)	1998 11 11	704	0.2+ 0.7–	2000 02 10	704	0.3+ 0.1–
1989 03 08	402	0.0 1.1–	1998 11 11	704	0.6– 1.2–	2000 02 10	704	0.1– 0.2+
1989 03 08	402	0.7+ 1.7–	1998 11 18	704	0.1+ 0.3–	2000 02 10	704	0.4– 0.1–
1989 03 14	402	1.7+ 1.9+	1998 11 18	704	0.1– 0.3–	2000 02 11	704	0.1+ 0.0
1989 03 14	402	0.3+ 1.9+	1998 11 18	704	0.5+ 0.0	2000 02 11	704	0.2– 0.4–
1989 03 30	402	(5.6– 0.3–)	1998 11 18	704	0.2+ 1.1+	2000 02 11	704	0.5+ 0.8–
1989 03 30	402	(6.5– 0.5–)	1998 11 18	704	0.2+ 2.0+			
1994 11 01	033	1.4– 0.2+	1999 01 15	699	0.2– 0.5–			

(13509)* 1989 GU₃ = 1990 TY₄

Discovered 1989 Apr. 4 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (*MPC* 17443)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	210.65839	(2000.0)	<i>P</i>	<i>Q</i>	
<i>n</i>	0.25326545	ω	20.04541	+0.18038365	+0.98104281
<i>a</i>	2.4741085	Ω	260.39757	–0.91194352	+0.13982777
<i>e</i>	0.0983067	<i>i</i>	4.11942	–0.36853868	+0.13417601
<i>P</i>	3.89	<i>H</i>	14.1	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1989 04 04	809	(5.2+ 0.3+)	1998 09 18	704	(2.1+ 0.9–)	1998 10 29	704	0.8+ 0.0
1989 04 04	809	(4.3+ 0.4+)	1998 09 25	699	0.1– 0.5+	1998 10 29	704	0.0 0.6–
1989 04 10	809	0.8– 0.5+	1998 09 25	699	0.3+ 0.0	1998 10 29	704	0.3– 0.8+
1989 04 10	809	0.7+ 0.8+	1998 09 25	699	0.1+ 1.1+	1998 10 29	704	0.0 0.1–
1989 04 10	809	2.0+ 0.9+	1998 09 27	704	0.2+ 0.6+	1999 12 30	120	0.3– 0.4+
1989 04 11	809	0.3– 0.1+	1998 09 27	704	0.4– 0.5+	1999 12 30	120	0.0 0.0
1989 04 11	809	0.6– 1.1+	1998 09 27	704	0.8+ 0.4+	2000 01 05	704	0.0 0.2–
1990 10 09	413	0.1+ 0.2+	1998 09 27	704	0.8– 0.7+	2000 01 05	704	0.4– 0.2+
1990 10 09	413	0.7– 1.1+	1998 09 27	704	0.2– 1.3–	2000 01 05	704	0.0 0.2+
1990 10 11	413	0.0 0.6+	1998 10 11	699	0.5+ 0.6+	2000 01 05	704	0.7– 0.3+
1997 04 30	704	0.2+ 0.3+	1998 10 11	699	0.3+ 1.3+	2000 01 05	704	0.0 0.1+
1997 04 30	704	0.2+ 0.7–	1998 10 11	699	0.8+ 1.0+	2000 01 06	704	0.6– 0.0
1997 04 30	704	0.3+ 0.0	1998 10 14	704	0.2+ 0.2+	2000 01 06	704	0.3– 0.2+
1997 04 30	704	0.7+ 0.9–	1998 10 14	704	0.1– 0.3–	2000 01 06	704	0.1+ 0.6+
1997 05 01	704	0.3– 0.4+	1998 10 14	704	0.0 0.9–	2000 01 07	704	0.8– 0.1+
1997 05 01	704	0.4– 0.4+	1998 10 14	704	0.3– 0.3–	2000 01 07	704	0.6+ 0.5+
1997 05 01	704	0.1– 0.3+	1998 10 14	704	1.3– 1.2–	2000 01 07	704	0.6– 0.7+
1997 05 01	704	0.3– 0.4+	1998 10 15	704	0.7– 0.7–	2000 01 07	704	0.2+ 0.2+
1998 09 14	704	0.2– 0.4+	1998 10 15	704	0.0 1.7–	2000 02 02	704	0.1+ 0.2–
1998 09 14	704	0.4– 0.1+	1998 10 15	704	0.4– 0.2–	2000 02 02	704	0.4+ 0.4–
1998 09 14	704	1.6– 0.4+	1998 10 15	704	0.4+ 0.2–	2000 02 02	704	0.5+ 0.5+
1998 09 17	699	0.1– 0.2+	1998 10 15	704	0.2– 0.3–	2000 02 02	704	0.8– 0.9–
1998 09 17	699	0.1– 0.8+	1998 10 28	704	0.2– 0.8–	2000 02 03	704	1.7+ 1.0–
1998 09 17	699	0.2+ 1.4+	1998 10 28	704	0.1+ 0.8–	2000 02 03	704	0.5+ 0.3+
1998 09 18	704	1.7+ 0.4+	1998 10 28	704	0.2+ 0.8–	2000 02 03	704	0.1+ 0.3+
1998 09 18	704	1.7+ 0.7+	1998 10 28	704	0.4– 0.2–	2000 02 03	704	0.1+ 0.1+
1998 09 18	704	(2.2+ 0.3+)	1998 10 28	704	0.9– 0.1+	2000 02 03	704	0.9+ 0.3–
1998 09 18	704	(2.7+ 0.9–)	1998 10 29	704	0.6– 0.0			

(13510)* 1989 OL

Discovered 1989 July 29 by A. C. Gilmore and P. M. Kilmartin at the Mount

John Observatory.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	223.50716	(2000.0)	<i>P</i>	<i>Q</i>	
<i>n</i>	0.24377632	ω	249.75433	+0.43051233	+0.88738882
<i>a</i>	2.5379031	Ω	46.87545	–0.72060694	+0.44795462
<i>e</i>	0.1365462	<i>i</i>	13.05962	–0.54349312	+0.10898504
<i>P</i>	4.04	<i>H</i>	13.9	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1977 09 04	413	0.8–	0.4+	1993 11 20	413	0.3–	0.7+	1998 12 14	704	0.6+	0.0
1977 09 04	413	1.0+	1.2–	1993 11 20	413	0.1–	0.5+	1998 12 14	704	1.2–	0.4–
1989 07 29	474	0.3+	0.3–	1994 11 27	675	0.3+	1.0+	1998 12 14	704	1.2+	1.9–
1989 07 29	474	0.4–	0.3–	1994 11 27	675	0.5+	1.4+	1998 12 14	704	(2.4–	1.6–)
1989 08 08	474	0.7–	0.5+	1998 11 21	704	0.6+	0.9+	2000 01 03	704	0.2–	0.1–

1989 08 08	474	1.1-	0.1+	1998 11 21	704	0.2-	0.4+	2000 01 03	704	0.1+	0.1-
1989 09 02	474	0.4+	0.2+	1998 11 21	704	1.5+	0.1+	2000 01 03	704	0.3+	0.7-
1989 09 02	474	0.0	0.1+	1998 11 21	704	1.4+	0.1+	2000 01 03	704	1.5+	0.3-
1989 10 25	474	1.3+	0.7+	1998 11 21	704	1.2-	1.8-	2000 01 31	704	0.8-	0.1+
1989 10 25	474	0.0	0.5+	1998 11 24	704	(0.8-	2.3-)	2000 01 31	704	0.3-	0.5+
1993 07 31	413	0.2+	0.3-	1998 11 24	704	0.6+	0.1-	2000 01 31	704	0.3-	0.2+
1993 07 31	413	0.4+	0.4-	1998 11 24	704	1.7-	0.8-	2000 01 31	704	0.1+	0.4+
1993 09 23	413	0.2+	0.0	1998 11 24	704	1.2-	0.1-				
1993 09 23	413	0.3+	0.1-	1998 12 14	704	1.1-	0.8+				

(13511)* 1989 RD₁ = 1997 JT₇

Discovered 1989 Sept. 5 by A. C. Gilmore and P. M. Kilmartin at the Mount John Observatory.

Id. G. V. Williams (*MPC* 29913)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	135.75443		(2000.0)	P	Q		
<i>n</i>	0.22643952	ω	261.09834	+0.95219955	+0.20165597		
<i>a</i>	2.6658430	Ω	87.02589	-0.09725535	+0.91218400		
<i>e</i>	0.1933067	<i>i</i>	13.28337	-0.28958144	+0.35672848		
<i>P</i>	4.35	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1989 08 01	675	0.5+	0.5+	1998 10 12	423	0.3+	0.1-	1999 01 11	704	0.3-	0.9+
1989 08 01	675	1.0+	0.4+	1998 10 12	423	0.0	0.1+	1999 01 11	704	0.3+	1.6+
1989 09 05	474	2.2-	1.1+	1998 10 15	761	0.8-	0.3+	1999 01 11	704	1.5-	0.3-
1989 09 05	474	(3.4-	0.7+)	1998 10 15	761	0.4-	1.0+	2000 01 03	704	0.6+	0.0
1989 09 06	474	(3.9-	1.3-)	1998 10 16	761	0.2-	0.3+	2000 01 03	704	0.1-	1.0-
1989 09 06	474	(3.7-	1.8-)	1998 10 16	761	0.1-	0.1-	2000 01 03	704	0.3+	0.4-
1989 09 09	474	0.0	0.1-	1998 10 16	704	0.5+	0.1-	2000 01 03	704	0.5-	0.6-
1989 09 09	474	0.3-	0.4-	1998 10 16	704	1.0+	0.5+	2000 01 03	704	0.4-	0.0
1989 09 10	474	0.4-	1.0+	1998 10 16	704	0.2+	0.1+	2000 01 29	704	0.1+	0.4+
1989 09 10	474	0.9-	0.7+	1998 10 16	704	0.0	0.1-	2000 01 29	704	0.3+	0.4+
1989 09 10	474	0.8-	1.2+	1998 10 16	704	0.6+	0.1-	2000 01 29	704	0.4+	0.7+
1989 09 30	474	1.4+	0.8-	1998 11 13	704	1.0+	0.2+	2000 01 29	704	0.3+	1.1+
1989 11 21	474	1.0+	0.8+	1998 11 13	704	1.6-	1.1-	2000 01 29	704	0.8+	1.5+
1989 11 21	474	0.3+	0.2+	1998 11 13	704	1.5-	1.9-	2000 02 05	704	0.5+	0.5+
1997 05 03	327	0.1-	0.7+	1998 11 13	704	0.6+	1.0-	2000 02 05	704	0.8-	0.2-
1997 05 03	327	0.3-	0.6+	1998 11 13	704	0.5-	0.2-	2000 02 05	704	0.4-	0.9+
1997 05 03	327	0.1-	0.8+	1998 12 08	704	0.4+	0.0	2000 02 05	704	0.4-	1.0-
1997 05 09	327	0.1+	0.5-	1998 12 08	704	1.4+	0.7+	2000 02 14	704	0.4+	0.4+
1997 05 09	327	0.1+	0.4+	1998 12 08	704	0.6+	0.8-	2000 02 14	704	0.0	0.7+
1997 05 09	327	0.6+	0.5-	1998 12 08	704	0.1+	0.9+	2000 02 14	704	0.4-	0.5+
1998 10 11	423	1.0+	0.2-	1998 12 08	704	1.5-	0.7-				
1998 10 12	423	0.4+	0.0	1999 01 11	704	0.5-	0.6+				

(13512)* 1989 TH₁ = 1935 QR = 1962 SD

Discovered 1989 Oct. 8 by A. Sugie at the Dynic Astronomical Observatory.

Id. S. Nakano (*MPC* 15422)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	111.99297		(2000.0)	P	Q		
<i>n</i>	0.22005885	ω	45.68821	+0.86583477	-0.49879972		
<i>a</i>	2.7171284	Ω	344.10294	+0.40874235	+0.75024834		
<i>e</i>	0.2916981	<i>i</i>	8.20737	+0.28854781	+0.43396574		
<i>P</i>	4.48	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1935 08 20	078(10.3+	28.7+)	X	1998 09 20	138	0.6-	0.1+	1998 12 12	952	0.7-	0.4-
1962 09 22	760	0.5+	0.0	1998 10 02	704	0.1-	1.7-	1998 12 12	952	1.3-	0.3-
1962 09 23	760	0.1+	0.7+	1998 10 02	704	0.6+	0.6-	1999 01 08	704	0.0	0.1-
1989 10 05	095	1.8-	1.1-	1998 10 02	704	1.4-	0.6-	1999 01 08	704	0.1-	0.3+
1989 10 05	095	0.2+	1.1-	1998 10 02	704	0.3-	0.4+	1999 01 08	704	0.5+	0.6+
1989 10 08	402	1.2-	1.2-	1998 10 02	704	1.9-	2.0+	1999 01 08	704	0.1+	0.8+
1989 10 09	402	(2.4-	0.9-)	1998 10 15	127	0.6-	0.4-	1999 01 08	704	0.2+	0.4+
1989 10 20	402	0.7-	0.0	1998 10 15	127	0.8-	0.4-	1999 12 09	703	0.2+	0.4+
1989 10 20	402	0.2+	0.4-	1998 10 18	704	0.2-	0.0	1999 12 09	703	0.3+	0.9+

1989 10 23	095	1.8+	2.1-	1998 10 18	704	0.2-	0.7-	1999 12 09	703	0.8+	0.6-
1989 10 23	095	1.2-	0.3-	1998 10 18	704	1.1-	0.3-	1999 12 09	703	0.4-	0.6-
1989 10 25	402	0.8+	0.6+	1998 10 18	704	0.0	0.0	2000 01 06	699	1.1-	1.0+
1989 10 25	402	0.9-	0.5-	1998 10 30	127	0.2-	0.1-	2000 01 06	699	0.9-	0.2+
1989 11 04	095	0.8+	0.5-	1998 10 30	127	0.3-	0.1-	2000 01 06	699	0.3-	0.8-
1989 11 04	095	1.9+	0.3-	1998 11 01	699	0.1-	0.3+	2000 02 02	704	0.3+	0.1+
1989 11 06	095	0.9+	0.8-	1998 11 01	699	0.1+	0.3+	2000 02 02	704	0.0	0.4-
1989 11 06	095	0.1-	1.2-	1998 11 01	699	0.1-	0.3+	2000 02 02	704	0.5-	0.3-
1993 07 24	675	(0.3+	3.0+)	1998 11 03	127	0.2+	0.3-	2000 02 02	704	0.1+	0.4+
1993 07 24	675	0.2-	1.5+	1998 11 03	127	0.1+	0.2-	2000 02 02	704	0.6-	0.3+
1998 08 08	113	0.3-	0.2-	1998 11 08	104	0.7+	1.2+	2000 02 06	704	0.6+	0.4+
1998 08 09	113	0.5-	0.5-	1998 11 08	104	0.7+	0.0	2000 02 06	704	0.4+	0.5+
1998 08 09	113	0.2-	0.8-	1998 11 08	104	0.6+	0.9-	2000 02 06	704	0.7+	1.1+
1998 08 28	704	0.5-	0.1-	1998 11 14	704	0.8+	0.0	2000 02 06	704	1.0+	0.8+
1998 08 28	704	0.7-	1.5+	1998 11 14	704	2.1+	0.6-	2000 02 11	704	0.2-	0.1+
1998 08 28	704	0.7-	0.4+	1998 11 14	704	0.5+	0.1+	2000 02 11	704	0.2+	0.1+
1998 08 28	704	0.5-	0.7+	1998 11 14	704	0.2-	1.0+	2000 02 11	704	0.4+	0.4-
1998 08 28	704	0.2-	0.3+	1998 11 14	704	1.3+	0.9+	2000 02 11	704	0.2-	0.1-
1998 08 31	704	0.3+	0.5+	1998 11 16	704	0.7+	0.4+	2000 02 11	704	0.3-	1.0-
1998 08 31	704	0.9+	0.3+	1998 11 16	704	1.0+	1.5+	2000 02 16	703	0.8+	0.8-
1998 08 31	704	0.1-	1.3+	1998 11 16	704	(0.4+	2.3+)	2000 02 16	703	0.2-	0.3+
1998 08 31	704	1.8+	1.2+	1998 11 16	704	1.5+	1.3+	2000 02 16	703	0.3-	0.3+
1998 08 31	704	0.8+	1.1+	1998 11 16	704	0.2-	1.1+	2000 02 16	703	0.3-	0.2+
1998 09 20	138	0.7-	0.0	1998 11 24	491	1.4-	1.4+				
1998 09 20	138	0.9-	0.0	1998 11 24	491	0.5-	0.4-				

(13513)* 1990 EL₂ = 1997 JZ₁₃

Discovered 1990 Mar. 2 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (*MPC* 30076)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	312.60380		(2000.0)	P	Q		
<i>n</i>	0.29318733	ω	358.77994	-0.84493281	+0.53205231		
<i>a</i>	2.2440847	Ω	213.54910	-0.48989139	-0.81096142		
<i>e</i>	0.1046543	<i>i</i>	5.69625	-0.21469737	-0.24343771		
<i>P</i>	3.36	<i>H</i>	15.4	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1990 02 24	809	0.2-	0.8-	1997 05 07	704	0.6+	0.3-	1998 10 15	704	0.4-	0.3+
1990 02 24	809	1.5-	0.2-	1997 05 07	704	0.3+	0.5-	2000 01 05	704	0.6-	0.3-
1990 02 24	809	0.2+	1.3-	1997 05 07	704	1.9+	0.3-	2000 01 05	704	0.0	1.4-
1990 03 02	809	1.3+	0.2-	1997 05 07	704	0.3+	0.5-	2000 01 05	704	0.8-	0.4-
1990 03 02	809	0.8+	0.0	1998 09 26	704	1.4-	0.2+	2000 02 02	704	0.0	0.0
1990 03 02	809	1.0+	0.8-	1998 09 26	704	1.4+	0.3-	2000 02 02	704	0.9+	0.5+
1990 03 04	809	0.6-	0.5+	1998 09 26	704	(1.4-	2.2-)	2000 02 02	704	0.1+	0.9+
1990 03 04	809	0.7-	0.9+	1998 09 26	704	(3.0-	0.3-)	2000 02 02	704	0.0	1.3+
1990 03 04	809	0.8-	0.5+	1998 09 27	704	0.0	0.5-	2000 02 02	704	0.2+	0.4+
1995 12 20	691	0.1-	0.2-	1998 09 27	704	0.5+	0.6+	2000 02 07	703	0.2-	0.1+
1995 12 20	691	0.0	0.3-	1998 09 27	704	0.2-	0.0	2000 02 07	703	1.4-	0.4-
1995 12 20	691	0.1+	0.3-	1998 09 27	704	(0.9-	2.6+)	2000 02 07	703	0.6+	0.4-
1997 05 03	809	1.7-	1.2+	1998 10 14	704	0.6-	1.8+	2000 02 07	703	0.4+	0.1+
1997 05 03	809	0.8-	0.6+	1998 10 14	704	(2.2-	0.4-)	2000 02 08	704	0.1+	0.5+
1997 05 03	809	0.5-	0.7+	1998 10 14	704	0.6-	0.6+	2000 02 08	704	0.2+	0.7+
1997 05 04	809	0.1-	0.3-	1998 10 15	704	0.9+	0.8+	2000 02 08	704	0.6+	0.5+
1997 05 04	809	0.3-	1.0+	1998 10 15	704	0.3+	0.8+	2000 02 08	704	0.5+	0.3+
1997 05 04	809	(0.0	2.9+)	1998 10 15	704	2.0-	1.1-	2000 02 08	704	0.0	0.1+
1997 05 07	704	0.5+	0.4-	1998 10 15	704	1.1+	0.4-				

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	272.87560		(2000.0)	P	Q
<i>n</i>	0.27507669	ω	7.05673	-0.25068288	+0.96161282
<i>a</i>	2.3415325	Ω	248.47420	-0.89394676	-0.27419284
<i>e</i>	0.2185879	<i>i</i>	6.89142	-0.37150677	+0.01091212
<i>P</i>	3.58	<i>H</i>	14.2	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1980 11 01	675	0.8+	1.3+	1997 05 30	886	0.3-	0.2+	2000 01 05	704	0.2+	0.3+
1980 11 02	675	1.6-	0.1-	1997 05 30	886	0.0	0.8+	2000 01 05	704	0.1-	0.1-
1983 09 01	095	(4.2-	2.3-)	1997 06 13	684	0.6-	0.5+	2000 01 05	704	0.2+	1.9+
1990 06 18	675	(2.7+	0.2+)	1997 08 02	566	0.3-	0.3+	2000 01 07	704	0.0	0.5+
1990 06 18	675	1.7+	0.4+	1997 08 02	566	0.3-	0.2+	2000 01 07	704	0.3-	0.0
1990 06 21	675	1.3+	0.0	1997 08 02	566	0.5+	0.5+	2000 01 07	704	0.6-	0.2+
1990 06 21	675	(2.4+	0.1-)	1998 10 29	704	1.0-	0.8+	2000 01 08	704	0.3-	0.9-
1990 07 24	675	1.9+	0.1+	1998 10 29	704	0.2-	0.6-	2000 01 08	704	0.0	0.3-
1990 07 24	675	1.0+	0.8+	1998 10 29	704	0.2+	0.1+	2000 01 08	704	0.1+	0.7-
1990 07 25	675	1.3-	0.8-	1998 10 29	704	0.9-	1.5+	2000 01 08	704	0.1-	0.8-
1990 07 25	675	0.1+	0.5-	1998 10 29	704	1.0+	0.7-	2000 01 08	704	0.5-	0.6-
1990 07 27	675	1.9-	0.2+	1998 11 11	704	0.6+	0.6+	2000 02 05	704	0.1+	0.4+
1990 07 27	675	0.6-	0.5-	1998 11 11	704	0.6+	0.2+	2000 02 05	704	0.3-	0.3+
1990 07 29	675	0.9-	0.6+	1998 11 11	704	0.8+	0.6-	2000 02 05	704	0.3-	0.5+
1990 07 29	675	0.0	0.1+	1998 11 11	704	0.1+	0.8+	2000 02 06	704	0.4+	0.0
1991 12 14	691	0.2-	0.2-	1998 11 18	704	0.0	0.1+	2000 02 06	704	0.2+	0.2+
1991 12 14	691	0.6-	0.4-	1998 11 18	704	0.1+	0.0	2000 02 06	704	0.2+	0.3+
1991 12 14	691	0.5-	0.4-	1998 11 18	704	1.1-	0.7+	2000 02 06	704	1.0+	0.6+
1997 05 28	886	0.2+	0.3+	2000 01 05	704	1.0+	0.5-	2000 02 06	704	0.9+	0.5+
1997 05 28	886	0.4-	0.2+	2000 01 05	704	0.0	0.5-				

(13515)* 1990 SG₁₂ = 1986 RT₁₇ = 1994 PV₃₂

Discovered 1990 Sept. 19 by H. E. Holt at Palomar.

Id. T. Kobayashi (*MPC* 24739), G. V. Williams (*MPC* 29913)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	105.77030		(2000.0)	P	Q
<i>n</i>	0.24208487	ω	158.19441	+0.98135605	-0.18846093
<i>a</i>	2.5497110	Ω	212.73992	+0.16442413	+0.92483843
<i>e</i>	0.2124187	<i>i</i>	3.99932	+0.09952390	+0.33038820
<i>P</i>	4.07	<i>H</i>	14.6	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1986 09 12	095	2.2+	1.5-	1998 07 26	699	1.0+	0.2-	2000 01 05	704	0.3-	1.0-
1990 09 16	675	1.3+	0.6+	1998 07 26	699	0.1+	0.0	2000 01 05	704	0.7-	1.2-
1990 09 16	675	1.4+	0.4-	1998 07 26	699	0.8-	0.8+	2000 01 07	704	0.4-	0.1+
1990 09 19	675	0.3+	1.7-	1998 08 17	704	0.1+	0.2+	2000 01 07	704	0.7-	0.2+
1990 09 19	675	0.4+	0.9-	1998 08 17	704	0.1+	0.7+	2000 01 07	704	0.6-	0.7+
1990 09 20	675	0.6-	0.7-	1998 08 17	704	1.4+	0.8+	2000 01 07	704	0.2+	0.2-
1990 09 20	675	0.7-	0.2+	1998 08 17	704	0.2+	0.4+	2000 01 07	704	0.6+	0.3+
1994 08 12	809	(1.8-	2.0-)	1998 08 17	704	1.2+	0.9+	2000 02 02	704	(0.4-	2.1+)
1994 08 12	809	(2.6-	2.0-)	1998 08 23	699	0.3-	0.3+	2000 02 02	704	0.1+	2.0+
1994 08 12	809	(2.9-	1.8-)	1998 08 23	699	0.1-	0.5+	2000 02 02	704	0.2+	0.6-
1994 08 13	809	1.1-	0.8-	1998 08 23	699	0.0	0.7+	2000 02 04	704	0.2+	0.5+
1994 08 13	809	1.9-	1.4-	1998 08 30	699	0.3-	0.1+	2000 02 04	704	0.7-	0.6+
1994 08 13	809	1.8-	1.1-	1998 08 30	699	0.1+	0.3+	2000 02 04	704	0.4-	0.8+
1994 09 05	809	1.1-	0.1+	1998 08 30	699	0.2-	0.5+	2000 02 05	704	0.3+	0.1+
1994 09 05	809	0.3+	0.2+	1998 09 14	704	0.4-	1.0+	2000 02 05	704	0.8+	0.6+
1994 09 05	809	0.8-	0.5+	1998 09 14	704	0.2+	0.2-	2000 02 05	704	0.5+	0.2+
1994 09 06	809	0.3-	0.9+	1998 09 14	704	0.4+	0.3+	2000 02 05	704	0.1+	0.2+
1994 09 06	809	0.5-	0.3+	1998 09 14	704	0.6-	0.5+	2000 02 05	704	0.4-	0.9+
1994 09 06	809	0.6-	0.9+	1998 09 14	704	0.2-	1.7+	2000 02 05	704	0.2+	0.4+
1997 04 28	691	0.3-	0.0	1998 09 22	910	0.1-	0.6+	2000 02 05	704	0.1+	1.8+
1997 04 28	691	0.3-	0.0	1998 09 22	910	0.2-	0.6+	2000 02 05	704	0.3+	1.2-
1997 04 29	691	0.4-	0.3+	1998 09 22	910	0.0	0.5+	2000 02 08	704	0.8+	1.8+
1997 04 29	691	0.0	0.4-	1998 12 08	910	(2.7-	1.1-)	2000 02 08	704	0.5+	0.7+
1997 04 29	691	0.0	0.1-	1998 12 08	910	(2.7-	0.7-)	2000 02 08	704	0.5+	0.9+
1997 05 08	691	0.4+	0.2-	1998 12 08	910	(2.1-	0.7-)	2000 02 08	704	0.2+	0.9+

1997 05 08	691	0.4+	0.1+	2000 01 05	704	0.5+	0.5-	2000 02 08	704	0.0	0.2-
1997 05 08	691	0.6+	0.1+	2000 01 05	704	0.3-	0.1-				

(13516)* 1990 UO₁ = 1994 TP₁

Discovered 1990 Oct. 20 by A. Sugie at the Dynic Astronomical Observatory.

Id. S. Nakano (*MPC* 24103)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

<i>M</i>	107.50694		(2000.0)	P	Q
<i>n</i>	0.23892199	ω	258.35442	+0.90326836	-0.42290865
<i>a</i>	2.5721639	Ω	126.62208	+0.42039971	+0.83848058
<i>e</i>	0.1554478	<i>i</i>	5.18191	+0.08585074	+0.34365476
<i>P</i>	4.13	<i>H</i>	14.1	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1990 10 20	402	(2.7+	0.5+)	1998 08 26	809	0.3+	1.2-	1998 10 15	704	0.4+	0.4-
1990 10 20	402	0.8+	0.9-	1998 08 26	809	0.2-	1.0-	1998 10 15	704	0.1-	0.3-
1990 10 21	402	2.0+	1.8-	1998 09 14	704	0.3-	0.6+	1998 10 15	704	0.8+	0.1-
1990 10 21	402	1.3-	0.1-	1998 09 14	704	0.7-	0.1+	1998 10 15	704	1.4+	0.3+
1990 11 13	402	0.7+	0.5+	1998 09 14	704	0.8-	0.1+	1998 12 08	704	0.1+	1.5+
1990 11 13	402	0.6+	1.2+	1998 09 17	699	0.4+	0.5+	1998 12 08	704	0.6+	1.3+
1994 10 02	400	1.0-	0.3-	1998 09 17	699	0.2+	0.4+	1998 12 08	704	0.4+	1.8-
1994 10 02	400	1.5-	0.0	1998 09 17	699	0.0	0.5+	1998 12 08	704	0.6-	0.3+
1994 10 03	400	1.9-	0.8+	1998 09 18	704	0.3-	0.3+	2000 01 07	704	0.6-	0.2-
1994 10 03	400	0.6-	0.2-	1998 09 18	704	0.1+	0.7+	2000 01 07	704	0.5+	1.1+
1997 05 31	691	0.6+	0.6+	1998 09 18	704	0.3+	0.9+	2000 01 07	704	0.0	0.0
1997 05 31	691	0.6+	0.2+	1998 09 18	704	0.6-	0.8+	2000 01 07	704	0.2+	0.1+
1997 06 07	691	0.2-	0.0	1998 09 18	704	0.6+	1.4+	2000 01 07	704	0.1-	0.5+
1997 06 07	691	0.0	0.2+	1998 09 24	699	0.4+	0.5+	2000 01 13	046	1.1+	0.2-
1997 06 07	691	0.1-	0.4+	1998 09 24	699	0.2+	0.1+	2000 01 13	046	0.1+	0.5+
1997 06 08	809	(2.4+	3.7+)	1998 09 24	699	0.1+	0.3+	2000 01 13	046	0.0	0.2+
1997 06 08	809	(1.6+	2.7+)	1998 09 26	704	0.4+	0.9-	2000 01 26	596	1.0-	0.9-
1997 06 08	809	(2.4+	3.3+)	1998 09 26	704	0.3-	1.1-	2000 01 26	596	0.1-	0.7-
1997 06 09	809	(2.0+	2.4+)	1998 09 26	704	0.8-	0.0	2000 01 26	596	0.4-	1.0-
1997 06 09	809	(2.1+	2.4+)	1998 09 26	704	0.4-	0.2-	2000 01 27	596	0.1+	0.2-
1997 06 09	809	(1.8+	2.9+)	1998 09 26	704	0.4+	0.6+	2000 01 27	596	0.2-	0.1+
1997 06 11	691	0.2-	0.3+	1998 09 27	704	0.4-	0.2+	2000 02 04	704	0.4-	0.4+
1997 06 11	691	0.0	0.5+	1998 09 27	704	1.1-	0.3-	2000 02 04	704	0.2+	0.3+
1997 06 11	691	0.1-	0.4+	1998 09 27	704	0.5+	0.0	2000 02 04	704	0.6+	1.3+
1997 06 29	691	0.3-	0.3+	1998 09 27	704	0.9-	0.8+	2000 02 04	704	1.0+	0.7+
1997 06 29	691	0.4-	0.0	1998 09 27	704	0.3-	0.1-	2000 02 04	704	0.3-	0.4+
1997 06 29	691	0.1-	0.5-	1998 10 14	704	0.0	0.3-	2000 02 11	704	0.3+	0.7+
1997 07 05	691	0.4+	0.0	1998 10 14	704	0.7+	0.5-	2000 02 11	704	0.3-	0.4-
1997 07 05	691	0.1+	0.2-	1998 10 14	704	0.2-	0.2-	2000 02 11	704	0.0	0.2+
1997 07 05	691	0.1+	0.2-	1998 10 14	704	0.2+	0.4-	2000 02 11	704	0.0	0.3+
1998 08 26	809	0.1+	0.4-	1998 10 14	704	1.3+	0.0	2000 02 11	704	0.1+	0.1-

(13517)* 1990 UU₁ = 1997 GB₃₂

Discovered 1990 Oct. 20 by R. H. McNaught at Siding Spring.

Id. G. V. Williams (*MPC* 29612)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	129.75588		(2000.0)	P	Q
<i>n</i>	0.24165349	ω	174.28372	+0.99258491	-0.11056230
<i>a</i>	2.5527444	Ω	192.40946	+0.10012289	+0.97928022
<i>e</i>	0.1768335	<i>i</i>	13.59395	+0.06892465	+0.16966502
<i>P</i>	4.08	<i>H</i>	14.3	<i>G</i> 0.15	<i>U</i> 1

2000 FEB. 22

M.P.C. 38321

1990 11 15	809	0.8+	0.4-	1998 09 26	327	0.2-	0.3+	1998 10 29	704	0.2+	0.2-
1990 11 17	809	0.4+	0.4-	1998 09 27	704	0.9+	0.9+	1998 10 29	704	0.4-	0.6-
1990 11 17	809	0.5-	0.4-	1998 09 27	704	0.4+	1.2+	1998 11 10	704	0.3-	0.3+
1990 11 17	809	(2.2-	2.3-)	1998 09 27	704	1.6+	0.7+	1998 11 10	704	0.2-	1.0+
1990 11 19	809	0.5+	0.1+	1998 09 27	704	0.4+	0.5+	1998 11 10	704	1.3-	0.2+
1990 11 19	809	0.7+	0.6-	1998 09 27	704	0.0	0.7+	1998 11 10	704	0.8-	0.3-
1990 11 19	809	1.0-	1.7-	1998 10 10	699	0.1-	0.1+	1998 11 11	699	0.0	0.0
1993 05 24	691	0.5-	0.3+	1998 10 10	699	0.1-	0.2-	1998 11 11	699	0.4-	0.4+
1993 05 24	691	0.1-	0.4-	1998 10 10	699	0.2+	0.2-	1998 11 11	699	0.1-	0.4-
1993 05 24	691	0.3-	0.6-	1998 10 11	120	(2.1+	0.1-)	1998 12 14	699	0.1+	1.5-
1997 04 15	327	0.2+	0.4-	1998 10 11	120	(2.1+	0.5+)	1998 12 14	699	0.2+	0.4-
1997 04 15	327	0.1+	0.1-	1998 10 14	704	0.2-	0.3-	1998 12 14	699	1.1+	1.5-
1997 04 15	327	0.7+	0.2+	1998 10 14	704	0.8-	0.2-	2000 01 11	704	0.6-	0.6-
1997 04 16	327	0.4+	0.0	1998 10 14	704	0.1-	0.7-	2000 01 11	704	0.7-	0.1+
1997 04 16	327	0.0	0.3+	1998 10 14	704	0.2-	0.2-	2000 01 11	704	1.0-	0.4+
1997 04 16	327	0.0	0.1+	1998 10 14	704	1.6-	1.1-	2000 01 11	704	0.7-	0.6+
1997 04 16	327	0.3+	0.0	1998 10 15	704	0.1-	0.3-	2000 02 07	703	1.1-	0.8+
1998 09 15	699	0.4-	0.7+	1998 10 15	704	0.8-	0.2-	2000 02 07	703	1.9+	1.2+
1998 09 15	699	0.5-	0.7+	1998 10 15	704	0.2+	0.2-	2000 02 07	703	0.7-	1.7+
1998 09 15	699	0.1-	0.8+	1998 10 15	704	0.2-	0.0	2000 02 07	703	0.9-	1.6+
1998 09 18	704	0.1-	0.2+	1998 10 15	704	1.1-	0.1+	2000 02 08	704	0.8+	0.3+
1998 09 18	704	0.4-	0.3+	1998 10 19	699	0.0	0.0	2000 02 08	704	1.6+	0.5-
1998 09 18	704	0.2+	0.0	1998 10 19	699	0.0	0.3+	2000 02 08	704	1.1+	0.1-
1998 09 18	704	0.4-	0.0	1998 10 19	699	0.0	0.4+				

(13518)* 1990 VL₁ = 1994 UW₁₁

Discovered 1990 Nov. 12 by S. Ueda and H. Kaneda at Kushiro.

Id. G. V. Williams (*MPC* 24389)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	138.85859	(2000.0)	P	Q	
<i>n</i>	0.24110994	ω	111.59520	+0.97827453	+0.16452124
<i>a</i>	2.5565795	Ω	239.13455	-0.19739886	+0.92513267
<i>e</i>	0.2166185	<i>i</i>	8.45045	+0.06334532	+0.34214369
<i>P</i>	4.09	<i>H</i>	13.8	<i>G</i>	0.15

Residuals in seconds of arc

1990 11 12	399	(3.3+	0.5+)	1998 10 02	704	1.0-	0.9+	1998 12 09	704	0.1-	1.1+
1990 11 12	399	0.5+	0.4+	1998 10 02	704	0.5-	0.7+	1998 12 09	704	0.1+	0.8-
1990 11 12	399	(2.6-	2.4-)	1998 10 02	704	0.8-	0.5+	1998 12 09	699	0.9-	0.4+
1990 11 13	399	(6.0-	4.0-)	1998 10 12	699	1.3+	0.5-	1998 12 09	704	1.1-	0.3-
1990 11 13	399	(2.2-	4.4-)	1998 10 12	699	0.2+	0.7+	1998 12 09	704	0.6+	0.4+
1990 11 15	875	0.4-	1.1-	1998 10 12	699	0.9+	0.0	1998 12 09	704	0.6+	0.7-
1990 11 15	875	(1.6+	3.2-)	1998 10 12	699	0.0	0.5+	1999 01 08	704	0.6-	0.2+
1990 11 16	875	0.8-	0.3+	1998 10 12	699	0.6+	0.6-	1999 01 08	704	0.7-	1.2+
1990 11 17	399	1.9+	0.2-	1998 10 12	699	0.1+	0.4+	1999 01 08	704	0.1+	0.2-
1990 11 17	399	(0.3+	2.3-)	1998 10 18	704	0.1-	1.0+	1999 01 08	704	1.2+	1.9+
1990 11 21	399	0.8+	1.1-	1998 10 18	704	0.6-	0.6+	1999 01 08	704	0.3-	0.3-
1990 11 21	399	(2.7+	0.6+)	1998 10 18	704	0.1+	1.1+	1999 01 18	691	1.2+	0.0
1990 11 24	399	(3.3-	2.5-)	1998 10 18	704	0.1-	1.0+	1999 01 18	691	0.2-	0.3-
1990 11 24	399	0.2-	1.2-	1998 10 18	704	0.3-	0.5+	2000 01 08	704	0.8+	0.6+
1994 10 03	675	0.2-	1.1-	1998 10 28	704	0.2+	0.6-	2000 01 08	704	0.5-	0.2+
1994 10 03	675	0.5-	0.2-	1998 10 28	704	0.2+	0.3+	2000 01 08	704	0.0	1.0+
1994 10 28	400	0.2+	0.3-	1998 10 28	704	0.5+	0.5-	2000 01 08	704	1.3-	0.1+
1994 10 28	400	0.5+	0.9-	1998 10 28	704	0.3-	0.6+	2000 01 08	704	0.4-	0.9-
1994 11 03	400	0.7-	1.1+	1998 10 28	704	0.2+	0.4-	2000 01 11	704	0.6-	0.2+
1994 11 03	400	1.6-	0.4-	1998 10 29	704	0.4-	0.1-	2000 01 11	704	0.9+	1.4-
1997 04 30	704	0.3+	0.3-	1998 10 29	704	0.4+	0.3-	2000 01 11	704	0.4+	0.7-
1997 04 30	704	0.3+	0.2-	1998 10 29	704	0.5-	0.9-	2000 01 11	704	(0.5+	2.3-)
1997 04 30	704	0.0	0.1-	1998 10 29	704	0.7+	1.7-	2000 02 06	704	1.2-	1.5+
1997 04 30	704	0.2+	0.3+	1998 10 29	704	0.4+	1.2-	2000 02 06	704	0.3-	1.0+
1997 04 30	704	0.7-	0.1+	1998 11 17	699	1.1+	0.7+	2000 02 06	704	0.1+	0.9+
1997 05 01	704	0.5-	0.2+	1998 11 17	699	0.6+	0.5+	2000 02 06	704	0.3-	0.9+
1997 05 01	704	0.5+	0.4+	1998 11 17	699	0.7+	0.6+	2000 02 06	704	0.6-	1.2+
1997 05 01	704	0.5-	0.4+	1998 11 23	699	0.1+	0.3+	2000 02 11	704	0.2+	0.5+
1997 05 01	704	0.0	0.4+	1998 11 23	699	0.4-	1.0+	2000 02 11	704	0.4+	0.9-
1997 05 01	704	1.3+	1.9+	1998 11 23	699	0.2-	0.9+	2000 02 11	704	0.3+	0.6-

1998 10 02	704	1.4-	1.4-	1998 12 09	699	1.1-	1.1+	2000 02 11	704	1.2+	0.3-
1998 10 02	704	0.3-	0.8+	1998 12 09	699	0.9-	0.5+	2000 02 11	704	1.2+	1.1-

(13519)* 1990 VM₃ = 1997 GR₂₈

Discovered 1990 Nov. 15 by A. Sugie at the Dync Astronomical Observatory.

Id. A. Doppler (*MPC* 33226)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	103.45100	(2000.0)	P	Q	
<i>n</i>	0.23509861	ω	291.45203	+0.94107344	-0.15060787
<i>a</i>	2.5999760	Ω	78.22921	+0.27735015	+0.85606006
<i>e</i>	0.2983543	<i>i</i>	18.01834	-0.19353986	+0.49444762
<i>P</i>	4.19	<i>H</i>	13.7	<i>G</i>	0.15

Residuals in seconds of arc

1990 11 15	809	0.1-	0.1+	1997 04 15	691	0.6-	0.0	2000 01 02	704	0.1+	1.6-
1990 11 15	809	1.0-	0.1-	1997 04 15	691	0.1+	0.3-	2000 01 02	704	0.4-	1.4-
1990 11 15	809	0.6-	0.0	1997 04 15	691	0.3-	0.0	2000 01 02	704	0.4+	1.3-
1990 11 15	402	0.1-	0.7-	1997 04 16	691	0.3-	0.0	2000 01 02	704	0.5-	1.8-
1990 11 15	402	(2.2-	2.2+)	1997 04 16	691	0.1-	0.0	2000 01 02	704	1.2-	1.6-
1990 11 16	402	0.6-	0.2-	1997 04 16	691	0.3-	0.0	2000 01 08	704	0.4+	0.3-
1990 11 16	402	0.3+	0.5-	1998 12 08	704	0.7+	0.6-	2000 01 08	704	0.0	0.4-
1990 11 17	809	0.2+	1.4+	1998 12 08	704	0.5+	0.3-	2000 01 08	704	0.1+	0.2-
1990 11 17	809	0.6+	0.9+	1998 12 08	704	0.1+	0.6-	2000 01 08	704	0.1-	0.5-
1990 11 17	809	0.5-	1.2+	1998 12 08	704	0.0	0.1-	2000 01 08	704	0.1-	1.0-
1990 11 23	809	0.3-	0.8+	1998 12 08	704	0.8-	0.3+	2000 01 29	704	0.0	0.3+
1990 11 23	809	1.1+	1.2-	1999 12 07	703	0.0	0.7+	2000 01 29	704	0.4+	0.4+
1990 11 23	809	0.4+	1.2-	1999 12 07	703	0.4-	1.2+	2000 01 29	704	0.6+	0.5+
1993 04 14	691	0.5+	0.2-	1999 12 07	703	0.2-	0.1-	2000 01 29	704	0.2+	0.5+
1993 04 14	691	0.4+	0.1+	1999 12 07	703	0.0	0.2+	2000 01 29	704	0.8+	1.1+
1993 04 14	691	0.4+	0.2-	1999 12 09	703	0.2-	0.9+	2000 02 15	704	(2.7+	0.3+)
1997 04 07	691	0.1-	0.2+	1999 12 09	703	0.3-	1.1+	2000 02 15	704	0.0	0.8+
1997 04 07	691	0.2-	0.3+	1999 12 09	703	0.5-	0.6+	2000 02 15	704	0.2+	0.9+
1997 04 07	691	0.0	0.3+	1999 12 09	703	0.0	0.7+	2000 02 15	704	0.2+	0.2-

(13520)* 1990 VC₆ = 1972 LC₁ = 1988 JO₁ = 1998 TL₃₃

Discovered 1990 Nov. 15 by E. W. Elst at the European Southern

Observatory.

Id. E. Bowell (*MPC* 34180), G. V. Williams (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	243.67144	(2000.0)	P	Q	
<i>n</i>	0.23669165	ω	51.48006	-0.25132973	+0.96377765
<i>a</i>	2.5882969	Ω	204.41489	-0.94160146	-0.26480875
<i>e</i>	0.1695800	<i>i</i>	12.47006	-0.22409833	+0.03176428
<i>P</i>	4.16	<i>H</i>	13.2	<i>G</i>	0.15

Residuals in seconds of arc

1972 06 13	095	0.0	0.0	1998 10 20	699	0.0	0.7+	1998 12 11	699	0.0	0.6-
1988 05 11	413	0.2+	1.4+	1998 10 20	699	0.1-	0.4+	1998 12 11	699	0.5-	0.5-
1988 05 11	413	(5.1-	0.8-)	1998 10 20	699	0.3-	0.6+	2000 01 08	704	0.7-	0.4-
1990 11 15	809	1.2-	0.4-	1998 11 10	704	0.7+	0.4+	2000 01 08	704	0.1-	0.4+
1990 11 15	809	1.0-	0.4+	1998 11 10	704	1.1+	0.1-	2000 01 08	704	0.0	0.2+
1990 11 15	809	(3.2-	0.5-)	1998 11 10	704	0.7+	0.4+	2000 01 08	704	0.2+	0.2+
1990 11 17	809	1.1+	0.4+	1998 11 10	704	0.8+	0.0	2000 01 08	704	0.1-	0.1-
1990 11 17	809	1.3+	0.1+	1998 11 10	704	1.2+	0.6-	2000 01 12	704	0.6-	0.1-
1990 11 17	809	0.6+	0.2-	1998 11 14	699	0.3+	0.4+	2000 01 12	704	0.1+	0.6-
1990 11 23	809	0.9+	0.9+	1998 11 14	699	0.4+	0.8+	2000 01 12	704	0.2-	1.4-
1990 11 23	809	0.8-	0.2-	1998 11 14	699	0.6+	1.1+	2000 01 12	704	0.3+	1.0-
1990 11 23	809	1.1-	0.6-	1998 11 16	566	0.6-	1.5-	2000 01 12	704	0.3+	1.9-
1998 09 23	910	0.1-	0.9+	1998 11 16	566	1.6-	0.5-	2000 02 06	704	0.0	0.5+
1998 09 23	910	0.1-	0.9+	1998 11 16	566	0.3-	1.1-	2000 02 06	704	0.0	0.7+
1998 09 23	910	0.2-	0.8+	1998 11 19	699	0.2-	0.3+	2000 02 06	704	0.3+	1.4+
1998 10 14	699	0.1+	0.3+	1998 11 19	699	0.8-	0.5-	2000 02 06	704	0.4+	1.2+
1998 10 14	699	0.3+	0.1+	1998 11 19	699	1.2-	0.9-	2000 02 06	704	0.1+	0.9+
1998 10 14	699	0.1+	0.1+	1998 12 11	699	0.5-	1.1-				

(13521)* 1991 BK = 1974 DV₁ = 1994 UU₂

Discovered 1991 Jan. 19 by T. Hioki and S. Hayakawa at Okutama.

Id. S. Nakano (*MPC* 24390)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	48.77112		(2000.0)	P	Q		
<i>n</i>	0.23120535	ω	48.26233	−0.42721962	−0.89944484		
<i>a</i>	2.6290820	Ω	67.24712	+0.79707270	−0.42275082		
<i>e</i>	0.2800694	<i>i</i>	5.73178	+0.42680031	−0.11081844		
<i>P</i>	4.26	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1974 02 17	095	0.3+	2.1+	1996 06 12	566	0.1−	0.7−	1998 10 17	699	0.8+	0.2+
1991 01 19	675	0.4+	0.5+	1996 06 12	566	0.0	0.7−	1998 10 17	699	0.0	0.9+
1991 01 19	675	0.6+	0.6+	1998 09 18	704	0.8+	0.4−	1998 10 17	699	0.4+	0.8+
1991 01 19	877	0.5+	0.3+	1998 09 18	704	1.7+	1.5−	1998 10 28	704	1.0+	0.7+
1991 01 19	877	0.1−	0.2−	1998 09 18	704	0.8+	0.6−	1998 10 28	704	1.8+	1.6−
1991 01 20	877	0.1+	0.1+	1998 09 18	704	0.4−	0.3−	1998 10 28	704	(0.7− 2.2−)	
1991 01 20	877	0.7−	0.4−	1998 09 18	704	0.8+	0.1−	1998 10 28	704	0.5−	0.3+
1991 01 25	877	0.9−	0.4−	1998 09 24	699	0.1+	0.3+	1998 10 28	704	0.1+	0.1+
1991 01 25	877	0.4+	1.2+	1998 09 24	699	0.1−	0.0	1998 10 29	704	0.3−	0.2−
1991 02 06	877	0.0	0.3−	1998 09 24	699	0.1+	0.1−	1998 10 29	704	0.0	0.2−
1991 02 06	877	0.2−	0.2−	1998 09 24	327	0.9+	0.2−	1998 10 29	704	0.2−	0.6+
1991 02 07	675	0.1−	1.8−	1998 09 24	327	0.4+	0.1−	1998 10 29	704	0.2−	0.1+
1991 02 08	675	1.0−	1.8−	1998 09 24	327	0.3+	0.2−	1998 10 29	704	0.3−	0.4−
1991 02 19	877	1.9+	0.3−	1998 09 26	704	0.1−	0.3+	1998 11 15	566	1.7−	0.0
1991 02 19	877	0.5+	1.3−	1998 09 26	704	0.0	0.5+	1998 11 15	566	1.2−	0.3+
1994 10 31	399	0.7−	0.6−	1998 09 26	704	0.4−	0.7+	1998 11 15	566	1.3−	0.5+
1994 10 31	399	1.7−	0.5+	1998 09 26	704	0.7−	0.8+	1998 12 15	699	0.2−	0.4−
1994 11 07	399	(0.1− 2.1+)		1998 09 26	704	0.7−	1.0+	1998 12 15	699	0.9−	0.2−
1994 11 07	399	(2.5− 0.1−)		1998 09 27	704	0.2+	0.3−	1998 12 15	699	0.3−	0.3−
1995 03 03	801	1.0−	1.0+	1998 09 27	704	0.6+	0.3+	2000 01 08	699	0.1+	0.7+
1995 03 04	801	0.5+	0.0	1998 09 27	704	0.2−	0.3+	2000 01 08	699	0.1+	0.2+
1995 03 05	801	0.2−	0.0	1998 09 27	704	0.5−	0.3+	2000 01 08	699	0.5−	1.2+
1996 05 06	689	1.6−	1.3+	1998 09 27	704	1.2+	0.5+	2000 02 08	704	0.5+	0.7+
1996 05 07	689	(2.7− 0.4−)		1998 10 15	704	0.6−	0.2+	2000 02 08	704	0.8+	0.4+
1996 05 21	566	1.1+	1.7+	1998 10 15	704	1.1−	0.9+	2000 02 08	704	0.6+	0.6+
1996 05 21	566	(1.6+ 2.3+)		1998 10 15	704	0.1−	0.2−	2000 02 11	704	0.1+	0.5+
1996 05 21	566	(1.3+ 2.3+)		1998 10 15	704	0.0	0.3−	2000 02 11	704	0.3+	0.1+
1996 06 12	566	0.1−	0.7−	1998 10 15	704	0.2+	0.4+	2000 02 11	704	0.3+	0.2+

(13522)* 1991 FG

Discovered 1991 Mar. 18 by R. H. McNaught at Siding Spring.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	347.77510		(2000.0)	P	Q		
<i>n</i>	0.21606505	ω	326.01658	−0.97964007	−0.17573528		
<i>a</i>	2.7505087	Ω	204.41927	+0.19159221	−0.96280913		
<i>e</i>	0.3428704	<i>i</i>	13.57989	−0.05998123	−0.20522110		
<i>P</i>	4.56	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1987 07 31	413	1.8−	0.2+	1993 09 23	413	0.4+	0.3+	1999 12 16	704	0.3−	0.3+
1987 07 31	413	2.2−	1.2−	1993 09 23	413	0.4+	1.4+	1999 12 16	704	0.3−	0.3+
1991 02 10	413	0.7−	0.6−	1993 11 20	413	0.3−	0.1−	1999 12 17	699	0.3+	1.5+
1991 03 18	413	0.4+	1.0−	1998 09 26	704	0.6+	0.1−	1999 12 17	699	0.3−	0.7+
1991 03 19	413	1.5−	1.4+	1998 09 26	704	1.9+	0.8−	1999 12 17	699	0.3+	0.7+
1991 03 21	413	1.3−	0.1+	1998 09 26	704	1.3−	1.3−	2000 01 04	423	0.1+	0.4+
1991 03 27	413	0.2+	0.3−	1998 09 26	704	0.8+	1.8−	2000 01 04	423	0.2+	0.1+
1991 04 10	413	0.3−	0.3+	1998 09 26	704	(1.1− 2.3−)		2000 01 09	808	0.0	0.4−
1991 04 12	675	1.0−	0.1−	1998 10 29	704	0.7−	0.8−	2000 01 09	808	0.2−	0.4−
1991 04 12	675	0.8+	0.6−	1998 10 29	704	1.4−	0.9−	2000 01 10	704	0.5+	0.4−
1991 04 13	675	1.3+	1.1−	1998 10 29	704	(0.4− 3.2+)		2000 01 10	704	1.9+	0.2−
1991 04 13	675	1.0+	0.4−	1998 10 29	704	0.1−	0.9−	2000 01 10	704	(1.4− 3.3−)	
1991 04 14	675	0.2+	0.3+	1999 10 19	704	2.0−	0.0	2000 01 10	704	0.7−	1.1−
1991 04 14	675	0.5+	0.1−	1999 10 19	704	1.0−	0.5+	2000 01 14	423	1.0+	0.5−
1991 04 19	675	0.3+	0.1−	1999 10 19	704	0.5−	0.2−	2000 01 14	423	0.3+	0.3−

1991 04 19	675	0.7+	0.0	1999 10 19	704	1.0−	0.5−	2000 02 05	703	0.1−	0.1−
1991 05 15	413	0.3−	0.1−	1999 11 06	704	0.5−	0.1+	2000 02 05	703	0.1−	0.1+
1991 05 31	413	0.6+	0.1−	1999 11 06	704	0.2−	0.1+	2000 02 05	703	0.2+	0.0
1993 07 01	413	0.7+	0.5+	1999 11 06	704	0.3−	1.0+	2000 02 05	703	0.1−	0.2+
1993 07 01	413	1.5+	0.6+	1999 11 06	704	1.0−	0.0	2000 02 10	704	0.1−	0.2+
1993 07 01	413	1.0+	0.7+	1999 11 06	704	0.6−	0.3+	2000 02 10	704	0.3+	0.0
1993 07 01	413	0.7+	0.7+	1999 12 16	704	0.4−	0.3+	2000 02 10	704	0.2+	0.1+
1993 07 01	413	0.9+	0.9+	1999 12 16	704	0.4−	0.4+	2000 02 10	704	0.3+	0.6−
1993 07 31	413	0.9+	0.2+	1999 12 16	704	0.5−	0.0				

(13523)* 1991 LU₁ = 1996 KR₆

Discovered 1991 June 6 by E. W. Elst at the European Southern Observatory.

Id. T. B. Spahr (*MPC* 27556)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	204.21818		(2000.0)	P	Q		
<i>n</i>	0.18610298	ω	60.46162	+0.20239921	+0.97726770		
<i>a</i>	3.0383222	Ω	221.36943	−0.92829906	+0.17093405		
<i>e</i>	0.0575559	<i>i</i>	5.47916	−0.31192213	+0.12541685		
<i>P</i>	5.30	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1991 05 18	809	1.2−	1.8+	1998 10 14	691	0.5−	0.2+	2000 01 05	704	0.6−	0.1−
1991 05 18	809	1.6−	1.7+	1998 10 14	691	0.3−	0.1+	2000 01 05	704	0.6+	0.7−
1991 05 18	809	(3.3− 1.9+)		1998 10 14	691	0.1+	0.1+	2000 01 05	704	0.4−	0.3−
1991 06 06	809	1.6+	1.9−	1998 10 18	691	0.7+	0.1+	2000 01 05	704	0.5−	0.3−
1991 06 06	809	1.6+	1.2−	1998 10 18	691	0.8+	0.3+	2000 01 07	704	0.5+	0.2−
1991 06 06	809	0.5+	0.7−	1998 10 28	691	0.3+	0.4+	2000 01 07	704	1.1+	1.5−
1991 06 08	809	1.2−	1.3−	1998 10 28	691	0.0	0.1+	2000 01 07	704	0.1+	0.0
1991 06 08	809	(1.0− 2.3−)		1998 10 28	691	0.0	0.0	2000 01 07	704	0.3+	0.4+
1991 06 08	809	0.0	1.7−	1998 11 21	691	0.1−	0.2−	2000 01 07	704	0.4−	0.5+
1996 05 19	809	0.4+	0.5+	1998 11 21	691	0.4+	0.3−	2000 02 02	704	0.5+	0.1+
1996 05 19	809	1.1+	0.5+	1998 11 21	691	0.1+	0.4−	2000 02 02	704	0.1+	0.4+
1996 05 19	809	1.5+	1.0−	1998 12 09	691	0.5−	0.1−	2000 02 02	704	1.3−	0.7+
1996 05 22	809	0.5+	0.9+	1998 12 09	691	0.4−	0.3−	2000 02 02	704	0.6+	0.1−
1996 05 22	809	1.2−	1.5+	1998 12 09	691	0.5−	0.0	2000 02 02	704	0.3−	0.5+
1996 05 22	809	1.8−	0.2−	2000 01 05	704	0.6−	1.0−				

(13524)* 1991 OO

Discovered 1991 July 18 by H. E. Holt at Palomar.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	151.87412		(2000.0)	P	Q		
<i>n</i>	0.28374438	ω	108.83400	+0.94127641	+0.33444662		
<i>a</i>	2.2936010	Ω	231.65396	−0.32773178	+0.87205349		
<i>e</i>	0.2014872	<i>i</i>	3.38482	−0.08118251	+0.35730683		
<i>P</i>	3.47	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1991 07 16	675	0.6+	1.1−	1998 08 17	120	0.5+	0.3+	1998 09 25	704	0.2+	0.9−
1991 07 16	675	0.5+	1.4−	1998 08 17	120	0.4+	0.3+	1998 09 25	704	0.0	1.2+
1991 07 18	675	0.8+	1.2−	1998 08 18	566	0.2−	0.7−	1998 09 25	704	0.6−	0.2+
1991 07 18	675	1.5+	0.9−	1998 08 18	566	0.4−	0.6−	1998 10 09	689	0.4−	0.2+
1991 08 05	675	(0.7+ 2.7−)		1998 08 18	566	0.1−	0.5−	1998 10 11	699	0.1−	0.1−
1991 08 05	675	0.3−	1.1−	1998 08 23	704	0.5−	0.3−	1998 10 11	699	0.2−	0.2−
1991 08 08	675	(0.2+ 2.4−)		1998 08 23	704	0.5−	0.4−	1998 10 11	699	0.3−	0.1−
1991 08 08	675	0.2+	0.2−	1998 08 23	704	1.7−	0.4−	2000 01 07	704	0.3+	0.0
1991 09 13	675	0.9−	1.9−	1998 08 23	704	0.1+	0.4+	2000 01 07	704	0.9+	0.1−
1991 09 13	675	0.5+	0.6−	1998 08 23	704	0.4+	0.2+	2000 01 07	704	0.3−	1.2−
1991 09 14	675	(2.3− 1.7−)		1998 08 26	699	0.6+	0.8+	2000 01 07	704	0.1−	0.6−
1994 05 10	675	0.6+	0.8+	1998 08 26	699	0.4+	0.8+	2000 01 09	684	0.1−	0.4−
1994 05 10	675	0.4+	1.2+	1998 08 26	699	0.5+	0.4+	2000 01 09	684	0.1−	0.3−
1994 06 08	675	0.4−	1.1+	1998 08 27	327	0.4+	0.3+	2000 01 10	684	0.7+	0.5+
1994 06 08	675	0.0	0.7+	1998 08 27	327	0.4+	0.2+	2000 01 10	684	0.4+	0.1−
1998 06 20	688	0.8+	0.1+	1998 08 27	327	0.4+	0.3+	2000 02 01	703	0.2+	0.6−
1998 06 20	688	0.7+	0.1+	1998 09 14	704	0.4−	0.3−	2000 02 01	703	0.6−	0.3−
1998 06 20	688	0.6+	0.1+	1998 09 14	704	0.5+	1.0+	2000 02 01	703	0.2+	0.2+

2000 FEB. 22

M.P.C. 38323

1998 06 30	699	0.4−	0.5−	1998 09 14	704	0.7−	0.1+	2000 02 01	703	0.3+	0.0
1998 06 30	699	0.7−	0.3+	1998 09 14	704	0.9−	1.2+	2000 02 02	704	0.0	0.1+
1998 06 30	699	0.3−	0.1−	1998 09 14	704	1.0−	1.1+	2000 02 02	704	0.4+	0.4+
1998 07 28	327	0.5−	0.1+	1998 09 15	699	0.2+	0.4−	2000 02 02	704	0.1+	0.3+
1998 07 28	327	0.5−	0.2+	1998 09 15	699	0.1+	0.2+	2000 02 02	704	0.2−	0.1+
1998 07 28	327	0.4−	0.1+	1998 09 15	699	0.2−	0.2−	2000 02 02	704	0.2−	0.6+
1998 08 02	327	0.3−	0.1+	1998 09 15	610	0.4+	0.2−	2000 02 04	704	0.7−	0.3−
1998 08 02	327	0.4−	0.1+	1998 09 15	610	0.5+	0.3−	2000 02 04	704	0.3−	0.1−
1998 08 02	327	0.4−	0.1+	1998 09 15	610	0.4+	0.3−	2000 02 04	704	0.6−	0.2−
1998 08 03	689	0.0	0.4−	1998 09 18	704	0.2+	0.1+	2000 02 04	704	0.7+	0.3−
1998 08 17	704	0.2+	0.2+	1998 09 18	704	0.7−	0.1−	2000 02 12	704	0.1−	0.5+
1998 08 17	704	0.8+	1.0+	1998 09 18	704	1.2−	0.9+	2000 02 12	704	0.8−	0.1−
1998 08 17	704	0.7+	0.7+	1998 09 18	704	0.1+	0.1+	2000 02 12	704	(0.5+ 2.3+)	
1998 08 17	704	0.3+	0.6+	1998 09 18	704	(2.3− 0.7−)		2000 02 12	704	0.0	1.3+
1998 08 17	704	1.0−	0.2+	1998 09 25	704	0.6+	0.2+	2000 02 12	704	0.2+	0.7+
1998 08 17	120	0.2+	0.2+	1998 09 25	704	0.5+	0.4+				

(13525)* 1991 PG₃ = 1990 HH

Discovered 1991 Aug. 2 by E. W. Elst at the European Southern Observatory.

Id. S. Nakano (*MPC* 24897)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Nakano							
<i>M</i>				(2000.0)		P		Q			
<i>n</i>	0.18598146	<i>ω</i>	136.67345			−0.66677221		+0.74369408			
<i>a</i>	3.0396456	<i>Ω</i>	91.44648			−0.69627699		−0.59852263			
<i>e</i>	0.1547221	<i>i</i>	2.76997			−0.26573139		−0.29780830			
<i>P</i>	5.30	<i>H</i>	13.6			<i>G</i>	0.15	<i>U</i>	1		

Residuals in seconds of arc

1990 04 01	675	0.5+	0.5+	1995 02 20	411	1.4+	0.3+	2000 01 30	703	0.3−	0.3+
1990 04 01	675	0.8+	0.6+	1995 02 21	411	1.2+	0.8−	2000 01 30	704	0.1−	0.2+
1990 04 18	372	1.6−	0.6+	1995 02 21	411	0.7+	0.9+	2000 01 30	703	0.2−	0.3+
1990 04 18	372	(4.4− 1.0+)		1998 11 24	704	0.4+	0.3−	2000 01 30	704	0.2+	1.0+
1990 04 22	675	0.5−	0.9−	1998 11 24	704	0.1−	0.1+	2000 01 30	704	0.8+	0.5+
1990 04 22	675	0.0	0.5+	1998 11 24	704	0.0	0.8+	2000 02 03	704	0.1−	0.5+
1991 08 02	809	0.6+	0.5−	1998 11 24	704	0.6−	1.3+	2000 02 03	704	0.5+	0.0
1991 08 02	809	0.9+	0.0	2000 01 04	704	0.0	0.2−	2000 02 03	704	0.5+	0.7−
1991 08 02	809	0.5+	0.4+	2000 01 04	704	0.9+	0.6−	2000 02 03	704	0.3+	0.1+
1991 08 07	809	1.9−	0.3−	2000 01 04	704	0.8−	0.0	2000 02 03	704	0.3+	0.8−
1991 08 07	809	0.2−	0.2−	2000 01 06	704	0.2−	0.5−	2000 02 11	704	0.1+	0.1−
1991 08 07	809	1.9+	1.4+	2000 01 06	704	(0.1+ 2.3−)		2000 02 11	704	0.3−	0.1+
1991 08 14	809	0.1+	0.5+	2000 01 06	704	0.9−	0.8−	2000 02 11	704	0.3−	0.4+
1991 08 14	809	1.1−	0.3+	2000 01 06	704	0.2−	0.2−	2000 02 11	704	0.6−	0.4+
1991 08 14	809	1.2−	0.7+	2000 01 30	703	0.5−	0.1−	2000 02 11	704	0.9−	0.2+
1995 02 20	411	0.3−	0.2−	2000 01 30	703	0.4−	0.1+				

(13526)* 1991 PQ₅ = 1994 JH₉

Discovered 1991 Aug. 3 by E. W. Elst at the European Southern Observatory.

Id. E. Bowell (*MPC* 25529)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams							
<i>M</i>				(2000.0)		P		Q			
<i>n</i>	0.28787149	<i>ω</i>	163.30782			+0.58612501		+0.80716927			
<i>a</i>	2.2716266	<i>Ω</i>	142.49214			−0.75592333		+0.57599316			
<i>e</i>	0.1322983	<i>i</i>	6.62553			−0.29161172		+0.12926581			
<i>P</i>	3.42	<i>H</i>	15.0			<i>G</i>	0.15	<i>U</i>	2		

Residuals in seconds of arc

1991 08 03	809	0.7−	0.4−	1998 08 23	704	0.4+	0.4+	1998 10 12	699	0.1+	0.6−
1991 08 03	809	0.3−	0.3−	1998 08 23	704	1.7−	0.0	1998 10 12	699	0.5−	0.0
1991 08 03	809	0.8−	0.1−	1998 08 23	704	0.9+	0.1+	2000 01 05	704	0.3−	0.4−
1991 08 04	809	(2.9+ 2.4+)		1998 08 23	704	1.9+	1.7−	2000 01 05	704	0.5−	0.3−
1991 08 05	809	(3.6− 0.9−)		1998 08 23	704	1.4+	0.9−	2000 01 05	704	0.9−	1.0−
1991 08 05	809	(3.9− 0.8−)		1998 09 14	704	0.5−	0.8+	2000 01 05	704	0.4−	0.8−
1991 08 05	675	0.8−	0.8−	1998 09 14	704	0.4+	0.3+	2000 01 07	704	0.0	0.8−
1991 08 05	809	(3.8− 1.0−)		1998 09 14	704	0.0	0.1+	2000 01 07	704	0.1−	0.9−
1991 08 05	675	0.4+	0.4−	1998 09 14	704	1.2−	1.1+	2000 01 07	704	0.4+	1.4−

1991 08 07	675	0.1+	0.5−	1998 09 18	704	0.6+	0.2−	2000 01 07	704	0.7+	0.9−
1991 08 07	675	0.6−	1.4−	1998 09 18	704	0.4+	0.4+	2000 02 02	704	0.6−	0.4+
1991 09 04	809	1.1+	1.1−	1998 09 18	704	0.5−	1.2+	2000 02 02	704	0.3−	0.1−
1991 09 04	809	0.8+	0.6−	1998 09 18	704	0.5−	1.5+	2000 02 02	704	0.3+	0.1+
1991 09 04	809	0.9+	1.0−	1998 09 18	704	0.0	1.4+	2000 02 02	704	0.8−	0.2+
1991 09 05	809	(1.0+ 3.0−)		1998 09 25	704	0.4−	0.8+	2000 02 02	704	1.0+	0.1+
1991 09 05	809	(0.6+ 2.5−)		1998 09 25	704	0.8−	0.1−	2000 02 03	704	0.2−	0.3−
1991 09 05	809	0.9+	1.5−	1998 09 25	704	0.3+	0.7+	2000 02 03	704	0.2+	0.4+
1991 09 06	809	(1.6+ 2.1−)		1998 09 25	704	0.9−	0.9−	2000 02 03	704	0.4+	0.5+
1991 09 06	809	0.4+	1.1−	1998 09 27	704	0.0	0.1−	2000 02 03	704	0.2−	0.1+
1991 09 06	809	0.8+	1.2−	1998 09 27	704	0.9+	0.6+	2000 02 03	704	0.7+	0.6+
1991 09 07	809	(0.2+ 3.7−)		1998 09 27	704	0.8−	0.0	2000 02 08	704	0.0	0.1+
1991 09 07	809	(0.4− 3.7−)		1998 09 27	704	0.2+	0.2+	2000 02 08	704	0.5+ 1.2−	
1994 05 15	675	0.0	1.2+	1998 09 27	699	0.1−	0.8+	2000 02 08	704	0.3−	0.0
1994 05 15	675	0.8+	0.1+	1998 09 27	699	1.1−	1.0+	2000 02 08	704	0.1+	0.1+
1994 05 16	675	0.0	1.0+	1998 09 27	699	1.2−	0.9+				
1994 05 16	675	0.3−	0.2+	1998 10 12	699	0.0	0.2−				

(13527)* 1991 PJ₁₅ = 1981 UL₂₂

Discovered 1991 Aug. 7 by H. E. Holt at Palomar.

Id. S. J. Bus (*MPC* 20508)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams							
<i>M</i>				(2000.0)		P		Q			
<i>n</i>	0.28363585	<i>ω</i>	167.36623			+0.27915607		+0.95911739			
<i>a</i>	2.2941861	<i>Ω</i>	118.82747			−0.88556527		+0.27588140			
<i>e</i>	0.1439608	<i>i</i>	3.04499			−0.37127622		+0.06311328			
<i>P</i>	3.47	<i>H</i>	14.7			<i>G</i>	0.15	<i>U</i>	2		

Residuals in seconds of arc

1981 10 24	675	0.1−	0.2−	1998 09 18	704	0.5−	0.9+	1999 12 08	704	0.9−	0.7−
1981 10 25	675	0.3−	0.4−	1998 09 18	704	0.5−	0.5−	1999 12 08	704	0.4+	1.5−
1981 10 26	675	0.7+	0.4+	1998 09 18	704	0.4+	0.9−	1999 12 15	691	0.3−	0.0
1991 08 07	675	0.1−	0.8−	1998 09 25	704	0.2−	0.4+	1999 12 15	691	0.2−	0.1+
1991 08 07	675	0.9+	0.8−	1998 09 25	704	0.7−	0.2+	1999 12 15	691	0.3−	0.1−
1991 08 10	675	0.0	0.8−	1998 09 25	704	0.4−	0.3+	2000 01 04	704	(3.8−	3.2+)
1991 09 10	675	0.1+	0.1+	1998 09 25	704	0.1−	0.9+	2000 01 04	704	(0.3−	2.9+)
1991 09 10	675	0.6+	0.6+	1998 09 25	704	0.9−	1.0+	2000 01 04	704	(2.1+	2.6+)
1991 09 14	675	0.1−	1.0−	1998 09 27	704	0.2+	0.1+	2000 01 05	704	0.3+	0.2+
1991 09 14	675	0.2−	1.4−	1998 09 27	704	0.0	0.1−	2000 01 05	704	0.1−	0.3+
1998 06 29	704	1.1+	0.2−	1998 09 27	704	0.9+	0.1+	2000 01 05	704	0.9+	0.8−
1998 06 29	704	0.6+	1.7+	1998 09 27	704	0.3+	0.2+	2000 01 05	704	0.2+	0.2+
1998 06 29	704	0.6+	1.4+	1998 09 27	704	0.4−	0.7+	2000 01 05	704	0.0	0.3−
1998 06 29	704	1.6−	1.2+	1998 10 12	699	0.5−	0.1+	2000 01 30	691	0.0	0.3+
1998 08 23	704	0.2+	0.6−	1998 10 12	699	0.0	0.4+	2000 01 30	691	0.2−	0.2+
1998 08 23	704	0.1−	0.4−	1998 10 12	699	0.6+	0.2+	2000 01 30	691	0.1+	0.2−
1998 08 23	704	0.5−	0.5−	1999 12 02	691	0.2+	0.1−	2000 01 30	704	0.1−	0.1−
1998 08 23	704	0.9+	1.5−	1999 12 02	691	0.3+	0.1+	2000 01 30	704	0.2−	0.2−
1998 08 23	704	0.5−	0.1−	1999 12 02	691	0.1+	0.2+	2000 01 30	704	0.7−	0.2−
1998 08 30	699	0.7+	0.3−	1999 12 07	704	0.3+	0.3−	2000 01 31	704	0.2−	0.4+
1998 08 30	699	0.7−	0.1−	1999 12 07	704	1.0−	1.2−	2000 01 31	704	0.0	0.3+
1998 08 30	699	0.5+	0.5−	1999 12 07	704	0.7+	0.5+	2000 01 31	704	1.1−	0.7+
1998 09 14	704	0.3−	0.8+	1999 12 07	704	0.8+	0.1−	2000 02 11	704	0.4−	0.1−
1998 09 14	704	(1.4+	2.3+)	1999 12 08	691	0.1−	0.1+	2000 02 11	704	0.7+	0.5+
1998 09 14	704	0.6−	0.9+	1999 12 08	691	0.1−	0.1+	2000 02 11	704	0.1+	0.9+
1998 09 14	704	0.4+	0.4+	1999 12 08	691	0.1+	0.1+	2000 02 11	704	0.0	0.4+
1998 09 18	704	0.3−	0.1+	1999 12 08	704	0.0	0.2−	2000 02 11	704	0.0	0.6+
1998 09 18	704	0.0	0.0	1999 12 08	704	0.3+	0.4−				

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 209.88320		(2000.0)		P		Q	
<i>n</i>	0.28968737	ω	142.78649	+0.48363212	+0.86099612		
<i>a</i>	2.2621236	Ω	154.94175	−0.86552919	+0.49721098		
<i>e</i>	0.2354877	<i>i</i>	21.82122	−0.13022748	−0.10708369		
<i>P</i>	3.40	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1991 08 07	675	1.3+	0.9−	1997 04 01	132	(3.5+	0.2+)	2000 01 11	132	0.1+	0.9−
1991 08 08	675	0.3+	1.4−	1997 04 01	132	0.1+	1.0−	2000 01 11	132	0.8−	0.7−
1991 09 05	675	1.3+	1.9−	1997 04 02	132	0.2+	0.0	2000 01 11	132	0.0	0.9+
1991 09 05	675	0.1−	0.4+	1997 04 02	132	(6.3+	0.8−)	2000 01 11	704	0.1+	0.4+
1991 09 08	675	0.6−	0.7−	1997 04 05	124	1.6−	0.4−	2000 01 11	704	0.1+	0.4−
1991 09 08	675	1.6−	0.3−	1997 04 05	124	(2.6−	0.3−)	2000 01 11	704	0.1−	1.3−
1997 02 06	691	0.3+	0.2+	1998 09 18	132	(1.1+	2.7−)	2000 01 11	704	0.5+	0.9+
1997 02 06	691	0.1+	0.0	1998 09 18	132	0.3+	1.6+	2000 01 11	704	0.4+	1.6−
1997 02 06	691	0.5+	0.0	1998 09 18	132	0.8−	0.4+	2000 02 06	704	0.4+	0.5+
1997 03 31	132	0.3+	0.3+	2000 01 08	704	0.2−	0.9+	2000 02 06	704	1.1+	0.2−
1997 03 31	132	1.0−	0.6−	2000 01 08	704	0.4−	0.2−	2000 02 06	704	0.1+	0.4+
1997 03 31	132	(2.5+	0.4−)	2000 01 08	704	0.3−	0.2−	2000 02 06	704	0.4+	0.2+
1997 04 01	132	0.5+	0.6−	2000 01 08	704	0.2−	1.8−				

(13529)* 1991 RE₁ = 1998 SN₆₁

Discovered 1991 Sept. 1 by T. Seki at Geisei.

Id. G. V. Williams (*MPC* 32925)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 47.55877		(2000.0)		P		Q	
<i>n</i>	0.29368500	ω	173.87536	−0.59854769	−0.79914584		
<i>a</i>	2.2415489	Ω	312.87440	+0.73171766	−0.51707088		
<i>e</i>	0.0955249	<i>i</i>	4.36186	+0.32608270	−0.30660013		
<i>P</i>	3.36	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1991 09 01	372	(4.6−	2.5+)	1998 09 26	704	1.2+	1.2−	1998 12 09	704	1.5−	0.9−
1991 09 01	372	0.2−	1.5−	1998 09 26	704	1.2+	1.1−	1998 12 09	704	1.6−	0.6−
1991 09 07	372	(2.1+	0.8+)	1998 09 26	704	(2.4+	0.2−)	1998 12 09	704	0.6+	1.4−
1991 09 07	372	0.9+	1.7+	1998 09 26	704	0.9+	1.0+	1998 12 09	704	1.7−	0.0
1991 09 09	372	1.2−	0.7+	1998 09 27	704	0.8+	0.6+	1998 12 09	704	(2.6+	0.6−)
1991 09 09	372	(1.1−	2.5+)	1998 09 27	704	0.0	0.5+	1999 01 08	704	0.4−	0.8−
1991 09 14	675	0.5−	0.4−	1998 09 27	704	0.4+	0.2+	1999 01 08	704	1.0−	1.4+
1991 09 14	675	0.3+	0.2+	1998 09 27	704	0.8−	0.5−	1999 01 08	704	0.7+	0.8+
1993 02 25	511	0.7−	0.8−	1998 09 27	704	0.3+	0.3−	1999 01 08	704	1.8−	1.6−
1993 02 25	511	0.5+	0.2+	1998 10 11	699	0.4−	0.3−	1999 11 05	703	(0.7+	3.9−)
1996 01 28	327	0.4−	0.2+	1998 10 11	699	0.5−	0.4−	1999 11 05	703	1.1−	0.4−
1996 01 28	327	0.4+	0.3+	1998 10 11	699	0.1−	0.5−	1999 11 05	703	1.7+	0.6+
1996 01 28	327	0.4+	0.1−	1998 10 28	704	0.3−	0.4+	1999 11 05	703	0.4−	0.1+
1998 09 17	699	0.2−	0.4+	1998 10 28	704	0.1+	0.0	2000 02 02	704	0.3−	0.6+
1998 09 17	699	0.1−	0.5+	1998 10 28	704	1.1−	0.2+	2000 02 02	704	0.3+	0.2+
1998 09 17	699	0.1−	0.5+	1998 10 28	704	1.7+	0.1+	2000 02 02	704	0.1+	0.2−
1998 09 25	699	0.2−	0.2+	1998 10 28	704	(0.7−	2.8−)	2000 02 10	704	0.1+	0.8−
1998 09 25	699	0.2−	0.4+	1998 11 10	699	0.5+	0.4−	2000 02 10	704	0.2−	0.7+
1998 09 25	699	0.2+	0.4+	1998 11 10	699	0.2+	0.4−	2000 02 10	704	0.2−	0.6+
1998 09 26	704	1.3+	0.3−	1998 11 10	699	(2.1+	0.3−)	2000 02 10	704	0.2+	0.4−

(13530)* 1991 RS₂ = 1997 JX₁₆

Discovered 1991 Sept. 9 by F. Börngen and L. D. Schmadel at Tautenburg.

Id. B. G. Marsden (*MPC* 30077)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 64.19714		(2000.0)		P		Q	
<i>n</i>	0.28146043	ω	242.77339	−0.05068256	−0.99708882		
<i>a</i>	2.3059921	Ω	210.29637	+0.95160130	−0.03090048		
<i>e</i>	0.0637156	<i>i</i>	6.48382	+0.30312743	−0.06970692		
<i>P</i>	3.50	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1991 09 09	033	0.7−	0.9−	1998 09 14	704	0.1+	0.1+	1998 10 20	113	0.6−	0.4−
1991 09 10	033	0.1+	0.3−	1998 09 14	704	0.2+	0.3+	1998 10 20	113	0.6−	0.5−
1991 09 12	675	0.3+	0.4+	1998 09 18	704	0.1−	0.1+	1998 11 06	118	0.9−	0.1+
1991 09 12	675	0.6+	0.7−	1998 09 18	704	0.4−	0.3+	1998 11 06	118	1.1−	0.3+
1991 09 12	033	1.0−	0.1−	1998 09 18	699	0.1−	0.3+	1998 11 07	118	0.2−	0.6+
1991 09 12	033	0.2−	0.5−	1998 09 18	704	0.1−	0.2+	1998 11 07	118	0.4−	1.0+
1991 09 13	033	0.6+	0.2−	1998 09 18	704	0.3+	0.3−	1998 11 10	699	0.7−	0.8+
1991 09 14	675	0.6+	0.4−	1998 09 18	699	0.2−	1.0+	1998 11 10	699	0.5−	0.3+
1991 09 14	675	0.1+	0.7+	1998 09 18	704	0.2−	0.4+	1998 11 10	699	0.6−	0.4+
1991 09 14	033	0.1−	1.5−	1998 09 18	699	0.3−	1.2+	1998 11 18	691	1.0−	0.9+
1991 10 02	033	0.2+	0.5−	1998 09 21	113	0.2−	0.4−	1998 11 18	691	1.4−	0.6+
1991 10 02	033	0.9+	0.6−	1998 09 21	113	0.2−	0.3−	1998 11 18	691	1.3−	0.7+
1991 10 03	033	0.6+	0.7−	1998 09 21	611	0.1+	0.6−	1998 11 21	113	0.6−	0.9+
1991 10 08	033	0.3+	0.4+	1998 09 21	611	0.1+	0.5−	1998 11 21	113	0.7−	0.9−
1991 10 08	033	0.0	0.8+	1998 09 22	113	0.4−	0.5−	1998 11 25	699	1.4−	0.3+
1991 10 09	033	0.2−	0.3+	1998 09 22	113	0.5−	0.6−	1998 11 25	699	0.4−	0.7+
1991 10 27	413	1.1−	0.5−	1998 09 25	704	1.6+	0.4+	1998 11 25	699	1.0−	0.7+
1991 10 27	413	0.0	0.9+	1998 09 25	704	1.0+	0.5−	1998 12 09	704	1.9+	1.6−
1997 05 03	809	1.1+	0.4−	1998 09 25	704	0.4−	1.1−	1998 12 09	704	0.8−	1.1+
1997 05 03	809	0.2−	0.5−	1998 09 25	704	0.4+	0.5−	1998 12 09	704	1.0+	0.0
1997 05 03	809	0.4−	1.1−	1998 09 26	704	0.1+	0.4−	1998 12 09	704	0.5−	0.2−
1997 05 04	809	0.7+	0.6+	1998 09 26	704	0.4−	0.4−	1998 12 10	113	1.1+	0.7+
1997 05 04	809	1.2+	0.3+	1998 09 26	704	0.2+	0.8−	1999 01 17	113	(0.7+	2.1+)
1997 05 04	809	(2.3+	0.1+)	1998 09 26	704	1.0+	0.7−	1999 01 17	113	(3.5+	2.1+)
1997 05 04	809	0.1−	0.9+	1998 09 26	704	0.7+	1.3−	2000 01 05	704	0.1−	0.2+
1997 05 04	809	0.0	0.8+	1998 09 27	704	0.3+	0.5+	2000 01 05	704	0.1+	0.6−
1997 05 04	809	0.3−	1.4+	1998 09 27	704	0.6+	0.6+	2000 01 05	704	0.1+	0.5−
1997 05 30	691	1.1−	0.9−	1998 09 27	704	1.0+	0.5+	2000 01 05	704	0.1+	0.2−
1997 05 30	691	1.4−	1.0−	1998 09 27	704	0.4+	0.0	2000 02 02	704	0.7+	0.6+
1997 05 30	691	1.8−	0.3−	1998 09 27	704	0.9+	0.3−	2000 02 02	704	0.8+	0.9+
1997 06 07	809	0.5+	0.0	1998 10 14	704	0.3+	0.4+	2000 02 02	704	1.7+	0.6+
1997 06 07	809	0.1+	0.3+	1998 10 14	704	0.1+	0.7+	2000 02 02	704	(0.8+	2.2+)
1997 06 07	809	0.2+	0.2+	1998 10 14	704	0.6+	0.2−	2000 02 02	704	(0.2+	2.4+)
1997 06 08	809	0.7+	1.3+	1998 10 14	704	0.1+	0.5+	2000 02 07	704	0.8−	0.1−
1997 06 08	809	0.2+	1.5+	1998 10 14	704	1.3+	0.1−	2000 02 07	704	1.3−	0.3+
1997 06 08	809	0.7+	1.1+	1998 10 14	699	0.5−	0.5+	2000 02 07	704	1.0−	0.4−
1998 08 27	699	0.3−	0.2+	1998 10 14	699	0.3−	0.8+	2000 02 07	704	1.1−	0.8−
1998 08 27	699	0.0	0.2+	1998 10 14	699	0.4−	0.7+	2000 02 07	704	1.9−	1.2−
1998 08 27	699	0.4+	0.1+	1998 10 15	704	0.5−	0.5+	2000 02 08	704	0.9+	0.7+
1998 08 28	699	0.5+	0.7+	1998 10 15	704	0.9−	0.0	2000 02 08	704	0.9+	0.4+
1998 08 28	699	1.1+	0.9+	1998 10 15	704	0.7−	0.1−	2000 02 08	704	0.6+	1.0+
1998 08 28	699	0.6+	0.5+	1998 10 15	704	0.4−	0.5−	2000 02 08	704	0.5+	0.8+
1998 09 14	704	0.1+	0.6+	1998 10 15	704	0.1+	0.5−	2000 02 08	704	0.9+	0.2+

(13531)* 1991 RU₄ = 1975 TO = 1999 FR₃₅

Discovered 1991 Sept. 13 by F. Börngen and L. D. Schmadel at Tautenburg.

Id. A. Doppler (*MPC* 34837)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	207.86272		(2000.0)		P		Q				
n	0.18512178		ω	168.52495	+0.97102163		−0.23113471				
a	3.0490487		Ω	205.09172	+0.20636329		+0.93915654				
e	0.0689867		i	8.23981	+0.12054534		+0.25409003				
P	5.32		H	13.1	G	0.15	U	2			
Residuals in seconds of arc											
1954 11 24	675	0.2+	0.1−	1991 10 09	691	0.7−	0.2+	1999 02 18	566	0.1−	0.8−
1954 11 24	675	0.5−	0.9−	1991 10 09	691	0.7−	0.3−	1999 02 18	566	0.1+	0.5−
1975 10 03	095	0.6+	2.1−	1991 10 09	691	0.5−	0.0	1999 03 20	704	0.3−	0.5−
1991 09 13	0333	0.3−	0.0	1994 03 17	691	0.5−	0.4+	1999 03 20	704	0.3−	1.7−
1991 09 13	0333	0.0	0.1+	1994 03 17	691	0.3−	0.3+	1999 03 20	704	0.3−	0.3−
1991 09 13	0333	0.3−	0.5+	1994 03 17	691	0.3+	0.5+	1999 03 20	704	0.1+	1.6−
1991 09 14	0333	0.3−	0.6+	1997 12 30	566	0.2−	0.7+	1999 03 20	704	0.7+	1.1−
1991 09 15	0333	0.3+	0.0	1997 12 30	566	1.0−	1.1+	1999 03 23	704	0.5+	0.1+
1991 09 15	0333	0.1+	0.3+	1997 12 30	566	0.1+	0.3+	1999 03 23	704	0.2−	1.4+
1991 09 18	0333	0.4−	0.1−	1999 02 14	699	0.8−	0.7+	1999 03 23	704	0.5+	0.6+

2000 FEB. 22

M.P.C. 38325

1991 10 03	033	1.3+	0.0	1999 02 14	699	0.1+	0.3+	1999 03 23	704	(0.4-	2.8+)
1991 10 04	033	1.5+	0.6-	1999 02 14	699	0.6+	0.9+				
1991 10 04	033	0.9+	0.0	1999 02 18	566	0.3-	1.0-				

(13532)* 1991 RY₈ = 1991 SK₁ = 1997 HH₁₁

Discovered 1991 Sept. 11 by H. E. Holt at Palomar.

Id. S. Nakano (d, *MPC* 19822), G. V. Williams (*MPC* 29915)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	144.01842		(2000.0)		P		Q
<i>n</i>	0.28404027	ω	9.94160		+0.94816076		-0.31764029
<i>a</i>	2.2920078	Ω	8.59777		+0.28688632		+0.84229669
<i>e</i>	0.1381316	<i>i</i>	3.75441		+0.13670193		+0.43547783
<i>P</i>	3.47	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1991 09 11	675	0.1-	0.2-	1998 09 26	704	1.3+	0.4+	1998 10 28	704	1.0-	0.0
1991 09 11	675	0.1-	0.8-	1998 09 26	704	0.1-	0.6+	1998 10 29	704	0.5-	0.3-
1991 09 14	675	0.5+	0.1+	1998 09 27	704	0.1-	0.1-	1998 10 29	704	0.7-	0.3+
1991 09 14	675	0.6+	0.2+	1998 09 27	704	1.2+	1.0+	1998 10 29	704	0.7+	0.7-
1991 09 30	400	0.4+	1.2+	1998 09 27	704	0.4+	1.2+	1998 10 29	704	0.5+	0.6-
1991 09 30	400	0.3-	0.1-	1998 09 27	704	0.5+	0.6+	1998 10 29	704	0.9-	1.0-
1991 10 06	691	0.4-	0.0	1998 09 27	704	0.3+	0.1+	1998 11 01	689	0.3+	0.2+
1991 10 06	691	0.4-	0.0	1998 10 03	689	0.1+	0.4+	1998 12 09	699	0.1+	1.4+
1991 10 06	691	0.4-	0.0	1998 10 08	689	0.1-	0.4+	1998 12 09	699	0.0	0.6+
1997 04 30	704	0.1-	0.4+	1998 10 09	689	0.0	0.3+	1998 12 09	699	0.0	0.4+
1997 04 30	704	0.0	0.7+	1998 10 11	699	0.0	0.3+	1999 01 05	699	0.3-	1.0-
1997 04 30	704	0.0	0.3+	1998 10 11	699	0.8+	0.2-	1999 01 05	699	1.9-	0.4+
1997 04 30	704	0.2-	0.3+	1998 10 11	699	0.4+	0.4+	1999 01 05	699	0.5-	0.2+
1997 04 30	704	0.1+	0.5+	1998 10 14	704	0.9-	0.4-	2000 01 08	704	1.0-	1.0-
1997 05 01	704	1.0+	0.5+	1998 10 14	704	0.2+	0.4+	2000 01 08	704	1.2+	0.7-
1997 05 01	704	0.1+	0.3+	1998 10 14	704	0.5-	0.4+	2000 01 08	704	0.1+	0.3-
1997 05 01	704	0.2-	0.8+	1998 10 14	704	1.3-	1.4+	2000 01 08	704	0.2+	0.6-
1997 05 01	704	0.0	0.6+	1998 10 15	704	0.0	0.5+	2000 02 02	703	0.2+	0.4+
1997 05 01	704	0.2-	0.7+	1998 10 15	704	0.4-	0.2-	2000 02 02	703	0.4-	1.6+
1997 05 05	704	0.1+	0.1+	1998 10 15	704	0.7-	1.0-	2000 02 02	703	(0.3+	4.0+)
1997 05 05	704	0.0	0.0	1998 10 15	704	0.1-	1.5-	2000 02 02	703	1.6+	0.3-
1997 05 05	704	0.0	0.1+	1998 10 15	704	0.7-	0.0	2000 02 11	704	0.4+	0.8+
1997 05 05	704	0.4+	0.3+	1998 10 20	689	0.4-	0.4-	2000 02 11	704	0.1+	0.0
1997 05 05	704	0.5+	0.4+	1998 10 22	610	1.3+	1.4+	2000 02 11	704	0.5+	1.0+
1998 09 18	699	0.2+	0.2+	1998 10 22	610	(2.5+	1.1+)	2000 02 11	704	0.1-	0.9+
1998 09 18	699	0.2+	0.1+	1998 10 22	610	(4.0+	0.8+)	2000 02 11	704	0.7+	1.6+
1998 09 18	699	0.1+	0.4+	1998 10 28	704	1.0-	0.4-	2000 02 13	120	1.0-	0.7-
1998 09 26	704	1.5+	0.5+	1998 10 28	704	1.9-	0.3-	2000 02 13	120	0.2-	0.7-
1998 09 26	704	0.7+	0.0	1998 10 28	704	1.2-	0.0				
1998 09 26	704	1.4+	0.4-	1998 10 28	704	1.1-	0.0				

(13533)* 1991 RJ₁₁ = 1989 CT₅

Discovered 1991 Sept. 4 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (*MPC* 20640)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	207.97391		(2000.0)		P		Q
<i>n</i>	0.17815902	ω	190.69093		+0.44643151		+0.89389130
<i>a</i>	3.1279815	Ω	105.83427		-0.81782519		+0.42605899
<i>e</i>	0.1151830	<i>i</i>	2.42519		-0.36312652		+0.13939900
<i>P</i>	5.53	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1989 02 02	675	1.3-	2.0+	1991 09 07	809	(3.2-	0.3-)	2000 01 06	704	1.4+	0.2+
1989 02 02	675	0.6+	1.5+	1995 02 06	691	0.0	0.4+	2000 01 06	704	0.2-	0.2-
1989 02 02	033	0.1+	1.1-	1995 02 06	691	1.2-	0.2+	2000 01 06	704	0.2-	0.6-
1989 02 04	033	1.0+	1.3-	1995 02 06	691	0.2-	0.0	2000 01 06	704	0.7+	0.2+
1991 08 02	809	2.0+	1.0-	1995 02 24	691	0.2+	0.3+	2000 02 03	704	0.6-	0.3+
1991 08 02	809	0.4+	0.2+	1995 02 24	691	0.0	0.0	2000 02 03	704	0.4-	0.6-
1991 08 02	809	1.7+	0.0	1995 02 24	691	0.1+	0.1-	2000 02 03	704	0.5-	0.2-
1991 08 14	809	0.2+	0.0	1995 03 01	691	0.3+	0.0	2000 02 03	704	0.4-	0.6-

1991 08 14	809	0.6+	0.1+	1995 03 01	691	0.4+	0.3-	2000 02 03	704	0.3-	0.6-
1991 08 14	809	0.2-	0.3-	1995 03 01	691	0.6+	0.2-	2000 02 05	704	0.3+	0.0
1991 09 04	809	0.3+	0.8+	1995 03 27	675	0.4-	0.2+	2000 02 05	704	0.2-	0.4-
1991 09 04	809	1.0-	0.8+	2000 01 04	704	0.2+	0.4-	2000 02 05	704	0.3-	0.1+
1991 09 04	809	1.5-	0.9+	2000 01 04	704	0.3+	0.5-	2000 02 05	704	1.3-	0.6+
1991 09 07	809	1.0-	1.2-	2000 01 04	704	0.2+	0.2+				
1991 09 07	809	1.7-	1.0-	2000 01 04	704	0.8+	0.1+				

(13534)* 1991 RZ₁₁ = 1997 XH₄

Discovered 1991 Sept. 4 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (*MPC* 30977)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	169.08940		(2000.0)		P		Q
<i>n</i>	0.17250091	ω	322.24220		+0.87325845		+0.48724614
<i>a</i>	3.1960124	Ω	8.59995		-0.44150399		+0.79410618
<i>e</i>	0.1806277	<i>i</i>	1.26425		-0.20614052		+0.36329956
<i>P</i>	5.71	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1991 08 03	809	0.4-	0.3-	1998 12 14	704	(2.1-	0.8+)	2000 01 30	703	0.6-	0.4+
1991 08 03	809	0.9-	0.9-	1998 12 14	704	0.9+	1.4-	2000 01 30	703	0.2-	0.1-
1991 08 03	809	0.6-	0.8+	1998 12 14	704	0.4-	0.3+	2000 01 30	703	0.4-	0.3+
1991 08 04	809	0.2+	0.2-	1998 12 14	704	(2.3+	2.8+)	2000 02 01	691	0.0	0.7-
1991 09 04	809	(2.2+	0.3-)	1998 12 16	704	1.0-	0.7+	2000 02 01	691	0.2+	0.9-
1991 09 04	809	1.8+	1.0-	1998 12 16	704	(2.8+	0.0)	2000 02 01	691	0.1-	0.8-
1991 09 04	809	1.2+	1.3-	1998 12 16	704	0.2-	1.2-	2000 02 02	691	0.3+	0.9-
1991 09 05	809	(0.4+	2.6-)	1998 12 16	704	0.3+	0.9-	2000 02 02	691	0.1+	0.9-
1991 09 05	809	0.8-	1.3-	1998 12 16	704	0.5+	1.3-	2000 02 02	691	0.2+	0.7-
1991 09 05	809	(2.1-	1.3-)	1998 12 17	704	1.3-	1.4+	2000 02 03	704	0.0	0.6-
1991 09 06	809	1.9+	1.4-	1998 12 17	704	0.7+	0.4-	2000 02 03	704	0.0	0.1+
1991 09 06	809	0.6+	1.0-	1998 12 17	704	1.4+	1.2-	2000 02 03	704	0.1-	0.3+
1991 09 06	809	0.6-	0.5-	1998 12 17	704	0.8+	0.5+	2000 02 03	704	0.3-	1.2+
1991 09 07	809	(0.5-	2.7-)	1998 12 17	704	1.0-	0.5-	2000 02 03	704	0.2+	0.5+
1991 09 07	809	(0.8-	3.3-)	1999 01 16	704	0.7+	0.5-	2000 02 11	704	0.1+	0.3+
1997 12 05	910	0.5-	0.8+	1999 01 16	704	1.5-	0.6+	2000 02 11	704	0.3-	0.7+
1997 12 05	910	0.5-	0.9+	1999 01 16	704	0.1+	0.4+	2000 02 11	704	1.0+	0.4+
1997 12 05	910	0.3-	0.6+	1999 11 16	704	1.0-	0.5-	2000 02 11	704	0.8+	0.6+
1997 12 06	910	0.4-	1.0+	1999 11 16	704	0.4-	1.9-	2000 02 11	704	0.4-	0.5-
1997 12 06	910	0.2-	1.1+	1999 11 16	704	0.0	1.2-				
1997 12 06	910	0.5-	1.1+	2000 01 30	703	0.5-	0.6+				

(13535)* 1991 RS₁₃ = 1991 SP₁ = 1994 NS₉

Discovered 1991 Sept. 13 by H. E. Holt at Palomar.

Id. G. V. Williams (d, *MPC* 19822; *MPC* 26398), S. Nakano (d, *MPC* 19822)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	242.36372		(2000.0)		P		Q
<i>n</i>	0.29485455	ω	3.79225		+0.37223505		+0.92531893
<i>a</i>	2.2356175	Ω	288.07252		-0.85353848		+0.31068204
<i>e</i>	0.1430505	<i>i</i>	4.36112		-0.36457253		+0.21739723
<i>P</i>	3.34	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1991 09 13	675	1.0+	1.6-	1998 11 08	905	0.5-	0.2+	2000 01 05	704	0.6-	0.0
1991 09 13	675	1.0+	1.5-	1998 11 08	905	0.3+	0.2+	2000 01 05	704	0.0	0.7-
1991 09 15	675	0.9+	1.2-	1998 11 10	704	0.2+	0.3-	2000 01 05	704	0.7-	1.5-
1991 09 15	675	0.0	0.8-	1998 11 10	704	0.0	0.8+	2000 02 02	704	0.2+	0.4+
1991 09 30	400	0.7-	0.3+	1998 11 10	704	0.7-	0.5-	2000 02 02	704	0.0	0.8+
1991 09 30	400	(2.2+	2.5-)	1998 11 10	704	0.1-	1.8+	2000 02 02	704	0.9+	1.2+
1994 07 08	809	0.8-	0.3+	1998 11 10	704	0.1-	0.7+	2000 02 02	704	0.5+	1.1+
1994 07 08	809	0.5+	0.9+	1998 11 11	888	0.1-	0.0	2000 02 02	704	0.1-	1.0+
1994 07 08	809	0.0	0.2+	1998 11 11	888	0.2+	0.0	2000 02 07	704	0.4-	0.9-
1994 07 09	809	(0.2-	2.2+)	1998 11 11	888	0.2-	0.0	2000 02 07	704	0.5-	0.6-
1994 07 09	809	(0.4+	2.1+)	1998 11 18	704	0.0	0.3+	2000 02 07	704	0.4-	0.8-
1994 07 09	809	0.2-	1.0+	1998 11 18	704	0.1-	0.4-	2000 02 07	704	0.5-	1.4-
1998 10 19	699	0.3+	0.3-	1998 11 18	704	1.0-	0.7+	2000 02 07	704	0.3+	1.3-

1998 10 19 699 0.2+ 0.5- 1998 11 18 704 (1.1- 2.3+)
 1998 10 19 699 0.0 0.7+ 1998 11 18 704 0.8+ 1.5+

(13536)* 1991 RA₁₅ = 1984 HQ₁ = 1989 EM₉

Discovered 1991 Sept. 15 by H. E. Holt at Palomar.

Id. T. Kobayashi (*MPC* 24105)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	238.74749	(2000.0)	Williams		P		Q	
<i>n</i>	0.17507213	ω	134.00219	+0.17175443	+0.98513945			
<i>a</i>	3.1646429	Ω	145.88762	-0.90426756	+0.15798625			
<i>e</i>	0.1539050	<i>i</i>	0.08410	-0.39089716	+0.06738402			
<i>P</i>	5.63	<i>H</i>	13.1	<i>G</i>	0.15	<i>U</i>	1	

Residuals in seconds of arc

1984 04 28	809	0.8+	0.6-	1992 11 25	691	0.6-	0.2-	2000 01 07	704	0.0	0.3-
1984 04 28	809	1.3+	1.1-	1992 11 25	691	0.4-	0.3-	2000 01 30	704	0.2-	0.6+
1984 04 29	809	1.2+	0.5+	1995 03 27	691	0.2-	1.1-	2000 01 30	704	0.4+	0.8+
1984 04 29	809	0.3+	0.6+	1995 03 27	691	0.2-	0.6-	2000 01 30	704	0.1-	0.6+
1984 05 02	809	0.3+	0.2-	1995 03 27	691	0.2-	0.8-	2000 01 30	704	0.2+	1.3+
1984 05 02	809	0.5+	0.8+	1997 10 03	910	0.8+	0.9+	2000 02 03	691	0.4-	0.5-
1984 05 05	809	0.7-	0.7+	1997 10 03	910	1.0+	1.0+	2000 02 03	691	0.3-	0.5-
1984 05 05	809	0.5-	0.8+	1997 10 03	910	1.0+	1.1+	2000 02 03	691	0.3-	0.2-
1989 03 05	033	0.6-	0.9-	1997 10 22	327	0.1+	0.7+	2000 02 04	704	0.1-	1.1+
1989 03 05	033	1.5-	0.3-	1997 10 22	327	0.4+	0.9+	2000 02 04	704	0.3-	0.2+
1991 09 04	033	0.5+	0.2+	1997 10 22	327	0.2-	1.2-	2000 02 04	704	0.2+	0.5+
1991 09 05	033	0.2-	0.3+	1998 12 14	704	1.4+	1.0+	2000 02 04	704	0.0	0.4+
1991 09 11	675	1.3+	0.1-	1998 12 14	704	1.3+	0.8-	2000 02 04	704	0.2+	1.6+
1991 09 11	675	0.9-	1.3-	1998 12 14	704	(0.2-	2.6-)	2000 02 06	704	0.6+	0.4-
1991 09 13	691	(2.2-	2.1+)	1998 12 14	704	1.2-	0.2+	2000 02 06	704	0.2-	0.2+
1991 09 13	675	1.0-	0.6-	1998 12 14	704	0.9+	0.6-	2000 02 06	704	0.1+	0.3+
1991 09 13	691	0.6-	0.4+	1998 12 16	704	0.5-	0.6-	2000 02 11	704	0.0	0.7+
1991 09 13	675	(2.6-	0.6-)	1998 12 16	704	(2.3-	0.8-)	2000 02 11	704	0.4-	0.3+
1991 09 13	691	0.8-	0.6+	1998 12 16	704	0.3-	0.3+	2000 02 11	704	0.5-	0.5+
1991 09 14	033	0.6+	0.8+	1998 12 16	704	0.6-	1.4+	2000 02 11	704	0.5-	0.1-
1991 09 14	033	(2.8-	0.1+)	1998 12 17	704	1.3+	1.5-	2000 02 11	704	0.1-	0.1+
1991 09 15	675	0.4-	0.1-	1998 12 17	704	(3.0-	0.4-)	2000 02 14	691	0.2-	0.5-
1991 09 15	675	0.2-	0.0	1998 12 17	704	1.0+	0.4-	2000 02 14	691	0.2-	0.5-
1991 09 16	675	1.0-	1.6-	2000 01 07	704	0.2-	0.1+	2000 02 14	691	0.2-	0.5-
1991 09 16	675	0.4-	0.9-	2000 01 07	704	0.7+	0.0				
1992 11 25	691	0.5-	0.3-	2000 01 07	704	0.2+	1.2-				

(13537)* 1991 SG = 1977 CM₁ = 1989 EO₇

Discovered 1991 Sept. 29 by R. H. McNaught at Siding Spring.

Id. G. V. Williams (*MPC* 29615)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	181.56860	(2000.0)	Williams		P		Q	
<i>n</i>	0.17466108	ω	187.31333	+0.96500776	+0.25397641			
<i>a</i>	3.1696060	Ω	157.64232	-0.23106394	+0.94123124			
<i>e</i>	0.0873122	<i>i</i>	9.87529	-0.12397370	+0.22266509			
<i>P</i>	5.64	<i>H</i>	12.8	<i>G</i>	0.15	<i>U</i>	1	

Residuals in seconds of arc

1977 02 11	675	0.1-	0.3-	1991 09 30	413	0.9-	0.2-	2000 02 06	704	0.1-	0.0
1977 02 12	675	0.2+	0.1-	1991 09 30	413	0.4-	0.4+	2000 02 06	704	0.8+	1.6-
1989 03 06	033	0.4-	0.4-	1998 12 16	747	0.2+	0.1+	2000 02 06	704	0.2+	0.5-
1989 03 06	033	0.1-	0.3-	1998 12 16	747	0.1+	0.1+	2000 02 06	704	0.1+	0.5-
1991 08 08	675	0.4+	0.7-	1998 12 16	747	0.1+	0.1-	2000 02 11	704	0.3+	0.3+
1991 08 08	675	1.0+	0.7-	1998 12 17	747	0.2-	0.1+	2000 02 11	704	0.3-	0.4-
1991 09 11	675	0.0	0.0	1998 12 17	747	0.1-	0.4+	2000 02 11	704	0.1-	0.3-
1991 09 11	675	0.0	1.2-	1998 12 22	704	0.7+	0.6-	2000 02 11	704	0.9-	0.0
1991 09 12	675	0.4+	0.4-	1998 12 22	704	1.3-	0.2-	2000 02 11	704	0.9+	0.1+
1991 09 12	675	0.9-	1.0-	1998 12 22	704	1.2+	0.5-	2000 02 16	703	0.9-	0.5+
1991 09 16	675	0.2+	0.8-	1998 12 22	704	0.9-	0.5+	2000 02 16	703	0.7-	0.9+
1991 09 16	675	0.2-	0.2-	2000 01 12	120	1.2-	0.1-	2000 02 16	703	0.6+	0.5+
1991 09 29	413	1.3+	1.5+	2000 01 12	120	0.2+	0.9-	2000 02 16	703	0.5+	0.6-

(13538)* 1991 ST = 1952 VD = 1978 SB₁ = 1978 TL₉ = 1994 LF₈

Discovered 1991 Sept. 30 by R. H. McNaught at Siding Spring.

Id. G. V. Williams (*MPC* 26170)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	236.40368	(2000.0)	Williams		P		Q	
<i>n</i>	0.30190759	ω	228.83445	+0.61793990	+0.77740277			
<i>a</i>	2.2006621	Ω	79.71840	-0.68087500	+0.60383353			
<i>e</i>	0.2203945	<i>i</i>	6.85574	-0.39314057	+0.17615335			
<i>P</i>	3.26	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	2	

Residuals in seconds of arc

1952 11 12	760	0.8-	0.5+	1998 10 30	704	1.3-	0.2+	1999 01 19	426	0.2-	0.0
1952 11 12	760	2.0-	0.7-	1998 10 30	704	0.9-	0.2+	2000 01 04	704	0.3+	0.4-
1952 11 14	760	1.3+	2.0+	1998 10 30	704	0.5-	0.5-	2000 01 04	704	0.1-	0.4-
1952 11 14	760	2.0+	0.5-	1998 10 30	704	0.0	1.4-	2000 01 04	704	0.2+	1.0-
1978 09 27	095	1.7-	1.8+	1998 10 30	704	0.3+	0.5-	2000 01 04	704	0.2+	1.0-
1978 10 07	095	1.2-	1.0+	1998 12 08	689	(0.6+	2.8-)	2000 02 01	703	0.0	0.6+
1990 01 29	675	0.4-	0.0	1998 12 15	704	0.9+	0.4-	2000 02 01	703	0.5+	0.7+
1990 01 29	675	1.2-	0.5-	1998 12 15	704	0.7+	0.1+	2000 02 01	703	0.0	0.9+
1991 09 15	675	0.2+	0.6+	1998 12 15	704	0.4+	0.5+	2000 02 01	703	0.1-	0.3+
1991 09 15	675	0.2+	0.2+	1998 12 15	704	0.9+	0.3+	2000 02 04	704	0.6+	0.2-
1991 09 30	413	0.0	0.6+	1998 12 15	704	0.0	0.1+	2000 02 04	704	0.7+	0.7+
1991 10 01	413	0.4-	0.1-	1999 01 08	704	2.0+	0.3-	2000 02 04	704	0.6+	0.8+
1991 10 12	413	0.2-	0.1+	1999 01 08	704	0.7-	1.2+	2000 02 04	704	0.3+	1.0+
1994 06 08	809	(0.7+	3.5+)	1999 01 08	704	1.5+	1.2-	2000 02 04	704	0.6+	1.3+
1994 06 08	809	(1.8+	4.5+)	1999 01 08	704	1.2-	0.7-	2000 02 14	704	0.7+	1.1+
1994 06 08	809	(1.0+	4.1+)	1999 01 17	426	0.2-	0.3+	2000 02 14	704	0.1-	0.7+
1994 06 09	809	(1.6+	3.9+)	1999 01 17	426	0.4+	0.2+	2000 02 14	704	0.1+	1.5+
1994 06 09	809	(2.0+	2.7+)	1999 01 19	426	0.3-	0.1-				
1994 06 09	809	(1.8+	2.8+)	1999 01 19	426	0.5-	0.1-				

(13539)* 1991 TY

Discovered 1991 Oct. 2 by R. H. McNaught at Siding Spring.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	95.04426	(2000.0)	Williams		P		Q	
<i>n</i>	0.26502936	ω	239.75977	+0.93735665	-0.14872815			
<i>a</i>	2.4003435	Ω	126.91053	+0.20346183	+0.96775452			
<i>e</i>	0.2917001	<i>i</i>	23.20326	-0.28278223	+0.20330057			
<i>P</i>	3.72	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	1	

Residuals in seconds of arc

1976 08 24	413	(0.7+	3.5+)	1998 06 19	704	1.0-	0.3+	2000 01 30	704	0.3+	0.2+
1976 08 24	413	(1.6+	3.0+)	1998 06 19	704	0.6+	0.3+	2000 01 30	704	0.0	0.1+
1976 10 24	413	0.2+	0.5-	1998 06 19	704	1.3+	0.7+	2000 01 30	704	0.1+	0.6+
1976 10 24	413	0.0	0.0	1998 06 19	704	(2.5-	0.6+)	2000 01 30	704	0.8-	0.9+
1987 07 29	413	0.3-	0.1+	1999 12 31	699	0.9-	0.3+	2000 02 03	704	0.0	0.4+
1991 10 02	413	0.8-	1.3-	1999 12 31	699	1.0-	0.2-	2000 02 03	704	0.5+	0.5+
1991 10 02	413	(0.3+	2.8+)	1999 12 31	699	0.3-	0.4-	2000 02 03	704	0.6+	0.6+
1991 10 05	413	0.3-	0.2-	2000 01 05	704	0.3+	0.0	2000 02 03	704	0.1-	0.0
1991 10 07	413	0.8+	0.4+	2000 01 05	704	0.7-	0.1-	2000 02 03	704	0.1-	0.1+
1991 10 15	413	0.2-	0.3+	2000 01 05	704	0.7-	0.8-	2000 02 11	704	0.4+	0.4+
1991 11 14	413	0.1+	1.0+	2000 01 05	704	0.3-	0.2+	2000 02 11	704	0.2+	0.4-
1991 11 26	413	0.3-	0.3+	2000 01 05	704	0.5-	0.2+	2000 02 11	704	0.3+	0.0
1991 11 26	413	0.4-	0.7+	2000 01 07	704	0.0	0.5+	2000 02 11	704	0.3+	0.6+
1991 11 26	413	0.0	1.3+	2000 01 07	704	0.4+	0.7-	2000 02 12	691	0.1+	0.0
1991 11 27	413	0.1-	0.3+	2000 01 07	704	0.3+	1.4-	2000 02 12	691	0.2+	0.1+
1991 11 27	413	0.3-	0.8-	2000 01 07	704	0.8+	0.8+	2000 02 12	691	0.3+	0.1+
1991 11 27	413	0.4-	0.1-	2000 01 07	704	1.7+	0.2-	2000 02 14	691	0.8-	0.0
1991 11 27	413	0.2-	0.0	2000 01 27	691	0.3+	0.2-	2000 02 14	691	0.7-	0.3-
1991 12 21	413	1.4+	0.5-	2000 01 27	691	0.2+	0.4-	2000 02 14	691	1.1-	0.3-
1991 12 21	413	1.1+	0.4+	2000 01 27	691	0.3+	0.4-				

2000 FEB. 22

M.P.C. 38327

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	98.49236		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.27142554	ω	9.57304	+0.62264247	-0.78218158
<i>a</i>	2.3624842	Ω	41.92224	+0.71568483	+0.55758553
<i>e</i>	0.1530493	<i>i</i>	1.93385	+0.31640415	+0.27801142
<i>P</i>	3.63	<i>H</i>	14.4	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1980 10 13	095	0.0	2.1-	1998 09 14	704	1.1-	0.9+	1998 12 08	704	1.1-	0.1+
1991 10 17	675	0.1+	0.6-	1998 09 14	704	0.7-	0.1-	1998 12 08	704	1.5-	0.1+
1991 10 29	400	0.7+	2.0-	1998 09 14	704	0.2+	1.4-	1998 12 08	704	0.3+	0.1+
1991 10 29	400	(3.3-	3.1-)	1998 09 14	704	1.0+	0.5+	2000 01 04	704	0.6+	0.3+
1991 10 31	400	(2.7+	3.6+)	1998 09 18	704	0.3-	1.7+	2000 01 04	704	0.5+	0.4+
1991 10 31	400	0.2+	0.0	1998 09 18	704	0.6-	0.2+	2000 01 04	704	0.6-	1.0-
1991 11 02	400	0.5+	0.2+	1998 09 18	704	0.8-	1.3+	2000 01 04	704	0.3+	0.1-
1991 11 02	400	1.1+	0.9+	1998 09 18	704	1.3+	0.7+	2000 01 06	699	0.4-	0.5+
1991 11 05	095	0.0	0.6+	1998 09 18	704	0.7-	0.8+	2000 01 06	699	0.8+	0.7+
1991 11 05	095	(6.5-	3.8-)	1998 09 27	704	0.0	0.3+	2000 01 06	699	0.4-	0.3-
1991 11 07	691	0.7+	0.1-	1998 09 27	704	0.6+	1.1+	2000 01 08	704	0.2+	0.5+
1991 11 07	691	0.6+	0.4-	1998 09 27	704	1.2-	0.7+	2000 01 08	704	0.3-	0.2-
1991 11 07	691	0.3+	0.3-	1998 09 27	704	1.0-	1.3+	2000 01 08	704	0.1-	0.1+
1996 01 18	399	1.8-	0.9+	1998 09 27	704	0.2-	1.0+	2000 01 08	704	0.6-	0.2+
1996 01 18	399	1.3-	1.1+	1998 10 10	699	0.1+	0.6-	2000 01 08	704	0.1-	0.2+
1996 01 21	399	0.4-	0.0	1998 10 10	699	0.5+	0.1+	2000 02 06	704	1.9+	0.3+
1996 01 21	399	0.3+	1.0-	1998 10 10	699	0.1+	0.3-	2000 02 06	704	1.3+	0.7+
1998 08 23	704	0.6-	0.9-	1998 10 13	704	1.1+	0.8+	2000 02 06	704	0.7+	0.7+
1998 08 23	704	1.4-	1.3-	1998 10 13	704	1.1-	0.9+	2000 02 06	704	0.1-	0.6-
1998 08 23	704	0.6+	0.0	1998 10 13	704	0.4+	0.8-	2000 02 11	704	0.9+	0.3+
1998 08 23	704	1.4-	1.3-	1998 10 13	704	0.0	0.1+	2000 02 11	704	0.2+	0.0
1998 08 23	704	(0.1+	2.9-)	1998 10 24	747	0.1+	0.2+	2000 02 11	704	1.0+	1.2+
1998 08 26	809	(4.2+	3.4+)	1998 10 24	747	0.1-	0.2+	2000 02 11	704	0.1-	1.4+
1998 08 26	809	(4.4+	3.1+)	1998 10 24	747	0.2+	0.4+	2000 02 16	703	0.0	0.5+
1998 08 26	809	(3.8+	3.2+)	1998 10 26	747	0.3+	0.3+	2000 02 16	703	0.1+	0.2-
1998 08 27	809	(2.7+	3.6+)	1998 10 26	747	0.2+	0.3+	2000 02 16	703	0.2+	0.4-
1998 08 27	809	(2.7+	4.0+)	1998 10 26	747	0.3+	0.3+	2000 02 16	703	0.3-	1.0+
1998 08 27	809	(3.4+	5.1+)	1998 12 08	704	0.1-	1.8+				

(13541)* 1991 VP₃ = 1978 EQ₃ = 1998 QP₁₀₇ = 1998 SR₂₃

Discovered 1991 Nov. 4 by S. Ueda and H. Kaneda at Kushiro.

Id. A. Doppler (*MPC* 33229; d, *MPC* 35287)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	21.91616		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.27065730	ω	81.07257	-0.64633697	-0.75585098
<i>a</i>	2.3669525	Ω	49.72975	+0.63511307	-0.60885953
<i>e</i>	0.0899547	<i>i</i>	7.87826	+0.42294198	-0.24078905
<i>P</i>	3.64	<i>H</i>	13.9	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1978 03 06	095	1.1-	2.1-	1998 09 14	704	1.2+	0.1-	1999 12 17	699	1.0-	0.7+
1991 10 17	675	0.5-	0.2-	1998 09 14	704	0.4+	0.2-	2000 01 10	699	0.3-	0.3+
1991 10 31	399	(6.5+	6.2-)	1998 09 14	704	0.6-	0.4-	2000 01 10	699	0.2+	0.5-
1991 10 31	399	(3.6+	4.7-)	1998 09 17	699	0.7-	0.3+	2000 01 10	699	0.0	0.5+
1991 11 04	691	0.5+	0.2-	1998 09 17	699	0.4-	1.0+	2000 02 03	704	0.0	0.2+
1991 11 04	691	0.5+	0.1-	1998 09 17	699	0.2-	0.0	2000 02 03	704	0.2+	0.1-
1991 11 04	691	0.5+	0.2+	1998 09 18	704	1.0-	0.1-	2000 02 03	704	0.0	0.4+
1991 11 04	399	0.7-	1.6-	1998 09 18	704	0.9+	0.8+	2000 02 03	704	0.1+	0.4+
1991 11 04	399	1.2+	0.2+	1998 09 18	704	0.6+	0.9+	2000 02 03	704	0.0	0.4+
1991 11 09	399	(2.1-	1.4-)	1998 09 18	704	0.9-	0.2+	2000 02 06	703	0.0	0.0
1991 11 09	399	1.5+	0.5+	1998 09 18	704	0.5+	0.9+	2000 02 06	703	0.2+	0.1-
1998 08 28	704	0.3-	1.1+	1998 09 24	699	0.5-	0.3-	2000 02 06	703	0.2+	0.0
1998 08 28	704	1.2-	1.3-	1998 09 24	699	0.5-	0.1+	2000 02 06	703	0.0	0.1-
1998 08 28	704	1.8-	0.9+	1998 09 24	699	0.7-	0.4+	2000 02 14	704	0.7+	0.1+
1998 08 28	704	0.2-	0.7+	1999 11 17	703	0.4+	0.8+	2000 02 14	704	1.1+	0.3+
1998 08 28	704	(3.3-	0.6+)	1999 11 17	703	0.4-	0.4-	2000 02 14	704	1.1+	0.1+
1998 08 31	704	0.3+	1.2+	1999 11 17	703	0.8-	0.1-	2000 02 14	704	1.1+	0.6+
1998 08 31	704	0.2+	1.0-	1999 11 17	703	0.4-	0.3-	2000 02 14	704	0.4+	0.2+

1998 08 31	704	0.4+	0.8-	1999 12 17	699	1.1-	1.4+
1998 08 31	704	0.1+	0.8-	1999 12 17	699	0.8-	0.9+

(13542)* 1991 VC₅ = 1973 UO₂ = 1984 YJ

Discovered 1991 Nov. 10 by S. Otomo at Kiyosato.

Id. G. V. Williams (*MPC* 30273)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	76.40633		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.27183590	ω	24.42344	+0.23454474	-0.96637602
<i>a</i>	2.3601060	Ω	52.18379	+0.86851128	+0.15961782
<i>e</i>	0.0955928	<i>i</i>	7.66627	+0.43666568	+0.20159252
<i>P</i>	3.63	<i>H</i>	13.4	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1973 10 27	095	0.6+	1.6-	1998 10 14	704	0.5+	0.7+	1998 12 08	704	1.1+	1.4+
1984 12 23	046	0.2-	1.3-	1998 10 14	704	0.7+	1.1-	1998 12 16	699	0.7+	0.2-
1984 12 23	046	1.0+	1.5-	1998 10 14	704	0.2+	0.3-	1998 12 16	699	0.3-	0.2-
1991 10 17	675	0.5+	0.1+	1998 10 14	704	(2.2+	1.2-)	1998 12 16	699	0.3+	0.6-
1991 11 04	691	0.0	0.8+	1998 10 14	704	0.8+	0.3-	2000 01 07	704	0.4-	0.3-
1991 11 04	691	0.1+	0.7+	1998 10 14	704	1.6+	1.2-	2000 01 07	704	0.3-	0.0
1991 11 04	691	0.6-	0.5+	1998 10 14	704	0.0	0.2-	2000 01 07	704	0.7-	0.1+
1991 11 09	399	1.6-	0.9-	1998 10 15	704	0.1-	0.3-	2000 01 07	704	0.3-	0.2+
1991 11 09	399	0.4+	0.2-	1998 10 15	704	0.6-	1.1+	2000 01 07	704	0.3+	0.0
1991 11 10	894	1.6-	1.2+	1998 10 15	704	0.9-	0.1-	2000 02 01	703	0.2+	0.3+
1991 11 10	894	(0.9-	2.3+)	1998 10 15	704	0.1+	0.0	2000 02 01	703	0.2-	0.2+
1991 11 11	894	0.1-	0.3+	1998 10 15	704	0.1-	0.3-	2000 02 01	703	0.1-	0.1+
1991 11 11	894	0.7+	0.0	1998 10 15	704	0.3+	0.3-	2000 02 01	703	0.2+	0.1+
1991 11 12	894	0.9-	0.7+	1998 10 15	704	0.8-	0.2+	2000 02 04	704	0.8+	0.2-
1991 11 12	894	0.2+	0.1+	1998 10 15	704	0.2+	0.7+	2000 02 04	704	0.7+	1.0+
1998 09 21	704	1.4-	0.1-	1998 10 15	704	1.9-	1.0-	2000 02 04	704	0.5+	0.2+
1998 09 21	704	1.4-	0.0	1998 10 15	704	0.6-	1.1+	2000 02 04	704	1.3+	1.1+
1998 09 21	704	1.1-	0.9+	1998 11 07	689	0.2+	0.4+	2000 02 04	704	0.7-	1.5+
1998 09 21	704	0.4-	0.6-	1998 12 08	704	1.0+	0.7+	2000 02 14	704	0.0	0.4-
1998 10 14	704	0.1+	0.1-	1998 12 08	704	1.1+	1.4+	2000 02 14	704	0.0	0.0
1998 10 14	704	0.5+	0.4+	1998 12 08	704	(1.1+	2.0+)	2000 02 14	704	0.1+	0.0
1998 10 14	704	0.9+	0.2-	1998 12 08	704	1.2+	0.1-	2000 02 14	704	0.3+	0.3-

(13543)* 1992 AO₂ = 1993 ON₁₁

Discovered 1992 Jan. 2 by Spacewatch at Kitt Peak.

Id. S. Harada (*MPC* 23783)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	348.36013		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.25880025	ω	72.27056	-0.97421597	+0.18344524
<i>a</i>	2.4387068	Ω	118.12543	-0.21739259	-0.91899210
<i>e</i>	0.1420505	<i>i</i>	8.56488	+0.06036319	-0.34900052
<i>P</i>	3.81	<i>H</i>	13.7	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1992 01 02	691	0.1+	0.2+	1995 11 05	327	0.5-	0.0	2000 01 08	704	0.3+	0.2+
1992 01 02	691	0.1+	0.1+	1995 11 05	327	0.5-	0.2-	2000 01 08	704	0.1+	0.5+
1992 01 02	691	0.1+	0.0	1995 11 05	327	0.1-	0.4-	2000 01 08	704	0.1-	0.0
1992 01 09	691	0.3+	0.0	1998 10 18	809	(1.3+	3.3+)	2000 01 08	704	0.5-	0.3+
1992 01 09	691	0.3+	0.1-	1998 10 18	809	(0.3+	2.8+)	2000 02 05	704	0.4-	0.5+
1992 01 09	691	0.1-	0.4+	1998 10 18	809	0.8-	1.9+	2000 02 05	704	0.1+	0.1+
1992 01 11	303	0.8-	0.9+	1998 10 19	809	(1.6+	4.0+)	2000 02 05	704	0.4-	0.3+
1992 01 12	303	1.2+	0.1+	1998 10 19	809	(1.8+	2.9+)	2000 02 05	704	0.5+	0.8+
1992 02 04	675	0.2+	0.5-	1998 10 19	809	(1.9+	3.6+)	2000 02 06	704	0.2-	0.2+
1992 02 04	675	0.2+	1.8-	1998 11 19	699	0.3-	0.6+	2000 02 06	704	0.4-	0.1+
1992 05 02	691	0.5-	0.2+	1998 11 19	699	0.5+	0.8-	2000 02 06	704	0.4-	0.2-
1992 05 02	691	0.6-	0.1+	1998 11 19	699	0.7-	0.2+	2000 02 06	704	0.9-	0.2+
1992 05 02	691	0.6-	0.1+	1998 12 14	699	(2.9-	1.8+)	2000 02 06	704	0.0	0.5+
1993 07 12	809	(0.9+	3.3+)	1998 12 14	699	1.2-	1.7+	2000 02 14	704	0.9+	1.0-
1993 07 12	809	(1.3+	3.7+)	1998 12 14	699	1.4+	0.5-	2000 02 14	704	0.9+	0.2-
1993 07 12	809	(0.8+	3.4+)	1999 11 10	703	0.3-	0.9+	2000 02 14	704	0.3+	0.1-
1993 07 12	809	(0.7+	2.4+)	1999 11 10	703	0.0	0.7+	2000 02 14	704	1.2+	0.2-

1993 07 19 809 0.5− 1.7+ 1999 11 10 703 1.0+ 1.3+ 2000 02 14 704 0.3+ 1.0+
 1993 07 19 809 0.3+ 0.9+ 1999 11 10 703 0.8− 1.2−

(13544)* 1992 DU₅ = 1990 TX₂ = 1996 CH₈

Discovered 1992 Feb. 29 at the European Southern Observatory in the course of the Uppsala-ESO Survey of Asteroids and Comets.

Id. G. V. Williams (*MPC* 27105)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	96.20902		(2000.0)		P		Q
n	0.23764370	ω	233.72323		+0.92015980		−0.38038891
a	2.5813794	Ω	148.33189		+0.39128039		+0.88466831
e	0.2164477	i	10.18028		+0.01433865		+0.26956681
P	4.15	H	14.0	G	0.15	U	1

Residuals in seconds of arc

1990 10 14	675	0.4+	0.3−	1998 08 19	566	0.1−	0.2+	2000 01 05	704	1.2−	1.3−
1990 10 14	675	0.0	0.4−	1998 08 19	566	0.4−	0.3+	2000 01 05	704	0.4+	0.2−
1990 10 16	675	0.1+	0.0	1998 08 19	566	0.6−	0.2+	2000 01 05	704	0.2+	0.8−
1990 10 16	675	0.3−	0.6+	1998 08 23	704	0.1+	0.4−	2000 01 05	704	0.5−	0.5+
1992 02 29	809	0.4+	0.8+	1998 08 23	699	0.1+	0.8+	2000 01 07	704	0.2−	0.3−
1992 03 03	809	1.4−	0.9+	1998 08 23	704	0.7+	0.2+	2000 01 07	704	0.7−	0.2−
1992 03 07	809	0.1−	0.1+	1998 08 23	704	0.5−	1.0+	2000 01 07	704	0.9−	0.4−
1996 02 10	327	0.3−	0.5+	1998 08 23	699	0.1+	0.9+	2000 01 07	704	0.1+	0.1−
1996 02 10	327	0.2+	0.1−	1998 08 23	704	0.5−	0.1+	2000 01 07	704	0.2+	0.1+
1996 02 10	327	0.1−	0.2+	1998 08 23	704	0.3−	0.4−	2000 01 30	703	0.5−	0.3+
1996 02 10	327	1.2+	0.5−	1998 08 23	699	0.2+	1.3+	2000 01 30	703	0.4+	0.3+
1996 02 12	327	0.7+	0.3−	1998 09 14	704	0.1+	0.5−	2000 01 30	703	0.5+	0.7+
1996 02 12	327	0.2+	0.1−	1998 09 14	704	0.1+	1.1+	2000 01 30	703	0.1+	0.4+
1996 02 12	327	0.0	0.0	1998 09 14	704	(2.5+	2.1−)	2000 02 02	704	0.7+	0.6+
1996 02 15	691	0.0	0.2+	1998 09 14	704	0.0	0.6+	2000 02 02	704	0.4+	0.6+
1996 02 15	691	0.3−	0.0	1998 09 14	704	0.6+	0.6+	2000 02 02	704	0.4+	0.5+
1996 02 15	691	0.1−	0.0	1998 09 18	704	0.3+	0.2−	2000 02 02	704	0.5+	0.6+
1998 06 30	699	0.6+	0.7−	1998 09 18	704	1.3+	1.0−	2000 02 02	704	0.4+	0.8+
1998 06 30	699	0.1+	0.6−	1998 09 18	704	1.8+	0.9−	2000 02 04	704	0.0	0.2+
1998 06 30	699	0.9+	0.6−	1998 09 18	704	0.4−	0.3+	2000 02 04	704	0.2+	0.3+
1998 07 26	699	(2.3+	0.2−)	1998 09 18	704	1.0−	0.3−	2000 02 04	704	0.3+	0.5+
1998 07 26	699	(2.6+	0.2−)	1998 10 17	699	0.1+	0.4−	2000 02 04	704	0.2+	0.1+
1998 07 26	699	(3.2+	0.1−)	1998 10 17	699	0.0	0.5−	2000 02 04	704	0.3−	0.1+
1998 08 17	704	0.2+	0.6+	1998 10 17	699	0.2−	0.4+	2000 02 05	106	0.7−	0.6+
1998 08 17	704	0.7−	0.0	1998 11 20	699	1.1−	0.5+	2000 02 05	106	0.6−	0.2+
1998 08 17	704	0.1+	0.7+	1998 11 20	699	0.4−	0.6−	2000 02 05	106	0.3+	0.3+
1998 08 17	704	1.0−	1.0+	1998 11 20	699	0.6−	0.9−				
1998 08 17	704	0.9−	0.9+	2000 01 05	704	0.4+	0.2−				

(13545)* 1992 DZ₅ = 2228 T-1

Discovered 1992 Feb. 29 at the European Southern Observatory in the course of the Uppsala-ESO Survey of Asteroids and Comets.

Id. G. V. Williams (*MPC* 30450)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	4.23981		(2000.0)		P		Q
n	0.23305836	ω	313.12863		−0.18479620		−0.98223474
a	2.6151278	Ω	147.47843		+0.91838770		−0.18441679
e	0.1949497	i	3.48054		+0.34987770		−0.03471824
P	4.23	H	15.4	G	0.15	U	2

Residuals in seconds of arc

1971 03 24	675	(0.5+	3.0−)	1999 12 08	704	0.3−	0.2−	2000 01 06	704	0.2+	0.2−
1971 03 25	675	0.2+	2.2−	1999 12 08	704	0.8−	0.4+	2000 01 06	704	0.1+	0.6−
1971 03 25	675	0.1+	0.0	1999 12 08	704	0.3−	0.1−	2000 01 06	704	0.5−	0.2+
1971 03 26	675	0.9−	0.8−	1999 12 08	704	0.1+	0.6−	2000 01 06	704	0.0	0.6−
1971 03 27	675	0.8−	0.6+	1999 12 08	704	0.4−	0.4−	2000 01 06	704	0.1+	0.3+
1971 04 02	675	0.4+	0.1−	1999 12 14	704	1.9+	0.4−	2000 02 02	704	0.3−	0.7+
1992 02 29	809	0.2+	0.2+	1999 12 14	704	0.7−	0.3−	2000 02 02	704	0.6−	0.0
1992 03 03	809	0.6−	0.6+	1999 12 14	704	1.0+	0.7−	2000 02 02	704	0.5+	0.8+
1992 03 07	809	0.8+	0.4+	2000 01 05	704	0.6+	0.2+	2000 02 03	704	0.8−	0.0

1992 04 06 809 0.2+ 0.2+ 2000 01 05 704 0.4+ 0.8− 2000 02 03 704 0.7− 0.4+
 1996 01 13 691 0.4+ 0.3+ 2000 01 05 704 0.1− 0.2+ 2000 02 03 704 1.4+ 0.7+
 1996 01 13 691 0.1+ 0.4+ 2000 01 05 704 0.1+ 0.2+ 2000 02 03 704 0.4− 0.2−
 1996 01 13 691 0.4− 0.1+ 2000 01 05 704 (0.1+ 2.6+)

(13546)* 1992 DF₈ = 1998 ST₄₂

Discovered 1992 Feb. 29 at the European Southern Observatory in the course of the Uppsala-ESO Survey of Asteroids and Comets.

Id. A. Gnädig (*MPC* 32927)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	120.77858		(2000.0)		P		Q
n	0.23957553	ω	172.69018		+0.97203944		−0.23020993
a	2.5674840	Ω	200.79629		+0.20830428		+0.93636030
e	0.0354073	i	7.49133		+0.10839126		+0.26501467
P	4.11	H	14.6	G	0.15	U	2

Residuals in seconds of arc

1992 02 29	809	0.6+	0.6−	1998 09 24	595	0.9−	0.3+	1998 10 19	699	0.0	1.0+
1992 03 03	809	0.4−	1.0−	1998 09 26	704	1.3+	0.9−	2000 01 08	704	0.3+	0.9−
1992 03 05	809	0.6−	0.7+	1998 09 26	704	0.0	1.2−	2000 01 08	704	(1.1−	2.4−)
1992 03 08	809	0.6−	1.1+	1998 09 26	704	0.7+	1.5−	2000 01 08	704	0.6−	0.6−
1992 04 04	691	0.2−	0.7−	1998 09 26	704	0.4+	1.1−	2000 01 11	704	1.1−	0.7−
1992 04 04	691	0.5+	0.3−	1998 09 26	704	0.3+	0.1−	2000 01 11	704	0.2−	0.4−
1992 04 04	691	0.3+	0.4−	1998 09 27	704	0.3+	0.3−	2000 01 11	704	0.3−	0.3+
1994 10 28	691	0.1+	0.6+	1998 09 27	704	0.3−	0.7−	2000 01 11	704	0.2−	0.1+
1994 10 28	691	0.2−	0.3−	1998 09 27	704	0.3+	0.7+	2000 01 11	704	0.2+	0.5−
1994 10 28	691	0.2+	0.1+	1998 09 27	704	0.6−	1.2+	2000 02 06	704	0.4+	0.6+
1998 09 14	704	0.1−	0.3−	1998 09 27	704	0.0	0.3−	2000 02 06	704	0.2−	0.2−
1998 09 14	704	1.4−	0.3−	1998 09 29	595	0.7+	1.0+	2000 02 06	704	0.0	0.6+
1998 09 14	704	1.2−	1.1−	1998 09 29	595	0.8−	0.4−	2000 02 06	704	0.2+	1.2+
1998 09 18	704	0.6+	0.2+	1998 10 14	699	0.0	1.1+	2000 02 06	704	0.1−	0.7+
1998 09 18	704	1.1+	0.9+	1998 10 14	699	0.0	0.8+	2000 02 11	704	0.3+	0.2+
1998 09 18	704	0.2−	0.1+	1998 10 14	699	1.0−	1.0+	2000 02 11	704	0.3+	0.2+
1998 09 18	704	0.1+	0.6−	1998 10 15	595	0.2−	0.1+	2000 02 11	704	0.0	0.0
1998 09 18	704	0.2+	0.5+	1998 10 15	595	0.0	1.5−	2000 02 11	704	0.4+	0.2−
1998 09 24	595	0.3+	0.0	1998 10 19	699	0.4+	0.4+	2000 02 11	704	0.6+	0.0
1998 09 24	595	0.6+	0.3+	1998 10 19	699	0.6−	0.5−				

(13547)* 1992 DJ₈ = 1994 UP₄

Discovered 1992 Feb. 29 at the European Southern Observatory in the course of the Uppsala-ESO Survey of Asteroids and Comets.

Id. G. V. Williams (*MPC* 24391)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	325.73581		(2000.0)		P		Q
n	0.24396083	ω	343.11343		−0.97278077		+0.22893661
a	2.5366233	Ω	210.19313		−0.20351717		−0.91805561
e	0.1586858	i	4.08835		−0.11080764		−0.32366948
P	4.04	H	15.2	G	0.15	U	2

Residuals in seconds of arc

1992 02 28	675	1.4−	0.1−	1998 10 12	691	0.5−	0.0	2000 01 12	561	0.1−	0.2+
1992 02 28	675	1.2+	1.7−	1998 10 12	691	0.5−	0.1−	2000 01 12	561	0.3−	0.3+
1992 02 29	809	0.3+	0.3−	1998 10 18	691	0.6−	0.1−	2000 01 12	561	0.3−	0.3+
1992 03 03	809	0.3+	0.7−	1998 10 18	691	0.0	0.3+	2000 01 12	561	0.4−	0.4+
1992 03 05	809	0.3−	0.0	1998 10 18	691	0.6−	0.3−	2000 02 02	704	0.5+	0.6+
1992 03 08	809	1.2−	0.1+	1999 01 15	691	1.0+	0.7−	2000 02 02	704	0.2+	0.3+
1994 10 26	691	0.2+	0.2−	1999 01 15	691	0.1+	0.2+	2000 02 02	704	0.3+	0.0
1994 10 26	691	0.4+	0.0	1999 01 15	691	1.1+	0.1−	2000 02 02	704	0.6−	1.1+
1994 10 26	691	0.4+	0.1−	2000 01 08	704	0.5+	0.7+	2000 02 02	704	0.6+	0.4+
1994 11 01	691	0.0	0.0	2000 01 08	704	0.1−	0.2+	2000 02 06	704	0.4−	0.7+
1994 11 01	691	0.2−	0.1−	2000 01 08	704	0.5+	1.9−	2000 02 06	704	0.2+	1.0+
1994 11 01	691	0.1−	0.1−	2000 01 08	704	0.0	0.8−	2000 02 06	704	0.1−	0.0
1997 08 01	688	0.2+	0.0	2000 01 12	561	0.2−	0.4+	2000 02 06	704	0.1+	1.8−
1997 08 01	688	0.0	0.3−	2000 01 12	561	0.6−	0.4+	2000 02 06	704	0.9+	0.3−

2000 FEB. 22

M.P.C. 38329

(13548)* 1992 ER₁

Discovered 1992 Mar. 8 by S. Ueda and H. Kaneda at Kushiro.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

<i>M</i>	319.75417		(2000.0)	P		Q	
<i>n</i>	0.22310534	ω	353.84343	−0.70394460	−0.69671028		
<i>a</i>	2.6923369	Ω	140.76913	+0.66060363	−0.71364201		
<i>e</i>	0.1477394	<i>i</i>	12.60765	+0.26089241	−0.07286887		
<i>P</i>	4.42	<i>H</i>	13.3	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1992 03 08	399	(3.0+ 0.4+)	1999 10 09	704	0.3+ 0.5−	2000 01 10	699	0.0 0.2+
1992 03 08	399	1.3+ 0.5+	1999 10 09	704	0.5+ 0.2−	2000 01 10	699	0.3+ 0.4+
1992 03 22	372	0.4+ 1.4−	1999 10 09	704	0.8+ 0.6−	2000 01 10	699	0.1+ 0.4+
1992 03 22	372	0.9− 0.2−	1999 10 09	704	0.1+ 0.5−	2000 01 11	704	0.1− 0.0
1992 04 02	372	(0.1+ 2.9−)	1999 12 03	704	0.3− 1.2−	2000 01 11	704	0.3− 0.3+
1992 04 02	372	1.3− 0.6−	1999 12 03	704	0.2− 0.5−	2000 01 11	704	0.1− 0.7+
1997 06 01	566	0.3+ 0.1−	1999 12 03	704	0.9− 1.0−	2000 01 11	704	0.2− 1.0+
1997 06 01	566	0.2− 0.3−	1999 12 03	704	0.3+ 0.4−	2000 01 11	704	0.1− 1.2+
1997 06 01	566	0.5− 0.2−	1999 12 03	704	0.5− 0.9−	2000 02 05	704	0.0 0.7+
1998 08 17	704	0.2− 0.1+	1999 12 08	699	0.4− 1.6+	2000 02 05	704	0.7+ 0.5+
1998 08 17	704	0.2− 0.1+	1999 12 08	699	1.0+ 0.6+	2000 02 05	704	(1.3− 2.7+)
1998 08 17	704	0.1+ 0.5+	1999 12 08	699	0.2− 0.1+	2000 02 06	704	0.3+ 0.2+
1998 08 17	704	1.0− 0.8+	1999 12 16	704	0.2− 0.4−	2000 02 06	704	0.3+ 0.5+
1998 08 17	704	0.8+ 1.3−	1999 12 16	704	0.1− 0.6−	2000 02 06	704	0.4+ 0.1+
1998 08 27	699	0.8+ 1.2+	1999 12 16	704	0.3− 0.3−	2000 02 08	704	0.4+ 1.6−
1998 08 27	699	0.8+ 0.7+	1999 12 16	704	0.2− 0.4−	2000 02 08	704	0.1− 0.7+
1998 08 27	699	0.7+ 0.1+	1999 12 16	704	0.8− 0.5−	2000 02 08	704	0.6+ 1.2+
1998 09 24	699	0.1− 0.3+	2000 01 08	704	0.2+ 0.2−	2000 02 08	704	0.6+ 0.1+
1998 09 24	699	0.3− 2.0−	2000 01 08	704	0.1− 0.3−	2000 02 08	704	(0.1+ 3.4+)
1998 09 24	699	0.8− 0.7−	2000 01 08	704	0.4− 0.3−			
1999 10 09	704	0.5+ 0.1−	2000 01 08	704	0.9− 0.6−			

(13549)* 1992 EW₇ = 1982 VG₈ = 1989 ND

Discovered 1992 Mar. 2 at the European Southern Observatory in the course of the Uppsala-ESO Survey of Asteroids and Comets.

Id. G. V. Williams (*MPC* 23862; d, *MPC* 34496), A. Doppler (d, *MPC* 34496)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	258.03474		(2000.0)	P		Q	
<i>n</i>	0.25335233	ω	52.87058	+0.38078735	+0.92449142		
<i>a</i>	2.4735429	Ω	239.52096	−0.85477465	+0.34460254		
<i>e</i>	0.1612531	<i>i</i>	1.18303	−0.35264896	+0.16298680		
<i>P</i>	3.89	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1982 11 09	095	0.5+ 0.9+	1997 08 25	367	0.4+ 0.4+	1998 12 17	704	0.4+ 0.2−
1989 07 01	675	(2.2+ 2.6−)	1997 08 25	629	0.4− 0.4−	1998 12 17	704	0.3− 0.5+
1989 07 01	675	(2.3+ 2.8−)	1997 08 26	629	1.4− 1.0+	1998 12 17	704	0.2+ 1.2−
1989 07 04	675	(4.9+ 1.5−)	1997 08 26	629	0.0 1.7−	1998 12 17	704	0.4− 0.5−
1989 07 04	675	(3.7+ 1.6−)	1998 12 15	704	(1.2− 2.8+)	1998 12 22	704	1.1− 0.3+
1992 02 04	675	0.1+ 0.4−	1998 12 15	704	0.3+ 0.3−	1998 12 22	704	1.2− 0.5+
1992 02 25	675	0.2− 0.1−	1998 12 15	704	0.2− 0.3−	1998 12 22	704	0.7− 0.1−
1992 02 25	675	0.6+ 0.3+	1998 12 15	704	0.0 0.2−	1998 12 22	704	(0.5− 2.5+)
1992 03 02	809	1.5− 0.8+	1998 12 15	704	1.1+ 0.2+	1998 12 22	704	1.4− 1.1−
1992 03 04	809	1.0− 1.3+	1998 12 16	704	0.2− 1.0+	2000 01 05	704	0.8+ 1.0−
1992 03 07	809	1.4+ 1.0−	1998 12 16	704	1.4+ 1.2−	2000 01 05	704	0.0 0.5−
1992 04 06	809	0.7− 0.0	1998 12 16	704	0.5+ 1.0+	2000 01 05	704	0.3+ 0.3−
1997 08 22	367	0.6− 0.3+	1998 12 16	704	1.0+ 1.8+	2000 01 05	704	0.3− 0.0
1997 08 22	367	0.3− 0.1+	1998 12 17	704	0.3+ 0.2−	2000 01 11	699	0.5+ 0.3+
1997 08 23	367	0.4+ 0.4+	1998 12 17	704	0.1+ 0.5−	2000 01 11	699	1.1+ 0.2−
1997 08 23	367	0.3+ 0.2+	1998 12 17	704	0.0 0.2−	2000 01 11	699	0.5+ 0.6+
1997 08 24	367	0.2+ 0.2+	1998 12 17	704	0.1− 0.1−	2000 02 08	704	0.2+ 0.9+
1997 08 24	367	0.3+ 0.1+	1998 12 17	704	0.0 0.3+	2000 02 08	704	0.1+ 0.0
1997 08 25	367	0.2+ 0.3+	1998 12 17	704	1.1− 0.0	2000 02 08	704	0.5− 0.7+
1997 08 25	367	0.1+ 0.2+	1998 12 17	704	1.1+ 0.2+	2000 02 08	704	(1.1− 2.1+)

(13550)* 1992 EX₉ = 1994 PR₃₃

Discovered 1992 Mar. 2 at the European Southern Observatory in the course of the Uppsala-ESO Survey of Asteroids and Comets.

Id. B. G. Marsden (*MPC* 24566)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Marsden

<i>M</i>	45.78836		(2000.0)	P		Q	
<i>n</i>	0.23729905	ω	240.81825	+0.45968827	−0.88807796		
<i>a</i>	2.5838783	Ω	181.81852	+0.83566879	+0.43334240		
<i>e</i>	0.1903566	<i>i</i>	3.71957	+0.30057341	+0.15340111		
<i>P</i>	4.15	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1992 02 25	675	1.3+ 0.5−	1999 10 10	704	0.4+ 0.1+	2000 01 05	704	0.4+ 0.6+
1992 02 25	675	0.0 0.8−	1999 10 10	704	0.3− 0.1+	2000 01 05	704	0.2+ 0.0
1992 03 02	809	0.3− 0.3+	1999 10 10	704	0.2− 0.4+	2000 01 05	704	0.2+ 0.2+
1992 03 04	809	1.0+ 0.1−	1999 10 21	704	0.4+ 0.7−	2000 01 05	704	0.4+ 0.5−
1992 03 07	809	1.5− 0.9+	1999 10 21	704	0.2− 0.3−	2000 01 05	704	0.4− 0.6−
1994 08 10	809	0.8+ 1.7+	1999 10 21	704	0.5− 0.3−	2000 01 05	127	0.5− 0.7+
1994 08 10	809	0.2+ 1.3+	1999 10 21	704	0.7− 0.2+	2000 01 05	127	0.3− 0.5+
1994 08 10	809	0.2+ 1.1+	1999 10 21	704	0.2+ 0.4−	2000 01 11	127	0.3+ 0.1−
1994 08 11	809	0.5− 0.6−	1999 11 17	704	0.2+ 0.1−	2000 01 11	127	0.2+ 0.0
1994 08 11	809	0.5− 0.9−	1999 11 17	704	0.3+ 0.7+	2000 02 02	704	0.2+ 0.1+
1994 08 11	809	1.4− 1.5−	1999 11 17	704	0.1− 0.0	2000 02 02	704	0.2+ 0.3+
1997 05 04	809	0.2− 0.1+	1999 11 17	704	0.4− 0.1+	2000 02 02	704	0.3+ 0.2+
1997 05 04	809	0.2− 0.6−	1999 11 17	704	0.0 0.3+	2000 02 02	704	0.6+ 1.2−
1997 05 04	809	0.9− 0.0	1999 12 14	704	0.1+ 0.1−	2000 02 02	704	0.0 0.3−
1998 08 17	704	0.6+ 1.0−	1999 12 14	704	0.4− 0.7−	2000 02 03	704	0.4− 0.1+
1998 08 17	704	0.3+ 0.5+	1999 12 14	704	(0.9+ 2.1−)	2000 02 03	704	0.1− 0.3+
1998 08 17	704	(1.1+ 2.1−)	1999 12 14	704	0.2− 1.3−	2000 02 03	704	0.3− 0.2+
1998 08 17	704	0.9− 0.5−	1999 12 14	704	0.9− 1.0−	2000 02 03	704	0.4− 0.0
1998 08 17	704	1.9+ 0.3−	1999 12 31	699	1.2+ 0.2+	2000 02 03	704	0.2− 0.4+
1999 10 10	704	1.4− 0.2+	1999 12 31	699	0.5+ 0.5+			
1999 10 10	704	0.2− 0.3−	1999 12 31	699	0.4+ 0.5+			

(13551)* 1992 FL₁

Discovered 1992 Mar. 26 by R. H. McNaught at Siding Spring.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	347.61459		(2000.0)	P		Q	
<i>n</i>	0.24518688	ω	237.87192	−0.96144590	+0.26787958		
<i>a</i>	2.5281601	Ω	317.57550	−0.21090353	−0.86331881		
<i>e</i>	0.4217613	<i>i</i>	5.28573	−0.17646951	−0.42769284		
<i>P</i>	4.02	<i>H</i>	16.1	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1988 05 15	675	0.3−	2.3+	1996 03 09	711	0.1+	0.3+	1996 06 25	711	0.1−	1.3+
1992 03 26	413	0.1−	0.4−	1996 03 09	711	0.0	0.4+	1996 06 25	711	0.3−	1.5+
1992 03 26	413	(0.4−	4.4+)	1996 03 10	711	0.0	0.5+	1998 11 11	709	1.8+	0.5−
1992 03 28	413	1.0−	0.2+	1996 03 10	711	0.0	0.6+	1998 11 11	709	1.6−	0.1−
1992 04 03	413	0.8−	0.1+	1996 03 13	360	0.2−	0.5+	1998 11 11	709	1.8+	1.0−
1992 04 06	413	0.9−	0.4−	1996 03 13	360	0.3−	0.4+	1998 11 14	709	(2.3+	0.5−)
1992 04 12	413	0.4−	0.2+	1996 03 13	360	0.5−	0.5+	1998 11 14	709	1.2+	0.8−
1992 04 22	413	0.2+	0.5−	1996 03 17	801	0.5−	0.6+	1998 11 14	709	(0.5−	2.0−)
1992 04 22	413	0.4+	0.5−	1996 03 17	801	0.5−	0.9−	1998 11 14	709	(2.6+	0.9−)
1992 04 22	413	0.1+	0.4−	1996 03 20	608	0.2+	0.8+	1998 11 15	709	0.5−	0.8−
1992 04 22	413	0.1+	0.6−	1996 03 20	608	0.3+	0.9+	1998 11 15	709	1.5+	1.4−
1992 04 23	413	0.1+	0.2−	1996 03 24	801	0.1−	0.0	1998 11 15	709	0.7−	0.9−
1992 04 23	413	0.4−	0.3−	1996 03 24	801	0.2−	0.0	1998 11 16	709	0.8+	0.7−
1992 05 03	413	0.6+	0.0	1996 03 24	608	0.0	0.1+	1998 11 16	709	0.3−	1.1−
1992 05 24	413	0.5+	0.6+	1996 03 24	608	0.1−	0.1+	1998 11 16	709	0.0	1.3−
1992 05 24	413	0.5+	0.6+	1996 03 27	413	0.3−	0.3−	1998 11 16	709	0.7+	0.6−
1992 06 19	413	0.2−	0.3−	1996 03 27	413	0.3−	0.2−	1998 11 16	709	0.3−	0.8−
1992 06 19	413	0.1−	0.4−	1996 03 31	608	0.2+	0.0	1998 11 16	709	0.3−	0.1−
1992 07 05	413	0.6+	0.4+	1996 03 31	608	0.2+	0.0	2000 01 11	711	(2.1+	1.1−)
1992 07 05	413	0.7+	0.5+	1996 04 06	608	0.2−	0.4−	2000 01 11	711	1.9+	1.0−
1992 08 22	413	(2.1−	0.2+)	1996 04 06	608	0.1−	0.3−	2000 01 28	118	0.0	0.4+

M.P.C. 38330

2000 FEB. 22

1992 08 22	413	1.6-	0.2+	1996 04 07	608	0.8+	0.5-	2000 01 28	118	0.5-	0.2-
1995 12 08	413	0.1+	0.3-	1996 04 07	608	0.7+	0.5-	2000 02 02	704	0.2+	0.7+
1995 12 08	413	0.6+	0.1+	1996 04 11	360	0.0	0.6-	2000 02 02	704	0.1-	0.3+
1996 01 03	413	0.1-	0.8-	1996 04 11	360	0.2-	0.8-	2000 02 02	704	0.1+	0.1+
1996 01 03	413	0.5-	0.4-	1996 04 11	360	0.1-	0.7-	2000 02 02	704	0.8+	0.2-
1996 01 16	118	0.1+	0.5-	1996 04 14	587	0.4+	0.5-	2000 02 02	704	0.2-	0.3-
1996 01 16	118	0.5+	0.6-	1996 04 14	587	0.5+	0.5-	2000 02 04	422	0.4-	0.3-
1996 01 20	711	0.7-	0.6-	1996 04 21	540	0.1-	0.6-	2000 02 04	422	0.3-	0.3-
1996 01 20	711	0.8-	0.8-	1996 04 21	540	0.1+	0.7-	2000 02 04	422	0.1-	0.2-
1996 01 21	711	1.0-	0.9-	1996 04 21	540	0.2-	0.7-	2000 02 05	704	0.2+	1.3+
1996 01 21	711	0.9-	1.0-	1996 04 21	046	0.5-	0.5-	2000 02 05	704	0.0	0.1+
1996 01 26	413	0.2-	0.2+	1996 04 21	046	0.1+	0.3-	2000 02 05	704	0.5+	0.4-
1996 01 26	413	0.1-	0.2+	1996 04 21	046	0.4+	0.5-	2000 02 06	704	0.4-	0.2+
1996 02 01	118	0.2+	0.4-	1996 05 12	360	1.1-	0.8-	2000 02 06	704	0.1-	0.3+
1996 02 01	118	0.3+	0.4-	1996 05 12	360	0.8-	1.0-	2000 02 06	704	0.4-	0.3+
1996 02 12	711	0.2+	0.2+	1996 05 12	360	1.0-	0.8-	2000 02 06	704	0.2-	0.6+
1996 02 12	711	0.3+	0.4+	1996 05 18	801	0.0	0.2-	2000 02 06	704	0.4-	1.1+
1996 02 15	566	0.3+	0.4+	1996 05 18	801	0.1+	0.5-	2000 02 07	704	0.9-	0.3-
1996 02 15	566	0.4+	0.3+	1996 05 22	118	0.3-	0.9-	2000 02 07	704	1.2-	0.0
1996 02 15	566	0.1+	0.3+	1996 05 22	118	0.7+	0.2-	2000 02 07	704	0.8-	0.4-
1996 02 21	360	0.7+	0.1-	1996 05 22	587	0.4-	0.4-	2000 02 07	704	0.6-	0.0
1996 02 21	360	0.5+	0.1+	1996 05 22	587	0.1-	0.8-	2000 02 08	704	0.3+	0.1-
1996 02 21	360	0.4+	0.1+	1996 05 27	711	0.2-	0.4-	2000 02 08	704	0.3+	0.1-
1996 02 26	413	0.2+	0.2+	1996 05 27	711	0.1-	0.4-	2000 02 08	704	0.2+	0.1-
1996 02 26	413	0.2+	0.1+	1996 05 28	711	0.8-	0.4-	2000 02 08	704	0.3+	0.3+
1996 02 27	413	0.2+	0.1+	1996 05 28	711	1.1-	0.3-	2000 02 08	704	0.0	0.5+
1996 02 27	413	0.3+	0.2+	1996 05 28	413	0.1-	0.3-	2000 02 08	704	0.1-	0.1+
1996 02 28	595	1.0-	0.4+	1996 05 28	413	0.1-	0.3-	2000 02 08	704	0.3+	0.1-
1996 02 28	595	0.8+	1.3+	1996 06 08	413	0.2-	0.5+	2000 02 08	704	0.5+	0.4+
1996 02 29	118	0.6+	0.0	1996 06 08	413	0.0	0.4+	2000 02 08	704	0.2+	0.2+
1996 02 29	118	0.3+	0.2-	1996 06 21	711	0.1+	0.4+	2000 02 08	704	0.7+	0.7+
1996 03 03	104	0.3+	0.5-	1996 06 21	711	0.3-	0.6+	2000 02 13	704	0.5+	0.1+
1996 03 03	104	1.6+	0.1+	1996 06 21	413	0.5+	0.7+	2000 02 13	704	0.1-	0.5+
1996 03 03	104	(2.0+	0.0)	1996 06 21	413	0.5+	0.8+	2000 02 13	704	0.8-	0.0

(13552)* 1992 GA

Discovered 1992 Apr. 4 by A. C. Gilmore and P. M. Kilmartin at the Mount John Observatory.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	306.89021		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.23045118	ω	248.06022	-0.93628525	+0.31517886
<i>a</i>	2.6348148	Ω	309.95447	-0.19783080	-0.83789947
<i>e</i>	0.1197570	<i>i</i>	11.66761	-0.29022906	-0.44563075
<i>P</i>	4.28	<i>H</i>	13.5	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1992 04 04	474	(0.4+	2.1+)	1998 10 02	699	0.4+	0.1-	2000 01 06	704	0.3-	0.4-
1992 04 04	474	(0.4-	3.3+)	1998 10 18	704	0.1-	0.1-	2000 01 30	704	0.1-	0.5+
1992 04 05	474	0.4-	1.2+	1998 10 18	704	0.4-	0.6-	2000 01 30	704	0.3+	0.6+
1992 04 05	474	0.3-	1.3+	1998 10 18	704	1.1+	0.7-	2000 01 30	704	0.2+	0.3+
1992 04 09	413	0.0	0.2-	1998 10 18	704	0.1+	0.2-	2000 01 30	704	0.3-	0.4+
1992 04 09	413	0.1-	0.7-	1998 10 18	704	0.7-	0.4+	2000 01 30	704	0.6-	0.6+
1992 04 09	474	1.1+	0.3-	1998 10 29	699	0.3+	0.6+	2000 02 03	704	0.4-	0.6+
1992 04 09	474	1.1+	0.6+	1998 10 29	699	0.1+	0.5+	2000 02 03	704	0.5+	0.0
1992 04 10	413	1.1-	0.0	1998 10 29	699	0.9-	1.2+	2000 02 03	704	0.7+	0.4-
1992 04 11	413	0.5-	0.8-	1999 10 13	704	0.1+	0.2+	2000 02 03	704	0.9+	0.2-
1992 05 02	474	0.2+	0.3+	1999 10 13	704	0.4+	0.3-	2000 02 05	704	1.4-	0.1+
1992 05 02	474	1.1+	0.6-	1999 10 13	704	0.4+	0.3-	2000 02 05	691	0.7-	0.9-
1992 06 22	474	(0.9-	2.1+)	1999 10 13	704	0.9+	0.4-	2000 02 05	691	0.5-	0.9-
1992 06 22	474	1.7-	1.5+	1999 11 11	703	0.2-	0.6+	2000 02 05	704	0.2-	0.1-
1992 10 14	413	0.4+	0.7+	1999 11 11	703	0.1+	0.8+	2000 02 05	691	0.6-	0.9-
1992 10 14	413	1.3+	0.5+	1999 11 11	703	0.9+	1.0+	2000 02 05	704	0.5+	0.0
1993 09 16	691	0.3+	0.0	1999 11 11	703	0.2+	0.2+	2000 02 05	704	0.3-	0.6-
1993 09 16	691	0.4+	0.0	1999 11 16	704	0.2+	0.4+	2000 02 05	704	0.4-	0.4-
1993 09 16	691	0.5-	1.0-	1999 11 16	704	0.2-	0.5+	2000 02 07	703	0.1-	0.1+
1996 02 01	120	(2.8+	2.1-)	1999 11 16	704	0.1+	0.3+	2000 02 07	703	0.3+	0.3+
1996 02 01	120	1.2+	1.6-	1999 11 16	704	0.5-	0.2-	2000 02 07	703	0.1-	0.1-

1996 02 01	120	(2.0+	2.3-)	1999 11 16	704	0.1+	0.6+	2000 02 07	703	0.2-	0.6+
1996 02 09	709	0.5-	0.3-	2000 01 04	704	0.0	0.3-	2000 02 10	691	0.1-	0.1+
1996 02 09	709	0.5-	0.3-	2000 01 04	704	0.0	0.2-	2000 02 10	691	0.1-	0.0
1996 02 09	709	0.4-	0.3-	2000 01 04	704	0.1+	0.7-	2000 02 10	691	0.2+	0.1-
1996 02 09	709	0.4-	0.3-	2000 01 04	704	0.2+	0.4-	2000 02 11	691	0.0	0.1-
1996 02 09	709	0.3-	0.2-	2000 01 04	704	0.2-	0.7-	2000 02 11	691	0.0	0.1-
1996 02 09	709	0.1-	0.2-	2000 01 05	699	0.4+	0.8+	2000 02 11	691	0.0	0.0
1998 10 02	704	0.5-	0.3-	2000 01 05	699	0.1+	0.9+	2000 02 11	704	0.1+	0.3+
1998 10 02	704	1.1+	0.4-	2000 01 05	699	1.2+	0.7+	2000 02 11	704	0.2+	0.5+
1998 10 02	704	0.0	0.4+	2000 01 06	704	0.2-	0.7-	2000 02 11	704	0.1-	0.8+
1998 10 02	704	(0.1+	2.4-)	2000 01 06	704	0.1+	0.2-	2000 02 11	704	0.3-	0.2+
1998 10 02	699	0.6-	0.4-	2000 01 06	704	0.1+	0.3-	2000 02 11	704	0.5+	0.5-
1998 10 02	699	0.2+	0.1-	2000 01 06	704	0.1-	0.1+				

(13553)* 1992 JE

Discovered 1992 May 2 by T. Seki at Geisei.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	115.81606		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.30429781	ω	109.47783	+0.54937714	+0.83521253
<i>a</i>	2.1891230	Ω	193.92793	-0.79982901	+0.51713079
<i>e</i>	0.4633427	<i>i</i>	5.86418	-0.24178156	+0.18707159
<i>P</i>	3.24	<i>H</i>	16.0	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1979 06 24	413	0.8+	0.7+	1992 06 25	675	0.2+	0.6-	1992 10 12	413	0.5+	0.0
1979 06 24	413	0.2-	1.6-	1992 06 25	675	0.5-	1.7-	1992 10 19	372	1.5+	1.4+
1989 11 06	675	1.8-	0.8+	1992 06 26	675	0.9+	1.4-	1992 10 27	372	0.4-	0.1+
1989 11 06	675	0.6+	0.7-	1992 06 28	801	0.3-	0.0	1992 10 27	801	0.4-	1.6-
1992 03 28	413	(2.3-	1.5-)	1992 06 28	801	0.4-	0.1-	1992 12 10	413	0.9-	0.1+
1992 05 02	675	1.1+	1.3-	1992 06 30	801	0.5-	0.8+	1992 12 10	413	0.0	0.1-
1992 05 02	675	1.4+	0.5-	1992 06 30	801	0.4-	0.4+	1995 02 01	413	0.3+	0.5+
1992 05 02	372	(0.7-	2.8+)	1992 07 04	413	0.7-	0.9+	1995 02 21	413	1.9+	0.2+
1992 05 02	372	0.8-	1.6+	1992 07 04	413	0.5-	0.9+	1995 02 21	413	0.1+	0.5+
1992 05 03	372	1.6-	0.5+	1992 07 26	801	0.4-	0.3-	1995 02 28	658	1.7+	0.1-
1992 05 03	372	1.0-	1.2+	1992 07 26	801	0.3-	0.4-	1995 02 28	658	1.3-	0.6+
1992 05 04	372	(2.1-	0.8+)	1992 07 26	658	0.0	0.3-	1995 03 01	104	0.8+	0.3-
1992 05 06	402	1.6+	1.9-	1992 07 26	658	0.7-	0.4-	1995 03 01	104	0.1+	0.2-
1992 05 06	402	0.0	1.2+	1992 07 26	658	0.0	0.8-	1995 03 01	104	0.5-	0.1+
1992 05 10	372	(2.9-	2.3+)	1992 07 28	658	0.1+	1.2+	1995 03 01	104	0.2+	0.3+
1992 05 10	372	(0.9+	3.7+)	1992 07 28	658	0.7+	1.3+	1995 03 07	413	0.3+	0.5+
1992 05 22	372	0.4-	0.8+	1992 07 28	658	0.6+	1.2+	1995 03 07	413	0.1+	0.7+
1992 05 24	413	0.5-	1.2+	1992 07 31	801	0.7+	0.2-	1995 03 21	413	0.2-	0.1-
1992 05 24	413	0.4-	1.2+	1992 07 31	801	1.0+	0.1+	1995 03 21	413	0.2-	0.1-
1992 05 26	372	0.2-	0.9+	1992 08 05	413	1.5+	0.4-	1995 06 05	413	0.3+	0.0
1992 05 26	372	(0.7-	3.6+)	1992 08 05	413	1.6+	0.1-	1995 06 05	413	0.6-	0.2+
1992 05 27	675	(1.2+	3.1-)	1992 08 21	413	0.4-	0.3+	1996 11 17	711	0.3-	0.3-
1992 05 27	675	(0.5+	3.2-)	1992 08 21	413	0.3-	0.4+	1996 11 17	711	0.9-	1.0-
1992 05 29	801	0.7-	0.4+	1992 08 22	413	0.4-	0.5+	1996 11 18	711	0.1-	0.1-
1992 05 29	801	0.7-	0.2-	1992 08 22	413	0.4-	0.4+	1996 11 18	711	0.2+	0.5-
1992 05 30	675	(0.7+	2.2-)	1992 08 25	801	0.2+	0.3-	1998 02 21	557	1.5-	0.2+
1992 05 30	675	1.3+	0.5-	1992 08 25	801	0.3-	0.0	1998 02 21	557	0.1+	0.3-
1992 06 03	801	1.1-	1.0-	1992 09 01	801	0.2+	0.3+	1999 11 03	711	1.1+	0.3-
1992 06 03	801	0.2-	0.1-	1992 09 01	801	0.1+	0.4+	1999 11 03	711	0.3+	0.9+
1992 06 03	675	1.1+	0.1-	1992 09 06	413	1.6-	0.3-	1999 11 03	711	0.5+	1.3+
1992 06 03	675	(0.0	2.1-)	1992 09 06	413	0.4-	0.2-	2000 01 08	711	0.2-	0.4-
1992 06 05	675	0.6-	1.8-	1992 10 01	801	0.5+	0.1-	2000 01 09	711	0.5+	0.4-
1992 06 05	675	0.3+	1.9-	1992 10 02	801	(1.7+	2.0-)				
1992 06 05	372	0.6+	0.0	1992 10 12	413	0.5+	0.2+				

2000 FEB. 22

M.P.C. 38331

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	202.57427	(2000.0)	P		Q	
<i>n</i>	0.21501231	ω	269.54383	+0.44132205	+0.89707669	
<i>a</i>	2.7594795	Ω	26.67917	-0.80248700	+0.40556797	
<i>e</i>	0.1599597	<i>i</i>	2.82087	-0.40155880	+0.17540818	
<i>P</i>	4.58	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>

Residuals in seconds of arc

1992 05 08	809	(0.2+ 3.1-)	1996 03 11	691	0.2- 0.3-	1998 11 24	704	0.9+ 1.7+
1992 05 08	809	(0.3+ 3.0-)	1996 03 22	566	0.2- 0.1+	1998 11 24	704	0.8- 1.6+
1992 05 08	809	(0.4+ 3.0-)	1996 03 22	566	0.5- 0.0	2000 01 04	704	0.9- 0.3+
1992 05 11	809	0.3- 0.2+	1996 03 22	566	0.8- 0.2+	2000 01 04	704	0.2+ 1.0-
1992 05 11	809	0.4- 0.2+	1998 11 10	699	0.0 0.7+	2000 01 04	704	0.3- 1.1-
1992 05 11	809	0.5- 0.3+	1998 11 10	699	1.7+ 0.7+	2000 01 06	704	0.1+ 0.7+
1992 05 12	809	0.3- 0.9-	1998 11 10	699	1.0+ 1.0+	2000 01 06	704	0.3- 0.8+
1992 05 12	809	0.4- 0.9-	1998 11 11	704	0.7+ 1.1-	2000 01 06	704	0.3+ 0.1+
1992 05 12	809	0.4- 1.0-	1998 11 11	704	1.1+ 1.2-	2000 01 06	704	0.6+ 1.0+
1992 05 13	809	0.6+ 0.6-	1998 11 18	704	0.0 0.6-	2000 02 07	703	1.1+ 1.9-
1992 05 13	809	0.6+ 0.3-	1998 11 18	704	0.7- 1.8-	2000 02 07	703	0.8- 0.1+
1992 05 13	809	0.5+ 0.2+	1998 11 18	704	0.0 1.6-	2000 02 07	703	1.0+ 0.2+
1993 10 10	809	0.5+ 0.8+	1998 11 18	704	(1.2- 2.7-)	2000 02 07	703	0.4+ 0.7-
1993 10 10	809	1.3- 0.2+	1998 11 21	704	0.2- 1.3-	2000 02 11	704	0.4+ 1.4+
1993 10 10	809	(2.2- 0.3-)	1998 11 21	704	(2.4+ 2.9-)	2000 02 11	704	0.6- 0.1-
1993 10 22	809	(2.2+ 0.2-)	1998 11 21	704	0.9- 1.7-	2000 02 11	704	0.3- 0.2+
1993 10 22	809	0.7+ 0.2-	1998 11 21	704	0.6- 0.8-	2000 02 11	704	0.2+ 1.7+
1993 10 22	809	0.4- 0.8+	1998 11 21	704	0.5- 2.0-	2000 02 11	704	0.7+ 0.4+
1996 03 11	691	0.2+ 0.2-	1998 11 24	704	0.9- 0.5+			
1996 03 11	691	0.1+ 0.2-	1998 11 24	704	0.3+ 0.0			

(13555)* 1992 JB₂ = 1970 EH₂ = 1993 RR₃

Discovered 1992 May 2 by H. Debehogne at the European Southern Observatory.

Id. G. V. Williams (*MPC* 22956, *MPC* 34498), A. Doppler (*MPC* 34498), A. Milani (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	149.33624	(2000.0)	P		Q	
<i>n</i>	0.22929077	ω	149.35775	+0.98483140	-0.12582969	
<i>a</i>	2.6436970	Ω	218.44701	+0.09246139	+0.96322193	
<i>e</i>	0.0632923	<i>i</i>	11.07798	+0.14682643	+0.23742452	
<i>P</i>	4.30	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i>

Residuals in seconds of arc

1970 03 04	805	0.5- 0.6+	1998 10 29	704	0.1+ 0.1-	1999 01 10	699	0.7+ 1.2+
1970 03 04	805	0.4+ 0.1+	1998 11 10	704	0.6+ 0.3-	1999 01 10	699	0.2- 0.4+
1970 03 04	805	0.1+ 0.5+	1998 11 10	704	0.8+ 1.1-	1999 01 10	699	0.1- 1.2+
1992 04 04	809	(0.3+ 5.3+)	1998 11 10	704	1.1+ 0.7-	1999 01 15	699	0.3- 0.5+
1992 04 04	809	(0.4- 4.6+)	1998 11 10	704	1.1+ 1.2-	1999 01 15	699	0.2- 0.0
1992 04 04	809	(0.5- 3.2+)	1998 11 10	704	1.2- 1.7-	1999 01 15	699	0.2+ 0.3+
1992 05 02	809	1.6+ 0.1+	1998 11 18	704	0.3+ 0.1-	1999 02 04	704	1.4+ 1.1-
1992 05 02	809	(2.3+ 0.1-)	1998 11 18	704	1.0+ 0.6-	1999 02 04	704	1.0- 1.4+
1992 05 02	809	(3.0+ 0.1-)	1998 11 18	704	1.4- 1.1+	1999 02 04	704	0.2- 0.6-
1992 05 03	809	0.2- 0.1+	1998 11 18	704	0.2- 1.8+	1999 02 04	704	0.3+ 2.0+
1992 05 03	809	0.1+ 0.1-	1998 11 18	704	0.4+ 1.7+	2000 01 10	704	0.4+ 0.3+
1992 05 03	809	0.6+ 0.1+	1998 11 21	704	0.3- 0.7-	2000 01 10	704	0.1+ 0.0
1993 08 21	675	0.8+ 1.1+	1998 11 21	704	0.1- 1.0-	2000 01 10	704	0.1- 1.7-
1993 08 21	675	0.9- 2.0+	1998 11 21	704	0.0 1.2-	2000 01 11	704	0.2+ 1.3+
1993 08 23	675	1.8- 1.5+	1998 11 21	704	0.8- 0.7-	2000 01 11	704	0.2- 0.1+
1993 08 23	675	(3.8- 0.0)	1998 11 21	704	0.8- 0.5-	2000 01 11	704	(0.5+ 3.2-)
1993 09 12	675	0.9- 1.4+	1998 11 23	699	0.4- 0.5+	2000 02 07	703	0.5- 0.2+
1993 09 12	675	0.3- 0.6+	1998 11 23	699	0.3- 0.6+	2000 02 07	703	0.2- 0.2+
1993 09 14	675	0.7+ 0.1-	1998 11 23	699	0.2+ 0.5+	2000 02 07	703	0.0 0.4+
1993 09 14	675	0.5- 0.1-	1998 11 24	704	0.8- 0.1+	2000 02 07	703	0.0 0.1+
1998 08 31	704	0.3- 0.3-	1998 11 24	704	0.1+ 0.6-	2000 02 07	704	0.1- 0.3+
1998 08 31	704	1.6- 0.4+	1998 11 24	704	0.4- 0.0	2000 02 07	704	0.7- 0.3-
1998 08 31	704	0.5+ 1.6-	1998 11 24	704	0.5+ 0.4+	2000 02 07	704	0.2+ 0.4+

1998 08 31	704	0.3+ 1.4-	1998 11 24	704	1.6+ 0.2-	2000 02 07	704	0.3- 0.9+
1998 08 31	704	0.1+ 1.1-	1999 01 05	732	0.2+ 0.6+	2000 02 07	704	0.6+ 1.6+
1998 10 29	704	0.2- 0.6+	1999 01 05	732	0.3+ 0.4+	2000 02 10	704	0.1+ 0.2+
1998 10 29	704	0.4+ 0.0	1999 01 05	732	0.8+ 0.8+	2000 02 10	704	0.1+ 0.2-
1998 10 29	704	0.7- 0.3+	1999 01 05	732	0.2+ 0.9+	2000 02 10	704	0.1- 0.2-
1998 10 29	704	0.7- 0.2+	1999 01 06	732	0.4- 0.6+			

(13556)* 1992 OY₇ = 1997 QX₁

Discovered 1992 July 21 by H. Debehogne and À. López G. at the European Southern Observatory.

Id. T. Urata (*MPC* 30657)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	181.04658	(2000.0)	P		Q	
<i>n</i>	0.20238816	ω	50.78799	+0.85071645	+0.50360983	
<i>a</i>	2.8730685	Ω	278.48862	-0.51686538	+0.74943757	
<i>e</i>	0.2704484	<i>i</i>	8.75416	-0.09555997	+0.42979120	
<i>P</i>	4.87	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i>

Residuals in seconds of arc

1992 07 21	809	0.9+ 0.1+	1997 08 27	905	0.0 0.8+	1999 01 21	561	0.9+ 0.3+
1992 07 21	809	1.1+ 0.0	1997 09 29	566	1.5- 0.9+	1999 12 05	703	0.3- 0.1+
1992 07 21	809	1.4+ 0.2+	1997 09 29	566	0.0 0.5+	1999 12 05	703	0.7+ 0.5+
1992 07 22	413	0.3+ 1.1-	1997 09 29	566	1.5- 0.2-	1999 12 05	703	0.4+ 1.0+
1992 07 22	413	1.1+ 0.4-	1998 12 14	704	0.6- 0.3-	1999 12 05	703	0.1- 1.0+
1992 07 23	809	0.9+ 1.6-	1998 12 14	704	0.9+ 1.0-	2000 01 08	704	0.4- 0.1+
1992 07 23	809	1.1+ 1.6-	1998 12 14	704	0.5- 0.3-	2000 01 08	704	0.1- 1.0-
1992 07 23	809	1.1+ 1.4-	1998 12 14	704	0.9+ 1.6-	2000 01 08	704	0.7- 0.1-
1992 07 25	809	0.4+ 0.4+	1998 12 14	704	0.0 0.5+	2000 01 08	704	0.5- 0.7-
1992 07 25	809	0.6+ 0.5+	1998 12 17	704	1.5- 1.3-	2000 01 08	704	0.5- 0.3-
1992 07 25	809	0.7+ 0.6+	1998 12 17	704	0.6+ 0.9-	2000 02 02	704	0.5- 0.3+
1992 07 26	809	1.1- 0.1-	1998 12 17	704	0.1+ 0.4-	2000 02 02	704	0.0 0.8+
1992 07 26	809	1.0- 0.1-	1998 12 17	704	(2.1- 1.4-)	2000 02 02	704	0.4+ 0.5+
1992 07 26	809	1.0- 0.0	1998 12 17	704	1.3- 0.3+	2000 02 02	704	0.5- 0.7+
1992 07 27	809	1.6- 0.6+	1999 01 16	704	0.0 1.4+	2000 02 02	704	0.2- 0.5+
1992 07 27	809	1.7- 0.7+	1999 01 16	704	0.2- 0.0	2000 02 06	704	0.3+ 0.9+
1992 07 27	809	1.5- 0.8+	1999 01 16	704	0.3- 0.4+	2000 02 06	704	1.2+ 0.0
1992 07 29	809	0.2+ 0.6-	1999 01 16	704	0.7+ 1.1+	2000 02 06	704	0.5+ 0.1+
1992 07 30	809	0.3+ 0.9-	1999 01 16	704	1.3+ 0.3+	2000 02 06	704	0.2+ 0.9+
1992 07 30	809	0.5+ 0.9-	1999 01 18	561	0.3- 0.2+	2000 02 06	704	0.4+ 0.4-
1992 07 30	809	0.7- 1.0+	1999 01 18	561	0.4- 0.1+	2000 02 12	704	(0.8+ 2.5+)
1992 07 30	809	0.6- 1.2+	1999 01 18	561	0.5- 0.2+	2000 02 12	704	0.5+ 0.2+
1992 07 31	809	0.8- 1.2+	1999 01 20	561	0.2- 0.0	2000 02 12	704	0.4+ 1.7+
1997 08 23	905	0.0 1.4+	1999 01 20	561	0.4- 0.1-	2000 02 12	704	1.2+ 0.2-
1997 08 23	905	0.2+ 1.2+	1999 01 20	561	0.2- 0.0	2000 02 12	704	0.5+ 0.3-
1997 08 27	905	0.2- 0.9+	1999 01 21	561	0.3- 0.3+			

(13557)* 1992 OB₉ = 1978 LM = 1989 YG₇

Discovered 1992 July 24 by H. Debehogne and À. López G. at the European Southern Observatory.

Id. G. V. Williams (*MPC* 21583)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	247.92330	(2000.0)	P		Q	
<i>n</i>	0.21470206	ω	171.06500	+0.29795698	+0.93613261	
<i>a</i>	2.7621371	Ω	116.08702	-0.88815448	+0.34357048	
<i>e</i>	0.1813690	<i>i</i>	12.00154	-0.34986177	-0.07493365	
<i>P</i>	4.59	<i>H</i>	12.9	<i>G</i>	0.15	<i>U</i>

Residuals in seconds of arc

1950 04 22	675	1.1- 0.2-	1992 08 01	809	0.1- 0.5+	1998 12 22	704	0.4- 0.7-
1950 04 22	675	0.0 1.0-	1992 08 01	809	0.2+ 0.2+	1998 12 22	704	0.4+ 0.7+
1978 06 09	095	(3.1- 0.7+)	1992 08 01	809	0.4+ 0.4+	1998 12 22	704	1.0- 0.6+
1989 12 25	033	0.1- 0.3+	1992 08 03	809	0.5- 0.5-	2000 01 07	704	0.3+ 0.4-
1989 12 26	033	1.1+ 0.6+	1992 08 03	809	0.2+ 0.3-	2000 01 07	704	0.4+ 0.6-
1989 12 26	033	2.0+ 0.5+	1992 08 03	809	0.5+ 0.4-	2000 01 07	704	0.1- 0.9-

1992 07 24	809	0.1+	1.8+	1992 08 04	809	1.0+	0.0	2000 01 07	704	0.3-	1.3+
1992 07 24	809	(0.1+	2.1+)	1992 08 04	809	1.1+	0.0	2000 02 03	704	0.1+	0.7+
1992 07 24	809	(0.5+	2.2+)	1992 08 04	809	1.3+	0.4-	2000 02 03	704	0.3+	0.0
1992 07 26	809	1.2-	1.4+	1997 09 28	566	1.1-	0.2-	2000 02 03	704	0.0	0.3+
1992 07 26	809	0.7-	1.5+	1997 09 28	566	0.7-	0.5-	2000 02 03	704	0.5+	0.5+
1992 07 26	809	0.7-	1.5+	1997 09 28	566	1.0-	0.5-	2000 02 03	704	0.2+	1.0+
1992 07 30	809	0.2+	0.2+	1998 12 15	704	1.2+	0.9-	2000 02 14	704	0.7-	1.2+
1992 07 30	809	0.3+	0.2+	1998 12 15	704	0.8-	0.9+	2000 02 14	704	0.6-	1.2+
1992 07 30	809	0.6+	0.1+	1998 12 15	704	0.3+	0.8-	2000 02 14	704	0.4-	1.6+
1992 07 31	809	0.6-	0.1-	1998 12 15	704	1.1+	0.4+	2000 02 14	704	(0.0	2.3+)
1992 07 31	809	0.5-	0.2-	1998 12 15	704	0.4+	0.1+				
1992 07 31	809	0.1+	0.3-	1998 12 22	704	0.9-	1.3+				

(13558)* 1992 PR₆ = 1987 SG₁₄ = 1987 SQ₁₆ = 1989 BJ₂ = 1998 XY₆₇

Discovered 1992 Aug. 5 by H. Debehogne and À. López G. at the European Southern Observatory.

Id. G. V. Williams (*MPC* 33482)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	129.13173	(2000.0)	P	Q	
<i>n</i>	0.18448086	ω	25.79496	+0.99503675	+0.05610340
<i>a</i>	3.0561066	Ω	330.63048	-0.09112813	+0.84550296
<i>e</i>	0.2988845	<i>i</i>	9.64672	+0.03996902	+0.53101521
<i>P</i>	5.34	<i>H</i>	13.1	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1987 09 22	095	0.7-	0.9-	1998 08 31	704	0.6-	1.2-	2000 01 04	704	0.5-	0.4+
1987 09 25	095	(4.6-	0.4+)	1998 08 31	704	1.3+	1.9-	2000 01 04	704	0.4+	0.1-
1989 01 29	888	0.6+	1.4-	1998 08 31	704	0.8+	0.7-	2000 01 04	704	1.0-	0.0
1989 01 29	888	0.9+	0.4-	1998 11 16	704	0.4+	0.9+	2000 01 07	704	0.0	1.4-
1992 08 05	809	0.2-	0.2-	1998 11 16	704	0.4-	0.1+	2000 01 07	704	1.3-	0.4-
1992 08 05	809	0.2-	0.2-	1998 11 16	704	0.7+	0.6+	2000 01 07	704	1.7-	1.4-
1992 08 05	809	0.1-	0.1-	1998 11 16	704	1.8-	0.8+	2000 01 07	704	1.1-	0.8-
1992 08 07	809	0.4-	0.6-	1998 11 16	704	0.2-	1.2+	2000 02 04	704	0.4+	0.5+
1992 08 07	809	0.2-	0.3-	1998 12 14	704	(1.3+	2.7-)	2000 02 04	704	0.4-	0.9+
1992 08 07	809	0.6+	0.3-	1998 12 14	704	0.2-	0.1+	2000 02 04	704	0.2-	0.0
1992 08 07	809	0.3+	0.1+	1998 12 14	704	0.3+	0.2+	2000 02 04	704	0.0	0.9+
1992 08 07	809	0.4+	0.3+	1998 12 14	704	0.3+	0.8+	2000 02 04	704	0.4+	0.4+
1992 08 07	809	0.7+	0.3+	1998 12 14	704	0.3-	0.7+	2000 02 11	704	0.1+	0.3-
1992 08 09	809	0.6-	0.3+	1998 12 17	704	0.8-	0.6+	2000 02 11	704	0.5+	0.6-
1992 08 09	809	0.2-	0.4+	1998 12 17	704	0.0	0.4-	2000 02 11	704	0.8+	0.5+
1992 08 09	809	0.6+	0.3+	1998 12 17	704	1.2+	0.7+	2000 02 11	704	0.1+	0.6+
1998 08 31	704	1.0+	0.0	1998 12 17	704	0.3+	0.6-				
1998 08 31	704	0.1+	1.8-	1998 12 17	704	0.5-	0.7-				

(13559)* 1992 RD₁ = 1976 SK₁₀ = 1982 US₈

Discovered 1992 Sept. 4 by F. Börngen and L. D. Schmadel at Tautenburg.

Id. T. B. Spahr (*MPC* 30657), T. Urata (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	180.53022	(2000.0)	P	Q	
<i>n</i>	0.19032157	ω	333.71250	+0.89286100	+0.45032780
<i>a</i>	2.9932573	Ω	359.50878	-0.36017525	+0.71139911
<i>e</i>	0.1014553	<i>i</i>	13.68065	-0.27032023	+0.53955183
<i>P</i>	5.18	<i>H</i>	12.9	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1976 09 17	808	0.0	0.1+	1992 09 30	675	0.0	0.1+	2000 01 10	699	0.3+	0.9+
1976 09 17	808	0.2+	1.8+	1992 10 03	675	1.0+	1.9+	2000 01 10	699	0.4+	0.1+
1982 10 21	095	1.0-	0.2+	1992 10 03	675	0.3+	0.0	2000 01 12	113	0.4-	0.8+
1992 09 04	033	(2.8-	1.4-)	1997 09 04	385	0.0	0.9+	2000 01 12	113	0.1+	0.1+
1992 09 06	033	1.0-	0.1+	1997 09 04	385	0.4-	0.6+	2000 02 03	704	0.5+	0.1+
1992 09 07	033	0.3+	0.1+	1997 09 05	385	0.7-	0.4+	2000 02 03	704	0.2-	0.7+
1992 09 07	033	0.4-	0.5+	1997 09 05	385	0.4-	0.5+	2000 02 03	704	0.9+	0.5-
1992 09 21	033	1.7-	1.8-	1997 09 05	385	0.3-	0.8+	2000 02 03	704	0.1-	0.6+
1992 09 21	033	1.9-	1.6-	1997 09 05	385	0.6-	0.7+	2000 02 03	704	0.2-	0.1+

1992 09 22	033	1.6-	0.4-	1998 11 16	704	0.8+	0.4+	2000 02 06	703	0.0	0.6+
1992 09 24	033	0.1-	0.5+	1998 11 16	704	1.4+	0.1-	2000 02 06	703	0.0	0.6+
1992 09 24	033	0.0	0.1+	1998 11 16	704	(0.9+	4.0-)	2000 02 06	703	0.1-	0.5+
1992 09 26	033	1.0+	0.4+	1998 11 16	704	1.0-	1.1-	2000 02 06	703	0.4+	0.6+
1992 09 27	033	0.5+	0.6-	1998 11 16	704	0.7+	1.7-	2000 02 14	704	0.3+	0.2-
1992 09 28	033	1.1+	0.3-	1998 12 12	704	0.0	0.2+	2000 02 14	704	0.2+	0.4+
1992 09 29	691	0.3-	0.1+	1998 12 12	704	(1.8+	2.4+)	2000 02 14	704	0.4+	0.2+
1992 09 29	691	0.2-	0.5+	1998 12 12	704	0.3-	1.0-	2000 02 14	704	0.6+	0.7+
1992 09 29	691	0.4-	0.1+	1998 12 12	704	1.1+	0.6+	2000 02 14	704	0.6+	1.4+
1992 09 30	675	1.0+	0.8+	2000 01 10	699	1.2+	0.7+				

(13560)* 1992 RX₆ = 1995 DM₁₀

Discovered 1992 Sept. 2 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (*MPC* 25066)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	114.17292	(2000.0)	P	Q	
<i>n</i>	0.18581002	ω	22.36076	+0.86011177	-0.50953277
<i>a</i>	3.0415150	Ω	8.39606	+0.43938543	+0.71596728
<i>e</i>	0.0925686	<i>i</i>	9.52735	+0.25912967	+0.47724962
<i>P</i>	5.30	<i>H</i>	12.7	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1992 09 02	809	1.3+	0.2+	1998 09 29	704	1.6-	1.9+	1998 12 17	704	0.6-	0.3-
1992 09 02	809	0.3+	0.1-	1998 09 29	704	(0.4+	2.3+)	1998 12 17	704	(0.1+	2.5-)
1992 09 02	809	0.1+	0.5-	1998 11 14	704	0.6+	0.2-	1998 12 17	704	0.2+	0.4-
1992 09 03	809	0.0	0.0	1998 11 14	704	(2.1+	0.7-)	1998 12 17	704	(0.0	2.7-)
1992 09 22	809	1.1-	1.2+	1998 11 14	704	1.1+	0.7+	1998 12 17	704	0.6+	0.7+
1992 09 22	809	0.6-	1.4+	1998 11 14	704	1.0+	0.7+	1999 12 15	704	0.7-	0.3+
1992 09 22	809	1.2-	0.5+	1998 11 16	704	0.0	0.2-	1999 12 15	704	0.9+	0.8-
1992 09 23	809	0.0	1.0+	1998 11 16	704	1.4+	1.3-	1999 12 15	704	1.5+	0.1+
1992 09 23	809	1.0-	1.5+	1998 11 16	704	0.8-	0.6-	1999 12 15	704	1.1+	0.3-
1992 09 23	809	1.6-	0.3+	1998 11 16	704	0.0	0.4-	2000 01 10	699	1.6+	0.2+
1995 02 25	691	0.2+	0.7-	1998 11 16	704	0.7-	0.3-	2000 01 10	699	0.8+	0.9+
1995 02 25	691	0.1-	0.0	1998 11 25	744	0.5+	0.1+	2000 01 10	699	0.4+	1.0+
1995 02 25	691	0.5-	0.1+	1998 11 25	744	0.3-	0.3+	2000 02 03	704	0.9-	0.3-
1995 02 27	691	(2.2+	0.2-)	1998 11 27	744	0.1+	0.3+	2000 02 03	704	0.2+	0.5+
1995 02 27	691	0.3+	0.4-	1998 11 27	744	0.1+	0.5+	2000 02 03	704	0.4+	1.0+
1995 02 27	691	0.5+	0.3-	1998 11 27	744	1.0-	0.2+	2000 02 03	704	0.4+	0.7+
1995 03 23	033	0.3-	0.9-	1998 12 14	704	0.5+	0.4-	2000 02 03	704	0.0	0.8+
1995 03 24	033	0.8-	0.1-	1998 12 14	704	0.6+	0.3-	2000 02 06	703	0.2+	0.8+
1998 08 31	704	(2.7+	0.9-)	1998 12 14	704	0.6+	0.5-	2000 02 06	703	0.6+	0.5+
1998 08 31	704	(2.2+	0.0)	1998 12 14	704	0.5+	0.7-	2000 02 06	703	0.3-	1.1+
1998 08 31	704	(2.8+	0.9+)	1998 12 14	704	1.0-	0.1+	2000 02 06	703	0.0	1.0+
1998 08 31	704	0.3+	1.8+	1998 12 17	704	1.0+	1.6-	2000 02 11	704	0.2+	0.2+
1998 08 31	704	(2.6+	0.0)	1998 12 17	704	0.3-	0.1+	2000 02 11	704	0.2-	0.3+
1998 09 29	704	0.5-	0.1+	1998 12 17	704	1.2+	1.9-	2000 02 11	704	0.3-	1.0+
1998 09 29	704	(2.1-	1.0+)	1998 12 17	704	0.1+	0.6-	2000 02 11	704	0.2+	1.1+
1998 09 29	704	1.9-	1.5+	1998 12 17	704	0.0	1.8-	2000 02 11	704	(2.8-	0.3+)

(13561)* 1992 SB₁

Discovered 1992 Sept. 23 by M. Yanai and K. Watanabe at Kitami.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	130.83832		(2000.0)	P	Q
n	0.17484932	ω	346.04393	+0.97777336	+0.20942634
a	3.1673307	Ω	1.95253	-0.15294770	+0.74506321
e	0.1667438	i	17.05537	-0.14340940	+0.63326252
P	5.64	H	12.2	G 0.15	U 2

2000 FEB. 22

M.P.C. 38333

1992 09 27	046	1.3−	1.2+	1993 11 16	801	0.2−	1.0+
1992 09 28	400	0.5−	0.2+	1994 03 13	801	0.7+	0.9+
1992 09 28	400	0.9−	0.3−	1994 03 13	801	0.1−	0.6−
1992 10 01	675	0.0	0.4+	1998 08 11	046	0.0	0.0
1992 10 01	400	2.0−	0.6+	1998 08 11	046	0.1+	0.2+
1992 10 01	400	0.2+	0.8−	1998 08 11	046	0.0	0.3+
1992 10 02	675	0.7−	1.5−	1998 10 18	704	0.2+	0.2−
1992 10 02	675	0.5+	0.4−	1998 10 18	704	1.7−	0.2−
1992 10 02	400	0.2−	0.5+	1998 10 18	704	0.5−	0.8+
1992 10 02	400	0.6+	0.6+	1998 10 18	704	1.2−	1.3−
1992 10 04	675	(0.9−	2.4−)	1998 10 18	704	0.8+	0.2−
1992 10 04	675	0.1−	1.8−	1998 11 14	704	0.1+	0.5+
1992 10 19	400	0.9−	0.3+	1998 11 14	704	1.5+	1.1−
1992 10 19	400	0.9+	0.1+	1998 11 14	704	0.3+	0.5+
1992 11 21	801	0.1−	0.3+	1998 11 14	704	0.7+	0.5−

(13562)* 1992 SF₁₁ = 1995 FB₁₃

Discovered 1992 Sept. 28 by Spacewatch at Kitt Peak.

Id. T. Kobayashi (*MPC* 25331)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	4.31471		(2000.0)	P	Q
n	0.17306676	ω	304.93245	−0.51533970	−0.85698405
a	3.1890423	Ω	176.08637	+0.79472725	−0.47869638
e	0.1174487	i	1.53136	+0.32067677	−0.19086148
P	5.69	H	13.6	G 0.15	U 1

Residuals in seconds of arc

1992 09 28	691	0.6+	0.0	1998 09 26	704	0.0	0.8+	2000 01 05	704	0.3−	0.1+
1992 09 28	691	0.3−	0.0	1998 09 26	704	(2.7+	2.5−)	2000 01 05	704	0.1−	0.1+
1992 09 28	691	1.0−	0.2−	1998 09 26	704	0.6+	1.0−	2000 01 06	704	0.1−	0.6+
1992 09 28	691	0.2+	0.2+	1998 09 26	704	1.4+	1.8−	2000 01 06	704	0.1+	0.1−
1992 09 28	691	0.3+	0.1−	1998 09 26	704	1.0+	1.8−	2000 01 06	704	0.0	0.4+
1992 09 28	691	0.2+	0.1+	1998 09 27	704	0.2−	1.1−	2000 01 06	704	0.2+	0.3−
1992 09 29	691	0.2−	0.0	1998 09 27	704	0.7−	1.5+	2000 01 08	732	0.6+	0.1−
1992 09 29	691	0.2−	0.0	1998 09 27	704	0.9−	1.5+	2000 01 08	732	0.1+	0.4−
1992 09 29	691	0.3−	0.3+	1998 10 15	704	0.4−	0.2+	2000 01 08	732	0.2+	0.5−
1992 10 02	691	0.3−	0.0	1998 10 15	704	1.4+	1.0−	2000 01 09	704	0.3−	0.4−
1992 10 02	691	0.3+	0.2+	1998 10 15	704	1.6−	0.6+	2000 01 09	704	0.0	0.4−
1992 10 02	691	0.4+	0.1+	1998 10 15	704	0.6−	1.0−	2000 01 09	704	0.9−	0.8−
1995 03 27	691	0.5−	0.1−	1998 10 28	704	0.1+	0.1+	2000 01 09	704	0.7−	0.7−
1995 03 27	691	0.2−	0.0	1998 10 28	704	0.1+	0.1+	2000 01 10	732	0.7+	0.1−
1995 03 27	691	0.2−	0.1−	1998 10 28	704	0.2+	0.0	2000 01 10	732	0.1−	0.5−
1995 04 07	691	0.0	0.4−	1998 10 28	704	0.5−	0.2−	2000 01 13	113	0.1−	0.0
1995 04 07	691	0.3+	0.2−	1998 10 29	704	0.9−	1.2+	2000 01 13	113	1.3−	0.4+
1995 04 07	691	0.3+	0.2−	1998 10 29	704	(0.3−	2.2+)	2000 02 02	704	0.2−	0.1−
1998 09 18	809	0.3+	0.1−	1998 10 29	704	(2.1+	1.4−)	2000 02 02	704	0.3+	0.2+
1998 09 18	809	0.9−	1.6−	1998 10 29	704	1.5+	0.1+	2000 02 02	704	(2.1+	0.5−)
1998 09 18	809	1.9−	0.7−	1998 10 29	704	1.5+	0.7+	2000 02 02	704	0.6+	0.1+
1998 09 20	809	0.4+	0.7+	1998 11 11	704	0.1−	1.9+	2000 02 03	704	0.2+	0.7+
1998 09 20	809	0.2+	0.5−	1998 11 11	704	(0.8−	2.5+)	2000 02 03	704	0.1+	1.2+
1998 09 20	809	0.8−	0.0	1998 11 11	704	(0.4−	2.6+)	2000 02 03	704	0.3+	0.0
1998 09 23	621	0.5+	0.2+	1998 11 11	704	0.5+	0.0	2000 02 03	704	0.5+	0.3+
1998 09 23	621	0.0	1.1−	2000 01 05	704	0.5−	0.2−	2000 02 03	704	0.3+	0.3+
1998 09 23	621	0.1−	0.0	2000 01 05	704	0.5+	0.3+				
1998 09 24	621	0.1−	0.1+	2000 01 05	704	0.1−	0.0				

(13563)* 1992 UW = 1998 FA₁₈

Discovered 1992 Oct. 21 by S. Otomo at Kiyosato.

Id. A. Gnädig (*MPC* 31721)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	295.70267		(2000.0)	P	Q
n	0.24209288	ω	19.35855	+0.92945543	−0.36892894
a	2.5496547	Ω	2.29397	+0.33151895	+0.83278979
e	0.2359979	i	2.88068	+0.16188822	+0.41273792
P	4.07	H	13.5	G 0.15	U 2

Residuals in seconds of arc

1992 09 30	095	(3.5+	2.5+)	1992 11 23	894	1.4−	0.1+	1999 04 20	704	0.4+	1.3−
1992 09 30	095	(2.7+	0.3+)	1992 11 23	894	0.4−	0.4+	1999 04 20	704	0.8−	1.6−
1992 10 20	675	0.9+	0.2+	1992 11 24	894	1.1−	0.5−	1999 04 20	704	0.4−	0.7−
1992 10 20	675	0.7+	0.3+	1992 11 24	894	1.1−	0.2+	1999 04 20	704	0.0	1.6+
1992 10 21	894	0.1+	0.3−	1992 11 26	894	0.2−	0.3−	1999 05 10	704	0.0	1.3−
1992 10 21	894	0.3−	0.1−	1992 11 26	894	0.4−	1.4+	1999 05 10	704	0.2−	0.1−
1992 10 22	675	0.0	0.7+	1994 03 04	691	0.2−	0.3−	1999 05 10	704	1.2+	1.2−
1992 10 22	675	0.4+	0.6+	1994 03 04	691	0.0	0.1−	1999 05 10	704	0.4+	0.7−
1992 10 22	675	0.1−	0.8+	1994 03 04	691	0.0	0.1+	1999 05 10	704	0.0	1.1−
1992 10 22	675	0.8+	1.0+	1996 11 07	095	1.8−	0.7−	1999 05 13	704	0.4+	0.5+
1992 10 24	894	0.2+	0.7−	1996 11 07	095	1.4+	0.1−	1999 05 13	704	0.4+	0.1+
1992 10 24	894	0.2−	0.1+	1996 11 08	095	0.2+	1.4−	1999 05 13	704	0.3−	1.4+
1992 10 26	894	0.3+	0.4+	1996 11 08	095	1.0+	0.3+	1999 05 13	704	0.2−	1.1+
1992 10 26	894	0.9+	0.2−	1998 03 20	704	0.0	0.0	1999 05 18	704	0.4−	0.7−
1992 10 27	894	0.7+	0.6−	1998 03 20	704	0.2−	0.5−	1999 05 18	704	0.1+	0.4+
1992 10 27	894	0.3+	0.4−	1998 03 20	704	0.1+	0.4−	1999 05 18	704	0.4+	0.2−
1992 10 30	894	0.1+	0.5+	1998 03 20	704	0.4+	1.6−	1999 05 18	704	0.1−	0.7−
1992 10 30	894	0.7−	0.3+	1998 03 20	704	0.2−	0.3−	1999 06 15	704	0.5−	0.3+
1992 11 18	894	0.1−	0.3−	1998 03 22	704	0.2−	0.5+	1999 06 15	704	0.2−	0.1+
1992 11 18	894	0.6−	0.8−	1998 03 22	704	0.9+	1.0+	1999 06 15	704	0.1−	0.9+
1992 11 18	894	0.8+	0.3−	1998 03 22	704	0.4−	1.1+	1999 06 15	704	0.1−	0.9+
1992 11 21	894	0.7−	0.2−	1998 03 22	704	0.1−	0.2+	1999 06 15	704	0.5−	1.3+
1992 11 21	894	0.6+	1.9−	1998 03 22	704	0.1+	0.1−				

(13564)* 1992 UH₁ = 1972 XR

Discovered 1992 Oct. 19 by M. Yanai and K. Watanabe at Kitami.

Id. K. Ichikawa (*MPC* 23980)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

M	49.92406		(2000.0)	P	Q
n	0.29426888	ω	61.08791	+0.47509313	−0.87993532
a	2.2385828	Ω	0.54773	+0.78411050	+0.42304860
e	0.1605390	i	3.56748	+0.39932098	+0.21620296
P	3.35	H	14.9	G 0.15	U 2

Residuals in seconds of arc

1972 12 02	095	0.3+	1.1−	1999 11 05	699	0.2−	1.5−	2000 01 04	704	0.3+	0.1+
1972 12 06	095	0.1+	0.5−	1999 11 12	703	0.1−	0.2+	2000 01 04	704	0.2−	0.8+
1992 10 19	400	1.6+	2.0−	1999 11 12	703	0.3−	1.2+	2000 01 04	704	0.2+	0.3+
1992 10 19	400	1.3+	1.5+	1999 11 12	703	0.3−	0.4+	2000 01 04	704	0.4−	0.2−
1992 10 22	400	0.1−	0.5−	1999 11 12	703	0.2+	0.6+	2000 01 04	704	0.3−	0.5+
1992 10 22	400	0.0	0.0	1999 11 16	704	0.2−	0.5−	2000 01 30	704	0.3−	0.0
1992 10 26	400	1.5−	0.4−	1999 11 16	704	0.0	0.5−	2000 01 30	704	0.3−	0.4+
1992 10 26	400	0.7−	0.1+	1999 11 16	704	0.2−	0.3−	2000 01 30	704	0.5−	0.4+
1997 03 08	540	0.1−	0.5−	1999 11 16	704	0.1+	0.8−	2000 01 30	704	0.5−	0.7+
1997 03 09	540	0.4−	0.1−	1999 11 16	704	0.2+	0.7−	2000 01 30	704	0.7−	0.2+
1997 03 09	540	0.2+	0.5−	1999 12 15	704	0.5−	0.1+	2000 01 31	704	0.4−	0.3+
1997 03 09	540	0.4−	0.4−	1999 12 15	704	0.1−	0.1+	2000 01 31	704	0.5−	0.2+
1997 03 09	540	0.2−	0.3−	1999 12 15	704	0.4−	0.1+	2000 01 31	704	0.6−	0.2+
1997 03 09	540	0.4−	0.3−	1999 12 15	704	0.7−	0.6+	2000 01 31	704	0.5−	0.2−
1997 03 09	540	0.6−	0.1−	1999 12 15	704	0.3−	0.5+	2000 02 11	704	1.1+	0.5+
1997 03 09	540	0.0	0.1−	2000 01 03	704	0.4+	0.0	2000 02 11	704	0.3+	0.1−
1997 03 10	540	0.1+	0.3−	2000 01 03	704	0.6+	0.1+	2000 02 11	704	0.4+	0.4−
1997 03 10	540	0.3+	0.4−	2000 01 03	704	0.6+	0.6+	2000 02 11	704	1.1+	1.1−
1999 11 05	699	0.4+	0.1−	2000 01 03	704	1.5+	0.5+	2000 02 11	704	0.5−	1.8−
1999 11 05	699	0.9+	0.3−	2000 01 03	704	1.9+	1.3+				

(13565)* 1992

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

<i>M</i>	86.42740		(2000.0)	P	Q
<i>n</i>	0.17819957	ω	14.87320	+0.16221882	-0.95997990
<i>a</i>	3.1275069	Ω	66.22211	+0.87794868	+0.03479898
<i>e</i>	0.0986273	<i>i</i>	14.44694	+0.45043443	+0.27789858
<i>P</i>	5.53	<i>H</i>	12.6	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1992 10 21	675	1.0+	1.2+	1997 12 29	688	0.4-	0.7+	2000 01 07	704	0.3+	0.0
1992 10 21	675	1.0+	1.4+	1998 12 14	704	1.0+	1.0-	2000 01 07	704	0.1-	0.0
1992 10 28	400	1.4+	0.3-	1998 12 14	704	0.4+	1.0-	2000 01 07	704	0.1-	0.1-
1992 10 28	400	0.9+	1.9-	1998 12 14	704	0.8-	0.1-	2000 01 07	704	0.1+	0.1-
1992 11 02	400	0.8-	0.1+	1998 12 14	704	0.6+	1.0-	2000 01 07	704	0.8-	0.2+
1992 11 02	400	0.9+	0.2-	1998 12 17	704	0.5-	0.4+	2000 02 04	704	0.1+	0.3-
1992 11 21	400	0.5-	0.8-	1998 12 17	704	1.5+	1.3-	2000 02 04	704	0.3-	0.3+
1992 11 21	400	0.0	2.0+	1998 12 17	704	0.4-	0.1-	2000 02 04	704	0.7-	0.1+
1992 11 28	675	0.4-	0.5+	1998 12 17	704	1.0+	0.2+	2000 02 04	704	1.1-	0.0
1992 11 28	675	1.5-	0.6+	1998 12 17	704	1.1+	0.6+	2000 02 04	704	0.6-	1.2+
1992 11 30	675	1.6-	1.4-	1999 01 16	704	0.7-	0.7-	2000 02 14	704	(3.3+	1.8-)
1992 11 30	675	0.6-	0.5-	1999 01 16	704	1.4-	0.9+	2000 02 14	704	0.5+	0.2+
1997 12 28	688	1.0-	1.1+	1999 01 16	704	1.4-	1.2+	2000 02 14	704	2.0+	0.5+
1997 12 28	688	0.0	1.0+	1999 01 16	704	0.1-	0.7-	2000 02 14	704	2.0+	0.8+
1997 12 29	688	0.7-	0.7+	1999 01 16	704	0.3-	0.6+				

(13566)* 1992 UM₉ = 1996 HD₂₆

Discovered 1992 Oct. 19 by S. Ueda and H. Kaneda at Kushiro.

Id. B. G. Marsden (*MPC* 27310)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Marsden

<i>M</i>	135.87610		(2000.0)	P	Q
<i>n</i>	0.17325723	ω	161.55339	+0.97819918	+0.20727506
<i>a</i>	3.1867046	Ω	186.52398	-0.20187321	+0.93465445
<i>e</i>	0.1306191	<i>i</i>	6.46019	-0.04871939	+0.28889116
<i>P</i>	5.69	<i>H</i>	12.9	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1992 10 19	399	1.0-	1.1+	1998 10 29	704	0.3-	0.5+	2000 01 05	704	0.8-	0.7-
1992 10 19	399	0.4+	0.0	1998 11 11	704	0.1-	0.4-	2000 01 05	704	0.4-	0.5-
1992 10 22	399	0.0	1.2+	1998 11 11	704	0.4+	0.7-	2000 01 05	704	0.5+	0.1+
1992 10 22	399	0.9-	0.8+	1998 11 11	704	0.1+	0.2-	2000 01 07	704	0.2-	0.2-
1992 11 16	399	(4.7-	0.4+)	1998 11 11	704	0.9+	1.4-	2000 01 07	704	0.4-	0.4-
1992 11 16	399	(3.1-	2.6-)	1998 11 11	699	0.3-	0.2+	2000 01 07	704	0.3-	0.4-
1992 11 18	399	(5.4-	0.6+)	1998 11 11	699	0.1-	0.5+	2000 01 07	704	0.0	0.7+
1992 11 18	399	(4.7-	0.5-)	1998 11 11	699	0.2+	1.1+	2000 01 07	704	0.2+	1.0+
1996 04 20	809	(2.9-	1.4-)	1998 11 16	566	1.2-	0.7-	2000 02 02	704	0.3-	0.1+
1996 04 20	809	(3.8-	1.7-)	1998 11 16	566	1.0-	0.8-	2000 02 02	704	0.8+	0.1-
1996 04 20	809	(3.9-	1.5-)	1998 11 16	566	1.2-	0.8-	2000 02 02	704	0.3+	0.1-
1996 04 21	809	0.7-	1.5-	1998 11 18	704	0.2+	0.3+	2000 02 02	704	0.1+	0.2+
1996 04 21	809	(2.9-	1.2-)	1998 11 18	704	0.3+	0.9-	2000 02 02	704	0.9+	0.1+
1996 04 21	809	(3.0-	0.4-)	1998 11 18	704	0.3+	0.9-	2000 02 04	704	1.2-	0.2+
1996 05 22	809	0.0	0.0	1998 11 18	704	(0.4-	2.0-)	2000 02 04	704	0.1-	0.2-
1996 05 22	809	0.1+	0.0	1998 11 18	704	1.9-	0.5-	2000 02 04	704	0.3-	0.1-
1996 05 22	809	0.3+	0.2+	1998 11 21	704	0.3+	0.5-	2000 02 04	704	0.0	0.5-
1996 05 24	809	1.4+	1.2+	1998 11 21	704	1.0+	0.8-	2000 02 04	704	0.2+	0.4-
1996 05 24	809	0.7+	0.9+	1998 11 21	704	1.3+	0.6-	2000 02 06	704	0.0	0.6+
1996 05 24	809	1.1+	1.1+	1998 11 21	704	1.2+	0.1-	2000 02 06	704	0.1-	0.8+
1997 09 01	566	0.9-	0.7+	1998 11 21	704	1.0+	0.9-	2000 02 06	704	0.5-	0.6+
1997 09 01	566	0.8-	0.8+	1998 11 23	699	0.6+	0.1+	2000 02 06	704	0.6-	0.4+
1997 09 01	566	0.6-	0.6+	1998 11 23	699	0.6+	0.1-	2000 02 06	704	0.7-	0.5+
1998 08 31	704	0.9-	0.7+	1998 11 23	699	0.3+	0.4-	2000 02 08	704	0.0	0.7+
1998 08 31	704	0.4+	1.0+	1998 11 24	704	0.0	0.0	2000 02 08	704	0.1-	0.6+
1998 08 31	704	0.7-	1.2+	1998 11 24	704	0.5-	0.6+	2000 02 08	704	0.7-	0.0
1998 08 31	704	(2.5+	1.4+)	1998 11 24	704	0.1+	1.0+	2000 02 08	704	0.7-	0.1-
1998 08 31	704	0.8-	1.6+	1998 11 24	704	0.2+	1.0+	2000 02 08	704	0.8-	0.3-
1998 10 20	699	1.3+	0.8+	1998 12 11	699	0.6+	0.3-	2000 02 12	704	(2.6+	2.6-)
1998 10 20	699	1.2+	0.7+	1998 12 11	699	0.1-	0.3-	2000 02 12	704	1.9+	1.2+
1998 10 20	699	0.6+	1.0+	1998 12 11	699	0.2+	0.1-	2000 02 12	704	(1.3+	2.1+)

1998 10 29	704	1.4-	0.5+	2000 01 04	699	0.3+	0.0	2000 02 12	704	(1.7+	2.1+)
1998 10 29	704	0.6+	0.4-	2000 01 04	699	0.5-	0.7+	2000 02 13	704	1.5+	0.9+
1998 10 29	704	0.1-	0.3-	2000 01 05	704	0.5-	0.3-	2000 02 13	704	0.4-	1.7+
1998 10 29	704	0.0	0.3-	2000 01 05	704	0.5+	0.1-	2000 02 13	704	(0.7-	2.2+)

(13567)* 1992 WF₁

Discovered 1992 Nov. 16 by K. Endate and K. Watanabe at Kitami.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

<i>M</i>	176.27932		(2000.0)	P	Q
<i>n</i>	0.18684970	ω	262.71259	+0.97889542	-0.08037540
<i>a</i>	3.0302219	Ω	101.76487	+0.14390172	+0.92392476
<i>e</i>	0.1006939	<i>i</i>	11.06510	-0.14510707	+0.37403588
<i>P</i>	5.27	<i>H</i>	12.1	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1992 10 26	675	0.2+	1.2+	1998 10 27	691	0.5+	0.4-	1999 02 10	704	0.7+	0.0
1992 10 26	675	0.1+	0.8+	1998 11 14	699	0.7+	0.1-	1999 02 10	704	0.3+	0.4-
1992 11 16	400	1.6-	0.9-	1998 11 14	699	0.0	0.7+	1999 02 10	704	(0.5+	2.8-)
1992 11 16	400	1.1-	0.5-	1998 11 14	699	0.1+	0.4+	1999 04 06	704	1.6+	0.4-
1992 11 17	400	0.4+	0.6-	1998 11 15	699	0.8+	0.4+	1999 04 06	704	0.7+	0.3+
1992 11 17	400	1.2+	0.8+	1998 11 15	699	1.0+	0.3+	1999 04 06	704	0.2-	0.9+
1992 11 27	675	0.8-	0.7+	1998 11 15	699	0.5+	0.1+	1999 04 06	704	1.1-	1.5+
1992 11 27	675	0.1+	0.3+	1998 12 01	699	0.0	0.1+	1999 04 06	704	0.5-	0.5+
1992 11 27	400	0.1-	0.5+	1998 12 01	699	0.6+	0.5-	1999 05 15	703	0.7+	0.8-
1992 11 27	400	0.1-	0.1-	1998 12 01	699	1.4-	0.3+	1999 05 15	703	0.4+	0.1-
1992 12 15	400	1.2+	0.6-	1998 12 12	691	0.6-	0.2-	1999 05 15	703	0.3+	0.3-
1992 12 15	400	(3.1-	2.9+)	1998 12 12	691	0.6-	0.2-	1999 05 15	703	0.2-	1.1+
1998 01 06	688	0.1-	0.6+	1998 12 12	691	0.7-	0.4+	2000 01 08	704	0.3+	0.4+
1998 01 06	688	0.9-	0.9+	1998 12 28	385	0.7-	0.7-	2000 01 08	704	0.2-	0.2+
1998 01 08	688	0.1-	0.7+	1998 12 28	385	0.6-	0.4-	2000 01 08	704	0.3-	0.6+
1998 01 08	688	0.2-	0.7+	1999 01 06	727	0.3-	0.3-	2000 01 08	704	0.0	0.8+
1998 10 01	699	0.9+	0.3+	1999 01 06	727	0.3-	0.2-	2000 01 08	704	0.7+	0.3+
1998 10 01	699	0.7-	0.0	1999 01 06	727	0.1-	0.2-	2000 02 14	704	0.7+	0.8-
1998 10 01	699	0.4-	0.6-	1999 01 19	704	0.6+	0.9-	2000 02 14	704	0.7+	1.4+
1998 10 03	699	0.3-	0.9-	1999 01 19	704	0.2+	0.2+	2000 02 14	704	0.1-	0.1-
1998 10 03	699	0.5-	0.2+	1999 01 19	704	1.6-	1.4-	2000 02 14	704	0.7+	0.5+
1998 10 03	699	0.0	0.7+	1999 01 19	704	0.5-	0.7-	2000 02 14	704	0.6-	1.4+
1998 10 27	691	0.3+	0.3-	1999 01 19	704	0.9+	0.0				
1998 10 27	691	0.5+	0.4-	1999 02 10	704	0.3+	0.7-				

(13568)* 1992 WL₃ = 1975 XF₅ = 1980 TY₉ = 1982 BA₈ = 1991 PB₁₈
= 1991 RZ₃₄ = 1998 XE₈₂

Discovered 1992 Nov. 21 by N. Kawasato at Uenohara.

Id. S. Nakano (*MPC* 34187)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

<i>M</i>	107.73123		(2000.0)	P	Q
<i>n</i>	0.17055318	ω	201.25268	+0.69999209	-0.70980745
<i>a</i>	3.2202988	Ω	204.53905	+0.67948952	+0.69585746
<i>e</i>	0.0442916	<i>i</i>	10.91510	+0.21978412	+0.10934249
<i>P</i>	5.78	<i>H</i>	12.2	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1975 12 03	095	0.4+	2.1-	1997 10 28	704	(1.6+	4.8-)	1999 12 16	704	0.7-	0.9-
1980 10 13	095	(2.2+	9.2-)	1997 10 30	704	0.9+	0.9+	1999 12 16	704	0.5-	0.4-
1982 01 23	010	0.9-	0.7+	1997 10 30	704	0.2+	0.7+	1999 12 16	704	0.4-	0.4-
1991 08 07	675	0.4+	0.9-	1997 10 30	704	1.4-	0.4+	1999 12 16	704	0.3-	0.3-
1991 08 07	675	0.4+	0.9-	1997 10 30	704	0.0	0.8-	2000 02 07	704	0.5-	0.7-
1991 09 12	675	0.4+	0.1-	1997 10 30	704	(2.4-	2.8-)	2000 02 07	704	0.6-	0.5-
1991 09 12	675	0.4-	0.5-	1997 12 28	566	0.3-	0.6+	2000 02 07	704	0.5-	0.4-
1992 11 21	376	(1.2-	2.7+)	1997 12 28	566	0.3-	0.4+	2000 02 07	704	0.3-	0.1+
1992 11 21	376	0.8-	2.1+	1997 12 28	566	0.5-	0.5+	2000 02 07	704	0.2-	0.3-
1992 11 22	376	1.5+	1.0-	1998 12 15	704	0.3+	0.2-	2000 02 08	704	0.2+	0.0
1992 11 22	376	0.2-	1.2-	1998 12 15	704	0.5-	0.5-	2000 02 08	704	0.3+	0.4+
1992 11 23	894	0.2-	1.1+	1998 12 15	704	0.1+	0.3+	2000 02 08	704	0.4+	0.4+
1992 11 23	894	1.5+	1.0-	1998 12 15	704	0.5+	0.7-	2000 02 08	704	0.3+	0.4+

1992 11 24	894	0.6−	0.1−	1998 12 15	704	0.3−	0.3+	2000 02 08	704	0.3+	0.8+
1992 11 24	894	1.0−	0.4−	1998 12 22	704	0.3+	0.4−	2000 02 13	704	1.5+	0.0
1997 10 28	704	(2.0+	3.7−)	1998 12 22	704	0.1+	0.3+	2000 02 13	704	0.6+	0.9+
1997 10 28	704	(1.3+	3.9−)	1998 12 22	704	0.3+	0.8+	2000 02 13	704	(0.1+	3.2+)
1997 10 28	704	(3.1+	3.1−)	1998 12 22	704	0.1−	0.4+	2000 02 13	704	(3.3−	2.1+)
1997 10 28	704	(2.9+	3.0−)	1998 12 22	704	0.4−	0.9+				

(13569)* 1993 EJ = 1997 JV₁₂

Discovered 1993 Mar. 4 by T. Seki at Geisei.

Id. B. G. Marsden (*MPC* 29917)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Marsden

<i>M</i>	280.36025		(2000.0)		P		Q
<i>n</i>	0.26267312	ω	163.53799	−0.83528435			+0.54179969
<i>a</i>	2.4146765	Ω	49.64593	−0.51727638			−0.71671383
<i>e</i>	0.0767147	<i>i</i>	7.05203	−0.18634700			−0.43906079
<i>P</i>	3.75	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1993 03 04	372	(2.2−	2.4−)	1997 05 07	704	0.3+	0.2+	1998 09 27	704	0.0	0.8−
1993 03 04	372	(4.8−	0.1+)	1997 05 07	704	0.0	0.3+	1998 09 27	704	1.2+	1.2−
1993 03 05	372	(2.6−	0.5−)	1997 05 07	704	0.4+	0.3+	1999 12 15	704	0.5−	0.4−
1993 03 17	809	1.6−	1.1−	1998 09 17	699	1.2+	0.9+	1999 12 15	704	0.4−	0.2+
1993 03 18	809	(0.6−	2.2−)	1998 09 17	699	0.3+	0.2+	1999 12 15	704	0.0	0.6+
1993 03 23	809	0.2+	1.4−	1998 09 17	699	1.4−	0.9+	1999 12 15	704	0.4+	0.5+
1993 03 24	675	0.7−	0.3−	1998 09 18	704	0.9−	0.6+	1999 12 15	704	0.3+	0.5−
1993 03 24	675	0.7+	0.8−	1998 09 18	704	0.2+	0.3−	2000 01 02	704	0.1+	0.8−
1993 04 16	413	0.7−	0.2+	1998 09 18	704	1.1−	1.0−	2000 01 02	704	0.5−	0.8−
1997 02 07	327	0.2+	0.1−	1998 09 18	704	1.4+	1.7−	2000 01 02	704	0.1+	1.0−
1997 02 07	327	0.2+	0.4−	1998 09 18	704	0.5+	1.5+	2000 01 02	704	0.5−	1.7−
1997 02 07	327	0.0	0.1+	1998 09 26	704	0.6+	1.4−	2000 01 02	704	0.3−	1.1−
1997 05 03	809	(0.1−	2.9−)	1998 09 26	704	0.0	1.4−	2000 01 29	704	0.3−	0.2+
1997 05 03	809	1.3−	1.8−	1998 09 26	704	0.3−	0.9−	2000 01 29	704	0.4+	0.3+
1997 05 03	809	(1.2−	2.3−)	1998 09 26	704	0.7+	1.3−	2000 01 29	704	0.2+	0.7+
1997 05 04	809	(0.8−	3.5−)	1998 09 26	704	0.5−	0.7−	2000 01 29	704	0.4+	0.8+
1997 05 04	809	(0.5−	2.4−)	1998 09 27	704	0.7+	0.0	2000 01 29	704	0.4−	1.0+
1997 05 04	809	0.5−	1.4−	1998 09 27	704	0.0	0.4−				
1997 05 07	704	0.1+	0.0	1998 09 27	704	0.8+	0.8+				

(13570)* 1993 FH₇ = 1997 LM₆

Discovered 1993 Mar. 17 at the European Southern Observatory in the course of the Uppsala-ESO Survey of Asteroids and Comets.

Id. G. V. Williams (*MPC* 30274)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	232.07495		(2000.0)		P		Q
<i>n</i>	0.26698905	ω	200.25327	+0.32359762			+0.94420160
<i>a</i>	2.3885834	Ω	88.66691	−0.85944298			+0.32044535
<i>e</i>	0.2034924	<i>i</i>	3.52018	−0.39578068			+0.07614541
<i>P</i>	3.69	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1993 03 17	809	0.2+	0.1−	1998 11 11	699	1.7+	1.3+	1998 12 08	910	0.5+	0.2+
1993 03 18	809	0.3−	0.0	1998 11 11	699	0.2−	0.3−	1998 12 08	910	0.6+	0.0
1993 03 23	809	0.1+	0.7−	1998 11 18	704	0.3+	0.0	1998 12 15	910	1.2+	0.7−
1993 04 16	413	0.1−	0.7+	1998 11 18	704	0.9+	0.9−	1998 12 15	910	1.4+	0.8−
1997 05 03	809	0.6+	1.2−	1998 11 18	704	0.0	1.5−	1998 12 15	910	0.3+	0.8−
1997 05 03	809	0.5+	0.5−	1998 11 18	704	0.7+	1.9−	1998 12 21	910	0.1+	0.3+
1997 05 03	809	0.0	0.9−	1998 11 21	704	1.0+	0.2+	1998 12 21	910	0.8+	0.1+
1997 06 07	809	0.6−	0.8−	1998 11 21	704	0.5−	0.6−	1998 12 21	910	0.6+	0.1+
1997 06 07	809	0.8−	0.9−	1998 11 21	704	0.6−	1.3−	2000 01 04	704	0.1−	0.2+
1997 06 07	809	1.2−	0.5−	1998 11 21	704	1.3−	0.6−	2000 01 04	704	0.1+	0.4−
1997 06 08	809	(1.2−	2.7+)	1998 11 21	691	0.7−	0.3+	2000 01 04	704	0.2−	1.1+
1997 06 08	809	0.3+	1.3+	1998 11 21	691	0.7−	0.1+	2000 01 04	704	1.1−	0.4+
1997 06 08	809	(0.3−	2.0+)	1998 11 21	691	0.2−	0.2+	2000 02 03	704	0.5+	0.1+
1998 10 29	704	1.1+	0.5−	1998 11 26	691	0.5+	0.3+	2000 02 03	704	0.7−	0.3+
1998 10 29	704	1.8−	1.0+	1998 11 26	691	0.6+	0.3+	2000 02 03	704	0.2+	0.3+

1998 10 29	704	0.2+	0.2+	1998 11 26	691	0.1−	0.3+	2000 02 03	704	0.4−	0.4−
1998 10 29	704	1.9−	1.7−	1998 12 07	910	0.8+	0.8+	2000 02 03	704	0.1−	0.4−
1998 10 29	704	1.4−	0.9+	1998 12 07	910	0.7+	0.6+	2000 02 11	704	0.4−	0.4+
1998 11 11	704	1.2−	0.2−	1998 12 07	910	0.7+	0.7+	2000 02 11	704	0.3+	0.2−
1998 11 11	704	1.2+	1.6−	1998 12 08	691	0.7−	0.2+	2000 02 11	704	1.8+	0.3+
1998 11 11	704	0.6−	0.5−	1998 12 08	691	0.5−	0.3+	2000 02 11	704	0.1−	0.6−
1998 11 11	699	1.5−	0.9+	1998 12 08	691	0.4−	0.0				
1998 11 11	704	0.4−	0.5+	1998 12 08	910	0.4+	0.2−				

(13571)* 1993 FT₇ = 1991 VA₇

Discovered 1993 Mar. 17 at the European Southern Observatory in the course of the Uppsala-ESO Survey of Asteroids and Comets.

Id. G. V. Williams (*MPC* 23522)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	129.17464		(2000.0)		P		Q
<i>n</i>	0.26831838	ω	215.41752	+0.97923219			−0.19751723
<i>a</i>	2.3806877	Ω	155.85219	+0.20202958			+0.93175225
<i>e</i>	0.1179161	<i>i</i>	6.41822	+0.01698128			+0.30467145
<i>P</i>	3.67	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1991 11 09	809	0.5−	1.6+	1998 09 26	704	1.2−	0.7−	1998 12 14	711	0.1−	0.2−
1991 11 09	809	1.3−	0.8−	1998 09 27	704	0.6−	0.0	1998 12 14	711	0.1+	0.2−
1991 11 12	809	0.5−	0.1−	1998 09 27	704	0.3−	0.1+	1998 12 14	711	0.1+	0.3−
1991 11 12	809	0.7+	0.4+	1998 09 27	704	0.0	0.3+	1999 11 17	704	1.7+	0.0
1991 11 12	809	0.9+	0.8+	1998 09 27	704	0.3−	0.1+	1999 11 17	704	0.8−	0.1−
1993 03 17	809	0.3−	0.7−	1998 09 27	704	0.2+	0.4−	1999 11 17	704	0.8−	0.6−
1993 03 18	809	0.7+	0.6−	1998 10 12	699	0.3+	0.5+	2000 01 08	704	0.2+	0.4−
1993 03 23	809	0.2−	0.2−	1998 10 12	699	1.0+	0.2−	2000 01 08	704	1.3−	0.5−
1993 04 16	413	(1.0−	4.0+)	1998 10 12	699	0.6+	0.1+	2000 01 08	704	1.3−	1.2−
1997 05 10	691	0.3−	0.0	1998 10 14	704	0.6+	1.3−	2000 01 08	704	0.4+	0.8−
1997 05 10	691	0.1−	0.1+	1998 10 14	704	(1.5−	2.1−)	2000 01 08	704	0.8−	0.0
1998 09 14	704	0.3+	1.1−	1998 10 14	704	0.9+	0.1−	2000 02 02	704	0.9−	0.9+
1998 09 14	704	0.4−	0.6−	1998 10 14	704	1.8+	1.5+	2000 02 02	704	0.3+	0.7+
1998 09 14	704	0.4+	0.2−	1998 10 15	704	0.8+	0.1−	2000 02 02	704	0.7+	0.3−
1998 09 14	704	0.6+	0.6+	1998 10 15	704	0.9+	0.2−	2000 02 02	704	0.3−	0.1+
1998 09 14	704	0.5+	0.0	1998 10 15	704	1.0+	0.5+	2000 02 02	704	0.5+	0.4−
1998 09 17	699	0.8−	0.2−	1998 10 15	704	(0.5−	2.3+)	2000 02 04	704	0.0	0.5−
1998 09 17	699	0.1−	0.1+	1998 10 15	704	1.0+	1.0+	2000 02 04	704	0.7−	0.2+
1998 09 17	699	0.4−	0.0	1998 12 12	704	0.2−	1.5−	2000 02 04	704	1.2+	0.0
1998 09 18	704	0.5−	0.1+	1998 12 12	704	0.9+	0.9−	2000 02 04	704	0.0	0.2+
1998 09 18	704	0.0	0.3−	1998 12 12	704	0.3−	0.4−	2000 02 04	704	0.2−	1.3−
1998 09 18	704	0.1+	0.6+	1998 12 12	704	1.3−	0.2+	2000 02 12	704	1.0−	0.2−
1998 09 18	704	(1.8+	2.1−)	1998 12 13	704	0.7+	0.0	2000 02 12	704	1.3+	0.4−
1998 09 18	704	1.2−	0.0	1998 12 13	704	0.0	1.3+	2000 02 12	704	0.2+	0.8+
1998 09 26	704	1.2−	1.3−	1998 12 13	704	0.6−	1.2+	2000 02 12	704	0.1−	0.6+
1998 09 26	704	0.6−	1.2−	1998 12 13	704	0.0	0.8−	2000 02 12	704	0.4+	0.4−
1998 09 26	704	0.7−	0.8−	1998 12 13	704	0.2+	1.6+				
1998 09 26	704	0.7−	1.1−	1998 12 13	704	0.8+	1.0+				

(13572)* 1993 FS₁₂ = 1997 KJ₁

Discovered 1993 Mar. 17 at the European Southern Observatory in the course of the Uppsala-ESO Survey of Asteroids and Comets.

Id. G. V. Williams (*MPC* 30080)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	48.26327		(2000.0)		P		Q
n	0.26875322	ω	322.16780	+0.18200192			−0.98195952
a	2.3781191	Ω	117.29286	+0.91565513			+0.15023829
e	0.1741453	i	3.30876	+0.35840060			+0.11482141
P	3.67	H	15.2	G	0.15	U	2

1993 04 16	413	1.1–	0.4–	2000 01 04	704	0.8–	0.6–	2000 01 30	120	0.4–	0.1–
1997 05 27	910	0.2–	0.2–	2000 01 06	120	0.2+	0.6–	2000 01 30	120	0.2–	0.5+
1997 05 27	910	0.2–	0.1–	2000 01 06	120	0.4–	1.3–	2000 02 03	704	0.2–	0.6+
1997 05 27	910	0.2–	0.2–	2000 01 06	704	0.3–	0.6–	2000 02 03	704	0.4+	0.5+
1997 05 29	910	0.1–	0.4–	2000 01 06	704	0.0	0.8–	2000 02 03	704	0.2+	0.3+
1997 05 29	910	0.2–	0.0	2000 01 06	704	1.0–	0.5–	2000 02 03	704	0.1+	0.5+
1997 05 29	910	0.3+	0.1+	2000 01 06	704	0.2+	0.2+	2000 02 03	704	0.4+	1.1+
1998 08 17	704	0.1+	0.6+	2000 01 07	704	0.5–	1.2–	2000 02 04	120	0.6–	0.3+
1998 08 17	704	0.1–	0.5+	2000 01 07	704	0.0	0.9–	2000 02 04	120	0.8–	0.5+
1998 08 17	704	1.0–	1.9+	2000 01 07	704	0.2+	0.8–	2000 02 05	120	0.1–	0.2–
1998 08 17	704	0.1–	1.7+	2000 01 07	704	0.4–	0.8–	2000 02 06	120	0.4–	0.0
1999 12 06	704	0.1+	0.3+	2000 01 07	704	0.2+	0.5–	2000 02 09	120	0.5+	0.3–
1999 12 06	704	1.0+	0.9+	2000 01 26	120	1.1+	0.1+	2000 02 09	120	0.3–	0.1–
1999 12 06	704	0.7+	0.7+	2000 01 27	120	0.4+	0.2–	2000 02 11	704	0.5+	0.3+
1999 12 06	704	0.4–	0.3+	2000 01 27	120	0.4+	0.1–	2000 02 11	704	0.6+	0.3+
1999 12 06	704	0.5+	1.0+	2000 01 30	704	0.2+	0.7+	2000 02 11	704	0.6+	0.3+
1999 12 07	704	0.3–	1.0+	2000 01 30	704	0.1–	0.8–	2000 02 11	704	0.1–	0.5+
1999 12 07	704	(1.1+ 2.2+)		2000 01 30	703	0.4–	0.7+	2000 02 11	704	0.5+	0.1+
1999 12 07	704	0.8–	1.3+	2000 01 30	704	1.9+	1.0+				
2000 01 04	704	0.2–	1.8–	2000 01 30	703	0.3+	0.5+				

(13573)* 1993 FZ₁₈

Discovered 1993 Mar. 17 at the European Southern Observatory in the course of the Uppsala-ESO Survey of Asteroids and Comets.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		<i>P</i>	<i>Q</i>		
<i>n</i>	0.27622985	<i>ω</i>	211.74551	+0.22698898	+0.96858503		
<i>a</i>	2.3350112	<i>Ω</i>	71.54327	–0.86962356	+0.24853753		
<i>e</i>	0.1511107	<i>i</i>	6.14766	–0.43844140	+0.00849379		
<i>P</i>	3.57	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1989 02 02	675	0.3–	0.3–	1998 12 16	747	0.5–	0.1–	2000 01 04	704	0.2–	0.3–
1989 02 02	675	1.4–	1.9–	1998 12 16	747	0.0	0.2+	2000 01 04	704	0.0	0.6–
1993 03 17	809	1.6+	0.7+	1998 12 16	747	0.3+	0.1+	2000 01 04	704	1.2–	1.2–
1993 03 18	809	0.7+	0.9+	1998 12 16	747	0.2+	0.4+	2000 01 07	704	1.2+	0.8–
1993 03 23	809	1.0+	0.6+	1998 12 16	747	0.1–	0.1+	2000 01 07	704	0.1–	0.3+
1993 04 16	413	0.6–	0.1–	1998 12 17	704	1.0–	0.5+	2000 01 07	704	0.4–	0.3–
1994 11 07	675	0.3–	0.5–	1998 12 17	747	0.1–	0.0	2000 01 07	704	0.4–	0.9–
1994 11 07	675	0.4–	0.3–	1998 12 17	747	0.1+	0.1–	2000 02 02	703	0.1–	0.3+
1998 11 24	747	0.7+	0.3+	1998 12 17	704	0.3+	1.0+	2000 02 02	703	0.1+	0.0
1998 11 24	747	0.6+	0.0	1998 12 17	747	0.6+	0.3+	2000 02 02	703	0.5–	0.6+
1998 11 24	747	0.8–	0.3–	1998 12 17	704	0.6–	0.9+	2000 02 02	703	0.3+	0.2+
1998 12 14	704	0.6+	0.2–	1998 12 17	704	0.2–	0.1+	2000 02 14	704	0.1–	0.4–
1998 12 14	704	0.2+	1.2+	1998 12 17	704	0.8–	0.5+	2000 02 14	704	0.5+	0.9–
1998 12 14	704	1.1+	0.8+	1999 01 05	699	0.1–	1.2–	2000 02 14	704	0.0	1.9+
1998 12 14	704	0.1–	0.4–	1999 01 05	699	0.0	1.1–	2000 02 14	704	1.1–	1.1+
1998 12 14	704	(2.9– 1.0–)		1999 01 05	699	0.1+	1.0–				
1998 12 16	747	0.3+	1.1+	2000 01 04	704	0.5+	0.5+				

(13574)* 1993 FX₇₉ = 1994 QS

Discovered 1993 Mar. 21 at the European Southern Observatory in the course of the Uppsala-ESO Survey of Asteroids and Comets.

Id. G. V. Williams (*MPC* 23980)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		<i>P</i>	<i>Q</i>		
<i>n</i>	0.25709147	<i>ω</i>	121.94442	+0.73679401	+0.67606387		
<i>a</i>	2.4495009	<i>Ω</i>	195.52432	–0.63055104	+0.68254764		
<i>e</i>	0.1300579	<i>i</i>	1.81971	–0.24400813	+0.27760830		
<i>P</i>	3.83	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1993 03 21	809	0.9–	0.4–	1998 09 23	691	0.1–	0.2–	1998 10 29	704	2.0–	1.5–
1993 03 22	809	0.5–	0.2+	1998 09 26	704	0.3–	0.3+	1998 12 08	699	1.1+	0.5–
1993 03 24	809	1.3+	0.5+	1998 09 26	704	0.0	0.6–	1998 12 08	699	0.4–	0.2–

1993 04 17	691	0.3–	0.4–	1998 09 26	704	0.3+	0.4+	1998 12 08	699	0.0	0.1–
1993 04 17	691	0.2–	0.1+	1998 09 26	704	1.4+	0.2–	1998 12 09	704	0.0	0.1–
1993 04 21	413	0.6–	0.1+	1998 09 26	704	0.4+	0.1+	1998 12 09	704	0.9–	0.6–
1994 08 13	809	0.2+	0.2+	1998 09 27	704	0.9–	0.6+	1998 12 09	704	1.6–	1.8+
1994 08 13	809	0.5–	0.3–	1998 09 27	704	0.8–	0.6–	1998 12 09	704	2.0+	0.4–
1994 08 13	809	1.1–	0.8–	1998 09 27	704	0.6–	0.3+	1998 12 09	704	0.8+	1.9+
1994 08 16	411	0.0	0.3–	1998 09 27	691	0.1–	0.1–	1999 01 14	910	1.6–	0.0
1994 08 16	411	0.2–	0.8+	1998 09 27	704	0.2–	1.6+	1999 01 14	910	1.6–	0.2–
1994 08 17	411	0.0	0.2+	1998 09 27	691	0.0	0.2–	1999 01 14	910	1.5–	0.1–
1994 08 17	411	0.4–	0.6–	1998 09 27	704	0.8–	0.7+	1999 10 10	704	0.2–	1.3+
1994 08 27	411	0.4–	0.4–	1998 09 27	691	0.1+	0.1–	1999 10 10	704	0.0	0.8+
1994 08 27	411	0.4–	0.7+	1998 10 14	704	0.4–	0.1–	1999 10 10	704	0.7–	0.3+
1994 09 01	411	0.1–	0.1–	1998 10 14	704	0.2+	0.4–	1999 12 31	699	0.9+	0.4+
1994 09 01	411	0.1–	0.3–	1998 10 14	704	0.9–	0.7–	1999 12 31	699	0.9+	0.1–
1994 09 01	411	0.5+	0.0	1998 10 14	704	0.5+	0.0	1999 12 31	699	0.5+	0.4+
1994 09 05	809	1.1+	0.9+	1998 10 14	704	1.0–	0.7–	2000 01 05	704	0.2–	0.9–
1994 09 05	809	0.3+	0.6+	1998 10 14	699	0.5+	0.8+	2000 01 05	704	0.0	0.6–
1994 09 05	809	0.6+	0.6+	1998 10 14	699	1.1+	0.0	2000 01 05	704	0.1+	0.1–
1994 09 06	809	(2.5+ 2.4+)		1998 10 14	699	0.7+	0.2+	2000 01 05	704	0.3–	0.4–
1994 09 06	809	(1.0+ 2.0+)		1998 10 15	704	0.8+	0.1+	2000 01 06	704	0.3+	0.2–
1994 09 06	809	(2.0+ 2.3+)		1998 10 15	704	0.1–	0.4+	2000 01 06	704	0.6+	0.0
1994 09 30	675	0.2+	0.3+	1998 10 15	704	0.4+	0.4–	2000 01 06	704	0.1+	0.2–
1994 09 30	675	0.2+	0.0	1998 10 15	704	0.3+	0.2+	2000 01 06	704	0.4+	0.2–
1994 10 01	399	1.1+	0.4+	1998 10 15	704	0.5+	0.6+	2000 01 30	703	0.2–	0.8+
1994 10 01	399	0.6–	1.3+	1998 10 19	699	0.3+	0.1+	2000 01 30	703	0.1–	0.8+
1994 10 02	399	1.8–	1.3+	1998 10 19	699	0.7+	0.1+	2000 01 30	703	1.7–	0.9+
1994 10 02	399	(3.2– 0.4–)		1998 10 19	699	0.1+	0.3+	2000 01 30	703	0.6–	0.6+
1994 10 08	801	0.6+	0.1+	1998 10 20	744	0.6–	0.4–	2000 02 02	704	0.3+	0.3+
1994 10 08	801	0.4+	0.3–	1998 10 20	744	0.2+	0.6–	2000 02 02	704	0.2+	0.1+
1998 09 14	704	0.2–	0.7+	1998 10 20	744	0.1+	0.4–	2000 02 02	704	0.2+	0.0
1998 09 14	704	0.4+	0.3+	1998 10 22	744	0.5+	0.5–	2000 02 02	704	0.1–	0.1–
1998 09 14	704	0.2–	0.7+	1998 10 22	744	0.0	0.3–	2000 02 02	704	0.1+	0.1+
1998 09 18	704	0.3+	0.2+	1998 10 22	744	0.0	0.5+	2000 02 03	704	0.7+	0.0
1998 09 18	704	0.0	0.2+	1998 10 28	704	0.5–	0.3–	2000 02 03	704	0.0	0.1+
1998 09 18	704	1.5+	0.8–	1998 10 28	704	0.2–	0.2–	2000 02 03	704	0.8+	0.8–
1998 09 18	704	0.3+	0.4–	1998 10 28	704	0.1+	0.9–	2000 02 03	704	0.4–	0.3–
1998 09 18	704	0.7–	1.3+	1998 10 28	704	0.2–	0.4+	2000 02 03	704	0.2+	0.1+
1998 09 21	691	0.5+	0.1+	1998 10 28	704	0.5–	0.7–	2000 02 12	704	(3.0+ 2.1+)	
1998 09 21	691	0.6+	0.0	1998 10 29	704	0.2+	1.8–	2000 02 12	704	(1.8+ 2.7+)	
1998 09 21	691	0.5+	0.1+	1998 10 29	704	0.5–	1.0–	2000 02 12	704	(1.8+ 2.3+)	
1998 09 23	691	0.3–	0.2–	1998 10 29	704	0.3+	1.2–				
1998 09 23	691	0.2–	0.2–	1998 10 29	704	0.3–	1.1–				

(13575)* 1993 GN = 1998 VF₂₃

Discovered 1993 Apr. 14 by S. Otomo at Kiyosato.

Id. G. V. Williams (*MPC* 33234)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

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1993 04 19	675	0.4−	0.6−	1998 11 10	704	1.0−	0.2+	2000 01 08	704	0.0	0.6−
1993 04 19	675	0.7+	0.3−	1998 11 11	704	0.6+	0.7+	2000 02 08	704	0.3+	0.5+
1993 04 25	361	0.5−	1.4−	1998 11 11	704	0.4+	0.2−	2000 02 08	704	0.2+	0.8+
1993 04 25	361	1.3+	0.1−	1998 11 11	704	1.0+	1.4−	2000 02 08	704	0.1+	0.5+
1993 04 25	361	(0.7+	2.6−)	1998 11 11	704	0.3+	0.4+	2000 02 11	704	0.7−	1.0+
1993 04 26	894	1.1−	1.0−	1998 11 11	699	0.9+	0.2−	2000 02 11	704	0.0	0.4+
1993 04 26	894	0.9−	1.8+	1998 11 11	704	0.5+	0.5+	2000 02 11	704	1.2+	0.9+

(13576)* 1993 HW = 1989 EX₁₁

Discovered 1993 Apr. 16 by K. Endate and K. Watanabe at Kitami.

Id. G. V. Williams (*MPC* 33685)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		277.05189		(2000.0)		P		Q	
<i>n</i>	0.27000784	ω	180.73268	−0.11523704	+0.99194964				
<i>a</i>	2.3707466	Ω	82.65104	−0.91110035	−0.08449220				
<i>e</i>	0.1855005	<i>i</i>	3.03441	−0.39574813	−0.09432378				
<i>P</i>	3.65	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	1		

Residuals in seconds of arc

1989 03 03	808	0.9−	1.3−	1996 01 18	691	0.6−	0.4−	2000 01 04	704	1.6−	0.0
1989 03 03	808	0.2+	0.1−	1996 01 18	691	0.7−	0.2−	2000 01 04	704	0.7−	0.1−
1993 04 15	675	0.5−	0.6−	1997 08 03	566	0.3−	0.0	2000 01 04	704	0.8−	0.5−
1993 04 15	675	0.5−	0.7−	1997 08 03	566	0.0	0.4−	2000 01 04	704	0.2−	1.6−
1993 04 16	675	0.3−	1.5−	1997 08 03	566	0.1−	0.2−	2000 02 04	704	0.4+	0.6+
1993 04 16	675	0.1+	0.7+	1998 11 20	699	0.3−	0.9−	2000 02 04	704	0.6+	0.2+
1993 04 16	400	1.5−	1.1+	1998 11 20	699	0.1+	0.3+	2000 02 04	704	0.9+	0.7+
1993 04 16	400	(1.0+	2.2−)	1998 11 20	699	0.7+	0.1+	2000 02 04	704	0.6+	1.7+
1993 04 19	675	0.1+	0.5−	1998 11 24	704	(3.7+	1.4−)	2000 02 04	704	0.5+	1.1+
1993 04 19	675	0.6+	0.8−	1998 11 24	704	(0.4+	2.9−)	2000 02 11	704	0.7+	0.6+
1993 04 20	400	0.4+	0.3+	1998 11 24	704	0.0	1.6−	2000 02 11	704	0.2+	0.5+
1993 04 20	400	0.6−	0.0	1999 01 05	699	0.3+	0.5−	2000 02 11	704	0.2+	0.3+
1993 05 14	400	0.2+	1.7−	1999 01 05	699	0.4+	1.1−	2000 02 11	704	0.3+	0.5+
1993 05 14	400	0.8+	0.8−	1999 01 05	699	1.1+	0.6−	2000 02 11	704	0.3+	0.3+

(13577)* 1993 HR₁ = 1990 QJ₁₆ = 1991 XQ₆ = 1994 RZ₄

Discovered 1993 Apr. 16 by K. Endate and K. Watanabe at Kitami.

Id. S. Nakano (*MPC* 23980), G. V. Williams (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		289.73463		(2000.0)		P		Q	
<i>n</i>	0.26454287	ω	116.60735	−0.68181860	+0.72982339				
<i>a</i>	2.4032854	Ω	110.31395	−0.68863240	−0.61738094				
<i>e</i>	0.1694506	<i>i</i>	3.04472	−0.24679711	−0.29359597				
<i>P</i>	3.73	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	2		

Residuals in seconds of arc

1990 08 24	809	(3.2+	1.6−)	1994 09 05	691	0.2+	0.6+	2000 01 09	704	(4.5+	0.4−)
1990 08 24	809	(2.5+	1.9−)	1994 09 09	691	0.0	0.1+	2000 01 09	704	0.6−	0.8−
1990 08 24	809	1.9+	1.2−	1994 09 09	691	0.0	0.5+	2000 01 09	704	(2.6−	2.6−)
1990 08 26	809	0.8−	1.6+	1994 09 09	691	0.0	0.6+	2000 01 30	704	0.3+	0.4+
1990 08 26	809	(0.3+	2.4+)	1998 10 29	704	2.0−	1.5−	2000 01 30	704	0.5+	0.8+
1990 08 26	809	(0.4+	3.3+)	1998 10 29	704	(2.5−	0.1+)	2000 01 30	704	0.8+	1.1+
1991 12 07	691	0.2−	0.3+	1998 10 29	704	0.2−	1.8−	2000 01 30	704	0.7+	2.1+
1991 12 07	691	0.2−	0.3+	1998 10 29	704	0.3+	0.4−	2000 02 03	704	0.2−	0.1−
1991 12 07	691	0.2−	0.3+	2000 01 04	704	0.1+	0.6+	2000 02 03	704	0.3+	0.3+
1993 04 16	400	1.0−	0.4−	2000 01 04	704	(0.3−	2.3+)	2000 02 03	704	0.6+	0.1−
1993 04 16	400	0.8−	0.5+	2000 01 04	704	(0.2−	2.8+)	2000 02 03	704	0.8+	0.2−
1993 04 20	400	0.8+	0.1−	2000 01 06	704	0.4−	0.4−	2000 02 03	704	0.3+	0.7−
1993 04 20	400	(2.8+	1.7−)	2000 01 06	704	0.3+	1.0−	2000 02 11	704	0.2+	0.5+
1993 05 14	400	(2.7+	3.7−)	2000 01 06	704	1.2−	0.9−	2000 02 11	704	0.3+	0.2+
1993 05 14	400	(4.4+	3.9−)	2000 01 06	704	0.1−	1.2−	2000 02 11	704	0.0	0.2+
1994 09 05	691	0.1+	0.8+	2000 01 07	120	0.5−	0.5−	2000 02 11	704	0.4−	0.2+
1994 09 05	691	0.2+	0.4+	2000 01 07	120	0.6−	0.5−	2000 02 11	704	0.5+	0.3+

(13578)* 1993 MK = 1973 AF₁ = 1992 AJ₆

Discovered 1993 June 17 by H. E. Holt at Palomar.

Id. G. V. Williams (*MPC* 22489)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		116.18984		(2000.0)		P		Q	
<i>n</i>	0.36370424	ω	236.73867	+0.91265828	+0.14206871				
<i>a</i>	1.9437354	Ω	112.44278	−0.06065915	+0.97434321				
<i>e</i>	0.0922148	<i>i</i>	24.49680	−0.40419715	+0.17456173				
<i>P</i>	2.71	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	1		

Residuals in seconds of arc

1973 01 01	095	(1.6−	3.4−)	1998 05 27	704	0.1+	0.9−	2000 01 11	704	0.4+	0.9+
1992 01 01	675	0.4−	1.2−	1998 05 27	704	0.3−	0.8−	2000 01 11	704	1.2+	1.1+
1992 01 01	675	(0.5+	2.3−)	1998 05 27	704	0.7+	0.9−	2000 01 11	704	0.1+	0.2−
1993 06 17	675	(0.8+	2.1−)	1998 05 27	704	0.3+	0.1−	2000 01 25	704	0.0	0.1+
1993 06 17	675	(1.8+	2.3−)	1999 10 09	704	1.0−	1.0−	2000 01 25	704	0.1−	0.2−
1993 06 18	675	(2.6+	1.4−)	1999 10 09	704	0.7−	1.1−	2000 01 25	704	0.4−	0.2+
1993 07 15	675	(0.2+	3.2+)	1999 10 09	704	0.3−	1.0−	2000 01 25	704	0.2−	0.0
1993 07 15	675	0.1+	0.6+	1999 10 09	704	0.4−	0.9−	2000 01 25	704	0.8+	0.4−
1993 07 20	675	0.4+	0.6+	1999 10 09	704	0.1−	1.3−	2000 01 27	704	0.0	0.2+
1993 07 20	675	0.6+	0.5+	1999 12 03	704	0.7−	0.0	2000 01 27	704	0.2−	0.2+
1996 12 01	689	(16.4−	4.3−)	1999 12 03	704	0.9−	0.1+	2000 01 27	704	0.3+	0.5−
1998 04 20	860	0.3−	0.1−	1999 12 03	704	0.7−	0.1+	2000 02 02	704	0.0	0.7+
1998 04 20	860	0.2−	0.4+	1999 12 03	704	1.0−	0.1−	2000 02 02	704	0.1−	0.8+
1998 04 20	860	0.2−	0.0	2000 01 05	127	0.3+	0.2+	2000 02 02	704	0.0	1.0+
1998 04 23	566	0.1−	0.7−	2000 01 05	127	0.6+	0.1−	2000 02 02	704	0.3+	1.0+
1998 04 23	566	0.1−	0.4−	2000 01 07	704	0.2−	0.3−	2000 02 03	704	0.3+	0.3+
1998 04 23	566	0.1−	0.0	2000 01 07	704	0.1+	0.3+	2000 02 03	704	0.1−	0.3+
1998 04 24	566	0.2+	0.9+	2000 01 07	704	0.1−	0.4−	2000 02 03	704	0.2−	0.5+
1998 04 24	566	0.5+	0.5+	2000 01 07	704	0.1−	0.2−	2000 02 03	704	0.1−	0.3−
1998 04 24	566	0.2+	0.7+	2000 01 07	704	0.2−	0.1−	2000 02 12	704	0.1+	0.1+
1998 05 01	860	0.3+	0.4+	2000 01 07	127	0.1+	0.0	2000 02 12	704	0.8+	0.1−
1998 05 01	860	1.2−	0.2+	2000 01 07	127	0.0	0.0	2000 02 12	704	0.9+	0.4+
1998 05 01	860	1.4−	0.4+	2000 01 11	704	0.2+	0.3−	2000 02 12	704	0.0	0.9+
1998 05 27	704	0.1+	0.1−	2000 01 11	704	0.1+	0.2−	2000 02 12	704	0.2+	1.1+

(13579)* 1993 NA₂ = 1994 WB₄

Discovered 1993 July 12 by E. W. Elst at the European Southern

Observatory.

Id. S. Nakano (*MPC* 24568)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		83.76258		(2000.0)		P		Q	
<i>n</i>	0.23081886	ω	301.00950	+0.41723534	−0.89811499				
<i>a</i>	2.6320160	Ω	123.69740	+0.88033460	+0.36145334				
<i>e</i>	0.1774630	<i>i</i>	9.61335	+0.22566715	+0.25048144				
<i>P</i>	4.27	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	1		

Residuals in seconds of arc

1991 02 07	675	0.1−	0.6−	1998 09 21	699	0.2−	0.9+	2000 01 08	704	0.8+	1.1−
1991 02 07	675	0.3−	0.3−	1998 10 16	704	0.2−	0.5+	2000 01 10	699	0.1+	1.1+
1993 07 12	809	0.3+	1.8+	1998 10 16	704	0.0	0.6+	2000 01 10	699	0.9−	0.2+
1993 07 12	809	0.7+	1.2+	1998 10 16	704	0.5−	0.3+	2000 01 10	699	0.3+	0.7+
1993 07 12	809	0.8−	0.3+	1998 10 16	704	0.3+	0.4−	2000 02 02	703	0.3+	1.3+
1993 07 19	809	(2.1+	2.5+)	1998 10 16	704	0.1+	0.8+	2000 02 02	703	0.1−	0.8+
1993 07 19	809	(1.3+	2.5+)	1998 11 13	704	0.1−	0.5−	2000 02 02	703	0.3−	0.0
1993 07 19	809	(2.6+	3.3+)	1998 11 13	704	0.7−	1.5−	2000 02 02	703	0.6+	0.3−
1993 07 23	809	1.7−	0.8+	1998 11 13	704	1.1+	1.9+	2000 02 04	704	0.3+	0.3+
1993 07 23	809	1.9−	1.1+	1998 11 13	704	2.0−	0.2−	2000 02 04	704	1.5+	1.3+
1993 07 23	809	0.8−	0.6+	1998 12 08	704	0.5+	0.3−	2000 02 04	704	0.6+	1.3+
1993 07 26	809	2.0+	0.5+	1998 12 08	704	0.6+	0.2+	2000 02 04	704	0.5+	1.6+
1993 07 26	809	1.2+	1.5+	1998 12 08	704	0.5−	1.0−	2000 02 04	704	0.8+	1.5+
1993 07 26	809	0.8+	0.6+	1998 12 08	704	1.6+	0.5+	2000 02 11	704	0.7+	0.4+
1994 11 28	399	0.8+	1.1+	1998 12 08	704	1.6−	0.4−	2000 02 11	704	0.4+	0.2−
1994 11 28	399	0.0	1.5+	2000 01 04	704	0.3+	0.3+	2000 02 11	704	0.3+	0.1−
1994 11 29	399	0.1+	0.5+	2000 01 04	704	0.1−	0.7−	2000 02 11	704	0.1−	0.3+
1994 11 29	399	1.5−	1.1+	2000 01 04	704	1.1−	0.1+	2000 02 11	704	0.5+	0.1−
1994 12 09	399	0.8+	0.6+	2000 01 04	704	0.3+	0.7+	2000 02 14	704	0.3+	0.4+

1994 12 09	399	0.1−	1.3−	2000 01 08	704	(1.1+	2.6+)	2000 02 14	704	0.4−	0.7+
1998 09 21	699	0.4−	1.4+	2000 01 08	704	1.2−	0.9+	2000 02 14	704	0.1+	0.7+
1998 09 21	699	0.5−	2.0+	2000 01 08	704	0.4+	1.0+	2000 02 14	704	0.6−	0.4−

(13580)* 1993 OQ₅ = 1981 AC₂ = 1994 YE

Discovered 1993 July 20 by E. W. Elst at the European Southern Observatory.

Id. K. Ichikawa (*MPC* 25216)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 94.93472 (2000.0)				Williams			
				P		Q	
<i>n</i>	0.20918815	ω	77.94959	+0.97180200	−0.21701973		
<i>a</i>	2.8104638	Ω	294.52705	+0.15686588	+0.88698807		
<i>e</i>	0.2333178	<i>i</i>	5.81746	+0.17605104	+0.40762066		
<i>P</i>	4.71	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1981 01 08	381	0.6−	0.9−	1998 08 26	699	0.4+	0.1−	1999 12 31	699	0.6+	0.6+
1981 01 08	381	0.4+	0.4−	1998 09 14	704	0.5−	0.3−	2000 01 03	691	0.2+	0.7+
1993 07 13	809	1.5+	0.6+	1998 09 14	704	0.6−	0.4+	2000 01 03	691	0.3+	0.8+
1993 07 13	809	0.8+	0.0	1998 09 14	704	0.2+	0.1+	2000 01 03	691	0.3+	0.6+
1993 07 13	809	0.0	0.8+	1998 09 14	704	0.4−	0.9−	2000 01 05	704	0.0	0.4−
1993 07 20	809	0.3−	0.9+	1998 09 14	704	0.1−	0.4−	2000 01 05	704	0.2−	0.4−
1993 07 20	809	1.2−	0.9+	1998 09 15	699	0.0	0.0	2000 01 05	704	0.4−	0.3−
1993 07 20	809	1.8−	1.2+	1998 09 15	699	0.0	0.2+	2000 01 05	704	0.5−	0.1+
1993 07 24	809	0.6−	0.2+	1998 09 15	699	0.1+	0.5+	2000 01 05	704	0.2−	0.4−
1994 12 24	411	1.4+	1.3−	1998 09 18	704	0.8+	0.2−	2000 01 06	704	0.8+	0.0
1994 12 24	411	(2.9+	1.3−)	1998 09 18	704	1.3+	0.4−	2000 01 06	704	0.5−	0.6−
1994 12 28	411	0.3+	0.4−	1998 09 18	704	0.3−	0.1+	2000 01 06	704	0.2−	0.2−
1994 12 28	411	0.5+	0.1+	1998 09 18	704	0.2+	1.4+	2000 01 06	704	0.3−	0.2−
1995 01 02	010	1.4−	1.2+	1998 09 18	704	0.1+	0.4−	2000 02 02	704	0.8−	1.5+
1995 01 02	010	1.1−	0.7+	1998 09 25	704	0.2+	0.1+	2000 02 02	704	1.4+	0.4−
1995 01 03	010	(2.5−	1.5+)	1998 09 25	704	0.4+	0.4−	2000 02 02	704	0.0	1.5+
1995 01 04	010	0.1+	1.8+	1998 09 25	704	0.3+	1.5−	2000 02 02	704	0.9+	0.7−
1998 08 17	704	0.1+	0.3+	1998 09 25	704	0.0	1.4−	2000 02 02	704	0.2+	0.2+
1998 08 17	704	0.2−	0.8+	1998 09 25	704	0.9−	1.0−	2000 02 03	704	0.6+	0.3+
1998 08 17	704	0.8+	0.4+	1998 09 27	704	0.1−	0.1−	2000 02 03	704	(2.4−	0.9+)
1998 08 17	704	0.1−	0.5+	1998 09 27	704	0.1−	0.0	2000 02 03	704	0.6+	0.1−
1998 08 17	704	1.2−	0.9+	1998 09 27	704	0.1−	0.5+	2000 02 03	704	0.4+	0.1+
1998 08 23	704	0.1+	1.5+	1998 09 27	704	0.1+	0.9+	2000 02 03	704	0.1−	0.2−
1998 08 23	704	0.9−	1.0−	1998 09 27	704	0.4−	0.1−	2000 02 12	704	0.0	0.2+
1998 08 23	704	0.1+	0.5−	1998 11 15	699	0.1−	0.1−	2000 02 12	704	0.8−	0.2+
1998 08 23	704	0.9+	0.9+	1998 11 15	699	0.1−	0.0	2000 02 12	704	0.6−	1.0+
1998 08 23	704	0.8−	1.3+	1998 11 15	699	0.1+	0.1+	2000 02 12	704	0.5+	1.0+
1998 08 26	699	0.3+	0.2+	1999 12 31	699	0.2−	0.0	2000 02 12	704	0.2−	0.5+
1998 08 26	699	0.2+	0.6−	1999 12 31	699	0.5+	0.9+				

(13581)* 1993 QX₄ = 1975 EW₄ = 1987 DW₄

Discovered 1993 Aug. 19 by E. F. Helin at Palomar.

Id. T. B. Spahr (*MPC* 30452)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 70.30760 (2000.0)				Williams			
				P		Q	
<i>n</i>	0.24022685	ω	323.02755	−0.55775768	−0.82524275		
<i>a</i>	2.5628411	Ω	160.37874	+0.81065616	−0.56459005		
<i>e</i>	0.0505326	<i>i</i>	15.32918	+0.17816555	−0.01457674		
<i>P</i>	4.10	<i>H</i>	13.1	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1975 03 15	095	1.2−	1.5+	1993 09 12	675	(2.4−	1.6+)	1998 12 19	704	1.4−	0.2+
1987 02 28	010	0.1+	0.7−	1997 08 23	367	0.4−	0.2−	1998 12 19	704	1.3−	0.6+
1987 02 28	010	1.3+	2.4−	1997 08 23	367	0.9−	0.4−	1998 12 19	704	(2.7−	0.4+)
1987 02 28	010	0.8+	0.3−	1997 08 30	566	0.1−	0.0	1998 12 19	704	1.7−	1.6+
1993 08 13	675	0.1+	0.1−	1997 08 30	566	0.3−	0.2+	1999 02 04	704	0.5+	0.8+
1993 08 13	675	0.4−	0.3+	1997 08 30	566	0.1+	0.1+	1999 02 04	704	(2.7−	0.2−)
1993 08 16	010	0.4−	0.6+	1997 09 30	566	0.5−	0.2−	1999 02 04	704	1.8+	0.2−
1993 08 16	010	0.5−	0.0	1997 09 30	566	0.5−	0.1−	1999 02 04	704	0.4+	0.6−

1993 08 16	010	0.8+	0.2+	1997 09 30	566	0.3−	0.1−	1999 03 10	704	0.0	0.8−
1993 08 17	010	1.7+	0.7−	1998 12 09	750	0.7−	0.7+	1999 03 10	704	1.0−	0.1+
1993 08 19	010	1.5+	0.6+	1998 12 09	750	0.3−	0.5+	1999 03 10	704	(0.1+	2.2+)
1993 08 19	010	1.4+	0.2+	1998 12 09	750	0.2−	0.1−	1999 03 10	704	1.0+	1.5+
1993 08 19	010	1.4+	0.2−	1998 12 09	750	0.1+	0.2+	2000 01 08	699	0.2−	0.3+
1993 08 19	675	1.0−	0.0	1998 12 11	750	0.5+	0.5−	2000 01 08	699	0.4−	0.7+
1993 08 19	675	1.6−	0.5+	1998 12 11	750	0.5+	0.8−	2000 01 08	699	0.0	0.5+
1993 08 22	675	0.0	0.4−	1998 12 11	750	0.9+	0.9−	2000 02 08	704	0.4+	0.2−
1993 08 22	675	0.1−	0.0	1998 12 11	750	0.1−	0.9−	2000 02 08	704	0.4+	0.1−
1993 09 12	675	(3.7−	1.1−)	1998 12 19	704	0.3−	0.9+	2000 02 08	704	0.8+	0.3+

(13582)* 1993 TN₂ = 1979 DY = 1998 XV₅₁ = 1999 BL₁₇

Discovered 1993 Oct. 15 by K. Endate and K. Watanabe at Kitami.

Id. A. Doppler (*MPC* 33938)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 296.55520 (2000.0)				Williams			
				P		Q	
<i>n</i>	0.23658908	ω	229.52590	−0.04530841	+0.98727098		
<i>a</i>	2.5890449	Ω	38.70036	−0.82682057	+0.04858788		
<i>e</i>	0.1410194	<i>i</i>	14.11298	−0.56063794	−0.15144379		
<i>P</i>	4.17	<i>H</i>	13.3	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1979 02 25	033	0.3−	0.1−	1997 12 27	566	0.6−	0.6−	1999 01 16	704	0.3−	0.2+
1979 02 25	033	0.0	0.2−	1997 12 27	566	1.0−	0.3−	1999 01 16	704	0.0	0.0
1993 10 14	675	(0.2+	2.5+)	1997 12 27	566	1.1−	0.3−	1999 01 16	704	0.7+	0.1+
1993 10 14	675	0.8−	1.6+	1998 11 21	699	0.1−	0.3−	1999 01 16	704	0.6−	0.8+
1993 10 15	400	0.7+	1.4+	1998 11 21	699	0.8+	1.0−	1999 01 19	704	0.8+	0.5+
1993 10 15	400	(0.2+	2.3+)	1998 11 21	699	1.2−	0.2+	1999 01 19	704	0.4+	0.4+
1993 10 16	400	1.5+	0.9+	1998 12 14	704	0.1−	0.7−	1999 01 19	704	(2.7+	0.3−)
1993 10 16	400	1.1−	0.7−	1998 12 14	704	0.9−	0.2−	1999 01 19	704	0.1−	0.2−
1993 10 20	399	0.2+	0.2−	1998 12 14	704	1.0+	0.6−	2000 01 10	699	0.1+	0.9+
1993 10 20	399	0.4−	0.9−	1998 12 14	704	0.4+	1.0−	2000 01 10	699	0.1−	0.1+
1996 05 22	566	0.2−	0.0	1998 12 14	704	(2.9−	0.9−)	2000 01 10	699	0.2+	0.6+
1996 05 22	566	0.2−	0.2+	1998 12 17	704	0.1−	0.0	2000 01 16	120	0.8+	0.5−
1996 05 22	566	0.0	0.1+	1998 12 17	704	0.2−	0.0	2000 01 16	120	1.6+	0.1−
1997 10 29	566	0.0	0.6+	1998 12 17	704	0.6−	0.4−	2000 02 08	704	0.2−	0.5+
1997 10 29	566	0.1−	0.6+	1998 12 17	704	0.5−	0.3+	2000 02 08	704	0.2+	0.8+
1997 10 29	566	0.0	0.4+	1998 12 17	704	0.0	0.7+	2000 02 08	704	1.0+	0.8+

(13583)* 1993 TN₁₈ = 1996 GL₁₈

Discovered 1993 Oct. 9 by E. W. Elst at the European Southern Observatory.

Id. A. Gnädig (*MPC* 32934)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 250.38404 (2000.0)				Williams			
				P		Q	
<i>n</i>	0.21834647	ω	211.47886	+0.05241462	+0.99725514		
<i>a</i>	2.7313159	Ω	61.57228	−0.90342580	+0.06966769		
<i>e</i>	0.0337507	<i>i</i>	3.40921	−0.42552853	−0.02507198		
<i>P</i>	4.51	<i>H</i>	13.3	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1993 10 09	809	1.3+	0.3+	1996 04 17	809	0.7−	1.3+	1999 01 05	699	0.2−	1.5+
1993 10 09	809	0.2+	0.2−	1996 04 17	809	1.5−	0.3+	1999 12 05	704	0.1−	0.2+
1993 10 09	809	0.7+	0.5+	1996 04 17	809	1.2−	0.6+	1999 12 05	704	0.8−	0.4+
1993 10 11	809	0.7+	1.1−	1997 09 01	566	0.2−	1.0+	1999 12 05	704	0.4+	0.2−
1993 10 11	809	0.5+	1.2−	1997 09 01	566	0.2−	1.3+	1999 12 05	704	0.6−	0.0
1993 10 11	809	0.7−	0.8−	1997 09 01	566	0.5−	1.4+	1999 12 05	704	0.2+	1.1−
1993 10 20	809	0.2+	0.4−	1998 12 14	704	1.3−	1.1+	2000 02 04	704	0.2−	1.5−
1993 10 20	809	0.2+	0.6−	1998 12 14	704	0.4+	0.1+	2000 02 04	704	0.1+	0.6−
1993 10 20	809	0.7+	0.6−	1998 12 14	704	1.5−	1.9+	2000 02 04	704	0.5−	0.4−
1996 03 24	809	1.5+	0.3−	1998 12 14	704	1.1−	1.5+	2000 02 04	704	0.3−	0.3−
1996 03 24	809	1.2+	0.9+	1998 12 14	704	1.0−	1.2+	2000 02 04	704	0.5−	0.2+
1996 03 24	809	1.0+	0.1−	1998 12 17	704	0.1−	0.4+	2000 02 11	704	0.2+	0.4−
1996 03 27	809	(2.7+	0.3+)	1998 12 17	704	(0.2+	2.3+)	2000 02 11	704	0.4+	0.8−
1996 03 27	809	(2.4+	0.3+)	1998 12 17	704	0.3+	0.1−	2000 02 11	704	0.0	0.5−
1996 03 27	809	1.7+	0.2+	1998 12 17	704	0.4−	0.4+	2000 02 11	704	1.1+	0.9−

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1996 04 15	809	0.3−	1.6+	1998 12 17	704	0.1−	0.1+	2000 02 11	704	0.6+	0.7−
1996 04 15	809	0.2−	1.7+	1999 01 05	699	0.1−	1.5+				
1996 04 15	809	0.1−	1.6+	1999 01 05	699	0.7−	0.7+				

(13584)* 1993 TH₁₉ = 1996 EE₇

Discovered 1993 Oct. 9 by E. W. Elst at the European Southern Observatory.
Id. G. V. Williams (*MPC* 27106)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.19100192	<i>ω</i>	158.93391	+0.22085118	+0.97527885		
<i>a</i>	2.9861450	<i>Ω</i>	123.82441	−0.89610933	+0.20593808		
<i>e</i>	0.0804279	<i>i</i>	0.51579	−0.38498418	+0.08012913		
<i>P</i>	5.16	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1993 10 09	809	1.8+	0.7−	1996 03 11	691	0.5−	0.2−	1998 10 28	691	0.5−	0.0
1993 10 09	809	0.7+	0.3−	1996 03 26	691	0.3+	0.6−	1998 10 28	691	0.4−	0.1−
1993 10 09	809	0.7+	0.8−	1996 03 26	691	0.5+	0.5−	1999 12 07	704	0.2+	0.2−
1993 10 11	809	0.1−	1.7−	1996 03 26	691	0.0	0.7−	1999 12 07	704	0.5−	0.6+
1993 10 11	809	0.8−	0.9−	1998 09 25	699	0.7+	0.2+	1999 12 07	704	0.2−	1.5+
1993 10 11	809	0.6+	1.9−	1998 09 25	699	0.5−	1.0+	2000 01 05	704	0.7+	0.5+
1993 10 12	809	0.5−	0.4−	1998 09 25	699	(0.5−	2.1+)	2000 01 05	704	0.5−	0.0
1993 10 12	809	0.2+	0.2+	1998 10 16	691	0.2+	0.8+	2000 01 05	704	0.3−	0.3+
1993 10 12	809	(1.8−	2.4−)	1998 10 16	691	0.0	0.6+	2000 01 05	704	0.1+	0.0
1993 10 22	809	(8.7+	2.2−)	1998 10 16	691	0.1−	0.8+	2000 01 05	704	1.3+	0.3−
1993 10 22	809	(1.8+	2.7−)	1998 10 20	120	(3.3+	1.3+)	2000 01 06	691	0.4−	0.1−
1996 03 11	691	0.6−	0.1−	1998 10 20	120	0.6−	0.0	2000 01 06	691	0.4−	0.0
1996 03 11	691	0.7−	0.3−	1998 10 28	691	0.4−	0.3+	2000 01 06	691	0.2−	0.0

(13585)* 1993 TC₂₀ = 1998 VY₃₀

Discovered 1993 Oct. 9 by E. W. Elst at the European Southern Observatory.
Id. G. V. Williams (*MPC* 33237)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.21217105	<i>ω</i>	267.23795	+0.59441661	+0.80277870		
<i>a</i>	2.7840603	<i>Ω</i>	39.35767	−0.70517004	+0.54848631		
<i>e</i>	0.0846660	<i>i</i>	4.25632	−0.38652827	+0.23389980		
<i>P</i>	4.65	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1993 10 09	809	0.6−	0.1+	1998 11 10	704	(3.4−	3.1−)	2000 01 04	704	0.8+	0.0
1993 10 09	809	1.0−	0.1+	1998 11 10	699	0.5+	0.0	2000 01 04	704	0.9+	0.3−
1993 10 09	809	0.4−	0.2−	1998 11 11	704	0.6+	1.5−	2000 01 04	704	0.5−	0.3−
1993 10 11	809	1.5+	0.2+	1998 11 11	704	0.6+	0.2−	2000 01 04	704	0.3+	0.8−
1993 10 11	809	1.0+	0.5+	1998 11 11	704	(1.8−	2.1−)	2000 01 06	704	0.6+	0.3−
1993 10 11	809	0.6+	0.9+	1998 11 14	376	0.0	0.3+	2000 01 06	704	0.3−	0.8+
1993 10 20	809	0.6−	0.1−	1998 11 14	376	0.3−	0.7−	2000 01 06	704	0.0	0.1+
1993 10 20	809	0.1+	0.1+	1998 11 18	704	0.5−	0.5−	2000 01 06	704	0.8−	0.6−
1993 10 20	809	0.5+	0.3+	1998 11 18	704	(0.0	2.2−)	2000 02 03	704	0.5+	0.2+
1996 03 26	566	0.8−	0.8+	1998 11 18	704	1.0−	1.4−	2000 02 03	704	0.4+	0.2+
1996 03 26	566	0.5−	0.9+	1998 11 18	704	(2.1−	2.8−)	2000 02 03	704	0.3−	0.0
1996 03 26	566	0.7−	0.7+	1998 11 21	704	1.2−	0.5+	2000 02 03	704	0.6+	0.2−
1997 08 01	566	0.6+	1.3+	1998 11 21	704	1.8−	0.0	2000 02 03	704	0.1−	0.8+
1997 08 01	566	0.9−	1.1+	1998 11 21	704	(2.9−	1.3+)	2000 02 11	704	1.3+	0.1−
1997 08 01	566	0.1+	1.6+	1998 11 21	704	1.3−	0.0	2000 02 11	704	0.1+	1.2+
1998 11 10	699	1.4+	1.7+	1998 12 16	699	0.3+	1.2+	2000 02 11	704	1.2+	0.7+
1998 11 10	704	0.0	1.6−	1998 12 16	699	0.5−	0.6+	2000 02 11	704	0.3+	0.7+
1998 11 10	704	(2.4−	3.8−)	1998 12 16	699	0.7−	0.1+				
1998 11 10	699	0.1+	1.1+	2000 01 04	704	0.4+	0.1−				

(13586)* 1993 TY₂₂ = 1998 SK₅₆

Discovered 1993 Oct. 9 by E. W. Elst at the European Southern Observatory.
Id. A. Gnädig (*MPC* 32934)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.19023593	<i>ω</i>	119.41643	+0.59811069	+0.80111423		
<i>a</i>	2.9941555	<i>Ω</i>	187.43461	−0.78137716	+0.57686721		
<i>e</i>	0.0806916	<i>i</i>	9.74405	−0.17808241	+0.15949988		
<i>P</i>	5.18	<i>H</i>	13.1	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1993 10 09	809	(0.3−	3.3+)	1998 09 25	699	0.0	0.2−	1999 11 05	704	1.0−	0.4+
1993 10 09	809	(0.2−	3.2+)	1998 09 26	704	0.1+	0.1−	1999 12 05	704	0.7+	0.3−
1993 10 09	809	(0.0	3.7+)	1998 09 26	704	0.5−	0.6−	1999 12 05	704	0.7+	0.1−
1993 10 11	809	0.4+	1.8+	1998 09 26	704	0.5−	0.7+	1999 12 05	704	0.1+	0.0
1993 10 11	809	0.9−	1.6+	1998 09 26	704	0.3+	0.0	1999 12 05	704	0.3+	0.4−
1993 10 11	809	0.4−	1.5+	1998 09 26	704	1.0+	0.4+	1999 12 05	704	0.3−	0.1−
1993 10 20	809	(0.2−	2.6+)	1998 09 27	704	0.6−	0.1+	1999 12 14	704	0.1−	0.3−
1993 10 20	809	(0.4−	2.2+)	1998 09 27	704	0.4−	0.9+	1999 12 14	704	0.3−	0.9−
1993 10 20	809	0.6−	2.0+	1998 09 27	704	1.1−	1.6+	1999 12 14	704	0.2+	0.1−
1996 03 20	566	0.0	0.2+	1998 09 27	704	0.2+	1.1+	1999 12 14	704	0.2+	0.3+
1996 03 20	566	0.2−	0.7+	1998 09 27	704	0.2+	0.1+	1999 12 14	704	0.1+	0.6−
1996 03 20	566	0.5+	0.3+	1998 10 14	699	0.9+	0.9−	2000 01 07	704	0.2+	0.6+
1998 09 16	699	0.1−	0.3−	1998 10 14	699	0.8+	0.9−	2000 01 07	704	0.2−	0.3+
1998 09 16	699	0.1−	0.5−	1998 10 14	699	0.5+	0.6−	2000 01 07	704	0.3−	0.5+
1998 09 16	699	0.1−	0.0	1998 11 10	699	0.7−	1.2−	2000 01 07	704	0.2+	0.3+
1998 09 19	824	0.0	0.8−	1998 11 10	699	0.1+	0.6−	2000 01 07	704	0.1+	0.5+
1998 09 19	824	0.2−	0.5−	1998 11 10	699	1.0+	1.7−	2000 01 11	704	0.6+	0.0
1998 09 19	824	0.2−	0.6−	1999 11 05	704	0.2−	0.8−	2000 01 11	704	0.3−	0.1+
1998 09 25	699	0.3+	0.4−	1999 11 05	704	0.1−	0.3−	2000 01 11	704	0.4−	0.4−
1998 09 25	699	0.3+	0.4−	1999 11 05	704	0.3−	0.7−	2000 01 11	704	0.0	0.0

(13587)* 1993 TQ₂₉ = 1998 RN₃₂

Discovered 1993 Oct. 9 by E. W. Elst at the European Southern Observatory.
Id. A. Gnädig (*MPC* 32935)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.18360208	<i>ω</i>	256.00442	+0.25386968	−0.96723778		
<i>a</i>	3.0658506	<i>Ω</i>	179.28605	+0.91857823	+0.24073408		
<i>e</i>	0.1925834	<i>i</i>	5.17143	+0.30292609	+0.08061128		
<i>P</i>	5.37	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1982 07 27	413	0.3+	0.2+	1998 09 14	704	(1.2−	2.4+)	2000 01 05	704	0.4−	0.2+
1982 10 18	413	1.3−	0.1+	1998 09 14	704	0.1−	0.3+	2000 01 07	704	0.1+	0.5+
1982 10 18	413	1.0+	1.0+	1998 09 14	704	(0.6−	2.3+)	2000 01 07	704	0.5−	1.3−
1982 11 05	413	0.9−	0.8+	1998 09 18	704	1.2−	0.3+	2000 01 07	704	0.5+	0.3−
1993 10 09	809	0.9+	0.6+	1998 09 18	704	(3.0+	0.8+)	2000 01 07	704	0.6−	0.1+
1993 10 09	809	(3.2+	1.1+)	1998 09 18	704	0.4+	0.7−	2000 02 02	704	0.8−	0.9+
1993 10 09	809	(2.4+	1.1+)	1999 12 14	704	1.6−	0.8−	2000 02 02	704	0.2+	0.7+
1993 10 11	809	1.3+	0.8−	1999 12 14	704	0.5−	1.1−	2000 02 02	704	1.3+	0.4+
1993 10 11	809	1.2−	0.6−	1999 12 14	704	0.5−	0.4−	2000 02 03	704	0.2+	1.4+
1993 10 11	809	0.4−	0.5−	1999 12 14	704	0.8−	0.2−	2000 02 03	704	1.2+	0.0
1993 10 21	809	(2.8−	3.0−)	2000 01 03	120	1.6+	0.0	2000 02 03	704	(0.8+	2.3+)
1993 10 21	809	(1.4−	2.6−)	2000 01 03	120	1.3−	0.2−	2000 02 03	704	0.2+	0.8+
1993 10 21	809	(2.7−	3.0−)	2000 01 05	704	1.6+	0.2−	2000 02 03	704	0.1+	0.8+
1998 09 14	704	0.5+	0.7+	2000 01 05	704	0.2−	0.2−				

(13588)* 1993 TU₃₈ = 1995 BB₁

Discovered 1993 Oct. 9 by E. W. Elst at the European Southern Observatory.
Id. T. Kobayashi (*MPC* 24899)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	58.37453	(2000.0)		$\mathbf{P}$	$\mathbf{Q}$
n	0.21061141	ω	4.14132	-0.21808204	-0.97127511
a	2.7977879	Ω	98.47457	+0.89261076	-0.23795478
e	0.0247493	i	5.52389	+0.39457098	+0.00147840
P	4.68	H	13.9	G 0.15	U 1

Residuals in seconds of arc

1988 09 10	675	0.3-	0.7-	1995 02 06	411	0.1-	0.5-	1998 12 12	691	1.1-	0.3+
1988 09 10	675	0.9-	0.1-	1995 02 06	411	0.5+	0.8-	1998 12 12	691	1.2-	0.2+
1991 04 19	675	1.5-	0.8+	1995 02 10	411	0.2-	1.0-	1998 12 25	691	0.8-	0.0
1991 04 19	675	1.6-	0.7-	1995 02 10	411	0.6+	0.7+	1998 12 25	691	0.8-	0.1+
1993 10 09	809	(2.2+ 0.8-)		1998 11 11	699	0.1+	1.3+	1998 12 25	691	0.8-	0.1+
1993 10 09	809	1.5+	1.4-	1998 11 11	699	1.0+	0.8-	2000 01 04	704	0.3-	0.5+
1993 10 09	809	1.1+	1.4-	1998 11 11	699	1.0+	0.3-	2000 01 04	704	0.2+	0.2+
1993 10 11	809	1.3+	0.9+	1998 11 23	699	0.8-	0.7+	2000 01 04	704	0.6-	0.7-
1993 10 11	809	1.3+	0.2-	1998 11 23	699	0.3-	0.2-	2000 01 04	704	0.5+	1.0+
1993 10 11	809	1.6+	0.4+	1998 11 23	699	0.0	0.4-	2000 02 04	704	0.9+	0.6-
1993 10 21	809	0.5+	0.0	1998 11 24	704	0.7-	0.2+	2000 02 04	704	0.2+	0.2-
1993 10 21	809	1.3+	0.1-	1998 11 24	704	1.5-	0.1-	2000 02 04	704	0.6+	0.2-
1993 10 21	809	0.6-	0.2+	1998 11 24	704	0.3-	0.3+	2000 02 04	704	0.3+	0.1+
1995 01 25	411	0.1-	0.1-	1998 11 24	704	1.5-	0.7-	2000 02 04	704	0.4+	0.2-
1995 01 25	411	0.1-	1.1-	1998 11 24	704	(3.1- 1.5+)		2000 02 11	704	0.6+	0.3+
1995 01 26	411	(0.0 2.8-)		1998 12 08	699	1.2+	1.8+	2000 02 11	704	0.0	0.3+
1995 01 26	411	0.0	1.4-	1998 12 08	699	0.9-	1.1+	2000 02 11	704	0.2+	0.0
1995 01 30	411	0.1-	0.3-	1998 12 08	699	0.5+	1.2-	2000 02 11	704	0.6+	0.0
1995 01 30	411	0.4-	0.7-	1998 12 12	691	1.3-	0.1+	2000 02 11	704	0.4+	0.9+

(13589)* 1993 XM

Discovered 1993 Dec. 8 by T. Kobayashi at Oizumi.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

<i>M</i>	19.75476		(2000.0)		P		Q
<i>n</i>	0.18492110	ω	37.67647		-0.79801664		-0.53676972
<i>a</i>	3.0512543	Ω	107.67006		+0.45897715		-0.83593751
<i>e</i>	0.1527227	<i>i</i>	16.70913		+0.39052454		-0.11439731
<i>P</i>	5.33	<i>H</i>	12.9	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1993 12 08	411	0.0	0.3-	1995 04 12	411	0.7+	0.5+	1999 01 07	704	0.9-	0.4+
1993 12 08	411	1.2+	0.9+	1995 04 20	411	0.4-	0.3+	1999 01 07	704	1.7-	0.8+
1993 12 09	411	0.8-	1.5+	1995 04 20	411	0.2-	1.0+	1999 01 07	704	0.3+	1.1+
1993 12 09	411	0.4-	0.1+	1995 04 26	411	0.3+	0.2+	1999 01 07	704	0.4+	1.5+
1993 12 09	411	0.6+	0.2-	1995 04 26	411	0.6+	0.3-	1999 01 15	699	0.6-	1.7+
1993 12 12	411	0.0	0.2+	1995 06 30	801	1.1+	0.3+	1999 01 15	699	0.5+	0.5-
1993 12 12	411	0.1-	0.0	1995 06 30	801	0.8+	0.8-	1999 01 15	699	1.4+	1.1+
1993 12 12	411	0.5+	0.5+	1998 11 13	704	0.9+	0.8-	2000 01 07	704	0.5+	0.4+
1993 12 23	411	0.7+	1.8-	1998 11 13	704	0.0	1.0+	2000 01 07	704	0.6+	0.5-
1993 12 23	411	0.1-	0.7+	1998 11 13	704	0.0	1.4+	2000 01 07	704	0.1+	0.0
1993 12 23	411	(2.6- 0.8+)		1998 11 13	704	0.3+	0.1-	2000 01 07	704	0.9+	0.5-
1994 01 04	411	1.1-	0.3-	1998 11 13	704	1.9-	0.5-	2000 01 07	704	0.9+	0.4-
1994 01 04	411	0.1-	1.7-	1998 11 14	367	0.1+	0.7+	2000 02 03	704	0.3-	0.3-
1994 01 04	411	0.0	0.9-	1998 11 14	367	0.1-	0.0	2000 02 03	704	0.2-	0.1-
1995 04 10	411	0.2-	0.8+	1998 12 15	704	0.7+	1.8-	2000 02 03	704	0.5-	0.5+
1995 04 10	411	1.0-	0.1-	1998 12 15	704	(0.6- 2.9-)		2000 02 03	704	0.6-	0.2+
1995 04 12	411	0.0	0.5-	1998 12 15	704	0.3-	1.9-	2000 02 03	704	0.9-	0.1+
1995 04 12	411	0.5-	0.3+	1998 12 15	704	0.2-	1.0-				

(13590)* 1994 AC₃ = 1977 EF₇ = 1998 UV₁₈

Discovered 1994 Jan. 14 by T. Kobayashi at Oizumi.

Id. G. V. Williams (*MPC* 32937)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	29.23367		(2000.0)		P		Q
<i>n</i>	0.17021076	ω	82.88080		-0.40872460		-0.91264269
<i>a</i>	3.2246163	Ω	31.24559		+0.83330429		-0.37552523
<i>e</i>	0.1191344	<i>i</i>	0.57952		+0.37222059		-0.16144387
<i>P</i>	5.79	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1977 03 12	381	0.9-	1.3-	1998 11 11	704	0.5-	0.1+	1999 12 05	703	1.1+	0.7+
1977 03 12	381	0.6-	2.0-	1998 11 11	704	1.3+	0.8+	1999 12 05	704	0.8+	0.4-
1993 11 20	691	0.5-	0.2-	1998 11 11	704	1.0-	0.3-	1999 12 05	703	1.3-	1.0+
1993 11 20	691	0.3-	0.3-	1998 11 11	910	0.3+	0.4+	1999 12 05	703	0.3+	0.7+

1993 11 20	691	0.0	0.2-	1998 11 11	910	0.5+	0.5+	2000 01 27	120	1.0+	0.7-
1994 01 14	411	0.3+	1.2+	1998 11 11	910	0.4+	0.3+	2000 01 27	120	0.6+	0.7-
1994 01 14	411	0.5-	0.0	1998 11 12	910	0.9+	0.3+	2000 01 31	732	0.4-	1.1-
1994 01 16	411	0.7+	0.6+	1998 11 12	910	0.7+	0.4+	2000 01 31	732	0.6+	0.1-
1994 01 16	411	0.6-	0.2+	1998 11 12	910	0.8+	0.4+	2000 01 31	732	0.0	0.2-
1994 01 16	411	0.8-	0.9+	1998 11 14	691	1.2-	0.4-	2000 02 02	732	0.9+	0.1-
1994 01 19	411	0.6+	0.3-	1998 11 14	691	1.3-	0.7-	2000 02 02	732	0.2-	0.8+
1994 01 19	411	0.5-	1.8-	1998 11 26	691	0.3-	0.2-	2000 02 02	732	0.5+	0.5+
1994 01 19	411	0.4+	1.5-	1998 11 26	691	0.3-	0.0	2000 02 02	703	0.9-	0.2-
1994 02 07	411	0.4-	0.2-	1998 11 26	691	0.4-	0.1-	2000 02 02	703	0.6+	0.4-
1994 02 07	411	0.7+	1.1-	1999 01 13	910	0.4-	0.2-	2000 02 02	703	0.0	1.0+
1994 02 07	411	0.4-	1.6-	1999 01 13	910	0.5-	0.4-	2000 02 02	703	0.5-	0.5+
1994 02 16	411	0.2+	0.2+	1999 01 13	910	0.8-	0.2-	2000 02 04	704	1.4-	0.6+
1994 02 16	411	0.3+	0.7+	1999 01 14	910	0.4-	0.1+	2000 02 04	704	0.1-	0.8+
1994 02 16	411	0.5-	1.2-	1999 01 14	910	0.2-	0.3-	2000 02 04	704	0.1+	0.8+
1998 10 23	120	0.4-	0.8-	1999 01 14	910	0.5-	0.2-	2000 02 04	704	0.1-	0.7+
1998 10 23	120	0.3+	1.4-	1999 02 20	691	0.6-	0.2+	2000 02 04	704	0.3-	1.2+
1998 10 28	120	0.4-	0.2-	1999 02 20	691	1.0-	0.5-	2000 02 11	704	0.3+	0.2+
1998 10 29	120	0.1+	0.5+	1999 12 05	704	0.7-	0.2-	2000 02 11	704	0.0	0.3+
1998 11 10	910	1.2+	0.1+	1999 12 05	704	0.1+	0.7-	2000 02 11	704	0.2+	1.1+
1998 11 11	910	1.2+	0.2+	1999 12 05	703	1.0+	1.2+	2000 02 11	704	0.4-	0.2+
1998 11 11	910	1.5+	0.1+	1999 12 05	704	0.9+	0.9-	2000 02 11	704	0.6+	0.7+

(13591)* 1994 BC₁ = 1996 QM₂

Discovered 1994 Jan. 16 by T. Kobayashi at Oizumi.

Id. M. E. Sansaturio (*MPC* 34504)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	282.22230		(2000.0)		P		Q
<i>n</i>	0.17380385	ω	300.38859		-0.25298405		+0.95508067
<i>a</i>	3.1800195	Ω	314.09829		-0.79744667		-0.29617996
<i>e</i>	0.1851786	<i>i</i>	12.41027		-0.54779364		-0.00991697
<i>P</i>	5.67	<i>H</i>	12.3	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1994 01 16	411	0.7-	1.1-	1996 08 20	010	(2.7+ 3.1+)	2000 01 08	704	0.8+	0.1+	
1994 01 16	411	0.7-	0.3-	1996 08 20	010	(2.7+ 3.1+)	2000 01 08	704	0.7+	1.1-	
1994 01 16	411	1.3+	1.1-	1996 08 20	010	(1.5+ 3.2+)	2000 01 08	704	0.1-	0.4-	
1994 01 19	411	0.9-	0.9-	1997 10 29	566	0.1+	0.0	2000 01 08	704	0.2-	0.6-
1994 01 19	411	0.9-	0.4+	1997 10 29	566	0.4+	0.1-	2000 01 08	704	0.5-	0.5-
1994 01 19	411	0.4+	0.9-	1997 10 29	566	0.3+	0.1-	2000 02 02	704	0.2+	0.5+
1994 01 23	411	0.5+	0.2-	1998 12 14	704	1.2+	0.4+	2000 02 02	704	0.1-	0.1+
1994 01 23	411	0.5+	0.1-	1998 12 14	704	1.8-	0.9+	2000 02 02	704	0.0	0.0
1994 01 23	411	0.9-	1.4-	1998 12 14	704	0.4+	1.3+	2000 02 02	704	0.1+	0.5+
1994 02 02	411	0.2+	1.5-	1998 12 14	704	(4.7- 1.8+)	2000 02 02	704	0.1+	0.7+	
1994 02 02	411	0.2-	0.2-	1999 12 05	703	0.0	0.7+	2000 02 06	704	0.6-	0.2-
1994 02 02	411	0.2+	0.2-	1999 12 05	703	0.8+	0.2+	2000 02 06	704	0.4-	0.1-
1994 02 08	303	0.9-	0.6+	1999 12 05	703	0.6+	0.3+	2000 02 06	704	0.3-	0.0
1994 02 08	303	0.4-	0.1-	1999 12 05	699	0.1-	1.0+	2000 02 06	704	0.1+	0.2+
1994 02 08	303	0.1+	0.1+	1999 12 05	703	0.1-	1.9+	2000 02 06	704	0.2+	0.6-
1994 02 13	411	0.7+	1.5+	1999 12 05	699	0.0	0.2+	2000 02 12	704	0.9+	0.5-
1994 02 13	411	1.0-	0.4-	1999 12 05	699	0.9-	0.2+	2000 02 12	704	0.9+	0.4+
1994 02 13	411	0.3+	0.8+	2000 01 05	704	0.2+	0.2+	2000 02 12	704	0.1+	0.4+
1996 08 09	010	1.2+	0.2-	2000 01 05	704	0.3-	0.3-	2000 02 12	704	0.0	1.0+
1996 08 09	010	0.6-	0.3+	2000 01 05	704	0.6+	0.6-	2000 02 13	704	0.4+	0.1+
1996 08 09	010	(2.4-	0.6+)	2000 01 05	704	0.5-	1.7-	2000 02 13	704	0.2+	0.3-
1996 08 18	010	1.4-	0.7+	2000 01 06	699	0.1+	1.9+	2000 02 13	704	0.1-	1.2+
1996 08 18	010	(2.4-	0.7+)	2000 01 06	699	0.3-	0.6+	2000 02 13	704	0.0	0.5-
1996 08 18	010	(3.0-	0.3+)	2000 01 06	699	0.5+	0.4-				

2000 FEB. 22

M.P.C. 38341

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	207.04001		(2000.0)	P		Q	
<i>n</i>	0.27762327	ω	62.92856	−0.05246060	+0.99760800		
<i>a</i>	2.3271916	Ω	204.19097	−0.95072057	−0.06368635		
<i>e</i>	0.1918043	<i>i</i>	6.30649	−0.30557861	+0.02687624		
<i>P</i>	3.55	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1991 10 06	691	0.4−	0.1+	1998 08 23	704	(0.4−	2.2+)	1998 09 25	704	1.2−	0.6−
1991 10 06	691	0.5−	0.1+	1998 08 23	704	1.8−	0.3+	1998 09 27	704	0.1−	1.0+
1991 10 06	691	0.1−	0.6−	1998 08 23	704	0.9−	0.2−	1998 09 27	704	0.9−	1.0+
1991 10 07	033	0.2−	0.5+	1998 08 23	704	1.1+	0.1+	1998 09 27	704	0.0	0.2+
1991 10 07	033	0.4+	1.1−	1998 08 30	699	0.3+	0.3+	1998 09 27	704	0.4+	0.9−
1991 10 08	033	1.2+	0.4−	1998 08 30	699	1.4+	0.4−	1998 09 27	704	1.1−	0.9−
1994 05 08	411	0.2+	0.1−	1998 08 30	699	1.1+	0.5−	2000 01 05	704	0.1−	0.2+
1994 05 08	411	0.7+	0.3−	1998 09 14	704	0.1−	0.6−	2000 01 05	704	0.2+	0.2−
1994 05 12	411	0.5−	0.0	1998 09 14	704	0.2−	0.8+	2000 01 05	704	0.1+	0.3−
1994 05 12	411	0.2+	0.0	1998 09 14	704	1.4+	0.2+	2000 01 05	704	0.3−	0.3−
1994 05 12	411	0.5−	0.2−	1998 09 14	704	0.8+	0.3−	2000 01 05	704	0.2+	0.0
1994 05 16	411	0.5−	0.8−	1998 09 18	704	0.2+	1.1+	2000 01 07	704	0.3−	0.1−
1994 05 16	411	0.6−	0.3−	1998 09 18	704	1.2−	0.0	2000 01 07	704	0.1−	0.8−
1994 05 16	411	0.9+	0.6+	1998 09 18	704	0.4+	0.4−	2000 01 07	704	0.6+	0.5−
1998 08 17	704	1.3+	0.2−	1998 09 18	704	0.9−	0.6+	2000 01 07	704	0.0	0.5−
1998 08 17	704	1.2+	1.0−	1998 09 18	704	1.3−	1.1+	2000 01 07	704	0.0	0.5−
1998 08 17	704	1.1+	0.4+	1998 09 25	704	0.5−	0.0	2000 02 03	704	0.7−	0.5+
1998 08 17	704	(2.4+	1.0−)	1998 09 25	704	1.0−	0.3−	2000 02 03	704	0.4−	0.2−
1998 08 17	704	0.7+	0.4+	1998 09 25	704	0.4−	0.5−	2000 02 03	704	1.4+	1.0+
1998 08 23	704	0.2+	1.7+	1998 09 25	704	0.4−	1.6−	2000 02 03	704	0.6−	1.0+

(13593)* 1994 NF₁

Discovered 1994 July 4 by E. F. Helin at Palomar.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	246.16415		(2000.0)	P		Q	
<i>n</i>	0.29851198	ω	198.98596	+0.46962158	+0.87158113		
<i>a</i>	2.2173191	Ω	99.23686	−0.79044685	+0.48608151		
<i>e</i>	0.1396905	<i>i</i>	8.19647	−0.39325482	+0.06380521		
<i>P</i>	3.30	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1994 07 04	675	0.5−	0.5+	1998 10 23	734	0.4−	0.2+	1999 01 10	699	1.2−	1.0+
1994 07 04	675	0.3−	1.0+	1998 10 23	734	0.6−	0.2+	1999 01 10	699	0.0	0.7+
1994 07 07	675	1.5+	0.4+	1998 10 23	734	0.5−	0.1+	1999 11 10	703	0.6+	1.7+
1994 07 07	675	1.2−	0.9+	1998 10 25	734	0.6−	0.6+	1999 11 10	703	1.0−	0.1+
1994 08 09	675	(0.2+	5.8+)	1998 10 25	734	0.3−	0.1+	1999 11 10	703	(1.2+	2.3+)
1994 08 09	675	0.9+	1.3+	1998 10 25	734	0.1−	0.1+	1999 11 10	703	0.7+	1.1−
1994 08 11	675	(0.9+	2.1+)	1998 11 22	715	(3.0−	0.8+)	2000 01 07	704	0.1+	0.1+
1994 08 11	675	(0.5+	2.8+)	1998 11 22	715	1.7−	0.3+	2000 01 07	704	0.7−	0.7−
1995 12 23	566	0.0	0.6+	1998 11 23	699	0.7+	0.4−	2000 01 07	704	0.3−	0.6−
1995 12 23	566	0.1+	0.6+	1998 11 23	699	0.2+	0.3+	2000 01 07	704	(0.7+	2.6−)
1995 12 23	566	0.0	0.3+	1998 11 23	699	0.6+	0.2+	2000 01 07	704	0.8−	1.4−
1997 02 10	046	0.2−	0.2+	1998 12 15	704	0.9+	0.7−	2000 02 04	704	0.8+	0.1+
1997 02 10	046	0.3+	0.6+	1998 12 15	704	0.3+	0.0	2000 02 04	704	1.4+	1.2+
1997 02 10	046	0.5−	0.5+	1998 12 15	704	0.5+	0.7+	2000 02 04	704	0.6+	1.6+
1998 08 31	704	(1.1−	2.4+)	1998 12 16	699	0.3+	0.2+	2000 02 04	704	0.1−	1.1+
1998 08 31	704	0.5−	0.9−	1998 12 16	699	0.4+	0.2−	2000 02 04	704	(0.4+	2.3+)
1998 08 31	704	0.2−	0.2+	1998 12 16	699	0.3+	0.5+				
1998 08 31	704	0.2+	0.1+	1999 01 10	699	0.1+	0.3+				

(13594)* 1994 PC₂ = 1997 ER₅₂ = 1998 UD₃

Discovered 1994 Aug. 9 at Palomar in the course of the Planet-Crossing Asteroid Survey.

Id. A. Gñädig (*MPC* 32937), G. V. Williams (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	219.94310		(2000.0)	P		Q	
<i>n</i>	0.27269584	ω	283.87596	+0.23841936	+0.97116230		
<i>a</i>	2.3551417	Ω	359.91726	−0.87664279	+0.21519203		
<i>e</i>	0.2274541	<i>i</i>	2.04965	−0.41791582	+0.10264592		
<i>P</i>	3.61	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1994 08 09	675	0.5−	1.2−	1997 03 09	809	0.3+	1.2+	1998 11 11	704	1.8−	0.1+
1994 08 09	675	0.4−	0.7−	1998 10 10	699	1.2−	0.8−	1998 11 11	704	0.4−	0.2+
1994 08 11	675	1.2−	0.5−	1998 10 10	699	0.2+	0.1+	1998 11 11	704	0.6−	0.6+
1994 08 11	675	1.4−	0.8−	1998 10 10	699	0.3+	0.8+	2000 01 04	704	0.2−	1.1−
1994 08 12	809	0.5−	0.1−	1998 10 10	699	1.1+	0.7+	2000 01 04	704	0.8+	1.1−
1994 08 12	809	0.1−	0.1−	1998 10 10	699	0.5−	0.3+	2000 01 04	704	0.7+	0.8−
1994 08 12	809	0.7−	0.6+	1998 10 19	699	0.5+	0.6+	2000 01 04	704	1.2−	0.6+
1994 08 13	809	0.4+	0.8+	1998 10 19	699	1.0+	0.7−	2000 01 06	704	0.4+	0.4−
1994 08 13	809	0.7+	1.2+	1998 10 19	699	0.7+	0.6−	2000 01 06	704	0.2+	0.4−
1994 08 13	809	0.3+	0.7+	1998 10 20	910	1.7+	0.1+	2000 01 06	704	0.9+	0.5−
1994 09 03	809	(2.2−	2.4−)	1998 10 20	910	1.7+	0.2+	2000 01 06	704	0.8+	0.8−
1994 09 03	809	(0.2−	2.9−)	1998 10 20	910	1.5+	0.1+	2000 01 30	704	0.4+	0.8−
1994 09 03	809	(0.0	2.7−)	1998 10 20	691	0.3−	0.5−	2000 01 30	704	0.5+	0.6−
1994 09 04	809	(0.2+	2.6−)	1998 10 20	691	1.1−	0.3−	2000 01 30	704	2.0−	1.9+
1994 09 04	809	(0.0	2.5−)	1998 10 20	691	0.1−	0.5−	2000 02 07	703	0.9−	0.1+
1994 09 04	809	(0.6−	2.4−)	1998 10 21	910	(2.6+	0.2+)	2000 02 07	703	0.3−	0.4−
1994 09 05	809	1.1+	0.7+	1998 10 21	910	(2.6+	0.2+)	2000 02 07	703	0.1−	1.5+
1994 09 05	809	1.1+	1.1+	1998 10 21	910	(2.5+	0.0)	2000 02 07	703	0.4+	1.2+
1994 09 05	809	0.1+	0.8+	1998 10 29	691	0.2+	0.6−	2000 02 08	704	0.1+	0.6+
1994 09 06	809	(2.4+	3.8+)	1998 10 29	691	0.6−	0.0	2000 02 08	704	1.9+	0.1+
1994 09 06	809	(2.3+	3.4+)	1998 10 29	691	0.5−	0.3−	2000 02 08	704	0.7−	0.6−
1994 09 06	809	(1.5+	4.2+)	1998 11 10	704	0.5+	0.0	2000 02 08	704	0.0	0.2−
1997 03 08	809	(2.2+	2.0+)	1998 11 10	704	0.5−	0.6−	2000 02 08	704	1.2−	0.9+
1997 03 08	809	(3.2+	2.1+)	1998 11 10	704	0.5−	0.1+	2000 02 11	704	0.3+	0.0
1997 03 08	809	(3.6+	1.1+)	1998 11 10	704	0.4−	1.3+	2000 02 11	704	1.1−	0.3−
1997 03 09	809	0.9+	1.3+	1998 11 11	704	0.2+	0.1+	2000 02 11	704	0.2+	0.3+
1997 03 09	809	0.7+	1.2+	1998 11 11	704	1.9−	1.6+	2000 02 11	704	0.4−	1.0+

(13595)* 1994 PL₃ = 1994 RL₁₃ = 1998 QG₁₈

Discovered 1994 Aug. 10 by E. W. Elst at the European Southern

Observatory.

Id. G. V. Williams (d, *MPC* 27085; *MPC* 32457)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	69.80926		(2000.0)	P		Q	
n	0.24483153	ω	91.53716	+0.67497057	−0.73734815		
a	2.5306057	Ω	315.97004	+0.66053341	+0.62018574		
e	0.1186065	i	2.23156	+0.32880135	+0.26774495		
P	4.03	H	14.8	G	0.15	U	2

Residuals in seconds of arc

1994 08 10	809	(3.1−	1.1+)	1998 08 23	704	0.2−	0.2−	2000 01 30	704	0.6−	0.3−
1994 08 10	809	(2.5−	1.3+)	1998 08 23	704	1.2+	0.3−	2000 01 30	704	0.1−	0.1−
1994 08 10	809	(3.2−	0.1+)	1998 08 23	699	0.9+	1.0+	2000 01 30	704	0.1−	0.5+
1994 08 11	809	1.6−	0.2+	1998 08 23	699	0.3+	0.7+	2000 02 03	704	0.2+	0.5+
1994 08 11	809	1.7−	0.3+	1998 09 14	704	0.3+	1.3−	2000 02 03	704	0.0	0.1−
1994 08 11	809	1.5−	0.2−	1998 09 14	704	0.4−	0.6−	2000 02 03	704	0.1−	0.1+
1994 09 03	809	0.5+	1.0−	1998 09 14	704	0.4+	1.8−	2000 02 03	704	0.6−	0.4+
1994 09 03	809	1.0+	1.1−	1998 09 14	704	0.1+	0.7+	2000 02 05	691	0.0	0.0
1994 09 03	809	1.4+	0.9+	1998 09 14	704	0.4+	0.2−	2000 02 05	691	0.1−	0.2−
1994 09 04	809	0.8+	0.2−	2000 01 04	704	0.0	0.2−	2000 02 05	691	0.0	0.1−
1994 09 04	809	(2.7+	0.1+)	2000 01 04	704	0.3−	0.5+	2000 02 11	704	0.2−	0.6+
1994 09 04	809	1.0+	0.7+	2000 01 04	704	0.2+	0.3−	2000 02 11	704	0.8+	0.3+
1996 02 16	566	1.2+	1.0+	2000 01 04	704	0.2−	0.3−	2000 02 11	704	0.8+	0.3−
1996 02 16	566	0.8−	0.6+	2000 01 04	704	0.2+	0.0	2000 02 11	704	0.1−	1.1−
1996 02 16	566	0.1+	0.6+	2000 01 06	704	0.2−	0.2−	2000 02 11	704	0.4+	0.1+
1998 08 17	704	0.6−	0.4−	2000 01 06	704	0.3−	0.6+	2000 02 12	691	0.1−	0.2−
1998 08 17	704	0.1+	1.2+	2000 01 06	704	0.3+	0.2−	2000 02 12	691	0.2+	0.3−

1998 08 17	704	0.8−	0.3+	2000 01 06	704	0.2−	0.1−	2000 02 12	691	0.2+	0.4−
1998 08 17	704	1.2−	0.2−	2000 01 27	691	0.2−	0.5+	2000 02 14	691	0.3+	0.3−
1998 08 23	704	1.3−	1.3+	2000 01 27	691	0.1−	0.6+	2000 02 14	691	0.2+	0.3−
1998 08 23	699	0.1+	1.4+	2000 01 27	691	0.2−	0.6+	2000 02 14	691	0.2+	0.4−

(13596)* 1994 PD₁₈ = 2224 T-1

Discovered 1994 Aug. 10 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (*MPC* 25430)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	226.21150		(2000.0)	P	Q
n	0.26800945	ω	120.56620	+0.16635323	+0.98517337
a	2.3825168	Ω	158.88703	−0.93989782	+0.17128687
e	0.1178579	i	6.68830	−0.29819237	+0.00970722
P	3.68	H	14.2	G 0.15	U 1

Residuals in seconds of arc

1971 03 24	675	1.7−	1.5−	1998 09 21	809	(1.2+	2.0+)	1998 11 10	704	0.7+	0.5−
1971 03 25	675	0.5+	0.3+	1998 09 23	809	1.7−	0.3−	1998 11 11	704	0.4−	0.3−
1971 03 25	675	1.0+	1.6−	1998 09 23	809	(2.2−	0.3−)	1998 11 11	704	0.9+	0.3−
1971 03 26	675	0.5−	0.0	1998 09 23	809	(2.8−	0.0)	1998 11 11	704	1.2+	0.2−
1971 03 27	675	0.7−	1.6−	1998 09 26	704	0.4−	0.7−	1998 11 11	704	0.1+	0.6−
1971 04 02	675	(3.4+	1.9−)	1998 09 26	704	0.0	1.0−	1998 11 11	704	0.2−	0.2+
1994 08 10	809	0.8+	0.7+	1998 09 26	704	0.2−	0.1−	1998 11 14	699	0.2−	0.0
1994 08 10	809	0.2+	1.1+	1998 09 26	704	0.1−	0.6−	1998 11 14	699	0.2−	0.8−
1994 08 10	809	0.0	1.2+	1998 09 26	704	0.5−	0.2−	1998 11 14	699	0.2+	0.2+
1994 08 11	809	0.3−	0.8−	1998 09 27	704	0.1−	1.0−	2000 01 05	704	0.1−	0.8+
1994 08 11	809	0.6−	0.8−	1998 09 27	704	0.3+	1.0−	2000 01 05	704	0.2−	0.1+
1994 08 11	809	0.5−	0.7−	1998 09 27	704	0.5−	0.8−	2000 01 05	699	0.9−	1.1+
1994 08 12	809	(2.4+	0.3+)	1998 09 27	704	(1.2+	2.4−)	2000 01 05	699	0.5+	1.3+
1994 08 12	809	(2.5+	0.2+)	1998 09 27	704	(0.1+	2.6−)	2000 01 05	704	0.2+	1.1−
1994 08 12	809	1.8+	0.4+	1998 10 14	704	0.2−	0.0	2000 01 05	704	0.9+	0.1−
1994 09 03	809	0.7−	0.3+	1998 10 14	704	1.0+	0.5+	2000 01 07	704	0.3−	0.5−
1994 09 03	809	1.4−	0.2−	1998 10 14	704	0.4−	0.1−	2000 01 07	704	0.6−	0.4−
1994 09 03	809	1.7−	0.2+	1998 10 14	704	1.6−	1.7−	2000 01 07	704	0.6+	1.1+
1994 09 04	809	0.8+	1.7+	1998 10 15	704	0.1−	0.0	2000 01 07	704	0.2+	1.6+
1994 09 04	809	0.3+	2.0+	1998 10 15	704	0.7−	0.5+	2000 01 30	703	0.2+	0.5+
1994 09 04	809	0.6−	1.6+	1998 10 15	704	0.7−	0.6+	2000 01 30	703	0.1−	0.1−
1994 09 05	809	(2.1+	1.1−)	1998 10 15	704	0.1−	0.4−	2000 01 30	703	0.3+	0.3+
1994 09 05	809	0.9+	1.0−	1998 10 20	699	0.0	0.3−	2000 01 30	703	0.2−	0.8+
1994 09 05	809	1.2+	1.0−	1998 10 20	699	0.1+	0.3+	2000 02 02	704	0.0	0.1−
1994 09 30	675	0.6−	1.0+	1998 10 20	699	0.6+	0.2−	2000 02 02	704	0.3+	0.4+
1994 09 30	675	0.7−	0.5+	1998 10 28	704	0.1+	0.4+	2000 02 02	704	1.4−	0.2+
1998 09 18	699	0.2−	0.9+	1998 10 28	704	0.7+	0.5+	2000 02 02	704	0.6+	0.4−
1998 09 18	699	0.0	1.3+	1998 10 28	704	1.0+	1.0−	2000 02 04	704	0.7+	0.4−
1998 09 18	699	0.2+	0.8+	1998 10 28	704	0.2+	0.2+	2000 02 04	704	0.3+	0.2+
1998 09 20	809	0.8+	0.0	1998 10 29	704	0.1−	0.3−	2000 02 04	704	0.2+	0.1+
1998 09 20	809	0.1−	0.5−	1998 10 29	704	0.4+	0.5+	2000 02 04	704	0.0	0.9+
1998 09 20	809	0.2−	0.6−	1998 10 29	704	0.2−	0.3−	2000 02 04	704	0.1+	0.0
1998 09 21	809	(3.4−	0.2−)	1998 10 29	704	0.2−	0.8−	2000 02 12	704	0.0	0.2+
1998 09 21	809	(3.5−	0.9−)	1998 10 29	704	0.2+	1.8−	2000 02 12	704	0.0	0.0
1998 09 21	809	(3.7−	0.5−)	1998 11 10	704	1.2+	1.1+	2000 02 12	704	0.0	0.1−
1998 09 21	809	(2.3+	2.2+)	1998 11 10	704	0.4+	0.8−	2000 02 12	704	0.4+	0.7+
1998 09 21	809	1.5+	1.9+	1998 11 10	704	0.9−	0.0	2000 02 12	704	0.2−	0.5+

(13597)* 1994 PH₁₈ = 1991 VN₁₁

Discovered 1994 Aug. 12 by E. W. Elst at the European Southern Observatory.

Id. K. Ichikawa (*MPC* 25219)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	267.12375		(2000.0)	P	Q		
n	0.27288770	ω	73.22768	-0.49970040	+0.86613961		
a	2.3540377	Ω	166.77805	-0.81056817	-0.46347156		
e	0.1700908	i	2.52685	-0.30541571	-0.18707295		
P	3.61	H	15.6	G	0.15	U	2

Residuals in seconds of arc

1991 11 06	691	0.2+	0.6+	1994 09 04	809	0.5+	0.7+	1997 05 01	704	0.7+	0.3−
1991 11 06	691	0.6+	0.4+	1994 09 04	809	0.1−	1.5+	1997 05 01	704	0.7+	0.4−
1991 11 06	691	0.3+	0.4+	1997 04 06	704	0.1+	0.8+	1997 05 01	704	0.4+	0.1−
1991 11 07	691	1.2−	0.1+	1997 04 06	704	0.5−	0.8−	1997 05 01	704	0.5+	0.3−
1991 11 07	691	0.4−	0.3+	1997 04 07	809	(2.1−	2.1+)	1997 05 01	704	0.4+	0.3−
1991 11 07	691	0.9−	0.3−	1997 04 07	704	0.5+	1.2−	1997 05 03	104	0.9−	0.5+
1991 11 07	691	0.6+	0.5−	1997 04 07	809	1.7−	1.5+	1997 05 03	104	0.6−	0.2+
1991 11 07	691	0.6+	0.3+	1997 04 07	809	1.9−	1.6+	1997 05 03	104	0.2−	0.1+
1991 11 07	691	0.3+	0.4−	1997 04 07	704	0.1+	0.1+	2000 01 05	704	0.1−	0.5−
1994 08 12	809	0.8−	0.6−	1997 04 08	809	(1.0−	2.1+)	2000 01 05	704	0.4−	0.3−
1994 08 12	809	0.3−	1.3−	1997 04 08	809	(0.9−	2.2+)	2000 01 05	704	0.1+	0.6−
1994 08 12	809	0.5+	1.3−	1997 04 08	809	1.4−	1.4+	2000 01 06	704	0.9−	0.7+
1994 08 13	809	0.7+	0.3+	1997 04 08	704	0.5−	0.3+	2000 01 06	704	0.1+	0.4+
1994 08 13	809	0.8−	1.3+	1997 04 08	704	0.3−	0.7+	2000 01 06	704	0.4−	0.5+
1994 08 13	809	0.4−	0.4+	1997 04 30	704	1.1+	0.2−	2000 01 06	704	0.2−	0.1+
1994 09 03	809	0.3+	0.4−	1997 04 30	704	(2.8+	0.5−)	2000 02 02	704	0.0	1.2+
1994 09 03	809	0.4−	0.5+	1997 04 30	704	1.0+	0.7−	2000 02 02	704	0.8+	0.2+
1994 09 03	809	1.4−	0.2−	1997 04 30	704	1.4+	0.7−	2000 02 02	704	0.7+	0.2−
1994 09 04	809	1.3+	1.0+	1997 04 30	704	0.8+	0.3−	2000 02 02	704	0.5+	0.2−

(13598)* 1994 PY₁₉ = 1974 HP = 1993 FT₂₅

Discovered 1994 Aug. 12 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (*MPC* 24749)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	283.85744		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.26020838	ω	258.41930	−0.88291880	+0.46867142
a	2.4299007	Ω	309.52202	−0.41521476	−0.80751958
e	0.1233590	i	2.10331	−0.21920562	−0.35813297
P	3.79	H	14.3	G 0.15	U 1

Residuals in seconds of arc

1974 04 22	805	0.1−	0.4−	1998 09 14	704	0.3+	0.6+	1998 10 15	704	1.0−	1.0−
1974 04 24	805	0.3−	0.1−	1998 09 14	704	0.2−	0.3+	1998 10 15	704	(2.1−	2.0−)
1974 04 25	805	0.2+	0.2+	1998 09 16	699	0.9−	0.2+	2000 01 03	704	0.5+	0.1−
1993 03 21	809	0.3−	0.3+	1998 09 16	699	0.1+	0.1+	2000 01 03	704	0.5+	0.5−
1993 03 22	809	1.3+	0.8+	1998 09 16	699	0.5−	0.3+	2000 01 03	704	0.3+	0.5−
1993 03 26	809	1.0−	0.6+	1998 09 18	704	0.2−	0.4+	2000 01 03	704	0.2+	0.2+
1993 04 18	413	0.7+	0.3+	1998 09 18	704	0.8−	0.3−	2000 01 03	704	0.1+	0.3+
1994 08 12	809	(2.4+	3.3+)	1998 09 18	704	0.7+	0.0	2000 01 04	704	0.3+	0.7−
1994 08 12	809	(0.2+	3.3+)	1998 09 18	704	1.9−	0.2−	2000 01 04	704	0.3+	0.8−
1994 08 12	809	(0.4+	3.1+)	1998 09 18	704	0.4−	0.7−	2000 01 04	704	0.1+	1.0−
1994 08 13	809	(0.3+	3.4+)	1998 09 26	704	0.9−	0.3−	2000 01 04	704	0.0	1.2−
1994 08 13	809	(0.8−	3.7+)	1998 09 26	704	0.2−	0.5−	2000 01 04	704	0.1+	1.1−
1994 08 13	809	(0.8−	4.0+)	1998 09 26	704	1.0+	0.1−	2000 01 30	704	0.3−	0.3+
1994 09 05	809	(0.2−	3.5+)	1998 09 26	704	1.2+	0.9+	2000 01 30	704	0.1−	0.9+
1994 09 05	809	(0.6+	4.0+)	1998 09 26	704	0.2+	0.0	2000 01 30	704	0.6−	1.2+
1994 09 05	809	(1.6+	4.4+)	1998 09 27	704	1.0+	0.5−	2000 01 30	704	0.5+	0.4+
1994 09 06	809	(1.1+	4.6+)	1998 09 27	704	0.8+	0.0	2000 01 30	704	0.2+	0.4+
1994 09 06	809	(0.4+	4.3+)	1998 09 27	704	1.0+	0.4+	2000 01 31	704	1.5−	1.0+
1994 09 06	809	(1.5+	4.8+)	1998 09 27	704	0.1+	0.7+	2000 01 31	704	0.1−	0.3+
1994 09 30	675	1.3+	0.4+	1998 09 27	704	0.2−	0.9−	2000 01 31	704	0.5−	1.1+
1994 09 30	675	0.7−	1.6+	1998 10 14	699	0.5+	1.1+	2000 01 31	704	0.2+	1.4+
1998 08 28	704	1.3−	0.2+	1998 10 14	699	1.1+	0.4−	2000 02 11	704	0.3+	0.8−
1998 08 28	704	0.7−	0.6+	1998 10 14	699	0.2−	0.9−	2000 02 11	704	0.5+	0.1−
1998 08 28	704	0.3−	1.5+	1998 10 15	704	0.1−	0.7−	2000 02 11	704	0.2−	0.2−

2000 FEB. 22

M.P.C. 38343

1998 08 28 704 (2.7− 1.1+) 1998 10 15 704 0.7− 0.5+ 2000 02 11 704 0.5− 0.9+
 1998 09 14 704 0.2− 0.5+ 1998 10 15 704 0.4+ 0.9−

(13599)* 1994 PM₂₁ = 1990 SQ₃

Discovered 1994 Aug. 12 by E. W. Elst at the European Southern
 Observatory.

Id. G. V. Williams (*MPC* 30662)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	100.11744	(2000.0)	P	Q	
<i>n</i>	0.23911397	ω	219.14563	+0.96781386	−0.24557767
<i>a</i>	2.5707869	Ω	154.90607	+0.25091000	+0.92460779
<i>e</i>	0.2490013	<i>i</i>	7.45505	+0.01950656	+0.29119073
<i>P</i>	4.12	<i>H</i>	14.3	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1990 09 18	675	0.7+	0.5−	1997 05 03	691	0.1+	0.5+	2000 02 02	704	0.7−	1.6+
1990 09 18	675	0.3−	0.9−	1998 08 17	704	0.1+	0.4+	2000 02 02	704	1.0−	0.9+
1990 09 20	675	0.9+	0.2−	1998 08 17	704	0.8+	0.9+	2000 02 04	704	0.7−	0.5+
1990 09 20	675	0.9+	1.0−	1998 08 17	704	0.8+	0.0	2000 02 04	704	0.6−	0.1+
1992 03 02	809	0.5+	1.4+	1998 08 17	704	0.1+	0.2−	2000 02 04	704	0.4−	0.8+
1994 08 12	809	(4.1+ 3.2+)		1998 08 23	704	0.2−	0.6+	2000 02 04	704	0.9−	0.8+
1994 08 12	809	(4.0+ 3.7+)		1998 08 23	704	0.2−	1.1+	2000 02 04	704	0.1−	1.1+
1994 08 12	809	(4.2+ 3.8+)		1998 08 23	704	(0.1+ 2.4+)		2000 02 05	682	(2.4− 2.3+)	
1994 08 13	809	(4.6+ 4.1+)		1998 08 23	704	(1.8+ 2.9+)		2000 02 05	704	0.1+ 0.2−	
1994 08 13	809	(4.0+ 3.5+)		1998 09 14	699	0.3+	0.1+	2000 02 05	682	(3.2− 1.8+)	
1994 08 13	809	(4.3+ 3.3+)		1998 09 14	699	0.4+	0.2−	2000 02 05	682	(1.6− 2.2−)	
1994 09 05	809	0.3−	0.6+	1998 09 14	699	0.6−	0.1+	2000 02 05	704	0.4−	0.4+
1994 09 05	809	1.0−	1.5+	2000 01 05	704	0.0	0.5+	2000 02 05	704	0.3−	0.9+
1994 09 05	809	1.4−	1.2+	2000 01 05	704	0.3+	0.6+	2000 02 06	704	1.0+ 0.5−	
1994 09 06	809	0.3−	1.6+	2000 01 05	704	0.3+	0.8+	2000 02 06	704	0.0	0.4−
1994 09 06	809	0.5−	1.3+	2000 01 05	704	0.2−	0.9+	2000 02 06	704	0.3+ 0.6+	
1994 09 06	809	1.4−	1.6+	2000 01 07	704	0.0	0.4−	2000 02 06	704	0.2−	0.1+
1994 09 11	675	0.4+	0.1−	2000 01 07	704	0.0	1.5−	2000 02 06	704	0.1+ 0.3+	
1994 09 11	675	0.2−	0.1+	2000 01 07	704	1.8+	0.2+	2000 02 06	704	0.2+ 0.1+	
1994 10 01	675	1.1+	1.1−	2000 01 07	704	1.1+	1.1−	2000 02 06	704	0.1+ 0.7+	
1994 10 01	675	1.1−	0.4−	2000 02 02	704	0.4−	1.4−	2000 02 06	704	0.5+ 0.5+	
1997 05 03	691	0.1−	0.2+	2000 02 02	704	0.4+	0.4+	2000 02 06	704	0.0	0.4+
1997 05 03	691	0.2+	0.5+	2000 02 02	704	1.1+	0.3−	2000 02 06	704	0.3−	0.4+

(13600)* 1994 PL₂₆ = 1998 TV₅

Discovered 1994 Aug. 12 by E. W. Elst at the European Southern
 Observatory.

Id. G. V. Williams (*MPC* 33243)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	262.22376	(2000.0)	P	Q	
<i>n</i>	0.28060259	ω	162.03502	−0.01453674	+0.99938603
<i>a</i>	2.3106895	Ω	107.12266	−0.92142909	−0.00100892
<i>e</i>	0.0515638	<i>i</i>	1.91158	−0.38827453	−0.03502206
<i>P</i>	3.51	<i>H</i>	14.6	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1991 11 06	691	0.0	0.2+	1998 10 14	699	1.0−	0.0	1998 11 11	120	0.8+	1.0+
1991 11 06	691	0.2−	0.0	1998 10 14	699	0.7+	0.3−	1998 11 11	120	0.0	1.0+
1991 11 06	691	0.3−	0.0	1998 10 14	699	0.4−	1.8−	1998 11 11	120	0.2+ 0.4+	
1994 08 12	809	0.3−	0.2+	1998 10 15	120	0.1+	0.3−	1998 11 14	699	0.3−	1.1+
1994 08 12	809	0.4−	0.1−	1998 10 15	120	0.2+ 0.4−		1998 11 14	699	1.4+ 0.9+	
1994 08 12	809	0.4−	0.3+	1998 10 16	120	1.3+ 1.0−		1998 11 14	699	(0.3+ 2.1+)	
1994 08 13	809	0.7+ 0.7+		1998 10 16	120	1.9−	0.7−	2000 01 08	704	0.7−	0.5+
1994 08 13	809	0.8+ 1.1+		1998 10 20	120	0.0	0.2−	2000 01 08	704	0.1−	0.5+
1994 08 13	809	1.4+ 1.9+		1998 10 20	120	0.1+ 0.3−		2000 01 08	704	0.5+ 1.2+	
1994 09 05	809	0.8−	1.3+	1998 10 24	691	0.3−	0.1−	2000 01 12	120	(0.1+ 2.6+)	
1994 09 05	809	1.4−	1.4+	1998 10 24	691	0.3−	0.0	2000 01 12	120	0.8+ 0.1−	
1994 09 05	809	(1.0− 2.1+)		1998 10 24	691	0.4−	0.2−	2000 02 11	704	1.1+ 0.2+	
1994 09 06	809	0.2−	0.7+	1998 11 10	704	0.8+	0.0	2000 02 11	704	0.4−	1.0+
1994 09 06	809	1.5−	0.9+	1998 11 10	704	0.6+	0.1+	2000 02 11	704	0.8+ 0.6+	

1994 09 06 809 1.2− 0.9+ 1998 11 10 704 0.4− 0.4− 2000 02 11 704 0.5+ 1.4+
 1995 12 06 327 0.3+ 0.2− 1998 11 10 704 0.6+ 0.6− 2000 02 11 704 0.5+ 0.5+
 1995 12 06 327 0.0 0.6+ 1998 11 11 704 0.5− 0.1− 2000 02 16 703 0.3+ 0.5+
 1995 12 06 327 0.6+ 1.2+ 1998 11 11 704 0.0 1.8+ 2000 02 16 703 0.7+ 0.6+
 1998 10 13 120 0.3− 1.3− 1998 11 11 704 0.3+ 0.4− 2000 02 16 703 0.1− 1.0+
 1998 10 14 120 0.4− 0.3+ 1998 11 11 704 0.9− 0.5+ 2000 02 16 703 0.6− 1.0+

(13601)* 1994 PU₂₉ = 1990 SU₁₂

Discovered 1994 Aug. 12 by E. W. Elst at the European Southern
 Observatory.

Id. G. V. Williams (*MPC* 24749)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	80.89332	(2000.0)	P	Q	
<i>n</i>	0.24027469	ω	227.87289	+0.81948328	−0.57137495
<i>a</i>	2.5625010	Ω	166.76924	+0.56624094	+0.79525702
<i>e</i>	0.1815041	<i>i</i>	11.20449	+0.08842147	+0.20272378
<i>P</i>	4.10	<i>H</i>	14.2	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1988 02 16	675	0.8+	0.3+	1994 09 04	809	0.8−	1.8+	2000 01 05	699	0.6+	0.6−
1988 02 16	675	0.1−	1.4+	1998 07 31	699	0.8+	1.1+	2000 01 08	704	0.2+ 0.9−	
1990 09 21	809	0.5−	0.4−	1998 07 31	699	1.0+ 1.3+		2000 01 08	704	0.3+ 0.0	
1990 09 21	809	0.4+	0.4−	1998 07 31	699	1.2+ 0.4+		2000 01 08	704	0.2+ 0.2−	
1990 09 21	809	0.1−	0.7−	1998 08 17	704	0.4−	0.1−	2000 01 08	704	0.7−	0.1−
1990 09 22	809	0.3−	0.2−	1998 08 17	704	0.2−	0.5+	2000 01 11	704	0.5+ 0.7−	
1990 09 22	809	0.1+	0.5−	1998 08 17	704	0.8−	0.2−	2000 01 11	704	0.6+ 0.0	
1990 09 22	809	0.2+ 0.5−		1998 08 17	704	0.5−	0.6−	2000 01 11	704	0.1+ 1.6+	
1994 08 12	809	0.1−	0.3+	1998 08 17	704	0.1+ 0.6−		2000 01 11	704	0.0	0.1+
1994 08 12	809	0.7−	0.2+	1998 08 23	704	0.2−	0.8−	2000 02 04	704	0.1+ 0.5+	
1994 08 12	809	0.4−	0.3−	1998 08 23	704	0.6−	0.6−	2000 02 04	704	0.1−	0.4+
1994 08 13	809	1.8+ 1.9+		1998 08 23	704	0.4−	0.3+	2000 02 04	704	0.0	0.1+
1994 08 13	809	(2.2+ 2.0+)		1998 08 23	704	0.7−	0.9+	2000 02 04	704	0.5−	0.5+
1994 08 13	809	1.4+ 1.8+		1998 08 23	704	1.4−	0.4−	2000 02 12	704	0.1+ 0.1+	
1994 09 03	809	(0.6+ 2.3+)		1998 08 28	699	0.2−	0.5−	2000 02 12	704	0.7−	0.8+
1994 09 03	809	(0.5+ 2.5+)		1998 08 28	699	0.9+	0.7−	2000 02 12	704	0.1+ 0.8+	
1994 09 03	809	0.4+ 1.5+		1998 08 28	699	0.1+ 1.0+		2000 02 12	704	0.2−	0.1+
1994 09 04	809	(0.9− 2.5+)		2000 01 05	699	0.2−	0.7+	2000 02 12	704	0.0	1.3+
1994 09 04	809	(1.1− 2.4+)		2000 01 05	699	0.1+ 0.4−					

(13602)* 1994 PB₃₆ = 1981 JO₄ = 1999 XX₈₅

Discovered 1994 Aug. 10 by E. W. Elst at the European Southern
 Observatory.

Id. B. G. Marsden (*MPC* 24570), G. V. Williams (*MPC* 37639)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Marsden			
<i>M</i>	35.76104	(2000.0)	P	Q	
<i>n</i>	0.24676570	ω	198.28149	+0.18023003	−0.98349048
<i>a</i>	2.5173650	Ω	241.33810	+0.90475095	+0.17223191
<i>e</i>	0.0822756	<i>i</i>	1.06025	+0.38593114	+0.05552165
<i>P</i>	3.99	<i>H</i>	14.6	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1981 05 08	675	0.7+	1.0+	1998 08 17	704	1.4−	1.0+	2000 01 05	704	0.1−	0.2−
1981 05 09	675	0.0	0.8+	1998 08 17	704	0.5+	0.2−	2000 01 05	704	0.3+ 0.9+	
1994 08 10	809	(1.3− 3.0−)		1998 08 23	699	0.2+ 0.1+		2000 01 05	704	0.2+ 0.8+	
1994 08 10	809	(2.2− 5.6−)		1998 08 23	699	0.1+ 0.3+		2000 01 05	704	0.4+ 0.7+	
1994 08 10	809	(1.6− 3.6−)		1998 08 23	699	0.5+ 0.9+		2000 01 07	704	0.3−	0.3+
1994 08 11	809	(0.1− 3.5−)		1999 11 12	703	0.7+ 0.6−		2000 01 07	704	0.2−	0.1+
1994 08 11	809	(0.6− 3.6−)		1999 11 12	703	0.2+ 0.7+		2000 01 07	704	0.4−	0.1+
1994 08 11	809	(0.2+ 4.0−)		1999 11 12	703	0.9+ 0.2+		2000 01 07	704	0.1−	0.2−
1994 09 01	691	0.3+ 0.4+		1999 11 12	703	0.3+ 0.3+		2000 01 07	704	0.6−	0.0
1994 09 01	691	0.1−	0.1−	199							

1994 09 04	809	0.6+	0.9+	1999 12 08	704	0.3-	1.3-	2000 02 03	704	0.4-	0.1-
1994 09 04	809	1.0-	0.4-	1999 12 08	704	0.0	0.4-	2000 02 03	704	0.2-	0.1-
1994 09 04	809	0.5+	0.1+	1999 12 08	704	0.3+	0.2-	2000 02 03	704	0.4-	0.0
1998 08 17	704	1.4+	0.6-	1999 12 08	704	0.4+	0.1+	2000 02 03	704	0.2-	0.8+
1998 08 17	704	0.0	0.7-	1999 12 08	704	1.1+	0.3+				
1998 08 17	704	0.6-	1.2-	2000 01 05	704	0.4+	0.3+				

(13603)* 1994 PV₃₇ = 1979 OR₁₆ = 1998 SE₂₇

Discovered 1994 Aug. 10 by E. W. Elst at the European Southern Observatory.

Id. E. Bowell (*MPC* 32667), G. V. Williams (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Williams		
<i>M</i>	198.86432	(2000.0)	P	Q	
<i>n</i>	0.26419819	ω	118.92450	+0.35977203	+0.93302333
<i>a</i>	2.4053752	Ω	172.15549	-0.86973735	+0.33753649
<i>e</i>	0.1832521	<i>i</i>	2.35857	-0.33781803	+0.12464580
<i>P</i>	3.73	<i>H</i>	14.5	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1979 07 30	095	0.2-	1.9+	1998 09 26	704	1.3+	0.2+	1998 10 29	704	(1.9-	2.5+)
1991 12 04	691	0.3-	0.6-	1998 09 27	704	0.4+	0.2-	1998 10 29	704	1.9-	0.4+
1991 12 04	691	0.2+	0.6-	1998 09 27	704	0.3-	0.2+	1998 10 29	704	1.4-	0.8+
1991 12 04	691	0.2-	0.9-	1998 09 27	704	0.1+	0.1+	1998 11 11	699	0.8+	0.5+
1994 08 10	809	0.8+	0.6+	1998 09 27	704	0.4+	0.5+	1998 11 11	699	0.5+	1.1-
1994 08 10	809	0.9+	0.4-	1998 09 27	704	0.3+	0.4-	1998 11 11	699	0.1-	0.4-
1994 08 10	809	1.8+	0.1+	1998 10 12	691	0.6-	0.2+	1999 01 09	910	1.1-	1.4-
1994 08 11	809	0.4+	0.2-	1998 10 12	691	0.3-	0.3-	1999 01 09	910	0.8-	1.2-
1994 08 11	809	0.6+	0.1-	1998 10 12	691	0.4-	0.5-	1999 01 09	910	1.1-	1.3-
1994 08 11	809	0.2+	0.2-	1998 10 14	704	(2.1-	0.9-)	1999 12 07	704	0.6+	0.9-
1994 09 03	809	0.9-	1.0-	1998 10 14	704	0.0	0.7-	1999 12 07	704	0.5+	0.3-
1994 09 03	809	1.7-	1.4-	1998 10 14	704	0.0	0.6+	1999 12 07	704	0.3-	0.1+
1994 09 03	809	0.8-	1.3-	1998 10 14	704	0.9-	0.3+	2000 01 05	704	0.4-	0.9-
1994 09 04	809	0.1-	0.3-	1998 10 14	704	(2.1-	0.7+)	2000 01 05	704	0.3+	0.6-
1994 09 04	809	0.8-	0.8-	1998 10 15	704	0.0	1.1+	2000 01 05	704	0.3-	0.1-
1994 09 04	809	0.3-	0.5+	1998 10 15	704	0.4-	0.2+	2000 01 05	704	0.0	0.2+
1998 09 15	699	0.2-	0.6+	1998 10 15	704	0.2-	0.4-	2000 01 05	704	0.3-	0.8-
1998 09 15	699	0.2+	0.6+	1998 10 15	704	0.6+	0.2+	2000 02 02	704	0.6+	0.7+
1998 09 15	699	0.6+	0.4+	1998 10 15	704	0.4+	0.1+	2000 02 02	704	0.2+	0.0
1998 09 20	327	0.2+	0.6+	1998 10 19	699	0.1+	0.8+	2000 02 02	704	0.0	0.7-
1998 09 20	327	0.4+	0.8+	1998 10 19	699	0.1+	0.7-	2000 02 02	704	0.3+	0.8+
1998 09 20	327	0.1+	0.9+	1998 10 19	699	0.1+	0.3+	2000 02 02	704	0.3-	0.3+
1998 09 23	327	1.1+	0.5+	1998 10 28	704	0.1+	0.1+	2000 02 03	704	0.4-	0.4-
1998 09 23	327	0.9+	0.5+	1998 10 28	704	0.6-	0.9-	2000 02 03	704	0.1-	0.2+
1998 09 23	327	0.9+	0.5+	1998 10 28	704	0.3+	0.8+	2000 02 03	704	0.4-	1.1+
1998 09 26	704	0.6+	1.0+	1998 10 28	704	0.6-	0.8-	2000 02 03	704	0.2+	0.8+
1998 09 26	704	0.8+	0.6-	1998 10 28	704	0.5-	0.2-	2000 02 03	704	0.3+	1.1+
1998 09 26	704	0.2-	0.5-	1998 10 29	704	1.6-	0.3-				
1998 09 26	704	1.5+	0.7-	1998 10 29	704	1.2-	1.0+				

(13604)* 1994 PA₃₉ = 2909 T-2

Discovered 1994 Aug. 10 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (*MPC* 27448)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Williams		
<i>M</i>	252.50722	(2000.0)	P	Q	
<i>n</i>	0.27825508	ω	40.98807	-0.19876233	+0.97971715
<i>a</i>	2.3236675	Ω	217.56771	-0.90971692	-0.19409724
<i>e</i>	0.1913200	<i>i</i>	2.39258	-0.36456640	-0.04980524
<i>P</i>	3.54	<i>H</i>	15.3	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1973 09 30	675	1.2-	0.7+	1994 09 04	809	(3.8+	3.7+)	1998 10 29	704	0.2+	0.8-
1973 09 30	675	0.7-	1.1-	1994 09 07	675	1.5+	1.7+	1998 10 29	704	0.1+	0.4-
1973 10 04	675	1.3+	2.4-	1994 09 07	675	(0.8+	2.3+)	1998 10 29	704	0.0	0.6+
1973 10 04	675	2.3+	0.4-	1997 04 01	809	0.1-	1.0-	1998 10 29	704	0.4-	0.1+

1973 10 05	675	0.0	0.4-	1997 04 01	809	0.5-	0.8-	2000 01 07	704	1.1-	1.1-
1973 10 05	675	0.1-	2.0-	1997 04 01	809	0.6+	1.2-	2000 01 07	704	0.1-	1.6-
1991 11 05	691	0.5+	0.2-	1997 05 14	688	0.4-	0.2-	2000 01 07	704	0.2-	1.1-
1991 11 05	691	0.7+	0.3-	1997 05 14	688	0.5-	0.1-	2000 01 07	704	0.6-	1.0-
1991 11 05	691	0.6+	0.1+	1997 05 14	688	0.3-	0.2-	2000 02 02	704	0.5+	0.3-
1994 08 10	809	0.6-	1.2-	1997 05 14	688	0.4-	0.2-	2000 02 02	704	0.4-	0.3-
1994 08 10	809	0.9-	1.6-	1998 10 13	691	0.3-	0.0	2000 02 02	704	0.1-	0.1-
1994 08 10	809	1.2-	1.5-	1998 10 13	691	0.4-	0.1+	2000 02 02	704	0.7+	0.3+
1994 08 11	809	1.8+	0.9-	1998 10 13	691	0.3-	0.3+	2000 02 02	704	0.9+	0.3-
1994 08 11	809	1.0+	0.3-	1998 10 18	691	0.1-	0.6+	2000 02 03	704	0.2-	0.0
1994 08 11	809	0.6+	1.0-	1998 10 18	691	0.3-	0.4+	2000 02 03	704	0.3+	0.3-
1994 09 03	809	(2.7+	3.3+)	1998 10 18	691	0.4-	0.3+	2000 02 03	704	0.2-	0.9-
1994 09 03	809	(2.2+	3.2+)	1998 10 23	691	0.3-	1.0+	2000 02 03	704	0.5-	0.5+
1994 09 03	809	(2.6+	2.9+)	1998 10 23	691	0.4-	0.7+	2000 02 03	704	0.7-	0.6-
1994 09 04	809	(3.6+	4.1+)	1998 10 23	691	0.4-	0.9+				
1994 09 04	809	(3.2+	3.9+)	1998 10 29	704	0.4+	0.1-				

(13605)* 1994 RV = 1993 FY₇₉

Discovered 1994 Sept. 1 by K. Endate and K. Watanabe at Kitami.

Id. G. V. Williams (*MPC* 24233)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Williams		
<i>M</i>	202.05059	(2000.0)	P	Q	
<i>n</i>	0.26862902	ω	348.93386	+0.77105265	+0.63523174
<i>a</i>	2.3788520	Ω	331.47917	-0.57692190	+0.66747784
<i>e</i>	0.1341383	<i>i</i>	5.31800	-0.26951609	+0.38852795
<i>P</i>	3.67	<i>H</i>	13.7	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1993 03 26	809	0.3+	1.6+	1998 10 25	761	0.7-	0.5-	1998 11 26	716	0.9+	0.8-
1993 04 18	413	0.9-	0.2+	1998 10 25	761	0.8-	0.6+	1999 11 16	704	0.0	0.6+
1994 09 01	400	0.8+	1.4+	1998 10 25	098	0.5-	0.5-	1999 11 16	704	0.4+	0.6-
1994 09 01	400	0.1-	0.5+	1998 10 25	098	0.3+	0.8-	1999 11 16	704	0.2-	0.3-
1994 09 06	400	0.9+	1.0+	1998 10 29	704	0.2-	0.3-	1999 11 16	704	0.4+	0.7+
1994 09 06	400	0.1-	0.5+	1998 10 29	704	0.0	0.1-	2000 02 05	120	0.8-	0.1+
1994 10 03	400	0.9-	0.6-	1998 10 29	704	0.4+	0.3-	2000 02 05	120	0.2+	0.3-
1994 10 03	400	0.6-	0.9-	1998 10 29	704	0.4+	0.3-	2000 02 05	704	0.8+	0.1-
1996 01 10	411	0.8+	0.7+	1998 10 29	704	0.7-	0.8-	2000 02 05	704	0.5+	0.0
1996 01 10	411	0.1+	0.1-	1998 11 14	704	0.0	0.2-	2000 02 05	704	0.4+	0.0
1996 01 19	691	0.2+	0.5-	1998 11 14	704	0.5-	0.6-	2000 02 06	704	0.2+	0.7+
1996 01 19	691	0.1+	0.6-	1998 11 14	704	0.2+	0.4-	2000 02 06	704	0.2+	0.4+
1996 01 19	691	0.1+	0.6-	1998 11 14	704	0.3-	0.2+	2000 02 06	704	0.0	0.9+
1996 01 26	691	0.8-	0.6-	1998 11 14	704	0.0	0.3+	2000 02 06	704	0.5+	1.1+
1996 01 26	691	0.3-	0.5-	1998 11 16	704	0.4+	1.1+	2000 02 12	704	1.8+	1.7-
1996 01 26	691	0.2-	0.6-	1998 11 16	704	0.1-	1.4+	2000 02 12	704	(2.5-	1.8-)
1998 08 31	704	0.9-	0.6+	1998 11 16	704	0.3+	1.1+	2000 02 12	704	0.3+	0.5+
1998 08 31	704	0.3+	0.0	1998 11 16	704	1.0+	0.3-	2000 02 12	704	0.9-	1.4+
1998 08 31	704	0.2-	0.7-	1998 11 25	716	0.1+	0.6-	2000 02 14	691	0.3-	0.4-
1998 08 31	704	0.1+	0.5+	1998 11 25	716	0.8-	1.6+	2000 02 14	691	0.5-	0.2-
1998 10 24	761	0.1+	0.7-	1998 11 25	716	0.8-	1.6+	2000 02 14	691	0.4-	0.3-
1998 10 24	761	0.0	0.1+	1998 11 26	716	(2.6+	0.1+)				

(13606)* 1994 RN₅ = 1997 LS₁₄

Discovered 1994 Sept. 11 by Spacewatch at Kitt Peak.

Id. G. V. Williams (*MPC* 30453)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	245.21039		(2000.0)	P	Q
n	0.26018028	ω	61.98571	-0.14979670	+0.98857986
a	2.4300757	Ω	199.41999	-0.92362420	-0.14585459
e	0.1047827	i	2.83691	-0.35281621	-0.03789839
P	3.79	H	14.9	G 0.15	U 2

2000 FEB. 22

M.P.C. 38345

1994 09 12	691	0.3−	0.9+	1997 06 09	809	1.0+	1.0+	2000 02 02	704	0.0	1.5+
1994 09 12	691	0.5−	0.8+	1997 06 09	809	1.0+	0.9+	2000 02 02	704	1.0+	0.4+
1994 09 12	691	0.7−	0.6+	1997 06 09	809	0.5−	1.2+	2000 02 02	704	0.2−	0.8+
1994 09 13	691	0.7−	1.3+	1998 09 26	704	1.3−	0.4−	2000 02 02	704	0.1+	0.3−
1994 09 13	691	0.5−	1.1−	1998 09 26	704	0.9−	0.4−	2000 02 02	704	1.3−	0.6+
1994 09 13	691	0.2−	0.5+	1998 09 26	704	(2.7−	1.9+)	2000 02 04	704	0.4+	0.1+
1994 09 28	691	0.5−	1.0+	1998 09 26	704	0.1−	0.3−	2000 02 04	704	0.1−	0.0
1994 09 28	691	0.0	0.8+	1998 10 29	704	(0.2−	2.5+)	2000 02 04	704	1.4+	0.4+
1994 09 28	691	1.2−	1.1−	1998 10 29	704	0.3+	1.2+	2000 02 04	704	0.3+	0.2+
1994 09 29	691	0.1−	0.9+	1998 10 29	704	0.8+	0.2−	2000 02 06	704	1.6−	1.4+
1994 09 29	691	0.1+	0.9+	1998 10 29	704	0.9+	0.3−	2000 02 06	704	0.4+	1.1+
1994 09 29	691	0.1+	0.7+	2000 01 07	704	1.0+	0.2−	2000 02 06	704	0.2+	1.5+
1994 10 05	658	0.3+	0.5+	2000 01 07	704	0.5−	0.3+	2000 02 06	704	0.3+	0.4+
1994 10 05	658	0.2+	0.3+	2000 01 07	704	0.4+	0.0				
1994 10 05	658	0.3+	0.5+	2000 01 07	704	0.7−	0.2+				

(13607)* 1994 SH₁₁ = 1993 HF₈ = 1996 GN₂₁

Discovered 1994 Sept. 29 by Spacewatch at Kitt Peak.

Id. E. Bowell (*MPC* 28854), G. V. Williams (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		327.21821		(2000.0)		P		Q	
<i>n</i>	0.27684857	ω	202.48683	−0.72119549	+0.69144998				
<i>a</i>	2.3315310	Ω	21.43687	−0.61674795	−0.61321610				
<i>e</i>	0.0603359	<i>i</i>	6.61768	−0.31543467	−0.38192008				
<i>P</i>	3.56	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	2		

Residuals in seconds of arc

1993 04 19	675	0.7+	0.1−	1998 11 10	704	1.2+	1.0+	1998 11 24	704	0.0	1.3+
1993 04 19	675	0.9+	0.3−	1998 11 10	704	1.2+	0.6+	1998 12 14	704	0.1−	1.4−
1994 09 29	691	0.4−	0.2+	1998 11 10	704	0.1+	0.4+	1998 12 14	704	1.0−	1.2−
1994 09 29	691	0.3−	0.1+	1998 11 10	704	1.6+	0.1+	1998 12 14	704	0.7−	0.2+
1994 09 29	691	0.3−	0.1+	1998 11 11	704	1.6+	0.1+	1998 12 14	704	1.5−	0.9+
1994 10 06	691	0.7−	0.4+	1998 11 11	704	1.4−	0.2−	1998 12 14	704	(0.1−	3.0+)
1994 10 06	691	0.4−	0.2+	1998 11 11	704	0.9+	0.6−	2000 01 10	699	0.7−	1.0+
1994 10 06	691	0.1−	0.1−	1998 11 11	704	0.7−	1.4+	2000 01 10	699	0.3+	0.5+
1994 10 12	691	0.3−	0.4+	1998 11 21	704	(2.2−	0.2+)	2000 01 10	699	0.5−	1.1+
1994 10 12	691	0.3−	0.2+	1998 11 21	704	0.3+	0.3−	2000 02 08	704	0.3−	0.5+
1994 10 12	691	0.5−	0.0	1998 11 21	704	0.3+	1.5−	2000 02 08	704	0.4−	0.5+
1994 10 26	691	0.2−	0.2+	1998 11 21	704	0.6+	0.5−	2000 02 08	704	0.5+	0.5+
1994 10 26	691	0.3−	0.4+	1998 11 21	704	0.4+	1.6−	2000 02 11	704	(0.8−	2.9+)
1994 10 26	691	0.2−	0.2+	1998 11 24	704	0.6+	0.1−	2000 02 11	704	0.3+	0.7+
1996 04 09	327	0.7−	0.8+	1998 11 24	704	1.3−	0.1−	2000 02 11	704	0.7+	1.1−
1996 04 09	327	0.1−	0.2+	1998 11 24	704	1.0+	1.3+				
1996 04 09	327	0.7−	0.8+	1998 11 24	704	0.3+	0.5−				

(13608)* 1994 TQ₁ = 1976 UR₁₃

Discovered 1994 Oct. 2 by K. Endate and K. Watanabe at Kitami.

Id. S. Nakano (*MPC* 24572)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		255.72549		(2000.0)		P		Q	
<i>n</i>	0.27396282	ω	233.43558	+0.32028356	+0.94182099				
<i>a</i>	2.3478749	Ω	55.55203	−0.82486942	+0.33017974				
<i>e</i>	0.1469466	<i>i</i>	7.10089	−0.46584212	+0.06288529				
<i>P</i>	3.60	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	1		

Residuals in seconds of arc

1976 10 22	381	0.5+	0.2+	1998 10 23	327	0.5+	0.2−	1998 12 17	704	0.6+	1.1−
1976 10 22	381	0.1−	0.6−	1998 10 26	327	0.1+	0.2−	1998 12 17	704	0.6+	1.4−
1976 10 24	381	0.4−	0.0	1998 10 26	327	0.1+	0.1−	2000 01 04	704	0.6+	0.8+
1993 04 19	691	0.3−	0.8−	1998 10 26	327	0.2−	0.6−	2000 01 04	704	0.0	1.1+
1993 04 19	691	0.0	1.0−	1998 12 09	327	0.3−	0.4+	2000 01 04	704	0.4+	0.9+
1994 10 02	400	1.3−	0.1+	1998 12 09	327	0.5−	0.2+	2000 01 04	704	0.2−	0.5+
1994 10 02	400	0.6+	0.5−	1998 12 09	327	1.0−	0.5+	2000 01 07	704	0.3+	0.1+
1994 10 03	400	0.3+	1.3+	1998 12 13	327	0.3+	0.3+	2000 01 07	704	0.4+	0.6+
1994 10 03	400	(3.4+	0.4−)	1998 12 13	327	0.3−	0.4+	2000 01 07	704	0.1−	0.2−

1994 10 07	400	(4.0+	1.3+)	1998 12 13	327	0.5−	0.3+	2000 01 07	704	0.1−	0.3−
1994 10 07	400	(2.7+	0.6+)	1998 12 14	704	0.6+	0.5−	2000 01 07	704	0.6−	0.2−
1994 10 26	400	0.7−	0.6+	1998 12 14	704	0.4+	0.3−	2000 02 04	704	0.9+	0.6−
1994 10 26	400	(0.6−	3.9−)	1998 12 14	704	0.5−	0.1+	2000 02 04	704	0.2+	0.2+
1998 10 18	327	0.9+	0.3+	1998 12 14	704	1.4−	0.8+	2000 02 04	704	0.2−	0.4+
1998 10 18	327	0.6+	0.0	1998 12 14	704	0.8−	1.4+	2000 02 04	704	0.3−	0.5−
1998 10 18	327	0.4+	0.0	1998 12 17	704	0.9+	0.6−	2000 02 04	704	0.6−	0.7+
1998 10 23	327	0.3+	0.4+	1998 12 17	704	0.3+	1.0−				
1998 10 23	327	0.3+	0.0	1998 12 17	704	0.7+	1.4−				

(13609)* 1994 TK₁₁ = 1977 EV₆

Discovered 1994 Oct. 10 by Spacewatch at Kitt Peak.

Id. G. V. Williams (*MPC* 30454)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		174.36054		(2000.0)		P		Q	
<i>n</i>	0.25373186	ω	95.06142	+0.87290484	+0.48690021				
<i>a</i>	2.4710757	Ω	235.80491	−0.46119606	+0.80269414				
<i>e</i>	0.0710401	<i>i</i>	2.15273	−0.15917079	+0.34439846				
<i>P</i>	3.88	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	2		

Residuals in seconds of arc

1977 03 12	381	0.0	0.2−	1998 09 26	704	1.8−	0.5−	1998 11 11	704	1.6−	0.2−
1977 03 12	381	0.1−	0.3+	1998 09 26	704	0.7−	0.1+	1998 11 11	704	0.4−	0.0
1977 03 14	381	0.1−	0.8+	1998 09 27	704	0.2−	0.0	1998 11 11	704	0.2−	0.2−
1977 03 14	381	0.8−	0.2+	1998 09 27	704	0.2+	0.3+	1998 11 11	704	0.4−	0.8+
1977 03 15	381	1.0+	0.5−	1998 09 27	704	0.5−	0.4+	1998 11 11	704	0.6+	0.6+
1977 03 15	381	0.5+	1.0−	1998 09 27	704	0.0	1.0+	1999 01 09	691	0.2+	0.1−
1994 09 04	411	0.3+	0.0	1998 09 27	704	0.1+	0.4+	1999 01 09	691	0.5+	0.6−
1994 09 04	411	0.6+	0.1+	1998 10 10	699	0.5+	0.4+	1999 01 09	691	0.0	0.8−
1994 10 10	691	0.1+	0.1−	1998 10 10	699	0.4+	0.4+	1999 01 13	691	0.5−	0.3−
1994 10 10	691	0.0	0.2−	1998 10 10	699	0.7−	0.5+	1999 01 13	691	1.0−	0.1−
1994 10 10	691	0.3+	0.3−	1998 10 10	699	0.6+	0.0	1999 01 13	691	1.0−	0.1+
1994 10 10	691	0.5−	1.0−	1998 10 10	699	0.1+	0.2+	1999 12 05	704	0.4+	1.3−
1994 10 10	691	0.2−	1.1−	1998 10 10	699	0.2−	0.1−	1999 12 05	704	0.3+	0.5+
1994 10 10	691	0.4+	0.7−	1998 10 14	704	0.8+	1.0−	1999 12 05	704	0.3−	1.2+
1994 10 11	691	0.1−	0.3−	1998 10 14	704	0.4−	0.4+	1999 12 05	704	0.0	0.9+
1994 10 11	691	0.2+	0.2−	1998 10 14	704	0.4−	0.3−	2000 01 05	704	0.3−	0.3−
1994 10 11	691	0.3−	0.3−	1998 10 14	704	0.3+	0.1+	2000 01 05	704	0.7−	0.7+
1994 10 12	691	0.3−	0.2−	1998 10 14	704	0.1−	0.7+	2000 01 05	704	0.3−	0.5−
1994 10 12	691	0.5−	0.8−	1998 10 15	704	0.3−	0.1+	2000 01 05	704	0.1−	0.3−
1994 10 12	691	0.1−	0.3−	1998 10 15	704	0.9+	0.7+	2000 01 05	704	0.7−	0.6−
1995 11 18	691	0.0	0.5−	1998 10 15	704	0.1−	0.6+	2000 01 07	704	0.5+	0.2+
1995 11 18	691	0.4−	0.5−	1998 10 15	704	0.6−	0.6−	2000 01 07	704	0.3+	0.1+
1995 11 18	691	0.2−	0.6−	1998 10 20	653	0.6−	0.4−	2000 01 07	704	0.2+	0.0
1995 12 26	691	0.2−	0.3−	1998 10 20	653	0.5−	0.2+	2000 01 07	704	0.6−	0.6+
1995 12 26	691	0.2−	0.2−	1998 10 21	653	0.5−	0.2+	2000 01 07	704	1.8−	0.6+
1995 12 26	691	0.1−	0.4−	1998 10 21	653	0.0	0.5+	2000 02 02	704	0.3+	0.2+
1998 09 14	699	0.5+	0.0	1998 10 28	704	0.5+	0.6+	2000 02 02	704	0.2−	0.2+
1998 09 14	699	0.2−	0.0	1998 10 28	704	0.9+	0.2+	2000 02 02	704	0.2+	0.2−
1998 09 14	691	0.6+	0.1−	1998 10 28	704	0.6+	0.3−	2000 02 02	704	0.2−	0.2+
1998 09 14	699	0.7+	0.1+	1998 10 28	704	0.4−	0.5−	2000 02 02	704	0.2−	0.5+
1998 09 14	691	0.5+	0.4−	1998 10 28	704	1.0−	0.7−	2000 02 04	704	0.3+	0.2−
1998 09 14	691	0.4+	0.7−	1998 10 29	704	0.8+	0.1−	2000 02 04	704	0.8+	0.4−
1998 09 18	809	(2.0+)	(1.1+)	1998 10 29	704	0.8+	0.2+	2000 02 04	704	0.2+	0.0
1998 09 18	809	1.0+	1.4+	1998 10 29	704	0.3+	0.3−	2000 02 04	704	0.1+	0.4+
1998 09 18	809	1.0+	1.9+	1998 10 29	704	0.3−	0.3+	2000 02 04	704	0.1−	0.4−
1998 09 20	809	(2.4+)	(1.3+)	1998 10 29	704	0.2+	0.6−	2000 02 12	704	0.7+	0.1+
1998 09 20	809	1.3+	1.6+	1998 11 10	704	(2.3+)	(0.1−)	2000 02 12	704	0.5+	0.2+
1998 09 20	809	1.7+	1.1+	1998 11 10	704	0.5+	0.3−	2000 02 12	704	0.3−	0.4+
1998 09 26	704	0.6−	0.3−	1998 11 10	704	0.2−	0.9−	2000 02 12	704	0.1+	0.3−
1998 09 26	704	0.1−	0.1−	1998 11 10	704	0.2−	0.5−	2000 02 12	704	0.3+	0.3+
1998 09 26	704	0.6−	0.1−	1998 11 10	704	0.8−	0.2+				

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	200.28456		(2000.0)	P	Q
<i>n</i>	0.26640791	ω	147.14649	+0.91828353	+0.39554380
<i>a</i>	2.3920558	Ω	189.60094	-0.38197782	+0.87357184
<i>e</i>	0.1358368	<i>i</i>	5.96555	-0.10415522	+0.28357952
<i>P</i>	3.70	<i>H</i>	13.6	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1982 04 22	413	1.2-	0.1-	1994 10 05	033	0.1+	0.1-	1998 12 22	704	(2.4-	0.7+)
1982 04 22	413	0.5-	0.4-	1994 10 06	033	0.3+	0.7-	1999 01 07	704	1.1-	0.4-
1982 07 17	413	1.7+	0.8-	1994 10 07	033	0.4+	0.6+	1999 01 07	704	0.1-	0.5+
1982 07 17	413	1.6-	1.1+	1994 10 10	033	0.5+	0.2-	1999 01 07	704	0.1+	0.6+
1990 09 17	675	1.0+	0.5+	1998 12 15	704	1.9-	0.1-	2000 01 05	704	0.8-	0.8-
1990 09 17	675	0.3+	0.2-	1998 12 15	704	0.1+	0.1+	2000 01 05	704	0.4-	0.6+
1990 09 20	675	0.2+	0.4+	1998 12 15	704	0.6+	0.1-	2000 01 05	704	0.5+	0.4+
1990 09 20	675	1.1-	0.1+	1998 12 15	704	0.3+	0.3+	2000 02 08	704	0.1-	0.7+
1992 01 30	809	(3.0+	2.0-)	1998 12 22	704	0.0	0.2-	2000 02 08	704	0.7+	0.0
1992 01 30	809	2.0+	1.8-	1998 12 22	704	0.8-	0.0	2000 02 08	704	1.2+	0.7+
1992 01 30	809	(0.4+	2.2-)	1998 12 22	704	1.0-	0.1+	2000 02 08	704	0.3+	0.4-

(13611)* 1994 UM₁ = 1932 RJ = 1986 WF₂

Discovered 1994 Oct. 25 by S. Ueda and H. Kaneda at Kushiro.

Id. G. V. Williams (*MPC* 24750, *MPC* 24903)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	165.17090		(2000.0)	P	Q
<i>n</i>	0.23985329	ω	69.46449	+0.76376507	+0.64308786
<i>a</i>	2.5655014	Ω	250.46982	-0.61205904	+0.69409890
<i>e</i>	0.1987478	<i>i</i>	3.38732	-0.20505281	+0.32351928
<i>P</i>	4.11	<i>H</i>	13.7	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1932 09 08	024	1.0+	2.5-	1998 09 27	704	1.7-	0.3+	1998 11 11	704	0.2-	0.3-
1986 11 30	046	(1.2+	2.6+)	1998 10 12	910	0.5+	0.3+	1998 11 11	704	0.7-	0.1+
1986 11 30	046	(2.0+	20.1+)	1998 10 12	910	0.5+	0.5+	1998 11 11	704	1.0-	0.3-
1986 12 01	046	1.4+	1.1-	1998 10 12	910	0.4+	0.6+	1998 11 23	699	0.3-	0.3+
1986 12 01	046	0.8+	0.3+	1998 10 14	704	(0.5+	2.2+)	1998 11 23	699	0.1+	0.3+
1990 11 13	399	0.5-	0.3+	1998 10 14	704	0.7-	0.8+	1998 11 23	699	0.5-	0.8+
1990 11 13	399	0.3+	0.1+	1998 10 14	704	0.7-	0.5+	1998 12 09	699	0.3-	0.1+
1990 11 21	399	1.2-	1.2-	1998 10 14	704	0.2+	0.6-	1998 12 09	699	0.0	0.6+
1990 11 21	399	(3.4-	0.4+)	1998 10 14	910	0.9+	0.5+	1998 12 09	699	0.1+	0.1-
1990 11 24	399	1.5-	0.6-	1998 10 15	910	1.0+	0.5+	1999 01 08	704	0.3-	0.6+
1990 11 24	399	0.4+	0.8+	1998 10 15	910	1.0+	0.5+	1999 01 08	704	0.2+	1.7-
1994 10 25	399	(3.2+	0.7-)	1998 10 15	704	0.4+	0.1+	1999 01 08	704	0.2-	0.7-
1994 10 25	399	(3.0+	0.7+)	1998 10 15	704	0.3-	0.9+	1999 01 08	704	(0.2+	2.5-)
1994 10 26	399	(3.8-	0.2-)	1998 10 15	704	0.9-	0.8+	1999 01 11	704	1.1+	1.4+
1994 10 26	399	1.6-	0.6-	1998 10 15	704	0.6+	0.4+	1999 01 11	704	0.9+	1.4-
1994 11 04	675	1.0+	0.1-	1998 10 15	704	0.6+	0.7-	1999 01 11	704	0.6+	0.3+
1994 11 04	675	0.5+	0.6-	1998 10 15	557	0.3-	0.3-	1999 01 11	704	0.1+	0.6-
1994 11 06	675	0.3+	0.4-	1998 10 15	557	0.1-	0.3-	2000 01 05	704	0.4-	0.1-
1994 11 06	675	0.1-	0.5-	1998 10 15	557	0.3-	0.3-	2000 01 05	704	0.8-	0.9-
1994 11 07	399	(3.9-	1.7-)	1998 10 15	557	0.3-	0.3-	2000 01 05	704	0.5-	0.4-
1994 11 07	399	(2.8-	0.1-)	1998 10 19	910	0.3-	1.1+	2000 01 05	704	0.5-	0.2+
1994 11 10	399	0.4+	0.3-	1998 10 19	910	0.3+	1.3+	2000 01 05	704	0.5-	0.0
1994 11 10	399	0.4+	0.0	1998 10 20	910	0.2+	1.2+	2000 01 07	704	0.1-	0.5+
1994 11 30	675	0.9+	1.2-	1998 10 20	910	1.3+	0.8+	2000 01 07	704	0.5+	0.7-
1994 11 30	675	0.5+	0.7-	1998 10 20	910	1.1+	0.9+	2000 01 07	704	1.1-	0.2-
1994 12 03	675	0.7-	0.7-	1998 10 20	910	1.1+	1.0+	2000 01 07	704	0.5+	0.6+
1994 12 03	675	0.7-	0.4-	1998 10 28	704	0.4+	0.5-	2000 02 02	704	0.4-	0.5+
1995 11 21	691	0.6-	0.3-	1998 10 28	704	0.1+	0.1+	2000 02 02	704	0.3+	0.2+
1995 11 21	691	0.5-	0.3-	1998 10 28	704	0.2-	1.1-	2000 02 02	704	0.1-	0.7+
1995 11 21	691	0.4-	0.1-	1998 10 28	704	0.2+	0.0	2000 02 02	704	0.3+	0.7+
1998 09 23	098	0.5+	0.4+	1998 10 28	704	0.2-	0.1+	2000 02 02	704	0.3+	1.1+
1998 09 23	098	(3.6-	2.0+)	1998 10 29	704	0.2-	0.4+	2000 02 03	704	0.3+	1.1+
1998 09 23	098	(2.5-	2.1-)	1998 10 29	704	0.2-	0.1-	2000 02 03	704	0.8+	0.8+
1998 09 26	704	1.3-	0.9+	1998 10 29	704	0.6+	0.1+	2000 02 03	704	0.1+	0.1+
1998 09 26	704	0.4-	0.2-	1998 10 29	704	0.3-	0.0	2000 02 03	704	0.4+	0.8-

1998 09 26	704	0.3+	0.9-	1998 10 29	704	0.3-	1.2-	2000 02 03	704	0.7+	0.2+
1998 09 26	704	0.4+	0.5-	1998 11 10	704	0.5-	0.3+	2000 02 05	704	0.1+	0.5-
1998 09 26	704	0.5-	0.6-	1998 11 10	704	0.1-	0.2+	2000 02 05	704	0.0	0.3-
1998 09 27	704	0.1-	0.6+	1998 11 10	704	0.1+	1.3-	2000 02 05	704	0.3+	0.4-
1998 09 27	704	0.7-	0.4+	1998 11 10	704	0.8-	0.7-	2000 02 05	704	0.3+	0.4-
1998 09 27	704	1.1-	0.2+	1998 11 11	704	0.1+	0.1+	2000 02 05	704	0.5+	0.1+
1998 09 27	704	0.5-	0.6+	1998 11 11	704	0.6-	0.1-				

(13612)* 1994 UQ₁ = 1980 FZ = 1990 XQ

Discovered 1994 Oct. 25 by S. Ueda and H. Kaneda at Kushiro.

Id. S. Nakano (*MPC* 24399)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	148.93441		(2000.0)	P	Q
<i>n</i>	0.23922947	ω	134.20118	+0.91370292	+0.40572960
<i>a</i>	2.5699594	Ω	201.89308	-0.38824302	+0.85477080
<i>e</i>	0.1969335	<i>i</i>	3.54133	-0.12005970	+0.32365163
<i>P</i>	4.12	<i>H</i>	13.8	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1980 03 16	809	0.7+	0.5-	1998 09 26	704	0.5-	0.0	1998 12 08	699	0.9-	0.5-
1980 03 16	809	0.6+	0.9-	1998 09 27	704	0.1-	0.6+	1998 12 08	699	0.6-	0.8-
1980 03 16	809	1.4+	0.3-	1998 09 27	704	0.5+	0.0	1998 12 08	699	1.0-	0.1-
1980 03 16	809	0.5-	0.3+	1998 09 27	704	0.1-	0.9+	1999 01 10	699	0.6+	0.1-
1980 03 17	809	0.0	0.3-	1998 09 27	704	0.0	0.1-	1999 01 10	699	0.5-	1.7+
1980 03 17	809	0.9-	0.3-	1998 09 27	704	0.4+	0.2-	1999 01 10	699	1.2-	0.7-
1980 03 17	809	0.1+	0.3+	1998 09 29	727	0.5-	0.0	1999 01 11	704	1.4+	1.5+
1980 03 17	809	0.2+	0.0	1998 09 29	727	0.0	0.3+	1999 01 11	704	1.0+	0.3+
1990 12 10	372	0.1+	0.3+	1998 09 29	727	0.0	0.2-	1999 01 11	704	0.4+	1.0-
1990 12 10	372	0.2-	1.2+	1998 10 01	327	0.1-	0.3+	1999 01 11	704	(2.2-	2.1-)
1990 12 12	372	(5.5+	3.2-)	1998 10 01	327	0.2-	0.2+	1999 12 31	699	1.0-	0.9+
1990 12 12	372	1.8+	1.0-	1998 10 01	327	0.1-	0.2+	1999 12 31	699	0.5-	0.2-
1994 10 25	399	(2.6-	2.5-)	1998 10 14	704	0.4-	0.5+	1999 12 31	699	0.5+	0.4-
1994 10 25	399	1.6-	0.1+	1998 10 14	704	0.3-	0.1-	2000 01 07	704	0.3-	0.7-
1994 10 26	399	2.0-	0.9-	1998 10 14	704	0.1+	0.3+	2000 01 07	704	0.2+	0.4+
1994 10 26	399	1.4-	0.4+	1998 10 14	704	0.6-	0.1-	2000 01 07	704	0.3+	0.5-
1994 11 01	691	0.2+	0.1+	1998 10 14	704	0.2-	0.5+	2000 01 07	704	0.2-	0.4-
1994 11 01	691	0.1+	0.1-	1998 10 14	327	1.4+	0.7+	2000 01 07	704	0.2+	0.4-
1994 11 01	691	0.2+	0.0	1998 10 14	327	0.2+	0.4+	2000 01 30	703	1.6-	0.2-
1994 11 07	399	1.6-	0.1-	1998 10 14	327	0.3+	0.5+	2000 01 30	703	0.5+	0.1-
1994 11 07	399	(2.3-	0.8-)	1998 10 15	704	0.8+	0.9+	2000 01 30	703	0.6-	0.7+
1994 11 10	399	1.4-	0.5-	1998 10 15	704	1.2+	0.1+	2000 01 30	703	0.9-	0.3+
1994 11 10	399	1.7-	1.3+	1998 10 15	704	1.0+	0.3-	2000 02 02	704	0.1-	0.7-
1994 11 28	675	0.3-	0.7-	1998 10 15	704	1.2+	0.3+	2000 02 02	704	0.0	0.0
1994 11 28	675	0.8+	0.6-	1998 10 15	704	0.6+	0.3+	2000 02 02	704	(2.2+	3.1-)
1994 11 30	675	0.4+	0.3+	1998 10 15	327	0.4+	0.0	2000 02 02	704	1.2+	0.6-
1994 11 30	675	0.9+	1.0-	1998 10 15	327	0.3+	0.3+	2000 02 02	704	0.6+	1.3-
1994 12 03	675	0.8+	0.6+	1998 10 15	327	0.4+	0.3+	2000 02 04	704	0.5+	1.6+
1994 12 03	675	0.2-	0.7-	1998 10 20	691	0.4-	0.2-	2000 02 04	704	0.8+	0.2-
1997 05 08	691	0.5-	0.9+	1998 10 20	691	0.5-	0.2-	2000 02 04	704	0.1+	0.7+
1997 05 08	691	0.4-	0.8+	1998 10 20	691	0.8-	0.2+	2000 02 04	704	0.6+	0.7-
1997 05 08	691	0.5-	1.0+	1998 10 27	691	0.1+	0.4-	2000 02 05	704	0.1-	0.4-
1998 09 15	699	0.3-	0.7+	1998 10 27	691	0.1+	0.2-	2000 02 05	704	0.7+	0.3-
1998 09 15	699	0.2-	0.5+	1998 10 27	691	0.1+	0.5-	2000 02 05	704	0.3+	0.3+
1998 09 15	699	0.0	0.1-	1998 10 28	704	0.2-	0.3+	2000 02 05	704	0.2-	0.5+
1998 09 18	704	0.0	0.6+	1998 10 28	704	0.3-	0.7-	2000 02 05	704	(0.3-	3.0+)
1998 09 18	704	0.4+	0.1+	1998 10 28	704	0.4+	1.0+	2000 02 05	704	0.5-	0.1+
1998 09 18	704	0.9+	0.9+	1998 10 28	704	(2.6-	2.1+)	2000 02 05	704	0.1+	0.3+
1998 09 18	704	0.9+	0.2+	1998 10 28	704	1.2-	0.3-	2000 02 05	704	0.6-	0.3-
1998 09 18	704	0.3+	0.1+	1998 10 29	704	0.5-	0.8-	2000 02 05	704	0.2-	0.5+
1998 09 20	327	0.9+	0.2-	1998 10 29	704	0.8-	0.8-	2000 02 06	704	0.0	0.8+
1998 09 20	327	0.9+	0.0	1998 10 29	704	0.8-	0.8-	2000 02 06	704	0.5+	0.3-
1998 09 20	327	0.9+	0.2-	1998 10 29	704	1.1-	0.6-	2000 02 06	704	0.2-	1.3+
1998 09 23	327	0.8-	0.0	1998 10 29	704	0.5-	1.0-	2000 02 06	704	0.2-	0.5-
1998 09 23	327	0.8-	0.0	1998 11 04	327	1.0-	0.3-	2000 02 06	704	0.4-	0.1+
1998 09 23	327	0.5-	0.0	1998 11 04	327	0.6-	0.2-	2000 02 06	704	0.1-	0.8-
1998 09 25	327	0.8+	0.1+	1998 11 04	327	0.3-	0.1-	2000 02 06	704	0.3-	1.0+
1998 09 25	327	1.1+	0.1-	1998 11 10	699	0.6+	0.6-	2000 02 06	704	1.2+	0.9-

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M.P.C. 38347

1998 09 25	327	0.9+	0.2+	1998 11 10	699	0.2+	0.8-	2000 02 06	704	0.3-	0.9+
1998 09 26	704	0.4+	0.0	1998 11 10	699	0.4-	0.5-	2000 02 12	704	0.4-	0.8-
1998 09 26	704	0.0	0.6-	1998 11 11	699	0.6+	0.4+	2000 02 12	704	0.0	1.3+
1998 09 26	704	0.3-	0.4+	1998 11 11	699	0.6+	0.4+	2000 02 12	704	1.2+	1.3+
1998 09 26	704	0.5+	0.5+	1998 11 11	699	0.5+	0.4+				

(13613)* 1994 UA₃ = 1981 UO₇ = 1998 QG₅₁

Discovered 1994 Oct. 26 by S. Ueda and H. Kaneda at Kushiro.

Id. G. V. Williams (*MPC* 32461)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	49.11211	(2000.0)		P	Q		
<i>n</i>	0.22583330	ω	200.06088	+0.14120127	-0.98981373		
<i>a</i>	2.6706116	Ω	241.82548	+0.91108250	+0.13711526		
<i>e</i>	0.1761114	<i>i</i>	1.18258	+0.38728655	+0.03831694		
<i>P</i>	4.36	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1981 10 30	381	0.8-	0.5-	1998 09 15	691	1.1-	0.6+	1998 09 27	704	1.3+	0.4-
1981 10 30	381	0.9+	0.1-	1998 09 15	691	1.0-	0.8+	1999 12 05	704	0.1-	0.3-
1993 07 12	809	(4.6+	3.0+)	1998 09 15	691	1.2-	0.3+	1999 12 05	704	1.1-	0.6+
1993 07 12	809	(5.7+	2.5+)	1998 09 15	120	0.2-	1.7+	1999 12 05	704	1.4-	0.4-
1994 10 26	399	0.8-	0.3-	1998 09 15	120	0.9-	0.2+	2000 02 02	704	0.0	0.1+
1994 10 26	399	0.1+	1.5+	1998 09 17	120	1.0+	1.2+	2000 02 02	704	0.1+	0.0
1994 11 07	399	1.8-	0.0	1998 09 17	120	1.0+	0.9+	2000 02 02	704	0.3+	0.1+
1994 11 07	399	0.0	0.6-	1998 09 18	704	0.1-	0.1-	2000 02 02	704	0.2+	0.2+
1994 11 10	399	0.8+	0.8-	1998 09 18	704	0.6+	0.2-	2000 02 02	704	0.1-	0.2+
1994 11 10	399	0.1-	0.8-	1998 09 18	704	(2.1+	0.7-)	2000 02 04	704	0.1-	0.1-
1994 11 28	675	1.7+	1.5-	1998 09 18	704	0.6-	0.1-	2000 02 04	704	0.2-	0.2-
1994 11 28	675	0.8+	0.7+	1998 09 18	704	0.6-	0.1-	2000 02 04	704	0.5+	0.3+
1994 11 29	691	0.1+	0.3+	1998 09 22	120	0.7-	0.1+	2000 02 04	704	0.6-	1.2+
1994 11 29	691	0.1-	0.2+	1998 09 22	120	0.1+	0.3-	2000 02 08	704	0.0	0.6+
1994 11 29	691	0.1+	0.0	1998 09 22	120	0.0	0.1-	2000 02 08	704	0.2+	0.3+
1998 08 17	704	0.4+	1.5-	1998 09 23	120	0.2-	0.2-	2000 02 08	704	0.1-	0.2+
1998 08 17	704	0.4+	0.7-	1998 09 23	120	0.6+	0.3+	2000 02 08	704	0.4+	0.8+
1998 08 17	704	(2.6-	1.0+)	1998 09 23	120	0.5+	0.0	2000 02 08	704	0.5+	0.9+
1998 08 17	704	(2.2-	0.1+)	1998 09 25	704	0.6-	1.7+	2000 02 11	704	0.5+	0.1+
1998 08 23	704	0.1+	0.4-	1998 09 25	704	0.3+	0.5+	2000 02 11	704	1.0+	0.2-
1998 08 23	704	1.8-	0.1+	1998 09 25	704	0.3+	0.4-	2000 02 11	704	0.8+	0.0
1998 08 23	704	1.3-	0.6+	1998 09 25	704	0.8+	0.7-	2000 02 11	704	0.2+	0.6+
1998 08 23	704	0.5-	1.3+	1998 09 25	704	0.1-	0.1+	2000 02 11	704	0.6+	0.7+
1998 09 14	704	0.1+	0.8+	1998 09 27	704	0.2-	0.2+	2000 02 12	704	0.1+	0.8-
1998 09 14	704	0.9-	0.4-	1998 09 27	704	0.3+	0.8-	2000 02 12	704	(4.9-	1.4+)
1998 09 14	704	0.4-	0.7+	1998 09 27	704	0.5+	1.0-	2000 02 12	704	0.1+	0.0
1998 09 14	704	0.8+	1.2+	1998 09 27	704	1.0+	0.7-	2000 02 12	704	1.1-	0.2-

(13614)* 1994 VF₂ = 1970 EE₁ = 1979 HP₆

Discovered 1994 Nov. 8 by S. Otomo at Kiyosato.

Id. T. B. Spahr (*MPC* 30663)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	32.58685	(2000.0)		P	Q		
<i>n</i>	0.23116753	ω	68.42229	-0.53935597	-0.82105450		
<i>a</i>	2.6293688	Ω	55.58662	+0.66415732	-0.55128789		
<i>e</i>	0.2244273	<i>i</i>	13.10037	+0.51767770	-0.14815928		
<i>P</i>	4.26	<i>H</i>	13.3	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1970 03 13	095	0.7+	0.7+	1994 11 30	675	0.9+	0.1-	1998 11 15	699	(0.5+	2.4+)
1979 04 30	095	0.2+	0.3+	1994 11 30	894	0.3-	0.4-	1998 11 15	699	1.2+	1.8+
1994 11 06	675	1.4-	1.0+	1994 11 30	894	0.0	0.5-	1998 11 15	566	(0.3+	2.5-)
1994 11 06	675	1.1-	0.5+	1994 12 03	675	0.7+	0.7-	1998 11 15	566	0.7+	1.9-
1994 11 08	894	1.6-	0.2+	1994 12 03	675	0.9+	0.6-	1998 11 15	566	(0.9+	2.2-)
1994 11 08	894	1.6-	1.3-	1996 05 17	691	0.4-	0.6+	1998 12 08	704	0.6-	1.0-
1994 11 10	894	0.8-	1.2+	1996 05 17	691	0.3-	0.8+	1998 12 08	704	1.7-	1.3-
1994 11 10	894	0.8-	0.7+	1996 05 17	691	0.1-	0.6+	1998 12 08	704	1.0-	0.2-
1994 11 12	894	0.3+	0.0	1998 09 21	699	0.2+	0.2-	1998 12 08	704	(0.9-	2.3+)

1994 11 12	894	1.7-	1.3+	1998 09 21	699	0.2+	0.8+	1998 12 08	704	0.3+	1.9+
1994 11 25	894	1.4+	0.2+	1998 09 21	699	0.6+	0.9+	2000 01 07	704	0.6+	0.8+
1994 11 25	894	0.8+	0.6+	1998 10 16	704	0.7-	0.6+	2000 01 07	704	0.2-	0.3+
1994 11 28	691	1.0+	0.4+	1998 10 16	704	0.3+	0.5+	2000 01 07	704	0.2-	0.2+
1994 11 28	691	0.5+	0.2+	1998 10 16	704	0.3-	0.6+	2000 01 07	704	0.5+	0.3+
1994 11 28	691	0.7+	0.4+	1998 10 16	704	0.0	0.1+	2000 01 07	704	0.0	0.5+
1994 11 28	675	0.2-	0.3-	1998 10 16	704	0.0	0.5+	2000 02 04	704	1.5-	1.1-
1994 11 28	675	0.9+	1.3-	1998 10 18	699	0.1-	0.1-	2000 02 04	704	0.4+	0.8-
1994 11 29	894	0.6+	0.8+	1998 10 18	699	0.2+	0.2-	2000 02 04	704	0.8+	0.6-
1994 11 29	894	0.1-	1.3-	1998 10 18	699	0.3+	0.0	2000 02 04	704	0.5+	0.5-
1994 11 30	675	0.1-	1.6-	1998 11 15	699	(0.3-	2.2+)	2000 02 04	704	1.1+	1.3+

(13615)* 1994 WP₁₃ = 1997 MC

Discovered 1994 Nov. 28 by C. S. Shoemaker at Palomar.

Id. A. Milani (*MPC* 34194)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	109.13890	(2000.0)		P	Q		
<i>n</i>	0.23499347	ω	248.54231	+0.86524659	-0.48082089		
<i>a</i>	2.6007514	Ω	139.81932	+0.50131198	+0.83308970		
<i>e</i>	0.2108686	<i>i</i>	12.71272	-0.00588493	+0.27344620		
<i>P</i>	4.19	<i>H</i>	13.3	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1994 11 28	675	0.1-	0.3-	1998 06 29	704	0.3-	0.3+	2000 01 07	704	0.2-	0.7-
1994 11 28	675	1.0+	0.5+	1998 06 29	704	(1.0-	2.1+)	2000 01 07	704	0.2+	0.3-
1994 11 30	675	0.6-	0.7+	1998 06 29	704	2.0-	1.5+	2000 01 07	704	0.4-	0.4-
1994 11 30	675	0.0	0.7+	1998 12 08	704	1.0+	0.1-	2000 01 07	704	0.1-	0.5+
1994 12 02	675	0.1-	0.3-	1998 12 08	704	0.3+	0.4-	2000 01 07	704	0.3-	0.7+
1994 12 02	675	0.4-	0.1-	1998 12 08	704	0.2+	0.5+	2000 01 10	699	0.7+	0.4+
1997 06 23	132	0.8-	0.7+	1998 12 08	704	0.1-	0.2-	2000 01 10	699	0.9+	0.1+
1997 06 23	132	0.6+	0.6+	1998 12 08	704	0.1+	0.2-	2000 01 10	699	1.1+	0.7+
1997 06 23	132	1.7-	1.1+	1999 01 07	704	0.0	0.8-	2000 02 04	704	0.3+	0.3+
1997 06 24	124	0.7-	0.2+	1999 01 07	704	0.0	1.1-	2000 02 04	704	0.6+	0.2+
1997 06 24	124	0.7+	0.5-	1999 01 07	704	1.5+	0.4-	2000 02 04	704	0.1+	0.3-
1997 06 24	124	0.3-	0.8-	1999 01 07	704	1.8-	0.4+	2000 02 04	704	0.7+	0.1+
1997 06 27	132	(2.1+	1.1+)	1999 01 31	699	1.5-	0.6+	2000 02 04	704	0.3-	0.6+
1997 06 27	132	1.3+	0.7+	1999 01 31	699	0.5-	0.5-	2000 02 11	704	0.1+	0.1+
1997 06 27	132	1.3+	0.1-	1999 01 31	699	0.2+	1.4+	2000 02 11	704	0.1-	0.2+
1997 07 01	132	(2.1-	2.3+)	2000 01 04	704	0.0	1.4-	2000 02 11	704	0.1-	0.5+
1997 07 01	132	0.5-	1.0-	2000 01 04	704	1.7-	0.1-	2000 02 11	704	0.0	0.2+
1998 06 29	704	1.2+	0.9-	2000 01 04	704	1.1-	0.9-	2000 02 11	704	0.5+	0.7+
1998 06 29	704	0.4+	1.9+	2000 01 04	704	0.7-	0.6+				

(13616)* 1994 XQ₄ = 1998 SF₆₅

Discovered 1994 Dec. 7 by T. Kobayashi at Oizumi.

Id. B. G. Marsden (*MPC* 32943)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Marsden			
<i>M</i>	105.72632	(2000.0)		P	Q		
<i>n</i>	0.21655364	ω	311.95389	+0.86653426	-0.49412319		
<i>a</i>	2.7463701	Ω	77.77008	+0.47660271	+0.77726102		
<i>e</i>	0.1190106	<i>i</i>	4.13274	+0.14821686	+0.38949657		
<i>P</i>	4.55	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1995 01 05	411	0.0	0.4−	1998 10 28	704	0.4+	0.2−	1999 01 15	691	0.2−	0.0
1995 01 05	411	0.4+	0.2−	1998 10 28	704	1.1−	0.1−	2000 01 04	704	0.4−	0.0
1995 01 06	411	0.2+	0.4−	1998 10 29	704	0.0	0.1−	2000 01 04	704	0.0	0.1+
1995 01 06	411	0.3−	0.7−	1998 10 29	704	0.0	0.1+	2000 01 04	704	0.0	0.5+
1996 04 09	691	0.6−	1.2−	1998 10 29	704	1.0−	1.1+	2000 01 04	704	0.7+	0.9+
1996 04 09	691	0.6−	1.6−	1998 10 29	704	0.4−	0.6+	2000 01 30	704	0.8+	0.5+
1996 04 09	691	0.8−	1.3−	1998 10 29	704	0.3+	0.9+	2000 01 30	704	0.4−	1.1+
1998 09 18	699	0.3+	0.4+	1998 11 10	704	0.2+	0.0	2000 01 30	704	0.4+	1.3−
1998 09 18	699	0.3−	0.1+	1998 11 10	704	0.4−	0.2−	2000 01 30	704	0.2+	0.1+
1998 09 18	699	0.5+	0.3+	1998 11 10	704	1.0−	0.0	2000 02 03	704	0.0	0.1+
1998 09 20	809	(2.3− 0.1+)		1998 11 10	704	0.2−	0.2+	2000 02 03	704	0.3+	0.5+
1998 09 20	809	(3.0− 0.4−)		1998 11 11	704	1.3+	1.4+	2000 02 03	704	0.5−	0.2+
1998 09 20	809	(2.9− 0.4+)		1998 11 11	704	0.7−	0.4+	2000 02 03	704	0.4−	0.4+
1998 09 21	809	(2.9− 0.5−)		1998 11 11	704	0.8−	0.6+	2000 02 03	704	0.3−	0.5+
1998 09 21	809	(3.8− 0.6−)		1998 11 11	704	0.1−	0.0	2000 02 11	704	0.6+	0.3+
1998 09 21	809	(4.2− 0.3−)		1998 11 11	704	0.2−	1.2+	2000 02 11	704	0.2+	0.2+
1998 10 11	699	0.7+	0.2+	1998 11 16	566	0.7−	0.8−	2000 02 11	704	0.3+	0.3+
1998 10 11	699	0.6+	0.0	1998 11 16	566	0.3−	0.5−	2000 02 11	704	0.3+	0.5+
1998 10 11	699	0.1+	0.2+	1998 11 16	566	0.0	0.6−	2000 02 11	704	0.5+	0.9+

(13617)* 1994 YA₂

Discovered 1994 Dec. 29 by T. B. Spahr at the University of Arizona's Catalina Station.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	70.31935		(2000.0)		P		Q
<i>n</i>	0.22819232	ω	97.80977		−0.10844821		−0.99403892
<i>a</i>	2.6521741	Ω	358.29127		+0.69754378		−0.06805865
<i>e</i>	0.0447439	<i>i</i>	22.07751		+0.70828783		−0.08517420
<i>P</i>	4.32	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1989 09 30	675	0.1−	1.6−	1995 01 09	817	0.1−	0.3+	1998 11 17	704	0.8+	0.7+
1989 09 30	675	1.5+	0.9−	1995 01 28	691	(0.8+ 4.2−)		1998 11 17	704	0.1−	1.6−
1989 11 01	675	2.3−	1.4+	1995 01 28	691	(0.8+ 3.9−)		2000 01 08	704	0.5+	1.0−
1989 11 01	675	0.1+	0.7+	1995 01 28	691	(0.6+ 3.7−)		2000 01 08	704	0.5+	0.3+
1989 11 02	675	0.6+	0.6+	1995 04 02	693	0.0	0.0	2000 01 08	704	0.6+	0.7−
1993 08 14	675	1.3−	0.4−	1995 04 02	693	0.2+	0.1−	2000 01 08	704	0.8+	0.8−
1993 08 14	675	0.0	1.3+	1995 04 02	693	0.1+	0.0	2000 01 08	704	0.0	0.7−
1993 09 21	675	0.6−	0.1+	1995 05 26	693	0.2−	1.3−	2000 02 06	704	0.3−	0.2+
1994 12 29	693	(2.2+ 1.4+)		1995 05 26	693	0.7−	1.3−	2000 02 06	704	0.0	0.3+
1994 12 29	693	0.2−	0.5+	1996 04 13	608	0.2−	0.1−	2000 02 06	704	0.5−	0.8+
1994 12 31	897	0.7+	0.1−	1996 04 13	608	0.0	0.1−	2000 02 06	704	0.3−	0.8+
1994 12 31	897	0.1−	0.1+	1996 04 15	608	0.3+	0.2−	2000 02 06	704	0.2+	1.0+
1994 12 31	897	0.0	0.2−	1996 04 15	608	0.3−	1.3−	2000 02 11	704	0.2−	0.6+
1995 01 05	657	(1.2+ 2.7+)		1998 10 02	704	(1.0+ 2.5−)		2000 02 11	704	0.5+	0.8+
1995 01 05	657	(0.3− 2.1+)		1998 10 02	704	0.1+	0.0	2000 02 11	704	0.0	0.4+
1995 01 05	657	0.0	1.6+	1998 10 02	704	0.2+	1.1−	2000 02 11	704	0.3+	0.0
1995 01 09	817	0.2−	0.1+	1998 11 17	704	1.0+	0.3−	2000 02 11	704	0.5−	0.0
1995 01 09	817	0.5−	0.2+	1998 11 17	704	0.2+	0.4+				

(13618)* 1995 BF₂ = 1999 XR₁₇₅

Discovered 1995 Jan. 30 by T. Kobayashi at Oizumi.

Id. G. V. Williams (*MPC* 37643)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	290.66623		(2000.0)		P		Q
<i>n</i>	0.18553877	ω	222.29095		−0.91368907		+0.40371576
<i>a</i>	3.0444786	Ω	341.36054		−0.32262187		−0.79045476
<i>e</i>	0.0778208	<i>i</i>	8.41148		−0.24715867		−0.46064612
<i>P</i>	5.31	<i>H</i>	12.7	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1995 01 30	411	0.2−	0.2−	1998 11 14	704	0.4+	1.3−	2000 01 03	704	0.5−	0.4−
1995 01 30	411	0.5−	0.4−	1998 11 14	704	0.2+	1.7−	2000 01 03	704	0.6−	0.3−
1995 01 31	411	0.1−	0.1−	1998 11 16	704	0.8+	0.0	2000 01 03	704	1.1−	0.7−
1995 01 31	411	0.4−	0.3+	1998 11 16	704	0.2−	0.2+	2000 01 03	704	0.7−	0.6−

1995 02 06	411	0.6+	0.4−	1998 11 16	704	0.8+	0.8+	2000 01 04	704	0.5−	0.3−
1995 02 06	411	0.5−	0.2+	1998 11 16	704	1.3−	1.3+	2000 01 04	704	0.6−	0.2−
1995 02 10	411	0.2+	0.2−	1998 11 16	704	(3.7− 0.6+)		2000 01 04	704	0.6−	0.3−
1995 02 10	411	0.6−	0.3+	1999 12 10	704	0.9+	0.3−	2000 01 04	704	1.5+	0.6−
1995 02 19	411	(2.1+ 0.2−)		1999 12 10	704	0.8+	0.2+	2000 01 30	704	0.1−	0.0
1995 02 19	411	0.2+	0.5+	1999 12 10	704	1.0+	0.5+	2000 01 30	704	0.1−	0.2+
1995 02 21	372	0.8+	0.4−	1999 12 10	704	0.6+	0.4+	2000 01 30	704	0.3+	0.4+
1995 02 21	372	(3.6− 1.2−)		1999 12 10	704	0.3−	0.3+	2000 01 30	704	0.5+	0.6−
1995 02 22	372	0.1−	0.2+	1999 12 15	704	1.2+	0.3+	2000 01 31	704	0.2+	0.0
1995 02 22	372	0.5−	0.3+	1999 12 15	704	1.2+	1.2+	2000 01 31	704	0.0	0.2+
1995 03 01	411	0.1−	0.7−	1999 12 15	704	0.6+	0.6+	2000 01 31	704	0.0	0.4+
1995 03 01	411	0.4+	1.1−	1999 12 15	704	1.0+	0.9+	2000 01 31	704	0.1−	0.0
1997 09 02	566	0.1+	0.4+	1999 12 15	704	0.2+	1.3+	2000 02 11	704	0.0	0.4+
1997 09 02	566	0.6−	0.3+	2000 01 01	849	0.6−	0.3+	2000 02 11	704	0.4−	0.1−
1997 09 02	566	0.2−	0.5+	2000 01 01	849	0.3−	0.0	2000 02 11	704	0.3−	0.4+
1998 11 14	704	0.4−	0.8−	2000 01 01	849	0.1−	0.4+	2000 02 11	704	0.3+	0.1−
1998 11 14	704	0.2+	0.1−	2000 01 01	849	1.0−	0.5+	2000 02 11	704	0.1−	0.4−
1998 11 14	704	0.7+	0.7−	2000 01 03	704	0.5−	0.1−				

(13619)* 1995 DN₁ = 1998 YA₁

Discovered 1995 Feb. 22 by T. Kobayashi at Oizumi.

Id. S. Nakano (*MPC* 33491)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	201.53248		(2000.0)		P		Q
<i>n</i>	0.17700600	ω	262.39005		+0.28758733		+0.95637978
<i>a</i>	3.1415506	Ω	24.51237		−0.82275285		+0.27411206
<i>e</i>	0.1060515	<i>i</i>	7.10204		−0.49027674		+0.10099649
<i>P</i>	5.57	<i>H</i>	12.8	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1995 02 22	411	0.8−	0.1+	1998 11 18	704	(3.3− 0.1+)		2000 01 04	704	0.7−	0.3−
1995 02 22	411	1.0−	0.4−	1998 12 16	888	0.1+	0.3+	2000 01 04	704	0.2+	0.6−
1995 02 26	411	1.0+	0.8−	1998 12 16	888	0.1+	0.5+	2000 01 04	704	0.5+	1.1−
1995 02 26	411	1.0+	1.4−	1998 12 17	888	0.1+	0.1+	2000 01 04	704	0.4+	1.1−
1995 02 26	411	0.3−	0.1−	1998 12 17	888	0.4+	0.0	2000 01 29	704	0.1−	0.6+
1995 03 05	411	0.1−	0.4+	1999 11 17	703	0.6−	0.7+	2000 01 29	704	0.7−	0.5+
1995 03 05	411	0.2+	0.2−	1999 11 17	703	0.3+	0.0	2000 01 29	704	0.4+	0.9+
1995 03 05	411	1.1−	0.3+	1999 11 17	703	0.6−	0.3+	2000 01 29	704	0.4+	0.6+
1997 09 02	566	0.2−	0.4+	1999 11 17	703	1.6−	1.4+	2000 01 29	704	0.4+	1.0+
1997 09 02	566	0.1−	0.7+	1999 12 15	704	0.7+	0.7−	2000 01 30	704	0.5−	0.3−
1997 09 02	566	0.1−	0.4−	1999 12 15	704	0.7+	0.7−	2000 01 30	704	0.7−	0.3+
1998 10 19	699	0.3−	1.0+	1999 12 15	704	0.6+	0.4+	2000 01 30	704	0.7−	0.9+
1998 10 19	699	0.1−	0.5+	1999 12 15	704	1.0+	0.2+	2000 01 31	704	0.1−	0.3+
1998 10 19	699	0.8−	0.9+	2000 01 03	704	0.4−	0.9−	2000 01 31	704	0.0	0.2+
1998 11 18	704	0.6+	1.5−	2000 01 03	704	0.4+	0.1−	2000 01 31	704	0.2−	0.6+
1998 11 18	704	0.6+	1.2−	2000 01 03	704	0.3+	0.1−	2000 01 31	704	0.4−	0.2+
1998 11 18	704	0.3+	1.3−	2000 01 03	704	0.8+	0.4+	2000 01 31	704	0.8+	0.2−
1998 11 18	704	0.1−	1.0−	2000 01 04	704	0.2−	0.0				

(13620)* 1995 FM₃ = 1998 SD₁₀

Discovered 1995 Mar. 23 by Spacewatch at Kitt Peak.

Id. G. V. Williams (*MPC* 32670)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	277.95074		(2000.0)		P		Q
n	0.17104962	ω	155.17471		-0.92211157		+0.38341975
a	3.2140648	Ω	47.47425		-0.36572980		-0.81987454
e	0.0308641	i	4.04275		-0.12630111		-0.42519999
P	5.76	H	13.4	G	0.15	U	2

1995 03 23	691	0.3−	0.0	1998 10 29	704	0.3−	0.0	2000 01 04	704	0.2+	0.6−
1995 03 29	691	0.5+	0.3+	1998 10 29	704	1.1−	0.5−	2000 01 30	704	0.2−	0.2+
1995 03 29	691	0.1−	0.1−	1998 10 29	704	(0.3−	2.1−)	2000 01 30	704	0.4−	0.2+
1995 03 29	691	0.2−	0.6−	1998 10 29	704	0.8+	0.3+	2000 01 30	704	0.6+	0.1+
1995 04 04	691	0.2+	0.1+	1998 10 29	704	1.3−	0.8+	2000 01 30	704	0.2−	0.2+
1995 04 04	691	0.1+	0.2−	1999 12 15	704	0.5+	0.0	2000 01 31	704	0.0+	0.9+
1995 04 04	691	0.6−	0.1−	1999 12 15	704	0.5+	0.2+	2000 01 31	704	0.3−	0.3+
1998 09 16	910	0.4+	0.0	1999 12 15	704	0.5−	0.3−	2000 01 31	704	0.4+	0.6+
1998 09 16	910	0.3+	0.3+	1999 12 15	704	0.9+	0.3−	2000 02 11	704	0.4+	0.4+
1998 09 16	910	0.7+	0.2+	1999 12 15	704	0.7+	0.3+	2000 02 11	704	0.2−	0.8+
1998 09 22	910	0.1−	0.4+	2000 01 03	704	0.3−	0.2−	2000 02 11	704	0.5−	0.5+
1998 09 22	910	0.2−	0.5+	2000 01 03	704	0.3+	0.4−	2000 02 11	704	0.2+	0.4+
1998 09 22	910	0.0	0.5+	2000 01 03	704	0.2−	0.0	2000 02 11	704	0.4+	1.0−
1998 10 18	691	0.1+	0.2−	2000 01 03	704	0.6−	0.3−				

(13621)* 1995 GC₇ = 1987 TV = 1998 XZ₂₉

Discovered 1995 Apr. 1 by Y. Shimizu and T. Urata at the Nachi-Katsuura Observatory.

Id. S. Nakano (*MPC* 34195)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Nakano			
<i>M</i>		(2000.0)		<i>P</i>	<i>Q</i>		
<i>n</i>	0.18751384	ω	73.80155	+0.22345594	−0.97466216		
<i>a</i>	3.0230627	Ω	3.33576	+0.81521292	+0.18122467		
<i>e</i>	0.0928490	<i>i</i>	9.95149	+0.53431764	+0.13111556		
<i>P</i>	5.26	<i>H</i>	12.8	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1987 10 02	095	0.7−	1.3+	1998 11 16	704	0.3−	0.2−	2000 01 10	699	0.6+	0.3+
1995 04 01	905	1.4−	0.6+	1998 11 16	704	0.3+	0.1−	2000 01 10	699	0.1−	0.5+
1995 04 01	905	0.6−	1.0−	1998 11 16	704	0.5−	0.2+	2000 02 06	704	0.3+	0.6+
1995 04 03	905	0.4−	1.9−	1998 11 16	704	0.2−	0.3−	2000 02 06	704	0.3−	0.1+
1995 04 03	905	0.1+	1.3−	1998 12 14	704	0.7−	0.4+	2000 02 06	704	0.1−	0.4+
1997 09 02	566	0.9−	1.0+	1998 12 14	704	0.3+	0.4−	2000 02 06	704	0.2+	0.5+
1997 09 02	566	0.6−	0.9+	1998 12 14	704	1.6+	0.7−	2000 02 06	704	1.1+	1.3+
1997 09 02	566	0.5−	1.2+	1998 12 14	704	0.6+	0.2−	2000 02 11	704	0.3+	0.1+
1998 08 31	704	0.3−	0.7−	1998 12 14	704	(3.1+	1.3−)	2000 02 11	704	0.7+	0.2+
1998 08 31	704	0.1+	0.3−	1998 12 17	704	0.6+	0.2−	2000 02 11	704	0.9+	0.5+
1998 08 31	704	1.2−	0.7+	1998 12 17	704	1.5+	0.5−	2000 02 11	704	0.6+	0.4+
1998 08 31	704	0.9−	1.5+	1998 12 17	704	0.1+	0.6−	2000 02 11	704	0.7+	1.1+
1998 08 31	704	0.6+	1.1+	1998 12 17	704	0.5−	0.3−	2000 02 11	888	0.3+	0.0
1998 11 14	704	0.4−	0.5+	1998 12 17	704	(2.4+	0.4+)	2000 02 11	888	0.2+	0.1−
1998 11 14	704	0.3−	0.2−	2000 01 08	704	0.4−	1.2+	2000 02 11	888	0.1−	0.5−
1998 11 14	704	0.6−	1.2−	2000 01 08	704	0.4−	0.4+	2000 02 16	703	0.2−	0.4+
1998 11 14	704	(0.3−	2.3−)	2000 01 08	704	0.3−	0.1+	2000 02 16	703	0.0	0.1+
1998 11 14	704	(0.7+	2.8−)	2000 01 08	704	0.7+	0.0	2000 02 16	703	0.2−	0.4+
1998 11 16	704	0.2+	0.3+	2000 01 10	699	0.7+	0.6+	2000 02 16	703	0.4+	0.0

(13622)* 1995 HY₂ = 1981 WA₉ = 1998 TO₃₃

Discovered 1995 Apr. 26 by Spacewatch at Kitt Peak.

Id. G. V. Williams (*MPC* 32945, unpublished)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		<i>P</i>	<i>Q</i>		
<i>n</i>	0.17109021	ω	328.74426	−0.13351700	−0.99006550		
<i>a</i>	3.2135565	Ω	128.89114	+0.92055751	−0.14037424		
<i>e</i>	0.1726306	<i>i</i>	3.24698	+0.36707912	−0.00808548		
<i>P</i>	5.76	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1981 11 25	095	(5.9−	1.1−)	1998 10 20	699	0.9+	0.5−	1999 12 05	703	0.1+	0.1−
1995 04 26	691	0.1−	0.2−	1998 10 20	699	0.1−	0.5+	1999 12 05	703	0.5+	0.4+
1995 04 26	691	0.1−	0.2+	1998 11 10	704	0.4+	0.2+	2000 02 02	703	0.1−	0.2+
1995 04 26	691	0.1−	0.0	1998 11 10	704	0.2+	0.6−	2000 02 02	703	0.5−	0.1+
1995 05 01	691	0.1−	0.1−	1998 11 10	704	1.1−	0.2+	2000 02 02	703	0.2+	0.2+
1995 05 01	691	0.4−	0.5+	1998 11 10	704	0.5−	1.2−	2000 02 02	703	0.3+	0.2+
1995 05 01	691	0.3−	0.2+	1998 11 10	704	0.4+	1.5−	2000 02 04	704	0.3−	0.0

1995 05 04	691	1.3+	0.9−	1998 11 11	704	0.2−	0.3+	2000 02 04	704	0.5−	0.0
1995 05 04	691	0.4−	0.5−	1998 11 11	704	1.0−	0.2+	2000 02 04	704	0.2+	0.5+
1995 05 04	691	0.0	0.1+	1998 11 11	704	0.7−	0.6+	2000 02 04	704	0.3−	0.0
1997 08 04	691	0.4−	0.9+	1998 11 11	704	0.1−	0.0	2000 02 04	704	0.0	0.2+
1997 08 04	691	0.1−	0.7+	1998 11 11	704	0.8−	0.4−	2000 02 11	704	0.3+	0.1+
1997 08 04	691	0.0	0.6+	1998 11 14	699	0.4−	0.7+	2000 02 11	704	0.1+	0.2−
1998 10 14	699	0.6−	0.1+	1998 11 14	699	0.6+	0.3−	2000 02 11	704	0.1+	0.2+
1998 10 14	699	1.5+	0.4+	1998 11 14	699	0.4+	0.1+	2000 02 11	704	0.2+	0.1+
1998 10 14	699	0.4+	0.3+	1999 12 05	703	0.9+	0.1−	2000 02 11	704	0.3+	0.5+
1998 10 20	699	1.0+	0.4+	1999 12 05	703	0.5−	0.1−				

(13623)* 1995 TD

Discovered 1995 Oct. 3 by D. di Cicco at Sudbury.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		<i>P</i>	<i>Q</i>		
<i>n</i>	0.29644375	ω	142.35576	+0.85748310	+0.51434679		
<i>a</i>	2.2276204	Ω	186.72896	−0.49495977	+0.81771008		
<i>e</i>	0.1566929	<i>i</i>	6.39111	−0.14049046	+0.25845232		
<i>P</i>	3.32	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1992 11 19	691	0.4−	0.4−	1995 10 14	327	0.5+	0.1+	1998 06 19	704	(2.6+	0.4+)
1992 11 19	691	0.4−	0.1−	1995 10 15	327	0.4+	0.7+	1998 06 25	704	0.9+	1.2−
1992 11 19	691	0.5−	0.2−	1995 10 15	327	0.3+	0.4+	1998 06 25	704	1.6−	0.6+
1995 08 17	691	0.2+	0.4−	1995 10 15	327	0.1+	0.3+	1998 06 25	704	0.4+	0.3−
1995 08 17	691	0.3+	1.0−	1995 10 18	817	0.7+	0.2−	1998 06 25	704	1.5−	0.7−
1995 08 17	691	0.0	0.7−	1995 10 18	817	0.5+	0.4−	1999 12 14	704	1.0+	0.9−
1995 10 03	817	0.1−	0.5+	1995 10 27	817	0.1−	0.8+	1999 12 14	704	1.2−	0.6−
1995 10 03	817	0.1−	0.6+	1995 10 27	817	0.2+	0.5+	1999 12 14	704	0.0	0.5+
1995 10 03	817	0.2−	0.2+	1995 11 23	817	0.2−	0.0	1999 12 14	704	0.2−	0.1−
1995 10 04	817	0.1−	0.4−	1995 11 23	817	0.7+	0.2−	1999 12 14	704	0.5−	0.5−
1995 10 04	817	0.1+	0.2+	1997 04 29	709	0.2−	0.5−	2000 01 07	704	0.0	0.0
1995 10 04	817	0.5−	0.2−	1997 04 29	709	0.4−	0.5−	2000 01 07	704	0.0	0.5−
1995 10 04	817	0.4−	0.5−	1997 04 29	709	0.1+	0.3−	2000 01 07	704	0.7+	0.9+
1995 10 10	817	0.1+	0.1−	1997 04 29	709	0.1+	0.5−	2000 01 07	704	0.3−	0.1−
1995 10 10	817	0.0	0.2−	1997 05 01	709	0.8+	0.2+	2000 02 02	704	0.4+	0.0
1995 10 10	817	0.1+	0.2−	1997 05 01	709	0.6+	0.4−	2000 02 02	704	0.7−	0.8+
1995 10 10	817	0.2−	0.1−	1997 05 01	709	0.4−	0.7−	2000 02 02	704	0.1+	0.1+
1995 10 14	817	0.6−	0.3−	1997 05 01	709	0.3+	0.3−	2000 02 02	704	0.6+	0.5+
1995 10 14	817	0.3−	0.3−	1997 05 01	709	0.1+	0.4−	2000 02 04	704	0.1−	0.2+
1995 10 14	817	0.5−	0.5−	1997 05 01	709	0.1+	0.5−	2000 02 04	704	0.1+	0.2+
1995 10 14	327	0.1+	0.1+	1998 06 19	704	0.1+	0.2+	2000 02 04	704	0.0	0.2+
1995 10 14	327	0.8+	0.2+	1998 06 19	704	1.1+	0.9+	2000 02 04	704	0.5−	0.1−

(13624)* 1995 UO₃ = 1998 QT₄₅

Discovered 1995 Oct. 17 by T. Okuni at Nanyo.

Id. G. V. Williams (*MPC* 32464)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	55.66659		(2000.0)	P	Q
n	0.29207688	ω	200.60137	-0.15013267	-0.98671111
a	2.2497690	Ω	258.07352	+0.91574064	-0.11509241
e	0.0952969	i	3.64135	+0.37266509	-0.11469488
P	3.37	H	14.7	G 0.15	U 2

M.P.C. 38350

2000 FEB. 22

1995 11 01	411	0.2+	0.3-	1998 09 18	704	0.0	1.4+	2000 02 02	704	1.3+	1.0+
1995 11 02	411	0.4-	0.1-	1998 09 18	704	0.3-	2.0+	2000 02 02	704	0.8+	0.8+
1995 11 02	411	0.1-	0.3-	1998 09 25	704	0.0	0.1-	2000 02 02	704	0.5-	1.8+
1995 11 10	358	(0.9+	2.2+)	1998 09 25	704	0.1-	1.4-	2000 02 07	704	1.1-	1.1-
1995 11 10	358	1.4-	0.2+	1998 09 25	704	0.6-	1.0-	2000 02 07	704	1.5-	0.8-
1995 11 20	358	0.7+	1.2-	1998 09 25	704	0.2-	0.4-	2000 02 07	704	1.4-	1.2-
1995 11 20	358	0.4+	0.2-	1998 09 25	704	1.0-	0.3+	2000 02 07	704	1.1-	1.2-
1998 08 17	704	0.1+	0.2+	1998 09 27	704	0.1+	0.4+	2000 02 07	704	(1.7-	2.4-)
1998 08 17	704	0.0	0.1+	1998 09 27	704	1.1+	0.4-	2000 02 08	704	0.5+	0.5+
1998 08 17	704	0.3+	0.1-	1998 09 27	704	0.4+	0.7-	2000 02 08	704	0.3+	0.4+
1998 08 17	704	0.3+	1.2-	1998 09 27	704	0.0	0.1-	2000 02 08	704	0.7+	0.8+
1998 08 17	704	0.1-	0.9+	1998 09 27	704	0.1+	0.7-	2000 02 08	704	0.2+	1.0+
1998 08 23	704	0.1-	0.5-	1998 10 14	699	0.6-	0.3+	2000 02 08	704	0.1-	0.5+
1998 08 23	704	0.2-	1.9+	1998 10 14	699	0.1-	0.1+				

(13625)* 1995 UP₃ = 1977 RP₆ = 1991 NC₂

Discovered 1995 Oct. 20 by T. Kobayashi at Oizumi.

Id. T. Kobayashi (*MPC* 25968)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

<i>M</i>	120.65030		(2000.0)	P	Q
<i>n</i>	0.27583809	ω	330.24427	+0.92842409	+0.37136981
<i>a</i>	2.3372216	Ω	7.97748	-0.32394094	+0.82320782
<i>e</i>	0.1576106	<i>i</i>	4.39609	-0.18190923	+0.42943375
<i>P</i>	3.57	<i>H</i>	14.0	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1977 09 11	095	0.2+	0.4+	1998 06 26	704	0.3-	1.6+	2000 01 04	704	0.4-	0.2+
1977 09 18	095	0.6-	0.5+	1999 10 13	704	0.2+	0.4-	2000 01 04	704	0.1+	0.3+
1991 07 13	675	(0.8-	4.9-)	1999 10 13	704	0.7-	0.0	2000 01 04	704	0.1+	0.2+
1991 07 13	675	0.4-	0.9-	1999 10 13	704	0.2+	0.9-	2000 01 04	704	0.5+	0.1+
1991 07 16	675	0.4+	1.6-	1999 10 13	704	0.2-	0.1-	2000 01 05	127	0.5+	0.8+
1991 07 16	675	1.7+	2.1-	1999 10 13	704	0.4+	0.6-	2000 01 05	127	0.4+	0.8+
1995 10 20	411	0.0	0.3+	1999 12 15	704	0.5-	0.2-	2000 01 11	127	0.4-	1.5-
1995 10 20	411	0.1+	0.3+	1999 12 15	704	1.2-	0.7-	2000 01 11	127	0.3-	1.6-
1995 10 21	411	0.1+	0.1+	1999 12 15	704	0.1+	1.9-	2000 01 29	704	0.2-	0.2+
1995 10 21	411	0.0	0.2+	1999 12 15	704	1.3-	0.3-	2000 01 29	704	0.3-	0.1+
1995 10 25	411	0.2-	1.1+	1999 12 15	704	1.0-	0.4-	2000 01 29	704	0.4+	0.4+
1995 10 25	411	0.0	0.2+	2000 01 02	704	0.0	0.4-	2000 01 29	704	0.3+	1.1+
1995 10 27	411	0.4-	0.1-	2000 01 02	704	1.1+	0.3-	2000 01 29	704	0.1+	0.8+
1995 10 27	411	0.7-	0.2+	2000 01 02	704	0.8+	0.5-	2000 01 30	704	0.3+	0.1+
1998 06 26	704	1.4+	1.0-	2000 01 02	704	0.1-	0.6-	2000 01 30	704	0.3+	1.8+
1998 06 26	704	0.9-	2.0+	2000 01 02	704	0.1+	1.9-	2000 01 30	704	0.1-	1.5+
1998 06 26	704	0.4-	0.0	2000 01 04	704	0.0	0.2+				

(13626)* 1995 UD₄ = 1997 EA₅₉

Discovered 1995 Oct. 20 by T. Kobayashi at Oizumi.

Id. M. W. Buie (*MPC* 30665), G. V. Williams (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	150.50520		(2000.0)	P	Q
<i>n</i>	0.31042981	ω	342.40707	+0.98106449	-0.18819884
<i>a</i>	2.1601991	Ω	28.56268	+0.18721223	+0.86090492
<i>e</i>	0.1644642	<i>i</i>	5.49166	+0.04963907	+0.47267738
<i>P</i>	3.17	<i>H</i>	14.9	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1995 10 20	411	0.3+	0.1-	1998 09 14	704	0.9+	1.0+	1998 10 24	747	0.5+	0.0
1995 10 20	411	0.4+	0.2-	1998 09 14	704	0.6+	0.2-	1998 10 24	747	0.7+	0.0
1995 10 25	411	0.2+	0.5+	1998 09 18	704	0.2+	0.9+	1998 10 24	747	0.7+	0.1-
1995 10 25	411	0.1+	0.8+	1998 09 18	704	0.3-	1.2+	1998 10 24	747	0.6+	0.1-
1995 10 27	411	0.0	0.3+	1998 09 18	704	0.3+	0.2+	1998 10 26	747	1.1+	0.2+
1995 10 27	411	0.0	0.4+	1998 09 18	704	0.4+	0.2+	1998 10 26	747	0.7+	0.1+
1995 11 01	411	0.3+	0.2-	1998 09 18	704	0.5-	0.2+	1998 10 26	747	0.6+	0.2-
1995 11 01	411	0.2+	0.1-	1998 09 24	046	0.2-	1.0+	1998 11 25	699	0.1-	0.6+
1995 11 09	411	0.2-	0.5-	1998 09 24	046	0.1-	0.8+	1998 11 25	699	0.7+	0.0
1995 11 09	411	0.2-	0.2-	1998 09 24	046	0.4-	1.0+	1998 11 25	699	0.4+	0.4+

1995 11 18	411	0.1-	0.4-	1998 09 25	704	0.5-	1.0+	1998 12 08	704	1.5-	0.2-
1995 11 18	411	0.1-	0.2-	1998 09 25	704	(2.6-	0.9-)	1998 12 08	704	1.4-	1.2-
1997 03 10	809	1.5+	0.1-	1998 09 25	704	0.4+	0.4+	1998 12 08	699	1.2-	0.4-
1997 03 10	809	0.3+	0.2-	1998 09 25	704	0.6-	0.1+	1998 12 08	704	0.2-	0.8-
1997 03 10	809	0.6+	0.1+	1998 09 25	704	0.2-	1.3+	1998 12 08	704	1.5-	0.6-
1997 03 11	809	0.9+	1.4+	1998 09 27	704	0.2-	1.4+	1998 12 08	704	0.9-	0.1-
1997 03 11	809	0.7+	0.9+	1998 09 27	704	0.9+	1.1+	1998 12 08	699	0.8-	1.0-
1997 03 11	809	1.0+	1.6+	1998 09 27	704	1.0-	0.2-	1998 12 08	699	0.3-	1.0-
1997 03 13	688	0.8-	1.0+	1998 09 27	704	0.0	0.0	2000 01 08	704	0.4+	0.7+
1997 03 13	688	0.5-	0.7+	1998 09 27	699	0.2+	0.7+	2000 01 08	704	0.3-	0.5+
1997 03 13	688	1.5-	0.9+	1998 09 27	704	0.3+	0.9+	2000 01 08	704	0.9+	1.0+
1997 03 13	688	1.0-	1.3+	1998 09 27	699	0.4+	0.9+	2000 01 08	704	0.7+	0.8-
1998 06 29	704	0.3+	1.5-	1998 09 27	699	0.0	0.9+	2000 01 08	704	1.0+	0.7+
1998 06 29	704	1.3-	0.4-	1998 10 10	699	0.2+	0.2+	2000 02 06	704	1.4+	0.9+
1998 06 29	704	(2.4+	0.6+)	1998 10 10	699	0.0	0.2+	2000 02 06	704	(1.5+	2.1+)
1998 06 29	704	0.0	0.4-	1998 10 10	699	0.3+	0.4+	2000 02 06	704	1.8+	0.2-
1998 08 25	809	1.1-	0.1-	1998 10 13	704	(2.9+	0.8-)	2000 02 06	704	(4.1+	0.4+)
1998 08 25	809	1.3-	0.3-	1998 10 13	704	(1.5+	2.9+)	2000 02 11	704	(2.2+	0.4+)
1998 08 25	809	1.9-	0.6-	1998 10 13	704	(2.7-	0.4+)	2000 02 11	704	0.5+	1.5+
1998 08 26	809	(0.8+	3.0+)	1998 10 14	704	0.4-	0.3+	2000 02 11	704	(1.9+	2.6+)
1998 08 26	809	(1.0+	3.3+)	1998 10 14	704	0.6-	0.1+	2000 02 11	704	(0.8+	2.7+)
1998 08 26	809	(1.2+	3.1+)	1998 10 14	704	1.1-	0.2+	2000 02 11	704	0.3+	1.3+
1998 09 14	704	0.1+	1.5-	1998 10 14	704	1.4-	0.2-				
1998 09 14	704	1.0+	0.4-	1998 10 14	704	0.5-	0.6-				

(13627)* 1995 VP₁

Discovered 1995 Nov. 15 by K. Endate and K. Watanabe at Kitami.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

<i>M</i>	123.56776		(2000.0)	P	Q
<i>n</i>	0.28744727	ω	276.01482	+0.99026575	-0.09310598
<i>a</i>	2.2738610	Ω	89.35986	+0.12692580	+0.90912971
<i>e</i>	0.2178218	<i>i</i>	5.93911	-0.05712775	+0.40597346
<i>P</i>	3.43	<i>H</i>	14.0	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1988 10 09	675	0.1+	0.3-	1998 08 17	704	1.0+	2.1+	2000 01 30	704	0.6-	0.8+
1988 10 09	675	0.1-	0.5+	1999 11 16	704	1.2+	0.1+	2000 01 30	704	0.9+	0.2+
1988 11 04	675	0.2+	0.4+	1999 11 16	704	0.4-	0.6+	2000 01 30	703	0.3+	0.4+
1988 11 04	675	0.5-	0.3-	1999 11 16	704	0.6+	0.9+	2000 01 30	703	1.1+	0.1+
1995 11 15	400	1.1-	1.2+	1999 11 16	704	0.8+	0.0	2000 01 30	703	0.1-	0.0
1995 11 15	400	1.2+	0.2+	1999 11 16	704	0.5-	0.2+	2000 01 30	703	0.9-	0.8+
1995 11 16	400	(2.7-	1.6-)	2000 01 04	704	0.3+	0.7-	2000 02 03	704	0.2-	0.8+
1995 11 16	400	(2.3+	2.6-)	2000 01 04	704	1.2+	0.8+	2000 02 03	704	0.1-	0.0
1995 11 22	400	(2.8-	0.0)	2000 01 04	704	(0.7-	3.1+)	2000 02 03	704	0.1-	0.2+
1995 11 25	400	0.6-	0.7+	2000 01 06	704	0.6+	0.3+	2000 02 03	704	0.2-	0.1+
1995 11 25	400	0.1-	0.3-	2000 01 06	704	0.6+	0.9+	2000 02 03	704	0.4-	0.6+
1995 12 18	400	0.5+	0.5-	2000 01 06	704	0.3+	0.6+	2000 02 11	704	0.0	0.2+
1995 12 18	400	0.7+	1.1-	2000 01 06	704	0.5+	0.8+	2000 02 11	704	0.9-	0.2-
1998 08 17	704	0.3-	1.1+	2000 01 06	704	0.3-	0.0	2000 02 11	704	0.5-	0.2+
1998 08 17	704	0.4-	1.0+	2000 01 30	704	0.5-	0.6+	2000 02 11	704	0.2-	0.2-
1998 08 17	704	0.5-	1.4+	2000 01 30	704	0.4+	0.9+	2000 02 11	704	0.6-	0.5+
1998 08 17	704	0.4-	1.5+	2000 01 30	704	1.4+	0.8-				

(13628)* 1995 WE = 1964 VB₂

Discovered 1995 Nov. 16 by T. Kobayashi at Oizumi.

Id. G. V. Williams (*MPC* 3

2000 FEB. 22

M.P.C. 38351

Residuals in seconds of arc

1964 11 10	330	(6.8+ 3.5-)	1998 09 01	426	0.7+ 0.0	1998 11 23	699	0.8- 0.5-
1988 11 06	675	0.9- 0.4+	1998 09 01	426	0.6+ 0.1+	1998 11 23	699	0.5- 0.9+
1988 11 06	675	0.3- 0.3-	1998 09 01	426	0.0 0.0	1999 11 16	703	0.9+ 1.0+
1991 09 15	675	0.5+ 0.4+	1998 09 03	426	0.6+ 0.8+	1999 11 16	703	0.0 0.8+
1991 09 15	675	0.9+ 0.1-	1998 09 03	426	0.1+ 0.0	1999 11 16	703	0.1+ 0.6+
1995 11 15	400	1.4- 0.6-	1998 09 03	426	0.4+ 0.4+	1999 11 16	703	1.0+ 0.2+
1995 11 15	400	0.5+ 1.7-	1998 09 21	704	0.7- 1.0-	2000 01 08	704	0.1+ 0.6-
1995 11 16	400	0.3- 0.9+	1998 09 21	704	0.3- 0.6+	2000 01 08	704	0.4+ 0.2-
1995 11 16	400	0.9+ 0.4-	1998 09 21	704	0.9- 1.0+	2000 01 08	704	0.1+ 0.3-
1995 11 16	411	0.4+ 0.0	1998 09 21	704	0.7- 0.5+	2000 01 08	704	0.2+ 0.1-
1995 11 16	411	0.1+ 0.0	1998 09 21	704	0.2- 0.4+	2000 01 08	704	0.0 0.4-
1995 11 17	411	0.0 0.1+	1998 09 27	699	0.8- 0.5+	2000 02 06	704	0.2- 1.0-
1995 11 17	411	0.9+ 0.2-	1998 09 27	699	0.6- 0.2+	2000 02 06	704	0.3- 0.4-
1995 11 24	411	0.1- 0.2+	1998 09 27	699	0.5- 0.9+	2000 02 06	704	(2.4+ 0.4-)
1995 11 24	411	0.4- 0.7+	1998 10 12	699	0.4- 0.7+	2000 02 06	704	1.3+ 1.6+
1995 11 29	411	0.3+ 0.0	1998 10 12	699	0.1- 0.0	2000 02 14	704	0.6+ 0.3-
1995 11 29	411	0.2+ 0.3+	1998 10 12	699	1.3- 0.6+	2000 02 14	704	0.1- 0.6+
1995 12 08	411	0.4+ 0.5-	1998 10 16	704	0.1+ 0.5-	2000 02 14	704	0.5+ 1.1+
1995 12 08	411	0.3+ 0.5-	1998 10 16	704	0.2+ 0.2+	2000 02 14	704	0.6+ 1.9+
1995 12 19	566	(3.7- 5.5-)	1998 10 16	704	0.4- 0.1+	2000 02 14	704	1.6- 1.5+
1995 12 19	566	(3.6- 5.7-)	1998 10 16	704	1.1+ 0.2+			
1995 12 19	566	(3.7- 5.6-)	1998 10 16	704	0.1- 1.0-			

(13629)* 1995 WD₂ = 1977 UZ₄ = 1982 BT₁₁ = 1991 TU₇ = 1993 FX₂₄

Discovered 1995 Nov. 18 by T. Kobayashi at Oizumi.

Id. T. Kobayashi (*MPC* 26408)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Nakano			
<i>M</i>	28.85555	(2000.0)	P	Q	
<i>n</i>	0.27743478	ω	262.90253	-0.58705289	-0.80907277
<i>a</i>	2.3282456	Ω	223.08524	+0.75786140	-0.53719556
<i>e</i>	0.1629361	<i>i</i>	2.32840	+0.28463135	-0.23837405
<i>P</i>	3.55	<i>H</i>	14.8	<i>G</i>	0.15 <i>U</i> 1

Residuals in seconds of arc

1977 10 18	675	0.5- 0.1-	1995 11 26	411	0.3+ 0.1-	1998 09 27	704	1.6- 0.1+
1977 10 19	675	0.1- 0.1+	1995 11 26	411	0.8- 0.3-	2000 01 06	699	1.1+ 1.9+
1982 01 20	095	0.1- 0.7-	1998 09 18	704	1.0+ 0.8-	2000 01 06	699	0.3- 0.6+
1991 10 07	033	0.4- 0.1-	1998 09 18	704	0.5+ 0.0	2000 01 06	699	0.2- 1.3+
1991 10 07	033	1.2- 1.1+	1998 09 18	704	0.4+ 0.9+	2000 02 07	704	0.3+ 0.4-
1991 10 08	033	0.1+ 0.7+	1998 09 18	704	1.1+ 1.9+	2000 02 07	704	0.1- 1.8-
1993 03 21	809	0.8+ 0.1-	1998 09 25	704	(2.6- 2.1-)	2000 02 07	704	0.4- 0.5-
1993 03 22	809	1.4+ 0.2+	1998 09 25	704	0.7- 1.7-	2000 02 07	704	0.3- 1.1-
1993 03 26	809	0.3- 1.0+	1998 09 25	704	0.1+ 1.1-	2000 02 07	704	0.2- 0.7-
1993 04 21	413	(2.1+ 3.5-)	1998 09 25	704	0.2- 0.7+	2000 02 08	704	0.6+ 0.3+
1995 11 18	411	0.6+ 0.4-	1998 09 27	704	0.3- 0.2+	2000 02 08	704	0.3- 0.3+
1995 11 18	411	0.4+ 0.5-	1998 09 27	704	0.3+ 0.1+	2000 02 08	704	0.3- 1.5+
1995 11 20	411	0.5+ 0.9+	1998 09 27	704	0.0 0.5+	2000 02 08	704	0.9- 1.4+
1995 11 20	411	0.0 0.1+	1998 09 27	704	0.4- 0.0			

(13630)* 1995 WO₃ = 1980 TD₆ = 1991 RF₃₁

Discovered 1995 Nov. 21 at Farra d'Isonzo.

Id. T. Kobayashi (*MPC* 26570)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	76.78832	(2000.0)	P	Q	
<i>n</i>	0.26737365	ω	157.71685	+0.86140367	-0.50740322
<i>a</i>	2.3862923	Ω	232.79447	+0.46155881	+0.80082014
<i>e</i>	0.1955453	<i>i</i>	1.64960	+0.21200751	+0.31816516
<i>P</i>	3.69	<i>H</i>	14.5	<i>G</i>	0.15 <i>U</i> 1

Residuals in seconds of arc

1980 10 08	095	0.6+ 1.1-	1995 12 22	691	0.1+ 0.3-	2000 01 05	704	0.2+ 0.0
1991 08 08	675	0.1+ 0.8-	1995 12 22	691	0.3+ 0.4-	2000 01 05	704	0.1- 0.2-
1991 08 08	675	0.3- 0.6+	1995 12 22	691	0.3+ 0.3-	2000 01 06	704	0.7- 1.1-
1991 09 11	675	0.6+ 1.0-	1997 04 27	691	0.8- 0.5-	2000 01 06	704	0.1- 0.3-

1991 09 11	675	1.0+ 1.3-	1997 04 27	691	0.6- 0.5-	2000 01 06	704	0.1- 0.6-
1991 09 12	691	0.0 0.7+	1997 04 27	691	0.6- 0.5-	2000 01 06	704	0.1+ 0.2-
1991 09 12	691	0.2- 0.6+	1999 12 31	699	0.2+ 0.6+	2000 02 02	704	0.6+ 0.7+
1991 09 12	691	0.2- 0.4+	1999 12 31	699	0.2- 0.4+	2000 02 02	704	0.3+ 0.3+
1995 11 21	595	0.0 0.4-	1999 12 31	699	0.0 0.6+	2000 02 02	704	0.1+ 0.6+
1995 11 21	595	0.1- 1.0-	2000 01 03	595	0.0 0.4+	2000 02 02	704	1.1+ 0.3-
1995 11 22	595	0.1+ 0.8+	2000 01 03	595	0.2- 1.2+	2000 02 02	704	0.8+ 0.2-
1995 11 22	595	0.3+ 0.6+	2000 01 04	595	0.1- 0.0	2000 02 03	704	1.2+ 0.1+
1995 11 28	595	0.2- 0.3+	2000 01 04	595	0.3- 0.4+	2000 02 03	704	0.1+ 0.3-
1995 11 28	595	0.9- 0.3+	2000 01 05	704	0.2+ 0.2-	2000 02 03	704	0.1- 1.0-
1995 12 01	595	0.5- 0.3+	2000 01 05	704	0.4- 0.3-	2000 02 03	704	0.3- 0.8-
1995 12 01	595	0.8- 0.1+	2000 01 05	704	0.0 0.2-	2000 02 03	704	0.6- 1.0-

(13631)* 1995 WL₅ = 1994 LR₈

Discovered 1995 Nov. 24 by T. Kobayashi at Oizumi.

Id. S. Nakano (*MPC* 26410)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	113.51641	(2000.0)	P	Q	
<i>n</i>	0.27596257	ω	118.38704	+0.95839887	-0.26012965
<i>a</i>	2.3365187	Ω	256.89147	+0.20088799	+0.90714603
<i>e</i>	0.1535840	<i>i</i>	6.92873	+0.20276989	+0.33078490
<i>P</i>	3.57	<i>H</i>	14.9	<i>G</i>	0.15 <i>U</i> 1

Residuals in seconds of arc

1994 06 08	809	0.4- 2.0+	1998 08 24	704	0.5- 0.8+	2000 01 08	704	0.4- 0.7+
1994 06 08	809	(0.4- 2.5+)	1998 08 24	704	0.3- 1.2+	2000 01 08	704	0.9- 1.3+
1994 06 08	809	0.2- 1.3+	1998 08 24	704	0.8+ 0.8+	2000 01 08	704	0.1+ 0.6+
1994 06 09	809	(0.4+ 2.7+)	1998 08 24	704	0.6- 0.4-	2000 02 02	704	0.3+ 0.6+
1994 06 09	809	1.6+ 1.0+	1998 08 27	704	0.1- 0.1+	2000 02 02	704	0.7+ 0.2+
1994 06 09	809	0.9- 0.2-	1998 08 27	704	0.3+ 0.3-	2000 02 02	704	0.3+ 0.1-
1995 11 24	411	1.5+ 0.6+	1998 08 27	704	0.1- 0.4-	2000 02 02	704	0.0 0.5-
1995 11 24	411	0.9+ 0.6+	1998 08 27	704	0.3- 0.7-	2000 02 02	704	0.4+ 0.1+
1995 11 26	411	0.3+ 0.0	1998 08 27	704	0.1+ 0.6+	2000 02 06	704	0.2- 0.1+
1995 11 26	411	0.8- 0.9-	2000 01 05	704	0.1+ 0.5-	2000 02 06	704	0.3+ 0.4-
1995 11 28	411	0.7- 0.0	2000 01 05	704	0.2- 0.4-	2000 02 06	704	0.1+ 0.7+
1995 11 28	411	0.9- 0.9+	2000 01 05	704	0.8+ 0.5-	2000 02 06	704	0.1- 0.2+
1995 11 30	327	0.3+ 0.3+	2000 01 05	704	0.3+ 1.1+	2000 02 06	704	0.4+ 0.1+
1995 11 30	327	0.5- 0.2+	2000 01 05	704	0.4+ 0.1+	2000 02 08	704	0.7- 0.1+
1995 11 30	327	0.3- 0.9+	2000 01 07	704	0.0 0.1+	2000 02 08	704	0.3- 0.2+
1995 12 01	411	0.0 0.3-	2000 01 07	704	0.1- 0.6-	2000 02 08	704	0.1- 0.3+
1995 12 01	411	0.6- 0.8+	2000 01 07	704	0.3- 0.6+	2000 02 08	704	0.3- 0.4-
1995 12 10	411	0.2- 0.2+	2000 01 07	704	0.8+ 0.7+	2000 02 08	704	0.2- 0.5-
1995 12 10	411	1.2+ 0.2+	2000 01 07	704	0.7- 1.0-			
1998 08 24	704	0.1- 0.6+	2000 01 08	704	0.3+ 0.2+			

(13632)* 1995 WP₈ = 1994 GK₁₀

Discovered 1995 Nov. 18 by S. Ueda and H. Kaneda at Kushiro.

Id. S. Nakano (*MPC* 26412)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Nakano			
<i>M</i>	195.55366	(2000.0)	P	Q	
<i>n</i>	0.30965104	ω	273.76039	+0.88638018	+0.45556683
<i>a</i>	2.1638195	Ω	59.15492	-0.37747685	+0.81421992
<i>e</i>	0.1796773	<i>i</i>	5.50715	-0.26803246	+0.35986773
<i>P</i>	3.18	<i>H</i>	14.0	<i>G</i>	0.15 <i>U</i> 2

Residuals in seconds of arc

1994 04 14	675	0.7+ 1.0-	1998 09 29	704	0.5+ 0.1-	1999 01 06	699	0.6- 0.0
1994 04 14	675	0.8- 0.9-	1998 09 29	704	(0.3- 2.2-)	1999 01 06	699	1.0- 1.2-
1994 04 15	675	1.5- 0.8-	1998 10 14	704	1.5+ 0.4+	1999 01 06	699	0.9- 0.7-
1994 04 15	675	0.3- 1.3-	1998 10 14	704	1.6- 1.5+	1999 01 08	704	1.1- 0.3+
1995 10 30	327	1.4+ 1.0-	1998 10 14	704	0.5+ 1.0+	1999 01 08	704	0.5- 0.0
1995 10 30	327	0.9+ 0.5-	1998 10 14	704	0.9+ 1.5+	1999 01 08	704	0.2- 0.3+
1995 10 30	327	0.7+ 1.0-	1998 10 15	704	0.3+ 0.5+	1999 01 08	704	1.6+ 0.2+
1995 10 30	327	1.6+ 0.4-	1998 10 15	704	0.2+ 0.8-	1999 01 08	704	0.8+ 1.2-
1995 11 18	399	0.5- 0.3+	1998 10 15	704	0.4+ 0.1-	1999 01 11	704	0.7+ 1

1995 11 18	399	0.9–	0.3–	1998 10 15	704	0.0	0.4–	1999 01 11	704	1.2+	0.6+
1995 11 25	399	(4.0–	0.6+)	1998 10 15	704	0.2+	0.1+	1999 01 11	704	2.0–	1.4+
1995 11 25	399	1.7–	0.0	1998 10 20	699	0.1+	1.0+	1999 01 11	704	1.2–	1.5–
1995 12 17	399	0.2–	0.4+	1998 10 20	699	0.2+	1.0+	2000 01 10	699	1.2–	1.3–
1995 12 17	399	1.2–	0.3–	1998 10 20	699	0.1+	1.0+	2000 01 10	699	0.2–	0.6–
1995 12 19	399	(1.6+	2.8+)	1998 10 29	704	0.3–	0.5+	2000 01 10	699	1.9–	1.3+
1995 12 19	399	0.6+	0.9+	1998 10 29	704	0.3+	0.6–	2000 02 01	703	0.6+	0.1+
1998 08 28	704	1.6–	0.2–	1998 10 29	704	0.1+	0.2+	2000 02 01	703	0.3+	0.2–
1998 08 28	704	0.3–	1.4–	1998 10 29	704	0.1–	0.6–	2000 02 01	703	0.3+	0.1+
1998 08 28	704	0.2+	0.7–	1998 10 29	704	1.0–	0.6–	2000 02 01	703	0.2+	0.4–
1998 08 28	704	1.2–	0.4–	1998 11 10	704	0.4+	0.0	2000 02 04	704	0.5–	0.1–
1998 08 28	704	(2.6–	0.8+)	1998 11 10	704	0.4–	0.0	2000 02 04	704	0.5–	0.0
1998 08 31	704	1.0–	0.4+	1998 11 10	704	0.0	0.4+	2000 02 04	704	0.0	0.3+
1998 08 31	704	1.3+	1.3–	1998 11 10	704	0.3–	0.2+	2000 02 04	704	0.7–	0.0
1998 08 31	704	0.7+	1.5–	1998 11 10	704	0.3+	0.2–	2000 02 04	704	0.5–	0.2+
1998 08 31	704	0.2+	0.3–	1998 11 11	704	0.3–	0.3+	2000 02 11	704	0.9+	0.2+
1998 08 31	704	0.5+	0.1–	1998 11 11	704	0.0	0.5+	2000 02 11	704	0.8+	0.3+
1998 09 29	704	1.0+	0.3+	1998 11 11	704	0.2+	0.2–	2000 02 11	704	0.2+	0.6–
1998 09 29	704	0.4+	0.0	1998 11 11	704	0.7+	0.5–	2000 02 11	704	0.9+	0.4+
1998 09 29	704	0.8–	1.9–	1998 11 11	704	0.2+	0.5–	2000 02 11	704	0.7+	0.2+

(13633)* 1995 WW₁₇ = 1997 FJ₃

Discovered 1995 Nov. 17 by Spacewatch at Kitt Peak.

Id. G. V. Williams (*MPC* 29628)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	293.70831		(2000.0)	P	Q
<i>n</i>	0.31084121	ω	212.36096	–0.58392910	+0.81135960
<i>a</i>	2.1582926	Ω	21.94822	–0.72866813	–0.50924656
<i>e</i>	0.0807830	<i>i</i>	4.12371	–0.35786807	–0.28699050
<i>P</i>	3.17	<i>H</i>	15.3	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1995 10 24	691	0.4+	0.5–	1998 09 17	327	0.1+	0.8+	1998 10 14	691	1.1–	0.4–
1995 10 24	691	0.3+	0.4–	1998 09 17	327	0.2–	1.0+	1998 10 15	704	0.9–	0.5–
1995 10 24	691	0.3+	0.4–	1998 09 18	704	(2.2–	2.4+)	1998 10 15	704	1.0–	0.0
1995 11 17	691	0.3–	0.0	1998 09 18	704	1.5–	0.2+	1998 10 15	704	0.6–	0.2+
1995 11 17	691	0.2–	0.0	1998 09 18	704	0.6–	0.4+	1998 10 18	691	0.9–	0.2–
1995 11 17	691	0.1–	0.1+	1998 09 18	704	0.1+	0.5+	1998 10 18	691	0.4–	0.6–
1995 11 23	691	0.2–	0.1+	1998 09 18	704	1.1–	0.6–	1998 10 18	691	0.0	0.3–
1995 11 23	691	0.1–	0.3+	1998 09 20	327	0.4+	0.4+	1998 10 28	704	1.5+	0.3–
1995 11 30	691	0.0	0.4+	1998 09 20	327	0.5+	1.2+	1998 10 28	704	0.7+	1.5–
1995 11 30	691	0.1–	0.5+	1998 09 20	327	(2.4+	3.4+)	1998 10 28	704	1.7–	0.3+
1995 11 30	691	0.0	0.6+	1998 09 25	327	0.8+	1.1+	1998 10 29	704	0.2+	0.8–
1997 03 11	809	1.1–	1.8+	1998 09 25	327	0.4+	0.4+	1998 10 29	704	(2.3+	1.2–)
1997 03 11	809	0.7–	1.4+	1998 09 25	327	0.8+	0.8+	1998 10 29	704	(1.6–	2.6–)
1997 03 11	809	1.0–	0.9+	1998 09 26	704	0.0	0.1–	1998 10 29	704	0.4–	0.3–
1997 03 31	704	1.6+	0.0	1998 09 26	704	0.1+	0.7–	2000 01 04	704	0.4+	0.0
1997 03 31	704	1.6+	0.2+	1998 09 26	704	(1.3+	3.1+)	2000 01 04	704	0.1–	0.9–
1997 04 03	704	1.2+	0.1+	1998 09 26	704	1.5–	0.2–	2000 01 04	704	1.4–	0.5–
1997 04 03	704	1.0+	0.2+	1998 09 26	704	1.2+	1.5+	2000 01 04	704	1.8–	1.3–
1997 04 05	704	1.3+	0.8+	1998 09 27	704	0.6+	1.4+	2000 02 04	704	0.8+	0.4+
1997 04 05	704	1.2+	1.0+	1998 09 27	704	0.7–	1.9+	2000 02 04	704	0.3+	0.8+
1997 04 06	704	1.0+	0.3+	1998 09 27	704	1.2+	1.4+	2000 02 04	704	0.1+	0.1+
1997 04 06	704	0.3+	0.0	1998 09 27	704	0.0	0.5+	2000 02 04	704	0.7+	0.3+
1997 04 06	566	0.5–	0.1–	1998 09 27	704	0.4+	0.7+	2000 02 04	704	0.1–	0.0
1997 04 06	566	0.8–	0.0	1998 10 14	704	1.1+	1.3+	2000 02 11	704	0.2+	0.5+
1997 04 06	566	0.8–	0.1+	1998 10 14	704	(1.1–	2.1+)	2000 02 11	704	0.2–	0.5–
1997 05 09	691	0.5–	0.2+	1998 10 14	691	1.1–	0.3–	2000 02 11	704	0.4+	0.5+
1997 05 09	691	0.4–	0.2+	1998 10 14	704	0.3+	1.2–	2000 02 11	704	0.3+	0.0
1997 05 09	691	0.8–	0.4+	1998 10 14	691	1.2–	0.4–	2000 02 11	704	0.1–	0.1–
1998 09 17	327	0.4+	0.5+	1998 10 14	704	0.0	0.3–				

(13634)* 1995 WY₄₁ = 1970 SQ = 1991 PX₉

Discovered 1995 Nov. 16 by S. Ueda and H. Kaneda at Kushiro.

Id. S. Nakano (*MPC* 26412)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

<i>M</i>	85.88006		(2000.0)	P	Q
<i>n</i>	0.27805372	ω	123.79228	+0.74067921	–0.66879275
<i>a</i>	2.3247892	Ω	278.27086	+0.59301859	+0.69563278
<i>e</i>	0.2085275	<i>i</i>	3.71466	+0.31578991	+0.26231907
<i>P</i>	3.54	<i>H</i>	14.7	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1970 09 27	095	2.0+	1.3–	1995 12 14	399	(4.6+	0.7+)	2000 01 08	704	0.9–	1.1–
1970 10 01	095	1.0–	0.4–	1995 12 14	399	(3.3+	0.9+)	2000 01 08	704	1.0–	0.1+
1991 08 06	809	0.9–	0.5+	1995 12 17	399	1.5+	0.5+	2000 01 08	704	0.9–	0.8–
1991 08 06	809	0.9–	0.0	1995 12 17	399	1.9+	0.9+	2000 02 02	704	0.1+	0.2+
1991 08 06	809	2.0–	0.0	1998 08 17	704	1.1+	0.6+	2000 02 02	704	0.0	0.2+
1991 08 11	809	1.1+	0.1+	1998 08 17	704	(1.7–	2.5+)	2000 02 02	704	0.1–	1.3–
1991 08 11	809	0.9+	0.0	1998 08 17	704	0.0	0.2–	2000 02 02	704	0.3–	0.2–
1991 08 11	809	0.3+	1.2–	1998 08 17	704	0.0	1.4+	2000 02 02	704	0.5–	0.1+
1995 11 16	399	0.9–	0.4–	1999 11 04	703	1.2+	2.1+	2000 02 06	704	1.3+	0.4+
1995 11 16	399	1.3–	0.5+	1999 11 04	703	0.9+	1.1+	2000 02 06	704	0.6+	0.8–
1995 11 18	399	0.0	0.1+	1999 11 04	703	1.2–	1.0+	2000 02 06	704	0.6+	0.4+
1995 11 18	399	0.1–	0.4+	1999 11 04	703	0.7+	0.5+	2000 02 06	704	0.4+	0.1–
1995 11 25	399	0.1–	0.2+	2000 01 08	704	0.7–	0.5+				
1995 11 25	399	0.7–	0.8–	2000 01 08	704	0.4–	0.7–				

(13635)* 1995 WA₄₂ = 1997 GU₃₂ = 1998 QP₁₂

Discovered 1995 Nov. 22 at the Oak Ridge Observatory.

Id. A. Doppler (*MPC* 33693)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	64.00089		(2000.0)	P	Q
<i>n</i>	0.27635371	ω	213.51456	+0.49126816	–0.87030933
<i>a</i>	2.3343135	Ω	207.11004	+0.81500825	+0.47344491
<i>e</i>	0.0588513	<i>i</i>	4.39097	+0.30727373	+0.13568928
<i>P</i>	3.57	<i>H</i>	14.9	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1995 11 22	801	0.2+	0.4–	1998 08 23	704	(3.1–	2.2+)	2000 01 05	704	0.2+	0.4–
1995 11 22	801	0.3+	0.5–	1998 08 23	699	1.3–	0.1–	2000 01 05	704	0.2+	0.1+
1995 11 23	801	0.1–	0.9–	1998 08 23	704	(2.3+	0.9–)	2000 01 05	704	0.5–	1.1–
1995 11 23	801	0.0	0.1+	1998 08 23	704	(0.6–	2.1+)	2000 01 07	704	0.3+	0.0
1997 04 03	704	0.8–	0.5–	1998 08 30	699	0.5+	0.2+	2000 01 07	704	0.4+	0.0
1997 04 03	704	0.6–	0.5–	1998 08 30	699	0.1+	0.2–	2000 01 07	704	0.4–	1.4–
1997 04 11	704	0.2+	1.5–	1998 08 30	699	0.1+	0.1–	2000 01 07	704	0.4+	0.3+
1997 04 11	704	0.1–	1.6–	1999 11 17	704	0.9–	0.3–	2000 01 07	704	0.7+	0.1+
1998 08 17	704	0.0	0.3–	1999 11 17	704	0.9+	0.8–	2000 02 02	704	0.2+	0.4+
1998 08 17	704	0.2–	0.4–	1999 11 17	704	1.0+	1.0–	2000 02 02	704	0.1+	0.4+
1998 08 17	704	0.4+	0.5–	1999 12 14	704	0.1–	1.5–	2000 02 02	704	0.3+	0.7+
1998 08 17	704	1.7+	1.4+	1999 12 14	704	0.4–	1.2–	2000 02 02	704	0.1–	1.0+
1998 08 17	704	0.1+	0.3–	1999 12 14	704	0.0	0.3–	2000 02 04	704	0.2+	0.1+
1998 08 23	699	0.5–	1.1–	1999 12 14	704	0.5–	0.7+	2000 02 04	704	0.2+	0.4+
1998 08 23	704	1.3–	0.9–	1999 12 14	704	0.7–	0.4–	2000 02 04	704	0.9–	1.6+
1998 08 23	704	1.2+	0.1–	2000 01 05	704	0.2–	0.1+	2000 02 04	704	0.6+	1.1+
1998 08 23	699	0.2–	0.8–	2000 01 05	704	0.4–	0.2+	2000 02 04	704	0.8–	0.3–

(13636)* 1995 YS₂ = 1994

2000 FEB. 22

M.P.C. 38353

Residuals in seconds of arc

1994 08 10	809	(2.2+ 3.3-)	1996 01 01	385	0.2- 0.3+	1998 09 27	704	0.4- 0.0
1994 08 10	809	0.6+ 2.0-	1996 01 11	887	0.2- 0.1-	1998 10 12	691	0.8- 0.2-
1994 08 10	809	(0.9+ 2.6-)	1996 01 11	887	0.4- 0.2-	1998 10 12	691	0.8- 0.1+
1994 08 11	809	0.6+ 0.2-	1996 01 11	887	0.3- 0.2-	1998 10 15	691	0.0 0.2+
1994 08 11	809	1.2- 1.0+	1996 01 13	385	0.2- 0.8+	1998 10 15	691	0.8- 0.3+
1994 08 11	809	0.9+ 1.3-	1996 01 13	385	(2.7+ 1.4+)	1998 10 15	691	1.1- 0.5+
1995 12 22	385	0.3+ 0.2-	1996 01 27	385	0.7+ 0.2-	2000 01 08	704	1.1- 0.1-
1995 12 22	385	0.2+ 1.2-	1996 01 27	385	0.2+ 0.8-	2000 01 08	704	0.3- 0.7-
1995 12 22	385	0.7- 0.1-	1996 01 27	385	2.1+ 0.5+	2000 01 08	704	0.1- 0.2-
1995 12 23	566	1.3- 0.3-	1998 09 14	704	0.1+ 1.2+	2000 01 08	704	0.1- 1.2-
1995 12 23	566	1.4- 0.5-	1998 09 14	704	0.3- 0.2-	2000 02 02	704	0.4- 0.1+
1995 12 23	566	1.0- 0.5-	1998 09 14	704	(0.8- 2.5+)	2000 02 02	704	0.5+ 1.0-
1995 12 26	887	0.9- 0.1-	1998 09 18	704	1.7+ 1.8-	2000 02 02	704	0.0 1.0+
1995 12 26	887	0.3- 0.3-	1998 09 18	704	(0.9- 2.7+)	2000 02 02	704	0.9+ 1.1+
1995 12 26	887	0.3+ 0.0	1998 09 18	704	1.0+ 0.6-	2000 02 02	704	0.4- 0.7+
1995 12 27	887	0.4+ 0.1+	1998 09 18	704	0.8+ 0.9+	2000 02 06	704	0.1+ 0.1+
1995 12 27	887	0.1- 0.3+	1998 09 26	704	1.1- 0.8-	2000 02 06	704	0.1- 0.2+
1995 12 27	887	0.4+ 0.1+	1998 09 26	704	0.7- 0.8+	2000 02 06	704	0.1+ 0.5-
1995 12 29	385	0.4+ 0.6+	1998 09 26	704	1.3+ 0.6-	2000 02 11	691	0.6- 0.2-
1995 12 29	385	0.7+ 0.4+	1998 09 26	704	0.0 0.4-	2000 02 11	691	0.6- 0.3-
1995 12 29	385	1.3+ 1.9+	1998 09 27	704	0.3+ 0.1-	2000 02 11	691	0.5- 0.2-
1995 12 31	385	0.7+ 0.2-	1998 09 27	704	0.4- 0.4+	2000 02 11	888	0.7+ 0.6-
1996 01 01	385	0.0 0.1+	1998 09 27	704	(0.0 2.6+)	2000 02 11	888	0.0 0.6-
1996 01 01	385	0.5- 0.2+	1998 09 27	704	1.3+ 0.1+	2000 02 11	888	0.3+ 0.8-

(13637)* 1995 YO₃ = 1976 SA₅ = 1998 QM₃₈

Discovered 1995 Dec. 27 by T. Kobayashi at Oizumi.

Id. E. Bowell (*MPC* 32467), G. V. Williams (*ibid.*), T. B. Spahr (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	66.18304		<i>P</i>	(2000.0)	<i>Q</i>
<i>n</i>	0.26546860	ω	221.98002	+0.22196370	-0.97503640
<i>a</i>	2.3976950	Ω	215.19682	+0.89734757	+0.20668234
<i>e</i>	0.1606704	<i>i</i>	0.59761	+0.38144390	+0.08115686
<i>P</i>	3.71	<i>H</i>	14.6	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1976 09 24	095	0.2- 0.6+	1998 09 14	704	0.2+ 0.3-	1998 09 27	704	(0.2+ 2.3+)
1995 12 27	411	0.2+ 0.3-	1998 09 14	704	0.9- 0.1-	1998 09 29	691	0.1+ 0.0
1995 12 27	411	0.4+ 0.2-	1998 09 14	704	0.6- 0.7-	1998 09 29	691	0.3+ 0.5-
1995 12 29	411	0.6+ 0.3+	1998 09 14	699	0.2- 1.1+	1998 09 29	691	0.2- 0.2-
1995 12 29	411	0.5+ 0.5-	1998 09 14	699	0.0 0.0	1998 12 08	910	(2.7- 0.5-)
1995 12 31	411	0.1- 0.1-	1998 09 14	699	1.0+ 0.8+	1998 12 08	910	(2.0- 0.9-)
1995 12 31	411	0.2- 0.7-	1998 09 18	704	0.6+ 1.0+	1998 12 08	910	(2.2- 1.2-)
1996 01 10	411	0.4- 0.5-	1998 09 18	704	0.4- 0.3-	2000 01 05	704	0.9- 0.4+
1996 01 10	411	0.7- 0.5-	1998 09 18	699	0.1+ 0.1+	2000 01 05	704	1.0- 0.0
1996 01 13	411	1.1- 0.4+	1998 09 18	704	0.6+ 0.3+	2000 01 05	704	0.6- 0.5-
1996 01 13	411	0.1- 0.1-	1998 09 18	699	1.0- 0.8+	2000 01 06	699	0.6+ 0.3+
1996 01 18	411	0.1- 0.0	1998 09 18	704	0.7+ 0.1+	2000 01 06	699	0.9+ 0.0
1996 01 18	411	0.4+ 0.0	1998 09 18	704	0.6- 0.7+	2000 01 06	699	0.4- 0.8+
1996 01 25	411	0.1+ 0.7-	1998 09 18	699	0.4+ 0.0	2000 01 08	704	0.1- 1.1+
1996 01 25	411	0.0 0.4+	1998 09 20	691	0.4+ 0.3+	2000 01 08	704	0.2- 0.4+
1998 08 03	699	0.6- 0.7+	1998 09 20	691	0.6+ 0.2+	2000 01 08	704	1.2+ 0.2+
1998 08 03	699	0.4+ 1.0+	1998 09 20	691	0.4+ 0.0	2000 01 08	704	0.1+ 0.7+
1998 08 03	699	0.9- 0.4+	1998 09 23	691	0.2- 0.2+	2000 02 02	704	0.2- 0.6+
1998 08 17	704	0.1+ 1.7-	1998 09 23	691	0.0 0.1-	2000 02 02	704	0.3+ 0.8+
1998 08 17	704	0.4+ 1.4-	1998 09 23	691	0.1- 0.3-	2000 02 02	704	0.1+ 0.2+
1998 08 17	704	0.4+ 1.5-	1998 09 25	704	0.2- 0.3-	2000 02 02	704	0.4+ 0.9-
1998 08 17	704	(0.7- 2.5-)	1998 09 25	704	0.8+ 0.4+	2000 02 02	704	0.2- 0.1-
1998 08 17	704	(0.3+ 2.6-)	1998 09 25	704	0.6- 1.0+	2000 02 05	704	1.9+ 1.3-
1998 08 23	704	0.3+ 0.3-	1998 09 26	327	1.6- 0.3+	2000 02 05	704	0.6+ 0.4+
1998 08 23	704	(2.6+ 0.8-)	1998 09 26	327	1.4- 0.5+	2000 02 05	704	0.1+ 0.3+
1998 08 23	704	0.7- 1.0-	1998 09 26	327	1.7- 0.4+	2000 02 06	704	0.1+ 0.5+
1998 08 23	704	0.2+ 1.3-	1998 09 27	704	0.1+ 0.3+	2000 02 06	704	0.4- 0.3+
1998 08 23	704	0.6+ 0.3+	1998 09 27	704	0.2- 0.3+	2000 02 06	704	0.1- 0.7+

1998 09 14	704	0.5- 0.1+	1998 09 27	704	1.9+ 1.2+	2000 02 06	704	0.4- 0.7+
1998 09 14	704	0.4+ 0.5+	1998 09 27	704	0.8+ 0.1-			

(13638)* 1996 CJ₇

Discovered 1996 Feb. 14 by U. Munari and M. Tombelli at Cima Ekar.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	307.12538		<i>P</i>	(2000.0)	<i>Q</i>
<i>n</i>	0.27340596	ω	120.50196	-0.23141055	+0.96864724
<i>a</i>	2.3510619	Ω	135.81896	-0.93112391	-0.19360246
<i>e</i>	0.0931093	<i>i</i>	7.45274	-0.28188192	-0.15569396
<i>P</i>	3.60	<i>H</i>	14.3	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1996 02 14	098	0.1- 0.2-	1997 09 07	108	0.7+ 1.0-	1998 12 18	108	1.7- 0.9+
1996 02 14	098	0.0 1.1-	1998 11 16	104	(2.6+ 1.4+)	1998 12 18	108	1.6+ 0.7+
1996 02 15	098	0.7+ 1.5-	1998 11 16	104	0.2- 0.6+	1998 12 22	704	0.3+ 0.6-
1996 02 15	098	(2.2+ 2.5-)	1998 12 07	104	0.3+ 1.4-	1998 12 22	704	0.4- 1.0+
1996 02 24	098	(2.2- 0.6+)	1998 12 08	104	0.8+ 1.1-	1998 12 22	704	1.3- 0.4+
1996 02 24	098	(3.0+ 0.9-)	1998 12 08	104	0.9+ 0.8-	1998 12 22	704	(1.9- 2.1-)
1996 03 14	098	0.7- 1.2-	1998 12 08	104	0.5+ 0.8-	1998 12 22	108	(1.8+ 2.1-)
1996 03 14	098	1.0- 0.7-	1998 12 08	104	0.2+ 0.7-	1998 12 22	108	0.6- 1.2-
1997 09 01	104	0.3- 0.1+	1998 12 08	104	0.1+ 0.4-	1998 12 22	108	1.8+ 0.7+
1997 09 01	104	0.3- 0.5-	1998 12 08	104	0.4- 0.0	2000 01 08	699	0.5- 1.3+
1997 09 02	566	0.4- 0.0	1998 12 12	104	0.5- 0.4+	2000 01 08	699	0.3- 1.6+
1997 09 02	566	0.5- 0.1+	1998 12 12	104	0.2- 0.2+	2000 01 08	699	0.4+ 0.4+
1997 09 02	566	0.3- 0.0	1998 12 15	704	(2.1- 1.9-)	2000 02 08	704	0.8+ 0.5+
1997 09 02	108	0.3- 1.6+	1998 12 15	704	0.3+ 1.1+	2000 02 08	704	0.8+ 0.0
1997 09 02	108	(2.4- 0.2-)	1998 12 15	704	0.2- 0.5+	2000 02 08	704	0.1+ 0.7-
1997 09 02	108	(2.0+ 1.8+)	1998 12 15	704	0.1- 0.8+	2000 02 11	704	0.4+ 0.9+
1997 09 07	108	(0.2- 2.1-)	1998 12 15	704	0.1- 0.7+	2000 02 11	704	0.4- 0.2+
1997 09 07	108	1.5+ 0.7-	1998 12 18	108	1.4- 1.5+	2000 02 11	704	0.5+ 1.6+

(13639)* 1996 EG₂ = 1976 HK = 1992 EW

Discovered 1996 Mar. 10 by S. Ueda and H. Kaneda at Kushiro.

Id. G. V. Williams (*MPC* 27115)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	250.92030		<i>P</i>	(2000.0)	<i>Q</i>
<i>n</i>	0.24366163	ω	113.64639	+0.17109413	+0.98388385
<i>a</i>	2.5386995	Ω	165.90648	-0.96373405	+0.17808551
<i>e</i>	0.0396535	<i>i</i>	12.31959	-0.20480109	-0.01606592
<i>P</i>	4.04	<i>H</i>	13.6	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1976 04 23	095	0.2+ 1.5-	1997 07 09	104	0.0 0.9+	2000 02 02	704	0.3+ 0.2+
1988 03 18	675	0.2- 0.9+	1997 07 09	104	0.1- 0.9+	2000 02 02	704	1.0+ 0.3+
1992 03 07	372	0.2+ 0.0	1998 11 13	704	0.7+ 0.2+	2000 02 02	704	0.4+ 1.1+
1992 03 07	372	1.1- 1.5+	1998 11 13	704	0.6- 0.3+	2000 02 02	704	0.1+ 1.4+
1992 03 10	372	0.8- 0.3-	1998 11 13	704	1.4- 0.5-	2000 02 06	704	0.5+ 0.1+
1992 03 10	372	(2.2- 0.7-)	1998 11 13	704	0.0 0.3-	2000 02 06	704	0.3+ 0.1-
1996 03 10	399	0.8- 0.2-	1998 11 13	704	0.1- 0.8-	2000 02 06	704	0.7- 0.0
1996 03 10	399	(0.1- 2.7+)	1998 11 21	699	0.5+ 0.5+	2000 02 06	704	0.4+ 0.9+
1996 03 12	399	(3.4- 1.0+)	1998 11 21	699	0.2+ 1.1+	2000 02 06	704	0.9+ 1.0+
1996 03 12	399	(3.2- 1.6+)	1998 11 21	699	0.3+ 0.2+	2000 02 07	704	0.5- 0.3-
1996 03 25	566	0.7+ 1.9-	2000 01 05	704	0.1+ 0.7-	2000 02 07	704	0.5- 0.5+
1996 03 25	566	1.2+ 1.5-	2000 01 05	704	0.0 0.8-	2000 02 07	704	0.1+ 0.7+
1996 03 25	566	0.9+ 1.6-	2000 01 05	704	0.7- 1.0-	2000 02 07	704	0.1+ 0.7+
1996 03 29	608	0.5- 0.0	2000 01 05	704	1.1- 1.3-	2000 02 07	704	0.5+ 1.5+
1996 03 29	608	0.1- 0.1-	2000 01 06	699	0.2+ 0.3+	2000 02 16	703	0.4+ 0.3-
1996 04 09	608	(2.2- 0.4-)	2000 01 06	699	1.7- 0.6+	2000 02 16	703	0.3

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	17.95374		(2000.0)	P		Q	
<i>n</i>	0.23019516	ω	101.85738	-0.76022495		-0.63341636	
<i>a</i>	2.6367680	Ω	39.09433	+0.47036068		-0.68993300	
<i>e</i>	0.1198259	<i>i</i>	13.23443	+0.44812818		-0.35039430	
<i>P</i>	4.28	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1983 03 15	095	1.5+	0.7+	1998 11 11	704	1.3-	0.3+	1999 12 17	699	0.6-	0.8+
1991 01 18	033	0.6-	1.2-	1998 11 11	704	0.9-	0.1-	1999 12 17	699	1.0-	0.1+
1991 01 18	033	0.0	1.4-	1998 11 11	704	0.3-	0.7-	1999 12 17	699	0.6-	1.3+
1991 01 19	033	(3.1+	1.5-)	1998 11 11	704	1.2-	0.6-	2000 01 06	704	0.4-	0.2-
1996 04 12	400	0.1-	0.1-	1998 11 11	704	0.0	0.5-	2000 01 06	704	0.1+	0.3-
1996 04 12	400	1.0+	0.6+	1998 11 23	699	0.5+	0.0	2000 01 06	704	0.3+	0.7-
1996 04 13	400	1.1-	0.9-	1998 11 23	699	0.0	0.5+	2000 02 03	704	0.3+	0.5-
1996 04 13	400	0.1-	0.8+	1998 11 23	699	0.2-	0.9+	2000 02 03	704	0.6+	0.2+
1996 04 20	691	0.3-	0.4+	1998 12 08	699	1.0+	0.2-	2000 02 03	704	0.3+	0.4+
1996 04 20	691	0.3-	0.2+	1998 12 08	699	0.8+	0.4-	2000 02 03	704	0.4+	0.7+
1996 04 20	691	0.3-	0.3+	1998 12 08	699	0.3+	1.0-	2000 02 03	704	0.3+	1.4+
1996 04 22	400	(1.7-	2.0-)	1999 01 05	699	0.1+	1.1+	2000 02 14	704	1.0+	0.1-
1996 04 22	400	0.0	0.0	1999 01 05	699	0.9-	0.1-	2000 02 14	704	0.4+	0.1-
1996 04 22	400	0.2+	0.3+	1999 01 05	699	0.1-	0.6-	2000 02 14	704	0.5+	0.6-
1998 09 18	699	0.4+	1.1+	1999 01 11	704	1.0+	0.0	2000 02 14	704	0.0	0.7-
1998 09 18	699	0.4+	1.3+	1999 01 11	704	1.0+	1.5+				
1998 09 18	699	1.1-	0.7+	1999 01 11	704	0.2-	1.9+				

(13641)* 1996 GM₂₀ = 1990 EG₇

Discovered 1996 Apr. 15 by E. W. Elst at the European Southern Observatory.

Id. B. G. Marsden (*MPC* 28863)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Marsden

<i>M</i>	241.17588		(2000.0)	P		Q	
<i>n</i>	0.18288720	ω	177.44694	-0.54833521		+0.83616632	
<i>a</i>	3.0738347	Ω	59.29991	-0.76750811		-0.49730017	
<i>e</i>	0.1578473	<i>i</i>	0.82798	-0.33205391		-0.23134051	
<i>P</i>	5.39	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1990 03 03	809	0.2-	0.5+	1996 04 17	809	0.3+	0.5+	1998 10 29	704	0.9+	0.9+
1990 03 03	809	0.0	0.5+	1996 04 17	809	0.5+	0.6+	1998 11 11	704	1.0-	1.2-
1990 03 03	809	0.1+	0.4+	1996 04 17	809	0.4+	0.2+	1998 11 11	704	0.4-	0.9-
1990 03 06	809	0.2+	0.5-	1996 05 13	566	1.7-	0.6+	1998 11 11	704	0.4+	0.5-
1990 03 06	809	0.0	0.3-	1996 05 13	566	2.0-	0.7+	1998 11 11	704	0.8+	0.2-
1990 03 06	809	0.0	0.3-	1996 05 13	566	1.7-	0.2+	1998 11 11	704	(3.7-	0.2+)
1990 03 07	809	(2.1+	2.8-)	1998 09 24	910	0.0	0.6-	2000 01 03	704	0.4+	0.3-
1990 03 07	809	(2.0+	2.8-)	1998 09 24	910	0.1+	0.8-	2000 01 03	704	0.8-	0.5+
1990 03 07	809	(2.2+	2.8-)	1998 09 24	910	0.1-	0.6-	2000 01 03	704	0.1-	0.8-
1996 03 24	809	0.7+	0.4-	1998 10 13	691	0.1-	0.1-	2000 01 03	704	0.7+	0.4+
1996 03 24	809	1.3+	0.9-	1998 10 13	691	0.3-	0.0	2000 01 04	704	0.3+	0.9+
1996 03 24	809	0.0	1.2-	1998 10 13	691	0.2-	0.1+	2000 01 04	704	0.9-	0.3-
1996 03 27	809	0.6+	0.6-	1998 10 18	691	0.3-	0.0	2000 01 04	704	0.2+	0.3+
1996 03 27	809	0.9+	0.5-	1998 10 18	691	0.3+	0.2+	2000 01 25	704	0.4+	0.2+
1996 03 27	809	0.6+	0.8-	1998 10 29	704	1.2+	0.4+	2000 01 25	704	0.3+	0.8-
1996 04 15	809	(0.2-	3.2+)	1998 10 29	704	(1.1+	3.1+)	2000 01 25	704	0.6-	0.3-
1996 04 15	809	(1.2-	2.7+)	1998 10 29	704	0.6+	0.6+				
1996 04 15	809	(1.1-	2.6+)	1998 10 29	704	1.2-	0.8+				

(13642)* 1996 HX

Discovered 1996 Apr. 19 by P. G. Comba at Prescott.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	188.35056		(2000.0)	P		Q	
<i>n</i>	0.18804481	ω	316.39475	+0.75579198		+0.65479163	
<i>a</i>	3.0173694	Ω	2.71673	-0.56711167		+0.65846982	
<i>e</i>	0.1689479	<i>i</i>	6.22296	-0.32735735		+0.37103290	
<i>P</i>	5.24	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1996 04 19	684	0.4+	0.2-	1997 07 06	684	0.2-	0.7-	1998 12 14	704	0.9-	1.9-
1996 04 19	684	0.5+	0.4-	1997 07 06	684	0.4-	0.4-	1998 12 14	704	0.3-	0.7+
1996 04 21	684	0.3+	0.1+	1997 07 06	684	0.5-	0.7-	1998 12 14	704	1.9+	0.3+
1996 04 21	684	0.3+	0.0	1997 08 27	684	0.1+	0.5+	1998 12 17	704	0.5-	0.6-
1996 04 21	684	0.1+	0.2-	1997 08 27	684	0.3+	0.5+	1998 12 17	704	0.6-	0.3+
1996 04 22	684	0.4+	0.0	1997 08 27	684	0.4+	0.5+	1998 12 17	704	0.6-	0.6+
1996 04 22	684	0.3+	0.2+	1997 08 29	684	0.1-	0.5+	1998 12 17	704	0.7-	0.8-
1996 04 22	684	0.5+	0.5+	1997 08 29	684	0.1-	0.4+	2000 01 04	704	0.7+	0.6-
1996 04 24	684	0.1+	0.4+	1997 08 29	684	0.1-	0.4+	2000 01 04	704	0.5+	0.6-
1996 04 24	684	0.5+	0.3+	1997 09 30	684	0.0	0.2+	2000 01 04	704	0.2+	0.7-
1996 04 24	684	0.5+	0.3+	1997 09 30	684	0.3+	0.1+	2000 01 04	704	0.2-	0.4-
1996 05 10	684	0.2-	0.5+	1997 10 01	684	0.1+	0.2+	2000 01 30	703	0.4-	0.3+
1996 05 10	684	0.2-	0.4+	1997 10 01	684	0.2+	0.2+	2000 01 30	703	1.3-	1.7+
1996 05 20	684	0.3-	0.2+	1997 10 01	684	0.1+	0.2+	2000 01 30	703	1.6+	0.8-
1996 05 20	684	0.4-	0.1+	1998 11 13	684	0.5+	0.5+	2000 01 30	703	0.3-	0.1+
1996 06 05	684	0.6-	0.2-	1998 11 13	684	0.1+	0.2+	2000 02 03	704	0.5-	0.1-
1996 06 05	684	0.5-	0.1-	1998 11 13	684	0.3+	0.1+	2000 02 03	704	0.4-	0.8+
1996 06 05	684	0.4-	0.2-	1998 11 15	684	0.2+	0.3+	2000 02 03	704	0.2-	1.0+
1996 07 08	684	0.1+	0.6-	1998 11 15	684	0.4+	0.1+	2000 02 03	704	0.2-	0.1+
1996 07 08	684	0.7-	0.4-	1998 12 13	684	0.3+	0.0	2000 02 11	704	(0.3-	2.7+)
1996 07 09	684	0.4-	0.0	1998 12 13	684	0.0	0.1-	2000 02 11	704	0.6-	0.3+
1997 07 05	684	0.4-	0.3-	1998 12 14	684	0.1+	0.0	2000 02 11	704	0.7+	0.4+
1997 07 05	684	0.3-	0.4-	1998 12 14	684	0.1-	0.7+	2000 02 11	704	1.1+	0.8-
1997 07 05	684	0.5-	0.4-	1998 12 14	704	0.4-	0.6-				

(13643)* 1996 HC₁

Discovered 1996 Apr. 21 by H. Abe at Yatsuka.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

<i>M</i>	32.04575		(2000.0)	P		Q	
<i>n</i>	0.23591460	ω	86.67047	-0.77754107		-0.59638301	
<i>a</i>	2.5939773	Ω	56.61804	+0.43905563		-0.74186947	
<i>e</i>	0.1131212	<i>i</i>	13.81495	+0.45017778		-0.30652406	
<i>P</i>	4.18	<i>H</i>	12.9	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1996 04 21	367	0.0	0.1-	1997 08 27	367	0.1-	0.7+	1998 11 21	691	0.9-	0.5+
1996 04 21	367	0.1+	0.0	1998 08 31	704	0.3+	0.8-	1998 11 24	699	0.8+	0.7+
1996 04 21	353	1.4-	0.4-	1998 08 31	704	0.5+	0.6+	1998 11 24	699	0.9+	0.8+
1996 04 21	353	0.0	0.2-	1998 08 31	704	0.1-	0.6-	1998 11 24	699	0.7+	0.7+
1996 04 21	353	0.2+	0.4+	1998 08 31	704	0.7-	1.7+	1998 11 27	691	0.3-	0.2+
1996 04 22	353	0.9+	0.2+	1998 08 31	704	1.4-	0.3-	1998 11 27	691	0.2-	0.1+
1996 04 22	353	0.7-	0.2+	1998 10 18	699	0.2+	0.1-	1998 11 27	691	0.3-	0.2+
1996 04 22	353	0.2-	1.0-	1998 10 18	699	0.1-	0.8-	1999 01 06	699	0.0	0.1+
1996 04 22	367	0.2-	0.2+	1998 10 18	699	0.2-	0.2+	1999 01 06	699	0.1-	0.1+
1996 04 22	367	0.3-	0.2+	1998 10 29	704	0.5+	1.1+	1999 01 06	699	0.7+	0.0
1996 04 22	897	0.3-	0.2-	1998 10 29	704	0.2-	0.1+	1999 02 06	704	0.0	0.2+
1996 04 22	897	0.2-	0.0	1998 10 29	704	0.6+	1.1+	1999 02 06	704	1.4+	0.8+
1996 04 22	897	0.4+	0.1-	1998 10 29	704	0.3+	1.4+	1999 02 06	704	1.6-	0.5+
1996 04 22	355	0.2-	0.7+	1998 10 29	704	0.7+	0.6-	1999 02 06	704	1.0+	0.7-
1996 04 22	355	0.3-	0.3-	1998 11 10	704	0.5-	0.3-	1999 02 09	704	0.4+	0.8-
1996 04 22	900	0.8-	0.2-	1998 11 10	704	0.3-	0.0	1999 02 09	704	1.3-	0.4-
1996 04 22	900	0.3-	0.3+	1998 11 10	704	0.2-	0.5-	1999 02 09	704	0.1-	0.1-
1996 04 26	367	0.2+	0.8+	1998 11 10	704	0.0	0.7-	1999 02 09	704	0.8-	0.4+
1996 04 26	367	0.1+	0.6+	1998 11 10	704	0.5-	0.9-	2000 01 08	704	0.3-	0.5+
1996 05 06	367	0.2-	0.2+	1998 11 11	699	0.1-	0.1+	2000 01 08	704	0.2-	0.3+
1996 05 06	367	0.0	0.0	1998 11 11	704	0.1+	0.3-	2000 01 08	704	0.0	0.4+
1996 05 09	900	0.1-	0.3+	1998 11 11	699	0.5-	0.1+	2000 01 08	704	0.2-	0.3+
1996 05 09	900	0.2+	0.3+	1998 11 11	704	0.2+	0.5-	2000 01 08	704	0.1+	0.2-

1996 05 09	897	0.3+	0.2+	1998 11 11	704	0.3+	0.4-	2000 02 05	704	0.1-	1.0-
1996 05 09	897	0.8+	0.1+	1998 11 11	699	0.1+	0.2+	2000 02 05	704	0.3-	0.7-
1996 06 05	367	0.0	0.9+	1998 11 11	704	1.0-	1.6-	2000 02 05	704	0.5-	0.7-
1996 06 05	367	0.2-	0.9+	1998 11 14	691	0.4+	0.0	2000 02 05	704	0.8+	0.7-
1996 06 08	809	0.8+	0.9-	1998 11 14	691	0.6+	0.1+	2000 02 06	704	0.3+	0.5+
1996 06 08	809	0.0	2.1-	1998 11 14	691	0.7+	0.3+	2000 02 06	704	0.1+	0.4+
1996 06 08	809	0.4-	1.0-	1998 11 18	704	0.0	0.7-	2000 02 06	704	0.4+	1.0+
1996 06 10	809	0.7+	1.5-	1998 11 18	704	0.2-	0.9-	2000 02 06	704	0.1-	0.3+
1996 06 10	809	0.4-	1.3-	1998 11 18	704	0.7+	0.3-	2000 02 06	704	1.4+	0.9+
1996 06 10	809	0.0	0.2-	1998 11 18	704	0.7+	0.5-	2000 02 14	106	0.1+	0.8+
1997 08 26	367	0.3-	0.3+	1998 11 18	704	0.5+	1.2-	2000 02 14	106	0.1+	0.6+
1997 08 26	367	0.8+	0.2+	1998 11 21	691	1.0-	0.5+	2000 02 14	106	0.1+	0.3+
1997 08 27	367	1.5-	0.9+	1998 11 21	691	0.7-	0.6+				

(13644)* 1996 HR₁₀ = 1976 YC₇ = 1998 SS₄₆

Discovered 1996 Apr. 17 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (*MPC* 32675)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams		Q	
<i>M</i>	92.73491	(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.17652072	ω	343.39752	+0.92552896	-0.37864482		
<i>a</i>	3.1473057	Ω	38.85339	+0.34831529	+0.84614791		
<i>e</i>	0.2171895	<i>i</i>	0.44976	+0.14856852	+0.37504908		
<i>P</i>	5.58	<i>H</i>	13.1	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1976 12 20	095	0.4+	1.9-	1998 10 15	704	0.2-	1.1+	2000 01 06	704	0.3+	0.3+
1995 03 09	691	0.2-	0.4-	1998 10 15	704	1.2-	1.0+	2000 01 06	704	0.8+	0.2+
1995 03 09	691	0.1+	0.5-	1998 10 15	704	0.1+	0.9+	2000 01 06	704	1.5+	0.0
1995 03 09	691	0.8-	0.2+	1998 10 15	704	0.1+	0.1+	2000 01 28	621	0.3-	0.0
1996 04 17	809	(0.2-	2.1+)	1998 10 15	704	0.3-	0.6+	2000 01 28	621	0.1-	0.4+
1996 04 17	809	1.2+	1.6+	1998 10 28	704	0.7+	0.8+	2000 01 28	621	0.4+	0.0
1996 04 17	809	1.2+	1.7+	1998 10 28	704	0.0	0.9+	2000 01 30	691	0.5-	0.2-
1996 04 18	809	0.3+	1.9+	1998 10 28	704	0.4+	0.7+	2000 01 30	691	0.3-	0.1-
1996 04 18	809	1.0+	1.0+	1998 10 29	704	0.0	0.9+	2000 01 30	691	0.4-	0.3-
1996 04 18	809	0.9+	0.7+	1998 10 29	704	0.5-	0.7+	2000 01 30	703	0.1+	0.7+
1996 05 19	809	0.6+	1.8+	1998 10 29	704	0.8-	0.0	2000 01 30	703	0.4-	0.7+
1996 05 19	809	0.2+	1.0+	1998 10 29	704	0.9-	0.5+	2000 01 30	703	0.3-	0.3+
1996 05 19	809	0.4-	0.8+	1998 10 29	704	0.4-	0.1+	2000 01 30	703	0.4-	0.2+
1996 05 22	809	0.6+	1.7+	1998 11 11	704	0.4-	0.2+	2000 02 03	704	0.1-	0.3+
1996 05 22	809	0.4-	1.3+	1998 11 11	704	0.4-	0.1+	2000 02 03	704	0.1+	0.0
1996 05 22	809	0.2+	1.6+	1998 11 11	704	0.7-	0.5+	2000 02 03	704	0.0	0.0
1998 09 20	809	(2.7+	2.1+)	1998 11 11	704	0.5-	0.4+	2000 02 03	704	0.5+	0.1+
1998 09 20	809	(2.7+	1.2+)	1998 11 11	704	0.7-	0.9+	2000 02 03	704	0.0	0.0
1998 09 20	809	(2.2+	2.2+)	1998 11 14	699	0.1+	1.2+	2000 02 04	691	0.2-	0.5-
1998 09 21	809	(2.7+	2.3+)	1998 11 14	699	0.3+	0.9+	2000 02 04	691	0.1-	0.5-
1998 09 21	809	(2.0+	2.5+)	1998 11 14	699	0.1+	0.5+	2000 02 04	691	0.1-	0.5-
1998 09 21	809	(2.1+	1.9+)	1999 01 08	704	0.4-	0.8-	2000 02 11	704	0.7+	0.2-
1998 09 25	691	0.2+	0.1-	1999 01 08	704	0.9-	0.3-	2000 02 11	704	1.0+	0.0
1998 09 25	691	0.3+	0.1-	1999 01 08	704	0.1+	0.6+	2000 02 11	704	0.0	0.0
1998 09 25	691	0.5+	0.1-	1999 01 08	704	0.5-	0.2-	2000 02 11	704	0.5-	0.2+
1998 09 30	691	0.2-	0.1+	1999 11 16	704	0.8-	0.5-	2000 02 11	704	0.2-	0.1+
1998 09 30	691	0.2-	0.1-	1999 11 16	704	0.4+	0.1+	2000 02 13	704	0.7-	0.2-
1998 09 30	691	0.2-	0.0	1999 11 16	704	0.2-	0.2+	2000 02 13	704	0.2-	0.8+
1998 10 14	699	0.1+	0.2+	1999 11 16	704	0.2-	0.2+	2000 02 13	704	0.1-	0.5+
1998 10 14	699	0.2+	0.1+	1999 11 16	704	0.4+	0.4+	2000 02 13	704	0.6+	0.1+
1998 10 14	699	0.5+	0.4+	2000 01 06	704	1.0+	0.6+				

(13645)* 1996 HF₁₁ = 1992 SU₁₃

Discovered 1996 Apr. 17 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (*MPC* 27319)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams		Q	
<i>M</i>	237.27961	(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.19122047	ω	181.39228	-0.15650107	+0.98668147		
<i>a</i>	2.9838693	Ω	79.60527	-0.90574028	-0.12546509		
<i>e</i>	0.1728968	<i>i</i>	2.58445	-0.39388063	-0.10352864		
<i>P</i>	5.15	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1992 09 26	033	0.1+	0.6-	1998 11 21	704	1.1-	0.8-	1999 12 31	691	0.6-	1.0-
1992 09 26	033	0.6-	1.2-	1998 11 21	704	(0.2-	2.5-)	1999 12 31	691	0.6-	1.1-
1992 09 27	033	0.6+	0.6-	1998 11 27	691	0.4+	0.0	2000 01 08	691	0.1+	0.1-
1992 09 28	033	0.5+	1.0+	1998 11 27	691	0.3+	0.2-	2000 01 08	691	0.0	0.1-
1996 04 17	809	1.2+	0.0	1998 11 27	691	0.1+	0.1-	2000 01 08	691	0.2+	0.1-
1996 04 17	809	1.3+	0.3-	1998 12 10	691	0.3+	0.1+	2000 01 11	704	0.2+	0.2+
1996 04 17	809	1.3+	0.8-	1998 12 10	691	0.2+	0.1+	2000 01 11	704	0.8-	0.4+
1996 04 18	809	(2.2-	0.1+)	1998 12 10	691	0.1-	0.1-	2000 01 11	704	0.4+	0.5-
1996 04 18	809	0.2+	0.3-	1998 12 15	691	0.5-	0.0	2000 01 11	691	0.0	0.1-
1996 04 18	809	0.1+	0.9-	1998 12 15	691	0.2-	0.3-	2000 01 11	691	0.0	0.1-
1996 05 14	566	0.6-	1.0+	1998 12 15	691	0.2-	0.1-	2000 01 11	704	0.1-	0.3-
1996 05 14	566	1.2-	1.0+	1998 12 23	691	0.8-	0.3+	2000 01 11	691	0.3+	0.1+
1996 05 14	566	1.1-	1.3+	1998 12 23	691	0.7-	0.1+	2000 01 13	691	0.4-	0.1+
1996 05 19	809	0.9-	1.0-	1998 12 23	691	1.2-	0.3-	2000 01 13	691	0.4-	0.1+
1996 05 19	809	1.2-	1.0-	1999 02 07	691	0.2-	0.2-	2000 01 13	691	0.4-	0.0
1996 05 19	809	1.4-	0.1+	1999 02 07	691	0.7-	0.1-	2000 01 30	704	0.3+	0.6+
1996 05 22	809	1.3+	1.6-	1999 02 07	691	0.9-	0.2-	2000 01 30	704	0.4+	0.1+
1996 05 22	809	(0.3+	2.5-)	1999 02 12	691	0.3-	0.5-	2000 01 30	704	0.5-	0.5-
1996 05 22	809	(0.3-	2.3-)	1999 02 12	691	0.2+	0.7-	2000 02 11	704	0.9+	0.2+
1998 10 23	910	0.9+	0.3+	1999 02 12	691	1.3+	0.6-	2000 02 11	704	0.4-	0.3+
1998 10 23	910	1.4+	0.4+	1999 02 20	691	0.5-	0.1-	2000 02 11	704	0.7+	0.7+
1998 10 23	910	1.1+	0.1+	1999 02 20	691	0.8-	0.0	2000 02 11	704	0.8+	0.6+
1998 11 21	704	1.6+	0.3+	1999 12 31	691	(2.4-	0.4-)				

(13646)* 1996 HC₁₂ = 3065 T-1

Discovered 1996 Apr. 17 by E. W. Elst at the European Southern Observatory.

Id. A. Gnädig (*MPC* 32471)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams		Q	
<i>M</i>	3.49139	(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.20020443	ω	273.80492	-0.70074814	-0.71329948		
<i>a</i>	2.8939227	Ω	220.69172	+0.66190574	-0.64353035		
<i>e</i>	0.0132551	<i>i</i>	1.09731	+0.26614438	-0.27761944		
<i>P</i>	4.92	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1971 03 25	675	0.6-	0.5-	1998 11 19	691	0.1+	0.6-	2000 02 02	704	0.2+	0.3+
1971 03 26	675	(0.5+	3.9-)	1998 11 19	691	0.1+	0.4-	2000 02 02	704	0.6+	0.3-
1971 03 26	675	(1.3+	3.1-)	1998 11 19	691	0.3+	0.2-	2000 02 03	704	0.0	0.3-
1971 03 27	675	0.9+	1.3-	1998 11 25	691	0.1+	0.2-	2000 02 03	704	0.3+	0.3+
1971 04 02	675	1.1-	0.2-	1998 11 25	691	0.5+	0.2+	2000 02 03	704	0.2+	0.2-
1996 04 17	809	0.2+	0.4-	1998 11 25	691	0.2+	0.1-	2000 02 03	704	0.2+	0.1+
1996 04 17	809	0.7-	0.2+	2000 01 07	704	0.1+	0.6-	2000 02 03	704	0.7+	0.1+
1996 04 17	809	0.5-	0.5-	2000 01 07	704	0.8-	0.2-	2000 02 03	704	0.5+	0.4-
1996 04 18	809	1.4+	1.8-	2000 01 07	704	0.1+	0.2+	2000 02 03	704	0.3+	0.0
1996 04 18	809	0.2-	0.5-	2000 01 07	704	0.8-	0.8-	2000 02 03	704	1.0+	1.0-
1996 04 18	809	1.2+	0.7-	2000 01 30	703	1.2-	0.7+	2000 02 03	704	1.3+	0.7+
1996 05 19	809	(0.0	2.7+)	2000 01 30	703	1.1-	0.7-	2000 02 03	704	0.6+	0.3+
1996 05 19	809	(1.2-	2.4+)	2000 01 30	703	0.0	0.3+	2000 02 05	704	0.4-	0.1-
1996 05 19	809	(0.5-	2.2+)	2000 01 30	703	1.0-	0.3-	2000 02 05	704	0.1-	0.0
1996 05 22	809	0.3-	1.6+	2000 01 31	704	0.3+	0.3+	2000 02 05	704	0.2+	0.2-
1996 05 22	809	1.0-	1.9+	2000 01 31	704	0.8-	0.4-	2000 02 05	704	0.5-	0.1+
1996 05 22	809	(4.0-	2.3+)	2000 01 31	704	0.6-	1.4+	2000 02 05	704	0.1-	0.2-
1998 10 12	691	0.4+	0.2+	2000 02 01	691	0.3-	0.2-	2000 02 05	704	0.1+	1.0+
1998 10 12	691	0.7+	0.2+	2000 02 01	691	0.3-	0.3-	2000 02 05	704	0.9+	0.3-
1998 10 12	691	0.6+	0.3+	2000 02 01	691	0.3-	0.1-	2000 02 05	704	0.4+	1.7+
1998 11 11	704	1.0+	1.1-	2000 02 02	704	0.6+	0.2-	2000 02 05	704	1.3+	1.1+

1998 11 11	704	0.9–	0.1–	2000 02 02	704	1.1–	0.9–	2000 02 05	704	0.4–	0.1+
1998 11 11	704	1.6+	1.2+	2000 02 02	704	0.1+	0.2–	2000 02 06	704	0.2–	0.1+
1998 11 11	704	0.3–	0.1+	2000 02 02	704	0.6+	0.4+	2000 02 06	704	0.2–	0.4–
1998 11 16	691	1.0–	0.4–	2000 02 02	704	0.0	0.2+	2000 02 06	704	0.1+	0.2–
1998 11 16	691	0.9–	0.3–	2000 02 02	704	0.0	0.1–	2000 02 06	704	0.5–	0.3–
1998 11 16	691	0.9–	0.2–	2000 02 02	704	0.1+	0.4+				
1998 11 16	691	0.9–	0.3–	2000 02 02	704	0.3+	0.5+				

(13647)* 1996 HR₂₄ = 1991 NW₇

Discovered 1996 Apr. 20 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (*MPC* 27451)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams											
<i>M</i>	177.36648	(2000.0)	P		Q						
<i>n</i>	0.17361799	ω	225.42107	+0.65901609	+0.74786965						
<i>a</i>	3.1822886	Ω	85.97808	–0.66537265	+0.62924796						
<i>e</i>	0.1773316	<i>i</i>	4.59587	–0.35068080	+0.21151359						
<i>P</i>	5.68	<i>H</i>	13.1	<i>G</i>	0.15	<i>U</i>	1				

Residuals in seconds of arc

1991 07 15	809	0.7–	0.4+	1996 05 22	809	1.2–	0.6+	1998 11 24	046	0.4–	0.3+
1991 07 15	809	0.4–	0.1+	1996 05 22	809	0.3–	0.2–	2000 01 04	704	0.4+	0.1+
1991 07 15	809	0.3–	0.2–	1996 05 24	809	0.5–	1.5+	2000 01 04	704	0.6+	0.3–
1991 07 16	809	0.2+	0.7+	1996 05 24	809	(1.4–	2.3+)	2000 01 04	704	0.7+	0.2–
1991 07 16	809	0.5+	0.3+	1996 05 24	809	(1.7–	2.8+)	2000 01 04	704	0.1+	0.2+
1991 07 16	809	0.9+	0.0	1997 08 30	566	0.5+	0.4+	2000 01 04	704	0.0	0.5–
1996 04 20	809	1.3+	0.4+	1997 08 30	566	0.0	0.1+	2000 01 06	704	0.0	0.7+
1996 04 20	809	0.4+	0.7+	1997 08 30	566	0.2+	0.2+	2000 01 06	704	0.3–	0.2–
1996 04 20	809	0.6+	0.6–	1998 11 24	046	0.5–	0.3+	2000 01 06	704	0.1+	1.1–
1996 04 21	809	(1.7+	3.2+)	1998 11 24	046	0.3–	0.9+	2000 01 06	704	0.2–	0.8–
1996 04 21	809	(1.8+	2.6+)	1998 11 24	046	0.7–	0.4+	2000 02 11	704	0.4–	0.9+
1996 04 21	809	(1.3+	3.3+)	1998 11 24	046	0.6–	0.6+	2000 02 11	704	1.0+	0.2+
1996 05 22	809	0.7–	0.7+	1998 11 24	046	0.7–	0.4+	2000 02 11	704	0.9+	0.7+

(13648)* 1996 JJ₁ = 1972 TU₉ = 1980 FE₁

Discovered 1996 May 15 at Haleakala by the JPL Near-Earth Asteroid Tracking program.

Id. K. Ichikawa (*MPC* 27562)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams											
<i>M</i>	206.44284	(2000.0)	P		Q						
<i>n</i>	0.19318575	ω	120.39949	+0.46056159	+0.88758672						
<i>a</i>	2.9635982	Ω	176.98506	–0.85986567	+0.44852192						
<i>e</i>	0.0469986	<i>i</i>	9.33803	–0.22025906	+0.10496617						
<i>P</i>	5.10	<i>H</i>	13.3	<i>G</i>	0.15	<i>U</i>	1				

Residuals in seconds of arc

1972 10 09	033	0.3+	0.1+	1996 05 16	566	0.9+	0.1+	1999 12 05	704	0.5–	1.0–
1972 10 09	033	1.5+	0.4+	1996 05 16	566	0.9+	0.2–	2000 01 08	704	0.1+	0.7–
1972 10 09	033	0.2–	0.0	1996 05 17	691	1.3–	0.8+	2000 01 08	704	0.3+	0.5+
1972 10 09	033	0.1–	0.3–	1996 05 17	691	0.8–	0.2+	2000 01 08	704	0.0	0.1+
1980 03 16	809	0.7–	0.5+	1996 05 17	691	0.6–	0.5+	2000 01 08	704	0.1–	0.5–
1980 03 16	809	0.2–	0.1–	1997 09 02	566	0.1+	0.2+	2000 01 08	704	0.1–	0.7–
1980 03 16	809	0.1–	0.2–	1997 09 02	566	0.3–	0.1+	2000 02 02	704	0.2+	0.1+
1980 03 16	809	0.3–	0.2+	1997 09 02	566	0.1+	0.2–	2000 02 02	704	0.6+	0.1+
1980 03 17	809	0.4+	0.4–	1998 11 13	704	0.7+	1.7+	2000 02 02	704	0.7+	0.7+
1980 03 17	809	0.0	0.3–	1998 11 13	704	0.1–	0.0	2000 02 02	704	0.7+	0.5+
1980 03 17	809	0.7–	0.1–	1998 11 13	704	0.4–	0.9+	2000 02 02	704	0.6+	0.9+
1980 03 17	809	0.9–	0.5–	1998 11 13	704	0.0	0.3+	2000 02 06	704	0.5+	1.0+
1996 05 10	691	0.6–	0.4+	1998 11 13	704	1.7–	0.5+	2000 02 06	704	0.7+	0.6–
1996 05 10	691	0.7–	0.4+	1998 11 16	699	0.4+	1.5–	2000 02 06	704	1.2+	0.0
1996 05 10	691	0.5–	0.4+	1998 11 16	699	1.8–	0.4+	2000 02 06	704	0.2–	0.6–
1996 05 15	566	1.0+	0.5–	1999 12 05	704	0.2–	0.3+	2000 02 06	704	0.4+	0.3–
1996 05 15	566	0.6+	0.0	1999 12 05	704	1.7–	1.0+	2000 02 12	704	(0.9+	4.4+)
1996 05 15	566	1.0+	0.1–	1999 12 05	704	0.4–	0.2–	2000 02 12	704	(1.6+	3.1+)
1996 05 16	566	0.8+	0.7+	1999 12 05	704	0.2–	0.2–	2000 02 12	704	(3.8+	1.6+)

(13649)* 1996 PM₄ = 1983 GT₁ = 1988 CD₃

Discovered 1996 Aug. 12 at Haleakala by the JPL Near-Earth Asteroid Tracking program.

Id. K. Ichikawa (*MPC* 29114)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams											
<i>M</i>	339.74135	(2000.0)	P		Q						
<i>n</i>	0.17297807	ω	165.27332	–0.94106946	+0.33790139						
<i>a</i>	3.1901322	Ω	34.48672	–0.31284065	–0.85334952						
<i>e</i>	0.1328695	<i>i</i>	1.46977	–0.12852625	–0.39701039						
<i>P</i>	5.70	<i>H</i>	12.9	<i>G</i>	0.15	<i>U</i>	1				

Residuals in seconds of arc

1983 04 09	095	(3.8+	1.9–)	1996 08 12	566	0.2–	0.4+	1999 12 09	703	0.0	0.1–
1988 02 11	809	(1.5–	3.1–)	1996 08 17	566	1.4–	0.1–	1999 12 09	703	0.4+	0.3–
1988 02 21	809	0.2+	0.7–	1996 08 17	566	1.2–	0.1–	1999 12 09	703	0.4–	0.4+
1988 02 21	809	0.4–	1.0–	1996 08 17	566	0.7–	0.3–	1999 12 09	703	0.1+	0.0
1988 02 21	809	1.0–	1.0–	1998 12 14	704	0.2–	1.4+	2000 01 08	704	1.2–	1.1–
1988 02 23	809	1.3+	0.1+	1998 12 14	704	0.1–	0.8–	2000 01 08	704	0.9–	0.8–
1988 02 23	809	0.2+	1.0+	1998 12 14	704	0.2–	0.8+	2000 01 08	704	0.6–	0.6–
1988 02 23	809	0.8–	2.0+	1998 12 14	704	0.2–	0.1+	2000 01 08	704	0.6–	1.1–
1989 05 07	675	0.1+	1.5–	1998 12 16	704	1.7+	0.3+	2000 01 08	704	0.6–	1.4–
1989 05 07	675	0.3–	0.4–	1998 12 16	704	0.9+	0.3–	2000 02 08	704	1.2+	0.2+
1996 07 14	809	1.5+	0.4–	1998 12 16	704	0.9–	0.3+	2000 02 08	704	0.6–	0.4+
1996 07 14	809	1.3+	0.4–	1998 12 16	704	(2.8–	0.2–)	2000 02 08	704	0.7+	2.0+
1996 07 14	809	0.6+	0.1–	1998 12 16	704	0.5+	1.3+	2000 02 08	704	0.9–	1.9+
1996 07 15	809	0.3+	0.1–	1998 12 17	704	0.1–	0.7–	2000 02 11	704	1.2+	0.1+
1996 07 15	809	0.6+	0.8–	1998 12 17	704	0.2–	0.1–	2000 02 11	704	0.5+	0.0
1996 07 15	809	0.6+	0.3–	1998 12 17	704	0.6–	0.7–	2000 02 11	704	1.5–	1.0+
1996 07 21	809	0.6+	0.5+	1998 12 17	704	0.0	1.1–	2000 02 14	106	0.4–	0.6+
1996 07 21	809	0.1+	1.5+	1998 12 17	704	0.8–	0.1–	2000 02 14	106	0.2+	0.2+
1996 07 21	809	0.5–	0.8+	1999 01 16	704	1.6+	1.0–	2000 02 14	106	0.8+	0.6–
1996 07 29	608	1.9–	0.5+	1999 01 16	704	0.1+	0.4+	2000 02 16	704	1.1+	0.3+
1996 07 29	608	(2.2–	0.3+)	1999 01 16	704	1.0–	0.0	2000 02 16	704	0.8+	0.9+
1996 08 12	566	0.2–	0.2+	1999 01 16	704	(2.5–	1.0+)	2000 02 16	704	1.0+	0.2+
1996 08 12	566	0.2–	0.2+	1999 01 16	704	0.6+	0.4–	2000 02 16	704	0.2–	0.1+

(13650)* 1996 TN₄₉ = 1996 RW₃₃ = 1997 QX₃

Discovered 1996 Oct. 4 by E. W. Elst at the European Southern Observatory.

Id. M. Tichý (*MPC* 30764), G. V. Williams (d, *ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams											
<i>M</i>	30.91220	(2000.0)	P		Q						
<i>n</i>	0.08409974	ω	243.04155	+0.00880555	–0.99640704						
<i>a</i>	5.1594842	Ω	206.85851	+0.97079304	+0.02871570						
<i>e</i>	0.0987165	<i>i</i>	10.74550	+0.23975682	–0.07967695						
<i>P</i>	11.72	<i>H</i>	11.9	<i>G</i>	0.15	<i>U</i>	2				

Residuals in seconds of arc

1996 0

2000 FEB. 22

M.P.C. 38357

1997 09 01	910	0.2-	0.6-	1997 10 31	704	0.6+	0.4+	2000 01 11	704	0.2-	0.4-
1997 09 09	910	0.2-	0.2+	1997 10 31	704	0.1+	0.1-	2000 01 11	704	0.2+	0.1-
1997 09 09	910	0.1-	0.1+	1997 10 31	704	1.4-	0.7-	2000 01 11	704	0.0	0.4-
1997 09 09	910	0.4-	0.1+	1997 10 31	704	1.7-	0.6-	2000 01 11	704	0.0	0.2+
1997 09 28	046	0.2-	0.2+	1997 11 06	704	(0.9+	2.7+)	2000 01 11	704	0.1+	0.7+
1997 09 28	046	0.8-	0.2+	1997 11 06	704	(2.5+	2.7+)	2000 02 06	704	0.6-	0.1-
1997 09 28	046	0.4-	0.2-	1997 11 06	704	1.5+	1.8+	2000 02 06	704	0.9-	0.8-
1997 09 28	046	0.4-	0.1+	1997 11 06	704	1.9+	1.2+	2000 02 06	704	0.1-	0.6-
1997 09 28	046	0.1-	0.3-	1997 11 06	704	1.8+	0.5+	2000 02 06	704	0.7+	0.0
1997 09 29	046	0.2-	0.4+	1997 11 30	809	0.4-	0.4-				
1997 09 29	046	0.3-	0.1-	1997 11 30	809	0.5-	0.4+				

(13651)* 1997 BR

Discovered 1997 Jan. 20 by the Beijing Schmidt CCD Asteroid Program at Xinglong.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	275.47212		(2000.0)		P		Q
<i>n</i>	0.63867710	ω	133.68879		-0.30563117		+0.91463273
<i>a</i>	1.3354116	Ω	116.76043		-0.93641399		-0.23841363
<i>e</i>	0.3058454	<i>i</i>	17.24080		-0.17239035		-0.32650560
<i>P</i>	1.54	<i>H</i>	17.6	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1980 02 09	381	0.7+	1.2-	1997 02 10	118	0.4-	1.1-	1997 04 30	587	0.3-	0.0
1980 02 09	381	(3.4+	5.2-)	1997 02 10	118	0.1+	0.5-	1997 04 30	587	0.4-	0.0
1997 01 20	327	1.1+	0.3+	1997 02 10	118	0.2-	1.0-	1997 05 01	402	0.9-	0.2-
1997 01 20	327	0.5-	0.1+	1997 02 11	557	0.2-	0.2+	1997 05 01	402	0.6-	0.2-
1997 01 20	327	1.0+	0.6+	1997 02 11	557	0.4+	0.2+	1997 05 01	402	0.6-	0.4-
1997 01 22	327	0.8-	0.6+	1997 02 11	557	0.2+	0.1-	1997 05 02	658	0.5-	0.4+
1997 01 22	327	0.8-	1.5+	1997 02 12	327	0.4-	2.0+	1997 05 02	658	0.3-	0.7-
1997 01 22	327	0.0	0.8+	1997 02 12	327	0.8-	1.9+	1997 05 02	658	0.0	0.6+
1997 01 22	327	0.1+	1.3-	1997 02 12	327	0.3-	1.7+	1997 05 02	327	1.0-	0.5+
1997 01 22	327	0.8+	0.9+	1997 02 12	327	0.8-	1.7+	1997 05 02	327	0.4-	0.2+
1997 01 22	327	0.3+	1.4+	1997 02 12	327	0.6-	1.7+	1997 05 02	327	0.0	0.3+
1997 01 22	327	0.9+	0.2+	1997 02 12	327	0.2-	1.7+	1997 05 02	327	0.3-	0.5+
1997 01 22	327	0.9-	0.7+	1997 02 13	711	0.3-	0.2-	1997 05 02	118	0.5-	0.2-
1997 01 22	327	0.1-	1.7+	1997 02 13	711	0.2-	0.1-	1997 05 02	118	0.4-	0.2-
1997 01 22	327	0.3+	0.6+	1997 02 13	327	1.1-	1.9+	1997 05 02	118	0.5-	0.0
1997 01 22	327	0.1-	1.0+	1997 02 13	327	0.9-	1.5+	1997 05 03	118	0.0	0.2+
1997 01 24	817	0.4-	0.6+	1997 02 13	327	0.7-	1.9+	1997 05 03	118	0.6-	0.0
1997 01 24	817	0.3-	0.4-	1997 02 16	557	0.6+	0.1-	1997 05 03	118	0.6-	0.1-
1997 01 24	817	0.4-	0.8-	1997 02 16	557	0.0	0.4+	1997 05 04	402	0.4+	0.6+
1997 01 24	817	0.3-	0.2-	1997 02 16	557	0.4+	0.1+	1997 05 04	402	0.1+	0.6+
1997 01 24	658	1.5+	0.5+	1997 02 17	557	0.3+	0.3+	1997 05 04	402	0.6+	0.5-
1997 01 24	658	1.2+	0.3+	1997 02 17	557	0.1+	0.5+	1997 05 14	711	0.0	0.0
1997 01 24	658	1.7+	0.1+	1997 02 17	557	0.4+	0.5+	1997 05 14	711	0.0	0.1-
1997 01 24	608	0.6+	0.2+	1997 02 17	557	0.1-	0.4+	1997 05 14	587	0.2+	0.2-
1997 01 24	608	1.6-	0.3+	1997 02 17	557	1.0+	0.6+	1997 05 14	587	0.7-	1.0-
1997 01 24	327	0.5+	0.4+	1997 02 17	557	0.2-	0.8+	1997 05 14	557	0.6-	0.4-
1997 01 24	327	0.2+	0.2+	1997 02 19	118	0.2-	0.1+	1997 05 14	557	0.1+	0.2-
1997 01 24	327	0.3-	0.4+	1997 02 19	118	0.2-	0.0	1997 05 15	557	0.3-	0.0
1997 01 24	327	0.3-	0.2-	1997 02 19	118	0.1-	0.1+	1997 05 15	557	0.0	0.6-
1997 01 24	327	0.2+	0.9-	1997 02 20	360	0.3-	0.2+	1997 05 16	046	1.6-	0.4+
1997 01 24	327	0.1+	0.7+	1997 02 20	360	0.5-	0.1+	1997 05 16	046	1.2-	0.5+
1997 01 24	327	0.4+	0.2-	1997 02 20	360	0.1+	0.3-	1997 05 16	046	(2.1-	0.0)
1997 01 25	327	0.5-	0.8+	1997 02 21	118	0.1+	0.6-	1997 05 17	046	1.3-	0.1+
1997 01 25	327	0.7+	0.0	1997 02 21	118	0.3+	0.5-	1997 05 18	557	1.5-	0.1+
1997 01 25	327	0.0	1.4+	1997 02 21	118	0.5+	0.9-	1997 05 18	557	1.8-	0.7-
1997 01 25	327	1.3+	1.0+	1997 02 22	658	0.7-	0.9-	1997 05 19	118	0.5+	0.6-
1997 01 25	327	1.5+	0.9+	1997 02 22	658	0.7-	1.1-	1997 05 19	118	0.1+	0.3-
1997 01 26	046	0.2+	0.3-	1997 02 22	658	0.7-	1.0-	1997 05 25	118	0.1+	0.1-
1997 01 26	046	0.1+	0.1-	1997 02 23	897	0.4+	0.9-	1997 05 25	118	0.0	0.2-
1997 01 26	046	0.2-	0.2+	1997 02 23	897	0.4-	0.4-	1997 05 25	118	0.3-	0.1+
1997 01 26	046	0.1+	0.5-	1997 02 23	897	0.5-	0.3-	1997 05 27	587	0.2+	0.3+
1997 01 27	557	0.2+	0.2+	1997 02 23	897	0.0	0.1-	1997 05 30	587	0.6-	0.1-
1997 01 27	557	0.3+	0.0	1997 02 24	360	0.2-	0.2+	1997 05 30	587	0.0	0.3+
1997 01 27	557	0.3+	0.1+	1997 02 24	360	0.1+	0.1+	1997 05 30	557	0.0	0.1-

1997 01 27	557	0.7+	0.4-	1997 02 24	360	0.1-	0.2+	1997 05 30	557	0.0	0.0
1997 01 27	658	(2.9-	0.5-)	1997 02 26	557	0.2-	0.3-	1997 05 30	557	0.1+	0.1-
1997 01 27	658	(2.9-	0.9-)	1997 02 26	557	0.2-	0.1+	1997 05 30	557	0.1+	0.1-
1997 01 27	658	(2.4-	1.5-)	1997 02 26	557	0.0	0.2-	1997 05 31	327	0.4-	0.8+
1997 01 28	411	0.2-	0.0	1997 02 26	557	0.3-	0.2-	1997 05 31	327	0.5-	0.0
1997 01 28	411	0.1+	0.3-	1997 02 26	557	0.1-	0.2-	1997 06 03	327	0.0	0.4-
1997 01 28	411	0.3-	0.3-	1997 02 26	557	0.3-	0.0	1997 06 03	327	0.9-	1.4+
1997 01 28	587	0.1+	1.0-	1997 02 26	557	0.1-	0.3-	1997 06 03	327	0.5-	0.2+
1997 01 28	587	0.1-	0.2-	1997 02 27	118	0.2-	0.2-	1997 06 03	327	0.5+	0.5+
1997 01 28	587	0.1-	0.8-	1997 02 27	118	0.1-	0.0	1997 06 10	557	0.2+	0.3+
1997 01 28	587	0.3-	0.3-	1997 02 28	327	0.5-	0.0	1997 06 10	557	0.1+	0.0
1997 01 29	817	0.1+	0.4-	1997 02 28	327	0.0	0.1-	1997 06 14	327	0.6+	0.2-
1997 01 29	817	0.0	0.0	1997 02 28	557	0.1-	0.1-	1997 06 14	327	0.4+	0.3+
1997 01 29	817	0.1-	0.1-	1997 02 28	557	0.0	0.6-	1997 06 23	402	0.4-	0.1-
1997 01 29	817	0.2-	0.3-	1997 02 28	557	0.3-	0.3-	1997 06 23	402	0.4+	1.5-
1997 01 29	817	0.1-	0.2-	1997 02 28	557	0.2-	0.2-	1997 06 23	587	0.1+	1.0+
1997 01 29	355	0.2+	1.1-	1997 02 28	046	0.9-	0.3-	1997 06 23	587	0.0	0.5+
1997 01 29	355	0.0	0.1-	1997 02 28	046	0.9-	0.5-	1997 06 23	118	0.1-	0.4+
1997 01 29	355	0.6+	0.7-	1997 02 28	046	0.9-	0.6-	1997 06 23	118	0.3-	0.5+
1997 01 29	108	(0.7+	2.2-)	1997 02 28	046	0.8-	0.6-	1997 06 23	118	0.1-	0.3+
1997 01 30	897	(2.3+	0.5-)	1997 03 01	557	0.1-	0.3-	1997 06 25	118	0.4-	0.3+
1997 01 30	897	0.2+	1.1-	1997 03 01	557	0.7-	0.5-	1997 06 25	118	0.1-	0.4+
1997 01 30	355	0.3-	0.4+	1997 03 01	557	0.2-	0.6-	1997 06 25	118	0.1-	0.3+
1997 01 30	355	0.4-	0.9-	1997 03 01	473	0.3-	0.1-	1997 06 27	118	0.9-	1.1+
1997 01 30	355	0.5-	0.2-	1997 03 01	473	0.6-	0.1+	1997 06 27	118	0.9-	0.9+
1997 01 31	670	0.5-	2.0-	1997 03 01	473	1.1-	0.1-	1997 06 27	118	0.7-	1.1+
1997 01 31	670	0.3-	0.2+	1997 03 01	473	0.7-	0.9-	1997 06 27	118	0.0	0.9+
1997 01 31	670	0.5-	0.3+	1997 03 01	557	0.1+	0.4-	1997 07 02	557	0.1+	0.3-
1997 01 31	360	0.1+	0.3-	1997 03 02	557	0.7-	0.6-	1997 07 02	557	0.1+	0.3+
1997 01 31	360	0.0	0.2-	1997 03 02	473	0.0	0.2+	1997 07 03	118	0.1-	1.6-
1997 01 31	360	0.0	0.3-	1997 03 02	473	0.9-	0.6-	1997 07 03	118	1.0-	0.4-
1997 01 31	596	0.2-	0.2-	1997 03 02	118	0.3-	0.5-	1997 07 04	897	0.3+	1.2+
1997 01 31	596	0.1+	0.8+	1997 03 02	118	0.2-	0.3-	1997 07 04	897	0.3+	0.2-
1997 02 01	900	0.7+	0.3-	1997 03 02	118	0.2-	0.6-	1997 07 04	327	0.7-	1.4-
1997 02 01	900	0.4+	0.3+	1997 03 02	557	0.1+	0.4-	1997 07 04	327	0.1+	0.0
1997 02 01	355	0.5+	0.8+	1997 03 02	557	0.5-	0.3-	1997 07 04	327	0.2-	0.8+
1997 02 01	355	0.5+	0.6+	1997 03 02	557	0.5-	0.3-	1997 07 04	327	0.3-	0.7+
1997 02 01	355	0.6+	0.5+	1997 03 03	121	0.2-	0.5-	1997 07 07	327	0.5-	0.4+
1997 02 01	108	1.0+	0.1-	1997 03 03	121	0.5-	1.2-	1997 07 07	327	0.2-	0.9+
1997 02 01	108	1.5+	1.7-	1997 03 03	121	0.0	0.3-	1997 07 09	540	0.4+	0.5-
1997 02 02	118	0.9+	0.3+	1997 03 05	557	0.0	0.3-	1997 07 09	540	1.3+	0.0
1997 02 02	118	0.9+	0.3+	1997 03 05	557	0.0	0.1-	1997 07 09	540	0.2+	0.2+
1997 02 02	118	0.8+	0.2+	1997 03 05	557	0.2+	0.2-	1997 07 09	557	0.4+	0.1+
1997 02 02	046	0.2+	0.3+	1997 03 05	557	0.1+	0.2-	1997 07 09	557	0.2+	0.2+
1997 02 02	046	0.3+	0.3+	1997 03 06	118	0.2+	0.1-	1997 07 09	557	0.0	0.1-
1997 02 02	046	0.2+	0.3+	1997 03 06	118	0.3+	0.0	1997 07 10	118	0.4+	0.3+
1997 02 02	540	(1.8-	2.7+)	1997 03 06	118	0.2+	0.0	1997 07 10	118	0.7+	0.1-
1997 02 02	540	0.3+	0.1-	1997 03 07	557	0.1+	0.1-	1997 07 10	118	0.2+	0.2-
1997 02 02	540	0.7-	0.7+	1997 03 07	557	0.0	0.2-	1997 07 11	557	0.4+	0.7-
1997 02 02	540	0.6+	0.6-	1997 03 07	587	0.3+	0.3+	1997 07 11	557	0.4+	0.2-
1997 02 03	557	0.9+	0.6-	1997 03 07	587	0.5+	0.4-	1997 07 11	557	0.5+	0.4-
1997 02 03	557	0.8+	0.8-	1997 03 07	587	0.3-	0.7+	1997 07 14	355	0.6+	1.3-
1997 02 03	557	1.0+	0.1-	1997 03 08	118	0.2+	0.3-	1997 07 14	355	0.0	0.2-
1997 02 04	657	0.6+	0.2+	1997 03 08	118	0.2+	0.1-	1997 07 14	355	0.0	0.4-
1997 02 04	657	0.5+	0.3-	1997 03 08	118	0.1+	0.2-	1997 07 14	355	0.5+	0.4-
1997 02 04	657	0.2+	0.7-	1997 03 08	046	0.1+	0.5-	1997 07 14	355	0.2-	0.6-
1997 02 05	402	0.9-	0.5-	1997 03 08	046	0.2+	0.3-	1997 07 14	355	0.0	0.2+
1997 02 05	402	0.9-	0.5-	1997 03 08	046	0.6-	0.1-	1997 07 14	422	0.6+	0.8+
1997 02 05	402	0.6-	1.2-	1997 03 08	046	1.2-	0.2+	1997 07 14	422	0.5+	0.4+
1997 02 06	657	0.5-	0.3-	1997 03 12	587	0.1-	0.6-	1997 07 20	422	1.1-	0.5+
1997 02 06	657	0.5-	0.3+	1997 03 12	587	0.3-	0.5-	1997 07 20	422	0.7-	0.4+
1997 02 06	657	1.0-	0.3-	1997 03 12	587	0.2-	0.6-	1997 07 20	422	0.8-	0.6+
1997 02 06	566	0.1+	0.1+	1997 03 14	327	0.5-	0.3+	1997 07 28	422	0.1-	0.9+
1997 02 06	566	0.0	0.1+	1997 03 14	327	0.5+	0.3-	1997 07 28	422	0.4+	0.9+
1997 02 06	566	0.2-	0.2+	1997 03 15	327	0.4-	0.6-	1997 07 28	422	0.3-	0.6+
1997 02 06	540	0.7-	1.5+	1997 03 15	327	0.1-	0.4-	1997 08 02	861	0.5-	0.8+
1997 02 06	540	0.2-	1.1+	1997 03 15	327	0.8-	0.1-	1997 08 02	861	0.4-	0.7+
1997 02 06	540	(0.7-	2.1+)	1997 03 15	327	0.1-	0.3-	1997 08 02	861	(0.3-	3.3+)

1997 02 06	557	0.2+	0.3-	1997 03 17	118	0.3-	0.1-	1997 08 04	422	1.1-	0.1-
1997 02 07	557	0.3+	0.2-	1997 03 17	118	0.4-	0.0	1997 08 04	422	1.1-	0.5-
1997 02 07	557	1.2+	0.1+	1997 03 21	327	1.2+	1.8-	1997 08 04	422	1.0-	0.0
1997 02 07	620	(0.7-	2.6-)	1997 03 21	327	(0.7-	2.1-)	1997 08 13	422	0.3-	0.2-
1997 02 07	620	0.1+	0.6-	1997 03 22	327	0.4+	0.3-	1997 08 13	422	0.3+	0.3-
1997 02 07	620	(2.4+	1.6+)	1997 03 22	327	0.2+	0.1-	1997 08 13	422	0.2-	0.4+
1997 02 07	620	(1.5+	3.6+)	1997 03 22	327	0.5+	1.1-	1997 11 05	381	0.1-	0.7+
1997 02 08	620	(2.5+	0.7-)	1997 03 27	327	0.0	0.6-	1997 11 05	381	(0.9+	2.6+)
1997 02 08	557	0.4+	0.3+	1997 03 27	327	0.3+	0.1-	1997 11 05	381	1.7-	0.3-
1997 02 08	473	0.0	0.9+	1997 03 27	327	0.1+	0.7-	1997 11 06	381	0.5-	0.5+
1997 02 08	473	0.0	1.6+	1997 03 27	327	0.3+	0.5-	1997 11 07	381	1.1-	0.5+
1997 02 08	473	1.3+	0.7+	1997 03 31	587	0.1+	0.3-	1997 11 07	381	0.2+	0.8+
1997 02 09	473	0.1+	0.8+	1997 03 31	587	0.1-	0.5-	1997 11 07	381	1.8-	1.3-
1997 02 09	670	0.3+	0.9+	1997 04 01	360	0.0	0.3-	1999 12 31	461	0.0	0.2+
1997 02 09	670	0.7+	0.3+	1997 04 01	360	0.1-	0.2+	1999 12 31	461	0.5+	0.3+
1997 02 09	670	0.1-	0.4+	1997 04 01	360	0.7-	0.5+	1999 12 31	461	0.6+	0.3+
1997 02 09	402	0.4+	0.5+	1997 04 02	046	0.1-	0.0	2000 01 04	360	0.5+	0.0
1997 02 09	402	0.3+	0.1-	1997 04 02	046	0.3-	0.2-	2000 01 04	360	0.6+	0.1-
1997 02 09	402	0.4+	0.6+	1997 04 02	046	0.1-	0.5-	2000 01 04	360	0.3+	0.1-
1997 02 09	360	0.7+	0.3+	1997 04 06	566	0.0	0.1-	2000 01 05	704	0.3+	0.8-
1997 02 09	360	0.8+	0.3+	1997 04 06	566	0.2-	0.1-	2000 01 05	704	0.8+	0.7-
1997 02 09	360	0.5+	0.2+	1997 04 06	566	0.4-	0.0	2000 01 05	704	1.0+	0.4+
1997 02 09	557	0.3+	0.4+	1997 04 16	327	0.8-	0.8+	2000 01 05	704	0.9+	0.4-
1997 02 09	557	0.0	0.6+	1997 04 16	327	0.5-	0.4+	2000 01 06	118	0.7+	0.1+
1997 02 10	046	0.3+	0.3+	1997 04 16	327	0.2-	0.7+	2000 01 06	118	0.5+	0.1-
1997 02 10	046	0.1+	0.4+	1997 04 16	327	0.6-	0.1+	2000 01 06	118	0.6+	0.1-
1997 02 10	046	0.3+	0.3+	1997 04 21	658	1.0-	1.1+	2000 01 28	118	0.3+	0.2+
1997 02 10	473	0.4+	0.3+	1997 04 21	658	0.9-	0.6+	2000 01 28	118	0.4+	0.2+
1997 02 10	473	1.0+	0.9+	1997 04 21	658	0.7-	0.8+	2000 01 28	118	0.6+	0.2+
1997 02 10	473	0.7+	0.9+	1997 04 24	658	0.0	0.6+	2000 01 31	704	0.5+	0.2-
1997 02 10	473	1.0+	0.9+	1997 04 24	658	0.2-	1.0+	2000 01 31	704	0.4+	0.1-
1997 02 10	473	1.2+	1.4+	1997 04 24	658	0.3-	0.0	2000 01 31	704	0.2-	0.2-
1997 02 10	557	0.2+	0.1+	1997 04 24	402	0.5-	1.3+	2000 02 02	360	0.3+	0.3+
1997 02 10	557	0.2-	0.3-	1997 04 24	402	0.0	0.8+	2000 02 02	360	0.3+	0.3+
1997 02 10	557	0.1-	0.3-	1997 04 24	402	0.2-	0.2+	2000 02 02	360	0.0	0.1+

(13652)* 1997 BV₈ = 1998 KS₅₅

Discovered 1997 Jan. 31 by Spacewatch at Kitt Peak.

Id. G. V. Williams (*MPC* 31986)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	130.15961		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.29897230	ω	194.15677	+0.90251200	+0.42542730
a	2.2150426	Ω	140.44859	-0.38419162	+0.86558617
e	0.1900166	i	6.03618	-0.19459930	+0.26414425
P	3.30	H	15.0	G 0.15	U 2

Residuals in seconds of arc

1995 07 27	691	0.2-	0.4+	1998 05 26	704	1.5+	0.2-	1999 12 14	704	0.2-	0.9-
1995 07 27	691	0.0	0.1+	1998 06 03	704	0.8+	0.8+	1999 12 14	704	0.6+	0.6-
1995 07 27	691	0.0	0.0	1998 06 03	704	(1.7+	2.9+)	1999 12 14	704	0.2+	0.0
1997 01 31	691	0.5+	0.3-	1998 06 03	704	0.5-	0.3-	2000 01 05	704	0.3-	0.9+
1997 01 31	691	0.2+	0.5-	1998 06 03	704	0.0	0.8-	2000 01 05	704	0.1+	0.1-
1997 01 31	691	0.3+	0.8-	1998 06 24	704	1.1-	0.7+	2000 01 05	704	0.6-	0.4+
1997 02 08	566	1.3-	0.2-	1998 06 24	704	0.1-	0.2-	2000 01 05	704	0.0	1.4+
1997 02 08	566	0.3-	0.4-	1998 06 24	704	0.1+	1.1+	2000 01 05	704	0.6+	0.8+
1997 02 08	566	1.3-	0.6-	1998 06 24	704	0.2+	0.5+	2000 01 28	704	0.1-	0.8-
1997 03 06	704	(3.0+	0.4-)	1998 06 24	704	0.4+	1.7+	2000 01 28	704	0.3-	1.3+
1997 03 06	704	1.6+	0.8-	1998 06 26	704	0.3+	0.3+	2000 01 28	704	0.7+	0.8+
1998 05 23	704	1.6-	1.5-	1998 06 26	704	0.5-	0.2-	2000 01 28	704	0.6-	0.0
1998 05 23	704	0.2-	0.3+	1998 06 26	704	0.8-	0.5+	2000 02 02	704	0.1-	0.9+
1998 05 23	704	1.3+	1.3+	1998 06 26	704	0.4+	0.1-	2000 02 02	704	0.3-	1.3+
1998 05 23	704	0.3+	0.1+	1998 06 26	704	0.4-	1.7-	2000 02 02	704	0.0	1.5+
1998 05 26	704	0.4+	0.6+	1999 12 14	704	0.5+	0.1+				
1998 05 26	704	(1.3+	2.4+)	1999 12 14	704	0.2-	0.3-				

(13653)* 1997 CT₁₆ = 1991 LU₆

Discovered 1997 Feb. 9 by V. S. Casulli at Colleverde di Guidonia.

Id. G. V. Williams (*MPC* 32676)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	244.79866		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.30495079	ω	135.27764	-0.10046616	+0.99298041
a	2.1859969	Ω	128.85480	-0.93380838	-0.07245471
e	0.1679067	i	4.59761	-0.34337801	-0.09348913
P	3.23	H	15.3	G 0.15	U 2

Residuals in seconds of arc

1991 06 06	809	0.2-	0.6-	1998 09 17	699	0.1+	0.2+	2000 01 30	704	0.1+	0.9+
1991 06 06	809	0.0	1.4-	1998 09 20	596	(2.2+	0.2+)	2000 01 30	704	0.2+	1.1+
1991 06 06	809	0.6-	1.1-	1998 09 20	596	1.5+	0.4-	2000 01 30	704	1.4+	1.0+
1994 04 10	691	(0.2+	2.8-)	1998 09 20	596	0.2+	0.8-	2000 02 02	704	0.6-	1.1-
1994 04 10	691	0.9+	1.7-	1998 09 26	704	0.0	0.6+	2000 02 02	704	0.4+	1.1-
1994 04 10	691	0.5+	1.2-	1998 09 26	704	0.1+	0.3-	2000 02 02	704	0.1-	0.2+
1997 02 09	596	0.8-	1.0+	1998 09 26	704	0.7-	1.1+	2000 02 02	704	0.4+	0.1-
1997 02 09	596	0.2-	1.1-	1998 09 26	704	0.8-	0.5-	2000 02 02	704	0.0	0.4-
1997 02 09	596	0.8-	0.1-	1998 09 26	704	1.6+	1.2-	2000 02 03	704	0.5+	1.3-
1997 02 09	596	0.8-	0.6-	1998 09 27	704	0.6-	1.2-	2000 02 03	704	0.3+	0.2-
1997 02 10	596	0.6+	0.2-	1998 09 27	704	0.9+	0.8+	2000 02 03	704	0.5-	1.0+
1997 02 10	596	0.7+	0.7+	1998 09 27	704	1.5-	0.4-	2000 02 03	704	0.2+	0.1-
1997 02 10	596	1.4-	1.0+	1998 09 27	704	0.2+	1.3-	2000 02 03	704	0.5+	0.4-
1997 02 27	596	0.5+	1.5-	1998 09 27	704	0.3+	0.6-	2000 02 06	691	0.4+	0.7-
1997 02 27	596	0.4+	0.5-	2000 01 05	704	0.9-	0.3+	2000 02 06	691	0.4+	0.3-
1997 02 27	596	0.0	0.9+	2000 01 05	704	0.7+	1.1-	2000 02 06	691	0.3+	0.5-
1997 03 07	596	0.1+	1.7+	2000 01 05	704	0.5-	0.4-	2000 02 08	691	0.0	0.6-
1997 03 07	596	0.1-	1.4+	2000 01 06	704	1.7-	0.6+	2000 02 08	691	0.2-	0.7-
1997 03 07	596	0.4-	1.3+	2000 01 06	704	0.3+	1.0-	2000 02 08	691	0.1-	0.7-
1997 05 01	589	0.6-	0.8+	2000 01 06	704	0.8-	0.8-	2000 02 11	704	1.4+	0.6+
1997 05 01	589	1.3-	0.4+	2000 01 27	691	0.1+	0.3-	2000 02 11	704	0.1-	0.2+
1998 09 17	699	0.5-	0.8+	2000 01 27	691	0.1+	0.4-	2000 02 11	704	0.3-	0.3+
1998 09 17	699	0.3+	0.0	2000 01 27	691	0.0	0.3-	2000 02 11	704	0.4-	0.5-

(13654)* 1997 CV₂₁ = 1995 UV₄₆ = 2000 AN₃₃

Discovered 1997 Feb. 9 by N. Sato at Chichibu.

Id. G. V. Williams (*MPC* 37661), S. Nakano (*ibid.*), A. Gnädig (*ibid.*),M. E. Sansaturio (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

$\dot{M}$	156.67169		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.29467912	ω	311.35481	+0.89405255	+0.44703852
a	2.2365046	Ω	22.13783	-0.38484413	+0.79934517
e	0.0122551	i	4.37563	-0.22927067	+0.40150201
P	3.34	H	15.1	G	0.15
				U	1

Residuals in seconds of arc

1995 10 20	010	1.2-	0.8+	1997 03 09	369	0.3-	0.7+	2000 01 30	704	0.1-	0.7+
1995 10 20	010	1.5-	0.8+	1998 08 17	704	0.3-	0.5-	2000 01 30	704	0.2+	0.3+
1995 10 20	010	1.2-	1.4+	1998 08 17	704	0.9-	0.7+	2000 01 30	704	0.0	0.4+
1995 10 23	010	(2.3+	1.4-)	1998 08 17	704	0.7+	0.2+	2000 01 30	704	0.9-	1.5-
1995 10 23	010	0.7+	0.5-	1998 08 17	704	0.3+	0.6+	2000 01 31	704	0.7+	0.1+
1995 10 23	010	2.1+	0.3-	1998 08 17	704	0.7-	1.1+	2000 01 31	704	0.0	0.6+
1997 02 09	369	0.1-	0.9+	1998 08 27	699	(2.5+	0.3+)	2000 01 31	704	0.0	0.4-
1997 02 09	369	0.1+	1.3+	1998 08 27	699	0.0	0.6-	2000 02 07	703	0.0	0.3-
1997 02 09	369	0.1-	1.0+	1998 08 27	699	0.2+	0.0	2000 02 07	703	0.8-	0.0
1997 02 13	369	0.0	0.3-	2000 01 03	704	0.2-	1.0-	2000 02 07	703	0.1+	0.5+
1997 02 13	369	0.3-	0.7+	2000 01 03	704	0.2+	0.0	2000 02 07	703	0.2+	0.1-
1997 03 01	369	0.3-	0.9-	2000 01 03	704	0.0	0.8-	2000 02 11	704	0.4+	0.5+
1997 03 01	369	0.1+	0.8-	2000 01 03	704	0.3+	0.5-	2000 02 11	704	0.0	0.1+
1997 03 04	369	0.7+	0.2-	2000 01 04	704	0.0	0.2-	2000 02 11	704	0.4-	0.8+
1997 03 04	369	0.6+	0.1+	2000 01 04	704	0.1+	0.4-	2000 02 11	704	0.8-	0.4+
1997 03 04	369	0.7+	0.1-	2000 01 04	704	0.5+	0.1-	2000 02 11	704	0.1-	0.8+
1997 03 09	369	0.1+	0.8+	2000 01 04	704	0.3+	0.6-				
1997 03 09	369	0.4+	0.4+	2000 01 04	704	0.1-	0.3-				

2000 FEB. 22

M.P.C. 38359

(13655)* 1997 ER₂ = 1988 VD₂

Discovered 1997 Mar. 4 by T. Kobayashi at Oizumi.

Id. S. Nakano (*MPC* 29643)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Asher

M	45.94954		(2000.0)		P		Q
n	0.27643506	ω	5.29428		+0.48103895		-0.87423071
a	2.3338555	Ω	55.96819		+0.80141608		+0.40809086
e	0.0560310	i	4.55009		+0.35543467		+0.26302569
P	3.57	H	14.0	G	0.15	U	1

Residuals in seconds of arc

1988 11 02	399	0.2+	0.7-	1999 10 13	704	0.3+	0.2-	1999 12 30	718	0.8+	0.7+
1988 11 02	399	1.6+	0.5-	1999 10 13	704	0.2-	0.0	1999 12 30	718	0.5+	0.2+
1988 11 02	399	(4.5+ 0.8+)		1999 10 13	704	0.9-	0.0	2000 01 03	704	0.2-	0.3+
1988 11 04	327	0.1+	0.1+	1999 11 03	704	0.1-	0.1-	2000 01 03	704	0.8-	0.8+
1988 11 04	327	0.5-	1.1+	1999 11 03	704	0.7-	0.5-	2000 01 03	704	0.1-	0.8+
1988 11 08	399	(3.2+ 0.2-)		1999 11 03	704	1.1+	0.1-	2000 01 03	704	0.2-	0.5+
1988 11 08	399	0.2-	1.0-	1999 11 03	704	0.2-	0.6+	2000 01 04	704	1.5+	0.3+
1988 11 08	399	(4.2- 1.8-)		1999 11 14	704	0.4-	0.6-	2000 01 04	704	0.2+	0.5-
1988 11 11	399	0.7-	0.2-	1999 11 14	704	0.4+	0.2-	2000 01 04	704	0.7-	0.9-
1988 11 11	399	0.3-	0.3+	1999 11 14	704	0.6-	0.3+	2000 01 04	704	0.0	0.5-
1988 11 11	399	0.2-	0.7+	1999 11 14	704	0.3-	0.4+	2000 01 30	704	0.1+	0.3+
1997 03 04	411	0.8+	0.1+	1999 11 16	704	0.3-	1.3-	2000 01 30	704	0.2-	0.4+
1997 03 04	411	0.3-	1.9+	1999 11 16	704	0.2+	0.7-	2000 01 30	704	0.2-	0.9+
1997 03 05	411	0.9-	0.0	1999 11 16	704	0.3+	0.8-	2000 01 30	704	0.0	0.3+
1997 03 05	411	1.3-	0.1-	1999 11 16	704	0.2-	0.0	2000 01 30	704	0.1+	0.2+
1997 03 09	411	0.3+	0.5-	1999 11 16	704	0.5-	0.1-	2000 01 31	704	0.5-	0.3-
1997 03 09	411	0.1+	0.0	1999 12 15	704	0.4-	0.2-	2000 01 31	704	0.3+	0.4+
1997 03 12	411	1.1+	0.7-	1999 12 15	704	0.5-	0.1+	2000 01 31	704	0.0	0.8+
1997 03 12	411	0.1-	0.4-	1999 12 15	704	0.6+	1.9-	2000 01 31	704	1.0-	0.1+
1998 08 17	704	0.7-	0.4+	1999 12 15	704	0.1+	0.2-	2000 02 03	106	0.3-	0.2+
1998 08 17	704	0.9+	0.6+	1999 12 29	718	0.1+	0.1+	2000 02 03	106	0.1-	0.0
1998 08 17	704	0.2+	1.0+	1999 12 29	718	0.6+	1.1+	2000 02 03	106	0.9-	0.0
1998 08 17	704	0.1+	0.3+	1999 12 29	718	1.3+	0.8+				
1998 08 17	704	1.0-	1.2+	1999 12 30	718	0.7+	0.7+				

(13656)* 1997 EX₄₅ = 1993 HG₈

Discovered 1997 Mar. 15 by the Beijing Schmidt CCD Asteroid Program at

Xinglong.

Id. G. V. Williams (*MPC* 29646)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	312.09163		(2000.0)		$\mathbf{P}$		$\mathbf{Q}$
n	0.24467276	ω	19.79463		-0.64051161		-0.76603858
a	2.5317003	Ω	110.07480		+0.69658843		-0.60921929
e	0.0973642	i	3.30370		+0.32327919		-0.20502865
P	4.03	H	14.3	G	0.15	U	1

Residuals in seconds of arc

1993 04 18	413	0.6+	0.1+	1998 08 17	704	1.0+	0.8-	1999 11 05	704	0.2-	0.4-
1993 04 24	691	0.1-	0.6+	1998 08 17	704	(0.0 2.8+)		1999 11 15	704	0.4-	0.6-
1993 04 24	691	0.2-	0.0	1998 08 17	704	1.2+	1.7+	1999 11 15	704	1.0-	0.5-
1993 04 24	691	0.1+	0.3+	1999 10 02	703	0.9-	0.7-	1999 11 15	704	0.8-	0.1+
1997 03 15	327	0.7-	0.5+	1999 10 02	703	1.7-	0.3-	1999 11 15	704	0.3-	0.1-
1997 03 15	327	0.7-	0.4+	1999 10 02	703	0.1+	0.0	1999 11 15	704	0.7-	0.2-
1997 03 15	327	0.5-	0.3+	1999 10 02	703	1.0-	0.5+	1999 12 07	704	0.2+	0.3+
1997 03 18	327	0.5-	0.1+	1999 10 20	704	0.5+	0.3-	1999 12 07	704	0.0	0.1+
1997 03 18	327	0.2-	0.1+	1999 10 20	704	0.4+	0.6-	1999 12 07	704	0.5-	0.3-
1997 03 18	327	0.3-	0.0	1999 10 20	704	0.9+	0.5+	1999 12 07	704	0.9-	0.4-
1997 03 19	327	0.3+	0.6+	1999 10 20	704	0.0	0.3-	1999 12 07	704	0.7-	0.3-
1997 03 19	327	0.3-	0.1-	1999 10 20	704	0.6+	0.3-	2000 01 05	704	1.7+	0.6-
1997 03 19	327	0.6-	0.2+	1999 11 01	703	0.1-	0.0	2000 01 05	704	1.9+	0.6+
1997 03 28	327	0.3+	0.2-	1999 11 01	703	0.2+	0.5+	2000 01 05	704	1.4+	1.0+
1997 03 28	327	0.4+	0.3-	1999 11 01	703	0.4+	0.3-	2000 01 05	704	1.1+	1.1+
1997 03 28	327	0.2-	0.4-	1999 11 01	703	0.2-	0.6+	2000 01 07	704	1.0+	0.5+
1997 03 30	327	0.6+	0.3-	1999 11 05	704	0.3-	0.4+	2000 01 07	704	0.7+	0.9+

1997 03 30	327	1.1+	0.2-	1999 11 05	704	0.1+	0.1+	2000 01 07	704	0.3+	0.6+
1997 03 30	327	0.9+	0.8-	1999 11 05	704	0.2-	0.2+	2000 01 07	704	(2.2+ 1.4+)	
1998 08 17	704	1.9-	0.2-	1999 11 05	704	0.4-	0.1+				

(13657)* 1997 EB₅₄ = 1979 ST₃ = 1994 PM₂

Discovered 1997 Mar. 8 by E. W. Elst at the European Southern Observatory.

Id. K. Ichikawa (*MPC* 30766)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	190.07070		(2000.0)		$\mathbf{P}$		$\mathbf{Q}$
n	0.26193331	ω	298.55433		+0.49776231		+0.86731301
a	2.4192211	Ω	1.29881		-0.78099696		+0.44868206
e	0.1989844	i	2.31025		-0.37719549		+0.21552856
P	3.76	H	13.9	G	0.15	U	1

Residuals in seconds of arc

1979 09 24	095	0.3+	0.7+	1998 10 15	704	0.5-	0.2+	2000 01 30	704	0.3+	0.1-
1994 08 09	675	0.8-	0.7-	1998 10 28	704	0.2+	0.4-	2000 01 30	704	0.1-	0.3-
1994 08 09	675	0.6-	0.3+	1998 10 28	704	1.2+	0.0	2000 01 30	704	0.7-	0.2-
1994 08 11	675	1.5-	1.7-	1998 10 28	704	0.0	0.2-	2000 01 30	704	0.7-	0.7+
1994 08 11	675	(2.2- 0.5-)		1998 10 28	704	0.7+	0.5-	2000 01 30	704	0.3+	0.6-
1997 03 08	809	1.9+	0.9-	1998 10 28	704	0.6+	0.5-	2000 01 31	704	0.2+	0.1-
1997 03 08	809	(2.6+ 0.8-)		1998 10 29	704	0.3-	0.0	2000 01 31	704	0.6-	0.3-
1997 03 08	809	(2.4+ 1.1-)		1998 10 29	704	0.5-	0.4+	2000 01 31	704	0.1+	0.3-
1997 03 09	809	0.9+	0.3-	1998 10 29	704	0.4+	0.0	2000 02 01	691	0.0	0.7-
1997 03 09	809	1.1+	0.5+	1998 10 29	704	0.2-	0.4+	2000 02 01	691	0.1-	0.6-
1997 03 09	809	1.2+	0.3-	1998 10 29	704	0.8+	0.1+	2000 02 01	691	0.1-	0.6-
1997 03 10	809	0.2-	0.7+	1998 11 10	699	0.3+	0.4-	2000 02 02	704	0.1-	0.2+
1997 03 10	809	0.9-	0.5+	1998 11 10	699	0.2-	0.3+	2000 02 02	704	0.3-	0.3+
1997 03 10	809	0.8-	0.0	1998 11 10	699	0.3+	0.1-	2000 02 02	704	0.3+	0.1-
1998 09 26	704	0.0	1.0+	1998 12 09	699	0.4+	0.3-	2000 02 02	704	0.2+	0.9+
1998 09 26	704	0.3+	0.5+	1998 12 09	699	0.2+	0.4-	2000 02 02	704	0.4+	1.0+
1998 09 26	704	0.0	1.3+	1998 12 09	699	0.2+	0.1+	2000 02 03	704	0.1+	0.5+
1998 09 26	704	0.4+	1.4+	1999 12 30	699	0.3-	0.8+	2000 02 03	704	0.2+	0.2+
1998 09 26	704	0.2+	2.0+	2000 01 03	704	0.7-	0.0	2000 02 03	704	0.2-	1.5+
1998 09 27	704	0.2+	0.7+	2000 01 03	704	0.9-	1.4+	2000 02 03	704	0.4+	0.8+
1998 09 27	704	0.5+	1.8+	2000 01 03	704	(3.1- 3.0-)		2000 02 06	704	0.6-	0.0
1998 09 27	704	0.1-	1.6+	2000 01 04	704	0.5-	0.7-	2000 02 06	704	0.1+	0.0
1998 09 27	704	0.1+	1.0+	2000 01 04	704	0.0	0.7-	2000 02 06	704	0.5+	0.6+
1998 09 27	704	0.1+	1.8+	2000 01 04	704	0.9-	0.6-	2000 02 06	704	0.6+	0.1+
1998 10 14	704	0.2-	0.2-	2000 01 04	704	0.3+	0.3-	2000 02 07	703	0.7-	0.4+
1998 10 14	704	0.9-	1.5-	2000 01 04	704	0.6-	1.1-	2000 02 07	703	0.9-	0.2-
1998 10 14	704	0.0	1.0-	2000 01 29	704	0.1+	0.2+	2000 02 07	703	0.3-	0.0
1998 10 14	704	1.0-	1.5-	2000 01 29	704	0.5-	0.2-	2000 02 07	703	1.3+	0.7+
1998 10 14	704	0.1+	0.6-	2000 01 29	704	0.3-	0.4-	2000 02 11	704	0.3-	0.3+
1998 10 15	704	0.0	0.9-	2000 01 29	704	0.2+	0.2+	2000 02 11	704	0.0	0.6+
1998 10 15	704	0.0	1.1-	2000 01 30	704	0.3-	0.1+	2000 02 11	704	0.9+	0.1+
1998 10 15	704	0.1+	1.1-	2000 01 30	704	0.1+	0.1+	2000 02 11	704	0.1+	1.1-
1998 10 15	704	0.4+	0.4-	2000 01 30	704	0.0	0.2-	2000 02 11	704	0.4+	0.4-

(13658)* 1997 FB

Discovered 1997 Mar. 18 by P. G. Comba at Prescott.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	270.90572		(2000.0)		P		Q
<i>n</i>	0.30672935	ω	68.78034		-0.34300283		+0.93933335
<i>a</i>	2.1775384	Ω	181.16242		-0.88516074		-0.32371426
<i>e</i>	0.1595709	<i>i</i>	3.91528		-0.31438754		-0.113410

1997 03 19	684	0.6−	0.4−	1998 09 26	704	1.2−	0.6−	2000 02 04	704	0.9−	1.9+
1997 03 19	684	0.6−	0.2−	1998 09 26	704	(1.8+	2.9−)	2000 02 04	704	0.3−	0.7−
1997 03 19	684	0.7−	0.3−	1998 09 26	704	0.6+	0.5−	2000 02 04	704	0.2+	0.1−
1997 03 29	684	0.6+	0.2+	1998 09 26	704	0.6−	0.8+	2000 02 04	704	0.1−	1.5−
1997 03 29	684	0.5+	0.3+	1998 09 26	704	0.0	0.4−	2000 02 04	704	1.1+	1.9−
1997 03 29	684	0.6+	0.3+	1998 10 11	699	0.6+	1.0+	2000 02 05	704	0.0	0.2+
1997 04 01	684	0.6+	0.1+	1998 10 14	704	0.2+	0.9+	2000 02 05	704	0.5−	0.4+
1997 04 01	684	0.5+	0.1+	1998 10 14	704	0.3+	1.8+	2000 02 05	704	0.1+	0.3−
1997 04 01	684	0.4+	0.0	1998 10 14	704	(1.5+	2.4+)	2000 02 05	704	0.6+	0.0
1997 04 08	684	0.1−	0.2+	1998 10 14	704	1.6+	1.1−	2000 02 05	704	0.4−	0.0
1997 04 08	684	0.1−	0.1+	1998 10 29	704	1.2−	0.4+	2000 02 05	704	0.0	0.1+
1997 04 08	684	0.3−	0.3+	1998 10 29	704	0.9+	0.7−	2000 02 06	704	0.4−	0.6+
1997 04 09	684	0.1−	0.5+	1998 10 29	704	0.4+	0.0	2000 02 06	704	0.4−	0.0
1997 04 09	684	0.0	0.6+	1998 10 29	704	0.3+	1.5−	2000 02 06	704	0.0	0.4+
1997 04 09	684	0.1−	0.8+	2000 01 07	704	0.0	0.4+	2000 02 06	704	0.5−	0.4+
1997 04 27	684	0.3+	0.1−	2000 01 07	704	0.4+	1.0−	2000 02 06	704	0.2−	0.3+
1997 04 27	684	0.3+	0.1+	2000 01 07	704	0.9+	0.6−	2000 02 10	704	0.0	0.6+
1997 04 27	684	0.1+	0.2−	2000 01 07	704	0.3+	1.2−	2000 02 10	704	0.1−	0.2−
1997 05 10	684	0.2+	0.4−	2000 01 09	684	0.2−	0.1−	2000 02 10	704	1.4−	1.0−
1997 05 10	684	0.2+	0.4−	2000 01 09	684	0.1+	0.1−	2000 02 10	704	0.3−	0.3−
1997 05 10	684	0.1+	0.0	2000 01 10	684	0.2−	0.1−	2000 02 12	704	(0.9+	3.0−)
1998 06 28	684	1.1−	0.3−	2000 01 10	684	0.4−	0.3−	2000 02 12	704	(2.2+	0.1+)
1998 06 28	684	1.4+	0.0	2000 02 01	703	0.4+	0.3−	2000 02 12	704	(2.8+	2.4+)
1998 06 28	684	0.0	0.8−	2000 02 01	703	0.1−	0.9+				
1998 06 29	684	0.8+	0.0	2000 02 01	703	0.4+	0.1−				

(13659)* 1997 FH₄ = 1979 SK₁₃

Discovered 1997 Mar. 31 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 37666)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	138.11341		(2000.0)		P		Q
<i>n</i>	0.25712542	ω	325.35007	+0.90489800			+0.42429400
<i>a</i>	2.4492853	Ω	9.72043	−0.33127749			+0.75177690
<i>e</i>	0.0786373	<i>i</i>	11.50580	−0.26723555			+0.50478322
<i>P</i>	3.83	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1979 09 20	675	0.1−	0.3+	1997 04 07	566	0.7+	0.6−	1999 12 13	704	0.2+	0.1+
1979 09 21	675	0.2−	0.2+	1997 04 07	566	0.5+	0.8−	1999 12 13	704	0.7+	0.1+
1997 03 29	327	0.5−	0.1+	1997 04 07	566	1.4+	1.0−	1999 12 13	704	0.5+	0.4+
1997 03 29	327	0.9−	0.8+	1998 08 20	699	0.0	0.2+	1999 12 16	699	1.0+	0.5+
1997 03 29	327	0.9−	0.1−	1998 08 20	699	0.4+	0.3+	1999 12 16	699	0.7+	0.3+
1997 03 29	327	0.8−	0.3+	1998 08 20	699	0.2+	0.0	1999 12 16	699	0.2+	0.9+
1997 03 31	704	0.2+	0.1−	1998 09 24	699	0.3−	0.5+	1999 12 30	704	0.2−	0.1−
1997 03 31	704	0.6+	1.0+	1998 09 24	699	0.2−	0.7+	1999 12 30	704	0.6−	0.2+
1997 04 03	704	0.3−	1.1+	1998 09 24	699	0.2−	0.2+	1999 12 30	704	0.2+	1.3−
1997 04 03	704	0.0	0.3+	1998 12 08	704	(2.2−	1.3+)	1999 12 30	704	0.2+	0.7−
1997 04 05	704	0.6−	1.0−	1998 12 08	704	0.2+	0.5+	1999 12 30	704	0.1−	1.0−
1997 04 05	704	0.3+	0.8+	1998 12 08	704	2.0−	0.3−	2000 01 27	704	0.5−	0.1+
1997 04 05	704	0.2+	0.1+	1998 12 08	704	(5.6−	0.4−)	2000 01 27	704	0.2−	0.0
1997 04 05	704	0.1+	0.1−	1999 12 03	699	0.2+	0.3+	2000 01 27	704	0.7−	0.0
1997 04 06	704	0.3−	0.7+	1999 12 03	699	0.5+	1.0+	2000 01 27	704	0.5−	0.3−
1997 04 06	704	1.0+	0.7+	1999 12 03	699	0.5+	0.3+	2000 01 27	704	1.1−	0.5−
1997 04 07	704	0.8+	0.5+	1999 12 13	704	0.2+	0.4+				
1997 04 07	704	0.0	0.0	1999 12 13	704	0.2−	0.4+				

(13660)* 1997 GE₈ = 1991 TP₈

Discovered 1997 Apr. 2 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 29933)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	350.36158		(2000.0)		P		Q
<i>n</i>	0.26035202	ω	227.12709	−0.54179855			−0.84048112
<i>a</i>	2.4290069	Ω	255.68025	+0.77317353			−0.49521949
<i>e</i>	0.1345786	<i>i</i>	0.40026	+0.32963164			−0.21988437
<i>P</i>	3.79	<i>H</i>	15.3	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1991 10 01	691	0.3+	0.4−	1997 04 08	704	0.2+	0.3+	1999 12 07	704	0.3−	0.0
1991 10 01	691	0.5+	0.2−	1997 04 30	704	0.3−	0.5−	1999 12 07	704	0.2−	0.3−
1991 10 01	691	0.5+	0.2+	1997 04 30	704	0.4+	0.6−	2000 01 03	704	0.2−	0.5−
1991 10 13	691	0.3−	0.1−	1997 04 30	704	0.4−	0.0	2000 01 03	704	0.2+	0.5+
1991 10 13	691	0.3−	0.5+	1997 04 30	704	0.1+	0.4−	2000 01 03	704	0.7+	0.1+
1991 10 13	691	0.6−	0.0	1997 04 30	704	0.7+	0.2+	2000 01 03	704	0.1−	0.6+
1993 03 21	809	0.0	0.5+	1997 05 01	704	0.0	0.1−	2000 01 03	704	0.8+	0.3+
1993 03 22	809	0.9+	0.1+	1997 05 01	704	0.6−	0.2+	2000 01 04	691	0.4−	0.2+
1993 03 24	809	(2.7+	0.5+)	1997 05 01	704	0.3+	0.6−	2000 01 04	691	1.0+	0.2−
1993 04 17	691	0.4+	0.3−	1997 05 01	704	0.4−	0.0	2000 01 04	691	0.4−	0.2+
1993 04 17	691	0.3+	0.1−	1997 05 01	704	0.7−	0.1−	2000 01 05	704	0.3−	0.4−
1993 04 17	691	0.1+	0.4−	1997 05 05	704	0.5−	0.1−	2000 01 05	704	0.0	0.3+
1993 04 21	413	1.6−	0.5+	1997 05 05	704	0.0	0.1−	2000 01 05	704	0.2+	0.3−
1997 04 02	704	0.2+	0.2+	1997 05 05	704	0.1−	0.0	2000 01 05	704	0.4−	0.2−
1997 04 02	704	0.5−	0.6−	1997 05 05	704	0.4−	0.1−	2000 01 05	704	0.0	0.4+
1997 04 06	704	0.1+	1.3+	1997 05 05	704	0.2+	0.9+	2000 01 12	691	0.3+	0.3−
1997 04 06	704	0.6+	0.4−	1999 12 07	704	0.4−	0.1−	2000 01 12	691	0.2+	0.6−
1997 04 08	704	1.0+	0.2+	1999 12 07	704	0.4−	0.2−	2000 01 12	691	0.0	0.0

(13661)* 1997 GH₈ = 1998 SB₁₀₁

Discovered 1997 Apr. 2 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 32959)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	256.31418		(2000.0)		P		Q
<i>n</i>	0.27442022	ω	26.81608	−0.33280458			+0.94174663
<i>a</i>	2.3452653	Ω	223.79151	−0.87727694			−0.32807347
<i>e</i>	0.0619874	<i>i</i>	4.02060	−0.34587033			−0.07403440
<i>P</i>	3.59	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1994 06 11	691	0.0	0.6+	1997 05 01	704	0.2−	0.4+	2000 02 02	703	0.1+	0.0
1994 06 11	691	0.1−	0.6+	1997 05 01	704	0.1−	0.2+	2000 02 02	704	0.0	0.3+
1994 06 11	691	0.3−	0.6+	1998 09 26	704	0.7+	0.8+	2000 02 02	704	0.5−	0.4−
1994 09 09	691	0.3−	0.0	1998 09 26	704	0.1−	0.0	2000 02 02	704	0.1−	0.0
1994 09 09	691	0.2+	0.3+	1998 09 26	704	0.2−	0.8−	2000 02 04	704	0.2−	0.5−
1994 09 09	691	0.2−	0.2−	1998 09 26	704	0.5−	0.6−	2000 02 04	704	0.3−	0.1+
1997 04 02	704	0.1+	0.4−	1998 09 26	704	0.7+	0.8+	2000 02 04	704	0.8−	0.5+
1997 04 02	704	0.5−	0.1+	1998 09 27	704	0.7+	0.5−	2000 02 04	704	0.2+	0.4+
1997 04 06	704	0.7+	0.1+	1998 09 27	704	1.5−	0.7+	2000 02 06	704	0.4+	0.8−
1997 04 06	704	0.6−	0.6+	1998 09 27	704	0.4−	0.7−	2000 02 06	704	0.2+	0.1−
1997 04 08	704	0.3−	0.7+	1998 09 27	704	0.7−	1.8+	2000 02 06	704	0.4+	1.5+
1997 04 08	704	0.0	0.6−	1998 10 14	699	1.0+	0.9+	2000 02 06	704	1.1+	0.2−
1997 04 08	704	0.1−	0.9+	1998 10 14	699	0.1−	0.9+	2000 02 08	704	0.2+	0.4+
1997 04 08	704	0.4+	0.1−	1998 10 14	699	0.6−	0.7+	2000 02 08	704	0.2−	0.2−
1997 04 30	704	0.4+	0.2+	2000 01 07	704	0.1+	0.3+	2000 02 08	704	0.4+	0.4−
1997 04 30	704	0.7+	0.3+	2000 01 07	704	0.8−	0.3+	2000 02 08	704	0.1−	0.2−
1997 04 30	704	0.6+	0.0	2000 01 07	704	0.8−	0.7−	2000 02 08	704	0.1+	0.3−
1997 04 30	704	0.1−	0.1−	2000 02 02	703	0.7−	0.7+	2000 02 10	704	0.4+	0.5+
1997 04 30	704	0.2−	0.3+	2000 02 02	704	0.3−	0.1−	2000 02 10	704	0.3+	0.3+
1997 05 01	704	0.1−	0.2+	2000 02 02	703	0.2+	0.1+	2000 02 10	704	0.5−	1.7+
1997 05 01	704	0.0	0.0	2000 02 02	703	1.0+	0.3+	2000 02 10	704	0.5+	0.3−
1997 05 01	704	0.2+	0.1−	2000 02 02	704	0.3+	0.2+				

2000 FEB. 22

M.P.C. 38361

Id. B. G. Marsden (*MPC* 30766)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Marsden

<i>M</i>	229.26073	(2000.0)	P		Q	
<i>n</i>	0.28614398	ω	275.93054	+0.13454503	+0.99090175	
<i>a</i>	2.2807603	Ω	1.81212	-0.86177522	+0.11868903	
<i>e</i>	0.0829828	<i>i</i>	6.11573	-0.48912278	+0.06345572	
<i>P</i>	3.44	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i> 1

Residuals in seconds of arc

1991 09 13	675	0.1+	0.8-	1998 09 20	691	0.4-	0.2-	2000 01 06	704	0.2-	0.3-
1991 09 13	675	(2.8-	0.1-)	1998 09 21	691	0.5-	0.2+	2000 01 06	704	0.5-	0.2-
1991 09 16	675	0.1+	0.4-	1998 09 21	691	0.7-	0.1-	2000 01 06	704	0.2+	0.1+
1991 09 16	675	0.4+	0.0	1998 09 21	691	0.7-	0.2+	2000 01 06	704	0.3-	0.2-
1997 03 11	809	0.7+	1.0+	1998 09 25	046	0.1-	0.4+	2000 01 30	704	0.1+	0.3+
1997 03 11	809	0.6+	1.5+	1998 09 25	046	0.2-	0.5+	2000 01 30	704	0.1-	0.1-
1997 03 11	809	0.4+	0.7+	1998 09 25	046	0.2-	0.4+	2000 01 30	704	1.6+	1.2-
1997 03 13	809	1.0-	0.5+	1998 09 26	704	0.0	0.0	2000 02 05	704	1.2+	0.8-
1997 03 13	809	0.6-	0.0	1998 09 26	704	0.8+	1.2-	2000 02 05	704	0.0	0.5+
1997 03 13	809	1.1-	0.1+	1998 09 26	704	0.4+	0.2+	2000 02 05	704	0.2+	0.2+
1997 03 31	704	0.5+	1.0+	1998 09 26	704	1.6+	0.7-	2000 02 05	704	0.3-	0.3-
1997 03 31	704	0.4+	0.0	1998 09 26	704	0.1+	1.0-	2000 02 05	704	0.3+	0.1+
1997 04 03	704	0.2+	0.6+	1998 09 27	704	0.0	0.3+	2000 02 05	704	0.5+	0.3+
1997 04 03	704	0.5+	0.8+	1998 09 27	704	0.0	0.1+	2000 02 05	704	0.0	0.2-
1997 04 05	704	0.2+	0.6+	1998 09 27	704	0.1-	0.7+	2000 02 05	704	0.6-	0.0
1997 04 05	704	0.8+	1.2+	1998 09 27	704	0.8+	0.7+	2000 02 05	704	0.1+	0.0
1997 04 06	704	0.6+	0.3+	1998 09 27	704	0.5-	0.2+	2000 02 05	704	0.0	0.9+
1997 04 06	704	1.4+	0.3-	1998 10 14	699	0.2+	0.2+	2000 02 05	704	0.1-	0.7+
1997 04 07	704	0.2+	0.6+	1998 10 14	699	0.9+	1.0+	2000 02 06	704	0.4+	0.8+
1997 04 07	704	0.5+	0.2+	1998 10 14	699	0.0	1.1+	2000 02 06	704	0.2-	0.0
1997 04 07	566	0.7+	0.1+	1998 10 15	704	0.6+	0.0	2000 02 06	704	0.5-	0.3+
1997 04 07	566	0.4-	1.6-	1998 10 15	704	1.4+	1.8+	2000 02 06	704	0.2+	0.3+
1997 04 07	566	1.0-	0.1-	1998 10 15	704	0.3+	1.3+	2000 02 06	704	0.4-	0.7+
1998 09 14	704	0.7-	0.2+	1998 10 15	704	0.9+	0.6+	2000 02 06	704	1.2+	0.5-
1998 09 14	704	0.7-	0.3-	1998 10 15	704	0.2+	0.6-	2000 02 06	704	0.9+	0.6+
1998 09 14	691	0.1+	0.3+	1998 10 28	704	1.0-	1.7-	2000 02 06	704	0.3+	0.0
1998 09 14	704	0.8-	0.2-	1998 10 28	704	1.4-	0.5-	2000 02 06	704	0.1-	0.5+
1998 09 14	691	0.2+	0.1+	1998 10 28	704	1.2-	0.0	2000 02 08	704	0.0	0.3+
1998 09 14	691	0.2+	0.2+	1998 10 28	704	0.7-	0.7-	2000 02 08	704	0.0	0.5-
1998 09 15	699	0.4-	0.7+	1998 10 28	704	0.6-	0.3+	2000 02 08	704	0.7-	0.4-
1998 09 15	699	0.2-	0.0	1998 10 29	704	0.3+	0.0	2000 02 08	704	0.4-	0.7-
1998 09 15	699	0.0	0.6+	1998 10 29	704	(0.9+	2.1+)	2000 02 08	704	0.4-	1.2-
1998 09 18	704	0.8-	0.7+	1998 10 29	704	0.5+	0.0	2000 02 11	704	0.8-	0.2-
1998 09 18	704	0.7-	0.6+	1998 10 29	704	1.2-	0.1-	2000 02 11	704	0.3-	0.1+
1998 09 18	704	0.3-	0.7-	2000 01 04	704	0.1-	0.5+	2000 02 11	704	0.2-	0.0
1998 09 18	704	0.1+	0.9+	2000 01 04	704	0.5-	0.1+	2000 02 11	704	0.4-	0.4+
1998 09 18	704	0.4+	1.6+	2000 01 04	704	0.1+	0.0	2000 02 11	704	0.2-	0.1+
1998 09 20	691	0.4-	0.1+	2000 01 04	704	0.2+	0.3-				
1998 09 20	691	0.5-	0.0	2000 01 04	704	0.1-	0.2-				

(13663)* 1997 GA₁₄ = 1994 NF₄

Discovered 1997 Apr. 3 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. B. G. Marsden (*MPC* 30767)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Marsden

<i>M</i>	132.31359	(2000.0)	P		Q	
<i>n</i>	0.26051871	ω	63.79362	+0.98699882	+0.15848252	
<i>a</i>	2.4279706	Ω	287.07794	-0.15564614	+0.90089635	
<i>e</i>	0.2002494	<i>i</i>	1.60476	-0.04009503	+0.40406566	
<i>P</i>	3.78	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i> 2

Residuals in seconds of arc

1994 07 11	809	0.4+	0.8+	1998 08 17	704	0.5-	0.5+	2000 01 07	704	0.2+	0.2-
1994 07 11	809	0.5-	1.1+	1998 08 17	704	1.1+	1.4+	2000 01 07	704	0.6+	1.0+
1994 07 11	809	0.2+	0.2+	1998 08 23	704	0.9+	0.3+	2000 01 07	704	1.1+	1.1-
1994 07 12	809	0.2-	1.6+	1998 08 23	704	0.0	0.6-	2000 01 07	704	1.0+	0.5-

1994 07 12	809	1.0-	0.6+	1998 08 23	704	0.9+	0.4-	2000 01 11	120	0.7-	1.1-
1994 07 12	809	0.1-	1.2+	1998 08 23	704	0.2+	0.2+	2000 01 12	120	(2.7+	0.7+)
1997 03 11	809	0.1+	0.6-	1998 09 14	704	0.1-	0.3-	2000 01 29	691	0.3-	0.1+
1997 03 11	809	0.1-	0.1-	1998 09 14	704	0.1+	1.1-	2000 01 29	691	0.4-	0.3+
1997 03 11	809	0.3-	0.7-	1998 09 14	704	0.0	0.2-	2000 01 29	691	0.3-	0.2+
1997 03 13	809	(1.1+	2.3-)	1998 09 14	704	0.4-	0.2+	2000 01 30	703	0.0	0.8+
1997 03 13	809	(0.3+	2.9-)	1998 09 14	704	0.1-	0.0	2000 01 30	703	0.2+	1.0+
1997 03 13	809	(0.0	3.2-)	1998 09 15	699	0.5+	0.3-	2000 01 30	703	0.2-	1.2+
1997 04 03	704	0.1+	0.0	1998 09 15	699	0.7+	0.3-	2000 01 30	703	0.0	0.2+
1997 04 03	704	0.7+	0.5-	1998 09 15	699	0.7+	0.3-	2000 01 31	704	0.3+	0.4+
1997 04 05	704	1.5-	0.0	1998 09 18	704	0.6+	0.7-	2000 01 31	704	1.0+	1.0+
1997 04 05	704	(0.7-	2.2-)	1998 09 18	704	0.8+	1.0-	2000 01 31	704	(0.5-	2.3+)
1997 04 07	704	0.5+	0.6-	1998 09 18	704	0.4+	0.2-	2000 01 31	704	0.8-	1.1+
1997 04 07	704	0.2+	0.2-	1998 09 18	704	0.4-	0.8+	2000 02 01	691	0.2+	0.1+
1998 06 30	699	1.5-	0.3-	1998 09 18	704	1.3-	0.2-	2000 02 01	691	0.2+	0.0
1998 06 30	699	1.1-	0.5-	1998 10 12	699	0.3-	0.3+	2000 02 01	691	0.2+	0.0
1998 06 30	699	1.1-	0.2-	1998 10 12	699	0.0	0.5+	2000 02 03	704	0.5+	0.3+
1998 08 01	699	0.7-	0.1+	1998 10 12	699	0.0	0.9+	2000 02 03	704	0.0	0.7+
1998 08 01	699	0.3-	0.2+	1998 11 15	699	0.2-	0.1+	2000 02 03	704	0.3-	0.9+
1998 08 01	699	0.1-	0.2+	1998 11 15	699	0.1-	0.9+	2000 02 03	704	0.7-	0.7+
1998 08 17	704	0.4+	0.0	1998 11 15	699	0.5-	1.2+	2000 02 03	704	0.4-	0.6+
1998 08 17	704	0.0	0.2-	2000 01 07	704	0.5+	0.1-				

(13664)* 1997 GE₁₇ = 1977 EQ₇

Discovered 1997 Apr. 3 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 29933)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	8.72623	(2000.0)	P		Q	
<i>n</i>	0.29764709	ω	139.32790	-0.73744602	-0.67539987	
<i>a</i>	2.2216124	Ω	358.17910	+0.59364281	-0.64612127	
<i>e</i>	0.0524092	<i>i</i>	5.22951	+0.32212044	-0.35547479	
<i>P</i>	3.31	<i>H</i>	15.7	<i>G</i>	0.15	<i>U</i> 2

Residuals in seconds of arc

1977 03 12	381	(3.5-	1.0+)	1997 04 03	704	1.7+	0.1-	1999 12 15	704	1.1+	1.4+
1977 03 12	381	1.5-	0.9-	1997 04 05	704	(2.2+	1.0-)	1999 12 15	704	0.1-	0.2-
1977 03 14	381	0.4-	0.6-	1997 04 05	704	(2.2+	0.7-)	1999 12 15	704	0.4+	1.0+
1977 03 14	381	1.7+	0.7-	1997 04 06	704	0.3+	1.5-	2000 01 30	703	0.1-	0.4+
1977 03 15	381	0.6-	2.0-	1997 04 06	704	1.5+	1.6-	2000 01 30	703	0.1-	0.2+
1977 03 15	381	1.3-	0.3+	1997 04 07	704	0.8+	0.8+	2000 01 30	703	0.2-	0.1-
1997 03 11	809	0.3-	1.0+	1997 04 07	704	1.6+	0.4+	2000 01 30	703	0.3-	1.0+
1997 03 11	809	1.0-	0.7+	1998 09 19	691	0.7-	0.4+	2000 02 03	704	0.0	0.1-
1997 03 11	809	0.7-	0.9+	1998 09 19	691	0.6-	0.5+	2000 02 03	704	0.1+	0.1-
1997 03 12	809	0.2-	1.9+	1998 09 19	691	0.7-	0.4+	2000 02 03	704	0.2-	0.5-
1997 03 12	809	1.7-	1.6+	1998 09 24	691	0.2+	0.5+	2000 02 03	704	0.1+	0.2-
1997 03 12	809	(2.0-	1.2+)	1998 09 24	691	0.2+	0.3+	2000 02 03	704	0.1-	0.3-
1997 03 13	809	0.9-	1.5+	1998 09 24	691	0.2+	0.6+	2000 02 11	704	0.0	0.2-
1997 03 13	809	0.6+	0.8+	1998 09 30	691	0.1+	0.1+	2000 02 11	704	0.1+	0.3+
1997 03 13	809	1.1-	0.0	1998 09 30	691	0.3-	0.4+	2000 02 11	704	0.6+	0.4+
1997 04 03	704	1.3+	0.4-	1998 09 30	691	0.0	0.1+	2000 02 11	704	0.4+	0.1+

(13665)* 1997 GK₁₇ = 1987 DQ₂ = 1998 QU₂₃

Discovered 1997 Apr. 3 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. E. Bowell (*MPC* 32477), G. V. Williams (

Residuals in seconds of arc

1987 02 23	010	0.1–	0.1+	1998 08 17	704	0.0	0.9–	1999 12 05	704	0.2–	0.6–
1987 02 23	010	0.3–	0.7–	1998 08 23	699	0.3+	0.5–	1999 12 05	704	0.4+	1.3–
1987 02 23	010	0.7+	0.0	1998 08 23	704	1.2+	0.8–	2000 01 04	704	0.5+	0.2+
1995 10 16	691	0.3–	0.7–	1998 08 23	704	0.4–	1.2–	2000 01 08	704	0.3+	1.5+
1995 10 16	691	0.2–	0.9–	1998 08 23	699	0.3–	0.3–	2000 01 08	704	0.1+	0.1+
1995 10 16	691	0.1–	0.6–	1998 08 23	704	(2.3+	0.1–)	2000 01 08	704	0.4+	0.0
1997 03 12	809	0.4+	0.2+	1998 08 23	704	0.7+	0.5–	2000 01 08	704	0.0	0.6+
1997 03 12	809	0.5–	1.3+	1998 08 23	699	0.1–	0.6+	2000 01 08	704	0.0	0.3–
1997 03 12	809	0.6–	0.2+	1998 08 23	704	1.3+	0.0	2000 02 05	704	0.7+	0.1–
1997 03 13	809	0.5–	0.5–	1998 09 14	704	0.3–	0.1+	2000 02 05	704	0.2+	0.1+
1997 03 13	809	0.2+	0.9–	1998 09 14	704	0.9–	0.4+	2000 02 05	704	0.5–	0.3+
1997 03 13	809	1.5–	1.7–	1998 09 14	704	(0.4–	2.9+)	2000 02 05	691	0.3–	0.2–
1997 04 03	704	0.4+	0.1+	1998 09 14	704	0.3–	0.5+	2000 02 05	691	0.4–	0.2–
1997 04 03	704	0.1+	0.7–	1998 09 14	704	0.4+	1.5+	2000 02 05	691	0.4–	0.2–
1997 04 04	566	0.1+	0.0	1998 09 18	704	1.0–	1.1+	2000 02 06	704	0.5–	1.9–
1997 04 04	566	0.1+	0.6–	1998 09 18	704	1.8+	1.2–	2000 02 06	704	0.6–	0.1+
1997 04 04	566	0.5–	0.0	1998 09 18	704	1.6–	1.0–	2000 02 06	704	0.0	0.0
1997 04 05	704	0.3+	0.1+	1998 09 18	704	0.3+	1.2–	2000 02 06	704	(0.2–	2.6+)
1997 04 05	704	0.0	1.0+	1998 09 18	704	(2.6–	1.1+)	2000 02 14	049	0.4+	0.0
1998 08 17	704	0.8+	0.3–	1998 09 21	699	0.6–	0.2+	2000 02 14	049	0.2+	0.1+
1998 08 17	704	1.0+	0.1+	1998 09 21	699	(0.4+	2.2+)	2000 02 14	049	0.2+	0.4+
1998 08 17	704	1.0+	0.4+	1998 09 21	699	0.2–	0.7+				
1998 08 17	704	0.8–	0.9+	1999 12 05	704	0.6–	1.0–				

(13666)* 1997 GX₂₂ = 1991 XV₆ = 1993 GQ₁

Discovered 1997 Apr. 6 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 29934)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		241.14121		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>		0.26461868	ω	115.82450	–0.11386669	+0.99336824			
<i>a</i>		2.4028263	Ω	147.62493	–0.92183866	–0.09965943			
<i>e</i>		0.1534891	<i>i</i>	1.70531	–0.37046978	–0.05733705			
<i>P</i>		3.72	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	1	

Residuals in seconds of arc

1991 12 14	691	0.1+	0.0	1997 05 05	704	0.0	0.0	2000 01 05	704	0.3–	0.6–
1991 12 14	691	0.9–	0.6–	1997 05 05	704	0.4+	0.2+	2000 01 05	704	1.1–	1.3+
1991 12 14	691	1.8–	1.3+	1997 05 05	704	0.7+	0.5+	2000 01 05	704	0.4–	0.3–
1993 04 14	691	0.9+	0.2–	1998 09 18	910	0.3–	0.5+	2000 01 06	704	0.5+	0.5–
1993 04 14	691	0.7+	0.7–	1998 09 18	910	0.6–	0.4+	2000 01 06	704	0.0	0.2+
1993 04 14	691	0.7+	0.6–	1998 09 18	910	0.6–	0.4+	2000 01 06	704	0.1–	0.4+
1997 04 06	704	0.1+	0.7+	1998 09 20	809	(2.5+	0.9+)	2000 01 06	704	0.2–	0.3–
1997 04 06	704	0.8–	0.5–	1998 09 20	809	1.2+	0.5+	2000 01 06	120	(3.7+	0.6–)
1997 04 07	809	1.4–	0.5–	1998 09 20	809	1.4+	0.5+	2000 01 06	120	0.3+	0.5–
1997 04 07	809	2.0–	0.6–	1998 09 21	809	(3.3+	0.7+)	2000 01 07	120	1.9–	0.4–
1997 04 07	704	1.0–	0.3+	1998 09 21	809	1.7+	0.8+	2000 01 27	691	0.3+	0.5–
1997 04 07	809	1.8–	0.9–	1998 09 21	809	1.6+	1.8+	2000 01 27	691	0.4+	0.3–
1997 04 07	704	0.3–	0.1+	1998 09 26	704	0.3–	0.6–	2000 01 27	691	0.5+	0.3–
1997 04 08	809	(2.1–	1.1–)	1998 09 26	704	0.2+	0.5–	2000 01 27	691	0.5–	0.2–
1997 04 08	809	(2.3–	1.1–)	1998 09 26	704	1.6–	0.2–	2000 01 27	691	0.2–	0.4–
1997 04 08	809	(2.5–	1.1–)	1998 09 26	704	(2.8–	0.5+)	2000 01 27	691	0.6+	0.6–
1997 04 08	704	1.0–	0.5–	1998 09 26	704	(3.2–	2.2–)	2000 02 02	704	0.4+	0.3+
1997 04 08	704	0.8–	0.1–	1998 10 29	737	1.3–	0.5–	2000 02 02	704	0.4+	0.1+
1997 04 30	704	0.7+	0.2+	1998 10 29	737	1.6–	0.3–	2000 02 02	704	0.3–	0.1–
1997 04 30	704	0.4+	0.1+	1998 10 29	737	0.7–	0.0	2000 02 02	704	0.7+	0.3–
1997 04 30	704	0.3+	0.4+	1998 10 29	704	1.9+	1.6–	2000 02 03	691	0.2–	0.3–
1997 04 30	704	0.2+	0.5+	1998 10 29	704	0.2+	0.2+	2000 02 03	704	0.2+	1.0+
1997 04 30	704	0.6+	0.0	1998 10 29	704	(0.4+	2.3–)	2000 02 03	704	0.1–	0.1–
1997 05 01	704	0.7+	0.6+	1998 10 29	704	1.3–	1.3+	2000 02 03	691	0.0	0.4–
1997 05 01	704	0.6+	0.3+	1998 10 29	704	0.6–	0.1+	2000 02 03	704	0.2+	0.6+
1997 05 01	704	0.6+	0.3+	1998 11 10	704	1.8+	1.6–	2000 02 03	691	0.0	0.2–
1997 05 01	704	0.5+	0.1+	1998 11 10	704	1.1+	1.1–	2000 02 03	704	0.0	0.9+
1997 05 01	704	0.4+	0.8–	1998 11 10	704	(3.3–	0.8–)	2000 02 03	704	0.1+	1.7+

1997 05 05	704	0.2+	0.1–	1998 11 10	704	(3.8–	0.2–)
1997 05 05	704	0.4+	0.0	2000 01 05	704	0.5+	0.5+

(13667)* 1997 GT₃₇ = 1991 RV₁₄

Discovered 1997 Apr. 5 at Haleakala by the JPL Near-Earth Asteroid

Tracking program.

Id. G. V. Williams (*MPC* 29936)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		90.87991		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>		0.27022347	ω	193.61876	+0.87213133	–0.48914957			
<i>a</i>		2.3694852	Ω	195.68008	+0.45260346	+0.81505921			
<i>e</i>		0.1770590	<i>i</i>	2.31941	+0.18584144	+0.31050151			
<i>P</i>		3.65	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	1	

Residuals in seconds of arc

1991 09 11	675	1.4+	0.7+	1999 12 07	704	0.1+	0.5–	2000 02 05	704	0.0	0.3+
1991 09 11	675	1.7–	1.2–	1999 12 07	704	0.5+	0.8+	2000 02 05	704	0.2–	1.0–
1991 09 15	675	0.0	0.5–	1999 12 07	704	0.8+	0.9+	2000 02 05	704	0.3–	0.2+
1991 09 15	675	0.4+	0.5–	2000 01 05	704	0.3–	0.7–	2000 02 05	704	0.1+	0.0
1991 09 15	691	0.3–	1.5+	2000 01 05	704	0.3+	0.0	2000 02 06	704	0.5+	0.3–
1991 09 15	691	0.3–	1.3+	2000 01 05	704	0.4–	0.1+	2000 02 06	704	0.1+	0.5–
1991 09 15	691	(3.4–	4.9+)	2000 01 05	704	0.1–	0.1+	2000 02 06	704	0.4+	0.3–
1997 03 12	809	1.5+	0.3–	2000 01 05	704	0.1+	0.2–	2000 02 06	704	0.4–	0.2–
1997 03 12	809	1.2+	0.6–	2000 01 07	704	0.8–	0.2+	2000 02 06	704	0.5+	0.2–
1997 03 12	809	0.4+	0.5–	2000 01 07	704	0.2–	0.3–	2000 02 06	704	0.0	0.1–
1997 03 13	809	0.7–	1.0+	2000 01 07	704	0.6–	0.0	2000 02 06	704	0.4+	0.2–
1997 03 13	809	(3.1+	0.8–)	2000 01 07	704	1.9–	0.1+	2000 02 06	704	0.2+	0.1+
1997 03 13	809	1.4+	0.1–	2000 01 07	704	0.2+	0.6–	2000 02 06	704	0.2+	0.1+
1997 04 05	566	(3.8–	0.0)	2000 01 30	703	0.2–	0.1–	2000 02 06	704	0.2–	0.3+
1997 04 05	566	(3.6–	0.0)	2000 01 30	703	0.0	0.7+	2000 02 08	704	0.1+	0.5+
1997 04 05	566	(3.3–	0.1–)	2000 01 30	703	0.7+	0.1–	2000 02 08	704	0.2–	0.2+
1997 04 11	704	1.2–	0.6–	2000 01 30	703	0.5–	0.3–	2000 02 08	704	1.1+	0.8+
1997 04 11	704	0.5–	1.1+	2000 02 02	704	0.2+	0.3+	2000 02 08	704	0.2–	0.8+
1997 04 11	704	(3.2–	0.1–)	2000 02 02	704	0.2+	0.1+	2000 02 08	704	0.1+	0.6+
1997 04 11	704	1.4–	0.5+	2000 02 02	704	0.0	0.1+	2000 02 11	704	0.2–	0.1–
1998 08 17	704	0.0	0.9+	2000 02 02	704	0.3–	0.0	2000 02 11	704	0.4–	0.2+
1998 08 17	704	0.1–	0.8+	2000 02 02	704	0.4+	0.0	2000 02 11	704	0.0	0.2+
1998 08 17	704	0.2–	0.1+	2000 02 04	704	0.3+	0.3–	2000 02 11	704	0.1–	0.4+
1998 08 17	704	(0.2+	2.5+)	2000 02 04	704	(2.8–	0.3+)	2000 02 11	704	0.4–	1.1+
1999 12 06	704	0.2–	0.1+	2000 02 04	704	0.1+	0.2+	2000 02 12	704	(3.8+	3.2+)
1999 12 06	704	0.8+	0.4–	2000 02 04	704	0.3–	0.2+	2000 02 12	704	(0.4+	2.9+)
1999 12 06	704	0.3+	0.0	2000 02 05	704	0.4+	0.8–	2000 02 12	704	(2.5+	2.1+)
1999 12 06	704	0.1–	0.3–	2000 02 05	704	0.0	0.3–	2000 02 12	704	0.4+	0.3+
1999 12 06	704	0.5+	0.3–	2000 02 05	704	0.5–	0.2–	2000 02 12	704	0.4+	1.3+
1999 12 07	704	0.1–	0.8–	2000 02 05	704	0.2+	0.3+				

(13668)* 1997 HQ₁ = 1983 HS₁ = 1993 BN₁₅

Discovered 1997 Apr. 28 by Spacewatch at Kitt Peak.

Id. G. V. Williams (*MPC* 30462)

1997 03 11	809	(0.9+ 2.3-)	1998 09 27	704	0.1+ 0.2-	1998 10 29	704	1.0- 0.6-
1997 03 11	809	0.5+ 1.8-	1998 09 27	704	0.8+ 1.1+	2000 01 03	704	0.4- 0.1-
1997 03 11	809	(0.6+ 2.5-)	1998 09 27	704	0.2+ 0.8+	2000 01 03	704	0.2- 0.2+
1997 03 31	704	0.7+ 0.0	1998 09 27	704	1.3+ 0.5+	2000 01 03	704	0.1- 0.2-
1997 03 31	704	1.6+ 0.4-	1998 09 27	704	1.2+ 1.2+	2000 01 03	704	0.3- 0.1-
1997 03 31	704	0.7+ 0.8+	1998 10 10	699	0.5+ 0.8+	2000 01 03	704	0.3+ 0.5+
1997 03 31	704	1.7+ 0.7+	1998 10 10	699	0.5+ 0.3+	2000 01 04	704	0.0 0.2-
1997 04 03	704	0.8+ 0.2-	1998 10 10	699	0.7+ 0.1+	2000 01 04	704	0.6- 0.5-
1997 04 03	704	0.9+ 0.6+	1998 10 14	704	0.6+ 1.5+	2000 01 04	704	0.0 0.1-
1997 04 28	691	1.0- 0.8+	1998 10 14	704	1.5- 1.8+	2000 01 04	704	0.2+ 0.3+
1997 04 28	691	0.8- 0.8+	1998 10 14	704	(2.2- 0.9-)	2000 01 04	704	0.6+ 0.1-
1997 04 28	691	0.8- 0.8+	1998 10 14	704	0.4- 0.3+	2000 01 05	699	0.4- 0.3+
1997 04 30	691	0.9- 0.5+	1998 10 14	691	0.3+ 0.4-	2000 01 05	699	0.2+ 0.9-
1997 04 30	691	0.9- 0.9+	1998 10 14	691	0.1+ 0.3-	2000 01 05	699	1.2+ 0.6-
1997 04 30	691	1.0- 0.5+	1998 10 14	691	0.2+ 0.1-	2000 02 07	703	0.3- 0.3-
1997 05 08	691	0.8- 0.2+	1998 10 15	704	(2.1- 0.8-)	2000 02 07	703	0.2- 0.6-
1997 05 08	691	0.9- 1.1+	1998 10 15	704	(2.2- 0.1-)	2000 02 07	703	1.0- 1.1+
1997 05 08	691	0.6- 0.3+	1998 10 15	704	(2.2+ 0.6+)	2000 02 07	703	0.1+ 0.2+
1998 09 15	699	1.3- 0.2+	1998 10 15	704	1.3- 0.5+	2000 02 11	704	0.3+ 0.0
1998 09 15	699	0.2- 0.4+	1998 10 15	704	(0.1+ 2.1+)	2000 02 11	704	0.1+ 0.3+
1998 09 15	699	0.3+ 1.1+	1998 10 20	691	0.9- 0.3-	2000 02 11	704	0.6+ 0.6+
1998 09 18	704	1.6- 0.1-	1998 10 20	691	1.0- 0.0	2000 02 11	704	0.1+ 1.8+
1998 09 18	704	0.1+ 0.1-	1998 10 20	691	0.9- 0.1-	2000 02 11	704	0.5+ 0.8+

(13669)* 1997 JS₁₄ = 1994 TA₅

Discovered 1997 May 3 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (*MPC* 30282)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	143.11077	(2000.0)	<i>P</i>	<i>Q</i>	
<i>n</i>	0.24409165	ω	173.95679	+0.96734485	+0.25338696
<i>a</i>	2.5357169	Ω	171.35754	-0.23425410	+0.90316728
<i>e</i>	0.0843297	<i>i</i>	2.38156	-0.09679338	+0.34653127
<i>P</i>	4.04	<i>H</i>	14.7	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1994 10 02	691	0.0 0.0	1998 09 18	704	0.5+ 0.4-	1998 10 20	691	0.4+ 0.3-
1994 10 02	691	0.2- 0.0	1998 09 18	704	0.7+ 0.5+	1998 10 20	691	0.6+ 0.4-
1994 10 02	691	0.1+ 0.1-	1998 09 21	120	0.5- 0.5-	2000 01 07	704	0.4- 0.1-
1994 10 11	691	0.0 0.0	1998 09 21	120	0.1- 1.0+	2000 01 07	704	0.4- 0.0
1994 10 11	691	0.2- 0.3-	1998 09 21	120	(2.1+ 0.6-)	2000 01 07	704	0.4+ 1.2-
1994 10 11	691	0.3- 0.1-	1998 09 21	120	0.3- 0.2+	2000 01 07	704	0.4- 0.5-
1995 11 28	691	0.5+ 0.4-	1998 09 25	699	0.0 0.5+	2000 01 07	704	0.1+ 0.9-
1995 11 28	691	0.3+ 0.1-	1998 09 25	699	0.2+ 1.0+	2000 02 02	704	0.0 0.4+
1995 11 28	691	0.2+ 0.6-	1998 09 25	699	0.2+ 0.8+	2000 02 02	704	0.6- 0.1-
1997 05 03	809	1.3- 1.2+	1998 09 26	704	0.8- 0.3+	2000 02 02	704	0.5- 0.7+
1997 05 03	809	0.8- 1.8+	1998 09 26	704	1.3- 0.1-	2000 02 02	704	0.3- 0.2+
1997 05 03	809	0.0 1.1-	1998 09 26	704	0.5- 0.6-	2000 02 02	704	0.0 0.1-
1997 05 04	809	0.2- 1.3-	1998 09 26	704	0.1+ 0.2-	2000 02 03	704	0.4- 1.6-
1997 05 04	809	0.7- 0.0	1998 09 26	704	0.7+ 0.1+	2000 02 03	704	0.1- 0.2+
1997 05 04	809	0.8- 1.0-	1998 09 27	704	0.2- 0.4-	2000 02 03	704	0.0 0.7+
1997 05 07	566	1.1+ 0.2-	1998 09 27	704	0.1+ 0.4+	2000 02 03	704	0.6- 0.9+
1997 05 07	566	0.4+ 0.5-	1998 09 27	704	0.7- 0.0	2000 02 03	704	0.7+ 1.0+
1997 05 07	566	0.7+ 0.1-	1998 09 27	704	1.0- 0.1+	2000 02 05	704	0.5- 0.8-
1997 06 07	809	(1.4+ 2.8+)	1998 09 27	704	0.8- 0.9-	2000 02 05	704	0.5+ 0.7+
1997 06 07	809	(1.8+ 2.9+)	1998 09 29	120	1.5+ 1.4+	2000 02 05	704	0.4+ 0.2+
1997 06 07	809	1.6+ 1.3+	1998 09 30	120	0.2+ 0.6+	2000 02 05	704	0.1- 0.0
1997 06 08	809	(1.4+ 2.9+)	1998 10 11	120	1.1+ 0.7-	2000 02 05	704	0.1+ 0.1+
1997 06 08	809	(1.2+ 2.7+)	1998 10 11	120	(2.3+ 1.0+)	2000 02 05	704	0.3+ 0.1+
1997 06 08	809	(0.9+ 2.9+)	1998 10 11	120	(3.5+ 0.7-)	2000 02 05	704	0.2+ 1.6+
1998 09 14	704	0.5+ 0.4-	1998 10 14	699	0.1- 0.7+	2000 02 05	704	0.2+ 0.6+
1998 09 14	704	0.8+ 0.6+	1998 10 14	699	0.3- 0.1+	2000 02 05	704	0.3+ 0.4+
1998 09 14	704	1.9- 0.3-	1998 10 14	699	0.0 0.9+	2000 02 06	704	0.2+ 0.3-
1998 09 16	691	0.1- 0.6-	1998 10 15	704	0.6+ 0.2+	2000 02 06	704	0.1- 0.1+
1998 09 16	691	0.2- 0.6-	1998 10 15	704	0.3- 0.6-	2000 02 06	704	0.5+ 0.4-
1998 09 16	691	0.0 0.2-	1998 10 15	704	0.2+ 0.0	2000 02 06	704	0.2+ 0.0
1998 09 17	699	0.5- 0.1-	1998 10 15	704	0.4+ 1.2-	2000 02 06	704	0.1- 0.4-
1998 09 17	699	0.0 0.2-	1998 10 15	704	0.1+ 0.8-	2000 02 06	704	0.4+ 0.3+

1998 09 17	699	0.3+ 0.0	1998 10 15	691	0.0 0.3-	2000 02 06	704	0.3- 0.7+
1998 09 18	704	0.1+ 0.1+	1998 10 15	691	0.0 0.5-	2000 02 06	704	0.4- 0.4-
1998 09 18	704	0.1+ 0.6+	1998 10 15	691	0.2+ 0.2-			
1998 09 18	704	0.3- 1.8+	1998 10 20	691	0.6+ 0.3-			

(13670)* 1997 JD₁₅ = 1991 PF₂₄ = 1998 RM₇₇

Discovered 1997 May 3 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (*MPC* 32966)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	15.48731	(2000.0)	<i>P</i>	<i>Q</i>	
<i>n</i>	0.30061686	ω	67.64595	-0.88383086	-0.46345142
<i>a</i>	2.2069568	Ω	84.69385	+0.40222951	-0.82237107
<i>e</i>	0.0871429	<i>i</i>	3.66709	+0.23886069	-0.33002817
<i>P</i>	3.28	<i>H</i>	14.7	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1991 08 02	809	(1.6+ 3.3-)	1998 09 14	704	1.1+ 1.9+	1998 10 28	704	(2.4+ 1.2+)
1991 08 02	809	(1.8+ 2.3-)	1998 09 18	704	1.5+ 0.3+	1998 10 28	704	(2.8+ 1.9+)
1991 08 02	809	(0.7+ 3.8-)	1998 09 18	704	1.1+ 0.3+	1998 10 28	704	1.3- 0.8-
1995 10 17	691	0.3- 1.3+	1998 09 18	704	0.3+ 1.0+	1998 10 28	704	1.0- 1.0+
1995 10 17	691	0.3- 1.1+	1998 09 18	704	0.1- 1.7+	1998 10 28	704	0.4+ 1.1+
1995 10 17	691	0.3- 1.6+	1998 09 18	704	(1.3+ 2.3+)	2000 01 08	704	0.2- 1.6+
1997 05 03	809	0.2+ 1.4+	1998 09 26	704	0.6+ 0.1+	2000 01 08	704	0.1+ 1.2+
1997 05 03	809	0.1+ 0.3+	1998 09 26	704	0.9- 0.9-	2000 01 08	704	0.3+ 0.0
1997 05 03	809	0.1+ 0.9+	1998 09 26	704	0.1+ 0.9+	2000 01 08	704	0.8+ 0.8+
1997 05 04	809	0.9- 0.0	1998 09 26	704	1.1- 0.4+	2000 01 08	704	0.4- 0.1-
1997 05 04	809	0.5- 0.5+	1998 09 26	704	0.6- 0.3-	2000 02 06	704	1.0+ 0.8-
1997 05 04	809	0.5- 0.1-	1998 09 27	704	0.5- 0.0	2000 02 06	704	(0.0 3.3+)
1997 06 07	809	1.6+ 0.5+	1998 09 27	704	0.0 1.5+	2000 02 06	704	(0.8+ 2.3+)
1997 06 07	809	0.1- 0.0	1998 09 27	704	1.4- 0.5+	2000 02 11	704	0.7+ 0.1+
1997 06 07	809	0.3+ 0.1-	1998 09 27	704	0.4- 0.5-	2000 02 11	704	0.0 0.8+
1997 06 08	809	0.0 1.5+	1998 10 15	704	0.2+ 1.7+	2000 02 11	704	0.5+ 1.5+
1997 06 08	809	1.5+ 1.2+	1998 10 15	704	0.2- 1.0-	2000 02 14	106	0.8+ 1.1+
1997 06 08	809	0.4+ 1.3+	1998 10 15	704	(2.2- 1.4-)	2000 02 14	106	0.3+ 1.4+
1998 09 14	704	0.3+ 0.1-	1998 10 15	704	0.6- 0.8-	2000 02 14	106	0.5+ 1.3+
1998 09 14	704	0.4- 1.5+	1998 10 15	704	1.7- 0.2-			

(13671)* 1997 JH₁₈ = 1981 RN₇ = 1997 MH₁₀

Discovered 1997 May 3 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (*MPC* 30463)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	202.62585	(2000.0)	<i>P</i>	<i>Q</i>	
<i>n</i>	0.23902498	ω	173.96615	+0.43206915	+0.89873420
<i>a</i>	2.5714250	Ω	121.61082	-0.83105096	+0.42898869
<i>e</i>	0.1996526	<i>i</i>	5.03800	-0.35024355	+0.09080498
<i>P</i>	4.12	<i>H</i>	14.6	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1981 09 03	675	0.6+	0.0	1997 06 09	809	(3.1+	1.5+)	1998 11 15	120	0.1+	0.4+
1981 09 04	675	0.5-	0.1-	1997 06 29	691	0.6-	0.6-	2000 01 04	704	0.9-	0.2+
1997 05 03	809	0.3+	0.9-	1997 06 29	691	0.8-	0.2+	2000 01 04	704	0.8-	0.2+
1997 05 03	809	0.5+	1.2-	1997 06 29	691	0.6-	0.2-	2000 01 04	704	0.5+	0.1-
1997 05 03	809	0.1-	1.1-	1997 07 11	691	0.0	0.4-	2000 01 04	704	1.4-	0.0
1997 05 04	809	0.4+	0.7+	1997 07 11	691	0.0	1.3+	2000 01 28	691	0.6+	0.2-
1997 05 04	809	0.1-	0.5+	1997 07 11	691	0.4-	1.0+	2000 01 28	691	0.7+	0.2-
1997 05 04	809	0.8+	1.1-	1998 10 29	704	(2.5-	0.4+)	2000 01 28	691	0.6+	0.2-
1997 06 08	809	(2.8+	2.1+)	1998 10 29	704	0.7+	1.5-	2000 02 03	704	0.5+	0.5+
1997 06 08	809	(2.6+	1.7+)	1998 10 29	704	0.1+	0.8-	2000 02 03	704	0.4+	0.2-
1997 06 08	809	(3.0+	2.1+)	1998 10 29	704	1.5-	0.5-	2000 02 03	704	0.8-	0.1-
1997 06 09	809	(3.0+	2.0+)	1998 11 15	120	0.6+	0.0				
1997 06 09	809	(2.4+	1.8+)	1998 11 15	120	0.9+	0.0				

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Marsden

M	171.80021		(2000.0)	P	Q
n	0.23193339	ω	120.30444	+0.70965899	+0.70448619
a	2.6235773	Ω	194.91411	-0.65797694	+0.65806489
e	0.0899713	i	2.03250	-0.25189376	+0.26580030
P	4.25	H	14.4	G 0.15	U 1

Residuals in seconds of arc

1992 03 01	809	0.1+	0.1-	1998 09 17	684	0.2+	0.0	1998 10 16	684	0.0	0.3+
1992 03 03	809	1.3-	0.6-	1998 09 17	684	0.5+	0.1-	1998 10 16	684	0.1+	0.3+
1992 03 06	809	0.5+	1.1-	1998 09 18	704	1.4+	0.5+	1998 10 17	684	0.1+	0.4+
1997 05 30	684	0.2+	0.9+	1998 09 18	704	0.5+	0.5-	1998 10 17	684	0.1-	0.1+
1997 05 30	684	0.2+	0.6+	1998 09 18	704	0.2+	1.5-	1998 10 28	704	0.2+	0.8-
1997 06 01	684	0.5+	0.6+	1998 09 18	704	(0.2+)	2.3-)	1998 10 28	704	0.2-	0.0
1997 06 01	684	0.7+	0.4+	1998 09 18	704	1.6-	0.9+	1998 10 28	704	0.0	0.7-
1997 06 01	684	0.3+	0.6+	1998 09 26	704	0.3-	0.5+	1998 10 28	704	1.3-	1.3+
1997 06 02	684	0.0	0.5+	1998 09 26	704	0.7-	1.1-	1998 10 29	704	0.3+	1.4+
1997 06 02	684	0.3+	0.7+	1998 09 26	704	1.0+	0.1+	1998 10 29	704	0.4-	0.0
1997 06 02	684	0.4+	0.4+	1998 09 26	704	1.1-	0.2-	1998 10 29	704	1.6+	0.6+
1997 06 05	684	0.1+	0.2+	1998 09 26	704	0.7+	0.9-	1998 10 29	704	1.2-	0.3+
1997 06 05	684	0.2+	0.3+	1998 09 27	704	0.3-	1.4-	1998 10 29	704	0.5+	0.6-
1997 06 05	684	0.0	0.4+	1998 09 27	704	1.4-	0.5-	2000 01 05	704	0.1+	1.6+
1997 06 10	684	0.2+	0.4+	1998 09 27	704	1.2-	0.0	2000 01 05	704	0.6+	1.0+
1997 06 10	684	0.2+	0.3+	1998 09 27	704	0.0	0.1+	2000 01 05	704	0.1-	1.1+
1997 06 10	684	0.4+	0.6+	1998 09 27	704	0.7-	0.5+	2000 01 06	704	0.3+	0.3+
1997 06 30	684	0.3-	0.0	1998 10 10	699	0.2-	1.7+	2000 01 06	704	0.5-	1.1-
1997 06 30	684	0.2-	0.0	1998 10 10	699	1.1+	0.5+	2000 01 06	704	0.3+	0.9+
1997 06 30	684	0.3-	0.1-	1998 10 10	699	0.7+	0.6+	2000 01 07	684	0.4+	0.1-
1997 07 01	684	0.0	0.2-	1998 10 14	704	0.7-	0.8-	2000 01 07	684	0.1-	0.1+
1997 07 01	684	0.5-	0.1-	1998 10 14	704	0.9-	1.6+	2000 02 02	704	0.1-	0.0
1997 07 01	684	0.2-	0.2+	1998 10 14	704	1.1-	0.7+	2000 02 02	704	0.1-	0.2+
1997 07 06	684	0.9-	0.6-	1998 10 14	704	1.0+	0.8-	2000 02 02	704	0.7-	0.4+
1997 07 06	684	0.0	0.6-	1998 10 15	704	0.4-	0.5-	2000 02 02	704	0.6-	0.5+
1997 07 06	684	0.7-	0.2+	1998 10 15	704	0.8+	1.4-	2000 02 02	704	0.1-	0.4+
1998 09 16	684	0.1+	0.6+	1998 10 15	704	0.3-	0.9-	2000 02 03	704	0.3-	0.7+
1998 09 16	684	0.1+	0.6+	1998 10 15	704	0.6+	0.8+	2000 02 03	704	0.5+	0.3+
1998 09 16	684	0.2+	0.5+	1998 10 15	704	0.5+	0.8+	2000 02 03	704	1.6+	1.1-
1998 09 17	684	0.2+	0.1-	1998 10 16	684	0.1+	0.4+				

(13673)* 1997 LC = 1998 RZ₆₈

Discovered 1997 June 1 by P. G. Comba at Prescott.

Id. E. Bowell (*MPC* 32967), G. V. Williams (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	124.66231		(2000.0)	P	Q
n	0.20335930	ω	156.42111	+0.95594788	+0.29351581
a	2.8639143	Ω	186.51327	-0.27396339	+0.88788281
e	0.0963696	i	1.75922	-0.10539314	+0.35427755
P	4.85	H	14.7	G 0.15	U 1

Residuals in seconds of arc

1993 09 14	691	0.2-	0.4+	1998 09 18	704	0.4-	0.6-	1998 09 27	704	0.6-	1.1-
1993 09 14	691	0.5-	0.2-	1998 09 18	704	0.9-	1.0-	1998 10 11	684	0.6-	0.3-
1993 09 14	691	0.4+	0.3+	1998 09 18	704	1.1-	1.1-	1998 10 11	684	0.6-	0.1-
1997 06 01	684	0.0	0.2+	1998 09 18	704	1.1-	0.9+	1998 10 24	691	0.5+	0.2+
1997 06 01	684	0.0	0.1+	1998 09 18	704	1.4-	0.8-	1998 10 24	691	0.4+	0.2+
1997 06 02	684	0.8+	0.0	1998 09 25	691	0.0	0.3+	1998 10 24	691	0.5+	0.4+
1997 06 02	684	0.6+	0.4-	1998 09 25	691	0.6+	0.1+	1998 11 11	684	0.2-	0.7-
1997 06 02	684	0.1+	0.2-	1998 09 25	691	0.4+	0.1-	1998 11 11	684	1.3+	0.9-
1997 06 05	684	0.1+	0.2-	1998 09 26	704	1.5+	0.4+	1999 12 07	704	0.4-	0.3-
1997 06 05	684	0.0	0.1-	1998 09 26	704	0.7+	0.1-	1999 12 07	704	0.4+	0.8+
1997 06 05	684	0.1-	0.2-	1998 09 26	704	0.1-	0.9+	1999 12 07	704	0.2+	0.1-
1997 06 09	684	0.2+	0.0	1998 09 26	704	1.0+	0.5+	1999 12 09	684	0.3+	0.5-
1997 06 09	684	0.6-	0.3+	1998 09 26	704	0.6+	0.5-	1999 12 09	684	0.6-	0.1-
1997 06 09	684	1.2-	0.9-	1998 09 27	704	1.1+	0.5-	2000 01 27	684	0.1+	0.1-
1998 09 14	704	0.1+	0.9+	1998 09 27	704	0.4+	0.3+	2000 01 27	684	0.1-	0.0

1998 09 14	704	0.2-	0.9+	1998 09 27	704	0.1-	1.3+	2000 01 28	684	0.1+	0.1+
1998 09 14	704	(2.5-	0.8+)	1998 09 27	704	1.1-	0.8-	2000 01 28	684	0.1-	0.4-

(13674)* 1997 MJ₂ = 1980 WB₃

Discovered 1997 June 30 by the OCA-DLR Asteroid Survey at Caussols.

Id. G. V. Williams (*MPC* 30464)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	44.55192		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$		
n	0.26737719	ω	6.06338	-0.18954142	-0.97258943		
a	2.3862713	Ω	94.91903	+0.89507481	-0.22754653		
e	0.0691152	i	7.77002	+0.40362748	+0.04787877		
P	3.69	H	14.5	G	0.15	U	1

Residuals in seconds of arc

1980 11 29	675	0.1+	0.4-	1998 09 12	426	0.7-	0.2+	2000 01 07	704	0.6+	0.3-
1980 12 01	675	0.4+	1.2-	1998 09 12	426	0.2-	0.2-	2000 01 07	704	0.0	0.3-
1997 06 08	809	(3.9+	0.2-)	1998 09 15	426	0.3-	0.2+	2000 01 08	704	0.4-	0.4-
1997 06 08	809	(3.4+	0.1+)	1998 09 15	426	0.4-	0.3-	2000 01 08	704	0.4-	0.0
1997 06 08	809	(3.5+	0.5-)	1998 09 15	426	0.3-	0.5+	2000 01 08	704	0.0	0.1-
1997 06 09	809	(3.4+	0.5-)	1998 09 21	704	0.2+	0.2+	2000 01 08	704	0.4+	0.6-
1997 06 09	809	(2.7+	0.5+)	1998 09 21	704	0.9+	0.5+	2000 01 08	704	0.4+	0.6-
1997 06 09	809	(3.2+	0.0)	1998 09 21	704	0.3-	0.0	2000 01 09	704	0.3-	1.0-
1997 06 10	691	0.6-	0.6+	1998 09 21	704	0.3-	0.2-	2000 01 09	704	0.7-	0.6-
1997 06 10	691	0.7-	0.1+	1998 09 21	704	0.1+	0.5-	2000 01 09	704	0.5-	0.0
1997 06 10	691	0.5-	0.5+	1998 09 22	699	0.5+	1.7+	2000 01 10	699	0.2+	0.4+
1997 06 26	691	0.4-	0.3+	1998 09 22	699	0.4+	0.6+	2000 01 10	699	0.3+	0.7+
1997 06 26	691	0.1-	0.3-	1998 09 22	699	0.5-	0.1+	2000 01 10	699	0.2+	1.1+
1997 06 26	691	0.3-	0.9-	1998 09 27	699	1.1+	0.8+	2000 02 03	704	0.2+	0.6+
1997 06 30	910	0.7+	0.1-	1998 09 27	699	0.4+	0.4+	2000 02 03	704	0.1+	0.8+
1997 06 30	910	0.3+	0.4-	1998 09 27	699	0.4+	0.0	2000 02 03	704	0.2-	0.8+
1997 06 30	910	0.8+	0.1+	2000 01 04	704	0.5-	0.7-	2000 02 03	704	0.2-	1.3+
1997 07 01	910	0.2+	0.1+	2000 01 04	704	0.3-	0.6-	2000 02 03	704	0.2-	0.9+
1997 07 01	910	0.2+	0.0	2000 01 04	704	0.4+	0.5-	2000 02 06	703	0.4+	0.2+
1997 07 01	910	0.2+	0.0	2000 01 04	704	0.7-	0.2-	2000 02 06	703	0.3-	1.0+
1998 08 26	910	0.4-	0.3+	2000 01 06	704	0.5-	0.2+	2000 02 06	703	0.3+	1.2+
1998 08 26	910	0.3-	0.0	2000 01 06	704	0.4+	0.3-	2000 02 06	703	0.2-	0.6+
1998 08 26	910	0.3-	0.4+	2000 01 06	704	0.2+	0.3-	2000 02 14	704	0.4+	0.3+
1998 09 03	426	0.5-	0.3-	2000 01 06	704	0.1-	0.1-	2000 02 14	704	0.2-	0.9+
1998 09 03	426	0.6-	0.1+	2000 01 07	704	0.0	0.8-	2000 02 14	704	0.7+	0.6+
1998 09 03	426	0.4-	0.0	2000 01 07	704	0.2-	0.4-				
1998 09 12	426	0.4-	0.2+	2000 01 07	704	0.8+	0.5-				

(13675)* 1997 MZ₂ = 1994 WN₁₂

Discovered 1997 June 28 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. A. Doppler (*MPC* 32967), K. Ichikawa (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	201.75313		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.22773132	ω	316.34336	+0.54820833	+0.83625844
a	2.6557521	Ω	346.88628	-0.75232750	+0.48692118
e	0.0826056	i	2.98354	-0.36533678	+0.25214993
P	4.33	H	14.1	G	0.15
				U	1

Residuals in seconds of arc

1994 11 27	010	0.2-	0.3-	1998 10 19	699	(2.2-	0.9+)	2000 01 26	120	0.6-	0.3+
1994 11 27	010	0.7-	0.3-	1998 11 10	704	0.1-	0.5+	2000 01 26	120	1.5+	1.3-
1994 11 28	010	1.2-	0.6-	1998 11 10	704	0.4+	0.3+	2000 01 30	704	0.3-	0.4+</

2000 FEB. 22

M.P.C. 38365

1997 06 28	704	0.4-	0.2-	1998 11 11	704	0.1-	1.0-	2000 02 03	704	0.3+	1.0+
1997 06 29	704	0.5+	0.4-	1998 11 11	704	0.6-	1.8-	2000 02 03	704	0.1-	0.5+
1997 06 29	704	0.6-	0.2-	1998 11 11	704	0.9+	1.0+	2000 02 03	704	0.2+	0.8+
1997 06 29	704	1.2-	0.4-	2000 01 04	704	0.1+	0.3+	2000 02 03	704	0.2-	1.0+
1997 06 29	704	(2.1+	1.1-)	2000 01 04	704	0.9-	0.2-	2000 02 09	120	0.2-	0.3-
1997 06 29	704	0.1-	0.3+	2000 01 04	704	0.3-	0.1+	2000 02 09	120	0.3-	0.1-
1997 07 02	704	0.5+	0.3+	2000 01 04	704	0.3-	0.4-	2000 02 11	704	0.1-	0.2+
1997 07 02	704	0.2+	0.3+	2000 01 04	704	0.2+	0.4+	2000 02 11	704	0.6+	1.7-
1997 07 02	704	0.0	0.1+	2000 01 06	704	0.3-	0.1-	2000 02 11	704	0.6-	0.4+
1997 07 02	704	0.3+	0.4+	2000 01 06	704	1.0-	0.3+	2000 02 11	704	0.1+	0.4+
1997 07 02	704	0.1-	0.2-	2000 01 06	704	0.2+	0.4+	2000 02 11	704	0.4-	0.7+
1998 10 19	699	1.2-	0.2+	2000 01 06	704	0.0	0.3+				
1998 10 19	699	1.5-	1.7+	2000 01 25	120	0.2-	0.2-				

(13676)* 1997 MA₄ = 1993 RU₁₂ = 1998 SD₉₉

Discovered 1997 June 28 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. A. Doppler (*MPC* 33260)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	345.49295		(2000.0)		P		Q
<i>n</i>	0.20446710	ω	145.23563		-0.66662774		-0.74536954
<i>a</i>	2.8535606	Ω	346.56870		+0.67826720		-0.60344693
<i>e</i>	0.0127836	<i>i</i>	1.38897		+0.30912950		-0.28333029
<i>P</i>	4.82	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1993 09 14	809	(3.4+	0.7-)	1998 09 15	699	1.0-	1.0+	2000 01 03	704	0.7+	0.1-
1993 09 14	809	1.7+	0.8-	1998 09 15	699	0.2+	0.8+	2000 01 04	704	0.6+	0.1-
1993 09 14	809	0.8+	0.9-	1998 09 23	691	0.3-	0.2+	2000 01 04	704	0.4+	0.3+
1993 09 19	809	1.7+	1.3-	1998 09 23	691	0.3-	0.3+	2000 01 04	704	0.3+	0.0
1993 09 19	809	0.1+	1.7-	1998 09 23	691	0.6-	0.2+	2000 01 04	704	0.3+	0.4+
1993 09 19	809	(1.1+	2.5-)	1998 09 26	704	0.1-	0.0	2000 01 04	704	1.1+	0.3+
1996 03 17	566	0.9-	0.7+	1998 09 26	704	0.9-	0.7-	2000 01 06	704	0.0	0.9+
1996 03 17	566	1.5-	0.2+	1998 09 26	704	(2.5-	0.4-)	2000 01 06	704	0.7+	0.4+
1996 03 17	566	1.0-	0.1-	1998 09 26	704	(1.3-	2.6-)	2000 01 06	704	0.6+	0.1+
1997 06 28	704	0.2-	1.6+	1998 09 27	704	1.2-	0.5-	2000 01 06	704	0.2-	0.5-
1997 06 28	704	0.2-	0.9+	1998 09 27	704	1.7-	0.0	2000 01 08	704	0.5+	0.0
1997 06 28	704	0.2+	0.9+	1998 09 27	704	0.0	0.3+	2000 01 08	704	0.1-	0.0
1997 06 29	704	0.2-	0.5+	1998 09 27	704	1.2+	0.4+	2000 01 08	704	0.0	0.7+
1997 06 29	704	0.2-	0.2+	1998 09 27	704	1.5-	0.8+	2000 01 08	704	0.4-	0.4+
1997 06 29	704	0.3+	0.0	1999 12 10	704	0.3-	0.4-	2000 01 30	704	0.1-	0.7-
1997 06 29	704	1.1+	0.3+	1999 12 10	704	0.1-	0.7+	2000 01 30	704	0.8-	0.4+
1997 06 29	704	1.1+	0.4-	1999 12 10	704	0.3-	0.2+	2000 01 30	704	0.2-	0.2+
1997 07 02	704	0.2-	0.6+	1999 12 10	704	0.6-	0.1-	2000 01 30	704	0.1-	0.3+
1997 07 02	704	0.2+	0.9+	1999 12 10	704	0.4-	0.2+	2000 01 30	704	0.7-	0.0
1997 07 02	704	0.0	0.0	2000 01 03	704	1.1+	0.1+	2000 02 11	704	0.4+	0.1-
1997 07 02	704	0.2-	0.3+	2000 01 03	704	0.3+	0.4+	2000 02 11	704	0.1-	0.0
1997 07 02	704	0.4+	0.8+	2000 01 03	704	1.3+	0.0	2000 02 11	704	0.3+	0.1+
1998 09 15	699	0.8-	0.5+	2000 01 03	704	0.2-	0.3-	2000 02 11	704	0.0	0.6+

(13677)* 1997 NK₁ = 1998 VB₂₉

Discovered 1997 July 2 by Spacewatch at Kitt Peak.

Id. G. V. Williams (*MPC* 33261)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	116.07991		(2000.0)		P		Q
<i>n</i>	0.17732049	ω	128.10739		+0.97014698		-0.24014922
<i>a</i>	3.1378350	Ω	245.81079		+0.20928956		+0.89948449
<i>e</i>	0.0937314	<i>i</i>	2.12418		+0.12252637		+0.36504247
<i>P</i>	5.56	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1996 06 12	566	0.0	0.5-	1998 11 11	704	0.3-	1.1-	2000 01 07	704	0.4-	0.3+
1996 06 12	566	0.0	0.4-	1998 11 11	704	0.7-	0.9-	2000 01 07	704	0.0	0.1+
1996 06 12	566	0.2-	0.6-	1998 11 11	704	1.5-	0.4-	2000 01 13	120	(3.3-	0.4-)
1997 07 02	691	0.4-	0.6+	1998 11 18	704	0.5+	0.6+	2000 01 13	120	0.3+	0.3+

1997 07 02	691	0.5-	0.6+	1998 11 18	704	0.0	0.8-	2000 01 30	703	0.9-	0.9+
1997 07 02	691	0.5-	0.7+	1998 11 18	704	0.3+	0.9+	2000 01 30	703	(2.4-	0.5-)
1997 07 07	691	0.4+	0.2+	1998 11 18	704	0.5+	1.9+	2000 01 30	703	0.7-	1.4-
1997 07 07	691	1.1-	0.2+	1998 11 18	704	0.2-	0.8+	2000 01 30	703	0.7+	1.1-
1997 07 07	691	0.4-	0.3+	1998 11 23	691	0.5+	0.3-	2000 02 02	704	0.5-	0.9+
1997 07 12	691	0.4+	0.7+	1998 11 23	691	0.4+	0.3-	2000 02 02	704	0.2-	0.2+
1997 07 12	691	0.3+	0.5+	1998 11 23	691	0.5+	0.3-	2000 02 02	704	0.6+	0.3+
1997 07 12	691	0.1+	0.6+	1998 12 16	699	0.4-	1.2+	2000 02 02	704	0.8+	0.2+
1998 10 19	699	0.5+	0.4+	1998 12 16	699	0.4-	1.2+	2000 02 02	704	0.2+	0.3+
1998 10 19	699	0.5-	0.9+	1998 12 16	699	0.4-	0.6+	2000 02 04	704	0.1-	0.1+
1998 10 19	699	0.4+	0.4+	1999 02 12	691	0.8-	0.5-	2000 02 04	704	0.4-	0.1+
1998 10 29	120	1.2+	0.7-	1999 02 12	691	0.6-	0.2-	2000 02 04	704	0.5+	0.6+
1998 10 30	120	1.1+	0.6-	1999 02 12	691	1.0-	0.1-	2000 02 04	704	0.7-	0.9+
1998 10 30	120	1.0+	0.4-	2000 01 05	704	0.1-	0.1+	2000 02 04	704	1.2+	0.6+
1998 11 10	704	0.5-	0.5-	2000 01 05	704	0.3+	0.3-	2000 02 06	704	1.2+	0.2-
1998 11 10	704	0.6-	0.7-	2000 01 05	704	1.1+	0.6+	2000 02 06	704	0.0	0.0
1998 11 10	704	0.4-	0.9-	2000 01 07	704	0.7+	0.0	2000 02 06	704	0.5-	0.3-
1998 11 10	704	0.1+	1.0-	2000 01 07	704	1.2-	0.6+	2000 02 06	704	0.5-	0.1+
1998 11 11	704	0.4+	0.2-	2000 01 07	704	0.2+	0.6-	2000 02 06	704	0.1-	0.7+

(13678)* 1997 NE₁₁ = 1941 SB₁ = 1984 YS₃ = 1998 XE₃₆

Discovered 1997 July 6 by T. Okuni at Nanyo.

Id. S. Nakano (*MPC* 33500), G. V. Williams (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Asher

<i>M</i>	180.05334		(2000.0)		P		Q
<i>n</i>	0.20947870	ω	58.34974		+0.85807083		+0.45396660
<i>a</i>	2.8078644	Ω	273.65860		-0.51353107		+0.75903991
<i>e</i>	0.1823267	<i>i</i>	13.91902		+0.00054662		+0.46666126
<i>P</i>	4.71	<i>H</i>	12.7	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1941 09 17	053	(0.5-	4.8-)	X	1998 12 14	704	0.8+	0.6+	1999 03 10	704	2.1-	1.4+
1941 09 22	053	(13.6+	7.0-)	X	1998 12 14	704	0.7-	0.5-	1999 03 10	704	0.2+	2.2+
1941 09 23	053	(36.3+	22.5-)	X	1998 12 14	704	0.5-	0.6+	2000 01 07	699	0.4+	0.4-
1941 09 25	053	(39.0+	62.8-)	X	1998 12 14	704	0.3+	1.7+	2000 01 07	699	0.5+	0.1-
1984 12 27	095	0.5+	1.8+		1998 12 16	704	(0.8-	4.2-)	2000 01 07	699	0.0	0.3+
1997 07 06	358	2.3-	0.1+		1998 12 16	704	0.8+	0.9-	2000 01 11	704	0.2-	0.3-
1997 07 06	358	0.7-	0.5-		1998 12 16	704	2.0+	0.0	2000 01 11	704	0.6-	0.8-
1997 07 06	358	0.6-	0.3+		1998 12 16	704	1.6+	1.1-	2000 01 11	704	0.8-	0.5-
1997 07 11	358	0.8-	1.3+		1998 12 16	704	0.2+	1.2-	2000 01 11	704	0.7-	0.4-
1997 07 11	358	0.5-	1.0+		1998 12 17	704	0.8-	0.1+	2000 01 11	704	0.5-	0.2-
1997 07 11	358	1.5+	0.1-		1998 12 17	704	0.4-	0.4-	2000 02 07	703	(2.6-	1.8+)
1997 07 12	358	0.1+	1.0-		1998 12 17	704	0.4+	1.2-	2000 02 07	703	1.8+	1.2+
1997 07 12	358	0.5+	1.4+		1998 12 17	704	0.1-	0.2-	2000 02 07	703	0.2-	0.6+
1997 07 14	358	0.2-	0.2+		1998 12 17	704	1.3-	0.7+	2000 02 07	703	1.0-	0.6+
1997 07 14	358	0.5-	0.8+		1999 01 11	704	0.2-	0.2+	2000 02 08	704	0.4+	0.2-
1997 07 18	358	0.4+	1.0-		1999 01 11	704	0.1+	1.4+	2000 02 08	704	0.8+	0.3-
1997 07 18	358	0.5+	0.1-		1999 01 11	704	0.5-	0.4+	2000 02 08	704	0.7+	0.3+
1997 07 25	358	1.0+	2.0+		1999 01 11	704	0.6+	0.6-	2000 02 08	704	0.4+	0.8+
1997 07 25	358	0.3-	0.8-		1999 01 11	704	0.0	1.6-	2000 02 08	704	0.3+	0.3+
1997 07 25	358	0.3+	0.7-		1999 03 10	704	2.2-	0.2-				
1998 12 14	704	0.1+	0.1-		1999 03 10	704	0.1+	0.6+				

(13679)* 1997 OZ

Residuals in seconds of arc

1992 04 07	399	1.1+	0.0	1997 08 28	358	0.7+	0.5-	2000 01 05	704	0.2+	0.9-
1992 04 07	399	1.3-	1.2+	1997 08 28	358	0.8-	1.2+	2000 01 06	699	0.8-	0.3+
1992 04 07	399	0.4+	1.9-	1997 08 28	358	0.2+	0.2+	2000 01 06	699	0.8-	0.1+
1992 04 07	399	(0.6+	4.5-)	1998 11 13	704	0.8-	0.0	2000 01 06	699	1.2-	0.3+
1993 08 15	010	0.1-	1.5-	1998 11 13	704	0.5+	0.0	2000 01 08	704	0.3-	0.7-
1993 08 15	010	0.1-	1.8-	1998 11 13	704	0.0	0.1+	2000 01 08	704	0.4-	0.7-
1993 08 15	010	0.6-	1.7-	1998 11 13	704	1.7-	0.3+	2000 01 08	704	0.2+	1.0-
1993 08 16	010	0.4-	0.7-	1998 11 13	704	0.7-	0.3-	2000 01 08	704	0.4+	0.9-
1993 08 17	010	1.1+	1.6-	1998 11 21	699	1.3+	0.6+	2000 01 08	704	0.1+	0.7-
1993 08 17	010	0.2+	0.3+	1998 11 21	699	1.2+	0.9+	2000 02 05	704	1.0+	0.8-
1997 07 29	358	0.5-	0.0	1998 11 21	699	1.6+	0.2+	2000 02 05	704	0.3+	0.2-
1997 07 29	358	1.7+	0.6-	1998 12 19	704	0.1-	0.8-	2000 02 05	704	0.2-	0.2+
1997 07 29	358	0.7-	1.4+	1998 12 19	704	0.2+	0.3-	2000 02 06	704	0.1+	0.5-
1997 08 01	358	0.2-	0.2+	1998 12 19	704	(2.4-	0.3-)	2000 02 06	704	0.6+	0.1-
1997 08 01	358	(1.9-	2.3+)	1998 12 19	704	0.5-	0.5+	2000 02 06	704	0.1+	0.0
1997 08 02	566	1.1-	0.1+	1999 01 09	699	0.1+	0.3-	2000 02 06	704	0.4+	0.1+
1997 08 02	566	0.0	0.6+	1999 01 09	699	0.0	0.1-	2000 02 06	704	0.1-	0.2-
1997 08 02	566	0.3-	0.1+	1999 01 09	699	0.4-	0.5-	2000 02 11	704	(0.8+	3.0-)
1997 08 05	358	0.8+	1.8-	2000 01 05	704	0.6-	0.1-	2000 02 11	704	0.0	0.4+
1997 08 05	358	(2.3+	1.6+)	2000 01 05	704	0.8-	0.3-	2000 02 11	704	0.2-	0.3+
1997 08 05	358	0.2+	0.2+	2000 01 05	704	0.1-	0.7-	2000 02 11	704	0.2-	0.1-

(13680)* 1997 PY = 1996 HR₁₄ = 1998 XS

Discovered 1997 Aug. 4 by the OCA-DLR Asteroid Survey at Caussols.

Id. A. Doppler (*MPC* 34202)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	234.79459	(2000.0)		P	Q		
<i>n</i>	0.19699131	ω	62.36095	-0.06974979	+0.99750916		
<i>a</i>	2.9253062	Ω	203.64644	-0.92423269	-0.06858328		
<i>e</i>	0.0588693	<i>i</i>	1.50139	-0.37540500	-0.01648657		
<i>P</i>	5.00	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1995 01 08	691	(3.0-	0.9-)	1997 08 04	910	0.4-	0.2+	2000 02 02	704	0.4+	0.4-
1995 01 08	691	0.1-	1.2-	1997 08 06	910	0.0	0.4+	2000 02 02	704	0.3+	0.7+
1995 01 08	691	1.1-	0.6-	1997 08 06	910	0.2+	0.3+	2000 02 02	704	0.5+	0.4+
1996 04 17	809	(1.2+	2.9+)	1997 08 06	910	0.2-	0.3+	2000 02 03	704	0.7-	0.1+
1996 04 17	809	(0.5+	2.9+)	1998 11 27	691	1.0-	0.5-	2000 02 03	704	0.8-	0.0
1996 04 17	809	(0.8+	2.2+)	1998 11 27	691	1.0-	0.5-	2000 02 03	704	0.2+	0.6+
1996 04 18	809	0.3-	0.2-	1998 12 07	910	0.3+	0.4+	2000 02 03	704	0.0	1.9+
1996 04 18	809	0.0	0.4+	1998 12 07	910	0.5+	0.8+	2000 02 05	704	0.0	0.1-
1996 04 18	809	0.4-	0.1+	1998 12 07	910	0.3+	0.6+	2000 02 05	704	0.1+	0.2+
1996 05 19	809	1.1+	1.2+	1998 12 08	910	0.5+	0.5+	2000 02 05	704	0.6-	0.3+
1996 05 19	809	0.5+	0.0	1998 12 08	910	0.6+	0.7+	2000 02 05	704	0.0	1.4+
1996 05 19	809	0.5+	0.1+	1998 12 08	910	0.5+	0.7+	2000 02 05	704	0.4+	0.9+
1997 08 02	910	0.3-	0.0	2000 01 06	691	0.4+	0.9-	2000 02 06	704	0.2-	0.2+
1997 08 02	910	0.6-	0.2+	2000 01 06	691	0.4+	0.8-	2000 02 06	704	0.0	0.6-
1997 08 02	910	0.3-	0.1-	2000 01 06	691	0.2+	0.6-	2000 02 06	704	0.5-	0.0
1997 08 04	910	0.2-	0.1-	2000 02 02	704	0.2-	0.0	2000 02 06	704	1.0+	0.5+
1997 08 04	910	0.3+	0.0	2000 02 02	704	0.6-	0.6-				

(13681)* 1997 PY₁

Discovered 1997 Aug. 7 at Kleť.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	239.84052	(2000.0)		P	Q		
<i>n</i>	0.19088177	ω	285.17331	+0.00586270	+0.99893832		
<i>a</i>	2.9873980	Ω	344.93869	-0.83664883	-0.02012742		
<i>e</i>	0.0695781	<i>i</i>	10.12771	-0.54770829	+0.04143822		
<i>P</i>	5.16	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1995 02 07	691	0.2+	0.0	1997 08 25	046	0.0	0.5+	1998 11 24	046	0.2+	0.5-
1995 02 07	691	0.0	0.1+	1997 08 26	046	0.3+	0.7+	1998 11 24	046	0.3+	0.1-
1995 02 07	691	0.2-	0.2-	1997 08 26	046	0.5-	0.4+	1998 11 25	046	0.3+	0.4-

1997 08 07	046	0.0	0.6+	1997 08 26	046	0.6-	0.3+	1998 11 25	046	0.0	0.6-
1997 08 07	046	0.5-	0.3+	1997 08 31	046	0.2-	0.1-	1998 11 25	046	0.2-	0.5-
1997 08 07	046	0.0	0.4+	1997 08 31	046	0.6-	0.1-	1998 12 17	704	1.4+	0.4-
1997 08 07	046	0.5+	0.2-	1997 09 01	046	0.5-	0.4-	1998 12 17	704	0.5-	1.4-
1997 08 07	046	0.2+	0.5-	1997 09 01	046	0.5-	0.2-	1998 12 17	704	(0.5-	2.5-)
1997 08 08	046	0.1-	0.6+	1997 09 03	046	0.1+	0.2-	1998 12 17	704	0.3+	1.0-
1997 08 08	046	0.3-	0.4+	1997 09 03	046	0.1+	0.1-	2000 01 14	046	0.0	0.5+
1997 08 08	046	0.6-	0.2+	1997 09 03	046	0.2-	0.2-	2000 01 14	046	0.1+	0.9+
1997 08 09	046	0.2-	0.9+	1997 09 11	046	0.4+	0.2-	2000 01 14	046	0.2+	0.7+
1997 08 09	046	0.1+	0.3+	1997 09 11	046	0.4+	0.0	2000 01 30	703	1.1+	0.9+
1997 08 09	046	0.3-	0.2+	1997 09 11	046	0.1-	0.0	2000 01 30	703	1.6+	1.0+
1997 08 10	046	0.5+	0.7-	1997 09 22	046	0.9-	0.5+	2000 01 30	703	0.6-	0.2+
1997 08 10	046	0.4+	0.2-	1997 09 22	046	0.6-	0.3+	2000 01 30	703	0.8+	0.0
1997 08 11	046	0.4+	0.4+	1997 09 22	046	0.8-	0.1+	2000 02 03	704	0.9+	0.5+
1997 08 11	046	0.6-	0.6+	1997 09 23	691	0.2+	0.4+	2000 02 03	704	0.5+	0.5+
1997 08 11	046	0.1+	0.9+	1997 09 23	691	0.0	0.1+	2000 02 03	704	0.3+	0.6+
1997 08 13	046	0.2-	0.8+	1997 09 23	691	0.3-	0.3+	2000 02 03	704	0.2+	0.6+
1997 08 13	046	0.5-	0.6+	1997 09 23	046	0.1+	0.1+	2000 02 03	704	0.5+	1.4+
1997 08 13	046	0.3-	0.4+	1997 09 23	046	0.5-	0.2-	2000 02 11	704	(1.0+	2.8+)
1997 08 14	046	0.1-	0.1+	1997 09 23	046	0.3+	0.5+	2000 02 11	704	(0.5+	2.2+)
1997 08 14	046	0.0	0.5+	1997 10 06	046	0.3+	0.1-	2000 02 11	704	0.0	1.3+
1997 08 14	046	0.9-	0.0	1997 10 06	046	0.1+	0.0	2000 02 11	704	0.6+	1.7+
1997 08 25	046	0.3-	0.9+	1997 10 06	046	0.2-	0.0	2000 02 11	704	0.2+	1.3+
1997 08 25	046	0.5-	0.4+	1998 11 24	046	0.1+	0.2-				

(13682)* 1997 PG₃ = 1995 EO₇

Discovered 1997 Aug. 10 by E. Meyer and H. Raab at Linz.

Id. G. V. Williams (*MPC* 30677)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	138.71075	(2000.0)		P	Q		
<i>n</i>	0.17365633	ω	199.11927	+0.97575393	+0.21731517		
<i>a</i>	3.1818203	Ω	148.29352	-0.19380007	+0.91315001		
<i>e</i>	0.1083328	<i>i</i>	2.84059	-0.10171428	+0.34486401		
<i>P</i>	5.68	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1995 03 02	691	0.1-	0.1+	1998 11 11	704	0.3-	0.1+	1998 12 17	120	0.9+	1.0-
1995 03 02	691	0.1	0.5-	1998 11 11	704	1.2+	1.2-	2000 01 06	704	0.5-	0.4+
1995 03 08	691	0.0	0.2-	1998 11 11	704	1.0+	0.2-	2000 01 06	704	0.3-	0.4+
1995 03 08	691	0.2-	0.3-	1998 11 11	699	0.7+	1.6+	2000 01 06	704	0.4-	0.7+
1997 08 10	540	0.6-	0.6-	1998 11 11	704	1.6+	1.6-	2000 01 06	704	0.2-	1.3+
1997 08 10	540	0.4-	0.6-	1998 11 11	699	(0.8-	2.3+)	2000 01 06	691	0.3-	0.0
1997 08 10	540	0.5-	0.6+	1998 11 11	699	0.0	1.0+	2000 01 06	691	0.1-	0.1+
1997 08 10	540	0.3-	0.1-	1998 11 16	566	0.7-	0.0	2000 01 06	691	0.3-	0.2+
1997 08 11	540	(0.4-	2.7-)	1998 11 16	566	1.2-	0.1+	2000 01 07	540	0.8+	0.4+
1997 08 11	540	1.1+	0.5+	1998 11 16	566	0.7-	0.2+	2000 01 07	540	0.5+	0.3+
1997 08 11	540	0.1-	0.4+	1998 11 18	704	0.2-	0.4+	2000 01 07	540	0.3+	0.5+
1997 08 12	540	0.0	0.2+	1998 11 18	704	0.9-	0.5-	2000 01 07	540	0.4+	0.8+
1997 08 12	540	0.3-	0.1-	1998 11 18	704	0.4+	0.7-	2000 01 07	540	0.8+	0.8+
1997 08 12	540	0.9-	0.2+	1998 11 18	704	0.8+	0.6-	2000 01 07	540	0.3+	0.8+
1997 08 25	540	0.3+	0.1+	1998 11 18	704	1.0-	0.7-	2000 01 25	540	0.3+	0.2+
1997 08 25	540	0.7+	0.5+	1998 11 21	704	0.3+	0.6-	2000 01 25	540	0.1+	0.4-
1997 08 25	540	0.1+	0.5+	1998 11 21	704	0.6-	0.2-	2000 01 25	540	0.0	0.3-
1997 08 30	540	0.0	1.5+	1998 11 21	704	0.1+	0.2-	2000 02 05	704	0.5-	0.2-
1997 08 30	540	0.4+	0.2+	1998 11 21	704	0.1+	0.4+	2000 02 05	704	0.5+	0.2-
1998 10 29	704	0.2+	0.8+	1998 11 23	699	0.9-	1.0+	2000 02 05	704	0.3+	0.3-
1998 10 29	704	0.2-	0.3-	1998 11 23	699	0.5+	0.4+	2000 02 05	704	0.1+	0.7-
1998 10 29	704	0.7-	1.5-	1998 11 23	699	0.6-	0.1+	2000 02 05	704	0.5-	0.2+
1998 10 29	704	(0.4+	2.2-)	1998 12 17	120	0.6+	1.3+				

2000 FEB. 22

M.P.C. 38367

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	193.36582		(2000.0)	P	Q
<i>n</i>	0.18429517	ω	47.38811	+0.50819810	+0.84977016
<i>a</i>	3.0581591	Ω	253.66044	-0.82673690	+0.43576148
<i>e</i>	0.0819157	<i>i</i>	8.39443	-0.24133128	+0.29665234
<i>P</i>	5.35	<i>H</i>	12.7	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1987 11 15	327	0.6+	0.8+	1998 11 24	704	0.7+	0.3-	2000 01 07	704	0.2-	0.0
1987 11 15	327	0.1-	0.5-	1998 11 24	704	0.5+	0.6+	2000 01 07	704	0.4+	0.9+
1993 08 17	691	1.1-	0.2+	1998 11 25	699	0.2+	0.6+	2000 01 07	704	0.1+	0.1+
1993 08 17	691	0.7-	0.2-	1998 11 25	699	0.4+	0.6+	2000 01 07	704	0.1+	0.3+
1993 08 17	691	0.1-	0.3-	1998 11 25	699	0.5-	0.8+	2000 02 02	704	0.5+	0.1+
1997 08 08	327	0.1-	0.5+	1999 01 06	725	0.2-	0.5+	2000 02 02	704	0.4+	0.2+
1997 08 08	327	0.1-	0.6+	1999 01 06	699	0.2-	0.5-	2000 02 02	704	0.0	0.0
1997 08 08	327	0.4-	0.5+	1999 01 06	725	0.2-	0.5+	2000 02 02	704	0.1+	0.9-
1997 08 08	327	0.2-	0.5+	1999 01 06	699	1.7-	0.2+	2000 02 02	704	0.2+	0.3+
1997 08 09	327	0.2-	0.5+	1999 01 06	699	0.3-	0.8+	2000 02 04	704	0.0	0.9+
1997 08 09	327	0.3-	0.6+	1999 01 10	725	0.5-	0.3+	2000 02 04	704	0.0	0.1+
1997 08 09	327	0.2-	0.6+	1999 01 10	725	0.3-	0.5+	2000 02 04	704	0.4-	0.6+
1997 08 10	327	0.1-	0.7+	1999 01 13	725	0.1-	0.2+	2000 02 04	704	0.1+	0.8+
1997 08 10	327	0.5-	0.4+	1999 01 13	725	0.1+	0.2-	2000 02 08	704	0.1+	0.0
1997 08 10	327	0.2-	0.5+	1999 01 13	725	0.1-	0.1+	2000 02 08	704	0.6-	0.2+
1998 11 18	704	0.6-	0.1+	1999 02 09	691	0.6+	0.3-	2000 02 08	704	0.1+	0.0
1998 11 18	704	1.0-	0.7-	1999 02 09	691	0.4+	0.7-	2000 02 08	704	0.3-	0.1-
1998 11 18	704	0.3-	1.1-	1999 02 09	691	0.5+	0.4-	2000 02 08	704	0.1-	0.3+
1998 11 18	704	0.5-	1.2-	2000 01 04	699	0.5+	1.2+	2000 02 10	704	0.1-	0.4+
1998 11 18	704	1.4-	0.8-	2000 01 04	699	1.1+	0.7+	2000 02 10	704	0.4+	0.1+
1998 11 21	704	0.4+	0.1-	2000 01 04	699	0.2-	0.4-	2000 02 10	704	1.2-	1.5-
1998 11 21	704	0.2+	0.3-	2000 01 05	704	0.4+	0.3+	2000 02 10	704	0.2+	0.1+
1998 11 21	704	0.8+	0.1-	2000 01 05	704	0.1-	0.1-	2000 02 11	704	0.1+	0.2+
1998 11 21	704	1.1+	1.7-	2000 01 05	704	0.7+	0.2+	2000 02 11	704	0.4-	0.2+
1998 11 21	704	1.1+	0.7-	2000 01 05	704	0.0	0.0	2000 02 11	704	0.3-	0.4+
1998 11 24	704	0.0	0.2+	2000 01 05	704	0.2+	0.3-	2000 02 11	704	0.3+	0.5+
1998 11 24	704	0.9+	0.7+	2000 01 07	704	1.1+	0.5+	2000 02 11	704	0.4-	0.3+

(13684)* 1997 QQ₂ = 1994 BR₅ = 1999 XQ₉₄

Discovered 1997 Aug. 27 by V. S. Casulli at Colleverde di Guidonia.

Id. G. V. Williams (*MPC* 37674)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	18.36164		(2000.0)	P	Q
<i>n</i>	0.17372393	ω	173.34330	-0.37002723	-0.89344143
<i>a</i>	3.1809948	Ω	298.10576	+0.83849558	-0.20316371
<i>e</i>	0.0874493	<i>i</i>	16.77913	+0.40000626	-0.40060819
<i>P</i>	5.67	<i>H</i>	12.5	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1994 01 17	033	0.2-	1.0-	1998 11 21	699	0.6-	0.6+	1999 12 18	120	0.6-	1.2-
1994 01 18	033	0.3-	0.5-	1998 11 21	699	0.1-	0.6+	2000 01 04	120	0.2-	0.2-
1994 01 19	033	0.1+	0.2+	1999 01 09	699	1.1-	0.4-	2000 01 04	120	0.4-	0.5-
1997 08 27	596	0.1-	0.2-	1999 01 09	699	1.2-	0.1+	2000 01 05	704	0.2+	0.2-
1997 08 27	596	0.1-	0.1+	1999 01 09	699	1.0-	0.2+	2000 01 05	704	0.1-	0.1+
1997 08 27	596	0.3-	0.1+	1999 11 16	704	0.4-	0.6-	2000 01 05	704	0.2-	0.3-
1997 08 27	596	0.3+	0.9+	1999 11 16	704	0.6-	0.2-	2000 01 05	704	0.1+	0.2-
1997 08 28	596	0.1+	0.1-	1999 11 16	704	0.4-	0.4-	2000 01 05	704	0.0	0.0
1997 08 28	596	0.3-	0.7-	1999 11 16	704	0.2-	0.0	2000 01 06	704	0.0	0.3+
1997 08 31	596	0.1-	0.9-	1999 11 16	704	0.4-	0.2-	2000 01 06	704	0.4-	0.2+
1997 08 31	596	0.4+	0.3+	1999 12 05	699	0.3+	0.5+	2000 01 06	704	0.3-	0.4+
1997 08 31	596	0.7+	0.6-	1999 12 05	699	0.1+	0.5+	2000 01 06	704	0.0	0.0
1998 08 29	704	0.5+	0.8-	1999 12 05	699	0.6-	0.8+	2000 01 29	682	0.3-	0.1-
1998 08 29	704	0.2-	0.9-	1999 12 07	120	0.4+	0.2+	2000 01 29	682	0.3+	0.1+
1998 08 29	704	0.4-	0.9-	1999 12 07	120	0.0	0.1+	2000 01 29	682	0.0	0.1+
1998 08 29	704	(2.5-	0.9-)	1999 12 07	704	0.4+	0.3+	2000 01 29	682	0.7-	0.0
1998 08 29	704	1.4-	0.9-	1999 12 07	704	0.2+	0.6-	2000 02 02	704	0.2-	0.3+
1998 09 26	699	0.4+	0.5+	1999 12 07	704	0.3+	0.3-	2000 02 02	704	0.1-	0.5+
1998 09 26	699	0.9+	0.1+	1999 12 07	704	0.2+	0.8-	2000 02 02	704	0.4+	0.4+

1998 09 26	699	1.1+	0.5+	1999 12 07	704	0.2-	1.4-	2000 02 02	704	0.6+	0.4+
1998 11 14	704	0.4+	0.3-	1999 12 08	704	0.4-	0.5+	2000 02 02	704	0.5+	0.6+
1998 11 14	704	0.2+	0.3+	1999 12 08	703	1.2+	1.2+	2000 02 04	704	0.1-	0.2-
1998 11 14	704	0.3+	0.3-	1999 12 08	704	0.4+	0.0	2000 02 04	704	0.2-	0.1-
1998 11 14	704	0.6-	0.1+	1999 12 08	703	0.5+	0.8+	2000 02 04	704	0.5+	0.8-
1998 11 14	704	0.5-	0.1+	1999 12 08	704	0.4+	0.4+	2000 02 04	704	0.3+	0.3-
1998 11 16	704	0.2+	0.1-	1999 12 08	703	0.2+	0.2+	2000 02 04	704	0.0	0.5-
1998 11 16	704	0.1-	0.5+	1999 12 08	704	0.3+	0.5-	2000 02 10	106	0.2-	0.1+
1998 11 16	704	1.0-	0.7+	1999 12 08	703	0.8+	0.6+	2000 02 10	106	0.2-	0.1+
1998 11 16	704	0.2+	0.3+	1999 12 08	704	0.5+	0.9-	2000 02 10	106	0.1-	0.3+
1998 11 16	704	1.6+	0.5+	1999 12 18	120	0.0	0.1-				
1998 11 21	699	1.1+	0.0	1999 12 18	120	1.8-	0.1-				

(13685)* 1997 QG₄ = 1991 JR₁

Discovered 1997 Aug. 27 by Y. Shimizu and T. Urata at the Nachi-Katsuura

Observatory.

Id. T. Urata (*MPC* 30680)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Asher

<i>M</i>	237.00695		(2000.0)	P	Q
<i>n</i>	0.19079936	ω	118.25927	-0.05575953	+0.99210871
<i>a</i>	2.9882581	Ω	147.93683	-0.97407976	-0.02935806
<i>e</i>	0.1439866	<i>i</i>	12.21291	-0.21922478	-0.12189507
<i>P</i>	5.17	<i>H</i>	12.8	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1991 05 11	675	0.8+	1.1+	1998 11 09	888	0.9-	0.8-	2000 01 07	704	0.1-	0.1+
1991 05 11	675	0.3+	1.3+	1998 11 09	888	0.5-	0.6-	2000 01 07	704	0.3-	0.9-
1991 05 12	675	0.2+	1.2+	1998 11 09	888	0.1-	0.4-	2000 01 07	704	0.2+	1.1+
1995 02 08	691	0.9-	0.2+	1998 12 13	385	0.2-	0.2-	2000 01 07	704	0.1+	0.2+
1995 02 08	691	0.0	0.4+	1998 12 13	385	0.9+	0.0	2000 01 07	704	0.0	0.1-
1995 02 08	691	0.2-	0.2+	1998 12 17	699	0.3-	0.8+	2000 02 02	704	0.3-	0.0
1997 08 27	905	2.0-	0.9-	1998 12 17	699	0.9+	0.9+	2000 02 02	704	0.1-	0.6+
1997 08 27	905	1.3-	0.8-	1998 12 17	699	0.5+	0.5+	2000 02 02	704	0.3+	0.6+
1997 09 04	905	1.2+	0.0	2000 01 04	699	0.9+	0.3-	2000 02 02	704	0.0	0.2+
1997 09 04	905	0.5+	0.7+	2000 01 04	699	0.2-	0.3+	2000 02 02	704	0.0	0.8+
1997 09 09	905	1.0-	1.5+	2000 01 04	699	0.5+	0.0	2000 02 02	888	0.3+	0.0
1997 09 09	905	0.3+	1.2+	2000 01 05	704	0.1+	0.6+	2000 02 02	888	0.6+	0.3+
1997 09 11	385	0.6+	0.9+	2000 01 05	704	0.4-	0.0	2000 02 12	888	0.4-	0.7-
1997 09 11	385	0.1+	1.0+	2000 01 05	704	0.3-	0.5+	2000 02 12	888	0.3-	0.4-
1998 10 31	385	0.2-	0.2-	2000 01 05	704	0.3-	0.5+	2000 02 12	888	0.1+	0.4-
1998 10 31	385	0.6+	1.1+	2000 01 05	704	0.7+	1.0+				

(13686)* 1997 QS₄ = 1992 UX₇

Discovered 1997 Aug. 30 by T. Okuni at Nanyo.

Id. S. Nakano (*MPC* 30680)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Asher

<i>M</i>	149.95055		(2000.0)	P	Q
<i>n</i>	0.18020779	ω	153.32899	+0.99493117	+0.10025699
<i>a</i>	3.1042285	Ω	200.92140	-0.09571237	+0.92042708
<i>e</i>	0.1901453	<i>i</i>	1.24810	-0.03083995	+0.37783928
<i>P</i>	5.47	<i>H</i>	13.4	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1992 10 20	675	1.5+	1.1+	1997 08 30	358	0.2-	0.5-	1998 12 16	704	0.4-	0.5-
1992 10 20	675	1.3+	0.4-	1997 09 04	358	0.9+	0.4-	1998 12 16	704	1.2-	0.3+
1992 10 22	675	1.3+	1.2+	1997 09 04	358	0.2+	0.1+	2000 01 12	691	0.0	0.2+
1992 10 22	675	1.3+	0.5-	1997 09 04	358	0.5-	1.6+	2000 01 12	691	0.1-	0.2+
1992 10 23	010	1.7+	0.3-	1997 09 09	358	1.3-	1.1+	2000 01 12	691	0.4+	0.1-
1992 10 23	010	0.1-	0.1-	1997 09 09	358	0.5+	1.5+	2000 02 02	704	0.7+	1.1+
1992 11 02	010	1.2-	0.1-	1998 11 12	369	1.2+	0.0	2000 02 02	704	0.2-	0.1+
1992 11 02	010	2.3-	0.5-	1998 11 12	369	0.1+	0.1+	2000 02 02	704	(2.3+	2.8+)
1992 11 02	010	2.3-	0.9-	1998 11 12	369	0.9-	0.2-	2000 02 02	704	1.0+	2.1+
1992 11 03	010	1.2+	1.6+	1998 11 15	369	0.4+	0.6-	2000 02 04	691	0.3-	0.1+
1992 11 03	010	0.9-	0.3-	1998 11 15	369	1.2-	0.3-	2000 02 04	691	0.1+	0.2+

1992 11 03 010 1.2- 2.0- 1998 12 16 704 0.0 1.7+ 2000 02 04 691 0.3- 0.1+
 1997 08 30 358 1.0- 0.5+ 1998 12 16 704 1.9+ 0.5+

(13687)* 1997 RB₇ = 1992 SK₂₅

Discovered 1997 Sept. 7 by S. P. Laurie at Church Stretton.

Id. G. V. Williams (*MPC* 30770)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 251.60285		(2000.0)		P		Q	
<i>n</i>	0.18801874	ω	43.09345	-0.26838353	+0.95988403		
<i>a</i>	3.0176484	Ω	211.59552	-0.92058360	-0.28039162		
<i>e</i>	0.0711102	<i>i</i>	8.91562	-0.28371837	+0.00178647		
<i>P</i>	5.24	<i>H</i>	12.3	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1992 09 30 675 0.2- 0.5- 1998 08 31 704 1.2- 0.5+ 2000 01 05 699 0.6+ 0.2-
 1992 09 30 675 0.6+ 0.2- 1998 11 11 699 0.3+ 0.5+ 2000 01 08 704 0.3- 0.4-
 1992 10 03 675 0.2+ 0.1+ 1998 11 11 699 0.0 0.1+ 2000 01 08 704 0.0 0.8-
 1992 10 03 675 0.1- 1.1- 1998 11 11 699 0.2- 0.6+ 2000 01 08 704 0.2- 0.6-
 1997 09 07 966 0.1- 0.9- 1998 11 24 704 0.7+ 0.2+ 2000 01 08 704 0.3- 0.1+
 1997 09 07 966 0.4+ 1.5- 1998 11 24 704 0.3+ 0.3+ 2000 01 08 704 0.6- 0.3+
 1997 09 07 966 0.6- 0.0 1998 11 24 704 0.5+ 1.0+ 2000 01 11 704 0.2+ 0.1+
 1997 09 08 966 0.6+ 0.4+ 1998 11 24 704 0.9+ 1.0+ 2000 01 11 704 0.4- 0.2-
 1997 09 09 966 0.3+ 0.4- 1998 11 24 704 (0.9+ 2.8+) 2000 01 11 704 0.0 0.2-
 1997 09 21 966 0.1- 0.2- 1998 12 15 704 1.1- 0.9- 2000 01 11 704 0.0 0.3-
 1997 09 21 966 (1.2- 2.2-) 1998 12 15 704 1.9- 0.1- 2000 01 11 704 0.6- 0.5-
 1997 09 22 966 0.4- 0.7- 1998 12 15 704 0.3- 0.4+ 2000 02 06 704 0.1- 0.5-
 1997 09 22 966 0.3+ 0.3- 1998 12 15 704 (2.6- 1.1-) 2000 02 06 704 0.0 0.1-
 1997 09 23 966 0.3+ 0.0 1998 12 16 699 0.0 0.2+ 2000 02 06 704 0.0 0.3-
 1998 08 31 704 1.2+ 0.9- 1998 12 16 699 0.1+ 0.2+ 2000 02 06 704 0.1- 0.4-
 1998 08 31 704 1.2+ 0.5- 1998 12 16 699 0.0 0.9+ 2000 02 06 704 0.0 0.5-
 1998 08 31 704 0.4+ 0.2- 2000 01 05 699 0.2+ 0.3-
 1998 08 31 704 0.5- 0.2+ 2000 01 05 699 0.1+ 0.8-

(13688)* 1997 RJ₇ = 1986 RA₈ = 1986 TW₁₈

Discovered 1997 Sept. 9 by T. Stafford at the Zeno Observatory, Edmond.

Id. G. V. Williams (*MPC* 30770)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 186.27309		(2000.0)		P		Q	
<i>n</i>	0.17695686	ω	351.95401	+0.69634355	+0.71512736		
<i>a</i>	3.1421321	Ω	322.14662	-0.65284398	+0.59592958		
<i>e</i>	0.1571511	<i>i</i>	5.68767	-0.29816171	+0.36532286		
<i>P</i>	5.57	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1986 09 07 095 0.4+ 0.7- 1997 11 04 557 0.1+ 0.3- 2000 01 06 704 0.3+ 0.1+
 1986 10 05 095 0.4+ 0.7- 1997 11 04 557 0.5+ 0.3+ 2000 01 06 704 0.7+ 0.5+
 1997 09 09 727 0.5+ 0.4- 1998 12 09 727 0.4+ 0.9+ 2000 01 30 691 0.3- 0.2+
 1997 09 09 727 0.0 0.3- 1998 12 09 727 0.3- 0.1- 2000 01 30 691 0.2- 0.3+
 1997 09 11 727 0.0 0.2+ 1998 12 15 727 0.1- 0.4+ 2000 01 30 691 0.2- 0.2+
 1997 09 11 727 0.4+ 0.1+ 1998 12 15 727 0.2- 0.2+ 2000 02 03 704 0.4- 0.2+
 1997 09 11 727 0.2+ 0.2+ 1998 12 15 727 0.5+ 0.1+ 2000 02 03 704 0.5+ 0.0
 1997 09 12 727 0.5- 0.1- 1998 12 15 727 0.2- 0.2+ 2000 02 03 704 0.3+ 0.1-
 1997 09 12 727 0.2- 0.4+ 1998 12 15 727 0.5- 0.2+ 2000 02 03 704 0.4+ 0.5-
 1997 09 15 727 0.5- 0.4+ 1998 12 17 704 0.8- 0.4- 2000 02 03 704 0.4+ 0.4+
 1997 09 19 727 0.1+ 0.8+ 1998 12 17 704 1.4+ 0.2- 2000 02 04 691 0.3- 0.3-
 1997 09 19 727 0.0 0.6+ 1998 12 17 704 0.2+ 1.3- 2000 02 04 691 0.3- 0.4-
 1997 09 19 727 0.2+ 0.4+ 1998 12 17 704 (0.8+ 2.3-) 2000 02 04 691 0.4- 0.3-
 1997 09 26 727 0.0 0.5+ 1998 12 17 704 (0.3+ 3.0-) 2000 02 10 691 0.0 0.1-
 1997 09 26 727 0.0 0.6+ 1998 12 18 727 0.4- 0.2- 2000 02 10 691 0.1+ 0.1+
 1997 09 29 727 0.2+ 0.6- 1998 12 18 727 0.2- 0.2- 2000 02 10 691 0.1+ 0.0
 1997 09 29 727 0.2- 0.4+ 1998 12 18 727 0.2+ 0.2- 2000 02 11 704 0.7- 0.1+
 1997 09 29 727 0.6- 0.8- 2000 01 04 704 1.0+ 0.5- 2000 02 11 704 0.7- 0.9-
 1997 09 30 727 0.1- 0.2+ 2000 01 04 704 0.0 0.1- 2000 02 11 704 0.3- 0.6+
 1997 09 30 727 0.0 0.2- 2000 01 04 704 0.0 0.1- 2000 02 11 704 0.6- 0.1+
 1997 09 30 727 0.5- 0.1+ 2000 01 04 704 0.5+ 0.3+ 2000 02 11 704 0.8- 0.2+

1997 10 02 727 0.1- 0.1- 2000 01 04 704 1.2+ 0.8+
 1997 10 02 727 0.6- 0.5- 2000 01 06 704 0.7+ 0.5+

(13689)* 1997 RO₇ = 1991 PO₁

Discovered 1997 Sept. 9 by V. Giuliani at Sormano.

Id. G. V. Williams (*MPC* 30771)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 228.70379		(2000.0)		P		Q	
<i>n</i>	0.17531462	ω	132.87130	+0.03986708	+0.99234228		
<i>a</i>	3.1617240	Ω	138.97256	-0.96081738	+0.07019101		
<i>e</i>	0.0582231	<i>i</i>	10.25904	-0.27430016	-0.10163667		
<i>P</i>	5.62	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1991 08 02 809 (2.4- 0.1+) 1997 10 01 587 0.4+ 1.4- 2000 01 07 704 0.0 1.0-
 1991 08 02 809 1.7- 0.0 1997 10 01 587 0.7+ 0.1- 2000 01 30 703 0.3+ 1.3+
 1991 08 02 809 0.3+ 0.1+ 1997 10 24 587 (2.3+ 0.6+) 2000 01 30 703 0.9- 0.9+
 1991 08 03 809 (4.1- 1.1-) 1997 10 24 587 0.3+ 1.0+ 2000 01 30 703 0.3- 0.8+
 1991 08 03 809 (3.5- 0.6-) 1998 11 15 587 0.2+ 0.8- 2000 01 30 703 0.6- 0.4+
 1991 08 03 809 (4.0- 0.6-) 1998 11 15 587 0.1- 0.5+ 2000 02 02 704 1.1+ 0.1+
 1991 08 05 809 0.2+ 0.1+ 1998 11 15 587 0.5- 0.0 2000 02 02 704 0.7+ 0.5+
 1991 08 05 809 0.0 0.2- 1998 11 17 587 1.1+ 0.1- 2000 02 02 704 0.5+ 1.1-
 1991 08 05 809 0.2+ 0.2+ 1998 11 17 587 0.8+ 0.4+ 2000 02 02 704 0.2+ 0.9+
 1991 08 05 809 0.3+ 0.1+ 1998 11 19 587 1.6- 1.8- 2000 02 02 704 0.7- 0.1+
 1991 08 05 809 0.1- 0.3+ 1998 11 19 587 0.8+ 0.5+ 2000 02 03 704 0.2- 1.2+
 1991 08 05 809 0.6+ 0.6+ 1998 11 19 587 0.5+ 0.1- 2000 02 03 704 0.1+ 1.3+
 1997 09 09 587 0.1- 0.4- 1998 11 20 587 1.1- 0.1+ 2000 02 03 704 0.7+ 0.4+
 1997 09 09 587 0.2+ 1.6+ 1998 11 20 587 0.4- 0.1+ 2000 02 03 704 (1.3- 2.1+)
 1997 09 10 587 1.1- 0.7- 1998 11 20 587 0.7+ 0.3- 2000 02 03 704 0.9- 0.5-
 1997 09 10 587 1.2- 0.2- 2000 01 05 704 0.4- 0.4+ 2000 02 05 704 0.3- 0.6-
 1997 09 19 587 1.0+ 0.3+ 2000 01 05 704 0.2+ 1.1- 2000 02 05 704 0.6- 0.2+
 1997 09 24 587 0.1+ 0.2+ 2000 01 05 704 0.7+ 0.7- 2000 02 05 704 0.1+ 0.4+
 1997 09 24 587 0.4- 0.9+ 2000 01 05 704 0.1- 0.3+ 2000 02 05 704 0.3- 0.6+
 1997 09 24 587 0.4+ 0.8+ 2000 01 07 704 0.2- 0.0 2000 02 05 704 0.3+ 0.7+
 1997 09 26 587 0.6- 0.7+ 2000 01 07 704 0.6+ 1.5-
 1997 09 26 587 0.2- 0.3- 2000 01 07 704 0.4+ 1.0-

(13690)* 1997 RG₉ = 1991 RU₄₁

Discovered 1997 Sept. 8 by T. Pauwels at Uccle.

Id. B. G. Marsden (*MPC* 31554)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 231.90838		(2000.0)		P		Q	
<i>n</i>	0.17869890	ω	327.93077	-0.02578012	+0.97205371		
<i>a</i>	3.1216782	Ω	299.62092	-0.85112011	-0.14377261		
<i>e</i>	0.1684273	<i>i</i>	15.57009	-0.52433763	+0.18558290		
<i>P</i>	5.52	<i>H</i>	12.9	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1991 09 06 033 0.5+ 0.1- 1998 11 17 012 0.3- 0.6- 2000 01 06 012 0.0 0.3+
 1991 09 10 033 0.5- 0.4+ 1998 11 17 012 1.3- 0.9- 2000 01 06 012 0.6- 0.2-
 1991 09 12 033 0.1- 0.7+ 1998 11 17 012 0.1+ 0.2+ 2000 01 06 012 0.1- 0.0
 1991 09 13 033 0.1+ 0.0 1998 11 18 012 0.3+ 0.3- 2000 01 06 012 0.1+ 0.1-
 1991 09 14 033 0.2- 0.5- 1998 11 18 012 0.6+ 0.1- 2000 01 06 704 1.5+ 0.3+
 1997 09 08 012 0.6+ 0.2+ 1998 11 18 012 1.3- 0.2- 2000 01 06 704 0.2+ 0.3-
 1997 09 08 012 0.4- 0.3+ 1998 12 14 704 0.8+ 0.4- 2000 01 06 704 0.5+ 1.4-
 1997 09 08 012 0.2- 0.7+ 1998 12 14 704 1.1+ 1.6- 2000 01 06 704 0.4+ 0.8-
 1997 09 08 012 0.6- 0.3- 1998 12 14 704 0.5+ 0.8- 2000 01 06 704 0.3+ 0.7-
 1997 09 08 012 0.4+ 0.1- 1998 12 14 704 0.1+ 0.1+ 2000 01 07 732 0.1- 0.7+
 1997 09 08 012 0.0 0.5+ 1998 12 14 704 0.4+ 1.2- 2000 01 07 732 0.2+ 0.3+
 1997 09 10 012 0.7- 0.4+ 1998 12 23 704 0.1- 0.7- 2000 01 07 732 0.1- 0.4+
 1997 09 10 012 0.0 0.2+ 1998 12 23 704 0.3+ 0.5+ 2000 01 08 732 1.0- 0.8+
 1997 09 10 012 0.7- 0.3+ 1999 01 11 012 0.3- 0.1+ 2000 01 08 732 0.2- 0.2+
 1997 09 22 012 0.2- 0.2- 1999 01 11 012 0.3- 0.4+ 2000 01 08 732 0.8- 0.1+
 1997 09 22 012 0.3+ 0.3- 1999 01 11 012 0.2+ 0.1- 2000 02 02 704 0.7+ 0.1+
 1997 09 22 012 0.2- 0.1- 1999 01 11 012 0.3- 0.3- 2000 02 02 704 0.1- 0.7+

2000 FEB. 22

M.P.C. 38369

1997 09 24	012	0.0	0.1−	2000 01 04	704	0.5+	0.2−	2000 02 02	704	0.2−	1.4+
1997 09 25	012	0.5−	0.2−	2000 01 04	704	0.9+	0.0	2000 02 02	704	0.2−	1.1+
1997 09 25	012	0.1+	0.3−	2000 01 04	704	0.6+	0.1−	2000 02 02	704	0.2+	0.3+
1997 10 22	012	0.2+	0.3+	2000 01 04	704	0.2+	0.1−	2000 02 03	704	0.3−	0.4+
1997 10 22	012	0.7+	0.0	2000 01 04	704	0.8+	0.3−	2000 02 03	704	0.8−	0.6+
1997 10 22	012	0.0	1.0+	2000 01 05	012	0.0	0.1−	2000 02 03	704	0.2−	0.5+
1998 11 16	704	0.9−	0.5−	2000 01 05	012	0.1+	0.6−	2000 02 03	704	0.4+	0.7+
1998 11 16	704	0.0	0.8+	2000 01 05	012	0.1−	0.1−	2000 02 03	704	0.1−	0.1+
1998 11 16	704	0.2+	1.8+	2000 01 05	012	0.3−	0.0				
1998 11 16	704	0.1−	0.7+	2000 01 05	012	0.2−	0.5−				

(13691)* 1997 SL₁₆ = 1983 CQ₅

Discovered 1997 Sept. 30 by A. Asami at Hadano.

Id. S. Nakano (*MPC* 33700)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	310.13308		(2000.0)	P	Q
n	0.23941845	ω	109.06006	−0.21784445	+0.96928840
a	2.5686069	Ω	147.67298	−0.95635050	−0.18866239
e	0.1046068	i	12.32233	−0.19477557	−0.15775455
P	4.12	H	13.7	G 0.15	U 1

Residuals in seconds of arc

1983 02 14	381	0.1−	0.3−	1997 10 10	355	0.5+	0.4−	1999 01 17	402	0.2+	0.3+
1997 09 30	402	0.8−	0.0	1997 10 10	355	0.8+	0.1−	1999 01 18	704	1.3+	0.9+
1997 09 30	402	0.6−	0.5−	1997 10 11	900	0.2+	0.2−	1999 01 18	704	0.4+	0.3+
1997 09 30	402	1.0−	0.0	1997 10 11	900	0.3−	0.2−	1999 01 18	704	0.1+	1.3+
1997 09 30	355	0.6−	0.3−	1997 10 27	355	1.7+	0.2−	1999 01 18	704	0.6−	0.5+
1997 09 30	355	1.2−	0.5−	1997 10 27	355	1.9+	0.9+	1999 01 18	402	0.0	0.1+
1997 09 30	355	1.6−	1.5−	1997 10 27	355	1.7+	0.3+	1999 01 18	402	0.0	0.1+
1997 09 30	587	1.1−	0.8−	1997 10 28	402	0.1+	0.3+	1999 01 18	402	0.2−	0.1+
1997 09 30	587	1.9−	0.2+	1997 10 28	402	0.0	0.6+	1999 01 20	704	(3.1−	0.3+)
1997 10 01	355	0.3−	1.3−	1997 10 28	402	0.1+	0.4+	1999 01 20	704	0.2−	0.9−
1997 10 01	355	0.1+	0.6−	1997 11 02	867	0.3+	0.8+	1999 01 20	704	0.8+	0.3−
1997 10 01	355	0.4+	0.2+	1997 11 02	867	0.4+	0.9+	1999 01 20	704	0.2−	1.0+
1997 10 01	355	0.7+	0.7+	1997 11 02	867	0.4+	0.9+	1999 01 20	704	0.4−	0.2+
1997 10 01	587	0.2−	1.4−	1997 11 03	867	0.1+	0.5+	1999 02 19	402	0.3−	0.3−
1997 10 01	587	0.5−	1.1−	1997 11 03	867	0.2+	0.6+	1999 02 19	402	0.6−	0.5−
1997 10 01	587	0.1−	0.5−	1997 11 03	867	0.0	0.5+	1999 02 19	402	0.7−	0.3−
1997 10 03	402	0.5−	0.0	1997 12 05	402	0.3+	1.1+	1999 11 08	703	0.3+	0.0
1997 10 03	402	0.0	0.1+	1997 12 05	402	1.3−	0.3+	1999 11 08	703	0.2−	0.9−
1997 10 03	402	0.0	0.1−	1997 12 05	402	0.3−	0.8+	1999 11 08	703	0.3+	0.1+
1997 10 03	355	0.6+	0.2+	1998 12 15	704	1.3−	1.1−	1999 11 08	703	0.1−	0.1+
1997 10 03	355	1.1+	0.2+	1998 12 15	704	0.5+	0.5−	2000 01 08	699	0.9−	0.1+
1997 10 03	355	0.6+	0.8+	1998 12 15	704	0.6−	0.3−	2000 01 08	699	0.1+	0.7−
1997 10 08	355	0.1−	0.1−	1998 12 15	704	0.3+	1.1−	2000 01 08	699	0.5−	1.5+
1997 10 08	355	0.2−	0.0	1998 12 15	704	0.8+	0.9−	2000 02 08	704	0.4+	0.4+
1997 10 08	355	0.3−	0.8+	1999 01 17	402	0.3+	0.1+	2000 02 08	704	0.3+	0.6+
1997 10 10	355	1.0+	0.0	1999 01 17	402	0.3+	0.3+	2000 02 08	704	0.3+	0.2−

(13692)* 1997 SW₃₀ = 1996 FT₂₃

Discovered 1997 Sept. 27 by H. Mikuž at Crni Vrh.

Id. G. V. Williams (*MPC* 30881)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	304.55743		(2000.0)	P	Q
n	0.24397482	ω	77.25829	−0.36322809	+0.93138442
a	2.5365264	Ω	171.32532	−0.90501422	−0.34651823
e	0.1784604	i	9.25513	−0.22139242	−0.11157139
P	4.04	H	14.2	G	0.15
				U	1

Residuals in seconds of arc

1996 03 23	691	0.0	0.6−	1997 11 01	106	0.5+	0.2+	1998 12 22	704	0.7+	0.8−
1996 03 23	691	0.2+	0.1−	1997 11 01	106	0.6+	0.3+	1999 12 09	703	0.6+	1.3+
1996 03 23	691	0.4−	0.2−	1998 12 09	106	0.5−	0.1−	1999 12 09	703	1.5+	1.3+
1996 04 22	691	0.0	1.0−	1998 12 09	106	0.4−	0.4−	1999 12 09	703	0.8+	0.1+
1996 04 22	691	0.3−	0.0	1998 12 09	106	0.1+	0.0	1999 12 09	703	(2.9−	0.2−)

1996 04 22	691	0.1−	0.3−	1998 12 09	106	1.3−	0.0	2000 02 08	704	0.4−	1.9−
1997 09 27	106	0.9−	0.5−	1998 12 15	704	0.7+	0.6−	2000 02 08	704	0.6+	1.5+
1997 09 27	106	0.8−	0.3−	1998 12 15	704	0.8−	0.6−	2000 02 08	704	(0.6−	2.4+)
1997 09 29	106	0.1+	0.0	1998 12 15	704	0.8+	0.3+	2000 02 08	704	(1.2−	3.8+)
1997 10 05	106	0.5−	0.6−	1998 12 15	704	0.2−	0.9+	2000 02 15	120	0.8−	0.0
1997 10 19	106	0.6+	0.4+	1998 12 22	704	1.1+	0.5−	2000 02 15	120	0.5−	0.6+
1997 10 19	106	0.1+	0.4+	1998 12 22	704	0.3+	0.3−	2000 02 15	120	0.2+	0.6+
1997 10 29	106	0.6+	0.1+	1998 12 22	704	0.1+	0.2+				
1997 10 29	106	0.9+	0.7+	1998 12 22	704	0.9−	0.1+				

(13693)* 1997 TW₁₅ = 1992 GD₅

Discovered 1997 Oct. 4 by Spacewatch at Kitt Peak.

Id. G. V. Williams (*MPC* 30883)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	275.94480		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$		
n	0.23650638	ω	44.76684	+0.09122351	+0.99555978		
a	2.5896484	Ω	230.48131	−0.92188012	+0.07561008		
e	0.1869348	i	1.72461	−0.37658375	+0.05606995		
P	4.17	H	14.0	G	0.15	U	1

Residuals in seconds of arc

1992 04 04	809	0.9+	1.2+	1996 03 17	691	0.6+	0.1−	1997 10 17	327	0.2+	0.1−
1992 04 04	809	0.1+	1.3+	1996 03 17	691	0.5+	0.2−	1997 10 17	327	0.7+	0.0
1992 04 04	809	0.1+	0.7+	1996 03 17	691	0.9+	0.1+	1997 10 17	327	0.2−	0.2+
1992 04 06	809	0.3−	0.1+	1996 04 22	566	0.2+	0.7−	1997 10 19	327	0.5+	0.5−
1992 04 06	809	1.2−	0.3+	1996 04 22	566	0.5+	0.7−	1997 10 19	327	0.2+	0.1+
1992 04 06	809	1.6−	0.2−	1996 04 22	566	0.3+	1.3−	1997 10 19	327	0.4+	0.1−
1993 10 12	809	0.0	1.2+	1997 10 04	691	0.4−	0.0	2000 01 05	704	1.2−	0.7+
1993 10 12	809	0.1−	1.3+	1997 10 04	691	0.3−	0.1+	2000 01 05	704	0.9−	1.7−
1993 10 12	809	1.3−	1.4+	1997 10 04	691	0.3−	0.2−	2000 01 05	704	1.0−	1.1−
1993 10 22	809	(4.4+	2.1−)	1997 10 09	691	0.4−	0.3−	2000 02 08	704	0.1−	0.4+
1993 10 22	809	0.7+	1.0−	1997 10 09	691	0.4−	0.1−	2000 02 08	704	0.5−	0.2+
1993 10 22	809	(4.3−	1.4+)	1997 10 09	691	0.3−	0.2−	2000 02 08	704	0.5−	1.1+
1996 03 16	566	0.3+	0.5−	1997 10 10	327	0.2+	0.4−	2000 02 08	704	0.5−	0.3+
1996 03 16	566	0.8+	0.6−	1997 10 10	327	0.3+	0.1−	2000 02 13	106	0.4−	1.0+
1996 03 16	566	0.8+	0.2−	1997 10 10	327	0.5+	0.0	2000 02 13	106	1.1+	1.1+

(13694)* 1997 WW₇ = 1999 BZ₂₂

Discovered 1997 Nov. 23 by N. Sato at Chichibu.

Id. G. V. Williams (*MPC* 33705)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	83.09830		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.08348541	ω	163.71519	+0.59278332	−0.80001745
a	5.1847642	Ω	249.83859	+0.72746263	+0.58124111
e	0.0715309	i	5.66285	+0.34555181	+0.14876441
P	11.81	H	10.3	G 0.15	U 1

Residuals in seconds of arc

1989 02 11	675	0.8−	0.2−	1997 12 31	704	0.0	0.1−	1999 01 20	704	0.0	0.1−
1989 02 11	675	0.8+	0.4−	1997 12 31	704	0.3+	0.6−	1999 01 20	704	0.7+	0.8−
1989 02 15	413	0.5−	1.2−	1997 12 31	704	0.2−	0.6−	2000 01 05	704	0.2+	1.7+
1989 02 15	413	0.3−	0.0	1998 01 02	704	1.0+	0.1−	2000 01 05	704	1.1−	1.3+
1997 11 23	369	0.5+	0.9+	1998 01 02	704	0.0	0.6−	2000 01 05	704	0.1−	1.4+
1997 11 23	369	0.9+	0.6+	1998 01 02	704	0.0	0.0	2000 01 05	704	1.4−	1.1+
1997 11 23	369	0.7+	1.1+	1998 01 02	704	1.1−	1.2−	2000 01 08	704	0.9+	1.0−
1997 11 24	369	0.2−	0.9+	1998 01 07	699	0.1+	0.1+	2000 01 08	704	1.2+	0.3−
1997 11 24	369	0.3+	0.4+	1998 01 07	699	0.6+	0.3+	2000 01 08	704	0.3+	0.4−
1997 11 24	369	0.3−	1.1+	1998 01 07	699	0.1−	1.3+	2000 01 08	704	0.4−	0.1−
1997 11 29	704	(4.1−	0.4+)	1998 12 02	327	0.3+	0.2−	2000 02 02	704	0.8+	0.4−
1997 11 29	704	(2.7−	0.6−)	1998 12 02	327	0.3+	0.4−	2000 02 02	704	0.4+	0.1+
1997 11 29	704	(4.1−	0.4+)	1998 12 02	327	0.4+	0.6−	2000 02 02	704	0.8+	0.2−
1997 11 29	704	(4.1−	0.5+)	1998 12 15	704	0.6+	1.1−	2000 02 02	704	0.2+	0.2−
1997 12 03	369	0.7−	0.6+	1998 12 15	704	1.1−	1.0−	2000 02 02	704	0.3+	0.3+
1997 12 03	369	0.5−	0.9+	1998 12 15	704	0.2+	0.9−	2000 02 05	704	0.5+	1.0+
1997 12 04	704	0.4+	1.5+	1998 12 15	704	0.6−	0.8−	2000 02 05	704	0.1−	0.6+

1997 12 04	704	(1.1– 3.2+)	1998 12 15	704	1.6– 0.8–	2000 02 05	704	0.8– 0.0
1997 12 04	704	(1.5– 2.5+)	1999 01 18	704	0.3– 0.1+	2000 02 06	704	0.1+ 0.1–
1997 12 04	704	1.9– 0.7–	1999 01 18	704	0.1+ 0.9+	2000 02 06	704	0.3– 0.2+
1997 12 21	369	0.3– 0.1+	1999 01 18	704	0.0 0.2+	2000 02 06	704	0.1+ 0.4+
1997 12 21	369	0.4– 0.1+	1999 01 18	704	0.4– 0.6–	2000 02 06	704	0.4+ 0.6+
1997 12 27	369	0.2– 0.1–	1999 01 18	704	1.2– 0.1–	2000 02 06	704	0.3+ 0.8+
1997 12 27	369	0.2– 0.4–	1999 01 20	704	0.8+ 1.5–			
1997 12 31	704	1.6+ 1.9–	1999 01 20	704	(2.4– 0.8+)			

(13695)* 1998 FO₅₂ = 1972 GT₁ = 1995 UP₄₅

Discovered 1998 Mar. 20 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 37678)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	77.81798		(2000.0)		P		Q	
<i>n</i>	0.22707572	ω	276.79506		+0.26398049		+0.96409574	
<i>a</i>	2.6608614	Ω	8.67591		–0.79197954		+0.23374539	
<i>e</i>	0.1662681	<i>i</i>	11.03532		–0.55052949		+0.12602577	
<i>P</i>	4.34	<i>H</i>	13.8		<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1972 04 09	805	0.1– 1.1+	1998 03 20	704	0.0 0.0	1998 04 19	704	0.9– 1.2+
1972 04 09	805	0.4+ 0.5–	1998 03 20	704	0.5+ 0.1+	1999 09 07	699	0.6– 0.1–
1972 04 10	805	0.7+ 0.8+	1998 03 20	704	0.6+ 0.2–	1999 09 07	699	0.3– 0.4–
1972 04 10	805	0.2– 0.3–	1998 03 20	704	0.3+ 0.5–	1999 09 07	699	0.1– 0.4–
1995 10 20	010	1.0– 1.4+	1998 03 22	704	0.0 0.3–	1999 09 13	704	0.4– 0.2+
1995 10 20	010	0.3– 0.9+	1998 03 22	704	0.0 0.5–	1999 09 13	704	0.5– 0.3+
1995 10 20	010	0.9– 1.1+	1998 03 22	704	0.2+ 0.2–	1999 09 13	704	0.1– 0.7+
1995 10 23	010	0.5+ 0.3+	1998 03 22	704	0.3+ 0.8+	1999 09 13	704	0.0 0.4+
1995 10 23	010	0.2– 0.6+	1998 03 22	704	0.6– 0.1+	1999 09 13	704	0.1– 0.8+
1995 10 23	010	0.5– 0.7–	1998 03 24	566	0.4+ 1.3–	1999 09 30	704	0.1– 0.2+
1998 02 28	809	1.4+ 1.8+	1998 03 24	566	0.3+ 1.0–	1999 09 30	704	0.4+ 0.4–
1998 02 28	809	0.2– 1.7+	1998 03 24	566	0.5+ 1.3–	1999 09 30	704	0.4+ 0.9+
1998 03 02	809	0.8+ 0.5+	1998 04 19	704	0.6– 1.0+	1999 09 30	704	0.3+ 0.5+
1998 03 02	809	0.4+ 0.3+	1998 04 19	704	0.5– 1.6+	1999 09 30	704	0.1– 0.1–
1998 03 20	704	0.1– 0.1+	1998 04 19	704	0.5+ 1.2+			

(13696)* 1998 HU₄₃ = 1978 ES₃ = 1983 VU

Discovered 1998 Apr. 20 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. A. Gnädig (*MPC* 32266)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	345.71551		(2000.0)		P		Q	
<i>n</i>	0.30305008	ω	16.91993		+0.57600682		–0.81376781	
<i>a</i>	2.1951276	Ω	38.00958		+0.73467892		+0.47381648	
<i>e</i>	0.1381494	<i>i</i>	7.22514		+0.35841740		+0.33657078	
<i>P</i>	3.25	<i>H</i>	13.9		<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1978 03 06	095	1.1– 0.1–	1998 04 20	704	0.6– 0.1+	1999 09 29	704	0.1– 0.7–
1983 11 04	688	1.1+ 1.5–	1998 04 21	704	0.2– 0.6–	1999 09 29	704	0.7+ 0.3+
1983 11 04	688	1.5+ 1.6–	1998 04 21	704	0.2+ 0.1–	1999 09 29	704	0.8+ 0.4–
1996 10 15	095	1.7+ 0.8–	1998 04 21	704	0.3+ 0.6–	1999 09 30	704	1.1+ 0.1–
1996 10 15	095	(2.8+ 2.5–)	1998 04 21	704	0.1+ 1.1–	1999 09 30	704	1.5+ 0.5+
1998 03 22	691	0.1– 0.1–	1998 04 21	704	0.5+ 0.4–	1999 09 30	704	1.0+ 0.1+
1998 03 22	691	0.1– 0.1–	1998 04 22	704	0.1– 0.0	1999 09 30	704	0.9+ 0.1+
1998 03 22	691	0.1– 0.1+	1998 04 22	704	0.1– 0.2+	1999 09 30	704	1.1+ 0.4+
1998 03 25	699	0.0 0.3–	1998 04 22	704	0.3+ 0.3–	1999 10 14	699	0.9– 0.1–
1998 03 25	699	0.0 0.4+	1998 04 22	704	0.2+ 0.6–	1999 10 14	699	1.1– 0.7–
1998 03 25	699	0.5– 0.7+	1998 04 22	704	0.2– 0.3+	1999 10 14	699	0.8– 0.1–
1998 03 25	704	1.5+ 0.5–	1998 04 25	699	0.5– 0.0	1999 11 10	704	0.5+ 0.0
1998 03 25	704	1.2– 0.9–	1998 04 25	699	0.7– 0.1+	1999 11 10	704	0.1– 0.5+
1998 03 25	704	0.8– 0.9–	1998 04 25	699	0.7+ 0.6+	1999 11 10	704	0.1+ 0.1–
1998 03 25	704	0.5– 0.7–	1998 05 16	704	0.2– 0.1–	1999 11 10	704	0.1– 0.6–
1998 03 25	704	0.0 0.8–	1998 05 16	704	1.1– 0.7–	1999 11 13	704	0.4– 0.9–

1998 03 29	704	0.6+ 0.3+	1998 05 16	704	0.7– 0.9–	1999 11 13	704	0.5– 0.3+
1998 03 29	704	0.3+ 0.1+	1998 05 16	704	0.1– 0.6+	1999 11 13	704	0.1– 0.3–
1998 03 29	704	0.5+ 0.4+	1999 09 11	704	0.9– 0.1+	1999 11 13	704	0.1– 0.1–
1998 03 29	704	0.6+ 0.8+	1999 09 11	704	0.8– 0.1+	1999 11 13	704	0.4– 0.1–
1998 03 29	704	0.2+ 1.5–	1999 09 11	704	0.9– 0.3–	2000 01 04	699	1.3– 0.3+
1998 04 20	704	0.1– 0.4–	1999 09 11	704	0.9– 0.0	2000 01 04	699	0.8– 0.0
1998 04 20	704	0.6– 0.4–	1999 09 11	704	0.7– 0.2–	2000 01 04	699	1.5– 0.0
1998 04 20	704	0.2– 0.3+	1999 09 29	704	0.4+ 0.2+			
1998 04 20	704	0.1+ 0.9+	1999 09 29	704	0.8+ 0.0			

(13697)* 1998 HJ₁₃₃ = 1949 QA₁ = 1949 QJ₂ = 1949 QO₁ = 4237 T-1 = 1980 TA₂ = 1999 NU₄₆

Discovered 1998 Apr. 19 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 37684), K. Reinmuth (d, *MPC* 383; also *MPC* 5126), O. Kippes (d, *MPC* 777)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	15.07896		(2000.0)		P		Q	
<i>n</i>	0.25527128	ω	200.54534		+0.99406842		+0.08796560	
<i>a</i>	2.4611311	Ω	154.15400		–0.06741498		+0.95983517	
<i>e</i>	0.2405575	<i>i</i>	8.43560		–0.08534166		+0.26641791	
<i>P</i>	3.86	<i>H</i>	13.8		<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1949 08 20	690	(1.7– 3.8–)	1998 03 20	704	0.3– 0.1+	1999 06 14	704	0.1+ 0.6+
1949 08 21	024	(3.2– 1.2+)	1998 03 20	704	1.0+ 0.3–	1999 06 14	704	0.0 0.2+
1949 08 22	024	(2.9– 6.4+)	1998 03 20	704	0.2– 1.5–	1999 06 14	704	0.4+ 0.6+
1949 08 24	690	0.2– 0.6–	1998 03 20	704	0.3– 0.3–	1999 06 14	704	0.3– 0.2–
1949 08 26	690	0.0 1.2–	1998 03 24	566	0.2– 0.0	1999 07 13	704	0.4– 0.3+
1949 08 27	760	(2.6– 4.5+)	1998 03 24	566	0.1– 0.2–	1999 07 13	704	0.5– 0.2–
1949 08 27	760	0.3+ 2.0+	1998 03 24	566	0.4– 0.1+	1999 07 13	704	0.5– 0.0
1971 03 24	675	1.7+ 1.2–	1998 04 19	704	0.3+ 0.5+	1999 07 13	704	0.7– 0.3+
1971 03 26	675	0.0 0.1+	1998 04 19	704	0.0 0.4+	1999 07 13	704	0.3– 0.1–
1971 03 26	675	0.7– 0.1–	1998 04 19	704	1.2+ 0.3+	1999 07 19	704	0.0 0.1–
1971 03 27	675	2.0– 1.5–	1998 04 19	704	0.5+ 1.3+	1999 07 19	704	0.1– 0.2–
1980 10 05	809	1.1+ 1.1–	1998 04 20	704	0.6+ 0.9–	1999 07 19	704	0.4+ 0.4–
1998 02 28	809	0.6– 0.0	1998 04 20	704	(0.1– 2.2+)	1999 07 19	704	0.3+ 0.5–
1998 02 28	809	0.7– 0.0	1998 04 20	704	1.0– 1.2+	1999 09 30	704	0.1– 1.6–
1998 03 02	809	0.1+ 0.3–	1998 04 20	704	0.4+ 0.3+	1999 09 30	704	0.6+ 0.5+
1998 03 02	809	0.0 0.0	1998 04 20	704	0.4– 0.7+	1999 09 30	704	1.0+ 0.4+
1998 03 20	704	0.4+ 0.6–	1999 06 14	704	0.6+ 0.1–			

(13698)* 1998 KF₃₅ = 1953 VH₂

Discovered 1998 May 22 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. A. Gnädig (*MPC* 34920)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	80.35375		(2000.0)		P		Q	
<i>n</i>	0.25730360	ω	271.89567		+0.95351792		+0.27800859	
<i>a</i>	2.4481544	Ω	71.97702		–0.20412098		+0.87969719	
<i>e</i>	0.1541355	<i>i</i>	7.02208		–0.22167137		+0.38580317	
<i>P</i>	3.83	<i>H</i>	13.3		<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1953 11 14	760	(16.9+ 4.5+)	1998 07 01	691	0.6+ 0.3+	1999 11 17	704	0.6– 0.3+
1953 11 14	760	(18.5+ 4.8+)	1998 07 01	691	0.8+ 0.1+	1999 11 17	704	0.4– 0.3+
1989 01 31	675	0.4– 0.3–	1999 10 08	703	0.1– 0.7+	1999 12 02	699	0.0 0.3+
1989 01 31	675	0.5+ 0.0	1999 10 08	703	0.4– 0.6+	1999 12 02	699	0.1– 0.4+
1997 01 14	599	1.2– 0.8+	1999 10 08	703	0.0 0.7+	1999 12 02	699	0.1– 0.2+
1997 01 14	599	0.2+ 0.9–	1999 10 08	703	0.1+ 0.5+	1999 12 04	703	0.1– 0.7+
1997 01 14	599	0.4+ 0.4+	1999 10 10	704	1.0+ 0.4–	1999 12 04	703	0.1+ 0.6+
1998 05 18	120	0.8– 0.4+	1999 10 10	704	0.8– 0.2–	1999 12 04	703	0.1– 0.3+
1998 05 18	120	0.5+ 1.1–	1999 10 10	704	1.1– 0.7–	1999 12 04	703	0.1– 0.4+
1998 05 22	704	0.3+ 0.1+	1999 10 10	704	0.5– 0.9–	1999 12 06	704	0.4+ 0.2–

2000 FEB. 22

M.P.C. 38371

1998 05 22	704	1.0+	0.4+	1999 10 10	704	1.3-	0.1-	1999 12 06	704	0.0	0.2-
1998 05 22	704	0.5-	1.1+	1999 10 15	704	0.3+	0.3-	1999 12 06	704	0.2+	0.3-
1998 05 22	704	1.3+	0.0	1999 10 15	704	0.3-	0.3-	1999 12 06	704	0.6+	0.3-
1998 05 22	704	0.5-	1.2+	1999 10 15	704	0.0	0.3-	1999 12 06	704	0.4+	0.0
1998 05 24	704	0.2-	0.1-	1999 10 15	704	0.0	0.2-	1999 12 07	704	0.0	0.2-
1998 05 24	704	0.2+	1.1+	1999 10 15	704	0.9-	0.4-	1999 12 07	704	0.1+	0.1-
1998 05 24	704	0.2+	0.2-	1999 10 21	704	0.5+	0.1-	1999 12 07	704	0.2+	0.1+
1998 05 24	704	0.1+	0.3-	1999 10 21	704	0.3-	0.4-	1999 12 07	704	0.1-	0.1+
1998 05 24	704	0.9-	0.2-	1999 10 21	704	0.2+	0.6-	1999 12 07	704	0.0	0.2+
1998 06 03	704	0.3-	0.4-	1999 10 21	704	0.2+	0.3-	1999 12 12	703	0.1-	0.7+
1998 06 03	704	1.5-	0.1-	1999 10 21	704	0.2-	0.4-	1999 12 12	703	0.1-	0.6+
1998 06 03	704	0.7-	0.5-	1999 11 04	704	0.2+	0.1+	1999 12 12	703	0.0	0.6+
1998 06 03	704	0.3-	0.2+	1999 11 04	704	0.0	0.2+	1999 12 12	703	0.1-	0.5+
1998 06 16	704	0.6+	0.3+	1999 11 04	704	0.0	0.6+	2000 01 05	704	0.2-	0.8-
1998 06 16	704	0.1-	0.3-	1999 11 10	699	0.1+	0.3+	2000 01 05	704	1.0+	0.5+
1998 06 16	704	0.0	0.2+	1999 11 10	699	0.1-	0.2+	2000 01 05	704	0.1+	0.7-
1998 06 16	704	0.5+	0.7+	1999 11 10	699	0.5-	0.0	2000 01 05	704	0.2+	1.1+
1998 06 16	704	1.1+	0.2+	1999 11 12	699	0.3+	0.4+	2000 01 06	704	1.1-	0.3-
1998 06 20	691	0.5-	0.5+	1999 11 12	699	0.0	0.6+	2000 01 06	704	0.5+	0.6+
1998 06 20	691	0.5-	0.3+	1999 11 12	699	0.2+	0.4+	2000 01 06	704	1.1+	0.7+
1998 06 20	691	0.4-	0.2+	1999 11 15	704	0.1+	0.6-	2000 01 06	704	0.1+	0.6+
1998 06 27	699	0.7+	0.6+	1999 11 15	704	0.4+	0.3-	2000 01 06	704	(0.6+	2.0+)
1998 06 27	699	0.1+	0.6+	1999 11 15	704	0.1+	0.4-	2000 02 03	704	0.1-	0.5+
1998 06 27	699	0.6+	0.1-	1999 11 15	704	0.4+	0.4-	2000 02 03	704	0.1+	0.3+
1998 06 29	699	0.4+	0.2-	1999 11 15	704	0.1-	0.3-	2000 02 03	704	0.0	0.4+
1998 06 29	699	0.1-	0.1+	1999 11 17	704	0.3-	0.3-	2000 02 03	704	0.2+	0.2+
1998 06 29	699	0.0	0.5-	1999 11 17	704	0.4-	0.4-	2000 02 03	704	0.2+	0.6+
1998 07 01	691	0.5+	0.1-	1999 11 17	704	0.7-	0.1-				

(13699)* 1998 MU₇ = 1981 MA = 2000 AC₁₄₂

Discovered 1998 June 18 by the Lowell Observatory Near-Earth Object Search at the Anderson Mesa Station.

Id. G. V. Williams (*MPC* 37693), M. E. Sansaturio (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	146.64061		(2000.0)	P	Q		
n	0.29381653	ω	84.18978	+0.96817844	+0.23567594		
a	2.2408798	Ω	262.15736	-0.24974073	+0.88818114		
e	0.2045187	i	4.87495	-0.01612713	+0.39445039		
P	3.35	H	13.8	G	0.15	U	1

Residuals in seconds of arc

1981 06 24	688	0.7-	0.3-	1998 08 28	699	0.5+	0.8+	2000 02 01	703	0.3-	0.0
1981 06 24	688	0.8+	2.0-	1998 08 28	699	0.3+	0.7+	2000 02 01	703	0.2+	0.4+
1985 12 15	675	1.5-	1.6-	1998 09 22	699	0.0	0.8+	2000 02 01	703	0.7+	0.0
1985 12 15	675	0.9+	0.4-	1998 09 22	699	0.3+	0.3+	2000 02 01	703	0.1+	0.1-
1988 08 10	413	0.7-	0.9+	1998 09 22	699	0.2+	1.1+	2000 02 02	704	0.2+	0.1+
1988 08 10	413	0.6+	0.8+	1998 10 14	699	0.5-	0.8+	2000 02 02	704	0.6+	0.2+
1998 06 02	699	0.1+	0.1-	1998 10 14	699	0.1-	0.4-	2000 02 02	704	0.2+	0.1+
1998 06 02	699	0.3+	0.1-	1998 10 14	699	0.0	0.1-	2000 02 02	704	0.6+	0.5+
1998 06 02	699	0.5-	0.1+	1998 10 20	699	0.3-	0.1-	2000 02 02	704	0.5+	0.3+
1998 06 18	699	0.8-	0.2+	1998 10 20	699	0.1-	0.2-	2000 02 04	704	0.4-	0.1-
1998 06 18	699	0.8-	0.2+	1998 10 20	699	0.4-	0.3-	2000 02 04	704	0.3-	0.5+
1998 06 18	699	1.0-	0.0	1998 11 17	699	0.2-	0.1+	2000 02 04	704	0.0	0.1+
1998 06 26	699	0.5-	0.1+	1998 11 17	699	0.3-	0.2-	2000 02 04	704	0.0	0.3+
1998 06 26	699	0.6-	0.2+	1998 11 17	699	0.4-	0.1+	2000 02 04	704	0.2+	0.3+
1998 06 26	699	0.7-	0.1+	1998 12 09	704	0.3-	0.3+	2000 02 05	704	0.1+	0.2+
1998 07 16	699	0.0	0.1+	1998 12 09	704	1.2+	0.9-	2000 02 05	704	0.4+	0.7+
1998 07 16	699	0.1+	0.2+	1998 12 09	704	0.7+	0.1+	2000 02 05	704	0.1+	0.6+
1998 07 16	699	0.3+	0.0	1998 12 09	704	1.6+	0.1-	2000 02 05	704	0.0	0.6+
1998 08 17	704	0.1+	0.7-	1998 12 09	704	0.2-	0.5+	2000 02 08	704	0.4+	0.1+
1998 08 17	704	(0.2+	2.4-)	1998 12 11	699	1.6-	0.4+	2000 02 08	704	0.1+	0.2+
1998 08 17	704	0.0	0.3+	1998 12 11	699	0.4-	0.5-	2000 02 08	704	0.3+	0.9+
1998 08 17	704	0.8-	0.8-	1998 12 11	699	0.7-	0.5-	2000 02 08	704	0.2+	0.6+
1998 08 17	704	0.1+	1.1+	2000 01 05	704	0.7-	0.4-	2000 02 08	704	0.0	0.4+
1998 08 22	566	0.0	1.2-	2000 01 05	704	0.3-	0.2-	2000 02 12	704	0.6+	0.4-
1998 08 22	566	0.2+	1.2-	2000 01 05	704	0.5-	0.6-	2000 02 12	704	0.9+	0.8+

1998 08 22	566	0.1+	0.7-	2000 01 05	704	0.3-	0.1-	2000 02 12	704	(1.7+	2.7+)
1998 08 23	704	1.9+	0.9+	2000 01 05	704	0.4-	0.6+	2000 02 12	704	0.3+	0.7+
1998 08 23	704	0.4+	1.5+	2000 01 08	704	0.4-	0.4-	2000 02 13	704	(0.9+	2.6+)
1998 08 23	704	0.7-	1.8+	2000 01 08	704	0.3-	0.6-	2000 02 13	704	0.4+	0.3+
1998 08 23	704	0.0	0.3-	2000 01 08	704	0.1+	0.9-	2000 02 13	704	0.1+	0.9+
1998 08 23	704	0.7-	0.7-	2000 01 08	704	0.4-	0.3-				
1998 08 28	699	0.6+	0.6+	2000 01 08	704	0.2+	0.8+				

(13700)* 1998 MM₃₆ = 1959 UN = 1972 TO₅ = 1995 UA₆

Discovered 1998 June 26 by Spacewatch at Kitt Peak.

Id. A. Gnädig (*MPC* 32973), G. V. Williams (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	152.92797		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.30114815	ω	31.00506	+0.93251024	+0.35136454
a	2.2043603	Ω	308.19079	-0.34928032	+0.81870255
e	0.1964454	i	6.09658	-0.09180368	+0.45416858
P	3.27	H	14.7	G 0.15	U 2

Residuals in seconds of arc

1959 10 29	760	1.0-	0.8+	1998 08 23	704	0.1+	1.1+	2000 02 02	704	1.1+	0.6+
1959 10 29	760	1.5+	0.3+	1998 08 23	704	0.1-	1.2+	2000 02 02	704	0.8+	0.1+
1972 10 06	095	2.0-	1.6+	1998 08 23	704	0.2-	0.1-	2000 02 02	704	0.5+	0.7+
1995 10 21	399	0.7+	1.4-	1998 08 23	704	1.0-	0.8+	2000 02 02	704	0.6+	0.0
1995 10 21	399	(3.9+	0.6-)	1998 10 14	699	0.5+	0.4+	2000 02 06	704	0.0	0.2+
1998 06 26	691	0.8+	0.7+	1998 10 14	699	0.3+	0.6+	2000 02 06	704	0.1+	0.4+
1998 06 26	691	1.0+	0.7+	1998 10 14	699	0.1-	0.2-	2000 02 06	704	0.2-	0.3+
1998 06 26	691	0.7+	0.7+	2000 01 04	704	0.7+	0.5+	2000 02 06	704	0.2+	0.3+
1998 07 03	691	0.7-	1.2+	2000 01 04	704	0.3-	1.0+	2000 02 06	704	0.4-	0.9+
1998 07 03	691	0.7-	0.9+	2000 01 04	704	0.4-	0.9+	2000 02 08	704	0.0	0.4+
1998 07 03	691	0.9-	1.6+	2000 01 04	704	1.0+	0.7-	2000 02 08	704	0.1-	1.1+
1998 07 25	691	0.3-	0.5+	2000 01 04	704	0.0	0.1-	2000 02 08	704	0.2+	0.9+
1998 07 25	691	0.3-	0.4+	2000 01 07	704	0.2+	0.6+	2000 02 08	704	0.4-	0.7+
1998 07 25	691	0.0	1.1+	2000 01 07	704	0.7+	0.3-	2000 02 08	704	0.8-	0.5+
1998 08 17	704	1.0-	1.0+	2000 01 07	704	0.0	0.2-	2000 02 11	704	1.1+	0.3+
1998 08 17	704	0.5-	0.1-	2000 01 07	704	0.4+	0.4+	2000 02 11	704	0.4+	0.0
1998 08 17	704	0.2+	0.6-	2000 01 30	703	0.3+	1.1+	2000 02 11	704	0.2+	0.8+
1998 08 17	704	0.4-	0.1-	2000 01 30	703	0.2+	0.9+	2000 02 11	704	0.3+	0.1+
1998 08 17	704	0.4-	0.2-	2000 01 30	703	0.3+	1.1+	2000 02 11	704	0.1-	0.7+
1998 08 23	704	0.4-	0.4+	2000 01 30	703	0.1+	1.6+				

(13701)* 1998 OR = 1995 YO₂₂ = 1997 GG₉

Discovered 1998 July 20 by the OCA-DLR Asteroid Survey at Caussols.

Id. G. V. Williams (*MPC* 32289)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	64.48842		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.28831459	ω	188.14392	+0.47942585	-0.87613664
a	2.2692986	Ω	233.22282	+0.80866705	+0.46333733
e	0.1541177	i	3.60429	+0.34089362	+0.13305301
P	3.42	H	15.3	G 0.15	U 1

Residuals in seconds of arc

1995 12 19	327	1.0+	0.5+	1998 07 24	910	0.1-	0.1+	2000 01 07	704	0.6+	0.7-
1995 12 19	327	0.3-	0.2+	1998 07 26	910	0.1+	0.6+	2000 01 07	704	0.4+	0.2+
1995 12 19	327	0.4-	0.4+	1998 07 27	910	0.2+	0.6+	2000 01 07	704	0.2+	0.0
1995 12 21	327	0.5-	0.4+	1998 07 27	910	0.1+	0.7+	2000 01 07	704	0.4-	0.1-
1995 12 21	327	0.6+	0.5+	1998 07 29	910	0.0	0.1-	2000 02 01	703	0.0	0.5+
1995 12 21	327	1.6-	0.7+	1998 07 29	910	0.2+	0.0	2000 02 01	703	0.3-	0.5+
1997 04 03	704	0.0	0.8+	1998 07 29	910	0.7+	0.2+	2000 02 01	703	0.3+	0.5+
1997 04 03	704	0.6+	0.1-	1999 12 05	704	0.6+	0.3+	2000 02 01	703	0.7-	0.4+
1997 04 05	704	0.2+	0.7-	1999 12 05	704	0.6+	0.1-	2000 02 02	704	0.2-	0.3+
1997 04 05	704	0.1+	0.1-	1999 12 05	704	0.3+	0.7-	2000 02 02	704	0.0	0.4+
1997 04 07	704	0.6-	0.1+	1999 12 05	704	0.1-	0.4-	2000 02 02	704	0.6-	0.3+
1997 04 07	704	0.2+	0.6+	1999 12 14	704	1.1+	0.6+	2000 02 02	704	0.2-	0.4+
1997 04 07	704	0.6-	0.7+	1999 12 14	704	0.7-	1.2-	2000 02 02	704	0.2-	0.4+
1997 04 07	704	0.7+	0.2-	1999 12 14	704	(2.2-	0.8-)	2000 02 04	704	0.2-	0.1+

1998 07 20	910	0.4+	0.1-	2000 01 05	704	0.1+	0.1-	2000 02 04	704	0.2+	0.0
1998 07 20	910	0.0	0.3-	2000 01 05	699	0.3-	1.9+	2000 02 04	704	0.3+	0.0
1998 07 20	910	0.2+	1.2-	2000 01 05	704	0.5-	1.0-	2000 02 04	704	0.1+	0.4+
1998 07 20	910	0.7-	0.7+	2000 01 05	699	0.5-	0.0	2000 02 04	704	0.6+	0.0
1998 07 21	910	1.0-	0.6+	2000 01 05	704	0.3+	1.4-	2000 02 12	704	(1.6+	4.2+)
1998 07 21	910	0.7-	0.8+	2000 01 05	699	0.4+	0.7+	2000 02 12	704	(0.9+	3.6+)
1998 07 23	910	0.0	0.2+	2000 01 05	704	0.2-	0.2-	2000 02 12	704	(0.3+	4.4+)
1998 07 24	910	0.1-	0.2+	2000 01 07	704	0.0	0.3-	2000 02 12	704	(0.9+	2.4+)

(13702)* 1998 OE₇ = 1986 RN₉ = 1994 PP₃₀

Discovered 1998 July 28 by the Beijing Schmidt CCD Asteroid Program at Xinglong.

Id. G. V. Williams (*MPC* 32490)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	89.56416		(2000.0)	P	Q		
<i>n</i>	0.24397986	ω	87.25803	+0.77105472	-0.61680330		
<i>a</i>	2.5364914	Ω	310.76688	+0.46897749	+0.71813299		
<i>e</i>	0.2067343	<i>i</i>	12.05699	+0.43073743	+0.32224013		
<i>P</i>	4.04	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1986 09 08	095	0.9-	1.0-	1998 09 16	327	0.1+	0.2+	2000 01 08	704	0.5-	1.0-
1994 08 12	809	1.1+	0.6+	1998 09 16	327	0.2+	0.3+	2000 01 08	704	0.2-	1.0-
1994 08 12	809	1.8+	0.7+	1998 09 16	327	0.4-	0.2+	2000 01 08	704	1.7+	1.0-
1994 08 12	809	1.5+	0.6+	1998 09 16	327	0.5+	0.5+	2000 02 02	704	0.1+	0.4+
1994 08 13	809	(3.1+	0.2+)	1998 09 17	699	0.3+	0.1-	2000 02 02	704	0.7-	0.3+
1994 08 13	809	(3.4+	0.2+)	1998 09 17	699	0.2+	0.1+	2000 02 02	703	0.5-	0.7+
1994 08 13	809	(3.0+	0.4+)	1998 09 17	699	0.8+	0.4-	2000 02 02	704	0.0	0.5+
1998 07 28	327	0.2-	1.0+	1998 09 19	704	0.6+	0.3-	2000 02 02	703	0.0	0.1-
1998 07 28	327	0.2-	0.9+	1998 09 19	704	0.2+	1.0-	2000 02 02	704	0.3-	0.4+
1998 07 28	327	0.3-	1.3+	1998 09 19	704	0.2-	0.3+	2000 02 02	703	0.7+	0.8+
1998 07 28	327	0.1-	1.1+	1998 09 19	704	0.4+	1.3-	2000 02 02	703	0.3+	0.2+
1998 07 29	327	0.2-	0.6+	1998 09 19	704	0.2-	0.0	2000 02 02	704	0.0	1.0+
1998 07 29	327	0.5-	0.4+	1998 09 22	327	1.0-	0.7+	2000 02 06	704	0.6+	0.4+
1998 07 29	327	0.8-	0.5+	1998 09 22	327	1.7-	0.3+	2000 02 06	704	0.5+	1.0+
1998 08 17	704	0.4+	0.3-	1998 09 22	327	1.7-	0.2-	2000 02 06	704	0.5+	0.6+
1998 08 17	704	0.0	0.6+	1998 12 09	704	0.1+	0.5-	2000 02 06	704	0.6+	0.5+
1998 08 17	704	0.2-	0.0	1998 12 09	704	0.1-	0.1+	2000 02 06	704	0.3+	0.3+
1998 08 17	704	0.2-	1.3+	1998 12 09	704	0.1-	0.4-	2000 02 12	704	0.2-	0.7+
1998 08 17	704	0.1+	0.8+	1998 12 09	704	0.5+	0.8-	2000 02 12	704	0.6+	0.2-
1998 08 22	327	0.6-	0.2+	1998 12 09	704	(2.4-	1.1-)	2000 02 12	704	0.4-	0.4-
1998 08 22	327	0.6-	0.1+	1999 11 16	704	0.2-	0.5+	2000 02 12	704	1.0+	0.8+
1998 08 22	327	0.5-	0.2+	1999 11 16	704	0.4+	0.2-	2000 02 13	704	0.3+	1.2+
1998 08 23	704	0.4-	0.2+	1999 11 16	704	0.5+	0.3-	2000 02 13	704	0.4-	0.5-
1998 08 23	704	0.7-	0.6+	1999 11 16	704	0.3-	0.1-	2000 02 13	704	0.4+	1.2+
1998 08 23	704	0.0	0.3+	1999 12 05	704	0.2+	0.4+	2000 02 13	704	0.1-	0.3+
1998 08 23	704	0.0	1.0+	1999 12 05	704	0.4+	0.1-	2000 02 13	704	0.1+	1.1+
1998 08 23	704	0.4-	0.7+	1999 12 05	704	0.2+	0.1-	2000 02 14	704	0.1+	0.2+
1998 08 26	327	0.6-	0.2-	2000 01 05	704	0.2+	1.0+	2000 02 14	704	0.4+	0.2+
1998 08 26	327	0.5-	0.3-	2000 01 05	704	0.0	0.5-	2000 02 14	704	0.2+	0.0
1998 08 26	327	0.6-	0.3-	2000 01 05	704	0.3+	0.1-	2000 02 15	704	0.1-	0.4+
1998 08 31	327	0.6-	0.2-	2000 01 05	704	0.2-	0.7-	2000 02 15	704	0.5+	0.4+
1998 08 31	327	0.3-	0.3-	2000 01 05	699	0.1+	1.1+	2000 02 15	704	0.2-	0.6-
1998 08 31	327	0.4-	0.2-	2000 01 05	699	0.1+	0.1+	2000 02 15	704	0.7+	0.8+
1998 09 16	327	0.3+	0.3+	2000 01 05	699	0.1-	0.9+				
1998 09 16	327	0.4+	0.4+	2000 01 08	704	0.0	0.6-				

(13703)* 1998 OR₁₃ = 1987 SB₂₂ = 1993 FR₄₇ = 1993 HQ₈

Discovered 1998 July 26 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (*MPC* 32492)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	117.67804		(2000.0)	P	Q		
<i>n</i>	0.26381822	ω	221.68723	+0.97861605	-0.20525148		
<i>a</i>	2.4076842	Ω	150.14898	+0.19517306	+0.90581683		
<i>e</i>	0.1947441	<i>i</i>	1.55502	+0.06494686	+0.37063149		
<i>P</i>	3.74	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1987 09 18	095	0.2+	0.3+	1998 08 25	126	1.9+	0.4+	1998 11 10	910	(2.4-	1.3-)
1987 09 21	095	0.3-	0.5+	1998 08 25	126	0.3-	0.0	1998 11 11	910	1.6-	1.3-
1993 03 19	809	0.0	0.0	1998 08 25	126	0.1-	0.2+	1998 11 11	910	1.6-	1.3-
1993 03 20	809	0.9+	0.0	1998 08 25	126	0.3-	0.1+	1998 11 11	910	1.7-	1.3-
1993 03 24	809	0.1-	0.7+	1998 08 29	126	0.7-	0.2-	1998 12 08	704	0.1-	0.3-
1993 04 17	413	0.9-	1.0+	1998 08 29	126	1.9-	0.0	1998 12 08	704	(0.7+	2.2-)
1998 06 28	691	0.4+	0.1+	1998 08 29	126	1.6-	0.3+	1998 12 08	704	1.7+	0.5+
1998 06 28	691	0.6+	0.2+	1998 08 29	126	0.7-	0.4+	1998 12 08	704	0.3+	1.3-
1998 06 28	691	0.3+	0.1+	1998 08 29	126	1.6-	0.5-	1998 12 08	704	0.9+	1.2+
1998 07 26	809	(3.8+	3.9+)	1998 08 29	126	1.5-	0.4+	2000 01 07	704	0.3-	0.9-
1998 07 26	809	(2.2+	3.4+)	1998 08 29	126	0.6-	0.7-	2000 01 07	704	(0.9+	2.3-)
1998 07 26	809	(2.0+	3.9+)	1998 08 29	126	0.8+	0.2-	2000 01 07	704	0.7+	1.0+
1998 07 26	699	0.3+	0.4+	1998 09 13	699	0.2+	0.3+	2000 01 07	704	0.3+	1.1+
1998 07 26	699	0.2+	0.3+	1998 09 13	699	0.6+	0.4+	2000 01 27	120	0.5-	0.5-
1998 07 26	699	0.5+	0.1+	1998 09 13	699	1.2+	0.3-	2000 01 28	120	1.2-	0.0
1998 07 26	691	0.2+	0.1+	1998 09 14	704	0.1+	0.4+	2000 02 02	704	0.0	0.2+
1998 07 26	691	0.2+	0.0	1998 09 14	704	0.7+	1.0+	2000 02 02	704	0.4-	0.0
1998 07 26	691	0.0	0.0	1998 09 14	704	0.2+	1.0+	2000 02 02	704	0.7+	0.4-
1998 07 27	809	(2.3+	4.5+)	1998 09 14	704	0.6-	1.2-	2000 02 02	704	0.5+	0.5-
1998 07 27	809	(1.9+	3.7+)	1998 09 14	704	0.2+	0.7-	2000 02 03	691	0.4-	0.3-
1998 07 27	809	(1.5+	3.7+)	1998 09 18	704	(2.2+	0.5-)	2000 02 03	691	0.5-	0.4-
1998 08 17	704	0.1+	0.0	1998 09 18	704	0.8-	1.9+	2000 02 03	691	0.3-	0.3-
1998 08 17	704	0.5+	0.7-	1998 09 18	704	0.7+	0.7-	2000 02 04	704	0.6+	0.6+
1998 08 17	704	0.5+	0.8-	1998 09 18	704	0.3+	0.4+	2000 02 04	704	0.4+	1.0+
1998 08 17	704	0.7+	0.6-	1998 09 18	704	(2.3-	1.6+)	2000 02 04	704	0.9-	0.2+
1998 08 17	704	0.4+	0.6-	1998 09 21	699	0.1-	0.5+	2000 02 04	704	0.6+	0.9+
1998 08 23	704	0.5-	0.6+	1998 09 21	699	0.1-	0.2-	2000 02 04	704	0.6+	0.7+
1998 08 23	704	0.6-	0.7+	1998 09 21	699	0.3-	0.1-	2000 02 11	704	0.2+	1.3+
1998 08 23	704	0.4+	1.2+	1998 10 12	699	0.4-	0.2+	2000 02 11	704	0.2-	0.4+
1998 08 23	704	0.8+	1.2+	1998 10 12	699	0.4+	0.4-	2000 02 11	691	0.1+	0.2-
1998 08 23	704	0.1+	0.9+	1998 10 12	699	0.1+	0.1-	2000 02 11	704	0.6+	1.0+
1998 08 23	126	0.1+	0.0	1998 11 09	910	(2.2-	1.3-)	2000 02 11	691	0.0	0.2-
1998 08 23	126	0.3+	0.8+	1998 11 09	910	(2.4-	1.1-)	2000 02 11	704	0.9+	0.4+
1998 08 24	126	0.2-	0.4+	1998 11 09	910	(2.4-	1.2-)	2000 02 11	704	0.7+	1.1+
1998 08 24	126	0.0	0.4+	1998 11 10	910	(2.2-	1.3-)	2000 02 11	691	0.1+	0.2-
1998 08 24	126	0.0	0.3+	1998 11 10	910	(2.5-	0.9-)				

(13704)* 1998 PA₁

Discovered 1998 Aug. 13 by L. Tesi at San Marcello Pistoiese.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	7.72025		(2000.0)	P	Q		
<i>n</i>	0.18551149	ω	196.19953	+0.26182036	-0.96145898		
<i>a</i>	3.0447771	Ω	238.69082	+0.89602341	+0.27447306		
<i>e</i>	0.1284785	<i>i</i>	5.63857	+0.35859748	+0.01616089		
<i>P</i>	5.31	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1991 03 25	413	0.4+	0.1-	1999 10 22	704	0.2-	0.1-	1999 12 04	703	0.3-	0.8+
1991 03 25	413	0.3-	0.2-	1999 10 22	704	0.1+	0.4-	1999 12 04	703	0.0	0.8+
1993 08 22	675	1.0-	1.4+	1999 10 22	704	0.2+	0.2+	1999 12 04	703	(2.9-	1.4+)
1993 08 22	675	0.2+	0.3+	1999 10 22	704	0.8+	0.1-	1999 12 04	703	(0.6+	2.6+)
1998 07 31	699	1.5-	0.8-	1999 10 22	704	0.5-	0.2-	1999 12 07	704	0.2-	0.3-
1998 07 31	699	0.1+	0.1-	1999 11 03	704	1.0+	0.5+	1999 12 07	704	1.2-	0.6-
1998 07 31	699	0.1+	0.4+	1999 11 03	704	0.6+	0.5+	1999 12 07	704	0.3-	0.5-
1998 08 13	104	0.9-	0.6+	1999 11 03	704	0.9+	0.3+	1999 12 07	704	0.0	0.3-
1998 08 13	104	0.5-	0.9+	1999 11 03	704	0.5+	0.3+	1999 12 07	104	0.1+	0.2-
1998 08 13	104	0.4-	1.0+	1999 11 03	704	1.0+	0.3-	1999 12 07	104	0.1+	0.1-
1998 08 13	104	0.3-	0.5+	1999 11 09	704	0.7+	0.2-	1999 12 07	104	0.5+	1.1-

2000 FEB. 22

M.P.C. 38373

1998 08 13	104	0.4+	0.5+	1999 11 09	704	0.1+	0.0	1999 12 07	106	0.5+	1.2+
1998 08 15	104	0.3-	0.4-	1999 11 09	704	0.6+	0.2-	1999 12 07	106	0.1-	0.2+
1998 08 15	104	0.2-	0.1-	1999 11 09	704	0.7+	0.0	1999 12 07	106	0.1+	0.1+
1998 08 15	104	0.5+	0.0	1999 11 09	704	0.5+	0.0	1999 12 08	691	0.5+	1.1-
1998 08 17	704	1.0+	0.8+	1999 11 10	704	0.6+	0.3-	1999 12 08	691	0.0	0.4+
1998 08 17	704	1.2+	0.8-	1999 11 10	704	0.6+	0.5-	1999 12 08	691	0.4-	0.8+
1998 08 17	704	0.9+	0.4-	1999 11 10	704	0.6+	0.2-	1999 12 08	704	0.1+	0.1+
1998 08 17	704	0.2-	0.9-	1999 11 10	704	0.6+	0.2-	1999 12 08	704	0.1+	0.1-
1998 08 17	704	0.3+	0.3-	1999 11 10	704	0.4+	0.4-	1999 12 08	704	0.7-	0.3-
1998 08 20	104	0.5-	0.1-	1999 11 12	704	0.1-	0.4-	1999 12 08	704	0.2-	0.3-
1998 08 20	104	0.1+	0.1+	1999 11 12	704	0.3-	0.3-	1999 12 08	704	0.3+	0.3-
1998 08 20	104	0.3+	0.2+	1999 11 12	704	0.3-	0.7-	1999 12 13	691	0.2-	0.3-
1998 08 23	104	0.2+	0.2+	1999 11 16	704	0.5+	0.2+	1999 12 13	691	0.1-	0.2-
1998 08 23	104	0.2+	0.2-	1999 11 16	704	0.7+	0.2+	1999 12 13	691	0.2-	0.2-
1998 08 23	104	0.3+	0.5-	1999 11 16	704	0.6+	0.1+	2000 01 04	691	0.1-	0.2-
1998 09 19	104	0.4-	0.4-	1999 11 16	704	0.5+	0.1+	2000 01 04	691	0.0	0.0
1998 09 19	104	0.3-	0.2-	1999 11 16	704	0.7+	0.2-	2000 01 04	691	0.2-	0.0
1998 09 19	104	0.2+	1.0-	1999 11 17	699	1.2-	1.2+	2000 02 03	704	0.5-	0.0
1998 09 23	104	0.3-	0.6-	1999 11 17	699	0.4+	0.9+	2000 02 03	704	0.5-	0.6+
1998 09 23	104	0.4-	0.5-	1999 11 17	699	0.1-	0.5+	2000 02 03	704	0.1+	0.6-
1998 09 23	104	0.4-	0.4-	1999 11 17	704	0.0	0.8+	2000 02 03	704	1.1-	0.7+
1998 10 12	104	0.3+	0.2+	1999 11 17	704	0.4+	0.7-	2000 02 03	049	0.5-	0.8-
1998 10 12	104	0.3+	0.1+	1999 11 17	704	0.4+	0.2-	2000 02 03	049	0.4-	1.2-
1998 10 12	104	0.3+	0.1-	1999 11 17	704	0.2+	0.6-	2000 02 03	049	0.6-	0.3-
1998 10 12	104	0.5+	0.2-	1999 11 17	704	(3.0-	2.5-)	2000 02 09	049	1.4-	0.1+
1999 09 28	104	1.8-	0.0	1999 12 03	699	0.1+	0.7+	2000 02 09	049	1.2-	0.0
1999 09 28	104	1.6-	0.1+	1999 12 03	699	0.7-	0.6+	2000 02 09	049	1.2-	0.3-
1999 09 28	104	1.3-	0.4+	1999 12 03	699	0.5-	0.8+				

(13705)* 1998 QJ₂ = 1977 EB₃ = 1991 LX₃

Discovered 1998 Aug. 19 by P. Antonini at Bedoin.

Id. G. V. Williams (*MPC* 32495)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	129.93551		(2000.0)	P	Q
<i>n</i>	0.29924901	ω	239.32976	+0.98758379	-0.14357186
<i>a</i>	2.2136769	Ω	128.84763	+0.15684946	+0.92377954
<i>e</i>	0.1296161	<i>i</i>	4.69596	-0.00874694	+0.35499082
<i>P</i>	3.29	<i>H</i>	14.3	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1977 03 12	381	0.5+	0.4+	1998 08 22	132	0.1+	0.2-	2000 01 07	704	0.8+	0.7-
1977 03 12	381	0.7-	0.7-	1998 08 23	704	0.7+	1.3+	2000 01 07	704	0.2-	0.3-
1991 06 06	809	1.2+	0.1+	1998 08 23	704	1.1+	1.0+	2000 01 07	704	0.0	0.0
1991 06 06	809	0.4+	0.6-	1998 08 23	704	0.1+	1.3+	2000 01 07	704	0.0	0.8-
1991 06 06	809	0.1-	0.0	1998 08 23	704	0.4+	0.1-	2000 01 07	704	0.3-	0.1+
1991 06 08	809	0.2-	0.3+	1998 08 24	132	0.9-	0.3+	2000 01 11	132	0.5-	0.7+
1991 06 08	809	0.8-	0.8+	1998 08 24	132	0.5+	0.4-	2000 01 11	132	0.3+	0.5-
1991 06 08	809	0.0	0.1-	1998 08 24	132	0.4+	0.4+	2000 02 01	684	0.8-	0.1+
1998 07 15	699	0.5-	0.3-	1998 08 29	132	0.2+	0.3+	2000 02 01	684	0.7-	0.1+
1998 07 15	699	1.3-	0.0	1998 08 30	132	0.2-	0.0	2000 02 04	704	0.3+	0.9+
1998 07 15	699	1.0-	0.3-	1998 09 16	132	(2.7+	1.7+)	2000 02 04	704	0.6+	0.8+
1998 08 17	704	0.5-	0.6+	1998 09 16	132	0.8+	1.5+	2000 02 04	704	0.1+	1.0+
1998 08 17	704	0.8-	1.0+	1999 12 05	703	1.4+	0.6-	2000 02 04	704	0.8+	0.8+
1998 08 17	704	0.5-	0.0	1999 12 05	703	0.4-	0.7+	2000 02 04	704	0.3-	0.7+
1998 08 17	704	1.1-	0.5+	1999 12 05	703	1.4+	1.3+	2000 02 11	704	0.0	0.5+
1998 08 17	704	0.5-	0.1+	1999 12 05	703	0.4+	0.0	2000 02 11	704	0.5-	1.1+
1998 08 19	132	0.7+	0.8-	2000 01 04	704	0.2+	0.3-	2000 02 11	704	0.1+	0.7+
1998 08 19	132	0.7-	0.6+	2000 01 04	704	0.1+	0.6-	2000 02 11	704	0.8-	0.8+
1998 08 19	132	0.5-	0.1+	2000 01 04	704	0.9+	0.9+	2000 02 11	704	0.0	0.7+
1998 08 22	132	0.3+	0.1-	2000 01 04	704	0.5+	0.1+				
1998 08 22	132	1.5+	0.2-	2000 01 04	704	0.2+	0.5+				

(13706)* 1998 QF₃ = 1981 QO₄ = 1988 RF

Discovered 1998 Aug. 17 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. A. Doppler (*MPC* 32691)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	84.70001		(2000.0)	P	Q
<i>n</i>	0.28773683	ω	87.67630	+0.47999065	-0.86148015
<i>a</i>	2.2723353	Ω	331.67048	+0.59968873	+0.46007626
<i>e</i>	0.2214762	<i>i</i>	20.43883	+0.64029868	+0.21489950
<i>P</i>	3.43	<i>H</i>	14.2	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1981 08 30	675	0.5+	0.1-	1998 08 30	699	0.5-	0.3+	2000 02 02	704	0.4+	0.2+
1981 08 31	675	0.3-	0.1+	1998 08 30	699	0.1-	0.3+	2000 02 02	704	0.1+	0.1-
1988 09 05	675	0.6-	0.7+	1998 08 30	699	0.7-	0.0	2000 02 02	704	0.1+	0.5+
1988 09 07	675	0.4-	0.2+	1998 09 14	699	0.2+	1.0+	2000 02 02	704	0.3-	0.1+
1998 08 17	704	0.3+	0.5-	1998 09 14	699	0.8-	1.2+	2000 02 02	704	0.0	0.3+
1998 08 17	704	0.5+	0.8-	1998 09 14	699	0.9-	0.1+	2000 02 07	704	0.1+	0.3+
1998 08 17	704	0.2+	1.3-	1998 10 13	699	0.4-	0.2+	2000 02 07	704	0.3+	0.2+
1998 08 17	704	1.0+	0.8-	1998 10 13	699	0.5-	0.2+	2000 02 07	704	0.3+	0.6-
1998 08 23	704	0.0	0.7+	1998 10 13	699	1.3-	0.7+	2000 02 07	704	0.8+	0.4-
1998 08 23	704	1.0-	1.0+	2000 01 05	704	1.1-	1.4+	2000 02 07	704	0.1-	0.8-
1998 08 23	704	1.3+	0.2+	2000 01 05	704	0.3-	0.4-	2000 02 08	704	0.4+	0.3+
1998 08 23	704	(2.4-	0.9-)	2000 01 05	704	0.4-	0.1+	2000 02 08	704	0.2+	0.6+
1998 08 23	704	(2.3-	1.3-)	2000 01 05	704	0.9+	0.6-	2000 02 08	704	0.1+	0.4+
1998 08 29	699	0.1+	0.4+	2000 01 06	699	0.2+	0.4+	2000 02 08	704	0.7+	0.9+
1998 08 29	699	0.2+	0.1-	2000 01 06	699	0.0	0.4+	2000 02 08	704	0.7+	0.5+
1998 08 29	699	0.2-	0.4+	2000 01 06	699	0.2+	0.1+				

(13707)* 1998 QS₉ = 1968 QU

Discovered 1998 Aug. 17 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 37160)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	86.94401		(2000.0)	P	Q
<i>n</i>	0.22809133	ω	46.74262	+0.96955767	-0.21395805
<i>a</i>	2.6529569	Ω	325.10856	+0.11611034	+0.82988224
<i>e</i>	0.1670410	<i>i</i>	12.01525	+0.21558364	+0.51528383
<i>P</i>	4.32	<i>H</i>	13.2	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1968 08 27	095	1.2+	1.9-	1998 08 27	699	0.4-	0.0	1999 12 15	704	0.5-	0.8-
1994 09 05	098	0.5-	0.7+	1998 09 14	699	1.1-	0.3-	1999 12 15	704	0.5-	0.8-
1994 09 05	098	0.9-	0.4+	1998 09 14	699	0.7-	0.1+	1999 12 15	704	0.2-	0.7-
1994 09 05	098	1.3+	0.5-	1998 09 14	699	0.6-	0.0	1999 12 15	704	0.1+	0.6-
1996 03 17	566	0.3+	0.3+	1998 09 26	691	0.4-	0.0	1999 12 15	704	0.2+	0.8+
1996 03 17	566	0.2-	0.2+	1998 09 26	691	0.3-	0.1+	2000 01 02	704	0.3+	0.1+
1996 03 17	566	0.2+	0.6+	1998 09 26	691	0.6-	0.3+	2000 01 02	704	0.1-	0.8-
1998 08 17	704	1.1+	0.7+	1998 10 19	699	0.7-	0.4-	2000 01 02	704	0.5-	1.4+
1998 08 17	704	0.9+	0.9+	1998 10 19	699	0.4-	0.3-	2000 01 02	704	0.8-	0.1+
1998 08 17	704	1.8+	0.1-	1998 10 19	699	0.1-	0.4-	2000 01 02	704	1.7-	0.8+
1998 08 17	704	1.0+	0.3-	1999 12 03	699	0.4+	1.4+	2000 01 30	704	0.1+	0.3+
1998 08 21	566	0.8-	0.1+	1999 12 03	699	0.2+	0.5+	2000 01 30	704	0.4+	0.5+
1998 08 21	566	0.8-	0.3-	1999 12 03	699	0.0	0.6+	2000 01 30	704	0.2+	0.5+
1998 08 21	566	0.3-	0.1-	1999 12 12	704	0.0	0.5-	2000 01 30	704	0.5+	0.2+
1998 08 23	704	0.2+	0.4-	1999 12 12	704	0.4+	0.4-	2000 01 30	704	1.2+	0.3-
1998 08 23	704	0.8-	1.0+	1999 12 12	704	0.5+	0.6-	2000 02 11	704	0.2+	0.1+
1998 08 23	704	0.1+	0.3+	1999 12 12	704	0.1-	0.7-	2000 02 11	704	0.1-	0.1+
1998 08 23	704	0.3+	1.3+	1999 12 12	704	0.4+	1.0-	2000 02 11	704	0.3-	0.2+
1998 08 23	704	0.3-	0.6+	1999 12 13	699	0.5+	0.6+	2000 02 11	704	0.3-	0.1+
1998 08 27	699	0.0	0.1+	1999 12 13	699	0.3+	0.6+	2000 02 11	704	0.3-	0.9-
1998 08 27	699	0.1-	0.0	1999 12 13	699	0.4+	0.5+				

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	81.73504		(2000.0)		P		Q				
<i>n</i>	0.30380319	ω	74.52234		+0.65751655		−0.75188241				
<i>a</i>	2.1914984	Ω	334.16880		+0.64164449		+0.59248401				
<i>e</i>	0.0371185	<i>i</i>	6.38068		+0.39492320		+0.28919808				
<i>P</i>	3.24	<i>H</i>	14.3		<i>G</i>	0.15	<i>U</i>	1			
Residuals in seconds of arc											
1992 09 30	675	0.5−	0.7−	1999 11 11	703	0.1−	0.2+	2000 01 30	106	1.6+	0.5−
1992 09 30	675	1.3+	1.4−	1999 11 11	703	0.6+	0.6−	2000 01 30	106	0.7+	0.1−
1997 03 18	599	0.3+	0.7−	1999 11 11	703	0.2−	0.3+	2000 01 30	106	0.3+	0.1−
1997 03 18	599	0.2+	0.3−	2000 01 03	704	0.0	0.1+	2000 01 31	704	0.7+	0.0
1997 04 28	704	0.3−	0.2−	2000 01 03	704	0.5−	0.5−	2000 01 31	704	0.1−	0.8+
1997 04 28	704	0.5−	0.4+	2000 01 03	704	0.4+	0.3−	2000 01 31	704	0.4−	0.1+
1997 04 28	704	0.4−	0.2−	2000 01 03	704	0.1+	0.0	2000 02 02	704	0.0	0.3+
1997 04 28	704	0.5−	0.1−	2000 01 03	704	0.0	0.1−	2000 02 02	704	0.0	0.4+
1997 04 28	704	(2.8−	0.6−)	2000 01 04	704	0.1+	0.0	2000 02 02	704	0.1+	0.3+
1998 08 17	704	0.6−	0.7+	2000 01 04	704	0.2−	0.1+	2000 02 02	704	0.2+	0.5+
1998 08 17	704	0.1−	1.7+	2000 01 04	704	0.3−	0.0	2000 02 02	704	0.2+	0.4+
1998 08 17	704	0.8−	1.1+	2000 01 04	704	1.0+	1.0−	2000 02 03	704	0.1+	0.7+
1998 08 17	704	0.3−	1.0+	2000 01 04	704	0.9−	1.5−	2000 02 03	704	0.1+	0.5+
1998 08 23	704	0.4+	0.1+	2000 01 06	699	0.4+	0.2+	2000 02 03	704	0.2+	0.5+
1998 08 23	704	0.7−	1.7+	2000 01 06	699	0.3+	0.5+	2000 02 03	704	0.0	0.2+
1998 08 23	704	0.1−	0.9+	2000 01 06	699	0.1+	0.0	2000 02 03	704	0.0	0.6+
1998 08 23	704	0.4−	0.5−	2000 01 29	703	0.3−	0.2+	2000 02 07	703	0.3−	0.0
1998 08 23	704	0.2+	0.3−	2000 01 29	703	0.7+	0.2+	2000 02 07	703	0.3−	0.4+
1998 08 29	699	0.2−	0.4+	2000 01 29	703	1.0−	0.4+	2000 02 07	703	0.1+	1.1+
1998 08 29	699	0.5−	0.2+	2000 01 29	703	0.0	0.4+	2000 02 07	703	0.1−	0.6+
1998 08 29	699	1.0−	0.6+	2000 01 30	704	0.1+	0.3+	2000 02 11	704	0.0	0.4+
1998 09 14	699	0.5+	0.2−	2000 01 30	704	0.1+	0.1+	2000 02 11	704	0.2−	0.1+
1998 09 14	699	0.9+	0.3−	2000 01 30	704	0.2−	0.1−	2000 02 11	704	0.3−	0.5+
1998 09 14	699	0.0	0.2+	2000 01 30	704	0.1−	0.4−	2000 02 11	704	0.3+	0.1+
1999 11 11	703	0.4+	0.9+	2000 01 30	704	0.1−	0.1+	2000 02 11	704	0.5−	0.3+

(13709)* 1998 QE₁₃ = 1970 XC = 1977 TJ₆ = 1989 BJ₁ = 1991 RL₃₇

Discovered 1998 Aug. 17 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. A. Milani (*MPC* 34219), G. V. Williams (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	72.31833		(2000.0)		P		Q				
<i>n</i>	0.27751512	ω	297.88372		+0.28632387		−0.95557303				
<i>a</i>	2.3277962	Ω	135.29369		+0.91034067		+0.24853177				
<i>e</i>	0.2620756	<i>i</i>	5.71005		+0.29882857		+0.15846809				
<i>P</i>	3.55	<i>H</i>	14.0		<i>G</i>	0.15	<i>U</i>	1			
Residuals in seconds of arc											
1970 12 03	095	(1.2+	2.6−)	1998 08 23	704	0.2−	0.9+	1999 11 05	703	0.2−	0.2+
1977 10 08	095	1.0−	0.6+	1998 08 23	704	1.0+	0.9+	1999 11 05	703	1.8−	1.1+
1989 01 28	046	1.0+	1.3+	1998 08 23	704	1.1+	0.3+	1999 11 05	703	1.6−	0.6+
1989 01 28	046	(0.6+	3.3+)	1998 08 23	704	0.1+	0.4+	1999 11 05	703	0.1+	0.9+
1989 01 29	046	0.3+	1.8+	1998 08 27	699	0.2+	0.5+	2000 02 05	704	0.5+	0.2−
1989 01 29	046	0.6+	1.7+	1998 08 27	699	0.0	0.6+	2000 02 05	704	1.3+	0.4+
1989 01 30	046	(1.8−	3.4+)	1998 08 27	699	0.4+	0.4+	2000 02 05	704	0.6+	0.9+
1989 01 30	046	(3.2−	2.7+)	1998 08 27	699	0.1−	1.1+	2000 02 05	704	0.3−	1.7+
1991 09 15	675	(0.8−	2.1−)	1998 08 27	699	0.8+	0.7+	2000 02 06	704	0.1+	0.1+
1991 09 15	675	0.0	0.7−	1998 08 27	699	0.1−	0.5+	2000 02 06	704	0.7+	0.8+
1993 04 16	413	0.5−	0.4−	1998 09 24	699	0.5−	1.0+	2000 02 06	704	1.7+	0.5+
1998 08 17	704	0.6−	0.7+	1998 09 24	699	0.3−	0.7+	2000 02 06	704	0.1+	1.4+
1998 08 17	704	0.9−	1.1+	1998 09 24	699	0.1−	0.4+	2000 02 11	704	0.4−	0.7+
1998 08 17	704	0.8−	0.7+	1998 10 19	699	0.1−	0.7+	2000 02 11	704	0.2+	0.3+
1998 08 17	704	(2.6−	0.6+)	1998 10 19	699	0.3+	1.4+	2000 02 11	704	0.4+	0.9+
1998 08 17	704	1.1−	0.5+	1998 10 19	699	1.6−	1.1+	2000 02 11	704	0.8−	1.6+

(13710)* 1998 QU₁₃ = 1981 QN₄

Discovered 1998 Aug. 17 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. A. Doppler (*MPC* 32692)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	99.39373		(2000.0)		P		Q				
<i>n</i>	0.28868268	ω	78.61588		+0.76923616		−0.63572917				
<i>a</i>	2.2673691	Ω	320.81029		+0.53943697		+0.69999679				
<i>e</i>	0.1405337	<i>i</i>	5.83309		+0.34246676		+0.32535047				
<i>P</i>	3.41	<i>H</i>	14.4		<i>G</i>	0.15	<i>U</i>	2			
Residuals in seconds of arc											
1981 08 30	675	0.6+	0.4+	1998 09 14	699	1.2+	0.8+	2000 02 01	703	0.3+	0.2−
1981 08 31	675	1.0−	0.0	1998 09 14	699	0.5+	1.2+	2000 02 01	703	0.1+	0.2+
1993 01 21	691	0.1−	0.5−	1999 11 16	704	0.1−	0.4−	2000 02 01	703	0.0	0.4+
1993 01 21	691	(0.9+	2.5−)	1999 11 16	704	1.0−	0.5+	2000 02 02	691	0.1−	0.2−
1993 01 21	691	0.1+	0.5−	1999 11 16	704	1.4−	0.5−	2000 02 02	691	0.2+	0.2−
1998 07 15	699	0.9−	0.3+	1999 11 16	704	0.4−	0.5−	2000 02 02	691	0.1+	0.3−
1998 07 15	699	0.1+	0.7−	1999 12 05	704	1.0−	0.4−	2000 02 04	704	0.5+	0.2+
1998 07 15	699	0.3−	0.5−	1999 12 05	704	0.2−	0.3+	2000 02 04	704	0.3−	0.3+
1998 08 17	704	0.1+	0.7−	1999 12 05	704	0.1−	0.0	2000 02 04	704	0.4+	0.6+
1998 08 17	704	0.6+	0.0	1999 12 05	703	0.5+	1.0+	2000 02 04	704	0.3+	0.4−
1998 08 17	704	0.1+	0.6−	1999 12 05	704	0.9−	0.5+	2000 02 04	704	0.2−	0.0
1998 08 17	704	0.3−	0.5−	1999 12 05	703	1.5+	0.5+	2000 02 11	691	0.4−	0.1+
1998 08 17	704	0.6+	0.8−	1999 12 05	704	0.8−	0.1−	2000 02 11	691	0.1−	0.1+
1998 08 23	704	0.3+	0.9−	1999 12 05	703	(2.1+	0.2+)	2000 02 11	691	0.4−	0.0
1998 08 23	704	0.2+	0.1+	1999 12 05	703	1.3+	0.2+	2000 02 12	704	(0.6+	4.5+)
1998 08 23	704	0.4+	0.6+	2000 01 05	691	0.3+	0.0	2000 02 12	704	(0.4−	2.1+)
1998 08 23	704	(2.9+	0.6−)	2000 01 05	691	0.3+	0.1+	2000 02 12	704	0.7+	0.8+
1998 08 23	704	0.4−	1.0−	2000 01 05	691	0.2+	0.1+	2000 02 12	704	(2.6+	1.8−)
1998 08 27	699	0.5−	1.4+	2000 01 12	691	0.1−	0.5−	2000 02 13	704	0.3+	0.0
1998 08 27	699	0.6+	0.9+	2000 01 12	691	0.1+	0.2−	2000 02 13	704	0.5+	0.1−
1998 08 27	699	1.0−	0.1+	2000 01 12	691	0.1+	0.3−	2000 02 13	704	0.5−	0.1−
1998 09 14	699	1.1−	0.2+	2000 02 01	703	0.5−	0.1+	2000 02 13	704	(2.4−	1.7+)

(13711)* 1998 QB₂₆

Discovered 1998 Aug. 25 at Višnja.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	155.71229		(2000.0)		P		Q				
<i>n</i>	0.26548151	<i>ω</i>	348.29085		+0.82845249		+0.55991341				
<i>a</i>	2.3976173	<i>Ω</i>	337.64479		−0.51109281		+0.74648840				
<i>e</i>	0.2333359	<i>i</i>	1.92626		−0.22902099		+0.35951640				
<i>P</i>	3.71	<i>H</i>	14.6		<i>G</i>	0.15	<i>U</i>	2			
Residuals in seconds of arc											
1993 03 25	691	0.1+	0.3−	1998 08 30	120	0.6+	0.5+	1999 12 31	120	0.7−	0.0
1993 03 25	691	0.1−	0.2−	1998 08 31	727	0.4−	0.4−	1999 12 31	120	1.7−	1.0+
1993 03 25	691	0.5+	0.2+	1998 08 31	727	0.2−	0.1−	2000 01 01	120	0.6+	0.5−
1997 03 04	691	0.2−	0.2+	1998 08 31	727	0.0	0.3−	2000 01 01	120	0.1+	0.7−
1997 03 04	691	0.5−	0.5+	1998 09 01	727	0.3+	0.5+	2000 01 04	704	0.6−	0.4−
1997 03 04	691	0.0	0.0	1998 09 01	727	0.2+	0.0	2000 01 04	704	0.1+	0.3−
1997 04 04	566	0.7+	0.0	1998 09 01	727	0.3+	0.1−	2000 01 04	704	0.2−	0.7−
1997 04 04	566	0.2−	0.1−	1998 09 09	120	0.4+	0.1−	2000 01 04	704	0.7+	0.7−
1997 04 04	566	1.1−	0.0	1998 09 09	120	1.2+	0.2−	2000 01 04	704	0.3−	1.5−
1998 06 29	704	0.5−	1.0+	1998 09 09	120	0.5−	0.5+	2000 01 06	739	(3.7+	0.5−)
1998 06 29	704	(0.4−	2.1+)	1998 09 09	120	0.1+	0.3+	2000 01 06	739	1.9+	0.9−
1998 06 29	704	1.5+	0.7+	1998 09 10	120	0.6+	0.6−	2000 01 06	739	1.0+	0.6−
1998 06 29	704	1.0−	0.4+	1998 09 10	120	0.8+	0.2−	2000 01 06	739	(2.1−	1.5−)
1998 06 29	704	1.4+	1.4−	1998 09 10	120	0.1−	1.0−	2000 01 24	120	1.3+	0.4+
1998 08 17	704	0.2+	0.3+	1998 09 10	120	0.4−	0.5−	2000 01 24	120	0.4−	0.5−
1998 08 17	704	0.7−	0.1−	1998 09 10	120	1.6−	1.1−	2000 02 03	704	0.3−	0.8+
1998 08 17	704	1.0−	0.1−	1998 09 14	704	1.6+	0.1+	2000 02 03	704	0.3−	0.3+
1998 08 17	704	0.7−	0.4−	1998 09 14	704	0.4+	0.2−	2000 02 03	704	0.9−	0.5+
1998 08 17	704	2.0−	0.0	1998 09 14	704	0.2+	0.7+	2000 02 03	704	0.2+	0.2+
1998 08 23	704	0.5−	0.1−	1998 09 14	704	1.6+	0.4+	2000 02 03	704	0.7−	0.1−

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M.P.C. 38375

1998 08 23	704	0.5+	0.0	1998 09 18	704	0.5+	0.3-	2000 02 05	704	1.6+	0.3+
1998 08 23	704	1.0-	0.7+	1998 09 18	704	1.5-	0.8-	2000 02 05	704	0.7+	0.1+
1998 08 23	704	0.8-	0.2+	1998 09 18	704	0.6-	0.8-	2000 02 05	704	0.7+	0.1-
1998 08 23	704	0.8-	0.1+	1998 09 18	704	0.3+	0.4+	2000 02 11	704	0.2-	1.0+
1998 08 25	120	0.2+	0.7+	1998 11 25	699	0.3-	0.3-	2000 02 11	704	0.3-	0.3+
1998 08 25	120	0.0	0.1-	1998 11 25	699	0.0	0.9-	2000 02 11	704	0.6-	0.9+
1998 08 26	120	0.3+	0.1+	1998 11 25	699	0.4-	0.1+	2000 02 11	704	0.2-	1.2+
1998 08 27	120	0.7+	0.7+	1998 12 09	704	0.8-	1.1+	2000 02 12	691	0.4-	0.2+
1998 08 27	120	0.6+	0.5+	1998 12 09	704	(3.2-	0.5+)	2000 02 12	691	0.3-	0.2+
1998 08 30	120	0.4+	0.7+	1998 12 09	704	1.6-	0.2-	2000 02 12	691	1.3-	0.1-
1998 08 30	120	0.5+	0.5+	1999 12 31	120	1.3+	0.0				

(13712)* 1998 QL₃₀ = 1986 EE₄ = 1991 RD₆

Discovered 1998 Aug. 23 at Višnjan.

Id. G. V. Williams (*MPC* 32500)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	131.31148		(2000.0)	P	Q
<i>n</i>	0.27598192	ω	233.66664	+0.99571292	-0.06439420
<i>a</i>	2.3364095	Ω	129.92746	+0.08348004	+0.93477417
<i>e</i>	0.1370759	<i>i</i>	4.96742	-0.03983557	+0.34935746
<i>P</i>	3.57	<i>H</i>	14.2	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1986 03 12	809	0.7-	1.3+	1998 09 14	704	0.2+	0.4+	1999 12 04	703	0.8-	0.2+
1991 09 12	675	0.8+	0.7-	1998 09 14	704	0.6+	0.3+	1999 12 04	703	0.5-	1.2+
1991 09 12	675	0.8+	0.5+	1998 09 14	704	0.1+	0.5+	2000 01 07	704	0.3-	0.7+
1991 09 13	675	(0.1-	3.1-)	1998 09 14	704	0.8-	1.2+	2000 01 07	704	0.1-	0.3-
1991 09 13	675	0.0	1.7-	1998 09 14	704	0.2-	0.5+	2000 01 07	704	0.2-	0.3+
1991 09 14	675	(2.6+	0.6-)	1998 09 16	699	0.6+	1.1+	2000 01 07	704	0.5+	0.4-
1991 09 14	675	0.1-	0.1-	1998 09 16	699	0.2+	0.9+	2000 01 07	704	0.1+	0.1+
1991 09 15	675	0.8+	0.8-	1998 09 16	699	0.3-	0.9+	2000 01 28	691	0.7-	0.0
1991 09 15	675	(1.4+	2.5-)	1998 09 18	704	0.5+	0.6-	2000 01 28	691	0.0	0.2-
1991 09 16	675	(0.4+	2.5-)	1998 09 18	704	0.3-	0.0	2000 01 28	691	0.0	0.1-
1991 09 16	675	(0.8+	2.2-)	1998 09 18	704	0.2+	0.6+	2000 01 30	704	0.1+	0.5+
1996 01 21	118	0.2-	1.2-	1998 09 18	704	0.4+	1.0-	2000 01 30	704	0.5+	0.8+
1996 01 21	118	0.0	1.1-	1998 09 18	704	0.4+	0.7-	2000 01 30	704	0.8+	0.8+
1996 01 21	118	0.1+	1.2-	1998 09 22	699	0.2-	0.4-	2000 01 30	704	0.9+	0.1-
1998 08 17	704	0.2+	0.3-	1998 09 22	699	0.5-	0.6+	2000 01 30	704	0.8+	0.7+
1998 08 17	704	(4.8-	1.0-)	1998 09 22	699	0.3-	0.3+	2000 01 30	703	0.2-	0.3+
1998 08 17	704	0.1-	0.3+	1998 09 25	704	0.1+	0.3-	2000 01 30	703	0.5+	0.6+
1998 08 17	704	0.2-	0.5+	1998 09 25	704	0.1-	0.3+	2000 01 30	703	0.2-	0.0
1998 08 17	704	1.1-	0.1+	1998 09 25	704	0.7-	0.8+	2000 01 30	703	0.1-	0.1-
1998 08 23	704	0.3+	0.0	1998 09 25	704	0.6-	0.8+	2000 02 03	704	0.1-	0.5+
1998 08 23	704	0.4+	1.1-	1998 09 25	704	(1.0-	2.1+)	2000 02 03	704	0.3-	0.3+
1998 08 23	704	0.0	0.2-	1998 09 27	704	0.5+	0.4+	2000 02 03	704	0.2+	0.5+
1998 08 23	704	1.1-	0.4-	1998 09 27	704	0.1-	1.3+	2000 02 03	704	0.6-	0.6+
1998 08 23	704	1.4-	0.8-	1998 09 27	704	0.3-	0.8+	2000 02 03	704	0.0	0.7+
1998 08 23	120	0.4+	0.7+	1998 09 27	704	0.2-	0.6+	2000 02 10	704	0.2+	0.1+
1998 08 23	120	0.1-	0.4+	1998 09 27	704	0.1-	1.0-	2000 02 10	704	0.0	0.3+
1998 08 23	120	0.5+	0.3+	1998 11 23	699	0.1-	0.9-	2000 02 10	704	0.7+	0.2+
1998 08 23	120	0.4+	0.5+	1998 11 23	699	0.5-	0.1-	2000 02 10	704	0.4+	0.4+
1998 08 26	120	0.2-	0.0	1998 11 23	699	1.4-	0.3+	2000 02 11	704	0.1+	0.2-
1998 08 26	120	0.2+	0.1+	1999 11 16	704	0.3+	0.2+	2000 02 11	704	1.3+	0.2+
1998 08 26	120	0.1-	0.1-	1999 11 16	704	0.9-	1.0+	2000 02 11	704	0.8+	0.8-
1998 08 26	120	0.2-	0.1+	1999 11 16	704	1.3-	0.6+	2000 02 11	704	0.1-	0.2-
1998 08 28	120	0.3+	0.1+	1999 11 16	704	0.0	0.8+	2000 02 11	704	0.7+	0.4-
1998 08 28	120	0.2-	0.7+	1999 12 04	703	0.5+	1.4+				
1998 08 28	120	0.3+	0.3+	1999 12 04	703	0.7-	0.9-				

(13713)* 1998 QN₃₀ = 1981 EB₄₆ = 1982 UL₅

Discovered 1998 Aug. 23 at Višnjan.

Id. G. V. Williams (*MPC* 32697)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	177.27735		(2000.0)	P	Q
<i>n</i>	0.30525163	ω	157.37747	+0.78774444	+0.61593546
<i>a</i>	2.1845604	Ω	164.59222	-0.57026404	+0.73474100
<i>e</i>	0.2067482	<i>i</i>	1.95560	-0.23293266	+0.28421675
<i>P</i>	3.23	<i>H</i>	15.0	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1981 03 02	413	(1.2+	4.5-)	1998 09 14	704	(0.5+	2.2-)	1998 12 08	704	0.3+	0.3+
1981 03 03	413	0.3+	1.3-	1998 09 14	691	0.7-	0.0	2000 01 05	704	1.1+	0.7-
1981 03 07	413	1.3-	0.4-	1998 09 14	699	0.2+	0.1+	2000 01 05	704	0.5+	1.3-
1982 10 20	033	0.5+	0.9-	1998 09 14	699	0.1+	0.2+	2000 01 05	704	0.6-	0.4-
1998 08 17	704	0.7-	0.4+	1998 09 14	699	0.5+	0.2+	2000 01 05	704	0.7-	1.5-
1998 08 17	704	0.5-	1.3+	1998 09 15	120	0.3+	0.6-	2000 01 30	703	0.7+	0.1+
1998 08 17	704	0.1+	0.0	1998 09 15	120	0.1+	0.5-	2000 01 30	703	0.7+	0.9+
1998 08 17	704	0.1-	0.6+	1998 09 15	120	0.2+	0.6-	2000 01 30	703	0.6-	0.3-
1998 08 17	704	1.2-	0.7-	1998 09 15	120	0.4-	0.7-	2000 01 30	703	0.5+	0.1+
1998 08 23	704	0.7+	0.0	1998 09 15	120	0.2+	0.5-	2000 02 01	703	0.7-	0.2-
1998 08 23	704	0.7+	0.3-	1998 09 18	704	0.4+	0.5+	2000 02 01	703	0.2+	0.7+
1998 08 23	704	0.3+	0.3+	1998 09 18	704	0.5+	0.2-	2000 02 01	703	0.0	0.1+
1998 08 23	704	0.7+	0.2+	1998 09 18	704	0.5-	0.7-	2000 02 01	703	0.6-	0.5-
1998 08 23	704	0.9+	0.4+	1998 09 18	699	0.2+	0.0	2000 02 02	704	0.4-	0.4+
1998 08 23	120	0.1+	0.6+	1998 09 18	704	0.3-	0.1+	2000 02 02	704	0.4-	1.5+
1998 08 23	120	0.2+	0.8+	1998 09 18	699	0.1+	0.4-	2000 02 02	704	0.9+	0.0
1998 08 24	120	0.4+	0.4+	1998 09 18	704	0.2-	0.0	2000 02 02	704	0.1+	0.0
1998 08 24	120	0.2-	0.4+	1998 09 18	699	0.2-	0.3+	2000 02 02	704	0.6+	0.6+
1998 08 26	699	0.3-	0.3+	1998 09 20	691	0.2-	0.2+	2000 02 04	704	0.1+	0.9+
1998 08 26	699	0.3+	1.2+	1998 09 20	691	0.6-	0.1+	2000 02 04	704	0.3+	1.0+
1998 08 26	699	0.0	0.7+	1998 09 20	691	0.5-	0.0	2000 02 04	704	1.0+	0.3+
1998 08 26	120	0.1+	0.1+	1998 09 25	691	0.2-	0.1+	2000 02 04	704	0.4+	0.9+
1998 08 26	120	0.1-	0.3+	1998 09 25	691	0.0	0.2+	2000 02 04	704	0.2+	0.9+
1998 08 26	120	0.3-	0.1+	1998 09 25	691	0.0	0.1-	2000 02 06	704	0.2+	0.6+
1998 08 26	120	0.2+	0.2+	1998 09 30	691	0.4+	0.1-	2000 02 06	704	0.1+	0.1+
1998 08 28	120	0.0	0.0	1998 09 30	691	0.4+	0.4-	2000 02 06	704	0.9-	0.0
1998 08 28	120	0.1-	0.3+	1998 09 30	691	0.3+	0.2-	2000 02 06	704	0.2-	0.2+
1998 08 28	120	0.2-	0.2+	1998 10 14	699	0.6-	0.3+	2000 02 08	704	0.4+	0.1-
1998 08 28	120	0.1+	0.5+	1998 10 14	699	0.5-	0.2-	2000 02 08	704	0.6-	0.0
1998 09 14	704	0.1+	0.4-	1998 10 14	699	0.0	0.4-	2000 02 08	704	0.3-	0.4-
1998 09 14	704	0.2+	0.6-	1998 10 20	699	0.6-	0.3+	2000 02 11	704	0.0	1.4+
1998 09 14	704	0.8+	1.7-	1998 10 20	699	0.8-	0.6-	2000 02 11	704	0.1-	0.1-
1998 09 14	691	0.5-	0.1+	1998 10 20	699	0.7-	0.5-	2000 02 11	704	0.2+	0.4-
1998 09 14	704	0.1+	0.4-	1998 12 08	704	(3.3-	1.4+)	2000 02 11	704	0.2-	0.4-
1998 09 14	691	0.6-	0.2+	1998 12 08	704	0.3-	0.4+	2000 02 11	704	0.2-	0.4+

(13714)* 1998 QV₃₈ = 1978 WU₁₆

Discovered 1998 Aug. 17 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 32703)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	62.28667		(2000.0)	P	Q
<i>n</i>	0.28903870	ω	203.14514	-0.03682912	-0.99672644
<i>a</i>	2.2655069	Ω	249.02810	+0.92848945	-0.00749785
<i>e</i>	0.1375141	<i>i</i>	4.42065	+0.36952803	-0.08049966
<i>P</i>	3.41	<i>H</i>	14.4	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1978 11 30	675	0.6+	0.9+	1998 09 14	704	0.5+	0.6+	1998 12 09	704	0.7-	1.1+
1978 12 01	675	0.9+	0.7+	1998 09 14	704	0.0	0.0	1998 12 09	704	1.5-	0.3+
1996 01 24	691	0.3+	0.0	1998 09 15	699	0.1-	0.0	1999 12 16	704	0.9-	0.6-
1996 01 24	691	0.3+	0.0	1998 09 15	699	0.0	0.0	1999 12 16	704	1.1-	1.2-
1996 01 24	691	0.3+	0.1+	1998 09 15	699	0.1+	0.1-	1999 12 16	704	1.4-	0.9-
1998 08 17	704	0.0	0.3+	1998 09 18	699	0.2+	0.3-	1999 12 16	704	1.5-	1.1-
1998 08 17	704	0.1+	0.8+	1998 09 18	699	0.9+	0.2+	1999 12 16	704	1.2-	1.7-
1998 08 17	704	0.5+	0.2+	1998 09 18	704	0.2+	1.5-	2000 01 05	704	0.2+	0.0
1998 08 17	704	0.2-	0.6+	1998 09 18	699	0.5+	0.1-	2000 01 05	704	0.4-	0.0

1998 08 17	704	0.6+	0.7+	1998 09 18	704	0.5+	1.5-	2000 01 05	704	1.2+	0.6-
1998 08 23	704	0.5+	0.2-	1998 09 18	704	0.5-	1.6-	2000 01 05	704	1.1+	1.2-
1998 08 23	704	0.2+	1.1-	1998 09 18	704	1.9-	1.3-	2000 02 02	704	(0.1+	2.0+)
1998 08 23	704	0.7-	0.8+	1998 09 18	704	(2.5-	1.1-)	2000 02 02	704	0.7+	1.8+
1998 08 23	704	(2.2+	0.1+)	1998 10 14	699	1.4+	0.7+	2000 02 02	704	1.6+	1.6-
1998 08 23	704	0.9-	0.9+	1998 10 14	699	0.2+	0.8-	2000 02 02	704	(0.7-	2.0-)
1998 09 14	704	0.5-	0.1+	1998 10 14	699	(2.7+	0.9-)	2000 02 10	704	0.3-	1.2+
1998 09 14	704	0.4+	0.1-	1998 12 09	704	0.6-	0.2-	2000 02 10	704	0.1-	0.9+
1998 09 14	704	0.6+	0.2-	1998 12 09	704	(2.8-	1.0+)	2000 02 10	704	0.6-	0.7+

(13715)* 1998 QK₃₉ = 1990 UB₅ = 1992 EB₃₅

Discovered 1998 Aug. 17 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. A. Doppler (*MPC* 32704)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		107.06466		(2000.0)		P	Q
<i>n</i>	0.23596974	<i>ω</i>	248.88614	+0.98858272	-0.12047205		
<i>a</i>	2.5935732	<i>Ω</i>	117.93659	+0.14489815	+0.92484878		
<i>e</i>	0.1526329	<i>i</i>	5.87970	-0.04133679	+0.36075091		
<i>P</i>	4.18	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1990 10 16	809	1.9+	0.1+	1998 08 23	704	0.2+	0.2-	2000 01 27	691	0.3+	1.3+
1990 10 16	809	0.7+	0.7-	1998 08 23	704	0.3+	1.6+	2000 01 27	691	0.4+	1.1+
1990 10 16	809	0.3+	1.7-	1998 08 23	704	1.7-	1.0-	2000 01 27	691	0.2+	0.7+
1990 10 19	809	0.0	1.4-	1998 08 28	699	0.2+	1.3+	2000 01 30	704	(0.4+	3.4+)
1990 10 19	809	1.2-	1.8-	1998 08 28	699	0.4+	0.1-	2000 01 30	704	0.6+	1.2+
1990 10 19	809	0.8-	0.8-	1998 08 28	699	0.9+	0.8+	2000 01 30	704	1.2-	0.1+
1990 10 24	809	(4.1+	0.7+)	1998 09 14	704	0.5+	1.3+	2000 01 30	704	0.1-	0.4-
1990 10 24	809	(2.4+	0.2-)	1998 09 14	704	0.1-	1.3+	2000 02 03	704	0.2-	0.5+
1990 10 24	809	1.3+	0.2+	1998 09 14	704	0.7-	0.4+	2000 02 03	704	0.2-	0.4+
1992 02 27	691	0.5-	0.9-	1998 09 14	704	0.2-	1.1+	2000 02 03	704	0.1+	0.8+
1992 02 27	691	0.1-	1.2-	1998 09 14	704	1.0-	1.6+	2000 02 03	704	0.2-	0.1+
1992 02 27	691	0.1-	0.9-	1998 09 18	704	0.3-	0.7-	2000 02 03	704	0.4-	1.1+
1992 03 01	809	1.1+	0.7+	1998 09 18	704	0.6+	0.2+	2000 02 05	691	0.4-	0.4+
1992 03 06	809	0.8-	0.6+	1998 09 18	704	0.5+	1.2-	2000 02 05	691	0.2+	0.5+
1992 04 04	809	0.4-	0.7-	1998 09 18	704	0.2-	1.3-	2000 02 05	691	0.1+	0.6+
1996 02 15	691	0.5-	0.3-	1998 09 18	704	1.0-	1.8-	2000 02 07	691	0.3-	0.5+
1996 02 15	691	0.2-	0.3-	1998 09 22	699	0.0	1.1+	2000 02 07	691	0.3-	0.6+
1996 02 15	691	0.1-	0.4-	1998 09 22	699	0.1+	1.9+	2000 02 07	691	0.2-	0.5+
1998 08 17	704	0.6+	0.2+	1998 09 22	699	0.1+	1.9+	2000 02 11	704	1.0+	0.6-
1998 08 17	704	0.3+	0.1-	2000 01 06	704	0.1+	0.2+	2000 02 11	704	0.1-	0.7+
1998 08 17	704	0.1+	0.2+	2000 01 06	704	0.5-	0.8-	2000 02 11	704	0.7+	0.4+
1998 08 17	704	0.5-	1.0-	2000 01 06	704	0.1+	0.1+	2000 02 11	704	0.9+	0.5+
1998 08 17	704	0.3-	1.0-	2000 01 06	704	0.1+	0.6+	2000 02 11	704	0.8+	0.2+
1998 08 23	704	0.1+	1.2+	2000 01 15	120	(3.8-	4.0+)				
1998 08 23	704	1.4-	0.3+	2000 01 16	120	0.2+	0.5-				

(13716)* 1998 QJ₄₀ = 1991 TR₁₂ = 1997 EV₄₇

Discovered 1998 Aug. 17 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 32706)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		135.65027		(2000.0)		P	Q
<i>n</i>	0.27385756	<i>ω</i>	170.47073	+0.99969117	+0.01740836		
<i>a</i>	2.3484765	<i>Ω</i>	188.59149	-0.02177157	+0.95760257		
<i>e</i>	0.1348736	<i>i</i>	6.81788	+0.01198171	+0.28756612		
<i>P</i>	3.60	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1991 10 07	046	1.8+	1.0-	1998 09 14	704	0.6-	0.3+	2000 01 06	704	0.3-	0.4-
1991 10 07	046	1.3-	1.4-	1998 09 14	620	0.2-	0.1+	2000 01 06	704	0.4-	0.1+
1997 03 12	809	0.0	0.5+	1998 09 14	620	0.9-	0.2-	2000 01 06	704	0.7-	0.1+
1997 03 12	809	0.9+	0.3+	1998 09 14	620	0.4-	0.0	2000 01 06	704	0.2+	0.6-
1997 03 12	809	0.3-	0.1+	1998 09 15	699	0.0	0.4+	2000 01 07	704	0.2-	0.8+

1997 03 13	809	0.2+	0.6+	1998 09 15	699	0.2+	0.3+	2000 01 07	704	1.0-	0.3-
1997 03 13	809	0.9+	0.5+	1998 09 15	699	0.3+	0.4+	2000 01 07	704	0.3-	0.8+
1997 03 13	809	0.2-	1.1+	1998 09 18	704	0.9-	0.2-	2000 01 08	704	0.6-	0.4-
1998 08 17	704	1.0+	0.4-	1998 09 18	704	0.9-	0.3+	2000 01 08	704	0.5+	0.1+
1998 08 17	704	0.2-	0.8+	1998 09 18	704	0.7-	0.3-	2000 01 08	704	0.4-	0.9+
1998 08 17	704	1.5+	0.7+	1998 09 18	704	0.4-	0.6+	2000 01 08	704	0.8-	1.3+
1998 08 17	704	1.9+	0.1+	1998 09 18	704	0.5-	0.4+	2000 02 02	704	0.5+	0.7+
1998 08 17	704	0.4-	0.0	1998 10 14	699	0.4+	0.1+	2000 02 02	704	1.1+	1.8+
1998 08 23	704	1.5+	0.2+	1998 10 14	699	0.3+	0.3+	2000 02 02	704	1.0+	0.8+
1998 08 23	704	0.5-	0.8+	1998 10 14	699	0.3-	0.3+	2000 02 02	704	0.9+	0.4+
1998 08 23	704	0.9-	1.2+	1998 10 20	699	0.1-	0.4-	2000 02 02	704	0.8+	0.8+
1998 08 23	704	0.7-	1.5+	1998 10 20	699	0.5-	0.1-	2000 02 06	704	0.7+	0.8+
1998 08 23	704	0.2-	1.6+	1998 10 20	699	0.1+	0.1+	2000 02 06	704	0.6+	0.5+
1998 08 26	699	0.2+	0.8+	1998 11 02	725	0.2-	0.3-	2000 02 06	704	0.6+	0.1+
1998 08 26	699	0.7+	1.5+	1998 11 02	725	1.9+	0.3-	2000 02 06	704	0.1-	0.5+
1998 08 26	699	1.0+	1.4+	1998 11 02	725	0.1-	0.3-	2000 02 06	704	0.5+	0.6+
1998 09 14	704	0.9-	0.4-	2000 01 05	704	0.7-	0.1+	2000 02 12	704	(0.6-	2.7+)
1998 09 14	704	0.3-	0.2+	2000 01 05	704	0.3-	0.1+	2000 02 12	704	(2.5-	2.2+)
1998 09 14	704	1.0-	0.4+	2000 01 05	704	0.2+	0.5+	2000 02 12	704	(1.3+	2.2+)
1998 09 14	704	1.8-	0.6-	2000 01 05	704	0.3-	0.2+				

(13717)* 1998 QM₄₂ = 1997 ER₄₉

Discovered 1998 Aug. 17 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 32708)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		249.64294		(2000.0)		P	Q
<i>n</i>	0.28604936	<i>ω</i>	30.83287	-0.45148288	+0.89203658		
<i>a</i>	2.2812632	<i>Ω</i>	212.34161	-0.82638466	-0.42683191		
<i>e</i>	0.0470047	<i>i</i>	2.23163	-0.33652875	-0.14861109		
<i>P</i>	3.45	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1996 01 15	327	0.1+	0.4-	1998 08 23	704	0.3-	0.2-	1999 12 31	699	0.0	0.0
1996 01 15	327	0.1+	0.3-	1998 08 23	704	0.1+	1.9+	1999 12 31	699	0.3-	0.6+
1996 01 15	327	0.1+	0.2-	1998 09 14	704	0.1-	0.8+	1999 12 31	699	0.1+	0.7-
1997 03 05	809	1.4+	1.4+	1998 09 14	704	0.3+	0.4+	2000 01 05	704	0.0	0.3-
1997 03 05	809	1.0+	0.8+	1998 09 14	704	0.1-	0.1-	2000 01 05	704	0.9-	1.3+
1997 03 05	809	1.3+	0.4+	1998 09 14	704	0.4-	0.1+	2000 01 05	704	0.4-	0.1-
1997 03 06	809	0.9-	1.4+	1998 09 14	704	1.0-	1.2+	2000 01 05	704	0.4+	0.4-
1997 03 06	809	1.3-	0.6+	1998 09 15	699	0.4+	0.2+	2000 01 05	704	0.5-	0.2+
1997 03 06	809	0.7-	1.0+	1998 09 15	699	0.7+	0.9+	2000 02 02	704	0.4+	0.0
1997 04 08	691	0.4+	0.8-	1998 09 15	699	0.7+	1.4+	2000 02 02	704	0.0	0.0
1997 04 08	691	0.1+	0.5-	1998 09 18	704	1.5+	1.0-	2000 02 02	704	0.6+	0.3-
1997 04 08	691	0.0	0.6-	1998 09 18	704	1.1-	0.4-	2000 02 02	704	1.0-	0.2+
1998 08 17	704	0.6-	1.3-	1998 09 18	704	(1.0-	2.4+)	2000 02 02	704	0.2+	0.1+
1998 08 17	704	0.8-	0.1-	1998 09 18	704	0.1-	0.8+	2000 02 03	704	0.7+	0.1-
1998 08 17	704	0.3-	0.1-	1998 09 18	704	0.8+	1.3+	2000 02 03	704	0.4+	0.6+
1998 08 17	704	(0.0	2.1-)	1999 01 05	910	(2.2-	1.2-)	2000 02 03	704	0.2+	0.3+
1998 08 17	704	0.2+	0.8+	1999 01 05	910	1.7-	0.5-	2000 02 03	704	0.2+	0.2+
1998 08 23	704	(2.3+	1.4-)	1999 01 05	910	(2.6-	0.9-)	2000 02 03	704	0.7+	0.5+
1998 08 23	704	(2.6+	0.2-)	1999 12 30	120	0.0	0.3-				
1998 08 23	704	1.1-	1.2-	1999 12 30	120	0.5-	0.2-				

(13718)* 1998 QR₄₃ = 1995 UE₁₃ =

2000 FEB. 22

M.P.C. 38377

Residuals in seconds of arc

1995 10 17	691	0.1+	0.4-	1998 08 17	704	1.7-	0.7-	1998 09 18	704	1.5+	1.6-
1995 10 17	691	0.1+	0.4-	1998 08 17	704	(3.3-	0.1-)	1998 09 18	704	1.0-	0.5-
1995 10 17	691	0.3+	0.6-	1998 08 17	704	0.4-	0.1+	1998 09 18	704	0.2-	0.5+
1995 10 28	691	0.9+	0.6-	1998 08 23	704	0.7-	1.2+	2000 01 04	704	0.5+	1.0+
1995 10 28	691	0.2+	0.6-	1998 08 23	704	1.1+	1.3+	2000 01 04	704	0.2+	0.4-
1995 10 28	691	0.2+	0.6-	1998 08 23	704	0.9-	0.1+	2000 01 04	704	1.0-	0.1+
1997 03 08	327	0.4+	0.1-	1998 08 23	704	1.4+	0.2+	2000 01 29	704	0.4-	0.1-
1997 03 08	327	0.4-	0.0	1998 08 23	704	0.8-	2.0+	2000 01 29	704	0.3-	0.8+
1997 03 08	327	0.5+	0.4-	1998 09 14	704	0.4-	0.3+	2000 01 29	704	0.7+	0.5+
1997 03 11	327	0.4-	0.4-	1998 09 14	704	0.5+	0.8-	2000 01 29	704	0.1+	0.7+
1997 03 11	327	1.0-	0.4-	1998 09 14	704	0.2+	0.1+	2000 01 29	704	1.1+	1.6+
1997 03 11	327	0.1+	0.4-	1998 09 14	704	0.1+	0.3-	2000 01 30	704	0.5+	0.1-
1997 03 11	327	0.4-	0.4-	1998 09 14	704	0.9+	0.6-	2000 01 30	704	0.7-	0.0
1998 08 17	704	0.2+	0.5+	1998 09 18	704	1.4-	1.0+	2000 01 30	704	0.3+	1.3+
1998 08 17	704	0.4-	0.5+	1998 09 18	704	0.1+	0.1-	2000 01 30	704	(1.3-	2.5+)

(13719)* 1998 QU₄₅ = 1991 GB₄ = 1997 EZ₄₀

Discovered 1998 Aug. 17 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 32711)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		208.02652		(2000.0)		P		Q	
<i>n</i>		0.31184644	ω	97.36724		+0.44572885		+0.89468619	
<i>a</i>		2.1536520	Ω	199.18623		-0.85251742		+0.41425786	
<i>e</i>		0.1150513	<i>i</i>	5.12672		-0.27301985		+0.16711385	
<i>P</i>	3.16	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	2		

Residuals in seconds of arc

1991 04 08	809	0.0	1.0-	1998 08 17	704	0.2+	0.5-	1998 09 18	704	0.6-	0.1+
1991 04 08	809	0.1+	0.4-	1998 08 17	704	0.1+	1.1+	2000 01 05	699	1.1+	0.4+
1991 04 08	809	0.4+	1.2-	1998 08 23	704	0.4-	0.7+	2000 01 05	699	0.5+	0.4-
1991 04 10	809	0.4-	0.7+	1998 08 23	704	0.3+	0.4+	2000 01 05	699	0.1+	1.5+
1991 04 10	809	0.3+	0.4+	1998 08 23	704	1.2-	0.1+	2000 01 07	704	0.0	0.1-
1991 04 10	809	0.8-	0.9+	1998 08 23	704	0.8+	0.6+	2000 01 07	704	0.4-	0.5-
1995 09 26	691	0.0	0.2-	1998 08 23	704	1.2-	0.2+	2000 01 07	704	0.3-	0.3-
1995 09 26	691	0.0	0.2-	1998 08 30	699	0.6-	1.0+	2000 01 07	704	0.3-	1.0-
1995 09 26	691	0.1+	0.3-	1998 08 30	699	0.2+	0.3+	2000 01 07	704	0.1-	0.2+
1995 10 20	010	(0.9-	2.7-)	1998 08 30	699	0.1+	0.6+	2000 02 02	703	0.1-	0.2+
1995 10 20	010	(0.5-	2.7-)	1998 09 14	704	0.7+	0.3-	2000 02 02	704	0.1-	0.2+
1995 10 20	010	(1.5-	3.4-)	1998 09 14	704	0.3+	0.4+	2000 02 02	703	0.5-	0.6+
1997 03 10	704	(1.8+	5.5-)	1998 09 14	704	0.1+	0.1+	2000 02 02	703	0.5-	0.2+
1997 03 10	704	1.1+	0.6+	1998 09 14	704	0.5-	0.3-	2000 02 02	704	0.1-	0.6-
1997 03 11	704	0.4+	0.2+	1998 09 15	699	0.1-	0.0	2000 02 02	703	0.2+	0.1-
1997 03 11	704	0.2+	1.2+	1998 09 15	699	0.1+	0.2+	2000 02 02	704	0.1-	0.5-
1997 03 12	704	0.9+	0.4+	1998 09 15	699	0.2+	0.4+	2000 02 02	704	0.2+	0.1-
1997 03 12	704	0.1+	1.3+	1998 09 18	704	0.3-	0.1-	2000 02 02	704	0.0	0.4-
1998 08 17	704	0.4+	0.1+	1998 09 18	704	0.3-	0.2-	2000 02 04	704	0.0	0.2-
1998 08 17	704	0.0	0.2+	1998 09 18	704	0.4+	0.9-	2000 02 04	704	0.7-	0.4+
1998 08 17	704	0.8+	0.5-	1998 09 18	704	0.4-	0.0	2000 02 04	704	0.1-	0.5+

(13720)* 1998 QU₅₀ = 1990 EG₁₀

Discovered 1998 Aug. 17 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. A. Gnädig (*MPC* 34926), M. E. Sansaturio (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		161.57457		(2000.0)		P		Q	
<i>n</i>		0.17177199	ω	284.13706		+0.06330577		+0.99548004	
<i>a</i>		3.2050476	Ω	348.75230		-0.71680746		-0.00400225	
<i>e</i>		0.0379267	<i>i</i>	21.28175		-0.69439142		+0.09488665	
<i>P</i>	5.74	<i>H</i>	12.9	<i>G</i>	0.15	<i>U</i>	1		

Residuals in seconds of arc

1979 06 15	413	0.1-	0.5-	1998 09 14	704	1.3-	1.3+	1999 12 13	704	0.2-	0.3+
1979 06 15	413	1.0-	1.0-	1998 09 14	704	0.5-	0.2-	1999 12 13	704	0.2-	0.1-
1980 05 23	413	0.7-	0.9+	1998 09 14	704	0.4+	0.8-	1999 12 13	704	0.5+	0.9-
1980 05 23	413	0.6+	1.3-	1998 09 18	699	0.6+	0.9+	1999 12 13	704	0.5+	0.9-
1990 03 06	809	0.7-	0.3+	1998 09 18	699	0.3-	0.0	1999 12 30	704	0.4+	0.1+
1990 03 06	809	0.5+	0.5+	1998 09 18	704	0.6+	1.3-	1999 12 30	704	0.5+	0.3+
1990 03 06	809	1.6+	0.8+	1998 09 18	699	0.4-	0.0	1999 12 30	704	0.5-	0.2+
1998 08 17	704	0.2-	0.0	1998 09 18	704	1.5+	0.0	1999 12 30	704	0.7-	0.7-
1998 08 17	704	1.7-	0.5-	1998 09 18	704	0.5+	0.5-	1999 12 30	704	0.7-	0.4+
1998 08 17	704	0.1-	0.6+	1998 09 18	704	0.1+	1.1-	2000 01 27	704	0.0	0.0
1998 08 17	704	0.7-	0.2+	1998 09 18	704	0.3-	0.4-	2000 01 27	704	0.3-	0.9-
1998 08 17	704	1.1-	0.4+	1999 10 18	704	0.4-	0.2-	2000 01 27	704	0.6+	0.4-
1998 08 23	704	0.4-	0.2+	1999 10 18	704	0.3+	0.7+	2000 01 30	704	0.2-	0.2+
1998 08 23	704	0.1+	0.2-	1999 10 18	704	0.2+	0.4-	2000 01 30	704	0.4-	1.5+
1998 08 23	704	(0.4+	2.5-)	1999 10 18	704	0.6+	0.3+	2000 01 30	704	0.2+	0.6-
1998 08 23	704	1.2+	0.4-	1999 10 31	704	0.2+	0.0	2000 01 30	704	0.4-	0.7+
1998 08 30	699	0.6+	1.1+	1999 10 31	704	0.0	1.2-	2000 01 31	704	0.6+	0.3+
1998 08 30	699	0.5-	1.3+	1999 10 31	704	0.0	0.1-	2000 01 31	704	0.3-	0.4+
1998 08 30	699	0.3+	0.2+	1999 10 31	704	0.5+	0.2-	2000 01 31	704	0.5-	0.1+
1998 09 14	704	0.1+	0.3+	1999 10 31	704	0.2+	0.2+	2000 01 31	704	0.0	0.3-

(13721)* 1998 QX₅₁ = 1997 JE₁₂

Discovered 1998 Aug. 17 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 32715)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		35.93540		(2000.0)		P		Q	
<i>n</i>		0.28376966	ω	258.49061		-0.40140347		-0.91452702	
<i>a</i>		2.2934648	Ω	215.30905		+0.87051733		-0.36391689	
<i>e</i>		0.0617885	<i>i</i>	4.97817		+0.28473643		-0.17664887	
<i>P</i>	3.47	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	1		

Residuals in seconds of arc

1995 12 16	691	0.3+	0.6-	1998 08 17	704	1.2-	0.9+	2000 01 05	704	1.0-	1.3-
1995 12 16	691	0.7-	0.0	1998 08 23	704	0.6+	0.4-	2000 01 05	704	0.8-	0.0
1995 12 16	691	0.3+	0.1-	1998 08 23	704	1.7+	0.7+	2000 01 05	704	(1.9-	2.4-)
1995 12 27	691	0.2+	0.3-	1998 08 23	704	1.5+	0.6-	2000 02 02	704	0.4+	0.6+
1995 12 27	691	0.2+	0.2-	1998 08 23	704	0.2-	0.1-	2000 02 02	704	0.1+	0.6+
1995 12 27	691	0.0	0.4-	1998 09 14	704	0.8+	0.0	2000 02 02	704	0.3+	1.2+
1997 04 11	704	1.8+	0.4-	1998 09 14	704	1.3-	1.0-	2000 02 02	704	0.7+	0.1+
1997 04 11	704	1.6+	0.4-	1998 09 14	704	0.1-	0.7-	2000 02 02	704	0.8+	1.1+
1997 05 03	809	0.1-	0.5-	1998 09 14	704	0.2-	0.5+	2000 02 06	704	0.3+	0.0
1997 05 03	809	1.6-	0.7-	1998 09 16	699	0.1+	0.7+	2000 02 06	704	0.2+	0.5-
1997 05 03	809	(2.9-	1.8-)	1998 09 16	699	0.3-	0.3+	2000 02 06	704	0.0	0.0
1997 05 04	809	0.2-	0.5-	1998 09 16	699	0.1-	0.2-	2000 02 06	704	0.5-	0.1+
1997 05 04	809	0.7-	0.0	1998 09 18	704	1.0+	0.5-	2000 02 06	704	0.5+	0.1+
1997 05 04	809	0.7-	1.3+	1998 09 18	704	0.7+	1.2+	2000 02 12	704	(3.0+	5.7+)
1998 08 17	704	0.1-	0.9+	1998 09 18	704	0.9-	0.1-	2000 02 12	704	(1.3+	4.1+)
1998 08 17	704	0.9+	0.6-	1998 09 18	704	0.6+	0.3+	2000 02 12	704	(1.3+	4.2+)
1998 08 17	704	1.3-	1.4-	1998 09 18	704	1.5-	1.9+				
1998 08 17	704	1.3-	1.1-	2000 01 05	704	1.0-	1.0-				

(13722)* 1998 QO₅₄ = 1976 JM₃ = 1997 GK₃₇

Discovered 1998 Aug. 27 by the Lowell Observatory Near-Earth Object Search at the Anderson Mesa Station.

Id. G. V. Williams (*MPC* 32976, unpublished)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	152.95420		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.23212342	ω	45.03188	+0.70141595	+0.71139313
a	2.6221452	Ω	269.56393	-0.66569495	+0.63180211
e	0.2133730	i	2.52156	-0.25468786	+0.30780823
P	4.25	H	14.7	G 0.15	U 2

Residuals in seconds of arc

1976 05 03	809	(3.9+ 1.4-)	1998 09 14	704	0.2- 1.2+	1998 10 14	704	0.3- 0.1-
1996 01 13	691	0.1- 0.1-	1998 09 16	699	0.0 0.5+	1998 10 14	704	0.6+ 0.2+
1996 01 13	691	0.0 0.2-	1998 09 16	699	0.2- 0.6+	1998 10 14	704	1.1- 1.8+
1997 04 05	566	0.9- 0.4-	1998 09 16	699	0.0 0.6+	1998 10 15	704	0.3+ 0.1+
1997 04 05	566	0.9- 0.5-	1998 09 18	704	0.1- 0.3-	1998 10 15	704	1.1+ 0.6+
1997 04 05	566	1.2- 0.5-	1998 09 18	704	0.1+ 0.5-	1998 10 15	704	0.8+ 0.7+
1997 04 11	704	1.7+ 0.4-	1998 09 18	704	0.0 0.8-	1998 10 15	704	0.9+ 0.5-
1997 04 11	704	0.6+ 0.0	1998 09 18	704	0.3- 0.5-	1998 10 15	704	0.1+ 0.5-
1998 08 27	699	0.4- 0.4+	1998 09 18	704	0.4- 0.6-	1998 11 14	699	0.4+ 0.8+
1998 08 27	699	0.0 0.3-	1998 09 26	704	0.1- 1.0-	1998 11 14	699	1.0- 1.1+
1998 08 27	699	0.2- 0.2-	1998 09 26	704	0.5+ 1.4-	1999 12 03	691	0.0 0.4-
1998 08 28	704	(2.5+ 0.8-)	1998 09 26	704	0.2+ 1.5-	1999 12 03	691	0.3- 0.3-
1998 08 28	704	(1.6+ 2.4-)	1998 09 26	704	1.2+ 1.2-	1999 12 03	691	0.3- 0.3-
1998 08 28	704	0.8+ 1.6-	1998 09 26	704	(1.6+ 2.6-)	1999 12 12	691	0.0 0.1+
1998 08 28	704	1.6- 1.7-	1998 09 27	704	0.8+ 0.8-	1999 12 12	691	0.1+ 0.0
1998 08 28	704	1.0- 1.2+	1998 09 27	704	1.0+ 0.2+	1999 12 12	691	0.0 0.1-
1998 08 28	699	0.6- 0.3+	1998 09 27	704	1.2+ 0.6+	2000 02 03	704	0.8- 0.6+
1998 08 28	699	0.9- 0.0	1998 09 27	704	0.6+ 0.1+	2000 02 03	704	0.6+ 1.1-
1998 08 28	699	0.0 0.0	1998 09 27	704	1.2- 0.6-	2000 02 03	704	0.4+ 0.6+
1998 09 14	704	0.0 0.9+	1998 10 14	704	0.1- 0.4+	2000 02 03	704	0.0 0.0
1998 09 14	704	0.2- 0.4+	1998 10 14	704	0.7- 0.3+			

(13723)* 1998 QY₅₄ = 1979 OD₂

Discovered 1998 Aug. 27 by the Lowell Observatory Near-Earth Object Search at the Anderson Mesa Station.

Id. G. V. Williams (*MPC* 32977)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	95.90953	(2000.0)	P	Q
<i>n</i>	0.21392535	ω 167.46180	+0.88111979	-0.47051585
<i>a</i>	2.7688189	Ω 220.71515	+0.42736055	+0.83515342
<i>e</i>	0.1657938	<i>i</i> 4.16340	+0.20246203	+0.28483960
<i>P</i>	4.61	<i>H</i> 14.1	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1979 07 24	675	0.9+ 0.1+	1998 12 09	704	0.8- 0.7-	2000 01 07	704	0.2+ 0.4+
1979 07 25	675	0.7- 0.1-	1998 12 09	704	0.2+ 0.1-	2000 02 01	703	1.0- 0.7+
1993 07 23	691	0.2+ 0.3+	1998 12 09	704	0.3- 0.1-	2000 02 01	703	0.6+ 1.7+
1993 07 23	691	0.6- 0.2+	1998 12 09	704	(0.3- 2.3+)	2000 02 01	703	(0.3- 2.3+)
1993 07 23	691	0.5- 0.3+	1998 12 13	704	0.7- 1.0-	2000 02 01	703	0.5+ 0.1+
1998 08 27	699	1.2+ 0.2-	1998 12 13	704	0.6- 0.1-	2000 02 02	704	0.4- 0.1-
1998 08 27	699	1.0+ 0.2+	1998 12 13	704	0.9+ 0.3-	2000 02 02	704	0.5- 0.4-
1998 08 27	699	0.9+ 0.4+	1998 12 13	704	0.3- 0.3+	2000 02 02	704	0.3+ 0.1-
1998 08 28	699	1.5+ 0.8-	1998 12 13	704	0.5- 1.1+	2000 02 02	704	0.1- 0.1+
1998 08 28	699	1.6+ 1.3+	1998 12 13	704	0.6+ 0.2-	2000 02 02	704	0.2+ 0.0
1998 08 28	699	0.8+ 0.8+	1998 12 13	704	0.8+ 0.5+	2000 02 04	704	0.8- 0.8-
1998 09 26	704	0.2+ 0.2-	1998 12 13	704	0.5+ 1.4+	2000 02 04	704	0.4+ 1.1-
1998 09 26	704	0.0 0.6-	1998 12 14	704	(2.5- 0.3+)	2000 02 04	704	0.0 0.2-
1998 09 26	704	1.8- 0.0	1998 12 14	704	0.7- 0.5-	2000 02 04	704	0.9+ 1.7-
1998 09 26	704	1.2- 0.9-	1998 12 14	704	(1.0+ 2.4-)	2000 02 04	704	0.3+ 0.7-
1998 09 26	704	1.6- 0.2-	1998 12 14	704	0.5+ 0.5+	2000 02 05	704	1.7+ 1.3+
1998 09 27	704	0.0 0.9-	1998 12 14	704	0.1- 0.9-	2000 02 05	704	0.8- 0.9-
1998 09 27	704	0.6- 0.0	1999 11 17	704	0.5- 0.7+	2000 02 05	704	0.5- 0.4+
1998 09 27	704	0.5- 0.1+	1999 11 17	704	0.4- 0.9+	2000 02 06	704	0.1+ 0.5-
1998 09 27	704	(2.1- 1.0-)	1999 11 17	704	0.5- 1.2+	2000 02 06	704	0.1+ 0.2+
1998 11 11	699	1.0+ 0.2+	1999 11 17	704	0.0 0.6+	2000 02 06	704	0.3+ 0.3-
1998 11 11	699	0.3+ 0.9+	2000 01 07	704	0.7- 0.0	2000 02 06	704	0.6+ 0.6-
1998 11 11	699	0.3- 0.5+	2000 01 07	704	0.1- 0.4+			
1998 12 09	704	0.4- 1.0-	2000 01 07	704	0.2- 0.3+			

(13724)* 1998 QF₅₅ = 1954 GF = 1990 HQ₄ = 1999 XP₈₈

Discovered 1998 Aug. 27 by the Lowell Observatory Near-Earth Object Search at the Anderson Mesa Station.

Id. G. V. Williams (*MPC* 37165)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	248.02233	(2000.0)	P	Q
<i>n</i>	0.27502743	ω 338.77610	-0.46904893	+0.88287220
<i>a</i>	2.3418121	Ω 263.24505	-0.80692042	-0.43899988
<i>e</i>	0.1941517	<i>i</i> 1.32812	-0.35898821	-0.16678065
<i>P</i>	3.58	<i>H</i> 13.8	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1954 04 02	760	0.7- 0.6+	1998 09 18	704	1.1+ 0.3+	1999 12 31	120	0.4+ 1.1-
1954 04 02	760	1.0+ 0.0	1998 09 18	704	0.2+ 0.3-	1999 12 31	120	1.4- 1.1-
1990 04 22	675	(5.6+ 0.0)	1998 09 18	704	0.2- 0.7-	2000 01 03	704	0.0 0.2-
1990 04 22	675	0.0 0.0	1998 09 18	704	0.3- 0.2+	2000 01 03	704	0.3+ 0.6-
1998 08 27	699	0.1+ 0.2-	1998 09 26	704	0.0 0.2-	2000 01 03	704	0.3- 0.3-
1998 08 27	699	0.3+ 0.3-	1998 09 26	704	0.7- 0.1+	2000 01 03	704	0.3- 0.4-
1998 08 27	699	0.4+ 0.6-	1998 09 26	704	0.2+ 0.9+	2000 01 03	704	0.1+ 0.4-
1998 08 28	704	0.8- 1.7+	1998 09 26	704	0.3- 0.0	2000 01 05	704	0.1- 0.1+
1998 08 28	704	1.4- 0.3+	1998 09 26	704	0.1- 0.2+	2000 01 05	704	0.2+ 0.4-
1998 08 28	704	1.9- 1.7+	1998 09 27	704	0.4- 0.5-	2000 01 05	704	0.7+ 0.8-
1998 08 28	704	0.2- 0.7+	1998 09 27	704	0.2- 0.1+	2000 01 05	704	1.0+ 0.5+
1998 08 28	704	(5.3- 0.1-)	1998 09 27	704	0.1+ 0.4+	2000 01 05	704	0.4+ 0.1+
1998 08 28	699	0.4- 0.1-	1998 09 27	704	0.6+ 0.7+	2000 01 25	704	0.0 0.3+
1998 08 28	699	0.7+ 0.1-	1998 09 27	704	1.1- 1.4+	2000 01 25	704	0.6+ 1.3+
1998 08 28	699	0.3- 0.0	1998 11 11	699	1.4+ 0.2-	2000 01 25	704	0.2+ 1.0+
1998 08 31	704	0.2+ 0.5-	1998 11 11	699	0.5+ 1.0-	2000 01 25	704	0.6+ 1.4+
1998 08 31	704	(2.4+ 3.4-)	1998 11 11	699	0.3- 0.4-	2000 01 25	704	0.3- 1.1+
1998 08 31	704	0.5+ 1.8-	1999 12 07	704	0.2+ 0.4-	2000 01 31	704	0.3- 0.4+
1998 08 31	704	1.6- 0.1-	1999 12 07	704	0.2- 0.0	2000 01 31	704	0.2- 0.3+
1998 08 31	704	(1.5- 2.1-)	1999 12 07	704	0.6+ 0.2-	2000 01 31	704	0.1- 0.3+
1998 09 14	704	0.2- 0.0	1999 12 07	704	0.2- 0.1-	2000 01 31	704	0.5- 0.5+
1998 09 14	704	0.3+ 0.4-	1999 12 08	704	0.1+ 0.2-	2000 02 02	704	0.4- 0.8+
1998 09 14	704	0.6+ 0.2-	1999 12 08	704	0.5- 0.1+	2000 02 02	704	0.3- 0.3+
1998 09 15	699	0.5+ 0.2+	1999 12 08	704	0.6- 0.1-	2000 02 02	704	0.0 0.2-
1998 09 15	699	0.5+ 0.3+	1999 12 08	704	0.2+ 0.2+	2000 02 02	704	0.1+ 0.4-
1998 09 15	699	0.5+ 0.9+	1999 12 08	704	0.3- 0.0			
1998 09 18	704	1.2+ 1.1-	1999 12 31	120	0.2- 1.1-			

(13725)* 1998 QY₅₅ = 1999 XF₈₃

Discovered 1998 Aug. 29 at Višnjan.

Id. G. V. Williams (*MPC* 37165)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	48.33425	(2000.0)	P	Q
<i>n</i>	0.19950189	ω 270.58647	+0.52009679	-0.85377475
<i>a</i>	2.9007126	Ω 148.03877	+0.80044704	+0.47749671
<i>e</i>	0.0591255	<i>i</i> 2.58051	+0.29796622	+0.20752245
<i>P</i>	4.94	<i>H</i> 13.3	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1993 08 15	809	0.6+	1.4-	1998 09 18	704	0.4-	0.1-	1999 12 08	704	0.2-	0.2-
1993 08 15	809	0.2+	0.9-	1998 09 26	704	0.4-	0.1-	1999 12 08	704	0.5-	0.1-
1993 08 15	809	0.3+	0.7-	1998 09 26	704	0.1-	1.1+	1999 12 08	704	0.5-	0.4+
1996 04 20	566	0.2-	1.3-	1998 09 26	704	(2.2-	1.9+)	2000 01 05	704	0.9-	0.4-
1996 04 20	566	0.6-	1.6-	1998 09 27	704	0.2+	0.5-	2000 01 05	704	0.5+	1.4-
1996 04 20	566	0.9-	1.5-	1998 09 27	704	0.9+	0.8+	2000 01 05	704	0.3+	0.9-
1998 08 29	120	(2.1+	1.5-)	1998 09 27	704	0.3-	0.0	2000 01 05	704	0.3+	0.7-
1998 08 29	120	1.8+	0.8+	1998 09 27	704	0.5-	0.1+	2000 01 05	704	0.4+	1.2-
1998 08 29	120	0.4-	0.8-	1998 09 27	704	0.0	0.8+	2000 01 06	704	0.1+	0.9-
1998 08 31	120	0.2-	0.4-	1998 09 29	120	0.2+	0.2-	2000 01 06	704	0.4+	0.5-
1998 08 31	120	1.1+	0.0	1998 09 29	120	0.4+	0.1+	2000 01 06	704	0.5+	0.3+
1998 08 31	120	0.3-	1.4-	1998 09 29	120	0.4+	0.2-	2000 01 25	704	0.2+	0.5+
1998 09 14	704	0.6-	0.6-	1998 10 08	120	0.3+	0.8+	2000 01 25	704	0.7+	1.2+
1998 09 14	704	1.0-	1.3-	1998 10 08	120	0.5+	1.2+	2000 01 25	704	0.4-	1.0+
1998 09 14	704	0.3+	0.8-	1998 10 08	120	0.7+	1.3+	2000 01 25	704	0.2+	0.4+
1998 09 14	704	0.4+	0.1-	1998 10 10	120	1.0+	0.6+	2000 02 02	704	0.2+	0.6+
1998 09 14	704	0.1+	0.6-	1998 10 10	120	0.5+	0.1-	2000 02 02	704	0.2-	0.9-
1998 09 17	699	0.1-	0.6-	1999 12 07	704	0.1+	0.4-	2000 02 02	704	0.2+	0.5+
1998 09 17	699	0.3-	0.1-	1999 12 07	704	0.1+	0.6-	2000 02 02	704	0.2-	0.7+

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M.P.C. 38379

1998 09 17	699	0.0	0.9–	1999 12 07	704	0.2–	0.2+	2000 02 03	704	0.5+	0.3–
1998 09 18	704	0.9–	0.1–	1999 12 07	704	0.2–	0.1+	2000 02 03	704	0.4–	0.4–
1998 09 18	704	0.4–	0.2–	1999 12 07	704	0.6–	0.1–	2000 02 03	704	0.3–	0.3+
1998 09 18	704	0.7–	0.2–	1999 12 08	704	0.1–	0.5–	2000 02 03	704	0.0	0.4+
1998 09 18	704	1.4–	0.4+	1999 12 08	704	0.2–	0.1+	2000 02 03	704	0.0	0.9+

(13726)* 1998 QV₈₉ = 1987 RY₁ = 2000 AC₇

Discovered 1998 Aug. 24 by the Lincoln Laboratory Near-Earth Asteroid
Research Team at Socorro.

Id. G. V. Williams (*MPC* 37738)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	136.52694		(2000.0)		P		Q
n	0.18362030	ω	13.18297		+0.67482043		+0.72343558
a	3.0656478	Ω	299.47534		-0.69137110		+0.55063617
e	0.0790897	i	9.64132		-0.25811507		+0.41646220
P	5.37	H	12.6	G	0.15	U	2

Residuals in seconds of arc

1987 09 01	095	1.9–	1.8+	1998 09 19	704	0.0	0.2+	1999 12 29	723	1.2–	1.7–
1990 01 26	675	0.5–	0.2+	1998 09 19	704	0.4–	0.2+	1999 12 29	723	0.8–	0.0
1990 01 26	675	1.0+	0.2–	1998 09 19	704	0.3+	0.3–	1999 12 29	723	(0.8–	2.2–)
1990 03 16	675	0.5+	0.2–	1998 09 23	704	0.2+	0.4+	2000 01 02	704	0.3+	0.4–
1990 03 16	675	0.6+	0.6+	1998 09 23	704	0.9+	0.7+	2000 01 02	704	0.1+	0.2–
1992 06 04	413	0.7–	0.6–	1998 09 23	704	0.1+	0.5–	2000 01 02	704	0.1+	0.4–
1992 06 04	413	0.9+	0.8–	1998 10 15	699	0.3+	0.6+	2000 01 02	704	0.1–	0.4–
1993 08 23	675	0.8+	0.7–	1998 10 15	699	0.5+	0.5+	2000 01 02	704	0.2–	0.8+
1998 06 30	704	0.4+	0.2+	1998 10 15	699	0.8+	0.7+	2000 01 04	704	0.7+	0.2+
1998 06 30	704	0.6–	0.9–	1998 12 09	704	1.0+	0.7+	2000 01 04	704	0.1+	0.4–
1998 06 30	704	1.4–	1.5+	1998 12 09	704	0.7+	0.1–	2000 01 04	704	0.3+	0.2–
1998 06 30	704	0.9+	0.4+	1998 12 09	704	0.0	0.8+	2000 01 04	704	0.8+	0.5–
1998 08 20	699	0.7+	0.0	1998 12 09	704	(2.3+	1.5+)	2000 01 04	704	0.4+	0.1–
1998 08 20	699	0.8+	0.1+	1998 12 09	704	0.6+	0.0	2000 01 30	704	0.9+	1.0+
1998 08 20	699	0.6+	0.3–	1998 12 28	327	1.3–	0.1+	2000 01 30	704	0.5+	0.2–
1998 08 24	704	0.1–	0.2–	1998 12 28	327	0.2+	0.0	2000 01 30	704	0.3+	0.1–
1998 08 24	704	0.4–	0.4–	1998 12 28	327	0.1+	0.2–	2000 01 30	704	0.5–	0.0
1998 08 24	704	0.8+	0.1+	1999 12 12	704	0.6–	0.2–	2000 01 30	704	0.0	0.3–
1998 08 24	704	0.1–	0.3+	1999 12 12	704	0.8–	0.1–	2000 01 31	704	0.1–	0.5+
1998 08 24	704	1.9–	0.8–	1999 12 12	704	1.0–	0.6+	2000 01 31	704	0.2–	1.2+
1998 08 27	704	(2.3–	0.4–)	1999 12 12	704	(0.4–	2.0+)	2000 01 31	704	1.1+	0.8–
1998 08 27	704	1.4–	1.1–	1999 12 12	704	(0.7–	4.1+)	2000 01 31	704	0.1+	0.5–
1998 08 27	704	0.4–	0.8–	1999 12 15	704	0.4–	0.5–	2000 02 11	704	0.1+	1.0+
1998 08 27	704	1.7–	1.6–	1999 12 15	704	1.1–	1.4+	2000 02 11	704	0.5+	1.3+
1998 09 18	699	0.7+	0.3+	1999 12 15	704	0.4–	0.2–	2000 02 11	704	0.2+	0.6+
1998 09 18	699	0.7+	0.1+	1999 12 15	704	0.1+	0.3–	2000 02 11	704	0.8–	0.0
1998 09 18	699	0.3–	0.2+	1999 12 15	704	0.1+	0.3–	2000 02 11	704	0.4–	0.5–

(13727)* 1998 QU₉₀ = 1993 CG = 1995 YA₂₆

Discovered 1998 Aug. 28 by the Lincoln Laboratory Near-Earth Asteroid
Research Team at Socorro.

Id. G. V. Williams (*MPC* 32720)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	53.38595		(2000.0)		P		Q
n	0.28886191	ω	54.01533		-0.28561459		-0.95476150
a	2.2664312	Ω	52.78913		+0.84240917		-0.29131348
e	0.0772132	i	5.96712		+0.45691476		-0.05972378
P	3.41	H	13.8	G	0.15	U	2

Residuals in seconds of arc

1993 02 13	402	1.7–	0.4–	1998 09 24	699	0.9+	0.3–	1998 12 08	704	0.8–	0.3+
1993 02 13	402	(0.6–	4.2+)	1998 09 26	704	0.7+	0.3–	1998 12 08	704	1.0–	0.4–
1993 02 14	402	0.5+	0.0	1998 09 26	704	0.8–	1.1–	1998 12 16	699	0.0	0.0
1993 02 14	402	1.2+	0.5+	1998 09 26	704	0.2+	1.5–	1998 12 16	699	0.1+	0.5–
1995 12 20	358	0.0	0.3–	1998 09 26	704	0.8+	1.9–	1998 12 16	699	0.1+	1.2–
1995 12 20	358	0.2–	0.7+	1998 09 26	704	0.5–	1.4–	1999 11 16	703	0.0	0.9–
1998 08 28	704	1.1+	1.3–	1998 09 27	704	0.1+	0.5–	1999 11 16	703	0.5+	0.1–

1998 08 28	704	0.9+	1.0+	1998 09 27	704	0.1+	0.0	1999 11 16	703	1.1+	0.1+
1998 08 28	704	0.5+	1.2–	1998 09 27	704	0.2+	0.4–	1999 11 16	703	0.4–	0.7+
1998 08 28	704	0.4+	1.1–	1998 09 27	704	0.6+	0.6–	2000 01 04	704	0.1+	1.2–
1998 08 28	704	0.0	0.9–	1998 09 27	704	0.2–	0.3–	2000 01 04	704	0.6–	0.6–
1998 08 31	704	1.2+	0.4+	1998 10 14	704	0.1+	0.6+	2000 01 04	704	0.5–	0.8–
1998 08 31	704	1.6+	0.2–	1998 10 14	704	0.1–	0.2+	2000 01 04	704	0.4–	0.0
1998 08 31	704	0.1+	0.2–	1998 10 14	704	0.5+	0.2+	2000 01 07	704	0.2–	0.3–
1998 08 31	704	1.6–	1.7+	1998 10 14	704	0.9–	0.5+	2000 01 07	704	0.3–	0.4–
1998 08 31	704	1.4–	0.8+	1998 10 14	704	0.1–	0.9–	2000 01 07	704	0.5–	0.4–
1998 09 14	704	0.1–	0.4+	1998 10 14	704	0.2–	0.2–	2000 01 07	704	0.1+	0.9–
1998 09 14	704	0.4–	0.3+	1998 10 14	704	0.6+	0.1+	2000 01 07	704	0.3–	0.5–
1998 09 14	704	0.5+	0.0	1998 10 14	704	0.9–	0.5+	2000 02 04	704	1.2+	1.1–
1998 09 17	699	0.0	0.1+	1998 10 14	704	0.7+	0.6–	2000 02 04	704	0.4–	0.0
1998 09 17	699	0.2–	0.2+	1998 10 14	704	1.8–	0.9+	2000 02 04	704	0.9+	1.1+
1998 09 17	699	0.1–	0.0	1998 10 15	704	0.2+	0.2+	2000 02 04	704	(0.1–	2.5+)
1998 09 18	704	0.2–	0.0	1998 10 15	704	0.2+	0.7+	2000 02 14	106	0.2+	0.1+
1998 09 18	704	0.1–	0.8+	1998 10 15	704	1.1–	1.5+	2000 02 14	106	0.2+	0.0
1998 09 18	704	0.1+	1.0+	1998 10 15	704	0.3+	0.0	2000 02 14	106	0.1–	0.2–
1998 09 18	704	0.3–	1.1+	1998 10 15	704	0.5–	0.4–	2000 02 14	704	0.0	0.2+
1998 09 18	704	0.9+	1.3+	1998 12 08	704	(0.9+	2.1–)	2000 02 14	704	0.3–	0.3+
1998 09 24	699	0.6+	0.3–	1998 12 08	704	0.3–	0.4+	2000 02 14	704	0.3–	0.7+
1998 09 24	699	0.5+	0.0	1998 12 08	704	1.9–	1.0+	2000 02 14	704	0.9–	1.1+

(13728)* 1998 QC₉₈ = 1990 RC₆

Discovered 1998 Aug. 28 by the Lincoln Laboratory Near-Earth Asteroid
Research Team at Socorro.

Id. G. V. Williams (*MPC* 32987)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	93.72733		(2000.0)		P		Q
n	0.25257576	ω	256.89540		+0.63749890		-0.76628403
a	2.4786104	Ω	152.98253		+0.75737328		+0.60423173
e	0.1156801	i	10.14640		+0.14135370		+0.21843261
P	3.90	H	13.7	G	0.15	U	1

Residuals in seconds of arc

1990 09 08	809	0.6–	0.6+	1998 08 28	704	1.8+	0.7–	2000 01 05	704	0.8+	0.1+
1990 09 09	809	0.1–	0.7+	1998 08 28	704	1.8+	0.8–	2000 01 05	704	(0.4+	3.3+)
1990 09 09	809	0.1+	1.0+	1998 08 31	704	1.0+	0.9+	2000 02 01	703	0.1+	0.6–
1990 09 09	809	0.3–	1.5+	1998 08 31	704	(2.1+	1.0–)	2000 02 01	703	0.2–	0.4+
1990 09 10	809	0.3–	1.4+	1998 08 31	704	0.8+	0.3–	2000 02 01	703	0.4+	0.9+
1990 09 10	809	0.2+	1.4+	1998 08 31	704	0.5+	0.5+	2000 02 01	703	0.1+	0.5+
1990 09 12	809	0.1–	0.9+	1998 08 31	704	1.5–	1.3+	2000 02 02	704	1.1+	0.8+
1990 09 12	809	0.1–	1.0+	1998 09 14	704	0.4–	0.1+	2000 02 02	704	0.5+	0.1+
1990 09 12	809	0.1–	0.8+	1998 09 14	704	0.7–	0.9–	2000 02 02	704	0.6+	0.0
1990 09 14	675	1.6–	1.4–	1998 09 14	704	0.6+	1.5–	2000 02 02	704	0.4+	0.3+
1990 09 14	675	(0.9–	2.1–)	1998 09 15	910	0.5+	0.4+	2000 02 02	704	0.7+	0.0
1990 09 14	809	0.5+	0.3+	1998 09 15	910	0.7+	0.4+	2000 02 05	704	0.6+	0.2+
1990 09 15	809	0.4+	0.2+	1998 09 15	910	0.5+	0.3+	2000 02 05	704	0.1+	0.2+
1990 09 15	809	0.6+	0.1+	1998 09 17	699	0.1+	0.1–	2000 02 05	704	0.3+	0.3+
1990 09 15	809	0.7+	0.2–	1998 09 17	699	0.6+	0.1–	2000 02 06	704	0.2+	0.8+
1990 09 16	809	0.5+	0.2–	1998 09 17	699	0.3+	0.3+	2000 02 06	704	0.7+	0.7+
1990 09 16	809	1.0+	0.4–	1998 09 18	704	1.0–	0.0	2000 02 06	704	0.9+	0.5+
1993 06 11	691	0.4–	0.3+	1998 09 18	704	0.9–	0.1–	2000 02 06	704	0.3+	1.5+
1993 06 11	691	0.1–	0.4+	1998 09 18	704	0.9+	0.0	2000 02 07	691	0.1+	0.4–
1993 06 11	691	0.1–	0.1+	1998 09 18	704	0.2–	0.4+	2000 02 07	691	0.1+	0.4–
1996 03 19	566	1.1–	0.3+	1998 09 18	704	0.6–	0.8–	2000 02 07	691	0.1–	0.3–
1996 03 19	566	1.4–	0.9+	1998 09 26	704	0.6–	0.7+	2000 02 10	732	1.1–	1.2+
1996 03 19	566	1.2–	1.1+	1998 09 26	704	0.4–	0.2–	2000 02 10	732	0.8–	1.0+
1997 07 07	691	0.3–	0.1+	1998 09 26	704	0.5–	0.6+	2000 02 10	732	0.9–	0.7+
1997 07 07	691	0.3–	0.4+	1998 09 26	704	0.7–	0.5+	2000 02 11	704	0.4+	0.5+
1997 07 07	691	0.2–	0.6+	1998 09 26	704	0.8–	0.1+	2000 02 11	704	0.3+	0.3+
1998 06 29	704	0.8+	1.9+	1998 09 27	704	0.7–	1.4–	2000 02 11	704	0.0	0.4+
1998 06 29	704	1.2–	0.2–	1998 09 27	704	1.3–	0.2+	2000 02 11	704	0.3+	0.5+
1998 06 29	704	0.5+	1.7+	1998 09 27	704	0.1+	0.0	2000 02 11	704	0.3+	0.5+
1998 06 29	704	0.7–	0.1–	1998 09 27	704	0.7–	0.8–	2000 02 11	691	0.0	0.4–

M.P.C. 38380

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1998 08 28 704 0.9+ 1.8+ 1998 09 27 704 1.0- 0.5- 2000 02 11 691 0.0 0.5-
 1998 08 28 704 (2.7+ 0.8-) 2000 01 05 704 0.6+ 0.7- 2000 02 11 691 0.1+ 0.7-

(13729)* 1998 RO₂₂ = 1997 GT₇

Discovered 1998 Sept. 14 by the Lincoln Laboratory Near-Earth Asteroid
 Research Team at Socorro.

Id. A. Gnädig (*MPC* 32992)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams					
<i>M</i>	19.02936	(2000.0)	<i>P</i>	<i>Q</i>			
<i>n</i>	0.27684693	ω	305.54092	-0.46574553	-0.88487044		
<i>a</i>	2.3315402	Ω	172.20096	+0.83234711	-0.44159849		
<i>e</i>	0.0716598	<i>i</i>	3.90516	+0.30046528	-0.14830738		
<i>P</i>	3.56	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1995 11 22	691	0.1+	0.0	1998 09 18	704	1.1-	1.1-	2000 01 07	704	0.2-	0.2+
1995 11 22	691	0.1-	0.2+	1998 09 18	704	1.1+	0.6+	2000 01 07	704	0.6+	0.1+
1995 11 22	691	0.0	0.0	1998 09 18	704	1.5+	1.0-	2000 01 30	703	0.4-	0.1+
1997 04 02	704	1.0+	0.5+	1998 09 20	691	0.3+	0.3+	2000 01 30	703	0.3+	0.6+
1997 04 02	704	0.2+	0.1+	1998 09 20	691	0.2+	0.4+	2000 01 30	703	0.0	0.0
1997 04 06	704	0.3+	0.9+	1998 09 20	691	0.1+	0.4+	2000 01 30	703	0.5+	0.1+
1997 04 06	704	0.3+	0.9+	1998 09 26	691	0.2-	0.1+	2000 02 02	704	0.0	0.3-
1997 04 07	809	(1.3- 2.8+)		1998 09 26	691	0.0	0.2+	2000 02 02	704	0.1+	0.0
1997 04 07	809	(0.9- 2.9+)		1998 09 26	691	0.1+	0.2+	2000 02 02	704	0.3-	0.2-
1997 04 07	809	(0.8- 2.4+)		1998 09 29	691	0.6-	0.5+	2000 02 02	704	0.1-	0.0
1997 04 08	809	(1.9+ 2.5+)		1998 09 29	691	0.6-	0.1+	2000 02 02	704	0.3+	0.1+
1997 04 08	809	(1.3+ 3.1+)		1998 09 29	691	0.8-	0.3+	2000 02 03	106	0.1-	0.1-
1997 04 08	809	(1.2+ 2.4+)		1999 12 06	704	0.0	0.2+	2000 02 03	106	0.4+	0.2-
1997 04 08	704	0.1-	1.2+	1999 12 06	704	0.1+	0.1+	2000 02 03	106	0.2-	0.0
1997 04 08	704	0.6-	0.8+	1999 12 06	704	0.6-	0.4+	2000 02 04	704	0.2+	0.2+
1998 08 17	704	0.7-	1.1+	1999 12 06	704	0.2-	0.1+	2000 02 04	704	0.1+	0.4+
1998 08 17	704	0.7+	0.2-	1999 12 07	704	0.2+	0.3+	2000 02 04	704	0.4+	0.8+
1998 08 17	704	0.3+	1.2+	1999 12 07	704	0.0	0.3+	2000 02 04	704	0.1+	0.6+
1998 08 17	704	0.1-	1.6+	1999 12 07	704	0.1-	1.0-	2000 02 05	704	0.2+	0.1-
1998 08 17	704	0.0	0.1+	1999 12 07	704	1.2-	1.0+	2000 02 05	704	0.4+	0.2+
1998 08 24	910	0.7+	0.6+	2000 01 05	704	0.2-	0.6+	2000 02 05	704	0.5+	1.3+
1998 08 24	910	0.4+	0.7+	2000 01 05	704	0.5-	0.6-	2000 02 05	704	0.2+	0.6+
1998 08 24	910	0.6+	0.7+	2000 01 05	704	0.1+	0.1+	2000 02 05	704	0.8+	0.1+
1998 09 14	704	1.0-	0.5-	2000 01 05	704	0.1-	0.5-	2000 02 08	704	0.4-	0.7-
1998 09 14	704	1.2-	0.1+	2000 01 05	704	0.0	0.3-	2000 02 08	704	0.0	0.3+
1998 09 14	704	0.7-	1.0+	2000 01 07	704	0.4-	0.5-	2000 02 08	704	0.4-	0.1+
1998 09 14	704	1.2-	0.4+	2000 01 07	704	0.2-	0.0	2000 02 08	704	0.2+	0.7+
1998 09 14	704	0.9-	0.3+	2000 01 07	704	0.2+	0.8+	2000 02 08	704	0.3+	0.5+

(13730)* 1998 RE₄₇ = 1984 UH₃ = 1991 RR₃₆

Discovered 1998 Sept. 14 by the Lincoln Laboratory Near-Earth Asteroid
 Research Team at Socorro.

Id. G. V. Williams (*MPC* 32993)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams					
<i>M</i>	145.60624	(2000.0)	<i>P</i>	<i>Q</i>			
<i>n</i>	0.27836219	ω	143.21010	+0.99733332	+0.03741167		
<i>a</i>	2.3230714	Ω	214.80428	-0.05521559	+0.94825694		
<i>e</i>	0.1526428	<i>i</i>	6.30293	+0.04772293	+0.31529216		
<i>P</i>	3.54	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1984 10 29	688	(4.6+ 2.3-)		1998 09 14	704	0.6+	0.4-	1998 09 27	704	0.3-	0.6+
1984 10 29	688	1.5+ 1.4+		1998 09 16	699	0.2+	0.3+	1998 09 27	704	0.1+	0.9+
1984 10 31	688	(1.3- 6.4-)		1998 09 16	699	0.0	0.7+	1998 12 09	704	1.0-	0.1-
1984 10 31	688	1.5- 2.3-		1998 09 16	699	0.6+	0.4+	1998 12 09	704	1.7+	0.4-
1991 09 14	675	0.0	0.7-	1998 09 18	704	0.9-	0.2+	1998 12 09	704	0.1-	0.9-
1991 09 14	675	1.0+	1.4-	1998 09 18	704	0.4-	0.1+	1998 12 09	704	0.9-	0.8-
1997 04 01	809	0.6+	0.9+	1998 09 18	704	0.8-	0.4-	1998 12 09	704	0.8+	0.6-
1997 04 01	809	0.1-	0.4+	1998 09 18	704	0.3+	1.5+	2000 01 08	704	1.8+	0.7-
1997 04 01	809	0.0	0.6-	1998 09 18	704	0.7-	0.2+	2000 01 08	704	0.9+	0.9-

1997 04 07	566	0.2+	0.4-	1998 09 26	704	0.2-	0.1+	2000 01 08	704	(0.9- 2.1-)	
1997 04 07	566	0.5-	0.5-	1998 09 26	704	0.3-	0.2-	2000 01 08	704	0.7+	1.3-
1997 04 07	566	0.3+	0.4+	1998 09 26	704	0.4+	0.0	2000 02 06	704	0.5-	0.1+
1998 06 30	704	0.9+	1.7-	1998 09 26	704	0.4-	0.2-	2000 02 06	704	0.3+	0.1-
1998 06 30	704	0.4-	0.9-	1998 09 26	704	0.1+	0.1+	2000 02 06	704	0.0	0.4+
1998 06 30	704	(2.2- 1.7+)		1998 09 27	699	0.8+	0.8+	2000 02 06	704	0.3+	0.4+
1998 06 30	704	(4.1- 2.1+)		1998 09 27	699	0.3+	0.7+	2000 02 06	704	0.1+	0.4+
1998 09 14	704	0.2+	0.2-	1998 09 27	704	0.1-	0.8+	2000 02 12	704	(2.4- 1.4+)	
1998 09 14	704	0.8-	0.4-	1998 09 27	699	0.4+	0.8+	2000 02 12	704	1.7-	1.7+
1998 09 14	704	(0.3+ 3.5+)		1998 09 27	704	0.3-	1.3+	2000 02 12	704	0.4-	0.8+
1998 09 14	704	0.1+	1.2-	1998 09 27	704	1.2-	0.4+	2000 02 12	704	0.5-	0.9+

(13731)* 1998 RG₄₉ = 1985 SF₄ = 1991 LX₅ = 1997 EY₁₈

Discovered 1998 Sept. 14 by the Lincoln Laboratory Near-Earth Asteroid
 Research Team at Socorro.

Id. A. Doppler (*MPC* 33271, *MPC* 34534)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams					
<i>M</i>	208.50297	(2000.0)	<i>P</i>	<i>Q</i>			
<i>n</i>	0.30364954	ω	108.45391	+0.38697795	+0.92208038		
<i>a</i>	2.1922377	Ω	184.31888	-0.86469157	+0.36138714		
<i>e</i>	0.1463255	<i>i</i>	3.02971	-0.32024451	+0.13844535		
<i>P</i>	3.25	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1985 09 20	095	0.6-	2.2+	1998 09 14	704	0.4-	0.4+	1998 12 08	704	0.8-	1.4-
1991 06 07	675	0.2-	1.3-	1998 09 14	704	0.2+	0.7+	1999 12 31	699	0.4-	0.7+
1991 06 07	675	(6.6+ 0.7-)		1998 09 18	704	0.2+	0.2+	1999 12 31	699	0.0	0.3-
1991 06 09	675	1.1-	1.2-	1998 09 18	704	0.5-	0.1-	1999 12 31	699	1.2-	0.2-
1997 02 06	566	0.3+	1.1-	1998 09 18	704	0.2-	0.2-	2000 01 07	704	1.1-	0.9-
1997 02 06	566	0.6+	0.9-	1998 09 18	704	0.6+	0.6-	2000 01 07	704	0.4+	0.3-
1997 02 06	566	0.7+	0.9-	1998 09 18	704	0.5-	0.2+	2000 01 07	704	0.5+	0.1-
1997 03 03	691	0.1-	0.8-	1998 09 25	699	0.7+	0.2+	2000 01 07	704	0.3+	0.7-
1997 03 03	691	0.0	0.7-	1998 09 25	699	0.1-	0.5-	2000 01 07	704	0.4-	0.1-
1997 03 03	691	0.0	0.7-	1998 09 25	699	0.3+	0.1-	2000 01 30	703	0.6+	0.3+
1997 03 11	691	0.1-	0.1-	1998 09 26	704	0.2+	0.6-	2000 01 30	703	0.2+	0.0
1997 03 11	691	0.4-	0.1-	1998 09 26	704	0.4+	0.9-	2000 01 30	703	0.1+	0.3+
1997 03 11	691	0.5-	0.2-	1998 09 26	704	0.0	1.1-	2000 01 30	703	0.0	0.0
1998 08 23	704	1.1+	0.6+	1998 09 26	704	0.8-	1.8-	2000 02 02	704	0.7-	0.0
1998 08 23	704	0.6+	1.0-	1998 09 26	704	0.5-	1.2-	2000 02 02	704	0.2+	0.0
1998 08 23	704	0.1-	0.5+	1998 09 27	704	0.5+	0.2-	2000 02 02	704	0.2-	0.1-
1998 08 23	704	1.0+	0.7+	1998 09 27	704	1.3+	0.4+	2000 02 02	704	0.5-	0.2-
1998 08 23	704	(2.2- 0.7+)		1998 09 27	704	0.1+	0.4-	2000 02 02	704	0.4-	0.2-
1998 09 14	704	0.0	0.1+	1998 09 27	704	0.3+	0.5-	2000 02 03	704	0.2+	0.2+
1998 09 14	691	0.5+	0.3-	1998 09 27	704	0.2-	0.1-	2000 02 03	704	0.5+	1.1+
1998 09 14	704	0.1+	0.2-	1998 09 28	691	0.8-	0.1+	2000 02 03	704	0.3+	0.2-
1998 09 14	691	0.1-	0.6-	1998 09 28	691	0.7-	0.1+	2000 02 03	704	0.1+	0.1+
1998 09 14	691	0.3+	0.5-	1998 09 28	691	0.7-	0.0	2000 02 03	704	0.4-	0.5+
1998 09 14	704	0.5+	0.4+	1998 12 08	704	(2.2- 0.3-)					

(13732)* 1998 RC₅₆ = 1989 EU₅ = 1991 VS₁₃ = 1997 LA₁₆

Discovered 1998 Sept. 14 by the Lincoln Laboratory Near-Earth Asteroid
 Research Team at Socorro.

Id. G. V. Williams (*MPC* 32998)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams					
<i>M</i>	90.09926	(2000.0)	<i>P</i>	<i>Q</i>			
<i>n</i>	0.26938280	ω	217.12054	+0.46935118	-0.88189237		
<i>a</i>	2.3744123	Ω	204.97907	+0.83331391	+0.45902139		
<i>e</i>	0.1001356	<i>i</i>	6.04141	+0.29205718	+0.10754166		
<i>P</i>	3.66	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	1

2000 FEB. 22

M.P.C. 38381

1991 11 11	399	(2.7+ 2.6+)	1998 09 18	704	0.2- 0.1-	2000 01 11	699	0.0 1.7+
1997 05 29	691	(3.2- 0.5-)	1998 09 26	704	0.3+ 0.4+	2000 02 02	704	0.7+ 0.5+
1997 05 29	691	(3.2- 0.7-)	1998 09 26	704	0.1- 0.1-	2000 02 02	704	0.1+ 0.4+
1997 05 29	691	(3.3- 0.8-)	1998 09 26	704	0.4- 0.5+	2000 02 02	704	1.2+ 0.8+
1997 06 08	809	0.5+ 0.4+	1998 09 26	704	0.4- 0.9+	2000 02 02	704	1.3+ 0.9+
1997 06 08	809	0.5- 0.4+	1998 09 26	704	0.2- 1.2+	2000 02 02	704	0.1- 1.8+
1997 06 08	809	0.3- 0.2+	1998 09 27	704	0.6+ 0.1+	2000 02 07	704	1.3- 0.4-
1997 06 09	809	0.3+ 1.1+	1998 09 27	704	0.5+ 0.1+	2000 02 07	704	1.4- 1.5-
1997 06 09	809	0.8+ 1.2+	1998 09 27	704	0.2- 0.3-	2000 02 07	704	0.5- 0.7-
1997 06 09	809	0.1+ 0.7+	1998 09 27	704	1.0- 0.4-	2000 02 07	704	0.4- 1.5-
1998 09 14	704	0.3+ 0.6-	1998 09 27	704	0.5- 0.9-	2000 02 08	704	0.4+ 0.5+
1998 09 14	704	0.1- 0.1-	1998 10 14	699	0.0 0.7+	2000 02 08	704	0.7+ 0.8+
1998 09 16	699	0.4+ 0.2+	1998 10 14	699	0.2+ 0.4+	2000 02 08	704	0.7+ 0.5+
1998 09 16	699	0.7+ 0.7+	1998 10 14	699	0.2+ 0.7+	2000 02 08	704	0.3+ 0.3-
1998 09 16	699	0.3+ 0.8+	1998 11 10	699	1.1- 0.6+	2000 02 08	704	0.6+ 0.6+

(13733)* 1998 RA₅₉ = 1990 HP₄ = 1995 YP₁₇

Discovered 1998 Sept. 14 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 33000)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	278.10648		(2000.0)	P		Q	
<i>n</i>	0.28062949	ω	13.17088	-0.72462043		+0.68807666	
<i>a</i>	2.3105419	Ω	210.41948	-0.63895876		-0.69168648	
<i>e</i>	0.0788072	<i>i</i>	4.35126	-0.25818006		-0.21936346	
<i>P</i>	3.51	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1990 04 22	675	0.9+ 0.4+	1998 09 26	704	1.1+ 1.1-	1999 11 17	704	1.4- 1.1-
1990 04 22	675	1.1- 1.0-	1998 09 26	704	0.1- 1.1-	2000 01 05	704	0.4+ 0.0
1995 12 22	691	0.3+ 0.5-	1998 09 26	704	0.4+ 0.1-	2000 01 05	704	0.4- 0.6-
1995 12 22	691	0.2+ 0.5-	1998 09 26	704	0.1- 0.9+	2000 01 05	704	0.7- 0.2-
1995 12 22	691	0.1+ 0.5-	1998 09 26	704	0.5+ 0.8-	2000 01 05	704	0.9- 1.2+
1995 12 27	691	0.2- 0.4-	1998 09 26	704	0.6- 0.2-	2000 01 07	704	0.5- 0.1+
1995 12 27	691	0.1- 0.4-	1998 09 27	704	0.4- 0.6-	2000 01 07	704	0.4+ 0.7-
1995 12 27	691	0.0 0.5-	1998 09 27	704	0.2- 0.2-	2000 01 07	704	0.2- 0.3-
1998 08 28	704	1.7+ 1.8+	1998 09 27	704	0.7- 0.8+	2000 01 07	704	0.1- 0.1-
1998 08 28	704	0.3+ 1.0+	1998 09 27	704	0.2+ 0.9+	2000 01 07	704	0.4+ 0.5+
1998 08 28	704	(2.4- 1.8+)	1998 09 27	704	0.3- 0.1+	2000 01 10	732	0.3+ 0.0
1998 08 28	704	0.1+ 1.7+	1998 09 27	704	0.3- 0.0	2000 01 10	732	1.0- 0.7+
1998 08 28	704	1.9- 1.7+	1998 09 27	704	0.1- 1.1-	2000 01 10	732	0.1+ 0.0
1998 09 14	704	0.0 0.3+	1998 09 27	704	0.3+ 0.4+	2000 01 11	732	0.7+ 0.1+
1998 09 14	704	0.1- 0.4+	1998 09 27	704	0.5- 0.4+	2000 01 11	732	0.0 0.2-
1998 09 14	704	0.5- 1.4+	1998 09 27	704	0.4- 0.4+	2000 01 11	732	0.3+ 0.1-
1998 09 16	699	0.5- 0.0	1998 10 14	699	0.2+ 0.4+	2000 01 30	106	0.2+ 0.5+
1998 09 16	699	0.5- 0.6+	1998 10 14	699	1.3+ 0.0	2000 01 30	106	0.0 0.5+
1998 09 16	699	0.4+ 0.0	1998 10 14	699	0.2+ 0.1+	2000 01 30	106	0.5- 0.5+
1998 09 18	704	0.1+ 0.2-	1998 10 17	327	0.7- 0.4-	2000 02 02	704	0.5+ 0.2+
1998 09 18	704	0.0 0.5+	1998 10 17	327	1.4- 0.1+	2000 02 02	704	0.1+ 0.4+
1998 09 18	704	1.2+ 1.4-	1998 10 17	327	0.6- 0.5-	2000 02 02	704	0.4+ 0.3+
1998 09 18	704	0.2+ 0.5-	1998 10 20	327	0.2- 0.1-	2000 02 02	704	0.2+ 0.2+
1998 09 18	704	0.2+ 0.7+	1998 10 20	327	0.7- 0.2-	2000 02 02	704	0.4+ 1.0-
1998 09 25	699	(3.9+ 0.4+)	1998 10 20	327	0.1+ 0.3-	2000 02 04	704	0.3+ 0.0
1998 09 25	699	0.3+ 0.5-	1998 10 27	327	(5.5- 2.7-)	2000 02 04	704	0.1+ 0.1+
1998 09 25	699	0.1+ 0.2+	1998 10 27	327	(3.1- 0.1+)	2000 02 04	704	1.0- 0.3+
1998 09 26	704	0.1+ 0.4-	1998 10 27	327	(0.2- 3.2+)	2000 02 04	704	0.9+ 0.9+
1998 09 26	704	0.4+ 0.3-	1999 11 17	704	0.2- 1.4-	2000 02 12	704	(3.0+ 2.1-)
1998 09 26	704	0.1+ 0.5-	1999 11 17	704	0.1- 0.2+	2000 02 12	704	1.6+ 1.9+
1998 09 26	704	0.0 0.8-	1999 11 17	704	0.3+ 0.1+	2000 02 12	704	(1.9+ 4.3+)

(13734)* 1998 RC₆₆ = 1974 HR₁ = 1997 EO₅₄

Discovered 1998 Sept. 14 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. A. Doppler (*MPC* 33273)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	290.77943		(2000.0)	P		Q	
<i>n</i>	0.29919703	ω	18.64632	-0.74339076		+0.66836056	
<i>a</i>	2.2139333	Ω	203.35559	-0.62163687		-0.70461738	
<i>e</i>	0.1178174	<i>i</i>	3.72776	-0.24685578		-0.23834534	
<i>P</i>	3.29	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1974 04 24	805	2.1- 2.1-	1998 09 26	704	1.0+ 0.4-	2000 01 07	704	0.2+ 0.0
1974 04 25	805	1.4+ 0.1-	1998 09 26	704	0.8- 1.4-	2000 01 07	704	0.1+ 0.3-
1997 03 08	809	0.1- 0.4+	1998 09 26	704	1.0- 0.0	2000 01 07	704	0.2- 1.0-
1997 03 08	809	0.0 0.9+	1998 09 27	704	1.2+ 0.6+	2000 01 07	704	0.5+ 0.9-
1997 03 08	809	0.3- 0.5+	1998 09 27	704	0.1- 0.6+	2000 02 02	703	0.5- 0.2+
1997 03 09	809	0.6+ 0.3+	1998 09 27	704	0.8+ 1.0+	2000 02 02	704	0.1- 0.1+
1997 03 09	809	0.3+ 0.8+	1998 09 27	704	1.4- 0.5-	2000 02 02	703	0.7- 0.3+
1997 03 09	809	0.9+ 0.2+	1998 09 27	704	0.7+ 0.7+	2000 02 02	703	1.1- 0.5+
1998 09 14	704	0.2- 0.0	2000 01 05	704	0.1+ 0.3-	2000 02 02	704	0.3- 0.3+
1998 09 14	704	1.7- 0.1-	2000 01 05	699	1.0+ 0.0	2000 02 02	703	1.1- 0.1-
1998 09 14	704	0.1+ 0.3-	2000 01 05	704	0.7+ 0.3-	2000 02 02	704	0.5- 0.6+
1998 09 18	704	0.1+ 0.1-	2000 01 05	704	1.3+ 0.1-	2000 02 02	704	0.4- 0.2+
1998 09 18	704	0.0 0.6-	2000 01 05	699	0.1- 0.4-	2000 02 02	704	0.3- 0.3+
1998 09 18	704	0.1- 0.7+	2000 01 05	704	0.1+ 0.1-	2000 02 04	704	0.7- 0.1+
1998 09 18	704	0.9+ 0.1-	2000 01 05	704	1.6+ 1.8-	2000 02 04	704	0.2- 0.1+
1998 09 18	704	(2.9+ 0.9-)	2000 01 05	699	0.7+ 0.1-	2000 02 04	704	0.2- 0.2+
1998 09 26	704	0.4+ 0.5+	2000 01 07	704	0.2+ 0.2+	2000 02 04	704	0.0 0.5+

(13735)* 1998 RZ₆₇ = 1985 DN₂ = 1996 HG₁₃

Discovered 1998 Sept. 14 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. A. Doppler (*MPC* 33273)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	45.03250		(2000.0)	P		Q	
<i>n</i>	0.19230729	ω	218.21528	+0.25424224		-0.96645336	
<i>a</i>	2.9726165	Ω	217.09644	+0.90154254		+0.25047407	
<i>e</i>	0.1197245	<i>i</i>	3.46485	+0.35011702		+0.05683881	
<i>P</i>	5.13	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1985 02 24	675	0.5+ 0.3+	1996 05 22	809	0.7- 1.2-	1999 12 31	699	0.4+ 0.2-
1985 02 24	675	(3.9+ 2.8-)	1998 09 14	704	0.3+ 0.3-	1999 12 31	699	0.4+ 0.1+
1985 02 26	675	1.9- 0.6+	1998 09 14	704	0.9- 1.2+	2000 01 05	704	0.5- 0.5-
1985 02 26	675	1.4+ 0.7-	1998 09 14	704	1.1- 1.9-	2000 01 05	704	0.4- 0.7+
1985 02 27	675	1.5- 1.2+	1998 09 15	699	(2.7+ 0.5-)	2000 01 05	704	0.1- 0.1-
1985 02 27	675	(4.0+ 0.8-)	1998 09 15	699	1.5- 0.5+	2000 01 05	704	0.0 0.8-
1993 10 12	809	1.9+ 0.5+	1998 09 15	699	0.2- 0.7+	2000 01 07	704	0.2+ 0.5-
1993 10 12	809	1.3+ 0.9+	1998 09 18	704	1.0+ 0.4+	2000 01 07	704	0.1- 0.0
1993 10 12	809	1.0+ 0.7+	1998 09 18	704	0.8+ 0.2-	2000 01 07	704	0.4+ 0.2-
1993 10 22	809	(6.4+ 1.1-)	1998 09 18	704	0.7+ 0.7-	2000 01 07	704	0.2+ 0.3+
1993 10 22	809	(4.4+ 0.8-)	1998 09 18	704	0.1+ 1.1-	2000 01 07	704	0.5- 0.2+
1993 10 22	809	0.9- 1.4+	1998 09 18	704	0.9- 1.5-	2000 02 02	704	0.8- 0.9+
1996 04 17	809	1.7+ 1.1+	1998 09 26	704	0.5- 0.1-	2000 02 02	704	0.1- 0.0
1996 04 17	809	1.0+ 1.6+	1998 09 26	704	0.4+ 1.9-	2000 02 02	704	0.4+ 0.7-
1996 04 17	809	0.4- 0.2+	1998 09 26	704	0.7- 1.3-	2000 02 02	704	0.2+ 0.4-
1996 04 18	809	(2.4- 1.6-)	1998 09 26	704	0.3+ 0.2+	2000 02 02	704	0.4+ 0.9-
1996 04 18	809	1.5- 1.1-	1998 09 26	704	0.2+ 0.3+	2000 02 03	704	0.4- 0.1+
1996 04 18	809	(1.6- 2.2-)	1998 09 27	704	0.6+ 0.1-	2000 02 03	704	0.0 0.2+
1996 05 19	809	(3.3+ 0.7+)	1998 09 27	704	0.1+ 0.6+	2000 02 03	704	0.3- 0.2+
1996 05 19	809	1.5+ 0.2+	1998 09 27	704	0.6- 0.8+	2000 02 03	704	0.1+ 0.6+
1996 05 19	809	0.9+ 0.2+	1998 09 27	704	0.8- 0.9+	2000 02 03	704	0.6+ 0.1+
1996 05 22	809	0.1- 0.0	1998 09 27	704	1.0- 0.3+			
1996 05 22	809	0.9- 0.8-	1999 12 31	699	0.3+ 0.2-			

(13736)* 1998 RF₇₁ = 1993 TF₃₁ = 1996 FN₁₀

Discovered 1998 Sept. 14 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 33006)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	100.61623		(2000.0)	P	Q
<i>n</i>	0.18984655	ω	261.59255	+0.99845930	-0.01613553
<i>a</i>	2.9982481	Ω	99.32001	+0.03557043	+0.92046330
<i>e</i>	0.1177062	<i>i</i>	3.08408	-0.04258842	+0.39049579
<i>P</i>	5.19	<i>H</i>	13.9	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1993 10 09	809 (5.5- 2.4-)	1998 09 18	704 0.9- 0.6-	2000 01 04	704 0.1- 1.2+
1993 10 09	809 (5.8- 2.4-)	1998 09 18	704 0.2- 0.3-	2000 01 04	704 0.3- 0.5+
1993 10 09	809 (7.0- 2.1-)	1998 09 25	699 0.1+ 0.9+	2000 01 04	704 0.1- 0.5+
1993 10 11	809 0.1- 1.2+	1998 09 25	699 0.9+ 1.8+	2000 01 04	704 1.7+ 0.0
1993 10 11	809 0.2- 1.5+	1998 09 25	699 0.2- 0.3+	2000 01 04	704 1.7+ 0.4-
1993 10 11	809 0.7- 1.6+	1998 09 26	704 0.2- 0.1-	2000 01 08	704 1.2- 1.1-
1993 10 21	809 (0.8- 2.1+)	1998 09 26	704 0.4+ 1.2-	2000 01 08	704 0.2+ 0.1-
1993 10 21	809 1.3- 1.4+	1998 09 26	704 0.6+ 1.5-	2000 01 08	704 0.2+ 0.4-
1993 10 21	809 (2.4- 1.1+)	1998 09 26	704 0.0 0.3-	2000 01 08	704 0.0 0.3-
1996 03 20	691 0.5- 0.3+	1998 09 26	704 0.1- 0.4-	2000 01 08	704 0.0 0.7-
1996 03 20	691 0.1- 0.0	1998 09 27	704 0.0 0.2+	2000 01 15	691 0.0 0.4-
1996 03 20	691 0.2- 0.3+	1998 09 27	704 0.7- 0.6-	2000 01 15	691 0.0 0.5-
1996 03 24	691 0.2+ 0.3-	1998 09 27	704 0.3+ 0.4-	2000 01 15	691 0.0 0.4-
1996 03 24	691 0.4+ 0.1-	1998 09 27	704 0.3+ 0.3-	2000 01 29	691 0.2+ 0.7-
1996 03 24	691 0.2+ 0.0	1998 09 27	704 1.2+ 1.7-	2000 01 29	691 0.2+ 0.8-
1998 09 14	704 0.9- 0.4-	1998 10 17	699 0.8+ 0.1+	2000 01 29	691 0.2+ 0.7-
1998 09 14	704 0.5- 0.4-	1998 10 17	699 1.1+ 0.8-	2000 01 30	704 0.5- 0.4+
1998 09 14	704 0.4- 0.3+	1998 10 17	699 (2.1+ 1.2-)	2000 01 30	704 0.3+ 0.0
1998 09 18	704 0.5+ 0.2+	2000 01 03	704 0.6- 0.9-	2000 01 30	704 1.2- 1.0+
1998 09 18	704 0.1+ 0.1-	2000 01 03	704 0.0 0.1-	2000 01 30	704 0.1+ 1.0+
1998 09 18	704 0.1+ 0.4-	2000 01 03	704 1.0- 0.5+		

(13737)* 1998 RU₇₆ = 1976 OY = 1976 PD = 1980 TO₁₄ = 1991 VB₆

Discovered 1998 Sept. 14 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 33010)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	168.93348		(2000.0)	P	Q
<i>n</i>	0.27131268	ω	167.89469	+0.73803588	+0.67254679
<i>a</i>	2.3631393	Ω	149.61703	-0.62774192	+0.71404411
<i>e</i>	0.2534173	<i>i</i>	6.20013	-0.24747347	+0.19447835
<i>P</i>	3.63	<i>H</i>	14.3	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1976 07 28	095 0.1- 0.1-	1998 08 28	704 (0.5+ 2.7+)	1998 09 27	704 0.7- 0.1+
1976 08 01	095 (2.0- 4.5-)	1998 08 28	704 (2.4- 2.3+)	1998 10 17	699 0.9+ 0.6-
1980 10 13	095 (5.7- 10.6-)	1998 08 28	704 (1.3+ 2.1-)	1998 10 17	699 1.1+ 0.5-
1991 11 02	809 0.9+ 0.5-	1998 08 31	704 1.5+ 1.9+	1998 10 17	699 1.0+ 0.3-
1991 11 02	809 0.7+ 0.5-	1998 08 31	704 1.2- 1.6+	1998 11 15	699 0.9- 1.2+
1991 11 02	809 1.0- 0.8-	1998 08 31	704 (2.5+ 2.6-)	1998 11 15	699 0.4- 0.8+
1991 11 06	809 1.6+ 1.8-	1998 08 31	704 (2.5+ 0.1-)	1998 11 15	699 0.4- 0.9+
1991 11 06	809 0.7- 1.5-	1998 08 31	704 1.1+ 1.8-	1999 12 15	703 0.4- 0.8+
1991 11 06	809 0.5+ 0.7-	1998 09 14	704 0.2+ 0.6+	1999 12 15	703 0.1- 1.4+
1991 11 09	809 0.6+ 1.3-	1998 09 14	704 0.2+ 0.2+	1999 12 15	703 0.6- 0.8+
1991 11 09	809 0.6+ 0.9-	1998 09 14	704 0.1+ 0.2+	1999 12 15	703 0.3- 0.2-
1991 11 09	809 0.8- 1.1-	1998 09 17	699 0.2- 0.5+	2000 01 06	704 0.4+ 0.9-
1991 11 12	809 1.2+ 0.0	1998 09 17	699 0.0 0.4+	2000 01 06	704 0.7+ 0.4-
1991 11 12	809 0.4- 0.0	1998 09 17	699 0.1- 0.5+	2000 01 06	704 0.3+ 0.4+
1991 11 12	809 0.4- 0.2+	1998 09 18	704 0.2+ 0.3+	2000 02 02	704 (0.4- 2.7+)
1993 02 23	691 0.1- 0.0	1998 09 18	704 0.4- 0.0	2000 02 02	704 1.7+ 1.0+
1993 02 23	691 0.0 0.1+	1998 09 18	704 0.3- 0.8+	2000 02 02	704 0.4+ 0.4+
1993 02 23	691 0.2- 0.2-	1998 09 18	704 0.2+ 0.9+	2000 02 02	704 0.2- 0.6-
1998 06 29	704 0.6+ 0.4-	1998 09 18	704 1.1- 0.0	2000 02 02	704 0.8+ 0.1-
1998 06 29	704 (2.1+ 2.3-)	1998 09 26	704 0.5- 0.7+	2000 02 03	704 0.8- 0.6+
1998 06 29	704 0.6+ 1.9-	1998 09 26	704 0.6- 0.7-	2000 02 03	704 0.7- 0.5+
1998 06 29	704 (1.0+ 2.1-)	1998 09 26	704 1.0- 0.3+	2000 02 03	704 0.9- 0.4+

1998 06 29	704 (3.9- 0.0)	1998 09 26	704 0.2- 0.3+	2000 02 03	704 0.3- 1.0+
1998 08 02	699 1.1+ 0.2-	1998 09 26	704 0.0 0.3-	2000 02 03	704 0.1- 0.6+
1998 08 02	699 1.0+ 0.2+	1998 09 27	704 0.6- 0.3+	2000 02 12	704 1.0+ 1.5+
1998 08 02	699 0.1+ 0.1+	1998 09 27	704 0.8- 0.4+	2000 02 12	704 (1.5+ 3.0+)
1998 08 28	704 (0.3+ 3.0+)	1998 09 27	704 0.8- 0.3+	2000 02 12	704 (0.4- 2.7+)
1998 08 28	704 (0.5- 2.7+)	1998 09 27	704 1.0- 0.2-		

(13738)* 1998 SF₁ = 1994 TO₇ = 1997 JB₁₇

Discovered 1998 Sept. 16 by the OCA-DLR Asteroid Survey at Caussols.

Id. G. V. Williams (*MPC* 33276)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	220.49731		(2000.0)	P	Q
<i>n</i>	0.25691177	ω	92.89639	+0.24175051	+0.97012989
<i>a</i>	2.4506430	Ω	191.15535	-0.92646301	+0.22460612
<i>e</i>	0.0933881	<i>i</i>	5.96839	-0.28848393	+0.09165202
<i>P</i>	3.84	<i>H</i>	14.8	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1994 10 06	691 0.1- 0.4-	1998 09 16	910 0.4+ 0.9+	1998 11 11	704 0.8+ 0.4-
1994 10 06	691 0.1+ 0.2-	1998 09 18	910 0.3+ 0.4+	1998 11 11	704 0.1- 0.5+
1994 10 06	691 0.1- 0.2-	1998 09 18	910 0.5+ 0.4+	1998 11 11	704 0.4- 1.3-
1994 10 11	691 0.1+ 0.2-	1998 09 18	910 0.4+ 0.2+	2000 01 05	704 0.0 0.5-
1994 10 11	691 0.4+ 0.0	1998 09 20	910 0.8+ 0.6+	2000 01 05	704 0.0 0.0
1994 10 11	691 0.0 0.1-	1998 09 20	910 0.3+ 0.8+	2000 01 05	704 (0.2- 2.1-)
1997 05 03	809 (2.6+ 3.9+)	1998 09 20	910 0.3+ 0.8+	2000 01 05	704 0.0 0.9-
1997 05 03	809 (3.4+ 3.2+)	1998 10 28	704 0.5+ 1.2-	2000 02 02	703 0.9- 0.6+
1997 05 03	809 (2.4+ 2.9+)	1998 10 28	704 0.6- 0.6+	2000 02 02	703 1.1- 0.1-
1997 05 04	809 1.4- 1.2-	1998 10 28	704 0.5- 1.4-	2000 02 02	704 0.4+ 0.3+
1997 05 04	809 0.9- 1.2-	1998 10 28	704 (2.5- 0.9+)	2000 02 02	703 0.0 0.5+
1997 05 04	809 1.7- 0.3-	1998 10 29	704 0.6+ 0.5-	2000 02 02	704 0.1- 0.1+
1997 05 04	809 1.7+ 1.9+	1998 10 29	704 1.0- 0.7-	2000 02 02	703 1.0+ 0.4+
1997 05 04	809 (2.0+ 2.5+)	1998 10 29	704 0.4+ 0.9-	2000 02 02	704 0.4+ 0.2-
1997 05 04	809 (1.8+ 2.4+)	1998 10 29	704 0.9- 0.1-	2000 02 02	704 0.1- 0.2-
1997 05 10	691 0.5+ 0.8+	1998 10 29	704 1.4- 0.6-	2000 02 02	704 0.0 0.7-
1997 05 10	691 1.2+ 0.2+	1998 11 10	704 1.1- 1.1+	2000 02 04	704 0.1- 0.2+
1997 05 10	691 0.5+ 0.2-	1998 11 10	704 0.3+ 0.6+	2000 02 04	704 0.0 0.1-
1998 09 16	910 0.5+ 0.7+	1998 11 10	704 0.6- 0.2+	2000 02 04	704 0.5+ 0.1+
1998 09 16	910 0.3+ 0.6+	1998 11 11	704 0.4+ 0.4+	2000 02 04	704 0.1+ 0.7+

(13739)* 1998 SW₁ = 1998 UZ₄₃ = 1988 VJ₁₄ = 1993 TO₃₂

Discovered 1998 Sept. 16 by the OCA-DLR Asteroid Survey at Caussols.

Id. G. V. Williams (*MPC* 32725, unpublished), A. Doppler (d, *MPC* 35341)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	329.49693		(2000.0)	P	Q
<i>n</i>	0.18854497	ω	94.32280	-0.76218199	-0.63255846
<i>a</i>	3.0120309	Ω	46.51151	+0.49275663	-0.70479160
<i>e</i>	0.0623113	<i>i</i>	10.93716	+0.41984465	-0.32115197
<i>P</i>	5.23	<i>H</i>	12.4	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1988 11 11	046 (5.3- 0.1+)	1998 09 23	910 0.2+ 0.4+	1999 12 13	704 0.2- 0.2-
1988 11 11	046 2.3- 1.7-	1998 09 23	910 0.1+ 0.5+	1999 12 13	704 0.1- 0.3-
1993 10 09	809 1.9+ 0.2+	1998 10 15	704 0.3+ 0.2-	1999 12 13	704 0.4- 0.2-
1993 10 09	809 0.6+ 0.1+	1998 10 15	704 0.7+ 1.5-	1999 12 13	704 0.1- 0.6-
1993 10 09	809 0.4+ 0.2+	1998 10 15	704 1.5- 1.1-	1999 12 13	704 0.7- 0.2-
1993 10 11	809 (2.5+ 1.9+)	1998 10 15	704 0.8- 0.6-	1999 12 13	704 0.3+ 0.6-
1993 10 11	809 (2.8+ 1.5+)	1998 10 15	704 0.3- 0.8-	1999 12 13	704 0.3- 0.2-
1993 10 11	809 (3.1+ 1.8+)	1998 10 17	699 0.1- 1.4+	1999 12 15	704 0.3- 0.1+
1993 10 21	809 0.8+ 0.7+	1998 10 17	699 0.8- 0.2+	1999 12 15	704 0.1- 0.3+
1993 10 21	809 0.8+ 1.5+	1998 10 17	699 0.1+ 0.9+	1999 12 15	704 0.1- 0.0
1993 10 21	809 0.1+ 1.2+	1998 10 28	704 0.2+ 0.2+	1999 12 15	704 0.0 0.1-
1996 04 15	809 0.2- 0.1+	1998 10 28	704 0.5- 1.4-	1999 12 15	704 0.3+ 0.2+
1996 04 15	809 0.4+ 0.0	1998 10 28	704 0.0 1.2-	2000 01 02	704 0.1+ 0.2+
1996 04 15	809 0.2+ 0.4+	1998 10 28	704 0.1+ 1.4-	2000 01 02	704 0.3+ 0.3+
1998 09 16	910 0.1- 0.0	1998 10 28	704 0.8+ 0.6-	2000 01 02	704 0.4+ 0.5+

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M.P.C. 38383

1998 09 16	910	0.0	0.0	1998 10 29	704	(2.4– 0.4+)	2000 01 02	704	0.1+ 0.7+
1998 09 17	910	0.1+	0.1–	1998 10 29	704	(3.5– 1.9+)	2000 01 02	704	0.1+ 0.6+
1998 09 17	910	0.5+	0.1–	1998 10 29	704	(2.1– 2.0+)	2000 01 07	106	0.4+ 0.4+
1998 09 17	910	0.4+	0.1+	1998 10 29	704	(3.1– 2.8+)	2000 01 07	106	0.5+ 0.1–
1998 09 17	910	0.3+	0.2+	1999 12 12	704	0.5– 0.1+	2000 01 07	106	0.2+ 0.5+
1998 09 17	910	0.2–	0.1+	1999 12 12	704	0.1– 0.4–	2000 01 29	704	0.3+ 0.9+
1998 09 18	910	0.0	0.1+	1999 12 12	704	0.1– 0.6–	2000 01 29	704	0.0 0.6+
1998 09 18	910	0.0	0.2+	1999 12 12	704	0.2+ 0.7–	2000 01 29	704	0.1+ 0.4+
1998 09 21	699	0.6–	1.2+	1999 12 12	704	0.0 0.7–	2000 01 29	704	0.2– 0.2+
1998 09 21	699	1.0–	0.7+	1999 12 13	704	0.0 0.1–	2000 01 29	704	0.4– 0.4+
1998 09 21	699	1.3–	0.8+	1999 12 13	704	0.1– 0.1–			
1998 09 22	910	0.1+	0.5+	1999 12 13	704	0.2– 0.3–			

(13740)* 1998 SL₂ = 1990 TN₁₅

Discovered 1998 Sept. 18 by M. Tombelli and E. Masotti at Montelupo.

Id. G. V. Williams (*MPC* 33013)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	105.65841		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.24249688	ω	67.39254	+0.80318590	–0.59318757
<i>a</i>	2.5468221	Ω	328.91078	+0.49999753	+0.72140140
<i>e</i>	0.2692450	<i>i</i>	6.11017	+0.32387480	+0.35736330
<i>P</i>	4.06	<i>H</i>	13.9	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1951 02 04	675	1.3–	0.8–	1998 09 19	108	0.1+ 1.4–	1998 11 15	566	0.3+ 0.6+
1951 02 04	675	0.6+	1.3–	1998 09 21	596	0.2+ 0.1+	1998 11 15	566	0.0 0.6+
1990 10 13	095	1.0+ 1.7–	1998 09 21	596	0.4+ 0.2–	1998 12 07	104	0.2– 0.3+	
1990 10 13	095	0.3– 1.2–	1998 09 21	596	0.2+ 0.0	1998 12 07	104	0.8+ 0.0	
1990 10 17	095	(1.1– 2.6–)	1998 09 22	108	0.6– 0.6–	1998 12 08	108	0.5+ 0.5–	
1990 10 17	095	0.3– 0.2–	1998 09 22	108	0.1+ 1.5–	1998 12 08	108	1.3+ 1.1+	
1998 06 29	704	1.3– 0.2+	1998 09 22	108	(0.6+ 2.1–)	1998 12 08	108	1.2– 0.9+	
1998 06 29	704	0.7– 0.0	1998 09 22	104	1.0– 0.1+	1998 12 08	108	1.9– 1.9+	
1998 06 29	704	0.0 0.1–	1998 09 22	104	0.5– 0.0	1998 12 09	704	0.5+ 0.3+	
1998 06 29	704	(1.5– 2.3–)	1998 09 22	104	0.5– 0.0	1998 12 09	704	0.4– 0.2+	
1998 06 29	704	(6.1– 0.4+)	1998 09 22	104	0.5– 0.1–	1998 12 09	704	0.1+ 0.0	
1998 08 23	704	0.8+ 1.6–	1998 09 26	704	0.6+ 0.5+	1998 12 09	704	0.1– 0.4–	
1998 08 23	704	1.8– 0.2+	1998 09 26	704	0.0 0.0	1998 12 09	704	0.4+ 0.0	
1998 08 23	704	1.1+ 0.2+	1998 09 26	704	0.1+ 0.8+	1998 12 22	699	0.8– 0.2–	
1998 08 23	704	1.0+ 1.6+	1998 09 26	704	0.4+ 0.2–	1998 12 22	699	1.2– 0.2–	
1998 08 23	704	(2.1– 0.1+)	1998 09 26	704	0.4+ 0.3–	1998 12 22	699	1.1– 0.4+	
1998 09 14	704	0.1+ 0.7+	1998 09 27	699	0.1– 0.1–	1999 01 08	704	0.6– 0.4+	
1998 09 14	704	0.3– 0.6+	1998 09 27	699	0.0 0.2+	1999 01 08	704	0.2+ 0.1–	
1998 09 14	704	0.5– 0.8+	1998 09 27	704	0.3+ 0.4–	1999 01 08	704	0.6+ 1.1–	
1998 09 14	704	0.2– 0.1+	1998 09 27	699	0.0 0.2+	1999 01 08	704	0.8+ 0.4+	
1998 09 14	704	1.1+ 0.4+	1998 09 27	704	1.2+ 0.4+	2000 01 01	104	0.2+ 1.0–	
1998 09 16	699	0.5+ 0.0	1998 09 27	704	1.9– 0.9–	2000 01 01	104	1.1+ 1.3–	
1998 09 16	699	0.3+ 0.1–	1998 09 27	704	0.8+ 0.8+	2000 01 05	704	(0.1+ 2.3–)	
1998 09 16	699	0.3+ 0.1–	1998 09 27	108	0.4+ 1.0+	2000 01 05	704	0.3– 0.6–	
1998 09 18	704	0.4– 0.2+	1998 09 27	108	1.3+ 0.3+	2000 01 05	704	1.4– 1.4–	
1998 09 18	704	0.1– 0.3+	1998 10 03	108	0.3– 0.4–	2000 01 05	704	0.2– 1.1–	
1998 09 18	704	1.3– 0.1+	1998 10 03	108	1.0– 1.3–	2000 02 02	704	0.0 0.0	
1998 09 18	704	0.0 0.2–	1998 10 15	699	0.0 0.2+	2000 02 02	704	0.5+ 0.0	
1998 09 18	704	1.0– 0.2–	1998 10 15	699	0.2+ 0.1+	2000 02 02	704	0.2+ 1.2+	
1998 09 18	108	1.8+ 0.4–	1998 10 15	699	0.2+ 0.1+	2000 02 02	704	0.6+ 1.1+	
1998 09 18	108	0.4– 0.5–	1998 10 22	108	0.1– 0.9+	2000 02 02	704	0.6+ 1.7+	
1998 09 18	108	0.8+ 0.5–	1998 10 22	108	(2.5– 1.3–)	2000 02 08	704	0.2– 0.5–	
1998 09 18	108	1.8+ 0.4–	1998 10 22	108	1.8– 1.2–	2000 02 08	704	0.4– 0.2–	
1998 09 18	108	0.5+ 0.3–	1998 10 26	108	1.5– 0.4+	2000 02 08	704	0.1– 1.0–	
1998 09 19	108	0.5+ 0.5+	1998 10 26	108	0.8– 1.3+	2000 02 08	704	0.0 0.2+	
1998 09 19	108	0.7+ 0.1–	1998 10 27	108	0.4+ 0.4+	2000 02 08	704	1.2– 0.6–	
1998 09 19	108	0.4+ 0.5+	1998 10 27	108	0.3+ 0.2+	2000 02 11	732	0.0 0.8+	
1998 09 19	108	0.6+ 1.0–	1998 11 14	699	0.1+ 0.3+	2000 02 11	732	0.2– 0.4+	
1998 09 19	108	0.5– 1.0–	1998 11 14	699	0.1+ 0.6+	2000 02 11	732	0.1+ 1.0+	
1998 09 19	108	0.8– 1.1–	1998 11 14	699	0.4– 0.5+				
1998 09 19	108	0.2+ 1.1–	1998 11 15	566	0.1– 0.6+				

(13741)* 1998 SH₁₀ = 1979 SW₅ = 1991 EF₃

Discovered 1998 Sept. 17 by the OCA-DLR Asteroid Survey at Caussols.

Id. G. V. Williams (*MPC* 33016, unpublished)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	87.78277		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.21145191	ω	351.81764	+0.61375218	–0.78936694
<i>a</i>	2.7903690	Ω	60.31982	+0.72528770	+0.55652275
<i>e</i>	0.0636859	<i>i</i>	0.95139	+0.31187499	+0.25919541
<i>P</i>	4.66	<i>H</i>	13.5	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1979 09 23	095	0.6– 0.1–	1998 10 23	691	0.8– 0.2–	2000 01 30	704	0.7+ 0.4+
1991 03 11	809	0.8– 1.7–	1998 11 06	132	1.4– 0.5–	2000 01 30	704	0.0 0.6–
1991 03 11	809	0.5– 1.6–	1998 11 06	132	0.0 0.1–	2000 01 30	703	0.3– 0.9+
1991 03 11	809	0.4– 1.8–	1998 11 10	704	0.3+ 0.2+	2000 01 30	703	0.7– 0.7+
1991 03 13	809	0.7– 1.8–	1998 11 10	704	0.8+ 0.4–	2000 01 30	703	0.2– 0.1–
1991 03 13	809	0.3– 1.5–	1998 11 10	704	0.5+ 0.3–	2000 01 30	703	0.6– 0.1–
1991 03 13	809	0.0 1.7–	1998 11 10	704	0.1+ 1.1–	2000 02 03	120	0.6– 0.8–
1996 03 24	566	0.0 0.7+	1998 11 10	704	0.6+ 0.5–	2000 02 03	120	0.2– 0.6–
1996 03 24	566	0.4+ 0.7+	1998 11 11	704	0.3+ 0.6+	2000 02 03	120	1.1– 0.8–
1996 03 24	566	0.2– 0.7+	1998 11 11	704	0.2+ 0.0	2000 02 04	106	0.1– 0.1+
1998 09 17	910	0.0 0.4–	1998 11 11	704	0.3– 0.4–	2000 02 04	106	0.1– 0.4+
1998 09 17	910	0.2– 0.4–	1998 11 11	704	1.0+ 0.5–	2000 02 04	704	0.4+ 0.5+
1998 09 17	910	0.0 0.5–	1998 11 11	704	0.7+ 0.7–	2000 02 04	704	0.4+ 0.8+
1998 09 22	910	0.3+ 0.1+	1998 11 14	699	0.5+ 0.4+	2000 02 04	704	0.1– 1.1+
1998 09 22	910	0.4+ 0.1–	1998 11 14	699	0.5+ 1.0+	2000 02 04	704	0.2+ 0.4+
1998 09 22	910	0.3+ 0.1+	1998 11 14	699	1.3+ 0.4+	2000 02 04	704	0.1– 1.0+
1998 09 23	910	0.1+ 0.2+	1998 11 16	627	0.4+ 0.1+	2000 02 04	120	0.3– 1.0–
1998 09 23	910	0.2+ 0.0	1998 11 16	627	0.0 0.0	2000 02 04	120	0.3– 1.6–
1998 09 23	910	0.2+ 0.2+	1998 11 17	627	1.3– 0.1–	2000 02 05	120	0.6– 0.5–
1998 09 29	704	1.4+ 0.1–	1999 12 04	703	0.7+ 0.5+	2000 02 06	120	0.0 0.6–
1998 09 29	704	(1.9+ 2.4–)	1999 12 04	703	0.3+ 0.2+	2000 02 06	704	0.2– 0.1+
1998 09 29	704	0.1+ 1.1–	1999 12 04	703	0.8– 0.3+	2000 02 06	704	0.2– 0.3+
1998 09 29	704	1.0– 0.4+	1999 12 04	703	0.6+ 0.3+	2000 02 06	704	0.0 0.2–
1998 10 12	691	0.2– 0.3–	1999 12 06	704	0.7– 0.5–	2000 02 06	704	0.0 0.1–
1998 10 12	691	0.2– 0.0	1999 12 06	704	0.4– 0.0	2000 02 06	704	0.0 0.1–
1998 10 12	691	1.1– 0.4+	1999 12 06	704	0.8– 0.1–	2000 02 11	704	0.6+ 0.5+
1998 10 18	691	0.0 0.1–	2000 01 26	587	0.2– 0.5+	2000 02 11	704	0.8+ 0.9+
1998 10 18	691	0.1+ 0.2–	2000 01 26	587	0.0 0.6+	2000 02 11	704	0.9+ 0.7+
1998 10 18	691	0.2+ 0.1–	2000 01 26	587	0.7+ 0.7+	2000 02 11	704	0.8+ 1.2+
1998 10 23	691	0.9– 0.1+	2000 01 30	704	0.7+ 0.2–	2000 02 11	704	1.1+ 0.9+
1998 10 23	691	0.8– 0.0	2000 01 30	704	0.1+ 0.4+			

(13742)* 1998 SX₂₂ = 1997 LS₁₅

Discovered 1998 Sept. 23 by F. B. Zoltowski at Woomera.

Id. G. V. Williams (*MPC* 32726)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	126.31749		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.21584215	ω	204.94667	+0.98473679	+0.16555266
<i>a</i>	2.7524021	Ω	145.38985	–0.13956967	+0.93550553
<i>e</i>	0.1719705	<i>i</i>	5.42704	–0.10398925	+0.31212453
<i>P</i>	4.57	<i>H</i>	14.1	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1992 03 25	691	0.1+	0.4+	1998 09 26	704	0.7+	1.2−	1998 10 28	704	0.6+	0.5+
1992 03 25	691	0.2+	0.0	1998 09 26	704	1.1+	0.7−	1998 10 28	704	0.3+	0.6−
1997 05 04	809	1.1−	0.9−	1998 09 26	704	0.3+	0.6−	1998 10 28	704	0.7−	1.0−
1997 05 04	809	1.3−	1.4−	1998 09 26	704	0.3+	0.8−	1998 10 28	704	2.0−	0.4+
1997 05 04	809	(2.1−	2.9−)	1998 09 27	704	0.3+	0.1−	1998 10 28	704	0.4−	1.4−
1997 06 08	809	0.0	1.6+	1998 09 27	704	0.9+	0.1+	1998 10 29	704	1.5−	0.3+
1997 06 08	809	0.0	0.0	1998 09 27	704	0.1−	0.1+	1998 10 29	704	1.3−	0.1−
1997 06 08	809	0.0	0.1−	1998 09 27	704	0.2+	0.4+	1998 10 29	704	0.1+	0.8+
1997 06 09	809	0.4−	0.6+	1998 09 27	704	0.0	0.8−	1998 10 29	704	0.0	0.2+
1997 06 09	809	1.7+	0.7+	1998 09 30	327	1.7+	0.0	1998 10 29	704	0.3+	0.1+
1997 06 09	809	1.2+	0.7+	1998 09 30	327	1.8+	0.2+	2000 01 05	704	0.5+	0.6+

1998 09 14	704	0.8+	0.0	1998 09 30	327	1.7+	0.1-	2000 01 05	704	0.7+	0.2-
1998 09 14	704	0.7+	0.3+	1998 10 14	327	0.6-	0.4-	2000 01 05	704	0.1+	0.3+
1998 09 14	704	0.9+	0.4+	1998 10 14	327	0.7-	0.6-	2000 01 05	704	0.2+	0.8-
1998 09 17	699	0.1-	0.2+	1998 10 14	327	1.0-	0.3-	2000 01 06	704	0.0	0.2+
1998 09 17	699	1.0-	0.0	1998 10 15	704	0.4+	0.4+	2000 01 06	704	0.6-	0.4+
1998 09 17	699	0.0	0.0	1998 10 15	704	0.4-	0.8-	2000 01 06	704	1.0+	0.4+
1998 09 18	704	0.3+	0.5+	1998 10 15	704	0.1+	1.5+	2000 01 07	704	1.1+	0.3+
1998 09 18	704	0.1-	1.1+	1998 10 15	704	0.4-	0.0	2000 01 07	704	0.3+	0.8-
1998 09 18	704	1.5+	1.4+	1998 10 15	704	0.0	0.8+	2000 01 07	704	0.1-	0.8+
1998 09 18	704	1.5+	0.2+	1998 10 17	699	0.8-	0.8+	2000 01 07	704	0.7+	0.9+
1998 09 18	704	0.0	0.5+	1998 10 17	699	1.3-	0.5+	2000 01 07	704	0.4-	1.1+
1998 09 23	426	0.3+	0.3-	1998 10 17	699	0.8-	0.6+	2000 02 02	704	0.4-	0.2-
1998 09 23	426	0.0	0.3-	1998 10 19	327	1.0-	0.3-	2000 02 02	704	1.0+	0.3-
1998 09 23	426	0.2+	0.3-	1998 10 19	327	1.0-	0.0	2000 02 02	704	0.3-	0.1+
1998 09 24	426	0.0	0.3-	1998 10 19	327	0.8-	0.0	2000 02 02	704	1.1-	0.4-
1998 09 24	426	0.2+	0.5-	1998 10 20	426	0.5-	0.1-	2000 02 02	704	0.1-	0.0
1998 09 24	426	0.2+	0.3-	1998 10 20	426	0.5-	0.2+	2000 02 03	704	0.4-	0.2+
1998 09 25	699	0.4+	0.5+	1998 10 20	426	0.4-	0.1-	2000 02 03	704	0.1-	1.5-
1998 09 25	699	0.8+	0.3+	1998 10 25	426	1.1-	0.4-	2000 02 03	704	0.6-	0.0
1998 09 25	699	0.3+	0.4+	1998 10 25	426	0.7-	0.1-	2000 02 03	704	0.8-	0.7-
1998 09 26	704	0.3+	0.4-	1998 10 25	426	0.7-	0.1-	2000 02 03	704	0.5-	0.2+

(13743)* 1998 SX₂₃ = 1991 NY₆

Discovered 1998 Sept. 17 by the Lowell Observatory Near-Earth Object Search at the Anderson Mesa Station.

Id. G. V. Williams (*MPC* 33019)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	187.86603	(2000.0)		<i>P</i>	<i>Q</i>		
<i>n</i>	0.29369185	ω	196.50298	+0.72360469	+0.68622433		
<i>a</i>	2.2415140	Ω	119.92482	-0.62320496	+0.69572744		
<i>e</i>	0.1432693	<i>i</i>	4.90542	-0.29666787	+0.21227223		
<i>P</i>	3.36	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1991 07 12	809	1.0-	0.2+	1998 09 18	704	0.1-	0.2+	1998 11 15	699	0.1+	1.5+
1991 07 12	809	0.5-	0.1+	1998 09 18	704	0.7-	0.2+	1998 11 15	699	0.4+	0.4+
1991 07 12	809	0.0	0.2+	1998 09 18	704	0.3-	0.2+	2000 01 04	704	0.1-	0.1-
1991 07 13	809	(0.6+	2.4-)	1998 09 18	704	0.7-	1.2+	2000 01 04	704	0.1-	0.5-
1991 07 13	809	(1.2+	2.2-)	1998 09 18	704	0.6-	0.4+	2000 01 04	704	1.0-	0.8-
1991 07 13	809	(1.6+	2.1-)	1998 09 24	699	0.4-	0.9+	2000 01 04	704	0.4+	0.6+
1991 07 15	809	0.8-	0.2-	1998 09 24	699	0.3-	0.7+	2000 01 04	704	0.5+	1.1-
1991 07 15	809	0.2-	0.1-	1998 09 24	699	0.2-	0.7+	2000 01 07	704	0.4-	0.2+
1991 07 15	809	0.3+	0.0	1998 09 26	704	0.1-	0.2-	2000 01 07	704	0.1+	0.2+
1991 07 16	809	0.4+	0.7-	1998 09 26	704	0.3-	0.1-	2000 01 07	704	0.5+	0.7+
1991 07 16	809	0.8+	0.6-	1998 09 26	704	0.7-	0.2-	2000 01 07	704	0.8+	1.3-
1991 07 16	809	1.3+	0.5-	1998 09 26	704	1.0-	0.4+	2000 01 30	703	0.4+	0.5+
1995 12 14	691	0.1+	0.2-	1998 09 26	704	0.9-	0.6+	2000 01 30	703	1.7-	0.2+
1995 12 14	691	0.1+	0.2-	1998 09 27	704	0.0	0.5-	2000 01 30	703	0.8-	0.4-
1995 12 14	691	0.1+	0.1-	1998 09 27	704	0.5-	0.9+	2000 01 30	703	1.5+	0.1+
1995 12 27	691	0.4+	0.3-	1998 09 27	704	0.9+	0.2-	2000 01 31	652	0.2+	0.7-
1995 12 27	691	0.1-	0.3-	1998 09 27	704	0.1-	0.4+	2000 01 31	652	0.7+	0.5-
1995 12 27	691	0.1+	0.2-	1998 09 27	704	1.5+	1.3+	2000 02 03	704	0.3-	0.1+
1996 01 14	691	0.0	0.6-	1998 10 14	704	0.2-	0.1+	2000 02 03	704	0.5-	0.6+
1996 01 14	691	0.0	0.7-	1998 10 14	704	(2.8+	0.3+)	2000 02 03	704	0.1-	0.0
1996 01 14	691	0.2-	0.3-	1998 10 14	704	0.5+	0.2-	2000 02 03	704	0.1-	0.3+
1998 09 14	704	0.5-	0.8-	1998 10 14	704	0.2+	0.7-	2000 02 03	704	0.7-	0.0
1998 09 14	704	0.8-	1.5-	1998 10 15	704	2.0+	0.8-	2000 02 11	704	0.9+	0.2+
1998 09 14	704	0.1+	0.7-	1998 10 15	704	0.3+	0.9-	2000 02 11	704	0.2+	1.7+
1998 09 17	699	0.2+	0.2+	1998 10 15	704	(0.1-	2.6-)	2000 02 11	704	0.5+	0.7+
1998 09 17	699	0.2+	0.3-	1998 10 15	704	1.9+	0.5-	2000 02 11	704	0.3-	0.8+
1998 09 17	699	0.1+	0.1-	1998 11 15	699	0.1-	0.1-	2000 02 11	704	0.3-	0.3-

(13744)* 1998 SY₂₅ = 1976 UO₇

Discovered 1998 Sept. 22 by the Lowell Observatory Near-Earth Object Search at the Anderson Mesa Station.

Id. G. V. Williams (*MPC* 33278)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

				(2000.0)				<i>P</i>				<i>Q</i>			
<i>M</i>	114.55890														
<i>n</i>	0.22338370	ω	340.97260	+0.96796564	-0.24428011										
<i>a</i>	2.6900998	Ω	33.33848	+0.24188477	+0.84523783										
<i>e</i>	0.0968267	<i>i</i>	6.06314	+0.06733704	+0.47528964										
<i>P</i>	4.41	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	1								
Residuals in seconds of arc															
1976 10 22	381	0.3+	0.2-	1998 09 27	704	0.6+	0.2-	1998 12 08	699	1.5-	1.0+				
1976 10 22	381	0.1+	0.1-	1998 09 27	704	0.6+	0.0	1998 12 08	699	0.5-	1.0+				
1976 10 24	381	0.0	0.5-	1998 09 27	704	1.0+	0.6+	2000 01 03	704	0.1+	0.1-				
1992 05 07	691	0.7+	0.5+	1998 10 15	120	0.3-	0.8-	2000 01 03	704	0.0	0.1+				
1992 05 07	691	0.3+	1.0+	1998 10 15	120	0.2-	0.4-	2000 01 03	704	0.0	0.1-				
1992 05 07	691	0.1+	0.8+	1998 10 28	704	0.4+	0.7-	2000 01 03	704	0.0	1.0+				
1998 09 22	699	0.1+	0.5+	1998 10 28	704	0.4-	0.0	2000 01 03	704	0.1+	0.1-				
1998 09 22	699	0.4-	0.6+	1998 10 28	704	0.8-	0.4+	2000 01 04	704	0.2-	0.2-				
1998 09 22	699	0.2+	0.1+	1998 10 28	704	0.6-	0.8+	2000 01 04	704	0.2-	0.4-				
1998 09 24	699	0.5+	1.0+	1998 10 29	704	0.0	0.1+	2000 01 04	704	0.1+	0.4+				
1998 09 24	699	0.9+	0.5+	1998 10 29	704	1.3-	0.4-	2000 01 04	704	0.1-	0.2+				
1998 09 24	699	0.8+	1.1+	1998 10 29	704	0.1+	0.5-	2000 01 04	704	0.1+	0.1-				
1998 09 26	704	0.1+	0.3+	1998 10 29	704	0.9-	0.7-	2000 01 06	699	0.6+	0.4+				
1998 09 26	704	0.1-	0.4-	1998 10 29	704	0.7+	0.7-	2000 01 06	699	0.5-	0.3-				
1998 09 26	704	0.1-	0.2-	1998 11 11	699	0.1-	0.3+	2000 01 06	699	0.4-	0.3-				
1998 09 26	704	0.3+	0.2+	1998 11 11	699	0.1+	0.1-	2000 01 27	106	0.9+	0.7-				
1998 09 26	704	0.2+	0.7+	1998 11 11	699	0.4-	0.1-	2000 01 27	106	0.5-	0.2+				
1998 09 27	704	0.3+	0.6-	1998 12 08	699	1.9-	0.3+								

(13745)* 1998 SL₄₂ = 1977 RN₁₆ = 1990 WF₁₆

Discovered 1998 Sept. 28 by Spacewatch at Kitt Peak.

Id. G. V. Williams (*MPC* 33024, unpublished)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	93.47760		(2000.0)		P		Q		
n	0.23513315	ω	62.29580		+0.82180823		-0.56968715		
a	2.5997214	Ω	332.42954		+0.51536085		+0.75025045		
e	0.0813167	i	1.15989		+0.24297001		+0.33553064		
P	4.19	H	14.2	G	0.15	U	2		
Residuals in seconds of arc									
1977 09 09	675	0.6+	0.5-	1998 10 01	691	0.9-	0.5+	2000 01 04	691 0.1- 0.3+
1977 09 10	675	0.1+	1.2-	1998 10 01	691	0.5-	0.4+	2000 01 04	691 0.0 0.0
1990 11 21	399	1.1+	0.9-	1998 10 01	691	0.4-	0.2+	2000 01 04	691 0.0 0.0
1990 11 21	399	(2.1+	2.3-)	1998 10 12	691	0.0	0.7-	2000 01 06	704 0.6+ 0.2+
1994 11 01	033	0.4-	1.0-	1998 10 12	691	0.2-	0.2-	2000 01 06	704 0.1+ 0.3-
1994 11 01	033	0.1+	1.0-	1998 10 12	691	0.5-	0.4-	2000 01 06	704 1.0- 0.7+
1998 09 14	704	0.4+	0.5+	1998 10 14	704	0.0	0.4+	2000 01 06	704 0.2- 0.2+
1998 09 14	704	0.3+	0.2+	1998 10 14	704	0.4-	0.3-	2000 01 06	704 0.4+ 0.3-
1998 09 14	704	1.0+	0.1+	1998 10 14	704	0.8+	0.5+	2000 01 11	691 0.3- 0.6-
1998 09 16	699	0.1-	0.8+	1998 10 14	704	0.4-	1.0+	2000 01 11	691 0.3- 0.6-
1998 09 16	699	0.6+	0.2+	1998 10 14	704	0.1+	1.4+	2000 01 11	691 0.3- 0.4-
1998 09 16	699	0.6+	0.4+	1998 10 14	699	1.2-	0.4-	2000 01 11	120 0.8- 0.2-
1998 09 18	704	0.3+	0.1-	1998 10 14	699	0.5-	0.5-	2000 01 12	120 0.3- 0.7-
1998 09 18	704	1.0+	0.4+	1998 10 14	699	0.0	0.2-	2000 01 30	703 0.3+ 0.8+
1998 09 18	704	0.8-	0.2+	1998 10 14	327	0.8-	0.2-	2000 01 30	703 0.2+ 0.5+
1998 09 18	704	0.9+	0.3+	1998 10 14	327	0.4-	0.6-	2000 01 30	703 0.3+ 0.5+
1998 09 18	704	0.5+	0.7+	1998 10 14	327	0.5-	0.0	2000 01 30	703 0.6+ 0.3+
1998 09 26	704	0.3+	0.2+	1998 10 15	704	0.5-	0.1-	2000 01 30	704 0.2+ 0.1+
1998 09 26	704	0.2+	0.3+	1998 10 15	704	0.6-	0.2-	2000 01 30	704 0.8+ 0.3+
1998 09 26	704	0.4-	0.1+	1998 10 15	704	0.9-	1.1+	2000 01 30	704 0.2+ 0.7+
1998 09 26	704	1.0-	0.6+	1998 10 15	704	0.2-	0.5-	2000 01 30	704 0.7+ 0.1-
1998 09 26	704	0.9-	1.3+	1998 10 15	704	0.5-	0.6+	2000 02 03	704 0.3+ 0.6+
1998 09 27	704	0.4+	0.3-	1999 12 06	704	1.5-	0.2-	2000 02 03	704 0.1+ 0.2+
1998 09 27	704	0.5+	0.2+	1999 12 06	704	0.6-	0.9-	2000 02 03	704 0.2+ 0.4+
1998 09 27	704	(0.2+	2.6-)	1999 12 06	704	0.5-	1.3-	2000 02 03	704 0.4+ 0.5+
1998 09 27	704	1.6+	1.5-	1999 12 06	704	0.7-	1.1-	2000 02 03	704 0.6+ 1.2+
1998 09 28	691	0.1+	0.0	1999 12 06	704	0.4+	0.4-	2000 02 11	704 0.1+ 0.5+
1998 09 28	691	0.2+	0.2+	2000 01 04	704	0.5+	0.0	2000 02 11	704 0.1+ 0.3+

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1998 09 28	691	0.1+	0.1+	2000 01 04	704	0.0	0.3-	2000 02 11	704	0.3-	1.0+
1998 09 29	691	0.8+	0.2-	2000 01 04	704	0.4-	0.7-	2000 02 11	704	0.4+	0.7+
1998 09 29	691	0.4-	0.1-	2000 01 04	704	0.4+	0.1+	2000 02 11	704	1.0-	0.1+
1998 09 29	691	0.3-	0.2-	2000 01 04	704	0.2+	0.1-				

(13746)* 1998 SR₄₃ = 1976 JQ₉ = 1989 YJ₂

Discovered 1998 Sept. 25 by the Beijing Schmidt CCD Asteroid Program at Xinglong.

Id. G. V. Williams (*MPC* 33025)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	46.37943		(2000.0)		P		Q
<i>n</i>	0.19543136	ω	69.01277	+0.28927158			-0.95724444
<i>a</i>	2.9408523	Ω	4.17481	+0.86641462			+0.26082558
<i>e</i>	0.0543063	<i>i</i>	1.76603	+0.40699836			+0.12511232
<i>P</i>	5.04	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	0

Residuals in seconds of arc

1976 05 02	809	1.8-	1.3+	1998 09 29	327	0.7+	0.7+	2000 01 03	704	0.5-	0.2-
1989 12 30	413	0.1-	0.6-	1998 09 29	327	1.5+	0.5+	2000 01 03	704	0.6-	0.4-
1989 12 30	413	1.8+	1.3+	1998 09 29	327	1.7+	0.6+	2000 01 03	704	0.2-	0.0
1989 12 31	413	2.2+	2.3-	1998 09 29	327	1.6+	0.6+	2000 01 03	704	0.3-	0.5+
1993 10 12	809	(0.6+	2.9+)	1998 09 30	327	0.8+	0.3+	2000 01 04	704	0.7-	0.1-
1993 10 12	809	(1.0+	2.9+)	1998 09 30	327	1.0+	0.5+	2000 01 04	704	0.3-	0.5-
1993 10 12	809	(0.4-	2.6+)	1998 09 30	327	1.0+	0.6+	2000 01 04	704	0.3-	0.0
1993 10 22	809	0.0	1.2-	1998 10 02	327	0.4-	0.1+	2000 01 04	704	0.0	0.1+
1993 10 22	809	0.0	0.6-	1998 10 02	327	0.5-	0.4+	2000 01 04	704	0.1-	0.4+
1993 10 22	809	(4.2-	0.2-)	1998 10 02	327	0.4-	0.5+	2000 01 05	691	0.3-	0.1+
1996 03 26	809	0.7-	1.3+	1998 10 10	699	0.2-	0.4+	2000 01 05	691	0.3-	0.3+
1996 03 26	809	0.5-	0.9+	1998 10 10	699	0.3-	0.6+	2000 01 05	691	0.3-	0.2+
1996 03 26	809	0.9+	1.1+	1998 10 10	699	0.3-	0.4+	2000 01 06	691	0.3-	0.1-
1996 04 17	566	1.2+	1.0+	1998 10 13	557	0.3-	0.5-	2000 01 06	691	0.0	0.0
1996 04 17	566	0.2+	0.3+	1998 10 13	557	0.2-	0.2-	2000 01 06	691	0.1-	0.2-
1996 04 17	566	0.4+	0.3+	1998 10 14	691	0.4-	0.7-	2000 01 08	106	1.4+	0.6+
1996 04 21	566	(1.8+	3.1-)	1998 10 14	691	0.5-	0.4-	2000 01 08	106	0.0	0.1+
1996 04 21	566	(1.6+	2.6-)	1998 10 14	691	0.5-	0.4-	2000 01 08	106	0.2-	0.0
1996 04 21	566	(3.0+	2.4-)	1998 10 14	422	0.4-	0.2-	2000 01 12	691	0.0	0.2-
1996 04 22	566	1.3+	1.6-	1998 10 14	422	0.3-	0.1-	2000 01 12	691	0.1-	0.1-
1996 04 22	566	1.4-	0.8-	1998 10 14	422	0.4-	0.0	2000 01 12	691	0.0	0.2-
1996 04 22	566	1.7+	1.6-	1998 10 14	470	0.6-	0.2+	2000 01 14	691	0.0	0.6-
1996 04 22	566	1.4-	1.0-	1998 10 14	470	0.7-	0.1+	2000 01 14	691	0.2-	0.7-
1996 04 22	566	1.6+	1.5-	1998 10 14	470	0.4-	0.3-	2000 01 14	691	0.2-	0.6-
1996 04 22	566	1.0-	0.6-	1998 10 15	422	0.5-	0.5-	2000 01 15	691	0.4-	0.6-
1998 09 15	699	0.2-	0.8-	1998 10 15	422	0.3-	0.6-	2000 01 15	691	0.2+	0.5-
1998 09 15	699	1.4+	0.8+	1998 10 15	422	0.4-	0.9-	2000 01 15	691	0.2-	0.7-
1998 09 15	699	0.1-	0.8-	1998 10 19	327	0.3-	0.1+	2000 01 30	704	0.3-	0.4-
1998 09 25	327	0.3+	0.8+	1998 10 19	327	0.0	0.1+	2000 01 30	704	0.0	0.2-
1998 09 25	327	0.6+	0.9+	1998 10 19	327	0.2-	0.3-	2000 01 30	704	0.2+	0.1-
1998 09 25	327	0.4+	0.8+	1998 10 21	402	0.6-	0.2-	2000 01 30	704	0.6-	0.9+
1998 09 26	704	0.0	0.4-	1998 10 21	402	0.4-	0.2-	2000 01 30	704	0.1-	1.2+
1998 09 26	704	0.4-	0.3+	1998 10 21	402	0.3-	0.2-	2000 01 31	704	0.0	0.5+
1998 09 26	704	0.3+	1.0+	1998 10 28	704	1.7-	0.5-	2000 01 31	704	0.3-	0.4+
1998 09 26	704	0.3-	0.6-	1998 10 28	704	0.1-	1.8-	2000 01 31	704	0.2-	0.4+
1998 09 26	704	0.0	0.1-	1998 10 28	704	(0.6-	2.4-)	2000 01 31	704	0.2+	0.8+
1998 09 27	704	0.1-	0.2+	1998 10 28	704	0.2-	1.0-	2000 02 11	704	0.5+	0.2+
1998 09 27	704	0.6+	1.1+	1998 10 29	704	1.2-	0.3-	2000 02 11	704	0.2-	0.3+
1998 09 27	704	0.1+	1.2+	1998 10 29	704	0.6-	0.5-	2000 02 11	704	0.8+	0.7+
1998 09 27	704	0.2+	1.1+	1998 10 29	704	0.7+	0.7-	2000 02 11	704	0.3+	0.1-
1998 09 27	704	0.0	0.1-	1998 10 29	704	1.0-	0.7+	2000 02 11	704	0.0	0.2-
1998 09 29	327	1.3+	0.5-	1998 10 29	704	(3.1-	0.9-)				
1998 09 29	327	1.9+	1.0-	2000 01 03	704	0.3-	0.5+				

(13747)* 1998 SS₄₃ = 1989 SC₅ = 1997 ME₁₀

Discovered 1998 Sept. 25 by the Beijing Schmidt CCD Asteroid Program at Xinglong.

Id. G. V. Williams (*MPC* 32727)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	123.02554		(2000.0)		P		Q
<i>n</i>	0.21799634	ω	175.58896	+0.99986509			+0.01206809
<i>a</i>	2.7342397	Ω	183.77385	-0.01436618			+0.97139328
<i>e</i>	0.1515768	<i>i</i>	9.74716	+0.00796371			+0.23716969
<i>P</i>	4.52	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1989 09 26	809	0.5+	2.2-	1998 09 26	704	0.8-	0.5-	1998 10 28	704	0.2+	1.2+
1989 09 26	809	0.8-	1.7-	1998 09 26	704	0.6-	0.1+	1998 10 28	704	0.8-	0.2+
1989 09 26	809	0.7-	2.1-	1998 09 26	704	0.7-	0.3+	1998 10 28	704	0.2+	0.5+
1989 09 28	809	1.4+	0.7-	1998 09 27	704	0.3-	0.1+	1998 10 28	704	1.4-	1.5+
1989 09 28	809	1.2+	1.5-	1998 09 27	704	0.1-	1.1+	1998 10 29	704	1.1-	0.4-
1989 09 28	809	0.8+	1.5-	1998 09 27	704	(2.2-	0.8+)	1998 10 29	704	0.4+	1.7+
1989 09 29	675	0.9-	1.5-	1998 09 27	704	0.2+	0.2-	1998 10 29	704	1.7-	1.5+
1989 09 29	675	0.5-	1.5-	1998 09 27	704	0.2+	0.6+	1998 11 11	699	1.2-	0.9+
1989 10 03	809	0.1+	0.3-	1998 09 29	327	1.3+	0.1-	1998 11 11	699	0.4+	0.2+
1989 10 03	809	0.0	0.8+	1998 09 29	327	0.7+	0.2+	1998 11 11	699	0.9-	1.0+
1989 10 03	809	0.6+	0.5-	1998 09 29	327	1.2+	0.5+	2000 01 08	704	0.3+	0.9+
1992 04 28	691	1.2+	0.6-	1998 10 01	327	0.3-	0.1-	2000 01 08	704	0.5-	0.7-
1992 04 28	691	1.6+	0.2-	1998 10 01	327	0.4-	0.2-	2000 01 08	704	0.1+	0.7+
1992 04 28	691	(2.9-	0.5-)	1998 10 01	327	0.1+	0.6-	2000 01 08	704	0.2-	0.4-
1997 06 27	691	0.1-	0.5+	1998 10 10	699	0.1+	0.6-	2000 01 11	704	1.1+	0.1+
1997 06 27	691	0.3-	0.3+	1998 10 10	699	0.7+	0.4-	2000 01 11	704	0.0	0.1-
1997 06 27	691	0.1-	0.1+	1998 10 10	699	0.6+	1.2-	2000 01 11	704	0.8-	1.0-
1997 07 11	691	0.5-	0.1+	1998 10 14	704	(0.4-	2.2+)	2000 01 11	704	1.8-	0.9-
1997 07 11	691	0.9-	0.4+	1998 10 14	704	0.3-	0.4+	2000 02 06	704	0.6-	0.7-
1997 07 11	691	0.6-	1.0+	1998 10 14	704	0.1-	1.2-	2000 02 06	704	1.0-	0.0
1998 09 15	699	0.2+	1.0+	1998 10 14	704	2.0+	1.3+	2000 02 06	704	0.2+	0.1+
1998 09 15	699	0.8+	1.0+	1998 10 14	704	1.0-	0.4-	2000 02 06	704	0.5-	0.8-
1998 09 15	699	0.3+	1.4+	1998 10 15	704	0.6+	0.6+	2000 02 11	704	0.4+	0.7+
1998 09 25	327	0.2-	0.3+	1998 10 15	704	0.2-	0.1-	2000 02 11	704	0.8+	0.5+
1998 09 25	327	0.2+	0.6+	1998 10 15	704	0.6-	0.5+	2000 02 11	704	0.7+	0.9+
1998 09 25	327	0.1-	0.4+	1998 10 15	704	0.1-	0.2-	2000 02 11	704	1.1+	1.7+
1998 09 26	704	0.1+	0.7+	1998 10 15	704	0.8+	0.2+	2000 02 11	704	0.2+	0.9+
1998 09 26	704	0.4-	1.0+	1998 10 28	704	0.0	0.3-				

(13748)* 1998 SC₄₆ = 1982 XS₃ = 1996 FK₂₂

Discovered 1998 Sept. 25 by Spacewatch at Kitt Peak.

Id. G. V. Williams (*MPC* 33279)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	102.06118		(2000.0)		P		Q
<i>n</i>	0.18167419	ω	154.52958	+0.97253290			-0.23088684
<i>a</i>	3.0875018	Ω	218.85664	+0.20470282			+0.90873516
<i>e</i>	0.1131350	<i>i</i>	2.69633	+0.11079945			+0.34769480
<i>P</i>	5.43	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1982 12 13	381	0.6+	0.5-	1998 10 28	704	0.3+	0.1-	1999 01 09	691	0.0	0.2-
1982 12 14	381	0.5-	0.2-	1998 10 28	704	0.7+	0.4-	1999 12 30	120	1.1-	1.3-
1982 12 14	381	(8.9+	5.2-)	1998 10 28	704	0.5-	0.0	1999 12 31	120	0.8+	0.1-
1996 03 24	809	(1.8+	2.6-)	1998 10 29	704	1.2-	0.9-	2000 01 05	704	0.6+	0.6+
1996 03 24	809	(1.2+	2.2-)	1998 10 29	704	0.5-	0.8-	2000 01 05	704	0.4-	0.0
1996 03 24	809	(2.8+	2.5-)	1998 10 29	704	0.3+	0.2-	2000 01 05	704	0.0	0.4+
1996 03 27	809	0.5-	1.5-	1998 10 29	704	0.0	0.2+	2000 01 05	704	0.3+	0.3+
1996 03 27	809	0.0	0.4-	1998 10 29	704	0.5+	0.4-	2000 01 05	704	0.9+	0.0
1996 03 27	809	(1.3-	2.2-)	1998 11 10	704	0.0	0.7+	2000 01 06	704	0.3+	0.6+
1998 09 14	699	0.1-	0.1+	1998 11 10	704	0.5+	0.4-	2000 01 06	704	0.5-	0.4-
1998 09 14	699	0.1-	0.4+	1998 11 10	704	0.1-	0.5-	2000 01 06	704	0.2+	0.2+
1998 09 14	699	1.1-	1.0+	1998 11 10	704	0.6+	0.5-	2000 01 06	704	0.1-	0.7+
1998 09 20	809	(1.2-	4.0-)	1998 11 11	704	0.1+	0.3+	2000 02 02	704	0.6-	0.3+
1998 09 20	809	(1.1-	2.7-)	1998 11 11	704	0.2-	0.5+	2000 02 02	704	0.7-	1.0+
1998 09 20	809	(0.7-	3.1-)	1998 11 11	704	0.4+	0.0	2000 02 02	704	0.5+	0.1-
1998 09 25	691	0.1+	0.2-	1998 11 11	704	0.9+	0.3-	2000 02 02	704	0.2+	0.4-
1998 09 25	691	0.4+	0.3-	1998 11 11	704	0.6+	0.4+	2000 02 02	704	1.2-	0.5-
1998 09 25	691	0.3+	0.3-	1998 11 14	699	0.1-	0.5+	2000 02 03	704	0.3-	0.5+

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1998 09 30	691	0.9–	0.1+	1998 11 14	699	0.5+	0.8+	2000 02 03	704	0.3+	0.8–
1998 09 30	691	0.7–	0.0	1998 11 14	699	0.3–	0.6+	2000 02 03	704	1.2+	1.1+
1998 09 30	691	0.7–	0.3–	1999 01 09	691	0.1–	0.6–	2000 02 03	704	0.4–	1.4–
1998 10 28	704	0.3+	0.3–	1999 01 09	691	0.8+	0.0				

(13749)* 1998 SG₄₉ = 1989 WR₁ = 1996 HD₁₆

Discovered 1998 Sept. 24 at Višnjan.

Id. G. V. Williams (*MPC* 33026)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	58.34170		(2000.0)	P	Q
<i>n</i>	0.21143762	ω	234.42604	+0.04029716	−0.99611979
<i>a</i>	2.7904947	Ω	213.52424	+0.95645481	+0.06111014
<i>e</i>	0.1223813	<i>i</i>	8.14419	+0.28908536	−0.06333176
<i>P</i>	4.66	<i>H</i>	12.8	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1989 11 24	095	(1.7+	3.1+)	1998 09 30	691	0.6+	0.6–	1998 12 17	327	0.4–	0.4+
1989 11 25	403	0.3+	0.3+	1998 10 09	120	0.4+	0.3+	1998 12 17	327	0.3–	0.6+
1989 11 25	403	0.2–	0.4–	1998 10 09	120	0.3–	0.4+	1998 12 17	327	0.4–	0.6+
1989 11 25	402	(2.4+	2.7–)	1998 10 15	120	0.1+	0.3+	1999 01 11	704	0.7+	1.4+
1989 11 25	402	0.5+	0.9–	1998 10 15	120	0.1–	0.3+	1999 01 11	704	0.2+	0.1+
1989 11 26	402	(4.2+	5.3+)	1998 10 16	120	0.2+	0.5+	1999 01 11	704	0.5+	0.6+
1989 12 01	403	0.1–	1.5–	1998 10 16	120	0.2–	0.4–	1999 01 11	704	0.6–	0.7–
1989 12 01	403	0.6–	0.4–	1998 10 21	120	0.4+	0.2+	1999 11 09	703	0.1+	1.3+
1996 04 18	809	0.7–	1.8+	1998 10 21	120	0.4+	0.4+	1999 11 09	703	0.4–	0.6+
1996 04 18	809	1.2–	1.9+	1998 10 21	120	0.2–	0.1+	1999 11 09	703	0.4+	0.6+
1996 04 18	809	0.3–	1.5+	1998 10 23	120	0.1–	0.4+	1999 11 09	703	0.1–	0.7+
1996 04 20	809	(1.7–	3.4+)	1998 10 23	120	0.3–	0.2+	1999 12 16	704	0.8+	0.4–
1996 04 20	809	(1.0–	2.1+)	1998 10 24	120	0.1–	0.5+	1999 12 16	704	0.4+	0.1–
1996 04 20	809	(0.6–	2.4+)	1998 10 24	120	0.1–	0.2+	1999 12 16	704	0.1–	0.1+
1996 05 16	566	0.1+	0.5–	1998 11 10	704	0.3–	0.1–	1999 12 16	704	1.2+	0.8–
1996 05 16	566	0.4–	0.2–	1998 11 10	704	0.4+	0.0	1999 12 16	704	0.4+	0.8–
1996 05 16	566	0.2+	0.2–	1998 11 10	704	0.5+	0.4+	2000 02 07	704	0.5–	0.2–
1996 05 19	809	1.3+	0.9+	1998 11 10	704	0.9–	0.4+	2000 02 07	704	0.9–	0.3–
1996 05 19	809	0.7+	0.3+	1998 11 10	704	0.2–	0.2–	2000 02 07	704	0.7–	0.4–
1996 05 19	809	1.5+	0.4+	1998 11 11	704	0.2–	0.2–	2000 02 07	704	0.3–	0.1–
1996 05 22	809	(2.5+	1.8+)	1998 11 11	704	0.1–	0.3–	2000 02 07	704	0.9–	0.3–
1996 05 22	809	(3.1+	1.5+)	1998 11 11	704	0.2–	0.5+	2000 02 08	704	0.7+	0.2+
1996 05 22	809	(3.0+	1.1+)	1998 11 11	704	0.9–	1.0+	2000 02 08	704	0.8+	0.4+
1998 09 24	120	1.4–	0.0	1998 11 11	120	0.7+	0.6–	2000 02 08	704	0.3+	0.3+
1998 09 25	120	0.7–	0.5+	1998 11 11	120	0.0	0.2–	2000 02 08	704	0.3+	0.2+
1998 09 25	120	0.2–	0.4+	1998 11 11	120	0.4+	0.3–	2000 02 08	704	0.6+	0.4+
1998 09 30	120	0.3–	0.7–	1998 11 13	120	0.1+	0.3–	2000 02 13	704	(2.4+	0.7–)
1998 09 30	120	0.5–	0.7–	1998 11 14	699	0.1–	1.3+	2000 02 13	704	0.4+	0.8+
1998 09 30	691	0.4+	0.0	1998 11 14	699	0.2+	1.1+	2000 02 13	704	1.1–	0.8+
1998 09 30	691	0.5+	0.1–	1998 11 14	699	0.3+	1.4+				

(13750)* 1998 ST₅₄ = 1980 TP₉ = 1991 VB₁ = 1997 EL₅₄

Discovered 1998 Sept. 16 by the Lowell Observatory Near-Earth Object

Search at the Anderson Mesa Station.

Id. G. V. Williams (*MPC* 33028)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	175.10421		(2000.0)	P	Q
<i>n</i>	0.27197333	ω	305.43136	+0.72694438	+0.68634026
<i>a</i>	2.3593109	Ω	11.28475	−0.58771952	+0.63849758
<i>e</i>	0.1398541	<i>i</i>	6.48805	−0.35515862	+0.34822104
<i>P</i>	3.62	<i>H</i>	14.2	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1980 10 13	095	0.7+	1.8–	1998 09 14	704	0.5–	0.9+	1998 12 08	699	1.4–	0.2–
1991 11 04	399	0.6–	0.3–	1998 09 14	704	0.3–	0.1–	1998 12 08	699	0.9–	0.5–
1991 11 04	399	0.5+	1.5+	1998 09 16	699	0.9+	0.2+	1998 12 09	704	1.3+	0.3–
1991 11 05	399	0.0	0.4–	1998 09 16	699	1.1+	0.3–	1998 12 09	704	1.2–	0.0
1991 11 05	399	(2.2–	0.8+)	1998 09 16	699	1.4+	0.2+	1998 12 09	704	1.8+	1.4+
1991 11 11	399	1.1+	1.4–	1998 09 18	704	0.4–	0.5+	1998 12 09	704	0.2+	0.2–

1991 11 11	399	(1.9+	2.8–)	1998 09 18	704	0.6–	0.8+	1998 12 09	704	0.5–	0.9+
1997 03 08	809	(4.1+	0.3–)	1998 09 18	704	0.6+	0.2+	1999 12 15	703	0.7+	0.6+
1997 03 08	809	(4.5+	0.6+)	1998 09 18	704	0.4–	0.7+	1999 12 15	703	0.1–	0.5+
1997 03 08	809	(3.5+	0.1–)	1998 09 18	704	1.6+	0.2+	1999 12 15	704	0.1–	0.4–
1997 03 09	809	(3.7+	0.9–)	1998 09 25	699	1.1+	0.8+	1999 12 15	703	0.6–	0.1+
1997 03 09	809	(3.6+	0.4+)	1998 09 25	699	0.4+	0.2+	1999 12 15	703	0.3+	0.4+
1997 03 09	809	(3.6+	0.1+)	1998 09 25	699	0.2+	0.0	1999 12 15	704	0.1–	0.1–
1997 03 10	809	1.3+	1.8+	1998 09 26	704	0.4–	0.5+	1999 12 15	704	1.1–	0.9+
1997 03 10	809	0.7+	1.8+	1998 09 26	704	0.0	0.3–	2000 01 03	704	0.3+	0.5–
1997 03 10	809	0.8+	1.6+	1998 09 26	704	0.7–	0.2–	2000 01 03	704	0.2+	0.8–
1997 03 11	809	0.4+	0.2+	1998 09 26	704	0.1–	0.1+	2000 01 03	704	0.5+	0.5+
1997 03 11	809	0.1+	0.1+	1998 09 26	704	0.2+	0.4–	2000 01 03	704	0.1+	0.5–
1997 03 11	809	0.2+	0.1+	1998 09 27	704	0.5+	0.8–	2000 01 03	704	1.3–	0.5–
1998 06 29	704	1.4–	0.5–	1998 09 27	704	0.9+	0.3+	2000 02 11	704	0.1–	0.1–
1998 06 29	704	1.6–	2.0+	1998 09 27	704	1.1–	0.6–	2000 02 11	704	0.4+	0.0
1998 06 29	704	0.6+	0.1+	1998 09 27	704	0.2–	0.9–	2000 02 11	704	0.5+	0.1+
1998 06 29	704	0.5–	0.1+	1998 10 17	699	1.2–	0.4+	2000 02 11	704	0.4+	0.5+
1998 08 28	704	0.3+	0.9–	1998 10 17	699	1.1–	0.4+	2000 02 11	704	1.2+	0.8+
1998 08 28	704	(1.9–	2.1+)	1998 10 17	699	1.2–	0.3+	2000 02 14	704	0.3–	0.8–
1998 08 28	704	1.4–	0.4–	1998 11 10	699	0.5–	0.4+	2000 02 14	704	0.2–	0.0
1998 08 28	704	0.7–	0.6+	1998 11 10	699	1.1–	0.6+	2000 02 14	704	0.4+	1.2+
1998 08 28	704	0.5–	0.4+	1998 11 10	699	0.7–	1.1+	2000 02 14	704	1.2–	0.5+
1998 09 14	704	0.8+	1.0+	1998 12 08	699	0.9–	0.9+				

(13751)* 1998 SS₅₅ = 1990 FR₂ = 1997 JJ₈

Discovered 1998 Sept. 16 by the Lowell Observatory Near-Earth Object

Search at the Anderson Mesa Station.

Id. G. V. Williams (*MPC* 33029)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	342.95447		(2000.0)	P	Q
<i>n</i>	0.29180661	ω	4.26983	−0.98699966	−0.15850996
<i>a</i>	2.2511579	Ω	166.52178	+0.14387717	−0.94508491
<i>e</i>	0.0746231	<i>i</i>	6.54718	+0.07163120	−0.28581307
<i>P</i>	3.38	<i>H</i>	14.9	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1990 03 17	033	0.1–	0.6–	1998 09 25	699	1.2+	1.2+	1999 12 05	704	1.7+	1.7–
1990 03 18	033	0.1–	0.4–	1998 09 25	699	0.2+	1.5+	1999 12 05	704	0.7–	0.4+
1997 05 01	691	0.1+	0.2+	1998 09 26	704	1.5–	1.1–	2000 02 02	704	0.2+	0.1–
1997 05 01	691	0.4+	0.3+	1998 09 26	704	0.7–	0.5+	2000 02 02	704	0.2–	0.4+
1997 05 01	691	0.3–	0.7+	1998 09 26	704	1.3–	0.2–	2000 02 02	704	0.3–	0.1+
1997 05 10	691	0.2–	0.1–	1998 09 26	704	0.2–	1.3–	2000 02 02	704	0.1+	0.7+
1997 05 10	691	0.3+	0.1–	1998 09 26	704	1.1–	0.5–	2000 02 02	704	0.4–	1.0+
1997 05 10	691	0.2–	0.1–	1998 09 27	704	1.0+	1.8–	2000 02 06	704	0.9+	0.2–
1998 09 14	704	1.2+	0.7+	1998 09 27	704	0.1+	1.6–	2000 02 06	704	0.9–	0.4–
1998 09 14	704	0.8+	0.0	1998 09 27	704	1.1–	0.8–	2000 02 06	704	0.0	0.3–
1998 09 14	704	1.6+	1.7+	1998 09 27	704	0.2–	0.4+	2000 02 06	704	0.3+	0.2+
1998 09 16	699	0.4–	0.6+	1998 10 17	699	0.0	1.6+	2000 02 06	704	0.2+	0.2+
1998 09 16	699	0.5+	0.8+	1998 10 17	699	0.8–	0.8–	2000 02 10	106	0.3+	0.1–
1998 09 16	699	0.5+	0.5+	1998 10 17	699	0.4–	1.1+	2000 02 10	106	0.3–	0.2+
1998 09 18	704	0.3+	0.2+	1999 12 05	703	0.2+	0.4+	2000 02 10	106	0.2+	0.4–
1998 09 18	704	1.0–	1.6–	1999 12 05	703	0.6+	1.5+	2000 02 12	704	1.0+	0.2–
1998 09 18	704	0.6+	0.3–	1999 12 05	703	1.2–	0.6–	2000 02 12	704	0.2+	0.1+
1998 09 18	704	0.2–	0.8–	1999 12 05	704	0.6–	1.0–	2000 02 12	704	0.4–	0.2+
1998 09 18	704	(2.3+	0.7+)	1999 12 05	703	0.2–	0.4–	2000 02 12	704	0.1–	0.1–
1998 09 25	699	0.7+	0.6+	1999 12 05	704	0.8–	1.6+	2000 02 12	704	0.0	0.5–

2000 FEB. 22

M.P.C. 38387

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	165.75757	(2000.0)	P	Q
<i>n</i>	0.26000113	ω 314.11725	+0.75392732	+0.65687424
<i>a</i>	2.4311918	Ω 4.85527	-0.56184657	+0.65296227
<i>e</i>	0.1903281	<i>i</i> 7.11229	-0.34047324	+0.37703647
<i>P</i>	3.79	<i>H</i> 14.8	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1979 09 20	675	0.1+	0.5+	1998 09 18	704	0.9-	0.8+	1998 10 14	699	0.1+	0.1-
1979 09 21	675	0.3-	0.2-	1998 09 18	704	0.2+	0.6+	1998 10 14	699	0.3+	0.0
1997 03 10	809	1.7+	0.7+	1998 09 18	704	0.6-	0.2-	1998 10 14	699	0.1-	0.9+
1997 03 10	809	0.2+	0.9+	1998 09 18	704	0.0	0.3+	1998 10 15	704	0.6-	0.3-
1997 03 10	809	0.8+	0.3+	1998 09 25	699	0.4+	1.1+	1998 10 15	704	0.2-	0.2+
1997 03 11	809	0.5+	0.8+	1998 09 25	699	0.3+	0.3+	1998 10 15	704	0.1-	0.7+
1997 03 11	809	1.6-	0.5+	1998 09 25	699	0.1+	0.3+	1998 10 15	704	0.4-	0.3+
1997 03 11	809	0.5+	0.4+	1998 09 26	704	0.2-	0.2+	1998 10 15	704	1.0-	0.5+
1998 08 28	704	0.6+	1.0-	1998 09 26	704	1.2+	0.7-	2000 01 02	461	0.6+	0.0
1998 08 28	704	0.6+	0.5+	1998 09 26	704	0.6+	1.7-	2000 01 02	461	0.7+	0.2+
1998 08 28	704	(1.5+	2.0+)	1998 09 26	704	1.1+	0.5-	2000 01 02	461	0.6+	0.2+
1998 08 28	704	(2.2+	1.0-)	1998 09 26	704	1.4+	1.0-	2000 01 03	704	1.1-	0.2+
1998 08 28	704	(2.4-	0.6+)	1998 09 27	704	0.5-	0.1+	2000 01 03	704	0.8-	0.3+
1998 08 31	704	1.1-	0.8+	1998 09 27	704	0.3+	0.5+	2000 01 03	704	0.1+	0.4-
1998 08 31	704	(0.6-	3.5-)	1998 09 27	704	0.6-	0.1+	2000 01 03	704	1.2-	0.1-
1998 08 31	704	0.0	0.3-	1998 09 27	704	0.0	0.2-	2000 01 03	704	0.9+	0.2-
1998 08 31	704	0.8+	0.8-	1998 09 27	704	0.1-	0.8-	2000 01 28	461	0.2-	0.1-
1998 08 31	704	(0.6+	3.0+)	1998 10 13	691	0.9-	0.0	2000 01 28	461	0.2-	0.2-
1998 09 14	704	0.4-	0.0	1998 10 13	691	0.8-	0.1-	2000 01 28	461	0.1-	0.1+
1998 09 14	704	0.5+	0.3-	1998 10 13	691	0.8-	0.0	2000 02 01	461	0.2-	0.1-
1998 09 14	704	0.5+	0.9-	1998 10 14	704	0.2+	0.4+	2000 02 01	461	0.3-	0.1+
1998 09 17	699	0.1-	0.4+	1998 10 14	704	1.0-	1.8+	2000 02 01	461	0.2-	0.1-
1998 09 17	699	0.2-	0.1+	1998 10 14	704	0.3-	0.9-	2000 02 02	461	0.0	0.4-
1998 09 17	699	0.3+	0.4+	1998 10 14	704	0.1-	0.2-	2000 02 02	461	1.0+	0.4-
1998 09 18	704	0.4+	0.4+	1998 10 14	704	0.5-	0.8+				

(13753)* 1998 SY₅₉ = 1989 CU₅

Discovered 1998 Sept. 17 by the Lowell Observatory Near-Earth Object Search at the Anderson Mesa Station.

Id. G. V. Williams (*MPC* 33033)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	54.56074	(2000.0)	P	Q
<i>n</i>	0.17574812	ω 284.61798	+0.51386339	-0.85449205
<i>a</i>	3.1565227	Ω 134.19855	+0.82226791	+0.46531279
<i>e</i>	0.1489346	<i>i</i> 6.09145	+0.24458106	+0.23092714
<i>P</i>	5.61	<i>H</i> 13.4	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1989 02 02	033	0.2-	0.6-	1998 10 28	704	1.0+	1.5-	2000 01 06	704	0.2-	1.3-
1989 02 04	033	0.2-	0.7-	1998 10 28	704	0.4+	0.5-	2000 01 06	704	1.1-	0.2+
1995 04 04	691	0.1-	0.0	1998 10 28	704	0.2-	0.3-	2000 01 06	704	0.4+	0.0
1995 04 04	691	0.1-	0.3-	1998 10 28	704	1.0-	0.6-	2000 01 06	704	0.1+	0.2+
1995 04 04	691	0.1+	0.7-	1998 10 29	704	0.6-	0.8+	2000 01 08	684	0.1+	0.0
1998 09 17	699	1.3+	1.3+	1998 10 29	704	0.1+	0.2-	2000 01 08	684	0.2+	0.1+
1998 09 17	699	0.8+	0.3+	1998 10 29	704	0.2-	0.8-	2000 01 27	691	0.5-	0.7-
1998 09 25	699	0.4+	0.2-	1998 10 29	704	0.4-	0.1-	2000 01 27	691	0.5-	0.4-
1998 09 25	699	0.7+	0.0	1999 10 10	704	0.3+	0.1-	2000 01 27	691	0.5-	0.7-
1998 09 25	699	0.3+	0.2-	1999 10 10	704	0.3+	0.8+	2000 02 02	704	0.1-	0.2+
1998 09 26	704	0.3-	0.6-	1999 10 10	704	1.6+	0.7+	2000 02 02	704	0.3+	0.3+
1998 09 26	704	0.8+	1.0-	1999 10 10	704	0.5-	0.7+	2000 02 02	704	0.0	0.1+
1998 09 26	704	0.5+	0.5-	1999 12 30	120	0.5+	0.3-	2000 02 02	704	0.2+	0.7+
1998 09 26	704	0.1+	0.2+	1999 12 31	120	0.0	0.3+	2000 02 02	704	0.1+	0.6+
1998 09 26	704	0.0	0.5+	1999 12 31	120	0.4+	0.3+	2000 02 03	704	0.2-	0.0
1998 09 27	704	1.4-	0.1+	1999 12 31	699	0.1+	0.2-	2000 02 03	704	0.2+	0.5+
1998 09 27	704	0.3-	0.5+	1999 12 31	699	0.2+	0.4-	2000 02 03	704	0.1-	0.8+
1998 09 27	704	0.2-	0.6+	1999 12 31	699	0.7+	0.8+	2000 02 03	704	0.2-	0.6+
1998 09 27	704	(0.0	2.1+)	2000 01 05	704	0.3+	0.3-	2000 02 12	704	(0.0	4.4+)

1998 09 27	704	0.1-	0.2-	2000 01 05	704	0.7-	0.1-	2000 02 12	704	0.5+	0.1-
1998 10 17	699	0.3-	0.3+	2000 01 05	704	0.5-	0.1-	2000 02 12	704	1.2-	0.6-
1998 10 17	699	0.3+	0.6+	2000 01 05	704	0.2+	0.1+				
1998 10 17	699	1.1-	0.1+	2000 01 05	704	0.0	0.6-				

(13754)* 1998 SB₆₃ = 1981 WZ₃ = 1992 GA₆ = 1992 GA₂

Discovered 1998 Sept. 25 by the Beijing Schmidt CCD Asteroid Program at Xinglong.

Id. G. V. Williams (*MPC* 33036)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	54.65723	(2000.0)	P	Q
<i>n</i>	0.22817985	ω 59.56086	+0.15480033	-0.97665226
<i>a</i>	2.6522708	Ω 23.00606	+0.72411127	+0.00959577
<i>e</i>	0.0478705	<i>i</i> 22.40326	+0.67208610	+0.21461193
<i>P</i>	4.32	<i>H</i> 12.5	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1981 11 25	095	2.0+	0.8-	1998 10 10	699	0.3-	0.1-	1999 01 02	699	0.6+	0.4-
1981 11 26	511	1.5+	1.7-	1998 10 13	327	0.3-	0.1+	1999 01 02	699	0.0	0.7-
1981 11 26	511	0.0	0.7-	1998 10 13	327	0.1-	0.0	1999 01 02	699	1.1-	0.1+
1981 11 26	511	1.5-	0.3+	1998 10 13	327	0.1-	0.1+	1999 01 08	704	0.7-	0.1-
1992 04 03	303	(4.7+	0.6+)	1998 10 14	704	0.5+	0.1+	1999 01 08	704	0.2-	1.2+
1992 04 03	303	0.0	0.6-	1998 10 14	704	0.3+	0.2-	1999 01 08	704	0.8-	0.1+
1992 04 03	303	0.8-	0.1-	1998 10 14	704	1.0+	0.5+	1999 01 08	704	0.2-	0.1-
1992 04 04	809	0.3-	0.1+	1998 10 14	704	0.4+	0.7-	1999 01 08	704	1.1+	0.7+
1992 04 04	809	1.6-	0.5-	1998 10 14	704	0.5+	0.0	1999 01 11	704	0.2-	0.7+
1992 04 04	809	0.8-	0.9+	1998 10 15	704	0.5+	0.0	1999 01 11	704	0.1+	1.1+
1992 04 06	809	0.2+	1.7-	1998 10 15	704	0.7+	0.0	1999 01 11	704	0.8-	0.6+
1992 04 06	809	0.3+	1.6-	1998 10 15	704	0.3+	0.4-	1999 01 11	704	1.8-	1.7+
1992 04 06	809	0.7-	2.0-	1998 10 15	704	1.0+	0.6+	1999 01 11	704	0.8-	0.6+
1998 09 25	327	0.4+	0.4-	1998 10 15	704	0.2+	0.1+	1999 02 04	699	0.0	0.1+
1998 09 25	327	0.2+	0.4-	1998 10 19	699	0.5-	0.3-	1999 02 04	699	0.4-	0.9+
1998 09 25	327	0.2+	0.4-	1998 10 19	699	0.1+	0.0	1999 02 04	699	0.7-	0.2+
1998 09 26	704	1.5+	1.0-	1998 10 19	699	0.4-	0.0	1999 11 17	699	0.2+	0.5+
1998 09 26	704	1.2+	1.9-	1998 10 28	704	0.8-	0.3-	1999 11 17	699	1.0+	0.1-
1998 09 26	704	(2.6+	2.3-)	1998 10 28	704	0.1+	0.2-	1999 11 17	699	0.5+	0.2+
1998 09 26	704	1.2+	0.7-	1998 10 28	704	0.1-	0.1+	1999 12 30	704	0.5-	0.5-
1998 09 26	704	1.8+	0.3+	1998 10 28	704	0.3-	0.2+	1999 12 30	704	0.5-	0.2-
1998 09 27	704	0.3+	0.5-	1998 10 28	704	1.2-	0.7+	1999 12 30	704	0.9-	0.7-
1998 09 27	704	1.3+	0.4-	1998 10 29	704	0.7-	0.3-	1999 12 30	704	0.8-	0.3-
1998 09 27	704	0.3-	0.3+	1998 10 29	704	0.6-	0.2-	1999 12 30	704	1.2-	0.9+
1998 09 27	704	0.5+	1.6-	1998 10 29	704	0.8-	0.7+	2000 01 27	704	0.2-	0.7+
1998 09 27	704	0.4+	1.6-	1998 10 29	704	0.5-	0.3+	2000 01 27	704	0.9-	0.2+
1998 10 02	327	0.1-	0.3-	1998 10 29	704	0.0	1.5+	2000 01 27	704	1.0-	0.8+
1998 10 02	327	0.3-	0.3-	1998 12 09	704	(0.3-	2.1-)	2000 02 15	704	0.7+	0.0
1998 10 02	327	0.0	0.3-	1998 12 09	704	(3.0+	0.1-)	2000 02 15	704	0.7+	0.5-
1998 10 10	699	0.5-	0.3-	1998 12 09	704	1.1-	0.6-	2000 02 15	704	0.6+	1.3-
1998 10 10	699	0.2-	0.2-	1998 12 09	704	1.0+	0.6+	2000 02 15	704	0.1-	0.7-

(13755)* 1998 SR₇₀ = 1987 SH₁₀

Discovered 1998 Sept. 21 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (*MPC* 33283)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	103.68637	(2000.0)	P	Q
<i>n</i>	0.18179162	ω 337.85334	+0.98767918	-0.13325196
<i>a</i>	3.0861722	Ω 30.16556	+0.15649049	+0.83848291
<i>e</i>	0.0940348	<i>i</i> 9.39862	+0.00074867	+0.52838464
<i>P</i>	5.42	<i>H</i> 13.9	<i>G</i> 0.15	<i>U</i> 1

1996 04 22	566	1.0+	1.7+	1998 09 27	704	0.9+	1.3-	1998 11 10	699	0.1+	0.3+
1996 04 22	566	0.6+	1.2+	1998 09 27	704	0.1+	0.8-	1998 11 10	699	0.2+	0.4+
1996 04 22	566	0.6-	1.3+	1998 09 27	704	0.5+	0.5-	1998 11 10	699	0.6+	0.1+
1996 04 23	566	0.9+	0.3+	1998 09 27	704	1.0-	1.3-	1999 12 12	704	0.1+	0.4+
1996 04 23	566	0.5+	1.4+	1998 10 10	699	0.2+	0.8+	1999 12 12	704	1.2+	0.4+
1996 04 23	566	0.7+	0.5-	1998 10 10	699	0.5-	0.1+	1999 12 12	704	0.2+	0.5-
1998 09 18	699	1.5-	0.6+	1998 10 10	699	0.8+	0.2+	1999 12 12	704	0.0	0.1-
1998 09 18	699	0.2-	1.3+	1998 10 28	704	0.6-	0.3+	1999 12 12	704	1.4-	0.5-
1998 09 18	699	0.9-	0.5+	1998 10 28	704	(2.2+	0.1-)	1999 12 15	704	0.4-	0.8+
1998 09 21	809	(1.8+	2.6+)	1998 10 28	704	0.1+	0.0	1999 12 15	704	0.1-	0.5+
1998 09 21	809	(1.3+	3.0+)	1998 10 28	704	0.0	0.3+	1999 12 15	704	0.9+	0.8+
1998 09 21	809	(1.8+	2.6+)	1998 10 28	704	(2.2-	1.7+)	1999 12 15	704	0.2+	1.0+
1998 09 23	809	(4.2+	2.3+)	1998 10 29	704	0.8-	0.7+	1999 12 15	704	1.1-	0.4-
1998 09 23	809	(4.1+	2.1+)	1998 10 29	704	0.5-	1.9+	2000 01 29	704	1.2-	0.8-
1998 09 23	809	(4.4+	1.9+)	1998 10 29	704	0.0	0.9+	2000 01 29	704	0.2+	0.1+
1998 09 26	704	0.1+	1.1+	1998 10 29	704	0.3-	0.2-	2000 01 29	704	0.4+	0.5-
1998 09 26	704	0.5-	0.2+	1998 10 29	704	0.3+	0.9-	2000 01 29	704	1.1+	0.6-

(13756)* 1998 ST₇₂ = 1998 UV₃₇ = 1996 LN₄

Discovered 1998 Sept. 21 by E. W. Elst at the European Southern Observatory.

Id. A. Doppler (d, *MPC* 33785), S. Nakano (*MPC* 33969)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	78.28344		(2000.0)	P	Q
<i>n</i>	0.19456809	ω	312.72676	+0.66389480	-0.74579647
<i>a</i>	2.9495446	Ω	95.58981	+0.70126810	+0.59530100
<i>e</i>	0.0873138	<i>i</i>	3.17125	+0.25974362	+0.29900558
<i>P</i>	5.07	<i>H</i>	13.9	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1995 02 05	691	0.1-	0.4-	1998 10 28	704	0.2+	1.8-	2000 01 06	704	0.1+	0.1-
1995 02 05	691	0.0	0.3-	1998 10 28	704	0.4-	1.7+	2000 01 11	120	1.6+	0.6-
1995 02 05	691	0.1-	0.2-	1998 10 29	704	1.4-	0.3-	2000 01 12	120	0.0	0.6+
1996 05 11	691	0.3-	0.7-	1998 10 29	704	0.8-	0.4+	2000 01 30	703	0.5-	0.4+
1996 05 11	691	0.3-	0.1+	1998 10 29	704	0.4+	0.3-	2000 01 30	703	1.0-	0.3-
1996 05 11	691	0.3-	0.4+	1998 10 29	704	(3.0-	0.2-)	2000 01 30	703	0.6+	0.2-
1996 06 08	809	(3.0-	3.1-)	1998 10 29	704	1.2-	0.1-	2000 01 30	703	1.0-	0.3-
1996 06 08	809	(4.7-	1.4-)	1998 11 10	704	0.1-	0.5+	2000 01 30	704	0.2-	0.0
1996 06 08	809	(4.6-	1.4-)	1998 11 10	704	0.6-	0.8-	2000 01 30	704	1.2-	0.0
1996 06 10	809	0.6+	0.6-	1998 11 10	704	0.1+	0.4-	2000 01 30	704	0.1+	0.8+
1996 06 10	809	(2.9-	0.6-)	1998 11 10	704	(2.8-	0.2+)	2000 01 30	704	0.0	0.4+
1996 06 10	809	(3.0-	1.2-)	2000 01 04	704	0.5-	0.2+	2000 02 03	704	0.3-	0.8+
1998 09 21	809	1.8+	0.0	2000 01 04	704	0.7-	0.5-	2000 02 03	704	0.1+	0.2+
1998 09 21	809	1.5+	0.6+	2000 01 04	704	0.3-	2.0-	2000 02 03	704	0.4-	0.6+
1998 09 21	809	1.2+	0.3+	2000 01 04	704	0.2+	0.3-	2000 02 03	704	0.2-	1.1+
1998 09 23	809	(10.0+	1.0+)	2000 01 04	704	0.4-	1.1-	2000 02 03	704	0.3-	0.1+
1998 09 23	809	(8.9+	1.2+)	2000 01 05	699	0.4+	0.2+	2000 02 11	704	0.3+	0.2+
1998 09 23	809	(8.8+	1.2+)	2000 01 05	699	0.5-	0.9+	2000 02 11	704	0.4+	0.3+
1998 10 11	699	0.7-	0.6+	2000 01 05	699	0.3-	0.6+	2000 02 11	704	0.2+	0.1+
1998 10 11	699	0.0	0.3+	2000 01 06	704	1.3+	0.1+	2000 02 11	704	0.6+	0.5+
1998 10 11	699	0.5+	0.1+	2000 01 06	704	0.7+	0.9-	2000 02 11	704	1.1+	0.4-
1998 10 28	704	0.7+	0.1-	2000 01 06	704	0.1+	0.1-				
1998 10 28	704	0.5-	0.9-	2000 01 06	704	0.0	0.6-				

(13757)* 1998 ST₇₃ = 4381 T-3 = 1993 BO₁₂ = 1997 GU₄₄

Discovered 1998 Sept. 21 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (*MPC* 33038)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	281.27455		(2000.0)	P	Q
<i>n</i>	0.28171617	ω	89.19644	-0.60581370	+0.79444627
<i>a</i>	2.3045963	Ω	143.40450	-0.75561228	-0.55761960
<i>e</i>	0.1553863	<i>i</i>	4.13161	-0.24907800	-0.24065639
<i>P</i>	3.50	<i>H</i>	14.5	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1977 10 16	675	0.2+	0.0	1998 09 29	704	0.3-	0.1+	2000 01 31	106	0.2-	0.1+
1977 10 16	675	1.2-	0.5+	1998 10 11	699	1.1-	0.5+	2000 01 31	106	0.9+	0.2+
1977 10 17	675	0.5-	0.8-	1998 10 11	699	(0.4-	2.1+)	2000 01 31	106	0.1+	0.4+
1977 10 17	675	0.5+	1.0-	1998 10 11	699	0.0	0.1-	2000 02 02	704	0.1+	0.5+
1977 10 21	675	1.9+	0.9-	1998 10 20	699	0.3-	0.8+	2000 02 02	704	0.1+	0.3+
1977 10 21	675	1.0+	1.3-	1998 10 20	699	0.9+	1.6+	2000 02 02	704	0.6+	0.2-
1977 10 22	675	0.8+	1.4+	1998 10 20	699	1.4+	0.2-	2000 02 02	704	0.2-	0.2+
1993 01 22	809	1.3-	1.6-	1998 10 28	704	0.2+	0.2+	2000 02 02	704	(0.1+	3.3+)
1993 01 22	809	1.1-	0.3-	1998 10 28	704	0.3-	0.5-	2000 02 03	704	0.1-	0.4+
1993 01 22	809	(3.1-	1.8-)	1998 10 28	704	0.9-	0.1-	2000 02 03	704	0.4+	0.1-
1993 01 28	809	0.2-	0.5+	1998 10 28	704	1.3-	0.7+	2000 02 03	704	0.2+	0.1-
1993 01 28	809	0.8-	0.1-	1998 10 29	704	1.1+	0.7+	2000 02 03	704	0.4+	0.5+
1993 01 28	809	1.5-	0.6-	1998 10 29	704	0.6-	0.4+	2000 02 03	704	0.6+	0.2-
1997 04 11	809	(1.1+	2.9+)	1998 10 29	704	1.4-	0.0	2000 02 05	704	0.1+	0.0
1997 04 11	809	(1.6+	2.0+)	1998 10 29	704	(1.5-	2.1+)	2000 02 05	704	0.4-	0.0
1997 04 11	809	(0.6+	2.8+)	2000 01 05	704	0.2+	0.0	2000 02 05	704	0.2+	0.3-
1997 04 12	809	0.8+	1.3+	2000 01 05	704	0.2+	0.0	2000 02 05	704	0.1-	0.1+
1997 04 12	809	0.0	1.3+	2000 01 05	704	0.3-	0.9-	2000 02 05	704	0.6+	0.4+
1997 04 12	809	0.2+	0.5+	2000 01 05	704	0.3-	0.1-	2000 02 05	704	0.4+	0.1-
1998 09 18	699	0.0	0.6+	2000 01 05	704	0.1-	0.1-	2000 02 05	704	0.2+	0.3-
1998 09 18	699	1.2+	0.8+	2000 01 07	046	0.6-	0.3+	2000 02 05	704	0.4+	0.3+
1998 09 18	699	0.6-	0.2-	2000 01 07	046	0.3-	0.2-	2000 02 05	704	0.8+	0.3-
1998 09 21	809	0.1+	0.6+	2000 01 07	046	0.2+	0.1+	2000 02 05	704	0.1-	0.3+
1998 09 21	809	0.5-	1.0-	2000 01 07	704	0.3+	0.1-	2000 02 06	704	0.3+	0.5+
1998 09 21	809	0.0	0.1+	2000 01 07	704	0.5+	0.4+	2000 02 06	704	0.1-	0.2+
1998 09 23	809	0.3+	0.4+	2000 01 07	704	0.2-	0.2-	2000 02 06	704	0.2+	0.2+
1998 09 23	809	0.8-	1.0+	2000 01 07	704	0.3+	0.2+	2000 02 06	704	0.2-	0.6+
1998 09 23	809	0.1-	1.1+	2000 01 07	704	0.7+	0.1+	2000 02 06	704	0.4+	0.4-
1998 09 29	704	0.5-	1.1-	2000 01 30	703	0.1+	0.1+	2000 02 12	704	(2.7+	2.4+)
1998 09 29	704	0.4-	0.7+	2000 01 30	703	0.1-	0.3-	2000 02 12	704	(2.1+	2.4+)
1998 09 29	704	0.3-	0.5-	2000 01 30	703	0.5-	0.1-	2000 02 12	704	(0.3+	2.8+)
1998 09 29	704	0.3-	0.1-	2000 01 30	703	0.6-	0.4+				

(13758)* 1998 SN₇₄ = 2000 AF₆₁

Discovered 1998 Sept. 21 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (*MPC* 37775)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	349.46362		(2000.0)	P	Q
<i>n</i>	0.21841057	ω	50.66918	-0.83633253	-0.54190028
<i>a</i>	2.7307815	Ω	96.36752	+0.47377710	-0.79061930
<i>e</i>	0.0348205	<i>i</i>	4.79169	+0.27583177	-0.28507055
<i>P</i>	4.51	<i>H</i>	13.6	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1949 11 25	675	1.0-	0.2-	1998 09 23	809	0.3+	1.8-	1999 11 16	704	0.3+	0.7+
1949 11 25	675	1.0+	1.8-	1998 09 23	809	0.4-	1.4-	1999 11 16	704	0.1-	0.1-
1992 06 05	413	0.8+	0.2+	1998 09 26	704	0.1+	0.4-	1999 12 28	652	0.6-	0.1-
1992 06 05	413	0.7-	0.0	1998 09 26	704	0.1+	0.1-	1999 12 28	652	0.2+	0.1+
1996 04 20	121	0.4+	0.3-	1998 09 26	704	0.4+	0.0	1999 12 28	652	0.9+	0.5+
1996 04 20	121	0.6+	0.1-	1998 09 26	704	0.7+	0.2-	2000 01 04	704	0.1-	1.3-
1996 04 20	121	0.2+	0.3-	1998 09 26	704	0.9+	0.6-	2000 01 04	704	0.7-	0.6-
1996 04 20	121	0.1-	0.3-	1998 09 27	704	0.4+	0.2+	2000 01 04	704	0.3+	0.8-
1996 04 20	121	0.3-	0.2-	1998 09 27	704	0.5-	0.2+	2000 01 05	699	0.3+	0.1-
1996 04 20	121	0.1-	0.2+	1998 09 27	704	0.3+	0.1+	2000 01 05	699	1.0+	0.4+
1996 04 20	121	0.3-	0.1-	1998 09 27	704	1.3-	1.2-	2000 01 05	699	0.3+	0.1-
1996 04 20	121	0.1+	0.1-	1998 10 11	699	0.2-	0.2+	2000 01 06	704	0.1+	0.6-
1996 04 20	121	0.1+	0.3+	1998 10 11	699	0.0	0.9+	2000 01 06	704	0.7+	0.5-
1996 04 20	121	0.1-	0.5-	1998 10 11	699	0.4-	0.3-	2000 01 06	704	0.0	0.7-
1996 04 20	121	0.1-	0.0	1998 10 20	699	0.2-	0.1+	2000 01 06	704	0.1+	0.0
1996 04 20	121	0.5+	0.4-	1998 10 20	699	0.4+	0.2+	2000 01 30	704	0.0	0.0
1996 04 20	121	0.2-	0.5-	1998 10 20	699	0.2+	0.1+	2000 01 30	704	0.4-	0.2+
1996 04 20	121	0.3-	0.3-	1998 11 10	704	1.2-	0.6-	2000 01 30	704	0.2-	0.9+
1996 04 20	121	0.2-	0.3-	1998 11 10	704	0.5-	0.2-	2000 01 30	704	0.4-	0.9+
1996 04 20	121	0.1-	0.4-	1998 11 10	704	0.5-	0.2+	2000 01 30	704	0.0	1.1+

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M.P.C. 38389

1996 04 20	121	0.1+	0.3+	1998 11 10	704	0.9-	1.3+	2000 02 07	703	0.2-	0.2-
1996 04 20	121	0.3-	0.1-	1998 11 11	704	1.4+	1.1+	2000 02 07	703	0.1+	0.2+
1996 04 20	121	0.0	0.3-	1998 11 11	704	0.6+	0.4-	2000 02 07	703	0.8-	0.5+
1996 04 20	121	0.4-	0.4-	1998 11 11	704	0.3+	1.9+	2000 02 07	703	0.2+	0.7+
1998 09 18	699	0.1-	0.3-	1998 11 11	704	0.3-	0.2+	2000 02 11	704	0.2-	0.4+
1998 09 18	699	0.0	0.3-	1998 11 11	704	1.1-	0.2+	2000 02 11	704	0.1-	0.3-
1998 09 18	699	0.2+	0.0	1998 11 14	699	1.5+	0.7+	2000 02 11	704	0.5-	0.2+
1998 09 21	809	0.3+	1.8-	1998 11 14	699	0.0	0.5+	2000 02 11	704	0.1+	0.0
1998 09 21	809	(0.1- 2.2-)		1998 11 14	699	0.2+	0.6+	2000 02 11	704	0.2-	0.1+
1998 09 21	809	(0.3- 2.3-)		1999 11 16	704	0.5+	0.1+				
1998 09 23	809	0.3+	1.3-	1999 11 16	704	0.4-	0.3-				

(13759)* 1998 SK₁₂₃ = 1981 UC₁₅ = 1992 SS₈ = 1996 HE₈

Discovered 1998 Sept. 26 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 33042)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		86.93358		(2000.0)		P		Q	
<i>n</i>		0.17197465	ω	4.96956		+0.93763330		-0.34750537	
<i>a</i>		3.2025292	Ω	15.37487		+0.31773898		+0.84604073	
<i>e</i>		0.2031561	<i>i</i>	1.97872		+0.14101678		+0.40429581	
<i>P</i>		5.73	<i>H</i>	13.6		<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1981 10 23	095	1.3+	0.8-	1998 09 27	704	0.9+	0.3+	1998 11 10	704	0.3+	0.5+
1992 09 27	691	1.1-	0.2-	1998 09 27	704	0.9+	1.0+	1998 11 11	704	1.1+	0.8+
1992 09 27	691	1.1-	0.3-	1998 09 27	704	0.0	0.8+	1998 11 11	704	0.3+	1.1+
1992 09 27	691	1.0-	0.1+	1998 09 27	704	0.4+	0.6-	1998 11 11	704	0.9+	0.3-
1992 10 04	691	0.2-	0.3-	1998 09 27	704	0.7-	0.2+	1998 11 11	704	0.4-	1.4+
1992 10 04	691	0.2-	0.3-	1998 10 11	699	0.3-	0.5-	1999 01 18	691	1.1-	0.2-
1992 10 04	691	0.2+	0.6-	1998 10 11	699	0.0	0.8-	1999 01 18	691	(2.3- 0.3+)	
1995 03 07	691	0.4+	0.0	1998 10 11	699	0.3+	0.7-	2000 01 04	704	0.4-	1.1-
1995 03 07	691	0.3+	0.1-	1998 10 17	699	0.1+	0.5+	2000 01 04	704	0.7-	0.2-
1995 03 07	691	0.2+	0.1-	1998 10 17	699	0.1-	0.0	2000 01 04	704	0.5+	0.1-
1996 04 17	809	(2.2+ 3.6+)		1998 10 17	699	0.1-	0.3+	2000 01 04	704	0.0	1.3+
1996 04 17	809	(2.3+ 4.3+)		1998 10 28	704	0.2-	0.3-	2000 01 06	704	0.2-	0.1+
1996 04 17	809	(1.5+ 3.9+)		1998 10 28	704	1.0-	0.2+	2000 01 06	704	0.0	0.0
1996 04 18	809	0.9+	1.5+	1998 10 28	704	0.8-	0.5-	2000 01 06	704	0.1-	0.8-
1996 04 18	809	1.0+	0.7+	1998 10 28	704	0.5-	0.2-	2000 01 06	704	0.4+	1.6-
1996 04 18	809	1.3+	1.4+	1998 10 28	704	0.3-	0.3+	2000 01 30	704	0.5-	0.7+
1998 09 18	699	0.3+	0.6+	1998 10 29	704	0.4-	0.4+	2000 01 30	704	0.2-	0.6+
1998 09 18	699	0.1+	0.2+	1998 10 29	704	1.1-	0.2-	2000 01 30	704	0.3+	0.6+
1998 09 18	699	0.7+	0.8+	1998 10 29	704	0.7-	0.6+	2000 02 11	704	0.3-	0.1+
1998 09 26	704	0.2+	0.2+	1998 10 29	704	0.8-	1.1+	2000 02 11	704	0.1+	1.1+
1998 09 26	704	0.9+	0.3-	1998 10 29	704	0.0	1.0+	2000 02 11	704	0.2-	0.3+
1998 09 26	704	0.5+	0.6-	1998 11 10	704	0.1+	0.2-	2000 02 11	704	0.7-	0.1+
1998 09 26	704	0.1-	0.3+	1998 11 10	704	0.1+	0.2+	2000 02 11	704	0.7-	0.8+
1998 09 26	704	0.1+	0.7+	1998 11 10	704	1.1+	1.7-				

(13760)* 1998 SN₁₂₃ = 1986 WB₁₁ = 1997 HZ₁₂

Discovered 1998 Sept. 26 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. B. G. Marsden (*MPC* 33042)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		148.09339		(2000.0)		P		Q	
<i>n</i>		0.24122672	ω	327.36767		+0.95166496		+0.30687672	
<i>a</i>		2.5557543	Ω	14.77718		-0.27006649		+0.85573110	
<i>e</i>		0.1736114	<i>i</i>	2.84693		-0.14628020		+0.41659448	
<i>P</i>		4.09	<i>H</i>	14.2		<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1986 11 30	381	0.3+	0.3+	1998 09 27	704	0.4+	0.3-	2000 01 04	704	0.7+	0.4+
1986 11 30	381	0.5+	0.3+	1998 09 27	704	0.9+	0.7+	2000 01 04	704	0.1-	1.0-
1986 12 01	381	0.6+	0.3-	1998 09 27	704	0.5+	0.2+	2000 01 04	704	1.0+	0.6+
1986 12 01	381	0.6-	1.2-	1998 09 27	704	1.1+	0.6+	2000 01 04	704	0.4+	0.3-

1994 11 05	691	0.3-	0.1-	1998 09 27	704	0.7+	0.4+	2000 01 04	704	0.2+	1.9-
1994 11 05	691	0.3-	0.1+	1998 10 12	012	0.4-	0.1-	2000 01 06	704	0.1-	0.6-
1994 11 05	691	0.6-	0.1-	1998 10 12	012	0.1-	0.1+	2000 01 06	704	0.3-	1.4-
1997 04 11	704	0.3+	0.2+	1998 10 12	012	0.5-	0.2-	2000 01 06	704	0.4+	0.7+
1997 04 11	704	0.2+	0.0	1998 10 18	012	0.3-	0.1-	2000 01 30	703	0.2-	0.6+
1997 04 30	704	0.8+	0.3+	1998 10 18	012	0.5-	0.4+	2000 01 30	703	0.2-	0.2-
1997 04 30	704	0.5-	0.2+	1998 10 18	012	0.4-	0.1+	2000 01 30	703	0.8-	0.7+
1997 04 30	704	0.1+	0.0	1998 10 28	704	1.4+	2.0+	2000 01 30	704	1.0-	0.4+
1997 04 30	704	0.2-	0.3-	1998 10 28	704	0.8-	0.4+	2000 01 30	703	(0.3+ 2.6+)	
1997 04 30	704	0.4+	0.1-	1998 10 28	704	0.6+	0.1+	2000 01 30	704	0.3+	0.4-
1997 05 01	704	0.1-	0.8+	1998 10 28	704	0.4+	0.0	2000 01 30	704	0.2-	1.5+
1997 05 01	704	0.0	0.4+	1998 10 28	704	0.2+	1.7+	2000 02 03	704	0.1-	0.3+
1997 05 01	704	0.1-	0.6+	1998 10 29	704	0.4-	1.5-	2000 02 03	704	0.0	1.1+
1997 05 01	704	0.0	0.4+	1998 10 29	704	0.1+	1.6-	2000 02 03	704	0.2+	0.3+
1997 05 01	704	0.1-	0.7+	1998 10 29	704	1.1-	1.9-	2000 02 03	704	0.3-	0.8+
1998 09 18	699	0.0	0.4+	1998 10 29	704	1.1-	0.7-	2000 02 03	704	0.5-	1.3+
1998 09 18	699	0.1-	0.3+	1998 10 29	704	0.1-	1.0-	2000 02 11	704	0.1+	0.3+
1998 09 18	699	0.7-	0.6+	1998 11 10	699	0.2-	0.7+	2000 02 11	704	0.1+	0.1+
1998 09 26	704	0.8-	0.1+	1998 11 10	699	0.2-	0.1+	2000 02 11	704	0.2-	0.6+
1998 09 26	704	0.5+	0.3+	1998 11 10	699	0.5+	0.8+	2000 02 11	704	1.1+	0.2-
1998 09 26	704	0.3-	0.2+	1999 01 11	704	2.0-	0.6-	2000 02 11	704	1.0+	0.8-
1998 09 26	704	0.3+	1.0+	1999 01 11	704	1.0+	0.6-				
1998 09 26	704	0.2+	1.3+	1999 01 11	704	0.3-	0.7-				

(13761)* 1998 SA₁₃₀ = 1974 HN₁ = 1985 DD₄

Discovered 1998 Sept. 26 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 33290)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		342.50250		(2000.0)		P		Q	
<i>n</i>		0.26299251	ω	9.51698		-0.99882820		-0.04748788	
<i>a</i>		2.4127211	Ω	167.74952		+0.04100535		-0.93284052	
<i>e</i>		0.1188893	<i>i</i>	2.52142		+0.02570596		-0.35714627	
<i>P</i>		3.75	<i>H</i>	14.1		<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1974 04 24	805	1.0+	0.2-	1998 10 29	704	0.0	0.6+	2000 02 05	704	0.2-	0.1-
1974 04 25	805	1.0-	0.6+	1998 10 29	704	0.0	0.0	2000 02 06	704	0.1+	0.4+
1985 02 22	675	0.4-	1.8-	1998 10 29	704	0.7-	0.6+	2000 02 06	704	0.2+	0.6+
1985 02 23	675	(1.2-	3.5-)	1999 01 09	910	1.4-	0.3-	2000 02 06	704	0.2-	0.6+
1997 06 29	704	0.2-	0.3-	1999 01 09	910	1.4-	0.4-	2000 02 06	704	0.9+	1.1+
1997 06 29	704	0.7+	0.2+	1999 01 09	910	1.4-	0.4-	2000 02 06	704	0.5+	0.1+
1997 06 29	704	0.6-	1.9+	1999 12 05	703	0.3-	0.3-	2000 02 07	691	0.3-	0.7-
1997 06 29	704	0.0	0.1+	1999 12 05	703	0.6+	0.0	2000 02 07	691	0.3-	0.7-
1998 09 26	704	0.5-	0.8+	1999 12 05	703	0.4+	0.0	2000 02 07	691	0.3-	0.8-
1998 09 26	704	1.3+	1.3-	1999 12 05	703	1.3+	0.7+	2000 02 10	106	0.3+	0.1-
1998 09 26	704	0.1+	1.7-	2000 01 05	704	0.3-	0.5-	2000 02 10	106	0.0	0.3+
1998 09 26	704	0.5+	0.8-	2000 01 05	704	0.2-	0.2+	2000 02 10	106	0.0	0.4-
1998 09 27	704	0.1-	1.4+	2000 01 05	704	0.1+	0.5+	2000 02 11	691	0.7-	0.8-
1998 09 27	704	0.5-	0.2-	2000 01 05	704	0.8+	0.1+	2000 02 11	691	0.7-	0.8-
1998 09 27	704	1.1+	0.7+	2000 02 01	703	0.2+	0.1+	2000 02 11	691	0.8-	0.7-
1998 09 27	704	1.7+	0.8+	2000 02 01	703	0.1+	0.0	2000 02 12	704	0.0	0.3+
1998 09 27	704	0.1+	0.4+	2000 02 01	703	0.1+	0.1-	2000 02 12	704	0.3+	0.7+
1998 10 11	699	0.3+	0.2+	2000 02 01	703	0.1+	0.0	2000 02 12	704	0.5-	0.5+
1998 10 11	699	0.1-	1.0+	2000 02 02	704	0.2-	0.2+	2000 02 12	704	0.0	0.6+
1998 10 11	699	0.0	0.6+	2000 02 02	704	0.0	0.3+	2000 02 12	704	0.3-	0.9+
1998 10 28	704	0.9-	0.0	2000 02 02	704	0.1-	0.3-	2000 02 13	704	0.3+	0.0
1998 10 28	704	0.3+	0.8-	2000 02 02	704	0.1+	0.1-	2000 02 13	704	0.4+	0.4+
1998 10 28	704	0.7-	0.8-	2000 02 02	704	0.2-	0.4-	2000 02 13	704	0.1-	0.7+
1998 10 28	704	0.0	0.0	2000 02 05	704	0.1-	0.3+				
1998 10 29	704	0.3+	0.7+	2000 02 05	704	0.7+	0.7+				

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	153.45285		(2000.0)	P		Q	
<i>n</i>	0.28918819	ω	354.70246	+0.98993834		-0.13711137	
<i>a</i>	2.2647261	Ω	13.33186	+0.13475499		+0.83813952	
<i>e</i>	0.2157593	<i>i</i>	8.72152	+0.04316444		+0.52794187	
<i>P</i>	3.41	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1981 10 03	095	(2.1+	4.2+)	1998 09 27	704	0.2+	0.5+	1998 12 13	327	0.1+	0.5-
1981 11 19	095	2.0+	1.5-	1998 09 27	704	0.4-	0.4+	1998 12 13	327	0.1+	0.3-
1981 11 24	095	0.8-	0.1-	1998 10 17	699	0.6+	0.2-	1998 12 13	327	0.1+	0.3-
1991 09 16	675	(1.5-	3.2-)	1998 10 17	699	0.3+	0.1+	1999 01 08	704	0.8-	0.0
1991 09 16	675	0.3-	0.8-	1998 10 17	699	0.5+	0.0	1999 01 08	704	0.7+	0.1+
1998 08 28	704	(2.3-	1.8-)	1998 10 28	704	0.7-	0.2-	1999 01 08	704	0.2-	0.2+
1998 08 28	704	(2.1-	0.1+)	1998 10 28	704	0.3-	0.9-	1999 01 08	704	0.1-	0.5+
1998 08 28	704	0.7-	0.5+	1998 10 28	704	1.1-	0.3-	1999 01 08	704	0.3+	0.6-
1998 08 28	704	(2.4-	0.4+)	1998 10 28	704	1.7-	1.0-	1999 01 14	699	0.5-	1.0-
1998 08 28	704	0.5+	0.3+	1998 10 28	704	1.3-	0.8-	1999 01 14	699	0.4-	0.9-
1998 08 31	704	1.1-	0.7-	1998 10 29	704	0.8-	0.1+	1999 01 14	699	0.4-	0.3-
1998 08 31	704	(4.6+	1.3-)	1998 10 29	704	0.3-	0.8+	2000 01 04	704	0.2-	0.6+
1998 08 31	704	1.8+	1.4-	1998 10 29	704	1.0-	0.2-	2000 01 04	704	0.2-	0.4-
1998 08 31	704	(2.6-	2.7+)	1998 10 29	704	0.9-	0.3+	2000 01 04	704	0.4+	1.1-
1998 08 31	704	(0.3-	2.4+)	1998 10 29	704	0.8-	1.0+	2000 01 04	704	0.3+	0.2+
1998 09 18	699	0.2+	0.4+	1998 11 17	699	0.1-	0.4+	2000 02 06	704	0.0	0.4-
1998 09 18	699	0.1+	0.6+	1998 11 17	699	0.1+	0.4+	2000 02 06	704	0.2-	0.2-
1998 09 18	699	0.2+	0.8+	1998 11 17	699	0.1-	0.7+	2000 02 06	704	0.0	0.2+
1998 09 26	704	0.7+	0.3+	1998 12 06	327	0.5+	0.2-	2000 02 06	704	0.2-	0.7+
1998 09 26	704	0.3+	0.5+	1998 12 06	327	0.5+	0.2+	2000 02 11	704	0.8+	1.6+
1998 09 26	704	1.0+	0.1-	1998 12 06	327	0.5+	0.2-	2000 02 11	704	0.6+	0.3+
1998 09 26	704	0.8+	0.3-	1998 12 09	704	0.9-	1.2-	2000 02 11	704	0.5+	0.6+
1998 09 26	704	0.2+	0.3+	1998 12 09	704	0.6-	1.8+	2000 02 11	704	0.3+	0.4+
1998 09 27	704	0.1+	0.5+	1998 12 09	704	0.5+	0.7-	2000 02 11	704	0.1-	0.2-
1998 09 27	704	0.6+	1.4+	1998 12 09	704	1.3+	0.9-				
1998 09 27	704	0.5-	1.0+	1998 12 09	704	2.0+	1.2+				

(13763)* 1998 SO₁₃₅ = 1981 UE₄ = 1987 YS₄ = 1995 FG₇

Discovered 1998 Sept. 26 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 33044)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	56.12217		(2000.0)	P		Q	
<i>n</i>	0.17071296	ω	22.73692	+0.49230196		-0.86235675	
<i>a</i>	3.2182890	Ω	38.06182	+0.76621323		+0.36489513	
<i>e</i>	0.1422163	<i>i</i>	11.05677	+0.41298436		+0.35098772	
<i>P</i>	5.77	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1981 10 30	381	0.7+	0.1+	1998 09 27	704	0.3-	0.3-	1998 11 11	704	0.1+	0.0
1981 10 30	381	0.3-	0.0	1998 09 27	704	0.5-	0.5-	1998 11 11	704	0.3-	0.4-
1987 12 23	010	0.4-	0.9-	1998 09 27	704	0.4-	0.6+	1998 11 11	704	1.1-	1.7+
1987 12 23	010	(1.7+	2.6+)	1998 09 27	704	0.3+	0.5-	1998 11 11	704	1.1+	1.2+
1995 03 24	691	0.0	0.2-	1998 10 20	699	0.1+	1.3+	1998 12 15	704	1.5-	0.9-
1995 03 24	691	0.2+	0.4+	1998 10 20	699	0.4-	0.8+	1998 12 15	704	0.0	0.0
1995 03 24	691	0.3-	0.3-	1998 10 20	699	0.4+	0.5+	1998 12 15	704	0.4+	1.4-
1995 04 06	691	0.3-	0.4-	1998 10 28	704	1.5+	0.6-	1998 12 15	704	0.5+	1.5-
1995 04 06	691	0.2-	0.3-	1998 10 28	704	0.0	0.0	2000 01 02	704	0.1-	0.8+
1995 04 06	691	0.0	0.3-	1998 10 28	704	0.7+	0.0	2000 01 02	704	0.2-	0.3+
1998 09 18	699	0.2-	0.5+	1998 10 29	704	0.3-	0.5-	2000 01 02	704	0.2-	1.5+
1998 09 18	699	0.3-	1.4-	1998 10 29	704	0.1+	0.1+	2000 01 02	704	0.1+	0.9+
1998 09 18	699	0.2+	0.8-	1998 10 29	704	(2.3+	0.8+)	2000 01 02	704	0.4+	1.2+
1998 09 26	704	0.1-	0.3-	1998 10 29	704	0.8-	0.7+	2000 01 29	704	0.1-	0.3-
1998 09 26	704	1.0-	0.1-	1998 10 29	704	0.2+	0.8-	2000 01 29	704	0.1-	0.3-
1998 09 26	704	0.1-	0.8-	1998 11 10	704	0.1-	0.8-	2000 01 29	704	0.4+	0.2-
1998 09 26	704	0.3+	0.7-	1998 11 10	704	0.1+	1.0+	2000 01 29	704	0.2+	0.1-

1998 09 26	704	0.0	0.4-	1998 11 10	704	0.7-	0.1+	2000 01 29	704	0.6+	0.5+
1998 09 27	704	0.3+	0.5+	1998 11 10	704	1.5+	0.6-				

(13764)* 1998 SW₁₃₅ = 1997 JX₁₃

Discovered 1998 Sept. 26 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. S. Nakano (*MPC* 33511)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	164.17784		(2000.0)	P		Q	
<i>n</i>	0.29029238	ω	285.89333	+0.99734096		-0.02934385	
<i>a</i>	2.2589795	Ω	75.82425	+0.05433390		+0.90942930	
<i>e</i>	0.0150666	<i>i</i>	3.94524	-0.04856786		+0.41482199	
<i>P</i>	3.40	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1995 11 30	327	1.0-	1.0-	1998 09 27	704	0.6-	0.8-	1998 11 10	704	0.6-	0.4-
1995 11 30	327	0.8-	0.7-	1998 09 27	704	0.2-	0.8-	1998 11 10	704	0.3+	0.8+
1995 12 25	566	0.2+	1.0+	1998 09 27	704	0.2+	0.0	1998 11 10	704	0.3+	0.7+
1995 12 25	566	1.0+	0.7+	1998 09 27	704	0.1+	0.5-	1998 11 10	704	2.1+	1.6+
1995 12 25	566	0.3+	1.0+	1998 09 27	704	0.8-	0.4-	1998 11 11	704	1.8+	0.2-
1997 05 03	809	0.6-	1.2+	1998 10 11	699	0.3+	0.1+	1998 11 11	704	0.6+	0.4-
1997 05 03	809	0.4+	0.0	1998 10 11	699	0.3-	0.9+	1998 11 11	704	0.3+	0.4+
1997 05 03	809	0.2+	0.9+	1998 10 11	699	0.2-	0.4+	1998 11 11	704	0.8-	1.2+
1997 05 04	809	0.7+	0.8+	1998 10 20	699	0.5-	0.2+	2000 01 10	699	0.6-	0.4-
1997 05 04	809	0.1-	1.3+	1998 10 20	699	0.7-	0.9+	2000 01 10	699	0.1-	1.3+
1997 05 04	809	(0.5-	3.7+)	1998 10 20	699	0.2-	0.8+	2000 01 10	699	0.4+	0.1+
1997 05 07	704	0.2+	0.1+	1998 10 28	704	0.5+	1.6+	2000 02 11	704	0.5+	0.1+
1997 05 07	704	0.2+	0.2+	1998 10 28	704	0.4-	0.3+	2000 02 11	704	0.0	0.0
1997 05 07	704	0.0	0.1+	1998 10 28	704	1.1-	1.1-	2000 02 11	704	0.0	0.4-
1997 05 07	704	0.4+	0.2+	1998 10 28	704	1.6-	0.0	2000 02 11	704	0.5-	0.6+
1997 05 07	704	0.4+	0.5+	1998 10 28	704	0.1+	0.6+	2000 02 11	704	0.4+	0.7-
1998 09 26	704	0.1-	0.1+	1998 10 29	704	0.3-	0.5+	2000 02 16	703	0.7-	0.3-
1998 09 26	704	0.3+	0.5-	1998 10 29	704	0.7-	0.7+	2000 02 16	703	1.0+	0.3+
1998 09 26	704	0.4+	0.4-	1998 10 29	704	0.6+	0.1+	2000 02 16	703	0.5+	0.3+
1998 09 26	704	0.2+	0.1-	1998 10 29	704	0.1+	0.2-	2000 02 16	703	0.6-	0.1+
1998 09 26	704	0.3-	0.3-	1998 10 29	704	0.7-	0.9-				

(13765)* 1998 SM₁₃₈ = 1993 SP₇

Discovered 1998 Sept. 26 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 33294)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	80.49061		(2000.0)	P		Q	
<i>n</i>	0.20284424	ω	125.21953	+0.66106582		-0.75014849	
<i>a</i>	2.8687604	Ω	283.39063	+0.68281541		+0.61050633	
<i>e</i>	0.0634133	<i>i</i>	0.96641	+0.31105480		+0.25408513	
<i>P</i>	4.86	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1993 09 17	809	0.6-	0.5+	1998 09 27	704	0.3-	0.1+	2000 01 05	704	1.3+	0.3-
1993 09 17	809	0.7-	0.3-	1998 10 28	704	0.3+	0.9-	2000 01 05	704	0.3+	0.8-
1993 09 17	809	1.8-	0.9-	1998 10 28	704	0.2-	0.7-	2000 01 05	704	0.0	0.1+
1993 09 18	809	1.3+	1.6+	1998 10 28	704	0.8+	0.4-	2000 01 06	691	0.3+	0.0
1993 09 18	809	1.5+	0.9+	1998 10 28	704	0.3+	0.3-	2000 01 06	691	0.2+	0.1-
1993 09 18	809	0.3+	0.8+	1998 10 28	704	1.5+	0.1-	2000 01 06	691	0.1+	0.1-
1993 09 22	809	(1.0-	2.2-)	1998 10 29	704	0.5+	0.5-	2000 01 09	691	0.1-	0.5-
1993 09 22	809	(1.1-	2.2-)	1998 10 29	704	0.2+	0.9+	2000 01 09	691	0.2-	0.5-
1993 09 22	809	1.2-	0.4-	1998 10 29	704	0.8-	1.4+	2000 01 09	691	0.0	0.3-
1995 02 02	691	0.0	0.0	1998 10 29	704	0.2-	0.1-	2000 01 16	691	0.2+	0.3-
1995 02 02	691	0.5+	0.0	1998 10 29	704	0.8-	0.6+	2000 01 16	691	0.3+	0.6-
1998 09 18	809	0.3+	0.4+	1998 11 10	704	(2.9+	3.2-)	2000 01 16	691	0.1+	0.3-
1998 09 18	809	0.2-	0.1+	1998 11 10	704	0.2+	0.2+	2000 01 30	703	0.4-	0.4+
1998 09 18	809	0.3-	0.6-	1998 11 10	704	1.2-	0.6-	2000 01 30	703	0.4+	0.4+
1998 09 20	809	0.1+	0.5+	1998 11 10	704	0.4+	0.7-	2000 01 30	703	0.6+	0.1+
1998 09 20	809	1.1-	0.7-	1998 11 10	704	(2.8-	0.3-)	2000 01 30	703	1.4-	0.0

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1998 09 20	809	0.1-	0.4+	1999 01 09	691	0.7+	0.4-	2000 02 02	704	0.2+	0.2+
1998 09 26	704	1.4+	0.4+	1999 01 09	691	1.2+	0.5-	2000 02 02	704	0.2-	0.2+
1998 09 26	704	1.0+	0.2-	1999 01 09	691	0.2+	1.1-	2000 02 02	704	0.0	0.6+
1998 09 26	704	1.3+	1.2-	1999 01 13	691	0.3-	0.3-	2000 02 02	704	0.9+	0.9+
1998 09 26	704	1.3+	0.3+	1999 01 13	691	0.5-	0.6-	2000 02 02	704	0.1+	0.4+
1998 09 26	704	0.8+	1.1-	1999 01 13	691	0.2-	0.1-	2000 02 11	704	0.4-	0.1-
1998 09 27	704	0.2-	0.9+	1999 01 18	691	0.6-	0.1-	2000 02 11	704	0.0	0.1-
1998 09 27	704	1.9-	0.0	1999 01 18	691	1.4-	0.2+	2000 02 11	704	0.1-	0.3-
1998 09 27	704	1.2-	0.6+	2000 01 05	704	0.8-	0.3+	2000 02 11	704	0.7-	1.9+
1998 09 27	704	0.5-	2.0+	2000 01 05	704	0.0	0.0	2000 02 11	704	0.7-	0.1+

(13766)* 1998 SA₁₃₉ = 1990 EG₄ = 1991 RW₈ = 1997 ES₅₀

Discovered 1998 Sept. 26 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 33295)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	206.98624	(2000.0)		P	Q		
<i>n</i>	0.28585563	ω	324.41670	+0.52083446	+0.85327616		
<i>a</i>	2.2822938	Ω	336.93904	-0.76736321	+0.45487730		
<i>e</i>	0.1728008	<i>i</i>	3.73548	-0.37401226	+0.25496361		
<i>P</i>	3.45	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1990 03 02	809	1.3+	0.6+	1998 09 27	704	1.2-	1.2+	2000 01 04	704	0.6+	0.1+
1990 03 02	809	0.0	0.1+	1998 09 27	704	0.8-	0.6+	2000 01 04	704	0.8-	0.0
1990 03 02	809	0.5+	0.4-	1998 09 27	704	1.6-	1.4+	2000 01 04	704	0.6+	0.1+
1990 03 04	809	0.2-	1.7+	1998 10 11	699	0.1-	0.3+	2000 01 06	704	0.3-	0.1-
1990 03 04	809	(0.3- 2.2+)		1998 10 11	699	0.1+	0.3-	2000 01 06	704	1.0-	0.2+
1990 03 04	809	0.4-	2.0+	1998 10 11	699	0.1+	0.5+	2000 01 06	704	0.6-	0.2+
1991 09 11	675	0.5+	1.3-	1998 10 28	704	0.6+	0.5-	2000 01 25	120	0.9-	0.0
1991 09 11	675	(1.1+ 2.8-)		1998 10 28	704	0.0	0.5-	2000 01 25	120	1.5-	0.5-
1991 09 14	675	0.6+	0.6-	1998 10 28	704	0.6+	0.3-	2000 01 25	120	0.4-	0.1-
1991 09 14	675	0.3+	0.7-	1998 10 28	704	0.3+	0.4-	2000 01 26	120	0.6+	0.4+
1993 01 26	691	0.1-	0.9-	1998 10 28	704	0.2-	0.7+	2000 01 26	120	1.2-	0.1+
1993 01 26	691	0.1-	0.6-	1998 10 29	704	1.0+	0.8-	2000 01 26	120	0.5-	0.1-
1993 01 26	691	0.3+	0.5-	1998 10 29	704	0.1-	0.6-	2000 01 27	120	0.4+	0.2+
1997 03 05	809	(1.1- 2.2-)		1998 10 29	704	0.7+	0.6-	2000 01 27	120	0.8+	0.3-
1997 03 05	809	(2.2- 2.7-)		1998 10 29	704	0.6+	0.4+	2000 02 03	704	0.2-	0.2+
1997 03 05	809	(1.4- 2.7-)		1998 10 29	704	0.8+	0.4-	2000 02 03	704	0.5+	0.1+
1997 03 06	809	0.2+	0.3+	1998 11 10	704	0.4-	0.6+	2000 02 03	704	0.3+	0.5+
1997 03 06	809	0.4+	0.1+	1998 11 10	704	0.2-	1.4+	2000 02 03	704	0.2-	0.5+
1997 03 06	809	0.4+	0.1-	1998 11 10	704	0.6+	0.4+	2000 02 03	704	0.5+	0.6+
1998 09 14	699	0.1+	0.3+	1998 11 10	704	0.2-	0.6+	2000 02 05	704	0.2-	0.5+
1998 09 14	699	0.2+	1.2+	1998 11 11	704	0.1+	0.1-	2000 02 05	704	0.4+	0.2-
1998 09 14	699	0.3+	0.6+	1998 11 11	704	0.4-	0.4+	2000 02 05	704	0.5+	0.0
1998 09 26	704	0.4-	0.3-	1998 11 11	704	0.1+	0.6-	2000 02 11	704	0.0	0.1-
1998 09 26	704	0.6-	0.1+	1998 11 11	704	0.5+	0.7-	2000 02 11	704	0.6+	0.8-
1998 09 26	704	1.1-	0.4+	1998 11 11	704	1.4+	0.1+	2000 02 11	704	0.3-	0.3+
1998 09 26	704	0.6-	0.2-	1998 11 17	699	0.2-	0.1+	2000 02 11	704	1.0+	0.4-
1998 09 26	704	1.5-	0.4+	1998 11 17	699	0.3-	0.4-	2000 02 11	704	0.4+	1.2-
1998 09 27	704	0.6-	0.1-	1998 11 17	699	0.4+	0.2+				
1998 09 27	704	0.5-	0.9+	2000 01 04	704	0.4-	0.6-				

(13767)* 1998 SF₁₄₁ = 1992 EU₁₈

Discovered 1998 Sept. 26 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 33044)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	210.53433	(2000.0)		P	Q		
<i>n</i>	0.23932457	ω	260.52419	+0.30561006	+0.95206520		
<i>a</i>	2.5692785	Ω	27.28197	-0.86189584	+0.28250597		
<i>e</i>	0.0623469	<i>i</i>	1.65067	-0.40464559	+0.11731250		
<i>P</i>	4.12	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1992 03 01	809	0.1-	1.2+	1998 10 28	704	0.0	0.4+	2000 01 04	704	0.6-	0.5-
1992 03 04	809	1.0+	1.2+	1998 10 28	704	0.2+	0.1+	2000 01 04	704	0.5-	0.6-
1994 11 29	691	0.7-	0.5-	1998 10 28	704	0.5+	0.1-	2000 01 05	699	0.1-	0.3+
1994 11 29	691	1.1+	0.5+	1998 10 28	704	0.4-	0.3-	2000 01 05	699	0.2+	0.1-
1994 11 29	691	0.2-	0.2-	1998 10 29	704	0.4+	0.1+	2000 01 05	699	0.0	0.0
1998 09 14	699	0.4-	0.9+	1998 10 29	704	0.8+	0.2-	2000 01 06	704	0.2-	0.1+
1998 09 14	699	1.2-	0.3+	1998 10 29	704	0.6+	0.4+	2000 01 06	704	0.3-	0.2-
1998 09 14	699	0.3-	0.7+	1998 10 29	704	0.9+	0.2-	2000 01 06	704	0.2-	0.3-
1998 09 18	809	(2.9+ 2.6+)		1998 10 29	704	0.5+	0.0	2000 01 06	704	0.0	0.0
1998 09 18	809	(2.1+ 2.3+)		1998 11 11	704	1.6-	0.4-	2000 01 28	652	0.0	0.3-
1998 09 18	809	(1.5+ 2.1+)		1998 11 11	704	1.7-	0.0	2000 01 28	652	0.5+	0.8-
1998 09 20	809	(3.8+ 2.0+)		1998 11 11	704	0.1-	1.8+	2000 01 30	704	0.3+	0.4-
1998 09 20	809	(3.5+ 1.4+)		1998 11 11	704	1.4-	0.2+	2000 01 30	704	0.7+	0.6+
1998 09 20	809	(3.8+ 1.7+)		1998 11 23	699	0.0	0.0	2000 01 30	704	0.2+	0.0
1998 09 26	704	0.8+	1.0-	1998 11 23	699	0.9+	0.3-	2000 01 30	704	0.8+	0.8+
1998 09 26	704	0.6+	0.8-	1998 11 23	699	1.5+	1.1-	2000 02 03	704	0.7+	0.1+
1998 09 26	704	0.5-	0.2+	1999 01 09	691	0.1+	0.2-	2000 02 03	704	0.1-	0.1+
1998 09 26	704	0.8+	0.6-	1999 01 09	691	0.4+	0.4-	2000 02 03	704	0.8+	0.1-
1998 09 26	704	0.4-	0.5-	1999 01 09	691	0.2+	0.3-	2000 02 03	704	0.2-	0.0
1998 09 27	704	0.8-	0.3+	1999 01 13	691	0.2-	0.1+	2000 02 03	704	0.0	0.1+
1998 09 27	704	0.8-	0.7+	1999 01 13	691	0.2-	0.3-	2000 02 07	703	0.2+	0.6+
1998 09 27	704	0.8+	0.9+	1999 01 13	691	0.5-	0.3+	2000 02 07	703	0.2-	0.4+
1998 09 27	704	0.5+	0.1-	1999 11 16	704	0.1+	0.7-	2000 02 07	703	0.1+	0.1+
1998 09 27	704	0.6-	0.5+	1999 11 16	704	0.4+	0.9-	2000 02 07	703	0.5-	0.0
1998 10 23	731	0.3-	0.7-	1999 11 16	704	0.2-	0.2-	2000 02 11	704	0.5-	0.5+
1998 10 23	731	0.0	0.1+	1999 11 16	704	0.0	0.4-	2000 02 11	704	0.3-	0.3+
1998 10 23	731	0.0	0.1+	1999 11 16	704	0.4-	0.4-	2000 02 11	704	0.3-	0.4+
1998 10 24	731	0.2-	0.4+	2000 01 04	704	0.3-	0.3-	2000 02 11	704	0.4-	0.2-
1998 10 24	731	1.0-	0.4+	2000 01 04	704	0.3-	0.3-	2000 02 11	704	0.2-	0.2+
1998 10 24	731	0.6+	0.5+	2000 01 04	704	0.1+	0.4-				

(13768)* 1998 SS₁₄₃ = 1981 EU₄₇ = 1993 TZ₄₂ = 1998 UZ₃₅

Discovered 1998 Sept. 18 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (*MPC* 33708)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	49.95429	(2000.0)		P	Q		
<i>n</i>	0.20162932	ω	215.13941	+0.15650668	-0.98757745		
<i>a</i>	2.8802726	Ω	225.86097	+0.91058844	+0.14977285		
<i>e</i>	0.0506392	<i>i</i>	1.11904	+0.38253673	+0.04752757		
<i>P</i>	4.89	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1981 03 02	413	0.1-	1.0+	1998 10 28	704	0.3+	0.4+	2000 01 13	691	0.5-	0.5-
1981 03 06	413	0.4+	0.1-	1998 10 29	704	0.3+	0.5-	2000 01 13	691	0.4-	0.4-
1981 03 15	413	(6.9+	1.2-)	1998 10 29	704	0.2-	1.1+	2000 02 03	704	0.8+	0.0
1993 10 10	809	0.3-	1.1+	1998 10 29	704	(1.8-	2.8+)	2000 02 03	704	0.0	0.6-
1993 10 10	809	0.2+	0.7+	1998 10 29	704	(2.7-	1.6-)	2000 02 03	704	0.5+	0.5-
1993 10 10	809	1.3-	0.1+	1998 10 29	704	1.0-	0.5+	2000 02 03	704	0.2-	0.3-
1993 10 22	809	1.4+	0.3+	1999 01 07	691	0.3-	0.4-	2000 02 03	704	0.2+	1.1-
1993 10 22	809	0.4-	0.7-	1999 01 07	691	0.3-	0.4-	2000 02 05	704	0.5-	0.5-
1993 10 22	809	0.1+	0.4-	1999 01 07	691	0.2-	0.7-	2000 02 05	704	0.3-	0.4+
1998 09 18	809	(1.7+	3.7+)	1999 01 15	691	0.2+	0.4-	2000 02 05	704	0.2-	1.6-
1998 09 18	809	(0.2+	2.9+)	1999 01 15	691	0.2+	0.4-	2000 02 05	704	0.1+	0.0
1998 09 18	809	(0.9+	3.4+)	1999 01 15	691	0.6+	0.3+	2000 02 05	704	0.4+	0.9+
1998 09 20	809	0.2-	0.4-	1999 12 31	699	0.5+	0.4+	2000 02 05	704	0.6+	0.7+
1998 09 20	809	0.8-	0.2-	1999 12 31	699	0.2-	1.6+	2000 02 05	704	0.6+	0.4+
1998 09 20	809	0.0	0.2-	1999 12 31	699	0.0	0.9+	2000 02 05	704	0.3-	0.6+
1998 10 28	704	0.2+	0.4-	2000 01 11	120	(2.3+	1.4+)	2000 02 05	704	0.3+	0.1-
1998 10 28	704	0.6+	0.3-	2000 01 11	120	0.5-	0.1+	2000 02 05	704	0.1-	0.6+
1998 10 28	704	0.6+	0.0	2000 01 13	691	0.5-	0.4-				

Id. G. V. Williams (*MPC* 33045)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22493226	ω	220.60978	−0.33170950	+0.94277389		
<i>a</i>	2.6777389	Ω	30.06292	−0.84709596	−0.28186682		
<i>e</i>	0.1116386	<i>i</i>	3.87517	−0.41520747	−0.17812494		
<i>P</i>	4.38	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	1
Residuals in seconds of arc							
1992 04 03	303	(2.6− 0.3+)	1998 10 17	327	0.2+ 0.0	2000 01 03	704 0.1− 1.1+
1992 04 03	303	0.5− 0.1−	1998 10 17	327	0.3+ 0.3+	2000 01 03	704 0.7+ 0.5+
1992 04 03	303	0.9− 1.1+	1998 10 17	327	0.2− 0.1−	2000 01 03	704 0.1− 0.2−
1992 04 04	303	0.5+ 0.2−	1998 10 18	327	0.1− 0.1−	2000 01 03	704 0.4+ 0.2+
1992 04 04	303	0.9+ 0.7−	1998 10 18	327	0.3+ 0.4+	2000 01 30	704 0.0 0.2+
1992 04 04	303	(4.0+ 0.4−)	1998 10 18	327	0.1+ 0.0	2000 01 30	704 0.2+ 0.4+
1997 06 28	704	0.2+ 0.7+	1998 10 28	704	1.0− 0.0	2000 01 30	704 0.6− 0.0
1997 06 28	704	0.1+ 0.6+	1998 10 28	704	0.1− 0.5+	2000 01 30	704 0.1+ 0.6+
1997 06 28	704	0.1− 1.1+	1998 10 28	704	0.7+ 0.1+	2000 01 30	704 0.0 2.0+
1997 06 29	704	0.3− 0.6+	1998 10 28	704	0.4+ 0.8−	2000 01 31	704 0.3+ 0.6+
1997 06 29	704	0.0 0.5+	1998 10 29	704	0.9+ 0.8+	2000 01 31	704 0.1− 0.8+
1997 06 29	704	0.2− 0.4+	1998 10 29	704	0.6+ 0.7+	2000 01 31	704 1.0+ 0.7−
1997 06 29	704	0.0 0.0	1998 10 29	704	(4.0+ 0.8−)	2000 02 11	704 1.3+ 0.8−
1998 09 20	809	0.4− 0.7+	1998 10 29	704	0.6+ 1.0−	2000 02 11	704 0.4− 0.2+
1998 09 20	809	1.1− 0.2+	1998 11 10	704	(2.6+ 0.4+)	2000 02 11	704 0.6− 0.9−
1998 09 20	809	0.9− 1.6+	1998 11 10	704	(2.9+ 1.0+)	2000 02 11	704 0.1+ 0.4+
1998 09 21	809	1.3− 1.8−	1998 11 10	704	(2.0+ 2.1+)	2000 02 11	704 0.3− 0.9−
1998 09 21	809	1.9− 1.3−	1998 11 10	704	0.9+ 1.1+	2000 02 11	704 0.3+ 0.2−
1998 09 21	809	(2.2− 1.2−)	1999 01 14	691	0.1+ 0.1+	2000 02 11	704 0.2+ 0.6−
1998 10 15	327	0.3+ 0.1−	1999 01 14	691	0.2+ 0.1−	2000 02 11	704 0.2+ 0.1−
1998 10 15	327	0.5+ 0.0	1999 01 14	691	0.4+ 0.0	2000 02 11	704 0.4− 0.0
1998 10 15	327	0.1+ 0.2−	2000 01 03	704	1.3− 1.0+	2000 02 11	704 0.5− 0.8+

(13770)* 1998 ST₁₄₅ = 1992 OP₃ = 1996 JS₁₃

Discovered 1998 Sept. 20 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (*MPC* 33298)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.18538809	ω	237.85595	+0.91262232	−0.40776987		
<i>a</i>	3.0461281	Ω	146.18353	+0.39045481	+0.84840039		
<i>e</i>	0.0952369	<i>i</i>	2.99269	+0.12110139	+0.33755076		
<i>P</i>	5.32	<i>H</i>	13.1	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1992 07 26	809	0.1+ 0.3−	1998 10 29	704	0.0 0.5−	2000 01 08	106 0.4+ 0.3−
1992 07 26	809	0.1+ 0.0	1998 10 29	704	0.3− 0.0	2000 01 08	106 0.1+ 0.3−
1992 07 26	809	0.8+ 0.0	1998 10 29	704	0.5+ 1.3−	2000 01 09	704 0.3− 0.4−
1992 07 26	809	1.6+ 1.0−	1998 10 29	704	0.2+ 0.4−	2000 01 09	704 0.0 0.5−
1992 07 26	809	1.4+ 0.8−	1998 11 10	704	1.1+ 0.3−	2000 01 09	704 0.2− 0.0
1992 07 26	809	(0.5− 2.2−)	1998 11 10	704	0.5+ 0.5−	2000 02 02	704 0.0 0.5+
1992 07 30	809	0.6− 1.2−	1998 11 10	704	0.1− 0.3−	2000 02 02	704 0.9+ 0.4−
1992 07 30	809	1.0− 0.8−	1998 11 10	704	0.8− 0.5+	2000 02 02	704 0.3+ 0.4−
1992 07 30	809	0.9− 1.3−	1998 11 11	704	0.8− 0.8+	2000 02 02	704 0.1− 0.9−
1992 07 30	809	(0.0 2.1−)	1998 11 11	704	0.8− 0.7−	2000 02 03	704 0.2+ 0.0
1992 07 30	809	(0.2− 2.8−)	1998 11 11	704	0.1+ 0.6−	2000 02 03	704 0.1− 0.1−
1992 07 30	809	(1.0+ 2.4−)	1998 11 11	704	0.8− 0.6+	2000 02 03	704 0.7+ 0.7+
1996 05 11	691	0.8− 0.5+	1998 11 11	704	0.5− 0.5+	2000 02 03	704 0.3+ 0.1−
1996 05 11	691	0.8− 0.5+	1999 12 31	699	0.0 0.0	2000 02 03	704 0.1− 0.1−
1996 05 11	691	0.7− 0.5+	1999 12 31	699	0.7+ 0.3+	2000 02 05	704 0.5− 0.2+
1996 05 20	691	0.4− 0.9−	1999 12 31	699	0.2+ 0.0	2000 02 05	704 0.3− 0.2+
1996 05 20	691	0.2− 0.7−	2000 01 02	120	0.7+ 0.6−	2000 02 05	704 0.3− 0.4+
1996 05 20	691	0.6− 0.5−	2000 01 03	120	0.2− 1.4−	2000 02 05	704 0.2+ 0.3+
1996 06 08	809	0.9+ 0.5−	2000 01 04	120	0.3− 0.1+	2000 02 05	704 0.1− 0.5+
1996 06 08	809	0.6+ 1.9−	2000 01 04	120	1.3− 0.7−	2000 02 06	704 0.1+ 0.0
1996 06 08	809	1.2+ 0.4−	2000 01 05	704	0.2− 0.2−	2000 02 06	704 0.6− 0.3−

1998 09 20	809	(1.3+ 2.5+)	2000 01 05	704	1.4− 0.2−	2000 02 06	704 0.1+ 0.2+
1998 09 20	809	(0.1+ 2.1+)	2000 01 05	704	0.2− 0.0	2000 02 08	704 0.8+ 0.1+
1998 09 20	809	0.2− 1.0+	2000 01 05	704	0.0 0.2+	2000 02 08	691 (0.0 2.6−)
1998 09 21	809	1.4+ 1.7+	2000 01 05	704	0.1− 0.1−	2000 02 08	704 0.4+ 0.1−
1998 09 21	809	0.7+ 1.3+	2000 01 06	704	0.4− 0.7−	2000 02 08	704 0.1− 0.6+
1998 09 21	809	0.6+ 0.8+	2000 01 06	704	0.4− 0.6−	2000 02 08	691 (0.1+ 3.0−)
1998 10 10	699	0.1− 0.1+	2000 01 06	704	0.3− 0.1−	2000 02 08	704 0.5+ 1.2+
1998 10 10	699	0.3− 0.0	2000 01 06	704	0.7− 0.5−	2000 02 08	691 (0.0 2.9−)
1998 10 10	699	0.3+ 0.0	2000 01 07	704	0.4− 1.4−	2000 02 08	704 0.8+ 0.3−
1998 10 28	704	0.1− 0.4−	2000 01 07	704	0.7− 0.3−	2000 02 12	704 1.0+ 0.7−
1998 10 28	704	0.7+ 0.8−	2000 01 07	704	0.3− 0.1+	2000 02 12	704 (0.9+ 2.2+)
1998 10 28	704	0.1+ 0.7−	2000 01 07	704	0.2− 0.1−	2000 02 12	704 0.3+ 0.4−
1998 10 28	704	0.2− 0.7−	2000 01 07	704	0.1− 0.6+	2000 02 12	704 (0.7+ 2.1+)
1998 10 29	704	0.4− 1.1−	2000 01 08	106	0.2− 0.4+		

(13771)* 1998 SG₁₅₉ = 2661 P-L

Discovered 1998 Sept. 26 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. M. E. Sansaturio (*MPC* 34536)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.18208682	ω	105.62590	−0.42556685	−0.90424519		
<i>a</i>	3.0828357	Ω	9.78455	+0.73075731	−0.36629153		
<i>e</i>	0.1222416	<i>i</i>	11.92689	+0.53374770	−0.21947927		
<i>P</i>	5.41	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1960 09 24	675	0.2− 1.2+	1998 09 27	704	0.1+ 1.7−	2000 01 02	704 0.9− 0.7−
1960 09 24	675	1.0+ 0.6−	1998 09 27	704	0.4+ 0.6+	2000 01 10	699 0.1+ 1.1+
1960 09 26	675	0.9− 1.3+	1998 10 11	699	0.8− 0.6−	2000 01 10	699 1.2+ 0.2−
1960 09 26	675	0.1+ 0.2+	1998 10 11	699	1.1+ 0.2−	2000 01 10	699 0.7+ 0.5+
1960 09 28	675	1.1− 0.3−	1998 10 11	699	0.3+ 0.3+	2000 01 29	704 0.1+ 0.0
1995 04 04	691	0.3− 0.1−	1998 10 17	699	0.3+ 0.2+	2000 01 29	704 0.1− 0.2+
1995 04 04	691	0.0 0.1+	1998 10 17	699	0.4+ 0.4−	2000 01 29	704 0.1+ 0.5+
1995 04 04	691	0.0 0.5−	1998 10 17	699	0.4+ 0.4+	2000 01 29	704 0.5− 0.7+
1998 09 26	704	0.3− 0.6+	1998 11 10	704	0.5− 0.4−	2000 01 29	704 0.5− 0.3+
1998 09 26	704	1.0+ 1.0−	1998 11 10	704	(1.3+ 2.0+)	2000 01 30	704 0.4+ 0.3−
1998 09 26	704	0.2+ 1.2+	1998 11 10	704	0.0 1.3+	2000 01 30	704 0.3+ 0.4−
1998 09 26	704	0.7− 0.3−	1998 11 10	704	(3.4− 0.3+)	2000 01 30	704 0.8+ 0.1−
1998 09 26	704	0.7− 1.5−	2000 01 02	704	0.3− 0.1−	2000 01 30	704 0.1− 0.2−
1998 09 27	704	0.2− 0.3−	2000 01 02	704	1.2− 0.9−		

(13772)* 1998 SV₁₆₃ = 1951 XN₁ = 1993 VO₃

Discovered 1998 Sept. 18 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (*MPC* 33300)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.18771248	ω	121.13655	−0.98351079	+0.05977145		
<i>a</i>	3.0209297	Ω	62.78102	−0.13471279	−0.87182469		
<i>e</i>	0.0326144	<i>i</i>	11.06609	+0.12066062	−0.48615748		
<i>P</i>	5.25	<i>H</i>	12.6	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1951 12 01	675	0.2+ 0.8+	1998 11 10	704	0.4− 0.2−	1999 10 20	699 1.4+ 1.2−
1951 12 01	675	0.9− 0.8+	1998 11 10	704	1.6+ 0.1−	1999 10 20	699 0.7− 0.8−
1993 11 11	399	(2.7− 0.7+)	1998 11 10	704	0.2− 1.3−	1999 12 08	703 0.2+ 0.6+
1993 11 11	399	(2.4− 0.3+)	1998 11 11	704	0.4+ 0.1−	1999 12 08	703 0.3+ 0.0
1993 11 16	399	(2.3− 0.0)	1998 11 11	704	0.2− 0.0	1999 12 08	703 0.4+ 0.2+
1993 11 16	399	(2.9− 0.5−)	1998 11 11	704	0.0 0.1−	1999 12 08	703 0.2− 0.0
1996 05 16	566	0.2− 0.7−	1998 11 11	704	0.4+ 0.8−	1999 12 15	704 1.1+ 1.2−
1996 05 16	566	0.5+ 1.2−	1998 11 11	704	0.3− 1.3−	1999 12 15	704 0.6+ 1.3+
1996 05 16	566	0.5+ 0.4−	1998 11 15	566	0.2+ 1.1−	1999 12 15	704 0.6+ 0.4−
1996 06 15	566	0.6− 0.2+	1998 11 15	566	0.3− 0.5−	1999 12 15	704 (0.8− 2.1+)
1996 06 15	566	0.3− 0.6−	1998 11 15	566	0.1− 0.8−	1999 12 30	106 0.4− 0.0

2000 FEB. 22

M.P.C. 38393

1996 06 15	566	0.4−	0.5+	1998 11 19	699	0.5+	0.4+	1999 12 30	106	0.6−	0.7+
1996 06 15	566	0.0	0.1−	1998 11 19	699	0.4+	0.7+	1999 12 30	106	0.2+	0.3−
1996 06 15	566	0.5−	0.6+	1998 11 19	699	0.4+	0.0	2000 01 02	704	0.0	0.1+
1996 06 15	566	0.4−	0.3−	1998 12 11	699	0.2+	0.2+	2000 01 02	704	0.4−	0.1+
1998 09 18	809	(1.9+	2.4+)	1998 12 11	699	1.2−	0.2−	2000 01 02	704	0.1+	0.2+
1998 09 18	809	(0.7+	2.3+)	1998 12 11	699	0.9−	0.7−	2000 01 02	704	0.3+	0.3−
1998 09 18	809	(0.1−	2.2+)	1999 10 13	704	0.3−	0.8+	2000 01 02	704	0.3+	0.4−
1998 09 19	809	(1.9+	2.5+)	1999 10 13	704	1.3−	0.1+	2000 01 29	704	0.1−	0.1−
1998 09 19	809	0.6+	1.1+	1999 10 13	704	0.7−	0.1+	2000 01 29	704	0.1−	0.2−
1998 09 19	809	0.4−	0.9+	1999 10 13	704	0.6−	0.2+	2000 01 29	704	0.2−	0.8−
1998 10 12	699	0.2+	0.6+	1999 10 13	704	0.4−	1.0−	2000 01 29	704	0.3−	0.2−
1998 10 12	699	0.2−	0.6+	1999 10 15	704	1.0−	0.8−	2000 01 29	704	0.3−	0.5−
1998 10 12	699	0.3+	0.7+	1999 10 15	704	0.1−	1.2−	2000 02 14	704	0.2+	0.5+
1998 11 10	704	0.4+	0.2−	1999 10 15	704	1.6−	0.9+	2000 02 14	704	0.2−	0.5+
1998 11 10	704	0.1−	0.5−	1999 10 20	699	1.4+	0.3+	2000 02 14	704	0.9+	0.8+

(13773)* 1998 TY₁₇ = 1996 FA₂₄ = 1997 NZ₉

Discovered 1998 Oct. 14 by K. Korlević at Višnja.

Id. G. V. Williams (*MPC* 33304, unpublished)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		331.15275		(2000.0)		P		Q	
<i>n</i>	0.23756219	ω	30.94231	−0.97046945	+0.24036898				
<i>a</i>	2.5819698	Ω	162.93046	−0.23304227	−0.91250593				
<i>e</i>	0.1220386	<i>i</i>	3.96422	−0.06229242	−0.33099197				
<i>P</i>	4.15	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	1		

Residuals in seconds of arc

1994 11 30	691	0.2−	0.3+	1998 11 10	704	0.7−	0.3+	2000 01 07	106	0.2−	0.6+
1994 11 30	691	0.6−	0.5−	1998 11 10	704	0.3+	1.0+	2000 01 07	106	0.7−	0.1+
1994 11 30	691	0.4−	0.3−	1998 11 11	704	1.0+	0.3+	2000 01 08	704	1.3−	0.6−
1996 03 27	400	0.7+	0.4−	1998 11 11	704	0.9−	0.1+	2000 01 08	704	0.7+	0.3−
1996 03 27	400	0.0	0.5−	1998 11 11	704	0.6−	1.3+	2000 01 08	704	1.1+	1.6−
1997 07 11	691	0.3−	0.6+	1998 11 15	120	0.2+	0.0	2000 02 02	704	0.3−	0.4+
1997 07 11	691	0.2−	0.5+	1998 11 15	120	0.2+	0.2+	2000 02 02	704	0.2+	0.7+
1997 07 11	691	0.0	0.7+	1999 12 05	704	0.0	0.5−	2000 02 02	704	0.4+	0.8+
1997 07 14	691	0.4−	0.7+	1999 12 05	704	0.3−	0.6−	2000 02 02	704	0.7+	1.2+
1997 07 14	691	0.4−	0.7+	1999 12 05	704	0.6−	0.7−	2000 02 02	704	0.7+	1.4+
1997 07 14	691	0.4−	0.7+	1999 12 05	704	0.4−	0.4−	2000 02 05	704	0.1+	0.1+
1998 10 14	120	0.6−	0.6−	1999 12 16	699	0.6+	1.3+	2000 02 05	704	0.5−	0.6+
1998 10 15	120	0.8+	1.1−	1999 12 16	699	0.3−	0.6+	2000 02 05	704	0.0	0.2+
1998 10 24	120	0.9+	0.1+	1999 12 16	699	1.2−	1.1+	2000 02 06	704	0.0	0.5+
1998 10 24	120	0.1−	0.1−	2000 01 05	704	0.2−	0.4−	2000 02 06	704	0.3−	0.2+
1998 10 27	120	(2.6−	0.8+)	2000 01 05	704	0.1−	0.3−	2000 02 06	704	0.0	0.4+
1998 10 27	120	0.5+	0.4+	2000 01 05	704	0.4+	0.0	2000 02 06	704	0.3+	0.1+
1998 11 10	704	0.1+	0.3+	2000 01 05	704	1.1+	1.0−				

(13774)* 1998 TW₃₀ = 1982 SV₃

Discovered 1998 Oct. 10 by the Lowell Observatory Near-Earth Object Search at the Anderson Mesa Station.

Id. A. Doppler (*MPC* 35342), M. E. Sansaturio (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		88.17513		(2000.0)		P		Q	
<i>n</i>	0.18880914	ω	24.89732	+0.73290234	−0.67847432				
<i>a</i>	3.0092207	Ω	18.11722	+0.59399345	+0.60211816				
<i>e</i>	0.0989015	<i>i</i>	9.30263	+0.33170158	+0.42086377				
<i>P</i>	5.22	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>	2		

Residuals in seconds of arc

1976 05 30	413	0.7−	1.7−	1998 11 10	704	(1.2+	2.7−)	1999 12 08	704	0.1−	1.8+
1976 05 30	413	0.6+	1.0+	1998 11 10	704	0.8−	0.4−	1999 12 08	704	0.1+	0.6+
1982 09 24	033	0.2+	0.9+	1998 11 10	704	0.0	1.9−	2000 01 03	704	0.1−	0.1+
1982 09 24	033	0.5−	0.9+	1998 11 11	704	0.3+	0.9−	2000 01 03	704	0.0	0.5−
1982 10 15	413	1.4−	0.2−	1998 11 11	704	0.1+	0.2−	2000 01 03	704	0.7−	0.9−
1982 10 15	413	0.5+	0.5+	1998 11 11	704	0.3−	0.5−	2000 01 03	704	1.2−	1.0−
1998 10 10	699	0.3+	0.0	1998 11 11	704	0.7+	0.2−	2000 01 03	704	0.2−	0.5−

1998 10 10	699	0.0	1.5+	1998 11 11	704	0.5−	1.3−	2000 02 14	704	1.2+	1.5+
1998 10 10	699	0.0	0.6+	1998 11 15	699	0.2+	0.3+	2000 02 14	704	0.9+	0.7+
1998 10 19	699	0.4−	0.5−	1998 11 15	699	0.0	0.8+	2000 02 14	704	0.5+	1.8+
1998 10 19	699	0.2+	0.6+	1998 11 15	699	0.2+	0.9+	2000 02 14	704	1.1+	1.3−
1998 10 19	699	0.3−	0.2+	1999 12 08	704	0.5−	0.0				
1998 11 10	704	0.8+	0.4−	1999 12 08	704	1.1−	0.9−				

(13775)* 1998 TL₃₂ = 1976 UB₉

Discovered 1998 Oct. 11 by the Lowell Observatory Near-Earth Object Search at the Anderson Mesa Station.

Id. G. V. Williams (*MPC* 33306)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		326.10352		(2000.0)		P		Q	
<i>n</i>	0.22482067	ω	167.23241	−0.99613882	+0.07880771				
<i>a</i>	2.6786249	Ω	17.42830	−0.08752582	−0.85718479				
<i>e</i>	0.1578716	<i>i</i>	7.42174	−0.00683302	−0.50894359				
<i>P</i>	4.38	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	1		

Residuals in seconds of arc

1976 10 22	381	0.1−	0.2+	1998 10 19	699	0.8+	0.6−	1998 11 11	704	1.6−	0.7+
1976 10 22	381	0.5+	0.8+	1998 10 19	699	0.7+	0.5+	1998 11 14	327	0.3−	0.2−
1976 10 24	381	1.2−	0.6+	1998 10 19	699	1.0+	0.0	1998 11 14	327	0.3−	0.2−
1996 04 22	566	0.7+	0.2+	1998 10 28	704	0.5+	1.3−	1998 11 14	327	0.3−	0.3−
1996 04 22	566	0.8−	0.1+	1998 10 28	704	0.8−	0.3+	1998 11 17	699	0.7+	1.0+
1996 04 22	566	0.7+	0.3+	1998 10 28	704	1.0−	0.7+	1998 11 17	699	1.7+	0.3−
1996 04 22	566	0.6−	0.4−	1998 10 28	704	0.1+	0.6−	1998 11 17	699	0.2+	0.2−
1996 04 22	566	0.9+	0.9+	1998 10 29	704	0.3+	0.6+	1999 12 30	106	0.0	0.1−
1996 04 22	566	0.6−	0.2+	1998 10 29	704	0.9−	0.1+	1999 12 30	106	0.2−	0.5+
1998 09 21	691	0.3+	0.1+	1998 10 29	704	0.3−	0.4−	1999 12 30	106	0.4−	0.2−
1998 09 21	691	0.2+	0.1−	1998 10 29	704	0.4+	0.9−	2000 01 03	704	0.1+	1.2−
1998 09 21	691	0.2+	0.1−	1998 10 29	704	0.2−	0.0	2000 01 03	704	0.6+	0.0
1998 10 01	691	0.3+	0.2−	1998 10 29	327	0.4−	0.5−	2000 01 03	704	0.2−	0.2+
1998 10 01	691	0.3+	0.1−	1998 10 29	327	0.3−	0.3−	2000 01 03	704	0.5−	0.1+
1998 10 01	691	0.3+	0.3−	1998 10 29	327	0.2−	0.1+	2000 01 03	704	0.1−	1.1+
1998 10 11	699	0.1−	0.3+	1998 10 30	327	0.1−	0.4−	2000 02 14	704	0.1+	0.5−
1998 10 11	699	0.5+	0.6+	1998 10 30	327	1.0−	0.2−	2000 02 14	704	0.1+	0.3−
1998 10 11	699	0.5+	0.6+	1998 10 30	327	0.4+	0.3+	2000 02 14	704	0.3+	0.5+
1998 10 17	327	0.4+	0.1−	1998 11 11	704	1.4−	1.2−	2000 02 14	704	0.0	0.1−
1998 10 17	327	0.9+	0.4−	1998 11 11	704	1.1−	0.6+				
1998 10 17	327	0.5+	0.4+	1998 11 11	704	0.2−	1.0+				

(13776)* 1998 UK₁ = 1995 GL₈

Discovered 1998 Oct. 19 by F. B. Zoltowski at Woomera.

Id. G. V. Williams (*MPC* 33308)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		17.48041		(2000.0)		P		Q	
<i>n</i>	0.17564741	ω	282.89958	−0.41461076	−0.90998683				
<i>a</i>	3.1577291	Ω	191.59857	+0.84367277	−0.38245914				
<i>e</i>	0.1398449	<i>i</i>	1.33369	+0.34104865	−0.16015299				
<i>P</i>	5.61	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	1		

Residuals in seconds of arc

1992 10 01	691	0.7−	0.0	1998 10 29	704	0.5+	0.2+	2000 01 26	691	0.7−	0.2−
1992 10 01	691	0.4−	0.3−	1998 10 29	704	1.1+	0.8−	2000 01 26	691	0.8−	0.3−
1992 10 01	691	0.4−	0.2−	1998 10 29	704	0.1−	1.9+	2000 01 30	703	0.0	0.5+
1995 04 08	695	0.7−	0.4−	1998 10 29	704	0.4+	0.8−	2000 01 30	703	0.1+	0.2−
1995 04 08	695	0.2−	0.7−	1998 11 10	704	0.6+	1.9+	2000 01 30	703	0.5−	0.1+
1995 04 08	695	0.1−	0.0	1998 11 10	704	0.6+	0.1+	2000 01 30	703	0.2+	0.5−
1995 04 08	695(11.2−	1.1−)		1998 11 10	704	1.5−	1.6−	2000 02 02	704	0.0	0.1−
1995 04 09	695	0.3+	0.5−	1998 11 10	704	(2.7−	1.5−)	2000 02 02	704	0.2−	0.0
1995 04 09	695	(3.5−	0.8+)	1998 11 16	426	0.7+	0.7+	2000 02 02	704	0.3−	1.0+
1995 04 10	695	0.5+	0.0	1998 11 16	426	0.0	0.3−	2000 02 02	704	0.3+	0.4+
1995 04 10	695	0.3+	0.4+	1998 11 16	426	0.9+	0.1−	2000 02 02	704	0.2+	0.6+
1995 04 10	695	0.4+	0.2+	1998 11 19	426	1.6+	0.1+	2000 02 03	704	0.4−	0.2−
1995 04 11	695	0.6+	0.4+	1998 11 19	426	0.4+	1.5+	2000 02 03	704	0.2−	0.1+

1995 04 11	695	0.4+	0.2-	1999 01 15	691	1.2-	0.3-	2000 02 03	704	0.4+	1.0+
1997 08 14	910	0.5-	0.1-	1999 01 15	691	0.5-	0.2-	2000 02 03	704	0.6+	1.0+
1997 08 14	910	0.4-	0.2-	1999 01 15	691	0.8-	0.4-	2000 02 03	704	0.8+	0.1-
1997 08 14	910	0.0	0.4-	1999 12 31	699	0.7+	0.6+	2000 02 05	704	0.2+	0.6+
1998 10 19	426	0.7+	0.5+	1999 12 31	699	0.8+	0.4+	2000 02 05	704	0.2+	0.1+
1998 10 19	426	0.0	0.5-	1999 12 31	699	0.8+	0.9+	2000 02 05	704	0.2+	0.2+
1998 10 19	426	0.1-	1.3-	2000 01 05	704	0.4-	0.2-	2000 02 05	704	0.2+	0.1+
1998 10 20	426	0.1-	0.4-	2000 01 05	704	0.1+	0.1+	2000 02 05	704	0.0	0.4+
1998 10 20	426	0.9+	0.2-	2000 01 05	704	0.3+	0.9-	2000 02 12	704	1.8+	0.5-
1998 10 20	426	0.3-	0.9-	2000 01 05	704	1.1-	0.1-	2000 02 12	704	1.1+	1.7-
1998 10 25	426	0.2-	0.2+	2000 01 07	704	0.1-	0.4-	2000 02 12	704	1.2-	0.9-
1998 10 25	426	0.6+	0.2-	2000 01 07	704	0.2-	0.1+	2000 02 12	704	0.2+	0.0
1998 10 25	426	0.3-	0.3-	2000 01 07	704	0.4+	0.8-	2000 02 12	704	1.0-	0.3-
1998 10 28	704	0.6+	0.0	2000 01 07	704	0.5+	0.5-	2000 02 13	704	0.2-	0.5-
1998 10 28	704	0.1-	0.1+	2000 01 07	704	0.2-	0.5-	2000 02 13	704	0.2-	0.2+
1998 10 28	704	0.5-	0.2+	2000 01 12	120	0.8-	0.5+	2000 02 13	704	1.1-	1.0+
1998 10 28	704	1.6-	0.2+	2000 01 12	120	1.9-	0.7-				
1998 10 29	704	0.1+	1.2+	2000 01 26	691	0.7-	0.2-				

(13777)* 1998 UV₆ = 1983 VZ₆ = 1995 CY₁₀

Discovered 1998 Oct. 20 by M. Cavagna and A. Testa at Sormano.

Id. G. V. Williams (*MPC* 33308)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	82.36461	(2000.0)		<i>P</i>	<i>Q</i>		
<i>n</i>	0.19533040	ω	136.49733	+0.68740573	-0.72602603		
<i>a</i>	2.9418656	Ω	270.06780	+0.66104306	+0.63626718		
<i>e</i>	0.0873295	<i>i</i>	1.08652	+0.30082460	+0.26086448		
<i>P</i>	5.05	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1983 11 09	033	0.2-	0.4-	1998 10 29	704	0.1-	1.2+	2000 01 07	704	0.7-	0.2-
1983 11 10	033	0.3+	0.3-	1998 10 29	704	0.1+	0.0	2000 01 12	120	0.4+	0.8+
1995 02 07	691	0.4+	0.3-	1998 10 29	704	0.3-	0.3-	2000 01 12	120	0.2-	0.4+
1995 02 07	691	0.3+	0.5-	1998 10 29	704	0.6+	0.7-	2000 01 16	120	0.7-	0.3+
1995 02 07	691	0.6+	0.2-	1998 10 29	327	0.2-	0.4+	2000 01 16	120	0.8+	0.3-
1995 02 21	691	0.6-	0.1+	1998 10 29	327	0.0	0.2+	2000 01 30	703	0.1-	0.6+
1995 02 21	691	0.4-	0.1+	1998 10 29	327	0.1-	0.1-	2000 01 30	703	0.1+	0.9+
1995 02 21	691	0.4-	0.2+	1998 10 30	587	0.1-	0.2-	2000 01 30	703	0.4+	0.4+
1998 09 14	699	(0.3- 2.0-)		1998 10 30	587	1.5-	0.9-	2000 01 30	703	0.3+	0.7+
1998 09 14	699	0.1-	0.9-	1998 10 30	587	0.9-	0.7-	2000 02 01	691	0.5+	0.2-
1998 09 14	699	0.4-	0.3-	1998 11 10	704	1.0-	0.1-	2000 02 01	691	0.1-	0.1-
1998 09 27	691	0.3-	0.2-	1998 11 10	704	0.1+	0.2-	2000 02 01	691	0.4+	0.1+
1998 09 27	691	0.4-	0.2-	1998 11 10	704	0.2+	0.4+	2000 02 02	704	0.2+	0.1+
1998 09 27	691	0.4-	0.1-	1998 11 10	704	0.8-	0.2-	2000 02 02	704	0.1+	0.2+
1998 10 15	691	0.2+	0.0	1998 11 11	704	0.3+	0.2-	2000 02 02	704	0.0	0.4+
1998 10 15	691	0.3+	0.2+	1998 11 11	704	0.5+	0.8+	2000 02 02	704	0.3-	0.6+
1998 10 15	691	0.6+	0.1-	1998 11 11	704	0.1+	0.2-	2000 02 02	704	0.3-	1.0+
1998 10 20	587	0.2+	0.3+	1998 11 11	704	0.2-	0.9+	2000 02 03	704	0.9-	1.1+
1998 10 20	587	0.1+	0.4+	1998 11 11	704	0.4-	0.6+	2000 02 03	704	0.3-	0.1+
1998 10 22	587	0.3+	0.2-	1998 11 15	587	0.4+	0.6+	2000 02 03	704	0.2+	0.4+
1998 10 22	587	0.7+	0.0	1998 11 15	587	0.3-	0.5+	2000 02 03	704	1.1+	0.2+
1998 10 25	587	0.0	0.3-	1998 11 17	587	0.6+	0.0	2000 02 03	704	0.0	0.3+
1998 10 25	587	0.0	0.0	1998 11 17	587	0.2+	0.4-	2000 02 07	691	0.3-	0.1-
1998 10 27	587	0.6-	0.2-	2000 01 05	704	0.4+	0.3-	2000 02 07	691	0.5-	0.0
1998 10 27	587	0.3+	0.9+	2000 01 05	704	0.3-	0.4-	2000 02 07	691	0.6-	0.0
1998 10 27	587	0.2+	0.1-	2000 01 05	704	0.5-	1.1-	2000 02 08	704	0.0	0.4-
1998 10 28	704	0.5+	0.2+	2000 01 05	704	0.2-	0.9-	2000 02 08	704	0.2-	0.4+
1998 10 28	704	0.9+	0.3-	2000 01 07	704	0.4-	1.4-	2000 02 08	704	0.3-	0.3-
1998 10 28	704	1.0+	0.1+	2000 01 07	704	0.0	1.2-	2000 02 08	704	1.2+	0.5-
1998 10 28	704	0.0	0.5+	2000 01 07	704	0.2+	0.7-				
1998 10 29	704	0.8-	0.1-	2000 01 07	704	0.3+	0.4-				

(13778)* 1998 US₇ = 1992 JT

Discovered 1998 Oct. 22 by K. Korlević at Višnjan.

Id. G. V. Williams (*MPC* 33309)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	285.90829	(2000.0)		<i>P</i>	<i>Q</i>		
<i>n</i>	0.23265387	ω	17.75365	-0.65877463	+0.74095245		
<i>a</i>	2.6181581	Ω	211.42358	-0.71704081	-0.67083214		
<i>e</i>	0.0868315	<i>i</i>	14.48486	-0.22774649	-0.03120424		
<i>P</i>	4.24	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1992 05 01	691	0.7+	0.1-	1998 10 24	120	0.5+	0.0	2000 01 10	704	0.1-	0.7-
1992 05 01	691	0.6+	0.3-	1998 10 28	120	0.0	0.3+	2000 01 10	704	0.6+	0.2-
1992 05 01	691	0.4+	0.1+	1998 10 28	120	0.4+	0.4+	2000 01 10	704	0.4+	0.4-
1992 05 08	691	0.6-	0.5+	1998 11 10	704	0.0	0.8+	2000 01 10	704	1.0+	0.3-
1992 05 08	691	0.2-	0.3+	1998 11 10	704	0.4-	0.7+	2000 02 05	703	0.5+	0.1+
1992 05 08	691	0.8-	0.8+	1998 11 10	704	1.1+	1.3-	2000 02 05	703	0.0	0.1-
1997 08 24	910	0.1-	0.7+	1998 11 10	704	0.3-	0.6-	2000 02 05	703	0.6-	0.2+
1997 08 24	910	0.0	0.5+	1998 11 11	704	0.4-	0.3-	2000 02 05	703	0.1-	0.5-
1997 08 24	910	0.2-	0.8+	1998 11 11	704	0.4-	1.3+	2000 02 08	704	0.4+	0.3+
1998 10 22	120	1.4-	0.4-	1998 11 11	704	0.8-	1.2-	2000 02 08	704	0.2-	0.3+
1998 10 22	120	1.0+	0.9+	1999 12 16	704	0.0	0.2+	2000 02 08	704	0.2-	1.2+
1998 10 23	120	0.7+	0.0	1999 12 16	704	0.4-	1.1+	2000 02 08	704	0.8-	0.6+
1998 10 23	120	0.8-	0.5+	1999 12 16	704	0.1-	0.2-	2000 02 08	704	0.1+	0.8+
1998 10 23	120	0.1-	1.2+	1999 12 16	704	0.7-	0.5-				
1998 10 24	120	0.5+	0.5-	2000 01 10	704	0.6+	0.2-				

(13779)* 1998 UY₇ = 1969 VW₂ = 1977 RZ₄ = 1985 QY₁

Discovered 1998 Oct. 23 by K. Korlević at Višnjan.

Id. G. V. Williams (*MPC* 33309)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	131.47342	(2000.0)		<i>P</i>	<i>Q</i>		
<i>n</i>	0.23740100	ω	188.43501	+0.91814729	-0.39383351		
<i>a</i>	2.5831385	Ω	194.98667	+0.37267089	+0.89567348		
<i>e</i>	0.1090009	<i>i</i>	9.70604	+0.13461782	+0.20655312		
<i>P</i>	4.15	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1969 11 15	095	0.2-	0.0	1998 11 10	704	0.5+	0.1+	1999 12 16	704	0.8+	1.1-
1977 09 09	095	(0.3-	4.7+)	1998 11 10	704	0.5+	0.4-	2000 01 05	704	0.2-	0.1+
1985 08 16	675	1.0-	0.1-	1998 11 10	704	(1.5+	2.1-)	2000 01 05	704	0.5-	0.1+
1985 08 16	675	1.1+	1.5+	1998 11 11	704	1.0-	0.9+	2000 01 05	704	1.4-	0.3+
1985 08 17	675	1.1-	1.1-	1998 11 11	704	0.8-	0.6-	2000 02 02	704	1.1+	0.7+
1985 08 17	675	0.9+	1.4+	1998 11 11	704	1.0-	0.0	2000 02 02	704	2.0+	0.3+
1985 08 23	675	(5.6-	0.1+)	1998 11 14	699	0.0	0.7+	2000 02 02	704	(0.1-	2.4+)
1985 08 23	675	(8.6-	2.2-)	1998 11 14	699	0.4+	0.8+	2000 02 07	704	0.7-	0.7+
1996 03 20	691	0.5+	0.5+	1998 11 14	699	0.2-	0.5+	2000 02 07	704	1.1-	0.1-
1996 03 20	691	0.4+	0.4+	1998 11 15	120	0.2-	0.1+	2000 02 07	704	1.5-	0.4-
1996 03 20	691	0.3+	0.4+	1998 11 15	120	0.0	0.2+	2000 02 07	704	1.1-	0.5-
1998 08 28	704	0.9+	0.2+	1998 12 14	699	0.0	0.1-	2000 02 07	704	1.4-	0.1+
1998 08 28	704	1.6-	0.7-	1998 12 14	699	0.1+	0.5-	2000 02 08	704	0.2+	0.5+
1998 08 28	704	0.4+	1.5-	1998 12 14	699	0.2-	0.1+	2000 02 08	704	0.3+	0.2+
1998 08 28	704	0.3-	0.0	1999 02 04	704	0.0	0.9+	2000 02 08	704	0.1-	0.4+
1998 10 23	120	0.2+	0.3-	1999 02 04	704	0.6+	0.4+	2000 02 08	704	0.2-	0.6+
1998 10 23	120	0.2+	0.2-	1999 02 04	704	1.3+	0.8-	2000 02 08	704	0.5+	0.4+
1998 10 23	120	0.1+	0.1-	1999 02 04	704	1.0+	0.1-	2000 02 11	704	0.4+	0.4+
1998 10 24	120	1.1-	0.1+	1999 02 04	704	0.6+	0.6+	2000 02 11	704	0.6+	0.6+
1998 10 24	120	0.0	0.1+	1999 12 16	704	0.1-	1.1-	2000 02 11	704	0.2-	0.1-
1998 10 28	120	0.4+	0.6+	1999 12 16	704	0.1+	0.6-	2000 02 11	704	1.0+	0.5+
1998 10 28	120	0.1+	0.3+	1999 12 16	704	0.0	1.9-				
1998 11 10	704	0.4+	0.0	1999 12 16	704	0.4+	1.0-				

2000 FEB. 22

M.P.C. 38395

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	10.22135		(2000.0)		P		Q		
<i>n</i>	0.08182788	ω	49.55964		+0.26131705		−0.96328723		
<i>a</i>	5.2545458	Ω	25.49204		+0.83663920		+0.19422362		
<i>e</i>	0.0979132	<i>i</i>	8.22509		+0.48140238		+0.18535073		
<i>P</i>	12.04	<i>H</i>	11.5		<i>G</i>	0.15	<i>U</i>	0	
Residuals in seconds of arc									
1979 05 19	675	0.0	1.5+	1998 10 15	327	0.1+	1.1+	1998 11 25	688
1979 05 19	675	2.2+	1.3+	1998 10 15	327	0.1+	0.5+	1999 12 12	704
1986 09 30	675	0.9−	0.5+	1998 10 17	327	0.2+	0.1+	1999 12 12	704
1986 09 30	675	0.2+	0.4+	1998 10 17	327	0.0	0.2−	1999 12 12	704
1989 12 08	675	0.2−	0.2+	1998 10 17	327	0.1−	0.4−	1999 12 12	704
1991 04 17	675	0.0	0.1+	1998 10 18	327	0.0	0.4+	1999 12 15	704
1997 09 25	809	0.4−	0.9−	1998 10 18	327	0.1−	0.2+	1999 12 15	704
1997 09 25	809	0.8+	0.2+	1998 10 18	327	0.4−	0.6+	1999 12 15	704
1997 09 29	809	0.5+	0.0	1998 11 11	704	1.0−	0.3+	2000 01 02	704
1997 09 29	809	0.2+	0.2−	1998 11 11	704	0.1+	0.6−	2000 01 02	704
1997 09 30	809	0.0	0.1−	1998 11 11	704	1.8+	0.5−	2000 01 02	704
1997 09 30	809	0.1−	0.4−	1998 11 11	704	1.1−	1.0−	2000 01 02	704
1997 10 01	809	0.7−	0.6+	1998 11 18	695	0.3−	0.8+	2000 01 04	704
1997 10 01	809	0.3−	0.4+	1998 11 18	695	0.5−	0.7+	2000 01 04	704
1997 10 05	809	0.0	0.2−	1998 11 18	695	0.5−	0.7+	2000 01 04	704
1997 10 05	809	0.0	0.2−	1998 11 25	688	0.2+	0.4+	2000 01 04	704
1998 10 15	327	0.0	0.5+	1998 11 25	688	0.1−	0.5+		

(13781)* 1998 UO₁₅ = 1986 TY₁₈ = 1996 DQ₄

Discovered 1998 Oct. 23 by K. Korlević at Višnjan.

Id. G. V. Williams (*MPC* 33310)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	175.10914		(2000.0)		P		Q		
<i>n</i>	0.25271084	ω	51.33182		+0.90906855		+0.41660604		
<i>a</i>	2.4777271	Ω	284.04700		−0.38410229		+0.83257512		
<i>e</i>	0.1773426	<i>i</i>	0.34325		−0.16143048		+0.36504531		
<i>P</i>	3.90	<i>H</i>	14.9		<i>G</i>	0.15	<i>U</i>	2	
Residuals in seconds of arc									
1986 10 02	095	1.5−	1.1+	1998 11 11	704	0.1+	0.1−	1998 11 26	120
1993 05 25	691	0.6+	0.0	1998 11 11	704	0.2−	0.4−	1998 11 26	120
1993 05 25	691	0.3+	0.4+	1998 11 11	704	0.4−	1.4−	1998 12 08	699
1993 05 25	691	0.5+	0.2−	1998 11 11	704	0.1−	1.2−	1998 12 08	699
1996 02 16	010	1.6+	1.0−	1998 11 11	910	0.7+	0.4+	1998 12 08	699
1996 02 16	010	0.5+	0.5−	1998 11 11	910	0.9+	0.2+	1999 01 07	910
1996 02 16	010	1.7+	0.4−	1998 11 11	910	0.8+	0.4+	1999 01 07	910
1996 02 17	010	0.8+	1.0+	1998 11 12	910	1.0+	0.3+	1999 01 07	910
1996 02 17	010	(1.2−	2.1+)	1998 11 12	910	1.0+	0.2+	1999 01 14	910
1996 02 17	010	(1.2+	2.3+)	1998 11 12	910	0.8+	0.4+	1999 01 14	910
1998 10 20	699	0.3−	1.8−	1998 11 17	910	0.4+	0.1+	1999 01 14	910
1998 10 20	699	0.1−	0.2−	1998 11 17	910	0.2+	0.1+	2000 01 10	691
1998 10 20	699	0.5−	0.3+	1998 11 18	910	0.4+	0.2+	2000 01 10	691
1998 10 23	120	0.2+	0.3−	1998 11 18	704	0.2−	0.1+	2000 01 10	691
1998 10 23	120	0.3−	0.2−	1998 11 18	704	1.1+	1.5+	2000 01 16	691
1998 10 26	120	0.5−	0.5−	1998 11 18	704	0.5+	1.7+	2000 01 16	691
1998 10 26	120	0.2+	0.2+	1998 11 18	704	0.7−	1.8+	2000 01 16	691
1998 10 28	120	0.9−	0.8−	1998 11 19	691	0.8−	0.0	2000 02 04	120
1998 10 28	120	0.5−	0.3−	1998 11 19	691	0.5−	0.2−	2000 02 04	120
1998 10 29	120	0.7+	0.4−	1998 11 19	691	0.4−	0.1−	2000 02 04	120
1998 11 10	699	0.4−	0.2−	1998 11 19	910	0.0	0.0	2000 02 04	120
1998 11 10	699	0.6−	0.5−	1998 11 19	910	0.1−	0.1+	2000 02 11	704
1998 11 10	699	0.4−	1.6+	1998 11 19	910	0.1−	0.1−	2000 02 11	704
1998 11 10	910	0.9+	0.2−	1998 11 20	699	0.7−	0.7+	2000 02 11	704
1998 11 11	910	1.0+	0.2−	1998 11 20	699	0.2−	0.5+	2000 02 11	704
1998 11 11	910	0.9+	0.3−	1998 11 20	699	0.1−	0.2+		

(13782)* 1998 UM₁₈ = 1989 EP₃

Discovered 1998 Oct. 28 by the Catalina Sky Survey.

Id. A. Doppler (*MPC* 33513)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	77.50033		(2000.0)		P		Q		
<i>n</i>	0.08393370	ω	232.32436		+0.87582038		−0.41975949		
<i>a</i>	5.1662862	Ω	150.17239		+0.42489207		+0.90467885		
<i>e</i>	0.1342005	<i>i</i>	28.61383		−0.22892225		+0.07319934		
<i>P</i>	11.74	<i>H</i>	11.2		<i>G</i>	0.15	<i>U</i>	1	
Residuals in seconds of arc									
1954 02 26	675	1.0+	2.2−	1998 10 29	703	0.6+	0.5−	1999 12 16	704
1954 02 26	675	0.0	0.6+	1998 11 16	703	0.1−	0.5−	1999 12 16	704
1989 03 02	809	0.3−	0.8−	1998 11 16	703	0.5−	0.6+	1999 12 16	704
1989 03 02	809	0.7−	0.5−	1998 11 16	703	0.2+	0.4+	1999 12 16	704
1989 03 02	809	1.1−	0.5−	1998 11 17	703	1.2−	0.4+	1999 12 16	704
1989 03 03	809	0.6+	1.5−	1998 11 17	703	0.4+	1.8+	2000 02 06	704
1989 03 03	809	0.7−	0.5−	1998 12 19	704	0.3−	0.5+	2000 02 06	704
1989 03 03	809	1.0+	1.0−	1998 12 19	703	0.6+	0.3−	2000 02 06	704
1991 02 19	675	(1.1+	2.5+)	1998 12 19	703	0.1+	0.9−	2000 02 06	704
1991 02 19	675	1.1+	0.6+	1998 12 19	704	0.6−	1.1−	2000 02 08	704
1998 10 28	703	0.5+	0.7−	1998 12 19	704	0.8+	0.2−	2000 02 08	704
1998 10 28	703	0.8+	0.4−	1998 12 19	704	1.0−	0.5−	2000 02 08	704
1998 10 28	703	0.9+	0.7−	1999 01 19	703	0.1−	0.1−	2000 02 08	704
1998 10 29	703	0.6+	0.5−	1999 01 19	703	0.2−	0.1−		

(13783)* 1998 UJ₂₀ = 1979 RK₁ = 1992 CP₃

Discovered 1998 Oct. 20 by S. Ueda and H. Kaneda at Kushiro.

Id. S. Nakano (*MPC* 33052)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Asher

<i>M</i>	137.77125		(2000.0)		P		Q		
<i>n</i>	0.26180221	ω	110.21235		+0.95734899		−0.27465011		
<i>a</i>	2.4200287	Ω	265.81208		+0.21994184		+0.89410239		
<i>e</i>	0.2121471	<i>i</i>	5.16149		+0.18737260		+0.35376295		
<i>P</i>	3.76	<i>H</i>	13.8		<i>G</i>	0.15	<i>U</i>	2	
Residuals in seconds of arc									
1979 09 14	095	0.4−	0.0	1998 11 11	704	0.2+	0.0	1999 01 11	704
1979 09 28	095	1.2+	1.1−	1998 11 11	704	1.1+	0.3−	1999 01 11	704
1992 01 30	809	(2.8+	4.2+)	1998 11 11	704	0.2+	1.3−	1999 01 11	704
1992 02 02	809	0.4+	0.2+	1998 11 14	327	0.1+	0.3+	2000 01 05	704
1992 02 02	809	0.7−	0.8−	1998 11 14	327	0.1+	0.3+	2000 01 05	704
1992 02 02	809	1.3−	0.9−	1998 11 14	327	0.1+	0.4+	2000 01 05	704
1992 02 12	809	1.2+	0.8−	1998 11 20	704	0.9+	1.8+	2000 02 02	704
1992 02 12	809	0.5−	0.2−	1998 11 20	704	0.3+	1.5−	2000 02 02	704
1992 02 12	809	1.2−	0.6−	1998 11 20	704	0.6−	0.6+	2000 02 02	704
1998 10 20	399	(2.8−	0.8−)	1998 11 20	704	0.7−	0.5−	2000 02 02	704
1998 10 20	399	1.4−	0.4−	1998 11 20	704	(5.1−	0.5−)	2000 02 02	704
1998 10 25	399	1.1−	0.6+	1999 01 06	699	0.6−	0.2−	2000 02 07	704
1998 10 25	399	0.9−	0.1−	1999 01 06	699	0.3−	0.3+	2000 02 07	704
1998 10 28	399	0.5−	0.5−	1999 01 06	699	0.5−	0.4+	2000 02 07	704
1998 10 28	399	0.7−	0.2−	1999 01 08	704	0.0	0.8+	2000 02 07	704
1998 11 10	704	0.6−	0.2−	1999 01 08	704	1.1+	0.7−	2000 02 08	704
1998 11 10	704	0.5+	0.4−	1999 01 08	704	0.3−	1.2+	2000 02 08	704
1998 11 10	704	0.3+	0.8−	1999 01 08	704	0.6+	0.8+	2000 02 08	704
1998 11 10	704	0.3+	1.2−	1999 01 08	704	0.8+	0.3+	2000 02 08	704
1998 11 11	704	0.6+	0.4+	1999 01 11	704	1.0+	0.4+	2000 02 08	704
1998 11 11	704	0.3+	0.1+	1999 01 11	704	0.9+	0.6−		

(13784)* 1998 UN₂₀ = 1987 SX₉ = 1994 RR = 1995 YX₂₂ = 1997 GZ₄₁

Discovered 1998 Oct. 23 by K. Korlević at Višnjan.

Id. B. G. Marsden (*MPC* 33312)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Marsden

<i>M</i>	243.90631		(2000.0)	P	Q
<i>n</i>	0.27738874	ω	171.24737	+0.13341772	+0.99020729
<i>a</i>	2.3285032	Ω	106.41201	-0.91185344	+0.13889480
<i>e</i>	0.1977111	<i>i</i>	2.45565	-0.38823063	+0.01406250
<i>P</i>	3.55	<i>H</i>	14.2	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1987 09 29	033	1.6-	0.1+	1998 10 23	120	0.1-	0.3+	2000 01 07	704	0.6+	0.6-
1987 09 29	033	0.3+	0.6+	1998 10 23	120	1.2+	0.0	2000 01 07	704	0.3-	0.8-
1994 09 01	400	0.6-	1.1-	1998 10 30	120	0.1-	0.6-	2000 01 07	704	0.6-	0.2-
1994 09 01	400	0.0	1.1-	1998 10 30	120	0.4-	0.4-	2000 01 27	120	0.4-	0.2-
1994 09 06	400	1.6+	0.8-	1998 11 11	699	0.4+	0.6-	2000 01 27	120	0.1-	1.0-
1994 09 06	400	0.3-	0.3-	1998 11 11	704	0.6+	0.9-	2000 01 27	120	1.7+	0.5-
1994 09 12	675	0.9+	0.6-	1998 11 11	699	0.8+	0.6-	2000 01 30	704	1.1+	0.4+
1994 09 12	675	0.6+	0.2+	1998 11 11	704	1.3+	0.4-	2000 01 30	704	0.5+	0.1+
1995 12 21	566	1.5+	0.8+	1998 11 11	704	0.2+	0.3-	2000 01 30	703	0.5-	0.5+
1995 12 21	566	0.7+	1.0+	1998 11 11	699	(2.2+	3.4+)	2000 01 30	704	0.4-	1.0+
1995 12 21	566	0.9+	0.9+	1998 11 17	552	1.4-	1.1-	2000 01 30	703	0.1+	0.3+
1995 12 23	566	0.4-	0.1+	1998 11 17	552	1.4-	0.8-	2000 01 30	703	1.2-	0.2+
1995 12 23	566	0.0	0.4-	1998 11 18	704	0.1-	0.2-	2000 01 30	704	0.5+	0.1+
1995 12 23	566	0.3-	0.3-	1998 11 18	704	0.9-	0.2-	2000 01 30	703	0.2+	0.4+
1995 12 24	566	0.2-	0.5-	1998 11 18	704	1.2-	1.0+	2000 02 03	704	0.4-	0.2+
1995 12 24	566	0.1-	0.9-	1998 11 18	704	0.5-	1.6+	2000 02 03	704	0.3-	0.2+
1995 12 24	566	0.5+	0.8-	1998 11 18	704	(4.2-	0.2+)	2000 02 03	704	0.6+	0.6+
1997 04 09	809	0.3+	0.4-	1998 11 19	552	0.4-	0.7-	2000 02 03	704	0.3+	0.9+
1997 04 09	809	0.4-	1.1-	1998 11 19	552	0.9-	0.0	2000 02 09	120	0.8-	1.0-
1997 04 09	809	0.5-	1.2-	1998 11 26	120	0.5-	0.2+	2000 02 09	120	1.2-	0.3-
1997 04 10	809	(0.7+	2.8-)	1998 11 26	120	0.3-	0.4-	2000 02 10	106	0.1-	0.2+
1997 04 10	809	(0.5+	3.5-)	1998 11 29	120	0.2+	0.5+	2000 02 10	106	0.0	1.1+
1997 04 10	809	(0.3+	3.7-)	1998 11 29	120	(1.6-	2.7-)	2000 02 10	106	0.6-	0.5-
1997 04 11	809	(4.6+	2.4+)	1998 11 29	120	1.2+	0.9+	2000 02 10	120	1.3+	0.2-
1997 04 11	809	(4.6+	1.9+)	2000 01 03	120	1.0+	1.3-	2000 02 10	120	1.1-	0.1+
1997 04 11	809	(4.2+	1.1+)	2000 01 03	120	1.0+	1.3-	2000 02 10	120	0.9-	0.3-
1997 04 12	809	(3.4+	1.1+)	2000 01 04	704	0.1+	1.6-	2000 02 11	704	0.9-	0.8+
1997 04 12	809	(3.0+	2.6+)	2000 01 04	704	0.0	0.8-	2000 02 11	704	0.3+	1.3+
1997 04 12	809	(2.6+	3.4+)	2000 01 04	704	1.0+	0.5-	2000 02 11	704	0.1-	0.4+
1998 10 18	699	1.4+	0.7+	2000 01 04	704	1.1+	0.3+	2000 02 11	704	0.3-	0.5+
1998 10 18	699	0.6+	0.3-	2000 01 04	704	0.4-	0.6-	2000 02 11	704	0.4-	0.6+
1998 10 18	699	0.1+	0.6+	2000 01 07	704	1.4-	1.0-	2000 02 11	120	1.1-	0.1-
1998 10 23	120	0.1+	0.4+	2000 01 07	704	0.2+	0.1-	2000 02 11	120	0.5-	0.4-

(13785)* 1998 UR₂₀ = 1978 RW₁₂ = 1991 GC₄

Discovered 1998 Oct. 29 by K. Korlević at Višnjan.

Id. G. V. Williams (*MPC* 33312)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	187.04766		(2000.0)	P	Q
<i>n</i>	0.20448254	ω	24.37409	+0.73367870	+0.67930998
<i>a</i>	2.8534169	Ω	292.82638	-0.62622746	+0.66688156
<i>e</i>	0.0091876	<i>i</i>	0.98984	-0.26373230	+0.30627919
<i>P</i>	4.82	<i>H</i>	14.1	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1978 09 06	809	0.7-	1.8+	1998 11 11	910	0.2-	0.1-	2000 01 07	704	0.9-	0.8+
1991 04 08	809	0.4+	0.7-	1998 11 12	557	0.3-	0.0	2000 01 07	704	0.4+	0.1+
1991 04 08	809	0.3-	0.5+	1998 11 12	557	0.6-	0.1+	2000 01 07	704	0.4-	0.4-
1991 04 08	809	(3.6-	0.2-)	1998 11 12	557	0.6-	0.2+	2000 01 30	703	0.3+	0.1+
1991 04 10	809	0.1+	0.4+	1998 11 12	910	1.5+	0.3-	2000 01 30	703	0.1-	0.0
1991 04 10	809	0.7-	1.0-	1998 11 12	910	1.8+	0.3-	2000 01 30	703	0.4+	0.1-
1991 04 10	809	0.2-	0.6-	1998 11 12	910	1.5+	0.4-	2000 01 30	703	0.5-	0.4-
1998 10 18	699	1.6+	0.6+	1998 11 14	557	0.7-	0.0	2000 02 02	704	0.6+	0.0
1998 10 18	699	0.1+	1.5-	1998 11 14	557	0.8-	0.4-	2000 02 02	704	0.1-	0.1+
1998 10 18	699	1.0-	0.0	1998 11 20	699	0.4-	0.9+	2000 02 02	704	1.0+	0.2+
1998 10 29	120	0.4+	1.0-	1998 11 20	699	0.1+	0.5-	2000 02 02	704	1.0+	0.1-
1998 10 29	120	0.4-	0.5-	1998 11 20	699	0.4+	0.4-	2000 02 02	704	0.9+	0.3-
1998 10 30	120	0.3-	0.3+	1998 12 08	699	0.5-	0.3-	2000 02 03	691	0.2+	0.5-

1998 10 30	120	0.4+	0.7+	1998 12 08	699	0.4-	0.9-	2000 02 03	691	0.1+	0.4-
1998 11 10	699	0.2+	0.4-	1998 12 08	699	0.2-	0.7-	2000 02 03	691	0.0	0.4-
1998 11 10	699	1.0-	0.1+	1998 12 09	120	1.4-	0.3-	2000 02 04	704	0.4+	0.3+
1998 11 10	699	0.4+	0.3-	1998 12 09	120	0.8+	0.2+	2000 02 04	704	0.1-	0.5+
1998 11 10	910	0.7+	0.3+	1998 12 09	120	0.0	0.6+	2000 02 04	704	0.4-	1.3+
1998 11 10	910	0.6+	0.4+	1998 12 12	120	0.7-	0.5+	2000 02 04	704	0.2+	0.6+
1998 11 10	910	0.9+	0.3+	1998 12 12	120	0.5-	0.7+	2000 02 04	704	0.2+	1.2+
1998 11 10	910	0.9+	0.4+	1998 12 14	120	1.3-	1.0+	2000 02 11	704	0.4-	0.3-
1998 11 11	910	0.7+	0.5+	1998 12 14	120	0.8+	0.7+	2000 02 11	704	0.3+	0.4-
1998 11 11	910	0.7+	0.4+	1999 01 09	910	0.6-	0.2+	2000 02 11	704	0.6-	0.4-
1998 11 11	704	0.4-	0.9-	1999 01 09	910	0.8-	0.4+	2000 02 11	704	0.5-	0.9+
1998 11 11	704	0.5-	1.3-	1999 01 09	910	0.7-	0.5+	2000 02 11	704	0.9-	0.1-
1998 11 11	704	0.9-	0.6-	2000 01 05	704	1.2-	0.1+	2000 02 13	704	0.2-	0.0
1998 11 11	704	0.2-	0.2-	2000 01 05	704	0.2-	1.5-	2000 02 13	704	0.8+	0.4+
1998 11 11	704	(3.5-	0.6+)	2000 01 05	704	0.1-	0.4-	2000 02 13	704	1.2+	0.9+
1998 11 11	910	0.2-	0.1-	2000 01 05	704	0.4-	0.2+				
1998 11 11	910	0.1-	0.2-	2000 01 07	704	0.1-	0.7-				

(13786)* 1998 UV₂₀ = 1953 ED₂ = 1972 TX₅ = 1992 JM₄

Discovered 1998 Oct. 29 by K. Korlević at Višnjan.

Id. G. V. Williams (*MPC* 33313)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	3.63067		(2000.0)	P	Q
<i>n</i>	0.23105506	ω	299.25882	-0.93966160	-0.30810804
<i>a</i>	2.6302219	Ω	223.27561	+0.33676116	-0.90957896
<i>e</i>	0.0732924	<i>i</i>	12.52637	-0.06023284	-0.27881096
<i>P</i>	4.27	<i>H</i>	13.0	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1953 03 09	675	0.7-	0.1-	1998 11 11	699	0.3+	0.2+	1999 12 17	704	0.1-	0.1+
1953 03 09	675	0.3+	1.8-	1998 11 11	704	0.3+	0.5+	1999 12 17	704	0.4-	0.3-
1972 10 06	095	0.7-	0.8+	1998 11 11	699	0.5+	0.3+	1999 12 17	704	0.0	0.5-
1992 05 02	809	(1.9+	4.1+)	1998 11 18	704	0.7-	1.3-	2000 01 10	704	0.4-	0.5+
1992 05 02	809	(2.1+	3.7+)	1998 11 18	704	(0.5-	2.2-)	2000 01 10	704	0.7-	0.1-
1992 05 02	809	(2.1+	2.8+)	1998 11 18	704	(0.8-	2.9-)	2000 01 10	704	0.1+	0.2-
1992 05 03	809	(3.6+	2.5+)	1998 11 18	704	(0.7-	3.0-)	2000 01 10	704	0.3-	0.3-
1992 05 03	809	(3.0+	2.6+)	1998 11 26	120	0.7+	0.1-	2000 01 10	704	0.2+	1.1-
1992 05 03	809	(4.1+	2.3+)	1998 11 26	120	0.1+	0.0	2000 01 11	704	0.7+	1.4+
1998 10 18	699	0.6+	0.0	1998 12 17	120	0.3+	0.4+	2000 01 11	704	1.0-	0.2+
1998 10 18	699	0.1+	0.0	1998 12 17	120	0.1+	1.6-	2000 01 11	704	0.1+	0.7+
1998 10 18	699	0.4+	0.1+	1998 12 17	120	1.7+	0.2+	2000 01 11	704	0.1+	0.1+
1998 10 29	120	0.3+	0.3-	1999 02 04	704	1.4-	0.6-	2000 01 11	704	0.7+	0.8-
1998 10 29	120	0.2+	0.1-	1999 02 04	704	(2.7-	0.5+)	2000 02 10	704	1.8+	0.7+
1998 10 30	120	0.4-	0.7-	1999 02 04	704	1.2-	1.0+	2000 02 10	704	0.7+	0.4+
1998 10 30	120	0.1-	0.4-	1999 02 04	704	0.1-	1.7+	2000 02 10	704	0.5+	0.5-
1998 11 10	704	1.2-	0.5+	1999 12 16	704	0.0	0.1+	2000 02 10	704	0.5-	0.5+
1998 11 10	704	1.0-	0.3-	1999 12 16	704	0.2-	0.3+	2000 02 11	106	0.2+	0.4+
1998 11 10	704	0.5-	0.7-	1999 12 16	704	0.2+	0.5-	2000 02 11	106	0.2-	0.4+
1998 11 11	699	0.3+	0.6+	1999 12 16	704	0.8-	0.4-	2000 02 11	106	0.2-	0.5+
1998 11 11	704	0.1+	0.5+	1999 12 17	704	0.5-	0.3+				
1998 11 11	704	0.5+	0.2+	1999 12 17	704	0.4-	0.5+				

2000 FEB. 22

M.P.C. 38397

1977 02 18	381	0.7−	1.6−	1998 11 24	704	0.1+	0.2−	1999 02 09	691	0.8−	0.1+
1977 02 19	381	0.5−	0.1−	1998 11 24	704	0.6+	0.1−	1999 11 16	704	0.4−	1.3+
1977 02 19	381	0.7−	0.4−	1998 11 24	704	0.1+	0.3−	1999 11 16	704	1.0+	0.3+
1992 10 23	010	0.8+	1.0−	1998 11 26	358	0.6−	0.2+	1999 11 16	704	0.2−	0.1+
1992 10 23	010	0.2−	0.4−	1998 11 26	358	1.1−	0.1−	1999 11 16	704	0.2+	0.3−
1992 11 03	010	0.7−	0.8−	1998 11 29	358	1.0+	0.3+	1999 11 16	704	0.4−	0.3+
1992 11 03	010	1.2−	1.2−	1998 11 29	358	0.9+	0.1+	1999 12 05	704	0.5+	1.0−
1992 11 03	010	(0.9−	2.8−)	1998 11 29	358	0.1−	0.8+	1999 12 05	704	0.8+	0.7−
1998 08 31	704	0.6−	0.0	1998 12 08	699	1.2+	0.6+	1999 12 05	704	0.6+	0.8+
1998 08 31	704	(0.0	2.4−)	1998 12 08	699	0.6+	1.0+	1999 12 05	704	0.4−	0.6−
1998 08 31	704	0.2+	1.4−	1998 12 08	699	0.4+	0.2+	1999 12 05	704	1.4−	0.7+
1998 08 31	704	(4.0−	2.0+)	1998 12 10	691	1.1−	0.1−	2000 02 01	703	0.3−	0.4+
1998 10 26	358	(2.9+	0.3+)	1998 12 10	691	1.0−	0.3−	2000 02 01	703	0.7−	0.6+
1998 10 26	358	1.3+	1.6−	1998 12 10	691	0.9−	0.2−	2000 02 01	703	0.4−	0.8+
1998 10 28	358	(0.3+	2.4−)	1998 12 15	691	0.2+	0.2+	2000 02 01	703	0.7+	0.4+
1998 11 01	358	0.4−	1.3+	1998 12 15	691	0.1+	0.1+	2000 02 04	704	0.1+	0.1+
1998 11 01	358	1.2−	0.7+	1998 12 15	691	0.3+	0.1−	2000 02 04	704	0.9+	0.1+
1998 11 01	358	(1.4+	2.6−)	1998 12 15	704	0.6+	0.4+	2000 02 04	704	0.2+	0.5+
1998 11 12	727	0.4−	0.2+	1998 12 15	704	0.8−	0.0	2000 02 04	704	0.1−	1.8−
1998 11 12	727	0.2−	0.4−	1998 12 15	704	0.1−	0.5−	2000 02 11	704	0.6+	0.5−
1998 11 12	727	0.2−	0.0	1998 12 23	691	0.0	0.3−	2000 02 11	704	0.3+	0.4−
1998 11 21	704	0.5−	0.4−	1998 12 23	691	0.0	0.1−	2000 02 11	704	0.1−	0.3−
1998 11 21	704	0.2−	0.4−	1998 12 23	691	0.1+	0.2−	2000 02 11	704	0.4+	0.5−
1998 11 21	704	0.5+	0.2−	1999 01 22	699	0.1+	0.7+	2000 02 11	704	0.3+	0.3−
1998 11 21	704	0.7+	0.9+	1999 01 22	699	0.9−	0.8+				
1998 11 21	704	1.1+	0.6+	1999 01 22	699	(2.0−	1.3+)				

(13788)* 1998 UY₂₆ = 1952 OA = 1984 SC₈ = 1989 VY₂ = 1993 RL₆

Discovered 1998 Oct. 18 by E. W. Elst at the European Southern Observatory.

Id. A. Doppler (*MPC* 33513)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	242.95738		(2000.0)		P		Q
<i>n</i>	0.21954491	<i>ω</i>	64.83605	−0.33495679		+0.94211870	
<i>a</i>	2.7213671	<i>Ω</i>	185.65478	−0.90928788		−0.32729692	
<i>e</i>	0.2319453	<i>i</i>	8.58399	−0.24698078		−0.07272605	
<i>P</i>	4.49	<i>H</i>	13.3	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1952 07 22	024	0.2+	0.1−	1993 09 18	675	0.2+	0.1+	1998 11 10	704	1.4+	0.7−
1984 09 21	010	0.6−	1.2+	1993 09 22	675	1.6−	0.1−	1998 11 11	704	1.3+	0.8+
1989 11 03	809	0.9−	0.0	1993 09 22	675	0.6−	0.8−	1998 11 11	704	0.3−	0.8+
1989 11 03	809	0.2−	0.5−	1996 02 18	691	0.0	0.5−	1998 11 11	704	0.2+	0.8+
1989 11 03	809	0.7−	0.8−	1996 02 18	691	0.3−	0.4−	1998 11 11	704	1.0+	0.0
1993 09 15	809	(2.2+	0.2−)	1996 02 18	691	0.5−	0.5−	1998 11 11	704	0.9−	0.6+
1993 09 15	809	1.7+	0.1−	1998 10 18	809	1.1−	0.2+	1999 12 14	704	0.4+	0.4−
1993 09 15	809	0.9+	0.3−	1998 10 18	809	0.4+	1.3+	1999 12 14	704	0.1−	0.3−
1993 09 17	809	(0.7+	2.7−)	1998 10 18	809	1.5−	0.6+	1999 12 14	704	0.5−	0.8−
1993 09 17	809	(0.0	2.1−)	1998 10 19	809	(5.2+	3.3+)	1999 12 14	704	0.2−	0.4−
1993 09 17	809	0.2+	1.8−	1998 10 19	809	(2.7+	2.2+)	2000 01 23	681	1.0−	0.0
1993 09 18	809	1.1+	0.7+	1998 10 19	809	(3.9+	3.1+)	2000 01 23	681	0.3−	1.5+
1993 09 18	809	0.0	0.8−	1998 11 10	704	0.9+	0.2−	2000 01 23	681	0.2−	0.2−
1993 09 18	809	0.2−	0.1−	1998 11 10	704	0.7+	0.6−	2000 01 25	681	1.5+	0.1−
1993 09 18	675	0.9−	1.6−	1998 11 10	704	0.3−	0.8+	2000 01 25	681	0.6+	0.4−

(13789)* 1998 UZ₂₈ = 1999 AB₂₁ = 1997 JM₅

Discovered 1998 Oct. 18 by E. W. Elst at the European Southern Observatory.

Id. G. V. Williams (d, *MPC* 34061), A. Doppler (*MPC* 35637)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	185.43923		(2000.0)		P		Q
<i>n</i>	0.28029982	<i>ω</i>	252.47962	+0.91968883		+0.36875482	
<i>a</i>	2.3123532	<i>Ω</i>	85.71139	−0.28894925		+0.86820237	
<i>e</i>	0.1512056	<i>i</i>	7.77352	−0.26585857		+0.33203092	
<i>P</i>	3.52	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1991 11 02	691	0.3−	0.2+	1998 10 19	809	1.1−	1.0+	1999 01 14	704	0.1−	0.6+
1991 11 02	691	0.1+	0.1+	1998 10 19	809	0.9−	0.6+	1999 01 14	704	0.5−	1.4−
1991 11 02	691	0.0	0.3+	1998 11 11	704	0.7+	0.4+	1999 01 14	704	1.0−	0.5−
1997 05 01	691	0.5+	0.6+	1998 11 11	704	0.5+	0.2−	1999 01 14	704	0.3+	1.4+
1997 05 01	691	0.1−	0.7+	1998 11 11	704	0.7+	0.3+	2000 01 04	704	0.4−	1.2−
1997 05 01	691	0.4−	0.7+	1998 11 15	120	0.4+	0.6+	2000 01 04	704	0.3+	0.1+
1997 05 09	691	0.4+	0.2+	1998 11 15	120	0.3+	0.4+	2000 01 04	704	0.8−	0.3−
1997 05 09	691	0.2+	0.3+	1998 12 11	699	0.1+	0.6−	2000 01 04	704	1.2+	0.1−
1997 05 09	691	0.3+	0.3+	1998 12 11	699	0.1+	0.7−	2000 02 04	704	0.1+	1.1+
1998 08 28	704	0.9+	0.9+	1998 12 11	699	0.0	0.4−	2000 02 04	704	0.2−	0.4−
1998 08 28	704	(2.4+	0.1−)	1999 01 07	699	0.4+	0.0	2000 02 04	704	0.3−	1.1+
1998 08 28	704	0.9−	1.0−	1999 01 07	699	0.1−	0.6+	2000 02 04	704	0.3+	0.4−
1998 08 28	704	(3.9−	0.3+)	1999 01 07	699	0.1+	0.7+	2000 02 04	704	0.1−	0.3+
1998 10 18	809	0.3+	0.7+	1999 01 11	704	0.7+	0.9−	2000 02 14	704	0.9+	0.1+
1998 10 18	809	1.0−	0.4−	1999 01 11	704	1.4+	1.4+	2000 02 14	704	0.4−	0.3+
1998 10 18	809	1.4−	0.0	1999 01 11	704	0.8+	1.4−	2000 02 14	704	0.2−	0.2−
1998 10 19	809	1.0−	0.2+	1999 01 11	704	(0.1−	2.6+)				

(13790)* 1998 UF₃₁ = 1998 UH₃₂ = 1997 TQ₂₉ = 2000 AJ₂₇

Discovered 1998 Oct. 17 by the Beijing Schmidt CCD Asteroid Program at Xinglong.

Id. S. Nakano (d, *MPC* 36125), G. V. Williams (*MPC* 37797)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	351.79444		(2000.0)		P		Q
<i>n</i>	0.08224319	<i>ω</i>	53.68151	−0.50653462		−0.85265742	
<i>a</i>	5.2368414	<i>Ω</i>	67.23136	+0.73987042		−0.50609797	
<i>e</i>	0.1133022	<i>i</i>	7.98284	+0.44273518		−0.12976965	
<i>P</i>	11.98	<i>H</i>	11.2	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1996 09 15	809	0.0	0.2+	1998 11 01	327	0.2+	0.2−	2000 01 04	704	0.2−	0.1−
1996 10 09	809	1.0+	0.5+	1998 11 21	704	(2.3+	0.9−)	2000 01 04	704	0.5−	0.4−
1996 10 17	809	1.1−	0.3−	1998 11 21	704	0.2+	0.8−	2000 01 04	704	0.4−	0.1−
1997 10 06	809	1.2−	0.5−	1998 11 21	704	0.3+	0.4−	2000 01 04	704	0.0	0.4−
1997 10 06	809	0.3+	0.3+	1999 12 15	704	0.7+	0.3−	2000 01 04	704	1.0−	0.2+
1997 10 07	809	0.1−	0.3−	1999 12 15	704	0.1+	0.0	2000 01 29	704	0.4+	0.6+
1997 10 07	809	0.7+	0.3+	1999 12 15	704	0.5+	0.2−	2000 01 29	704	0.1−	0.6+
1998 10 17	327	0.4+	0.3+	1999 12 15	704	0.2−	0.1−	2000 01 29	704	0.1−	0.3+
1998 10 17	327	0.0	0.2+	1999 12 15	704	1.2+	0.2−	2000 01 29	704	0.3−	0.4+
1998 10 17	327	(2.0−	2.2−)	1999 12 15	704	0.2−	0.5−	2000 01 29	704	0.1+	1.7+
1998 10 23	327	0.2+	0.8+	1999 12 15	704	0.4+	1.3−	2000 01 30	704	0.7+	0.2+
1998 10 23	327	0.1+	0.0	1999 12 15	704	0.3−	0.7−	2000 01 30	704	0.2+	0.7+
1998 10 23	327	0.6−	0.1+	1999 12 15	704	0.3−	0.5−	2000 01 30	704	0.6−	0.7+
1998 10 27	327	0.3+	0.0	2000 01 03	704	0.3+	0.0	2000 01 30	704	1.4−	0.3−
1998 10 27	327	0.3−	0.1+	2000 01 03	704	0.3−	0.7−	2000 02 11	704	0.4+	0.2+
1998 10 27	327	0.5+	0.2+	2000 01 03	704	0.7−	0.1+	2000 02 11	704	1.2+	0.1−
1998 11 01	327	0.3−	0.4−	2000 01 03	704	0.2+	0.2+	2000 02 11	704	0.2+	0.9−
1998 11 01	327	0.4−	0.3+	2000 01 03	704	0.1−	0.0	2000 02 11	704	0.2−	0.9+

(13791)* 1998 VC = 1978 EP₂ = 1978 GC₁ = 1993 JM₁Discovered 1998 Nov. 1 by T. Kagawa at the Gekko Observatory.
Id. T. Urata (*MPC* 33316)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Asher

<i>M</i>	325.36778		(2000.0)	P	Q
<i>n</i>	0.26856012	ω	303.00277	-0.81331315	+0.58132498
<i>a</i>	2.3792589	Ω	272.55221	-0.52542842	-0.75166777
<i>e</i>	0.1549763	<i>i</i>	1.38492	-0.24989337	-0.31153945
<i>P</i>	3.67	<i>H</i>	14.0	<i>G</i>	0.15

Residuals in seconds of arc

1978 03 05	095	0.2+	1.6-	1998 11 10	910	0.3+	0.5+	1998 12 12	120	0.1-	0.4+
1978 04 07	095	1.1-	0.6-	1998 11 10	910	0.2+	0.2+	1998 12 12	120	0.4-	0.4+
1993 05 14	809	0.6-	0.5+	1998 11 11	704	0.5+	0.3+	1998 12 13	888	0.1+	0.1-
1993 05 14	809	1.1-	0.6+	1998 11 11	704	0.3-	1.7-	1998 12 13	888	0.1+	0.3+
1993 05 14	809	1.4-	0.5+	1998 11 11	704	1.1+	0.4-	1998 12 14	120	0.2-	0.4-
1993 05 15	809	1.4+	0.4+	1998 11 11	704	0.7+	1.3+	1998 12 14	120	0.0	0.0
1993 05 15	809	0.4+	0.2+	1998 11 11	704	0.4+	0.5-	1999 01 06	910	1.1-	0.1-
1993 05 15	809	0.9+	0.1+	1998 11 13	910	1.2+	0.2+	1999 01 06	910	1.2-	0.1-
1993 05 23	809	0.5-	0.7-	1998 11 13	910	1.1+	0.2-	1999 01 06	910	1.4-	0.2-
1993 05 23	809	0.7+	0.3-	1998 11 13	910	0.6+	0.2+	2000 01 05	704	0.0	0.2-
1993 05 23	809	0.1+	0.5-	1998 11 20	699	0.1-	0.1+	2000 01 05	704	0.0	0.5+
1998 11 01	888	0.0	0.3-	1998 11 20	699	0.1+	0.8+	2000 01 05	704	0.3+	0.5-
1998 11 01	888	0.2+	0.4+	1998 11 20	699	0.4-	0.1+	2000 01 05	704	0.5+	0.6+
1998 11 01	888	0.8+	0.3+	1998 11 24	888	0.3-	0.3+	2000 01 06	699	0.8+	0.4+
1998 11 07	888	0.4+	0.8-	1998 11 24	888	0.4-	0.2+	2000 01 06	699	0.4-	0.5+
1998 11 07	888	0.2-	0.3-	1998 11 26	691	0.2+	0.2-	2000 01 06	699	0.1+	0.0
1998 11 07	888	0.1-	0.4-	1998 11 26	691	0.2+	0.2-	2000 01 20	888	0.5-	0.9+
1998 11 08	888	0.6-	0.1-	1998 11 26	691	0.3+	0.1-	2000 01 20	888	0.8-	0.5+
1998 11 08	888	0.8-	0.1+	1998 12 07	120	0.4+	0.9-	2000 01 20	888	0.3-	0.2+
1998 11 08	888	0.7-	0.2-	1998 12 07	120	0.3-	0.3-	2000 02 07	106	0.5+	0.1-
1998 11 10	699	0.5+	0.7+	1998 12 07	120	0.2-	1.1-	2000 02 07	106	0.5+	0.2-
1998 11 10	699	0.2+	0.5-	1998 12 09	120	0.3-	0.2+	2000 02 07	106	0.8+	0.2-
1998 11 10	699	0.7+	0.5-	1998 12 09	120	0.1-	0.2+	2000 02 16	888	0.0	0.3+
1998 11 10	888	0.3-	0.3+	1998 12 09	120	0.4-	0.3+	2000 02 16	888	0.3-	0.1-
1998 11 10	888	0.3-	0.0	1998 12 12	120	0.0	0.3+	2000 02 16	888	0.4-	0.2-
1998 11 10	888	0.5-	0.6+	1998 12 12	120	0.1-	0.3-				
1998 11 10	910	0.1+	0.2+	1998 12 12	120	0.6-	0.4+				

(13792)* 1998 VG = 1981 ST₆ = 1987 WV₄

Discovered 1998 Nov. 7 at Kleť.

Id. G. V. Williams (*MPC* 33514)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	76.09994		(2000.0)	P	Q
<i>n</i>	0.17584905	ω	354.44435	+0.63285776	-0.77227612
<i>a</i>	3.1553149	Ω	56.28109	+0.71292208	+0.55325170
<i>e</i>	0.1918712	<i>i</i>	3.82616	+0.30204827	+0.31225334
<i>P</i>	5.60	<i>H</i>	13.3	<i>G</i>	0.15

Residuals in seconds of arc

1981 09 28	095	0.5+	0.6-	1998 11 16	566	0.4-	0.5-	1999 11 17	703	0.5+	0.3-
1987 11 19	054	0.9+	1.5-	1998 11 16	566	0.0	0.5-	1999 11 17	703	0.7+	0.6+
1987 11 19	054	0.3-	1.5-	1998 11 17	046	0.4-	0.1-	1999 12 06	704	0.8-	1.6-
1992 09 06	033	0.6-	0.2+	1998 11 17	046	0.1-	0.0	1999 12 06	704	1.9-	0.9+
1992 09 07	033	0.5+	0.2-	1998 11 17	046	0.2-	0.0	1999 12 06	704	1.0-	0.2-
1998 10 20	699	0.1-	0.5+	1998 11 23	046	0.1+	0.2-	1999 12 06	704	0.9+	0.7+
1998 10 20	699	0.5+	0.3+	1998 11 23	046	0.2+	0.1-	1999 12 06	704	(0.6+	2.9+)
1998 10 20	699	0.2-	0.6+	1998 11 23	046	0.0	0.2-	2000 01 10	699	0.7-	0.1+
1998 11 07	046	0.1+	0.2+	1998 12 08	699	0.3+	0.3+	2000 01 10	699	0.0	0.1+
1998 11 07	046	0.1+	0.1+	1998 12 08	699	0.3-	0.1+	2000 01 10	699	1.8+	0.3-
1998 11 07	046	0.1+	0.2+	1998 12 08	699	0.3+	0.1+	2000 01 14	046	0.0	0.3-
1998 11 07	046	0.1+	0.2+	1998 12 08	046	0.2-	0.5-	2000 01 14	046	0.1-	0.5-
1998 11 07	046	0.1+	0.2+	1998 12 08	046	0.1-	0.1+	2000 01 14	046	0.1-	0.3-
1998 11 08	046	0.1+	0.3+	1998 12 08	046	0.1-	0.0	2000 01 15	046	0.1-	0.0
1998 11 08	046	0.1+	0.1+	1998 12 09	046	0.2-	0.1-	2000 01 15	046	0.4-	0.1+
1998 11 08	046	0.4+	0.2+	1998 12 09	046	0.3-	0.3-	2000 01 15	046	0.2+	0.2-
1998 11 08	046	0.2+	0.1-	1998 12 09	046	0.1-	0.1-	2000 02 03	704	0.4-	0.2-
1998 11 08	046	0.2-	0.3+	1999 01 06	699	0.1+	0.8-	2000 02 03	704	0.1+	0.2+
1998 11 08	046	0.4-	0.7+	1999 01 06	699	0.2-	0.8-	2000 02 03	704	0.7+	0.0

1998 11 10	704	0.3-	0.0	1999 01 06	699	1.0-	0.1+	2000 02 03	704	0.6+	0.6-
1998 11 10	704	0.5-	0.2-	1999 01 11	704	1.7-	0.9-	2000 02 03	704	0.4+	0.3-
1998 11 10	704	0.0	0.2-	1999 01 11	704	1.4+	0.4+	2000 02 04	046	0.0	0.1-
1998 11 10	704	1.4-	0.4-	1999 01 11	704	0.2+	1.7+	2000 02 04	046	0.0	0.1-
1998 11 10	704	0.7-	0.3-	1999 01 11	704	0.2+	1.6+	2000 02 04	046	0.0	0.1-
1998 11 11	704	0.1-	0.1+	1999 01 11	704	1.3+	1.5-	2000 02 06	703	0.2+	0.3+
1998 11 11	704	0.1-	0.6-	1999 01 18	046	0.3-	0.7+	2000 02 06	703	0.4+	0.1+
1998 11 11	704	0.0	0.1+	1999 01 18	046	0.0	0.4+	2000 02 06	703	0.1+	0.2-
1998 11 11	704	0.2+	0.5-	1999 01 18	046	0.2-	0.3+	2000 02 06	703	0.2-	0.3-
1998 11 11	704	(0.3+	2.4-)	1999 01 19	046	0.0	0.2+	2000 02 11	704	(0.2+	2.7+)
1998 11 14	699	0.5+	1.2+	1999 01 19	046	0.1+	0.4+	2000 02 11	704	1.2-	1.5+
1998 11 14	699	0.7+	0.8+	1999 01 19	046	0.2-	0.3+	2000 02 11	704	0.3-	0.5+
1998 11 14	699	1.1+	0.8+	1999 11 17	703	0.2+	0.3-	2000 02 11	704	0.4-	0.0
1998 11 16	566	0.2-	0.6-	1999 11 17	703	1.5+	0.1-	2000 02 11	704	0.0	1.1+

(13793)* 1998 VB₄ = 1992 SZ₁₃ = 1995 BP₆

Discovered 1998 Nov. 11 by the OCA-DLR Asteroid Survey at Caussols.

Id. A. Doppler (*MPC* 33514), G. V. Williams (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	192.95272		(2000.0)	P	Q
<i>n</i>	0.18818705	ω	179.95677	+0.53597041	+0.84347334
<i>a</i>	3.0158488	Ω	122.45294	-0.77458486	+0.50821774
<i>e</i>	0.1745806	<i>i</i>	2.43799	-0.33578865	+0.17397544
<i>P</i>	5.24	<i>H</i>	13.6	<i>G</i>	0.15

Residuals in seconds of arc

1992 09 26	033	0.6+	0.5-	1998 11 15	104	1.1-	1.3+	2000 02 03	691	0.5+	0.8-
1992 09 26	033	0.5+	0.5-	1998 11 15	104	0.5-	0.5+	2000 02 03	704	(2.4-	1.4-)
1992 09 27	033	0.5+	0.5-	1998 11 15	104	0.1-	0.9-	2000 02 03	691	0.7+	0.3-
1992 09 28	033	0.5-	0.7-	1998 12 16	120	0.9-	1.8+	2000 02 03	704	1.4-	0.4-
1995 01 28	691	0.2+	0.2+	1998 12 16	120	1.3-	0.7-	2000 02 06	691	0.1-	0.2-
1995 01 28	691	0.1-	0.1+	1998 12 16	120	0.0	0.1+	2000 02 06	691	0.1-	0.7-
1995 01 28	691	0.3-	0.1-	1998 12 18	120	0.8-	0.0	2000 02 06	691	0.3-	0.1-
1995 02 06	691	0.0	0.2-	1998 12 18	120	1.6-	0.5+	2000 02 11	704	0.2+	0.4+
1995 02 06	691	0.0	0.2-	1999 01 06	120	0.7-	0.2-	2000 02 11	704	0.0	0.2-
1998 11 11	910	1.1+	0.3+	2000 01 06	704	0.7-	0.2+	2000 02 11	704	0.8-	1.8+
1998 11 11	910	0.9+	0.2+	2000 01 06	704	0.2-	0.1-	2000 02 12	691	0.3+	0.2-
1998 11 11	910	0.9+	0.2+	2000 01 06	704	1.1+	1.8-	2000 02 12	691	0.2+	0.1-
1998 11 13	910	1.3+	0.8-	2000 02 03	691	0.9+	0.5-	2000 02 12	691	0.4+	0.2-
1998 11 13	910	0.9+	0.1-	2000 02 03	704	0.2-	0.5+				
1998 11 13	910	1.3+	0.1-	2000 02 03	704	0.9-	0.0				

(13794)* 1998 VD₅ = 1981 UQ₁₆ = 1987 XB₁

Discovered 1998 Nov. 11 by K. Korlević at Višnja.

Id. G. V. Williams (*MPC* 33515)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	63.58134		(2000.0)	P	Q
<i>n</i>	0.17588571	ω	3.65632	+0.14334746	-0.98865425
<i>a</i>	3.1548764	Ω	78.10589	+0.90683927	+0.11305277
<i>e</i>	0.1532832	<i>i</i>	2.62882	+0.39635091	+0.09890323
<i>P</i>	5.60	<i>H</i>	13.0	<i>G</i>	0.15

Residuals in seconds of arc

1981 10 24	095	0.8-	2.0+	1998 11 23	691	0.2+	0.3+	1999 12 05	704	0.9+	0.7+
1987 12 15	046	0.9+	0.8+	1998 11 23	691	0.3+	0.1+	1999 12 05	704	0.3+	1.3-
1987 12 15	046	0.9-	0.1+	1998 11 23	691	0.3+	0.1+	1999 12 05	699	0.5+	0.6-
1997 07 31	691	0.5-	0.7+	1998 11 24	704	0.0	0.1+	1999 12 05	704	0.0	1.6-
1997 07 31	691	0.7-	0.5+	1998 11 24	704	0.5+	0.4-	1999 12 05	699	0.1+	1.4+
1997 07 31	691	0.6-	0.6+	1998 11 24	704	0.4+	0.8+	1999 12 05	699	0.5-	0.6+
1997 08 09	658	0.2+	0.5+	1998 11 24	704	0.8+	0.3+	1999 12 06	704	0.4-	0.6-
1997 08 09	658	0.1+	0.8+	1998 11 24	704	0.2-	0.4+	1999 12 06	704	0.4-	0.3+
1997 08 09	658	0.3-	0.7+	1998 11 25	699	0.0	0.3+	1999 12 06	704	0.7-	0.9+
1998 11 11	120	0.1-	0.0	1998 11 25	699	0.2-	0.4+	1999 12 06	704	0.3-	0.1-
1998 11 11	120	0.4-	0.1+	1998 11 25	699	0.2+	0.2+	1999 12 06	704	0.4-	0.1-
1998 11 11	120	0.0	0.1+	1998 11 26	120	0.4-	0.1-	1999 12 06	704	0.6-	0.3-

2000 FEB. 22

M.P.C. 38399

1998 11 11	120	0.6-	0.2-	1998 11 26	120	0.6-	0.1+	1999 12 06	704	1.1-	1.0-
1998 11 12	120	0.2+	1.0-	1998 11 26	120	0.4-	0.1+	1999 12 06	704	0.3-	0.3+
1998 11 12	120	1.3+	1.5+	1998 12 14	120	0.1+	0.1+	1999 12 06	704	0.3-	0.1+
1998 11 18	704	0.2+	0.2+	1998 12 14	120	0.0	0.1+	1999 12 18	699	0.6+	1.1+
1998 11 18	704	0.2+	1.2-	1998 12 15	691	0.3-	1.0+	1999 12 18	699	0.1-	1.4+
1998 11 18	704	1.0+	0.5-	1998 12 15	691	0.1-	0.0	2000 02 04	704	0.0	0.4+
1998 11 18	704	0.5+	0.3-	1998 12 15	691	0.1-	0.1+	2000 02 04	704	0.3+	0.5+
1998 11 18	704	0.7+	0.1-	1998 12 23	691	0.8-	0.0	2000 02 04	704	0.1-	0.3+
1998 11 21	704	0.4+	0.2+	1998 12 23	691	0.5-	0.1-	2000 02 04	704	0.4-	0.1+
1998 11 21	704	1.6+	1.3-	1998 12 23	691	0.4-	0.2+	2000 02 04	704	0.3-	0.7+
1998 11 21	704	1.0+	1.0-	1999 01 23	691	0.0	0.3-	2000 02 11	704	1.1+	0.6+
1998 11 21	704	1.9+	1.8-	1999 01 23	691	0.9-	0.2-	2000 02 11	704	0.1+	0.4-
1998 11 21	704	(2.0+, 2.4-)		1999 01 23	691	1.0-	0.2-	2000 02 11	704	0.8+	0.2+
1998 11 22	691	1.3-	0.1-	1999 02 14	691	0.1-	0.3-	2000 02 11	704	0.8+	0.2-
1998 11 22	691	1.3-	0.1-	1999 02 14	691	0.0	0.2-	2000 02 11	704	1.1+	0.7+
1998 11 22	691	1.3-	0.1+	1999 02 14	691	1.3-	1.0+				

(13795)* 1998 VP₂₀ = 1991 PH₄ = 1996 LF₁

Discovered 1998 Nov. 10 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 33319)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

						Williams			
<i>M</i>	251.03186		(2000.0)	P		Q			
<i>n</i>	0.17440019	ω	85.99771	-0.61128633		+0.79113279			
<i>a</i>	3.1727663	Ω	146.29121	-0.74024602		-0.56221448			
<i>e</i>	0.1373117	<i>i</i>	2.16099	-0.27993724		-0.24088125			
<i>P</i>	5.65	<i>H</i>	12.9	<i>G</i>	0.15	<i>U</i>	1		

Residuals in seconds of arc

1991 08 03	809	0.9+	0.3+	1998 11 11	704	0.3+	0.9+	2000 01 05	704	0.5+	0.3-
1991 08 03	809	0.1-	0.5+	1998 11 11	704	0.0	0.3-	2000 01 05	704	0.1+	0.2+
1991 08 03	809	0.2-	1.1-	1998 11 11	704	0.4+	0.2-	2000 01 06	704	1.3+	0.4-
1991 08 05	809	1.1+	0.5-	1998 11 11	704	(2.3- 0.0)		2000 01 06	704	0.7-	0.2+
1991 08 05	809	0.8+	1.2-	1999 10 12	704	0.3+	0.9-	2000 01 06	704	0.0	1.2-
1991 08 05	809	1.7-	1.4-	1999 10 12	704	0.5-	0.2-	2000 01 09	704	0.5-	0.7-
1996 06 13	566	0.2-	0.8-	1999 10 12	704	0.0	0.7+	2000 01 09	704	0.1+	0.3-
1996 06 13	566	0.2-	1.0-	1999 10 12	704	0.6-	0.5+	2000 01 09	704	0.2+	0.6-
1996 06 13	566	0.1+	0.6-	1999 10 22	704	0.9+	0.3-	2000 01 09	704	0.8-	0.9-
1996 06 14	566	0.1-	0.4-	1999 10 22	704	0.5+	0.8-	2000 01 09	704	0.1+	1.8-
1996 06 14	566	0.0	0.5-	1999 10 22	704	0.1+	1.2-	2000 02 02	704	0.4-	0.3+
1996 06 14	566	0.3-	0.4-	1999 10 22	704	0.8+	0.5-	2000 02 02	704	0.2+	0.7+
1998 10 28	120	0.6-	1.0+	1999 10 22	704	0.3+	0.8-	2000 02 02	704	0.2+	0.9+
1998 10 28	120	0.3-	0.6+	1999 12 08	704	0.2-	1.3-	2000 02 02	704	0.1+	0.5+
1998 10 29	691	0.1-	0.5+	1999 12 08	704	(0.3- 2.6-)		2000 02 03	704	0.2-	0.4+
1998 10 29	691	0.0	0.5+	1999 12 08	704	0.9-	1.6-	2000 02 03	704	0.7-	0.7+
1998 11 10	704	0.7-	0.4+	1999 12 08	704	(1.5- 3.6-)		2000 02 03	704	0.2-	0.5+
1998 11 10	704	0.4-	0.9-	1999 12 08	704	(0.5- 2.8-)		2000 02 03	704	0.2+	1.4+
1998 11 10	704	0.9-	0.8+	2000 01 05	704	0.1-	0.9-	2000 02 03	704	0.2-	0.8+
1998 11 10	704	1.1+	0.9-	2000 01 05	704	0.4-	0.9-				
1998 11 11	704	0.7+	0.8-	2000 01 05	704	0.1+	0.1-				

(13796)* 1998 VB₂₆ = 1975 TN₁ = 1996 FC₂₂

Discovered 1998 Nov. 10 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 34537, unpublished)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

						Williams			
<i>M</i>	121.89324		(2000.0)	P		Q			
<i>n</i>	0.17378834	ω	338.71838	+0.99111195		+0.13291646			
<i>a</i>	3.1802087	Ω	13.64692	-0.11843655		+0.90047369			
<i>e</i>	0.1758966	<i>i</i>	1.33708	-0.06057952		+0.41410185			
<i>P</i>	5.67	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	1		

Residuals in seconds of arc

1975 10 03	095	(0.8- 2.5-)	1998 11 11	704	0.1+	0.2-	2000 01 04	704	0.4-	0.0
1992 09 30	691	0.1+ 0.4+	1998 11 11	704	0.4+	0.1-	2000 01 04	704	0.3+	1.2-

1992 09 30	691	0.8-	0.0	1998 11 11	704	1.1+	0.2+	2000 01 06	704	0.1-	0.3-
1992 09 30	691	0.4+	0.2+	1998 11 11	704	0.8-	0.1+	2000 01 06	704	0.5+	0.3+
1996 03 24	809	0.8-	0.2+	1998 11 11	704	0.4-	0.0	2000 01 06	704	0.4+	0.6-
1996 03 24	809	1.4-	0.1-	1998 11 19	691	0.7-	0.4-	2000 01 06	704	0.7-	0.2-
1996 03 24	809	0.5-	0.2-	1998 11 19	691	0.7-	0.3-	2000 01 30	704	1.3-	1.2+
1996 03 27	809	0.1-	0.5-	1998 11 19	691	0.6-	0.0	2000 01 30	704	0.2-	0.9+
1996 03 27	809	1.2+	1.9-	1998 11 20	699	0.1-	1.1+	2000 01 30	704	1.6+	1.5+
1996 03 27	809	0.8+	1.6-	1998 11 20	699	0.0	0.2+	2000 02 03	704	0.6+	0.4+
1996 04 17	809	0.3-	1.9+	1998 11 20	699	0.3-	0.6+	2000 02 03	704	0.1-	0.2+
1996 04 17	809	(0.8+ 2.6+)		1998 11 24	699	0.7+	0.8+	2000 02 03	704	0.2+	0.2-
1996 04 17	809	0.8+	1.6+	1998 11 24	699	1.2+	0.1+	2000 02 03	704	0.2+	0.2+
1998 10 18	699	0.2+	0.7-	1998 11 24	699	0.8+	0.3+	2000 02 03	704	0.0	0.4+
1998 10 18	699	0.2+	0.1-	1998 12 08	699	0.1+	0.3-	2000 02 11	704	0.2+	0.0
1998 10 18	699	0.2-	0.0	1998 12 08	699	0.4+	0.6+	2000 02 11	704	0.3-	0.4+
1998 11 10	704	0.1+	0.2-	1998 12 08	699	0.5-	0.6+	2000 02 11	704	0.7-	0.6+
1998 11 10	704	0.9-	1.5-	2000 01 04	704	0.1-	0.9-	2000 02 11	704	0.4-	0.1+
1998 11 10	704	0.8+	0.3-	2000 01 04	704	0.7-	1.0-				
1998 11 10	704	0.8-	1.0-	2000 01 04	704	0.6+	1.5-				

(13797)* 1998 VQ₂₇ = 1139 T-1

Discovered 1998 Nov. 10 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. A. Doppler (*MPC* 33971)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

						Williams			
<i>M</i>	160.74790		(2000.0)	P		Q			
<i>n</i>	0.19929706	ω	340.90193	+0.87400341		+0.48589566			
<i>a</i>	2.9026998	Ω	350.02270	-0.44210673		+0.79102442			
<i>e</i>	0.0912235	<i>i</i>	1.60137	-0.20164244		+0.37173347			
<i>P</i>	4.95	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	1		

Residuals in seconds of arc

1971 03 24	675	0.5+	2.1-	1998 11 16	566	0.9-	0.3-	2000 01 06	704	0.1-	1.6-
1971 03 25	675	1.1-	0.1+	1998 11 20	699	0.3-	0.5-	2000 01 07	120	(2.6+	0.7-)
1971 03 25	675	1.5-	0.2+	1998 11 20	699	0.4+	0.3-	2000 01 07	120	0.0	0.1-
1971 03 26	675	1.1+	0.1+	1998 11 20	699	0.1-	0.3+	2000 01 30	703	1.3-	1.3+
1971 03 27	675	1.2-	1.2-	1999 01 06	699	1.5-	0.1+	2000 01 30	703	1.8-	0.2+
1971 03 27	675	0.2-	0.4-	1999 01 06	699	0.5+	0.3-	2000 01 30	703	1.2-	1.0+
1971 04 02	675	1.1+	0.6+	1999 01 06	699	1.5+	0.4-	2000 01 30	703	0.9-	1.5+
1996 03 21	566	0.1-	0.0	1999 01 13	910	0.6-	0.3-	2000 01 30	704	0.1+	0.8+
1996 03 21	566	0.1-	0.3+	1999 01 13	910	0.7-	0.1-	2000 01 30	704	0.1+	0.0
1996 03 21	566	0.1+	0.1-	1999 01 13	910	0.6-	0.2-	2000 01 30	704	0.2-	0.1+
1998 10 18	699	0.9+	0.0	1999 01 14	910	0.4-	0.4-	2000 01 30	704	1.9+	1.0+
1998 10 18	699	0.1+	0.2+	1999 01 14	910	0.4-	0.6-	2000 02 03	704	0.7+	0.1+
1998 10 18	699	0.8+	0.1+	1999 01 14	910	0.6-	0.6-	2000 02 03	704	0.3+	1.0-
1998 11 10	704	1.3+	0.0	2000 01 03	120	0.2+	0.7-	2000 02 03	704	0.5+	0.4-
1998 11 10	699	1.0+	0.3-	2000 01 03	120	0.9+	1.0-	2000 02 03	704	0.2+	0.1+
1998 11 10	704	(2.3+	0.4-)	2000 01 04	704	0.5-	0.0	2000 02 05	704	0.4-	0.1+
1998 11 10	704	0.4-	0.4+	2000 01 04	704	0.3-	0.6-	2000 02 05	704	0.0	0.0
1998 11 10	704	0.1-	0.4+	2000 01 04	704	0.5-	0.7-	2000 02 05	704	0.3-	0.7+
1998 11 10	699	0.1+	0.2+	2000 01 04	704	0.2+	0.7-	2000 02 05	704	0.3-	0.8+
1998 11 10	699	0.5+	0.1+	2000 01 04	704	1.2+	0.5-	2000 02 05	704	0.3+	0.1+
1998 11 11	704	0.2+	0.4-	2000 01 05	699	0.8+	0.5-	2000 02 11	704	0.7+	1.1+
1998 11 11	704	0.3+	1.0+	2000 01 05	699	0.3-	0.1-	2000 02 11	704	0.0	0.6+
1998 11 11	704	0.6-	0.3+	2000 01 05	699	0.8+	0.0	2000 02 11	704	1.3+	0.3-
1998 11 11	704	(3.1-	0.1-)	2000 01 06	704	0.1-	0.0	2000 02 11	704	0.0	0.8+
1998 11 16	566	0.3-	0.4-	2000 01 06	704	0.6-	0.3-	2000 02 11	704	0.2-	0.8+
1998 11 16	566	0.5-	0.5-	2000 01 06	704	0.4-	0.7-				

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	227.30302		(2000.0)	P	Q
<i>n</i>	0.19897905	ω	241.01692	+0.05399649	+0.99752251
<i>a</i>	2.9057917	Ω	32.17435	−0.88415438	+0.06874866
<i>e</i>	0.0918130	<i>i</i>	4.85756	−0.46406402	−0.01491544
<i>P</i>	4.95	<i>H</i>	14.1	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1976 04 01	095	1.4−	0.4+	1996 04 23	566	0.5+	0.1−	1998 12 05	104	1.1+	0.5−
1983 11 09	033	0.9+	0.1+	1996 04 23	566	0.5+	1.2−	1998 12 05	104	1.1+	0.2−
1983 11 10	033	1.1+	0.2−	1997 09 01	566	1.2−	0.4+	1998 12 06	104	0.7−	0.4−
1996 03 24	809	0.7+	0.4−	1997 09 01	566	1.4−	0.1−	1998 12 06	104	1.0−	0.5−
1996 03 24	809	0.9−	0.2+	1997 09 01	566	0.6−	0.1+	1998 12 06	104	0.9+	1.1−
1996 03 24	809	0.4−	1.3−	1998 11 15	104	0.5+	0.6+	1998 12 06	104	1.0+	1.1−
1996 03 26	809	(2.3+	2.7+)	1998 11 15	104	0.6+	0.0	1999 12 31	104	0.8+	0.5−
1996 03 26	809	(1.6+	3.8+)	1998 11 15	104	0.7+	0.2+	2000 01 01	104	0.5−	1.0−
1996 03 26	809	(1.2+	3.0+)	1998 11 15	104	1.8−	0.4−	2000 01 30	704	0.3−	0.1+
1996 03 26	809	0.7+	0.1+	1998 11 15	104	0.6+	0.2−	2000 01 30	704	0.3+	0.2+
1996 03 26	809	1.2+	0.0	1998 11 16	104	1.1−	0.3−	2000 01 30	704	0.2−	1.2+
1996 03 26	809	0.5+	0.5+	1998 11 16	104	0.8−	0.0	2000 01 30	704	0.2+	0.2−
1996 04 22	566	0.1+	0.5−	1998 11 16	104	0.0	0.3+	2000 01 30	704	1.9−	1.1+
1996 04 22	566	(0.3+	3.3−)	1998 11 16	104	0.2−	0.6+	2000 02 05	104	0.2−	1.4+
1996 04 22	566	0.3−	0.6−	1998 11 17	104	0.1+	0.8+	2000 02 11	704	0.1+	0.4+
1996 04 22	566	(0.2+	3.4−)	1998 11 17	104	0.1+	0.6+	2000 02 11	704	0.6+	0.3+
1996 04 22	566	0.7−	0.4−	1998 11 17	104	0.0	0.6+	2000 02 11	704	0.2−	0.5+
1996 04 22	566	(1.7−	3.0−)	1998 12 05	104	1.1+	0.7−	2000 02 11	704	0.0	0.7+
1996 04 23	566	0.6+	0.3−	1998 12 05	104	1.1+	0.6−	2000 02 11	704	1.3−	0.1−

(13799)* 1998 VC₃₄ = 1995 DW₄ = 1191 T-1

Discovered 1998 Nov. 14 by N. Kawasato at Uenohara.

Id. S. Nakano (*MPC* 33321)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Asher

<i>M</i>	85.56454		(2000.0)	P	Q
<i>n</i>	0.20155518	ω	121.32687	+0.46679144	−0.88422742
<i>a</i>	2.8809789	Ω	300.83892	+0.80503671	+0.43221719
<i>e</i>	0.0466488	<i>i</i>	1.05014	+0.36608969	+0.17700331
<i>P</i>	4.89	<i>H</i>	14.7	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1971 03 25	675	0.0	1.9−	1998 11 11	704	0.8+	1.5−	1999 01 19	910	0.4−	0.4−
1971 03 25	675	1.6−	0.0	1998 11 12	376	0.2+	0.1−	1999 01 19	910	0.8−	0.2−
1971 03 26	675	1.1+	1.6−	1998 11 12	376	0.1+	0.8+	2000 01 08	691	0.2+	0.2−
1971 03 27	675	0.2−	1.3−	1998 11 14	376	0.4−	0.3−	2000 01 08	691	0.1+	0.2−
1971 04 02	675	1.1−	1.3+	1998 11 14	376	0.9+	0.6−	2000 01 08	691	0.0	0.1−
1995 02 21	691	0.5+	0.0	1998 11 14	376	0.2−	0.2+	2000 02 02	703	0.3−	1.1+
1995 02 21	691	0.5+	0.1+	1998 11 17	691	0.0	0.3−	2000 02 02	703	0.4+	0.8+
1995 02 21	691	0.4+	0.5−	1998 11 17	691	0.2−	0.1−	2000 02 02	703	0.8+	0.0
1995 03 01	691	0.2+	0.5−	1998 11 17	691	0.4−	0.3−	2000 02 02	703	0.3+	0.8−
1995 03 01	691	0.0	0.3+	1998 11 17	376	0.1−	0.5+	2000 02 04	704	0.7−	0.8+
1997 10 07	691	0.1+	1.0+	1998 11 17	376	0.6+	1.2−	2000 02 04	704	0.0	0.5+
1997 10 07	691	0.2−	0.8+	1998 11 19	376	0.5−	0.7+	2000 02 04	704	0.0	1.5+
1997 10 07	691	0.4−	0.5+	1998 11 19	376	0.5+	0.0	2000 02 04	704	0.0	1.8+
1998 11 11	704	0.2+	0.5+	1999 01 19	910	0.6−	0.2−	2000 02 04	704	(1.1+	2.5+)

(13800)* 1998 VR₃₆ = 1982 BZ₇ = 1999 YV₁

Discovered 1998 Nov. 14 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 37803)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	62.64145		(2000.0)	P	Q
<i>n</i>	0.22442157	ω	207.14424	+0.02316241	−0.98251945
<i>a</i>	2.6817996	Ω	242.03914	+0.95100106	+0.07863522
<i>e</i>	0.1316108	<i>i</i>	12.07108	+0.30831880	−0.16873659
<i>P</i>	4.39	<i>H</i>	12.6	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1982 01 23	010	0.3−	1.3−	1998 12 09	704	(2.6+	0.9+)	1999 12 17	704	0.1+	0.5−
1992 05 03	809	0.0	0.1+	1998 12 09	704	1.5+	0.2+	1999 12 17	704	0.0	0.6−
1992 05 03	809	0.7−	0.5−	1998 12 09	704	0.3−	1.6−	1999 12 17	704	0.1+	0.7−
1992 05 03	809	0.3+	0.9−	1998 12 09	704	(2.9+	2.0−)	2000 01 10	704	0.7−	0.1+
1998 09 20	699	0.6−	0.3+	1999 01 08	704	0.2+	0.9+	2000 01 10	704	0.0	0.7+
1998 09 20	699	0.2−	0.2−	1999 01 08	704	0.8−	0.6+	2000 01 10	704	0.0	0.4+
1998 09 20	699	0.3−	0.0	1999 01 08	704	0.6−	0.9−	2000 01 10	704	0.5−	0.8+
1998 11 14	704	0.3−	0.3+	1999 01 08	704	0.6−	0.0	2000 01 10	704	0.3+	0.0
1998 11 14	704	0.4+	0.1+	1999 01 08	704	0.5+	0.0	2000 01 11	704	0.6−	0.4+
1998 11 14	704	0.2+	0.2−	1999 01 11	704	0.5−	0.4+	2000 01 11	704	0.7−	0.1−
1998 11 14	704	0.9+	0.3−	1999 01 11	704	0.7−	0.8+	2000 01 11	704	0.7−	0.2−
1998 11 14	704	0.6+	1.4−	1999 01 11	704	1.4−	0.1−	2000 01 11	704	0.1−	0.4+
1998 11 17	699	0.5+	0.9+	1999 01 11	704	0.8−	0.4−	2000 01 11	704	0.4−	0.1−
1998 11 17	699	0.5+	0.6+	1999 01 11	704	0.7−	0.1+	2000 02 07	106	0.5+	0.1+
1998 11 17	699	0.4+	0.6+	1999 12 16	704	0.1−	0.2+	2000 02 07	106	0.9+	0.1+
1998 11 20	704	0.3+	0.1+	1999 12 16	704	0.8−	0.6−	2000 02 07	106	0.5+	0.2−
1998 11 20	704	0.1+	0.8−	1999 12 16	704	0.2+	0.8−	2000 02 10	704	0.7+	0.5−
1998 11 20	704	0.3+	0.7+	1999 12 16	704	0.4−	0.2−	2000 02 10	704	0.2+	0.0
1998 11 20	704	0.8−	0.6−	1999 12 16	704	0.2+	0.2−	2000 02 10	704	0.2+	0.3+
1998 11 20	704	0.5+	0.5−	1999 12 17	704	0.3−	0.1−	2000 02 10	704	0.5+	0.6+
1998 12 09	704	0.1+	1.2+	1999 12 17	704	0.4+	0.3+	2000 02 10	704	0.2+	0.7+

(13801)* 1998 VP₄₄ = 1999 AN₈ = 1988 SZ₁

Discovered 1998 Nov. 11 by the Lowell Observatory Near-Earth Object Search at the Anderson Mesa Station.

Id. A. Doppler (d, *MPC* 36004), G. V. Williams (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	350.96774		(2000.0)	P	Q
<i>n</i>	0.21575674	ω	75.41422	−0.98504478	−0.01596819
<i>a</i>	2.7531284	Ω	103.45075	−0.04649198	−0.93412917
<i>e</i>	0.0779312	<i>i</i>	10.15988	+0.16590743	−0.35657777
<i>P</i>	4.57	<i>H</i>	13.6	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1950 04 22	675	0.3−	0.2+	1999 01 07	699	0.3+	0.3−	2000 02 01	703	0.6+	0.3+
1950 04 22	675	0.3+	0.1−	1999 01 07	699	0.1+	0.1−	2000 02 01	703	0.2−	0.2−
1988 09 16	807	0.4−	1.2−	1999 01 10	699	0.2−	1.4−	2000 02 01	703	0.0	0.4+
1988 09 18	807	1.5+	1.0−	1999 01 10	699	0.1+	1.2−	2000 02 01	703	0.2+	0.4+
1997 09 02	566	0.2−	0.7+	1999 01 10	699	0.4+	1.1−	2000 02 04	704	0.6+	0.3−
1997 09 02	566	0.2−	0.6+	1999 11 10	703	0.0	0.5−	2000 02 04	704	0.6+	0.7+
1997 09 02	566	0.5−	0.3+	1999 11 10	703	0.2+	0.2+	2000 02 04	704	0.4+	0.1+
1998 11 11	699	0.8−	0.0	1999 11 10	703	0.7+	0.4+	2000 02 04	704	0.3+	0.4+
1998 11 11	699	(2.7−	0.6+)	1999 11 10	703	1.1−	0.3+	2000 02 04	704	0.8+	1.2+
1998 11 11	699	0.7−	1.2+	2000 01 07	704	0.6+	0.1+	2000 02 14	704	0.3+	0.4−
1998 11 16	699	0.8−	1.0+	2000 01 07	704	0.0	0.6−	2000 02 14	704	1.6−	0.7−
1998 11 16	699	0.7+	1.4+	2000 01 07	704	0.8−	0.1−	2000 02 14	704	0.1+	0.0
1998 11 16	699	0.8+	1.0+	2000 01 07	704	1.1−	1.2−	2000 02 14	704	0.1+	0.1+
1999 01 07	699	(0.4−	2.2−)	2000 01 07	704	0.9−	0.5−				

(13802)* 1998 WR₃ = 1981 UD₇ = 1997 JK₁₆

Discovered 1998 Nov. 18 by S. Ueda and H. Kaneda at Kushiro.

Id. A. Gnädig (*MPC* 33710)

2000 FEB. 22

M.P.C. 38401

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	259.88410		(2000.0)	P	Q
<i>n</i>	0.29100761	ω	223.66240	+0.20428260	+0.97187708
<i>a</i>	2.2552766	Ω	58.45223	-0.85615162	+0.23540367
<i>e</i>	0.1532675	<i>i</i>	7.90114	-0.47462935	-0.00632841
<i>P</i>	3.39	<i>H</i>	13.6	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1981 10 30	381	0.1-	0.5+	1998 11 19	399	0.3+	0.7-	1998 12 13	684	0.8-	0.2+
1981 10 30	381	0.3-	0.4+	1998 11 20	699	0.9+	0.4+	1998 12 13	684	0.7-	0.0
1997 05 03	809	0.1+	1.1-	1998 11 20	699	1.0+	0.2+	1998 12 14	704	0.6-	0.4+
1997 05 03	809	0.6-	0.1-	1998 11 20	699	0.5+	0.3+	1998 12 14	704	0.3-	1.5-
1997 05 03	809	0.0	0.0	1998 11 21	704	0.5+	0.3-	1998 12 14	704	0.4-	1.7-
1997 05 04	809	(0.6-	2.2-)	1998 11 21	704	0.5+	0.5-	1998 12 14	704	1.5-	1.2-
1997 05 04	809	(0.5-	2.1-)	1998 11 21	704	0.3+	0.2-	1998 12 14	704	0.3+	0.5-
1997 05 04	809	0.7-	1.8-	1998 11 21	704	0.3-	0.8-	2000 01 07	704	0.7+	0.3-
1997 05 04	809	(4.6+	4.8+)	1998 11 21	704	0.4-	1.4-	2000 01 07	704	0.1+	0.5-
1997 05 04	809	(4.4+	5.0+)	1998 11 24	704	0.4-	0.1+	2000 01 07	704	0.2-	0.3-
1997 05 04	809	(4.5+	4.8+)	1998 11 24	704	1.1-	0.2-	2000 01 07	704	0.2+	1.4-
1998 08 31	704	1.7+	0.1+	1998 11 24	704	1.0-	0.7+	2000 02 01	703	0.2-	0.6+
1998 08 31	704	1.4+	1.9-	1998 11 24	704	0.3-	0.7+	2000 02 01	703	0.9-	0.3+
1998 08 31	704	1.4-	0.4+	1998 11 24	704	(0.8-	2.3+)	2000 02 01	703	0.1+	0.3+
1998 08 31	704	(0.2+	2.5+)	1998 11 25	699	0.4-	0.8+	2000 02 01	703	0.2+	0.2+
1998 08 31	704	0.7-	0.5+	1998 11 25	699	0.6-	0.7+	2000 02 04	704	0.8+	0.2-
1998 11 18	704	0.8+	0.6-	1998 11 25	699	0.3+	0.6+	2000 02 04	704	0.7+	0.3+
1998 11 18	704	0.3+	0.2+	1998 12 10	399	1.1+	0.1+	2000 02 04	704	0.0	0.4-
1998 11 18	704	0.5-	0.2+	1998 12 10	399	(2.8+	2.5-)	2000 02 04	704	0.3+	0.5+
1998 11 18	704	0.2-	0.7+	1998 12 11	699	1.1+	0.1+	2000 02 04	704	1.0-	0.7+
1998 11 18	704	0.0	1.0+	1998 12 11	699	1.1+	0.7-	2000 02 07	106	0.2-	0.2+
1998 11 18	399	0.1-	0.2-	1998 12 11	699	1.5+	0.0	2000 02 07	106	0.0	0.3+
1998 11 18	399	(2.2+	0.3-)	1998 12 12	684	0.5+	0.1-	2000 02 07	106	0.2+	0.1+
1998 11 19	399	0.6-	0.6-	1998 12 12	684	0.3+	0.0				

(13803)* 1998 WU₁₀ = 1986 GW₁ = 1997 GW₂₃

Discovered 1998 Nov. 21 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 33524)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	245.39153		(2000.0)	P	Q
<i>n</i>	0.27260784	ω	42.75719	+0.13817901	+0.99002131
<i>a</i>	2.3556485	Ω	235.20358	-0.91753075	+0.11745164
<i>e</i>	0.2271434	<i>i</i>	1.92937	-0.37288589	+0.07786479
<i>P</i>	3.62	<i>H</i>	13.9	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1986 04 08	071	0.2+	2.3-	1998 11 18	704	0.5-	0.1+	2000 01 07	704	0.3+	0.7-
1986 04 08	071	1.5-	0.4-	1998 11 18	704	0.5-	0.2-	2000 01 07	704	1.0+	1.4-
1986 04 09	071	(4.9-	0.8+)	1998 11 18	704	1.3+	0.9-	2000 01 07	704	1.3-	0.7-
1986 04 09	071	(6.0-	3.1+)	1998 11 18	704	0.6+	0.2+	2000 01 30	703	0.5-	0.0
1986 04 09	071	1.3+	1.0-	1998 11 18	704	0.9+	0.3+	2000 01 30	703	0.2+	0.5+
1986 04 09	071	0.9-	0.0	1998 11 21	704	0.1-	0.2-	2000 01 30	703	0.6-	0.4+
1994 10 12	033	1.8-	0.1-	1998 11 21	704	0.6+	1.1-	2000 01 30	703	0.2-	0.1+
1994 10 13	033	1.0-	0.0	1998 11 21	704	0.5+	1.2-	2000 02 01	703	0.2-	0.8+
1997 04 06	704	0.5+	0.1-	1998 11 21	704	(0.5+	2.4-)	2000 02 01	703	0.2-	0.4+
1997 04 06	704	0.2+	0.7-	1998 11 21	704	0.5-	1.0-	2000 02 01	703	0.7+	0.9+
1997 04 07	704	0.2+	0.3-	1998 11 23	691	1.7+	1.2-	2000 02 01	703	0.2+	0.5+
1997 04 07	704	0.2+	0.8+	1998 11 23	691	1.6+	1.5-	2000 02 02	704	1.0-	0.6-
1997 04 11	704	1.5+	0.3+	1998 11 23	691	0.1+	0.1-	2000 02 02	704	0.2+	0.1+
1997 04 11	704	0.4-	0.1-	1998 11 24	704	0.2-	0.9+	2000 02 02	704	0.4+	0.3+
1997 05 07	704	0.2+	0.3-	1998 11 24	704	0.7+	1.0+	2000 02 02	704	0.0	0.1-
1997 05 07	704	0.3-	0.1+	1998 11 24	704	0.0	0.4+	2000 02 02	704	0.1+	0.2+
1997 05 07	704	0.3-	0.5+	1998 11 24	704	0.0	0.1-	2000 02 04	704	0.2+	0.4+
1997 05 07	704	0.1-	0.1-	1998 12 14	120	1.5-	0.7-	2000 02 04	704	0.4+	0.3-
1997 05 07	704	0.5-	0.2+	1998 12 14	120	0.9-	1.0+	2000 02 04	704	0.2-	0.3-
1998 11 10	699	0.2-	0.6+	1998 12 14	120	0.2-	0.1+	2000 02 04	704	0.4-	1.5+

1998 11 10	699	0.9+	1.1+	1999 12 07	704	0.0	0.3-	2000 02 04	704	0.3-	0.8+
1998 11 10	699	0.1-	0.0	1999 12 07	704	0.4-	0.3-	2000 02 06	106	1.2+	0.1+
1998 11 11	120	0.0	0.8-	1999 12 07	704	0.5-	0.3-	2000 02 06	106	0.3+	0.5+
1998 11 11	120	1.1+	1.4+	1999 12 07	704	0.4-	0.8-	2000 02 12	704	0.5+	0.4-
1998 11 16	691	0.3-	0.4-	1999 12 07	704	0.5-	0.0	2000 02 12	704	0.3-	1.0+
1998 11 16	691	0.2-	0.1-	2000 01 07	704	0.8-	1.0-	2000 02 12	704	0.2+	1.0+
1998 11 16	691	0.3-	0.1+	2000 01 07	704	0.4-	0.3-	2000 02 12	704	0.2-	1.5+

(13804)* 1998 XK = 1981 TD₂ = 1986 OQ

Discovered 1998 Dec. 9 at Kleť.

Id. B. G. Marsden (*MPC* 33528)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Marsden

<i>M</i>	121.55357		(2000.0)	P	Q
<i>n</i>	0.17646721	ω	40.41095	+0.97271817	-0.22696854
<i>a</i>	3.1479419	Ω	332.59528	+0.17671046	+0.85897219
<i>e</i>	0.1562159	<i>i</i>	5.98686	+0.15030891	+0.45896847
<i>P</i>	5.59	<i>H</i>	12.9	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1981 10 03	095	0.3-	0.3+	1998 12 13	046	0.0	0.2+	2000 01 07	704	0.2+	0.7-
1986 07 27	413	1.2-	1.1-	1998 12 14	704	(2.5+	3.1-)	2000 01 07	704	0.7+	0.4+
1986 07 27	413	0.3+	1.1+	1998 12 14	704	(0.9+	2.5-)	2000 01 07	704	0.5+	1.1-
1986 08 01	413	0.1-	1.0-	1998 12 14	704	1.6+	1.8-	2000 01 07	704	0.4-	0.3-
1986 08 01	413	2.0+	0.5+	1998 12 14	704	0.4+	1.2-	2000 01 12	046	0.7-	0.5+
1992 09 25	691	0.6-	1.2+	1998 12 15	046	0.2-	0.1+	2000 01 13	046	0.0	0.2+
1992 09 25	691	0.5-	0.7+	1998 12 15	046	0.0	0.1+	2000 01 13	046	0.0	0.3+
1992 09 25	691	0.7-	0.8+	1998 12 15	046	0.2-	0.0	2000 01 13	046	0.2-	0.1+
1992 09 28	095	0.6-	0.1-	1998 12 17	704	0.3-	0.4+	2000 01 13	046	0.4-	0.1-
1992 09 28	095	0.3-	0.8+	1998 12 17	704	(0.3-	2.1+)	2000 01 14	046	0.6-	0.4+
1994 01 21	691	0.4+	0.5-	1998 12 17	704	0.3+	0.0	2000 01 14	046	0.1-	0.1-
1994 01 21	691	0.2-	0.6-	1998 12 17	704	0.3+	0.4-	2000 01 14	046	0.2-	0.2+
1998 08 31	704	0.4+	0.2+	1998 12 17	704	0.2+	0.5-	2000 02 04	046	0.0	0.3+
1998 08 31	704	0.2-	0.2-	1998 12 17	046	0.2-	0.2+	2000 02 04	046	0.2+	0.1+
1998 08 31	704	(1.1+	2.8-)	1998 12 17	046	0.2-	0.2+	2000 02 04	046	0.6+	0.2+
1998 08 31	704	0.1-	1.2-	1998 12 17	046	0.1-	0.1+	2000 02 04	704	0.2-	0.8+
1998 12 09	046	0.2+	0.1-	1998 12 23	046	0.2-	0.2+	2000 02 04	704	0.2-	0.4+
1998 12 09	046	0.2+	0.1-	1998 12 23	046	0.3-	0.2+	2000 02 04	704	0.1-	0.5-
1998 12 09	046	0.2+	0.1-	1998 12 23	046	0.0	0.2+	2000 02 04	704	0.8-	1.3+
1998 12 09	046	0.2+	0.1-	2000 01 04	704	0.5+	0.5-	2000 02 04	704	0.2+	0.5+
1998 12 10	046	0.1+	0.1+	2000 01 04	704	0.3+	0.6+	2000 02 11	704	0.0	0.8+
1998 12 10	046	0.0	0.2+	2000 01 04	704	0.2+	0.8-	2000 02 11	704	0.1+	0.5-
1998 12 10	046	0.3-	0.1-	2000 01 04	704	1.1+	0.8-	2000 02 11	704	0.1+	0.3+
1998 12 13	046	0.5-	0.0	2000 01 04	704	0.9-	1.3-	2000 02 11	704	0.8+	0.7+
1998 12 13	046	0.1-	0.1+	2000 01 07	704	0.5-	0.5+	2000 02 11	704	0.6+	1.1+

(13805)* 1998 XN₃ = 1969 VK₃ = 1986 TZ₁₂

Discovered 1998 Dec. 9 by T. Kobayashi at Oizumi.

Id. S. Nakano (*MPC* 33712)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Asher

<i>M</i>	161.99375		(2000.0)	P	Q
<i>n</i>	0.17256904	ω	299.29905	+0.89896997	+0.43765800
<i>a</i>	3.1951712	Ω	34.75485	-0.39042219	+0.81883287
<i>e</i>	0.1942608	<i>i</i>	1.76553	-0.19855354	+0.37144072
<i>P</i>	5.71	<i>H</i>	13.1	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1969 11 05	095	0.5+	0.4+

1997 06 14	327	1.2+	0.6+	1998 12 17	704	0.6−	0.4−	2000 02 03	704	0.2−	0.3+
1997 06 14	327	0.9+	0.8+	1998 12 17	704	0.6−	0.0	2000 02 03	704	0.4−	0.4+
1997 06 14	327	0.8+	0.7+	1998 12 17	704	1.0+	1.3+	2000 02 09	120	0.3−	0.1−
1997 12 03	910	1.3−	0.4−	1998 12 17	411	0.0	0.3+	2000 02 09	120	0.7−	0.5−
1997 12 03	910	1.2−	0.6−	1998 12 17	411	0.5+	0.6+	2000 02 10	120	0.9−	0.2−
1997 12 03	910	1.1−	0.7−	1998 12 24	411	0.8+	0.4−	2000 02 10	120	0.1+	0.6−
1998 12 09	411	0.6+	0.3−	1998 12 24	411	1.7+	0.2−	2000 02 10	120	0.6+	0.3−
1998 12 09	411	0.7+	0.4+	1999 01 03	411	0.5−	0.4−	2000 02 11	704	0.7+	1.0+
1998 12 11	411	1.5−	0.4−	1999 01 03	411	0.2−	0.0	2000 02 11	704	0.7−	0.8−
1998 12 11	411	0.8−	0.2−	1999 01 04	411	0.7+	0.4−	2000 02 11	704	0.6+	0.6+
1998 12 14	704	1.1+	1.4−	1999 01 04	411	0.4+	0.9−	2000 02 11	704	0.9+	0.9−
1998 12 14	704	0.4−	0.5−	2000 01 26	120	0.3−	0.1+	2000 02 11	120	0.8+	1.1−
1998 12 14	704	1.3−	0.3−	2000 01 26	120	0.3−	1.2+	2000 02 11	120	1.3+	0.8−

(13806)* 1998 XM₆ = 1978 WS₁₃ = 1996 LE₅

Discovered 1998 Dec. 8 by Spacewatch at Kitt Peak.

Id. A. Doppler (*MPC* 33712)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.19629348	<i>ω</i>	182.28418	+0.44149611		+0.89592986	
<i>a</i>	2.9322352	<i>Ω</i>	113.91853	−0.82237252		+0.42584072	
<i>e</i>	0.0862142	<i>i</i>	3.06622	−0.35886576		+0.12636993	
<i>P</i>	5.02	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1978 11 29	675	(5.0+ 0.4−)	1998 11 21	704	1.0+	1.0−	2000 01 06	704	0.9−	0.0
1978 11 30	675	0.6− 1.1−	1998 11 23	699	0.6+	0.1−	2000 01 06	704	1.1−	0.5+
1993 12 15	691	1.5+ 0.5+	1998 11 23	699	0.4−	0.7+	2000 01 06	704	0.3−	0.2−
1993 12 15	691	0.5+ 0.1−	1998 11 23	699	0.7+	0.2+	2000 01 12	691	0.2−	0.5−
1993 12 15	691	1.3+ 0.4+	1998 12 08	691	0.0	0.2−	2000 01 12	691	0.2−	0.4−
1995 02 07	691	0.3− 0.1−	1998 12 08	691	0.0	0.3−	2000 01 12	691	0.2−	0.3−
1995 02 07	691	0.1− 0.4−	1998 12 08	691	0.0	0.1+	2000 02 03	704	0.5+	0.2+
1996 06 08	809	0.4− 1.5−	1998 12 13	691	0.8−	0.5−	2000 02 03	704	0.2−	0.1+
1996 06 08	809	0.3+ 1.5−	1998 12 13	691	0.7−	0.3−	2000 02 03	704	0.4+	0.2+
1996 06 08	809	0.3− 1.4−	1998 12 13	691	0.7−	0.2−	2000 02 03	704	0.7+	0.2+
1996 06 10	809	0.8− 1.3−	1998 12 25	691	0.0	0.4−	2000 02 03	704	0.2+	0.3+
1996 06 10	809	0.6− 0.7−	1998 12 25	691	0.0	0.1−	2000 02 11	704	0.2−	0.2+
1996 06 10	809	0.9− 0.8−	1998 12 25	691	0.1−	0.0	2000 02 11	704	1.1+	0.6+
1998 11 21	704	0.1+ 0.3+	1998 12 28	691	0.1+	0.7−	2000 02 11	704	0.0	0.5+
1998 11 21	704	0.2− 0.5−	1998 12 28	691	0.0	0.4−	2000 02 11	704	0.4+	1.3+
1998 11 21	704	0.2− 2.0−	1998 12 28	691	0.0	0.3−	2000 02 11	704	0.2+	0.5+
1998 11 21	704	0.1− 1.7−	2000 01 06	704	0.4+	0.4−				

(13807)* 1998 XE₁₃ = 1991 HA₂

Discovered 1998 Dec. 15 by the OCA-DLR Asteroid Survey at Caussols.

Id. A. Gnädig (*MPC* 35639), M. E. Sansaturio (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.20299834	<i>ω</i>	266.55821	+0.89377649		+0.44588501	
<i>a</i>	2.8673083	<i>Ω</i>	66.95691	−0.38774630		+0.82248218	
<i>e</i>	0.0737166	<i>i</i>	3.01984	−0.22542491		+0.35314249	
<i>P</i>	4.86	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1989 12 01	675	0.2− 0.2−	1998 11 23	691	0.2−	0.4−	2000 01 26	120	0.2−	0.2+
1989 12 01	675	0.1+ 0.3−	1998 11 23	691	0.1+	0.1−	2000 01 26	120	0.5−	0.4+
1991 04 17	675	0.8+ 1.0−	1998 11 24	699	0.7+	0.4−	2000 01 27	120	1.0−	0.3−
1991 04 19	809	0.4+ 0.2−	1998 11 24	699	0.2+	0.2+	2000 01 27	120	0.1−	0.6−
1991 04 19	809	0.0 1.0+	1998 11 24	699	0.3+	0.1−	2000 01 30	703	0.1+	0.3+
1991 04 19	809	1.2− 0.6+	1998 12 15	910	0.7+	0.4+	2000 01 30	703	0.2+	0.9+
1991 05 05	413	0.6+ 0.5−	1998 12 15	910	0.6+	0.6+	2000 01 30	703	0.1−	0.1+
1991 05 05	413	0.7− 0.1−	1998 12 15	910	0.7+	0.7+	2000 01 30	703	0.3−	0.7+
1998 10 18	699	0.3+ 0.6−	1998 12 16	910	0.4+	0.9+	2000 02 03	704	0.2−	0.5+
1998 10 18	699	0.6− 0.3−	1998 12 16	910	0.4+	0.9+	2000 02 03	704	0.3−	0.4+
1998 10 18	699	1.2− 0.3−	1998 12 16	910	0.5+	1.0+	2000 02 03	704	0.4−	0.4+

1998 10 31	120	0.1− 0.2+	1999 01 14	910	0.7− 0.6+	2000 02 03	704	0.2− 0.3+
1998 10 31	120	(0.6+ 2.2+)	1999 01 14	910	0.9− 0.5+	2000 02 03	704	0.1− 0.4+
1998 11 11	704	1.3+ 1.5−	1999 01 14	910	0.8− 0.5+	2000 02 08	049	0.2+ 1.5−
1998 11 16	691	1.0− 0.3−	2000 01 04	704	0.5− 0.9−	2000 02 08	049	0.3+ 1.3−
1998 11 16	691	1.0− 0.2−	2000 01 04	704	0.0 0.7−	2000 02 09	049	0.5− 0.5−
1998 11 16	691	0.8− 0.1−	2000 01 04	704	0.7− 0.8−	2000 02 09	049	0.8+ 1.0−
1998 11 18	704	0.2− 0.5+	2000 01 04	704	0.6+ 0.2+	2000 02 10	049	1.0+ 1.0−
1998 11 18	704	0.1− 0.2−	2000 01 04	704	0.3+ 0.2+	2000 02 10	049	1.0+ 1.0−
1998 11 18	704	0.8+ 0.8−	2000 01 06	704	0.9− 0.4−	2000 02 11	704	0.4+ 0.4+
1998 11 18	704	0.9+ 1.3−	2000 01 06	704	0.9− 0.3−	2000 02 11	704	0.3− 1.2+
1998 11 19	699	0.5+ 0.2−	2000 01 06	704	0.0 0.1+	2000 02 11	704	0.6+ 0.9+
1998 11 19	699	0.1− 0.7+	2000 01 06	704	0.4− 0.8+	2000 02 11	704	0.8+ 0.5+
1998 11 19	699	0.8− 0.3+	2000 01 06	704	0.5+ 0.6+	2000 02 11	704	0.6+ 0.6+
1998 11 23	691	0.2− 0.2−	2000 01 26	120	0.1− 0.1−			

(13808)* 1998 XG₂₄ = 1975 XV₅ = 1985 QQ₁ = 1986 XB₃ = 1993 BD₁

Discovered 1998 Dec. 11 by Spacewatch at Kitt Peak.

Id. S. Nakano (*MPC* 33714)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Asher			
<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.17264428	<i>ω</i>	93.78707	+0.88148567		−0.40889781	
<i>a</i>	3.1942428	<i>Ω</i>	290.47410	+0.26657930		+0.84376031	
<i>e</i>	0.0955952	<i>i</i>	14.60275	+0.38976723		+0.34766525	
<i>P</i>	5.71	<i>H</i>	12.1	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1975 12 04	095	2.1+ 1.9+	1998 11 14	699	1.9− 1.8+	1999 01 20	704	0.9+ 0.1−
1985 08 16	675	(8.8− 2.8−)	1998 11 25	699	0.3+ 0.4−	1999 01 20	704	0.6+ 0.4+
1985 08 16	675	(7.4− 0.9−)	1998 11 25	699	0.3+ 0.6−	1999 01 20	704	1.7− 1.6+
1985 08 17	675	(7.5− 22.2+)	1998 11 25	699	0.3+ 0.5−	1999 01 20	704	0.1− 0.5−
1985 08 17	675	(6.5− 25.4+)	1998 12 11	691	0.8+ 0.6−	1999 01 20	704	1.4− 1.2−
1986 12 02	010	(3.7+ 0.3+)	1998 12 11	691	0.1− 0.7−	1999 04 07	704	1.0− 0.2−
1986 12 03	010	0.3− 0.3−	1998 12 11	691	0.2− 0.8−	1999 04 07	704	1.8− 0.6+
1986 12 03	010	0.6+ 0.9+	1998 12 16	691	0.9+ 0.8−	1999 04 07	704	(2.4− 1.8−)
1993 01 16	010	0.0 1.4+	1998 12 16	691	0.9+ 0.9−	1999 04 07	704	(2.9− 0.3−)
1993 01 16	010	0.5− 1.6+	1998 12 16	691	0.9+ 0.9−	1999 04 07	704	0.9+ 0.9+
1993 01 16	010	1.0− 1.5+	1998 12 24	691	0.1− 0.7−	2000 01 11	704	0.1+ 1.0+
1993 01 17	010	0.8− 1.1+	1998 12 24	691	0.0 0.7−	2000 01 11	704	0.0 0.1+
1993 01 17	010	0.9− 1.4+	1998 12 24	684	(3.6− 0.6+)	2000 01 11	704	0.6+ 0.7+
1993 01 17	010	0.1− 1.0+	1998 12 24	684	(3.4− 1.7+)	2000 01 11	704	0.2+ 0.4−
1996 08 11	566	0.5− 1.0+	1998 12 24	691	0.1− 0.8−	2000 01 11	704	0.5+ 0.5+
1996 08 11	566	0.2− 1.9+	1998 12 25	684	0.7+ 0.4−	2000 01 28	704	0.7+ 1.8+
1996 08 11	566	0.7− 1.6+	1998 12 25	684	0.7+ 0.4−	2000 01 28	704	0.1− 0.9+
1998 09 30	699	0.1+ 0.1−	1999 01 18	704	0.5+ 0.3−	2000 01 28	704	0.0 0.3+
1998 09 30	699	0.8− 0.1+	1999 01 18	704	0.9+ 0.3−	2000 01 28	704	0.0 0.5+
1998 09 30	699	0.4− 0.1+	1999 01 18	704	0.1+ 0.0	2000 01 28	704	0.0 0.4−
1998 11 14	699	(2.2− 2.9+)	1999 01 18	704	0.3+ 0.4−			
1998 11 14	699	(0.6− 2.5+)	1999 01 18	704	0.3− 1.1−			

(13809)* 1998 XJ₄₀ = 1987 YO₃ = 1989 EV₁₁

Discovered 1998 Dec. 14 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. A. Gnädig (*MPC* 34934)

2000 FEB. 22

M.P.C. 38403

1989 03 03	808	0.8−	0.8−	1998 12 17	704	0.3−	0.6+	2000 01 10	699	0.6−	0.5+
1989 03 03	808	0.6+	0.4−	1998 12 17	704	0.5−	0.7−	2000 01 16	120	0.3−	0.2−
1994 03 04	033	0.1+	0.8+	1999 01 16	704	0.8+	1.3−	2000 01 16	120	0.9−	0.1−
1994 03 04	033	0.7−	0.2+	1999 01 16	704	(1.1+ 2.2−)		2000 01 16	120	0.0	0.3−
1997 10 30	704	0.4−	0.1+	1999 01 16	704	0.5+	1.5−	2000 01 17	120	0.6−	0.6−
1997 10 30	704	0.8+	0.4−	1999 01 19	704	0.1+	0.3+	2000 01 17	120	0.4+	1.1−
1997 10 30	704	0.7+	0.9−	1999 01 19	704	0.2−	0.7+	2000 02 06	704	0.4+	0.3+
1997 10 30	704	0.1−	0.3−	1999 01 19	704	0.9−	0.7−	2000 02 06	704	0.6+	0.4+
1997 10 30	704	0.4+	1.1−	1999 01 19	704	0.2−	0.8−	2000 02 06	704	0.1−	0.2+
1997 10 30	566	0.3−	0.4+	1999 01 19	704	0.7−	0.4+	2000 02 06	704	0.2+	0.7+
1997 10 30	566	0.6−	1.0+	2000 01 04	704	0.1+	0.3+	2000 02 11	704	0.5+	0.2+
1997 10 30	566	0.4−	0.7+	2000 01 04	704	0.2−	0.5+	2000 02 11	704	0.6+	0.1+
1998 11 16	704	0.6−	0.9−	2000 01 04	704	0.0	0.6−	2000 02 11	704	0.1−	0.0
1998 11 16	704	1.1+	0.3+	2000 01 07	106	0.1+	0.2−	2000 02 11	704	0.3+	0.2+
1998 11 16	704	1.6+	0.4−	2000 01 07	106	0.5+	0.4−	2000 02 11	704	0.6+	0.7−
1998 12 14	704	0.2+	0.4+	2000 01 07	106	0.0	0.2−	2000 02 16	703	0.1−	0.4−
1998 12 14	704	0.4−	0.2+	2000 01 08	704	0.5−	0.4+	2000 02 16	703	0.5+	0.2+
1998 12 14	704	0.4−	0.9+	2000 01 08	704	0.1+	1.1+	2000 02 16	703	0.1+	0.3−
1998 12 14	704	0.1−	0.5+	2000 01 08	704	0.1−	0.6+	2000 02 16	703	0.3+	0.2+

(13810)* 1998 XU₅₁ = 1984 JF₁

Discovered 1998 Dec. 14 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. A. Doppler (*MPC* 35343), M. E. Sansaturio (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	267.17491			<i>P</i>		<i>Q</i>	
<i>n</i>	0.17650527	ω	216.41583	+0.03875751	+0.96848012		
<i>a</i>	3.1474893	Ω	57.06137	−0.83354682	+0.16713801		
<i>e</i>	0.1693888	<i>i</i>	17.04878	−0.55108761	−0.18469201		
<i>P</i>	5.58	<i>H</i>	12.0	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1950 04 20	675	2.0−	0.3+	1998 12 14	704	0.2+	1.8−	1999 01 19	732	1.4−	0.6+
1950 04 20	675	1.2+	0.2+	1998 12 14	704	1.6−	0.3+	1999 01 19	704	0.6+	1.3−
1984 05 04	688	0.2−	1.8−	1998 12 14	704	0.3−	2.0−	1999 01 19	704	0.5−	1.4+
1984 05 04	688	0.4−	2.4−	1998 12 17	704	0.4+	0.5−	1999 01 19	704	0.3−	0.1−
1995 06 01	691	1.4+	0.9+	1998 12 17	704	0.6+	0.7−	1999 01 19	704	0.1+	0.4−
1995 06 01	691	1.7+	1.1+	1998 12 17	704	0.2−	0.2+	1999 01 19	704	0.9+	0.3−
1995 06 01	691	1.3+	0.1+	1998 12 17	704	0.9−	0.7−	1999 02 03	732	0.4+	0.2−
1996 08 11	413	0.8−	0.6−	1998 12 24	699	0.5+	0.1+	1999 02 03	732	0.4+	0.0
1996 08 11	413	0.3−	0.1−	1998 12 24	699	0.5+	0.3+	1999 02 03	732	0.5+	0.0
1997 11 06	704	(3.7− 1.3+)		1998 12 24	699	0.3+	1.0+	1999 02 03	732	1.6+	1.5+
1997 11 06	704	(4.1− 0.6+)		1999 01 15	732	0.4+	0.7+	2000 01 03	704	1.1−	0.1+
1997 11 06	704	(2.6− 0.4+)		1999 01 15	732	0.1+	0.2+	2000 01 03	704	0.1+	0.2−
1997 11 06	704	(3.1− 0.4+)		1999 01 15	732	0.1+	0.3+	2000 01 03	704	0.7−	0.2+
1997 11 06	704	(3.5− 0.3+)		1999 01 15	732	0.4−	0.3+	2000 01 03	704	0.3−	0.5−
1997 11 29	704	0.4+	0.7+	1999 01 16	732	1.2−	0.0	2000 01 03	704	0.1+	0.4−
1997 11 29	704	0.8+	0.7+	1999 01 16	732	0.3+	0.5−	2000 01 31	704	0.6−	0.9+
1997 11 29	704	0.6−	0.6+	1999 01 16	732	0.3−	0.5−	2000 01 31	704	0.3−	0.6+
1997 11 29	704	1.6−	0.1−	1999 01 17	732	0.2−	0.2−	2000 01 31	704	0.7−	0.7+
1998 11 21	699	0.3+	0.5−	1999 01 17	732	0.3−	0.4−	2000 02 11	106	0.4−	0.8+
1998 11 21	699	0.2+	0.7+	1999 01 18	732	0.3−	0.2−	2000 02 11	106	0.1−	0.7+
1998 11 21	699	1.3+	0.0	1999 01 18	732	1.1+	0.7−	2000 02 11	106	0.5−	1.3+
1998 12 14	704	0.0	0.3+	1999 01 19	732	0.5+	0.8+				

(13811)* 1998 XP₉₂ = 1982 VA₁₂ = 1982 YM₂ = 1992 UF₁₀

Discovered 1998 Dec. 15 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 33720)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	141.34457			<i>P</i>		<i>Q</i>	
<i>n</i>	0.18741060	ω	144.61989	+0.91232825	−0.38364373		
<i>a</i>	3.0241729	Ω	238.55240	+0.32632369	+0.89233281		
<i>e</i>	0.1177104	<i>i</i>	9.65561	+0.24732572	+0.23782272		
<i>P</i>	5.26	<i>H</i>	12.4	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1982 11 13	095	0.6−	0.5+	1999 01 18	704	0.7−	0.8−	1999 03 10	704	1.7+	0.5−
1982 12 22	095	0.6+	0.4+	1999 01 18	704	0.5+	1.5+	2000 01 10	704	0.2+	0.2+
1992 10 02	675	0.1−	0.2−	1999 01 18	704	0.7+	0.8+	2000 01 10	704	0.4+	0.4+
1992 10 02	675	0.3+	0.1−	1999 01 18	704	0.4−	1.5−	2000 01 10	704	0.1+	0.6−
1992 10 20	095	(4.3+ 3.4−)		1999 01 20	704	0.6−	0.1+	2000 01 10	704	1.4−	1.1+
1998 12 15	704	0.6−	0.2−	1999 01 20	704	0.8−	0.8+	2000 01 11	704	0.7+	1.0+
1998 12 15	704	0.2+	0.0	1999 01 20	704	0.2+	0.7−	2000 01 11	704	0.0	0.2−
1998 12 15	704	1.1−	0.0	1999 01 20	704	0.1+	1.2−	2000 01 11	704	0.2+	0.9−
1998 12 15	704	0.7+	0.1−	1999 01 20	704	0.3+	1.8−	2000 01 11	704	0.0	1.0−
1998 12 15	704	0.3−	0.3+	1999 02 04	704	1.4+	0.4+	2000 01 11	704	(0.8+ 2.2−)	
1998 12 22	704	0.9−	0.3−	1999 02 04	704	1.3+	0.3+	2000 02 07	704	0.6−	0.1+
1998 12 22	704	1.4−	0.6+	1999 02 04	704	0.9−	1.0+	2000 02 07	704	0.1−	0.2−
1998 12 22	704	0.4−	0.5+	1999 03 10	704	1.1+	1.3+	2000 02 07	704	0.7+	0.0
1998 12 22	704	0.4−	0.7+	1999 03 10	704	1.4+	0.9−	2000 02 07	704	0.2−	0.5+
1998 12 22	704	1.0+	1.2−	1999 03 10	704	1.0−	0.6+	2000 02 07	704	0.3−	0.6−

(13812)* 1998 YR = 1980 PY₄ = 1986 TM₉

Discovered 1998 Dec. 16 by T. Kobayashi at Oizumi.

Id. S. Nakano (*MPC* 33721)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	283.53135			<i>P</i>		<i>Q</i>	
<i>n</i>	0.18565229	ω	348.89605	−0.05338796	+0.98216876		
<i>a</i>	3.0432375	Ω	277.86081	−0.90166875	−0.12498984		
<i>e</i>	0.1559803	<i>i</i>	10.48462	−0.42911908	+0.14043525		
<i>P</i>	5.31	<i>H</i>	12.1	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1980 08 07	046	0.8+	0.4−	1999 01 11	120	0.2−	1.0−	1999 12 16	704	0.3−	0.8+
1980 08 07	046	0.4+	0.2−	1999 01 11	120	0.4−	1.0−	1999 12 16	704	1.9−	0.5+
1986 10 02	095	0.9−	1.7+	1999 01 13	120	0.8−	1.1−	2000 01 10	704	0.1+	0.4+
1986 10 08	095	2.0−	0.8+	1999 01 13	120	0.9−	0.8−	2000 01 10	704	0.8+	0.3+
1997 11 30	566	0.1+	0.2+	1999 01 13	120	0.3−	0.1−	2000 01 10	704	0.7−	0.9+
1997 11 30	566	0.3+	0.5+	1999 01 15	411	0.1−	0.2−	2000 01 10	704	1.8−	1.4+
1997 11 30	566	0.6+	0.4+	1999 01 15	411	0.8−	0.7−	2000 01 10	704	0.4+	0.3+
1998 12 15	704	0.0	0.0	1999 01 18	704	0.7+	1.2+	2000 01 11	704	0.2+	1.0+
1998 12 15	704	0.1+	0.4−	1999 01 18	704	0.1+	0.6−	2000 01 11	704	1.1−	0.5+
1998 12 15	704	1.0+	1.1−	1999 01 18	704	0.3+	0.9−	2000 01 11	704	0.7+	0.3+
1998 12 15	704	0.5+	0.5−	1999 01 18	704	1.3−	0.3+	2000 01 11	704	0.5−	0.2+
1998 12 15	704	0.7+	0.1−	1999 01 19	120	1.1+	0.7+	2000 02 07	106	0.5+	0.6+
1998 12 16	411	0.6−	0.3+	1999 01 19	120	0.0	0.1−	2000 02 07	106	0.1+	0.6+
1998 12 16	411	0.6−	0.1−	1999 01 19	120	0.2+	0.5−	2000 02 07	106	0.3+	0.4−
1998 12 17	411	0.2+	0.6+	1999 01 21	120	0.3−	0.8−	2000 02 07	704	0.3+	0.5+
1998 12 17	411	0.6+	0.6−	1999 01 21	120	0.3−	0.2+	2000 02 07	704	0.8+	0.2−
1998 12 22	704	0.1+	0.7+	1999 01 23	120	0.2+	0.0	2000 02 07	704	0.2+	0.1+
1998 12 22	704	0.3+	0.1+	1999 11 09	703	1.0+	0.1+	2000 02 07	704	0.3−	0.3+
1998 12 22	704	1.1−	0.5+	1999 11 09	703	0.3+	1.4+	2000 02 07	704	0.1−	0.8−
1998 12 22	704	0.2+	1.5+	1999 11 09	703	0.6+	0.2−	2000 02 10	704	0.7+	0.2−
1998 12 24	411	0.4+	0.1−	1999 11 09	703	1.2+	0.3−	2000 02 10	704	0.1+	1.4−
1998 12 24	411	0.7−	0.7+	1999 12 16	704	0.5−	0.7−	2000 02 10	704	0.2+	0.3−
1999 01 05	411	0.9+	0.0	1999 12 16	704	0.3+	0.3+				
1999 01 05	411	0.2−	0.5−	1999 12 16	704	0.2+	0.3−				

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Asher

<i>M</i>	117.51346		(2000.0)	P	Q
<i>n</i>	0.18843555	ω	321.08401	+0.47653577	-0.85620040
<i>a</i>	3.0131968	Ω	99.61756	+0.84870932	+0.38879492
<i>e</i>	0.0806357	<i>i</i>	11.67916	+0.22936029	+0.34023432
<i>P</i>	5.23	<i>H</i>	12.6	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1982 12 22	095	1.0-	0.5-	1998 12 17	411	0.2+	0.3+	1999 04 06	704	0.2+	0.2+
1983 01 06	095	1.3+	0.3-	1998 12 24	411	0.2+	0.1-	1999 04 06	704	0.8+	1.9+
1997 09 28	566	0.5-	1.0+	1998 12 24	411	0.1+	0.0	1999 04 06	704	(1.4+	2.3+)
1997 09 28	566	0.5-	0.7+	1999 01 04	411	0.2+	0.0	1999 04 06	704	1.7-	1.4-
1997 09 28	566	0.3-	0.6+	1999 01 04	411	0.3+	0.2+	1999 04 06	704	1.7-	0.5+
1998 12 14	704	(1.5-	2.5+)	1999 01 15	411	0.3+	0.1+	1999 11 09	703	1.4-	1.5+
1998 12 14	704	0.9-	0.6-	1999 01 15	411	0.3+	0.3+	1999 11 09	703	1.4-	1.3+
1998 12 14	704	0.7+	0.1+	1999 01 16	704	0.1-	0.0	1999 11 09	703	(3.3+	2.4+)
1998 12 14	704	0.2-	0.5-	1999 01 16	704	0.2+	0.4+	1999 11 09	703	0.0	0.5+
1998 12 16	411	0.2+	0.2-	1999 01 16	704	0.2+	0.3+	2000 01 08	704	0.3+	0.2+
1998 12 16	411	0.2-	0.4+	1999 01 16	704	0.5+	0.9+	2000 01 08	704	0.4+	0.7-
1998 12 17	704	0.8-	0.4-	1999 01 16	704	0.9+	0.4-	2000 01 08	704	0.6+	0.4-
1998 12 17	704	1.0-	0.5-	1999 01 19	704	1.2+	0.8-	2000 01 08	704	0.1-	0.3-
1998 12 17	704	0.5-	1.3-	1999 01 19	704	0.0	0.4+	2000 01 08	704	0.1+	0.6-
1998 12 17	704	0.3+	0.5+	1999 01 19	704	0.1+	0.5-	2000 02 06	704	0.0	0.0
1998 12 17	704	0.2+	0.1+	1999 01 19	704	0.7-	0.0	2000 02 06	704	0.1+	0.7+
1998 12 17	411	0.1-	0.3+	1999 01 19	704	0.2-	0.6+	2000 02 06	704	1.1+	0.8+

(13814)* 1998 YG₃

Discovered 1998 Dec. 17 by T. Kobayashi at Oizumi.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

<i>M</i>	203.23428		(2000.0)	P	Q
<i>n</i>	0.18961216	ω	241.02074	+0.89544628	+0.40484668
<i>a</i>	3.0007185	Ω	94.57015	-0.31563375	+0.87065254
<i>e</i>	0.0933621	<i>i</i>	10.70346	-0.31392882	+0.27939813
<i>P</i>	5.20	<i>H</i>	12.4	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1992 10 23	691	0.3-	0.7+	1998 12 14	704	0.8-	0.3-	1999 01 16	704	0.7+	1.6-
1992 10 23	691	0.3-	0.2+	1998 12 14	704	0.5-	0.7-	1999 01 16	704	0.2-	1.1-
1992 10 23	691	0.2-	0.3+	1998 12 14	704	0.6-	0.0	1999 01 16	411	0.9-	1.0-
1992 11 30	808	0.1+	0.5+	1998 12 14	704	0.1-	0.2+	1999 01 16	411	1.2-	0.9-
1992 11 30	808	0.1+	0.3-	1998 12 17	704	0.3+	0.1+	1999 01 19	704	0.4+	0.5-
1997 09 22	695	(2.7+	0.2+)	1998 12 17	704	0.4+	1.4+	1999 01 19	704	0.0	0.3-
1997 09 22	695	0.3+	0.1+	1998 12 17	704	2.0-	1.1+	1999 01 19	704	0.4+	1.0+
1997 09 22	695	0.1+	0.6+	1998 12 17	704	0.2-	0.1-	1999 01 19	704	1.1+	0.7+
1997 09 22	695	0.3+	0.7+	1998 12 17	704	0.3+	0.4-	1999 01 19	704	0.6+	0.1+
1997 09 22	695	0.4+	0.7-	1998 12 17	411	0.0	0.3+	2000 01 07	704	0.4+	0.4-
1997 09 22	695	0.1-	1.0-	1998 12 17	411	0.5-	0.1-	2000 01 07	704	0.2-	0.8-
1997 09 22	695	0.3-	0.7-	1998 12 18	411	0.1+	0.3+	2000 01 07	704	0.8-	0.2-
1997 09 22	695	0.1-	0.7-	1998 12 18	411	0.1-	0.1-	2000 01 07	704	0.7+	0.1+
1998 11 15	699	0.2+	0.5+	1998 12 26	411	0.4+	0.2+	2000 01 07	704	0.0	0.7-
1998 11 15	699	0.4+	0.9+	1998 12 26	411	0.5-	0.6+	2000 02 04	704	0.4+	0.3+
1998 11 15	699	0.2+	0.4+	1999 01 05	411	0.3+	0.8+	2000 02 04	704	0.1-	0.0
1998 11 25	699	0.0	0.3+	1999 01 05	411	0.3+	0.4+	2000 02 04	704	0.4+	0.8+
1998 11 25	699	0.7+	0.8-	1999 01 16	704	0.1+	1.0-	2000 02 04	704	0.3-	0.1+
1998 11 25	699	0.6+	0.5+	1999 01 16	704	0.4+	1.1-	2000 02 04	704	0.2-	0.9+

(13815)* 1998 YF₇ = 1999 BU₃₃ = 1968 OP = 1975 XH₅ = 1980 TC₇

Discovered 1998 Dec. 22 by A. Asami at Hadano.

Id. S. Nakano (*MPC* 33724), M. E. Sansaturio (d, *MPC* 35344), A. Doppler (d, *ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Asher

<i>M</i>	166.72940		(2000.0)	P	Q
<i>n</i>	0.17215758	ω	118.38503	+0.95680478	+0.24094580
<i>a</i>	3.2002601	Ω	228.17658	-0.27664094	+0.92663053
<i>e</i>	0.1988715	<i>i</i>	12.61057	+0.08941143	+0.28861909
<i>P</i>	5.73	<i>H</i>	12.4	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1968 07 22	095	0.3+	1.5-	1998 12 24	355	0.2-	0.1-	1999 01 20	704	1.4+	0.1-
1975 12 03	095	(1.5-	3.6+)	1998 12 24	355	0.3-	0.3-	1999 01 20	704	0.2+	0.5-
1980 10 14	330	0.6+	0.4-	1998 12 24	355	0.5-	0.1-	1999 01 20	704	(0.5-	2.6-)
1980 10 31	330	(6.1-	2.0-)	1998 12 25	355	0.5-	0.3+	1999 01 20	704	(1.0-	2.7-)
1992 12 17	691	0.6-	0.1+	1998 12 25	355	0.0	0.2+	1999 02 04	355	0.2-	0.7+
1992 12 17	691	0.4-	0.3+	1998 12 25	355	0.1-	0.9+	1999 02 04	355	0.5+	0.3+
1992 12 17	691	0.5-	0.2+	1998 12 27	900	0.0	0.0	1999 11 13	402	1.1-	1.1-
1997 11 02	691	0.2-	0.5+	1998 12 27	900	0.8-	0.2+	1999 11 13	402	1.0-	0.3-
1997 11 02	691	0.0	0.6+	1998 12 29	355	0.7-	1.2+	2000 01 11	699	0.1+	0.2-
1997 11 02	691	0.3-	0.6+	1998 12 29	355	1.2-	1.2+	2000 01 11	699	0.5+	0.8+
1998 12 15	704	0.7-	0.3-	1998 12 29	355	0.3-	0.1+	2000 01 11	699	0.1-	0.2+
1998 12 15	704	0.4+	0.4+	1999 01 05	402	0.1-	0.7-	2000 01 29	402	0.2+	0.6-
1998 12 15	704	0.6+	0.8+	1999 01 05	402	0.5-	0.5-	2000 01 29	402	0.2+	0.5-
1998 12 15	704	0.1+	0.7+	1999 01 05	402	0.0	0.5-	2000 02 07	703	0.8-	0.4+
1998 12 15	704	1.3+	1.1+	1999 01 08	355	1.3+	0.7+	2000 02 07	703	0.7-	0.5-
1998 12 22	704	1.1+	0.1-	1999 01 08	355	0.7+	0.9+	2000 02 07	703	0.1-	0.9+
1998 12 22	704	0.3+	1.6-	1999 01 08	355	0.7+	0.4+	2000 02 07	703	0.5-	0.8+
1998 12 22	704	0.2+	0.8-	1999 01 10	355	1.0-	0.5-	2000 02 10	704	0.9+	0.5+
1998 12 22	704	0.1+	0.2+	1999 01 10	355	0.3-	0.0	2000 02 10	704	1.1+	0.2-
1998 12 22	704	0.8-	0.3-	1999 01 10	355	0.2-	0.3+	2000 02 10	704	0.2-	0.1+
1998 12 22	355	0.7-	1.2-	1999 01 16	355	0.6+	0.9-	2000 02 10	704	1.0+	0.3+
1998 12 22	355	0.8-	0.9-	1999 01 16	355	0.2+	1.7-				
1998 12 22	355	0.6+	1.1-	1999 01 16	355	0.6+	0.9-				

(13816)* 1998 YH₂₇ = 5319 T-2

Discovered 1998 Dec. 29 by J. Kandler and G. Lehmann at Volkssternwarte Drebach, Schoenbrunn.

Id. G. V. Williams (*MPC* 33728)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	88.45882		(2000.0)	P	Q
<i>n</i>	0.24268558	ω	239.04268	-0.39306846	-0.90103386
<i>a</i>	2.5455018	Ω	235.21573	+0.90130750	-0.33805742
<i>e</i>	0.1281212	<i>i</i>	12.90303	+0.18204941	-0.27176307
<i>P</i>	4.06	<i>H</i>	14.4	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1973 09 29	675	0.2-	2.4-	1998 11 23	704	0.5+	1.6+	1999 01 05	113	1.0-	0.8-
1973 09 29	675	0.3-	1.3-	1998 11 23	704	0.1+	1.9+	1999 01 05	113	0.2+	0.2+
1973 09 30	675	0.6+	0.4-	1998 12 15	704	1.3+	0.2-	1999 01 06	113	0.4+	0.6-
1973 09 30	675	1.2+	0.2-	1998 12 15	704	1.0+	0.7+	1999 01 06	113	0.3+	0.8-
1973 10 04	675	(3.1+	0.6-)	1998 12 15	704	0.2-	1.4+	1999 01 18	113	0.6-	0.1-
1973 10 04	675	(4.2+	0.3-)	1998 12 15	704	1.3+	0.7+	1999 01 18	113	1.2-	0.2-
1983 04 14	413	0.5+	0.0	1998 12 15	704	0.0	1.0-	1999 01 18	113	0.7-	0.2-
1987 01 08	413	0.1-	0.6-	1998 12 22	704	0.3+	1.4+	1999 01 20	113	(0.5-	2.6-)
1990 11 28	675	0.2+	0.8-	1998 12 22	704	0.7-	0.1+	1999 01 20	113	0.3-	1.4-
1990 11 28	675	0.2+	0.3+	1998 12 22	704	0.1-	0.2+	1999 01 20	113	(1.9-	2.1-)
1992 06 05	413	1.2+	1.0-	1998 12 22	704	0.3+	0.4+	1999 01 21	113	0.5-	0.5-
1996 04 18	413	1.3-	1.2-	1998 12 29	113	0.3+	0.2-	1999 01 21	113	0.8-	0.5-
1996 04 18	413	0.1-	1.3-	1998 12 30	113	1.0-	0.6-	1999 02 10	113	0.1-	0.9-
1998 11 23	704	1.4+	0.4-	1998 12 30	113	0.4+	0.4-	1999 02 10	113	0.2-	0.7-
1998 11 23	704	0.4+	0.3+	1998 12 30	113	0.6+	0.5-	1999 02 10	113	0.8-	0.3-
1998 11 23	704	0.6-	1.0+	1999 01 05	113	0.1-	1.0-				

(13817)* 1999 RH₃₉ = 1987 SP₁₀ = 1996 FH₅ = 1998 RS₁₆

Discovered 1999 Sept. 8 by the Catalina Sky Survey.

Id. G. V. Williams (*MPC* 37817)

2000 FEB. 22

M.P.C. 38405

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	266.66796	(2000.0)	P		Q	
<i>n</i>	0.16950558	ω	340.48852	-0.91604125	-0.40052180	
<i>a</i>	3.2335535	Ω	175.71887	+0.39530248	-0.91052596	
<i>e</i>	0.0367173	<i>i</i>	16.52257	+0.06785554	-0.10259032	
<i>P</i>	5.81	<i>H</i>	12.4	<i>G</i>	0.15	<i>U</i>

Residuals in seconds of arc

1987 09 29	033	0.5+	0.6-	1998 09 14	704	0.3+	0.6-	1999 11 02	703	0.2+	1.0+
1987 09 29	033	0.7+	0.2-	1998 09 17	699	0.3+	0.2-	1999 11 02	703	0.6+	0.2+
1987 09 30	033	0.5+	0.3-	1998 09 17	699	0.4-	0.2+	1999 11 02	703	0.8+	0.7+
1987 09 30	033	0.1+	0.6-	1998 09 17	699	0.0	0.1+	1999 11 07	704	0.4-	0.1+
1987 10 01	033	1.4-	0.9-	1998 09 18	704	0.3-	1.2-	1999 11 07	704	0.3+	0.5-
1996 03 20	400	1.0-	0.1+	1998 09 18	704	0.2-	0.1-	1999 11 07	704	0.2-	0.3-
1996 03 20	400	(1.6-	4.1-)	1998 09 18	704	0.6-	0.0	1999 11 07	704	0.9-	0.9-
1996 04 23	566	0.5+	0.4-	1998 09 18	704	1.0-	0.2-	1999 12 02	704	0.4-	1.0-
1996 04 23	566	0.3+	1.1-	1998 09 18	704	0.9-	0.4+	1999 12 02	704	0.5-	1.1-
1996 04 23	566	1.0+	0.5-	1998 10 11	699	0.5-	0.1+	1999 12 02	704	0.4-	0.7-
1996 04 23	566	0.2+	0.3+	1998 10 11	699	0.1-	0.7+	1999 12 02	704	1.1-	0.4-
1996 04 23	566	0.1-	0.3+	1998 10 11	699	0.4+	0.1-	2000 01 09	704	0.2+	1.0-
1996 04 23	566	0.9-	1.2+	1999 09 08	703	0.2+	0.1-	2000 01 09	704	0.4+	1.3-
1998 07 31	699	0.2-	0.2+	1999 09 08	703	0.0	0.3+	2000 01 09	704	1.7-	0.4+
1998 07 31	699	0.2-	0.1+	1999 09 08	703	0.6+	0.8+	2000 01 09	704	0.2+	1.5-
1998 07 31	699	0.4+	0.3+	1999 09 08	703	0.3+	1.4+	2000 01 09	704	0.4-	0.6-
1998 08 23	704	0.7+	0.3-	1999 09 13	703	0.2-	0.3+	2000 01 11	704	0.3-	0.5-
1998 08 23	704	0.2+	0.3+	1999 09 13	703	0.0	0.1+	2000 01 11	704	0.3-	0.4+
1998 08 23	704	0.5+	0.2+	1999 09 13	703	0.6+	1.4+	2000 01 11	704	0.2+	0.0
1998 08 23	704	0.5+	0.0	1999 09 13	703	0.5+	1.4+	2000 01 11	704	0.1+	0.3-
1998 08 23	704	0.3+	0.7-	1999 10 03	703	0.4+	0.1-	2000 01 11	704	0.4+	0.1+
1998 09 14	704	0.3+	0.3+	1999 10 03	703	0.3+	0.2+	2000 02 05	704	0.6-	1.9+
1998 09 14	704	0.2+	0.7-	1999 10 03	703	0.2+	0.5+	2000 02 05	704	0.1-	0.4+
1998 09 14	704	0.7+	0.3+	1999 10 03	703	0.8+	0.2+	2000 02 05	704	0.0	0.9+
1998 09 14	704	0.3-	1.1+	1999 11 02	703	0.0	0.1+				

(13818)* 1999 RE₉₂ = 1990 UU₆ = 1993 FY₄₂ = 1998 KT₂₉

Discovered 1999 Sept. 7 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 36422)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	45.80249	(2000.0)	P		Q	
<i>n</i>	0.22015778	ω	160.27481	+0.97701375	+0.21260550	
<i>a</i>	2.7163143	Ω	187.50166	-0.20808950	+0.93526669	
<i>e</i>	0.1304923	<i>i</i>	6.85802	-0.04629134	+0.28297549	
<i>P</i>	4.48	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>

Residuals in seconds of arc

1990 10 22	675	0.0	0.9-	1999 07 23	704	0.6+	0.2-	1999 10 02	704	0.4+	0.0
1990 10 22	675	1.1+	0.6-	1999 07 23	704	0.0	0.8+	1999 10 02	704	0.2+	0.2+
1993 03 19	809	1.3-	0.9+	1999 07 23	704	0.5-	0.2+	1999 10 02	704	0.5+	0.3+
1993 03 20	809	1.1-	1.3+	1999 07 27	704	0.1+	0.3+	1999 10 02	704	0.0	0.0
1993 03 24	809	0.5+	0.6+	1999 09 07	704	0.2-	0.6+	1999 10 07	704	0.4-	0.2+
1997 03 12	704	0.8+	0.7+	1999 09 07	704	0.2-	0.5+	1999 10 07	704	0.1+	0.4-
1997 03 12	704	1.0+	0.2+	1999 09 07	704	0.4+	0.1-	1999 10 07	704	0.4-	0.1-
1998 05 05	699	0.3+	1.3+	1999 09 07	704	0.5-	0.4+	1999 10 07	704	0.3-	0.2+
1998 05 05	699	0.9-	0.9+	1999 09 08	699	0.1-	0.4-	1999 10 07	704	0.6-	0.1+
1998 05 05	699	0.7+	0.5-	1999 09 08	699	0.2-	0.2+	1999 11 05	703	0.1-	1.2+
1998 05 22	704	1.2+	0.1+	1999 09 08	699	0.4-	0.1-	1999 11 05	703	0.6-	0.8+
1998 05 22	704	1.1-	0.7+	1999 09 09	704	0.2+	0.1+	1999 11 05	703	0.4-	0.4+
1998 05 22	704	0.3+	0.3-	1999 09 09	704	0.4+	0.2+	1999 11 05	703	0.4+	0.3+
1998 05 22	704	0.8-	0.2+	1999 09 09	704	0.3+	0.4+	1999 12 03	704	0.5+	0.4-
1998 05 24	704	0.4-	1.4-	1999 09 09	704	0.2+	0.1-	1999 12 03	704	0.0	1.2-
1998 05 24	704	0.1-	1.6+	1999 09 09	704	0.7+	0.3+	1999 12 03	704	0.9-	1.2-
1998 05 24	704	(2.5+	0.1+)	1999 09 29	703	0.2-	0.4+	1999 12 03	704	0.3-	0.0
1998 05 24	704	0.3+	1.4-	1999 09 29	703	0.4-	0.0	1999 12 07	704	0.5-	0.6-
1998 05 24	699	0.9+	0.7-	1999 09 29	703	0.2-	0.7+	1999 12 07	704	0.6+	0.6-

1998 05 24	704	0.7-	0.3-	1999 09 29	703	0.3-	0.0	1999 12 07	704	0.3+	0.2-
1998 05 24	699	0.8+	0.8-	1999 10 01	699	0.1+	0.2+	1999 12 07	704	0.4-	0.7-
1998 05 24	699	0.5+	0.2-	1999 10 01	699	0.0	0.4+	1999 12 07	704	0.2+	0.3-
1999 07 23	704	0.1-	0.4-	1999 10 01	699	0.5-	0.1+				
1999 07 23	704	0.5-	0.4-	1999 10 02	704	0.4+	0.7+				

(13819)* 1999 SX₅ = 1974 PF

Discovered 1999 Sept. 30 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Id. G. V. Williams (*MPC* 37821)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	33.41357	(2000.0)	P		Q	
<i>n</i>	0.27939667	ω	268.83295	+0.64936660	-0.70872411	
<i>a</i>	2.3173336	Ω	136.20355	+0.75279945	+0.65045553	
<i>e</i>	0.3041264	<i>i</i>	23.47901	-0.10777760	+0.27316248	
<i>P</i>	3.53	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>

Residuals in seconds of arc

1974 08 12	675	0.1-	0.5+	1998 06 23	704	0.0	0.4-	1999 12 31	704	0.5+	0.4-
1974 08 13	675	0.1+	0.2+	1998 06 23	704	0.1-	0.8+	1999 12 31	704	0.2+	0.2-
1974 08 14	675	0.6-	0.3-	1998 06 23	704	0.2-	0.4+	1999 12 31	704	0.2+	0.3-
1974 08 16	675	0.7+	1.0-	1999 09 30	704	1.3-	0.1+	1999 12 31	704	(2.2-	0.0)
1992 11 30	808	0.3-	0.3-	1999 09 30	704	0.8+	0.2+	1999 12 31	704	0.5+	0.4+
1992 11 30	808	0.5-	0.7+	1999 09 30	704	0.8-	0.8-	2000 01 02	704	0.0	0.7-
1998 05 27	704	0.0	0.8-	1999 09 30	704	0.4+	1.0-	2000 01 02	704	0.1-	0.8-
1998 05 27	704	0.1+	1.3+	1999 09 30	704	0.3+	0.8-	2000 01 02	704	0.0	0.7-
1998 05 27	704	1.2+	0.1+	1999 10 01	704	0.3-	0.1-	2000 01 02	704	0.3+	0.3-
1998 05 27	704	0.7-	1.1-	1999 10 01	704	0.1-	0.2+	2000 01 02	704	0.2+	0.9-
1998 05 27	704	1.2-	1.2-	1999 10 01	704	0.4-	0.0	2000 01 03	704	0.3-	0.7-
1998 06 04	704	0.6+	0.2+	1999 10 01	704	0.1+	0.4+	2000 01 03	704	0.0	0.7-
1998 06 04	704	0.1-	1.6-	1999 10 01	704	0.7-	0.4-	2000 01 03	704	0.1+	0.7-
1998 06 04	704	0.6-	0.6-	1999 11 30	704	0.3+	0.7+	2000 01 10	704	0.5-	0.1-
1998 06 04	704	0.9-	0.8-	1999 11 30	704	0.7+	0.8+	2000 01 10	704	0.7-	0.1+
1998 06 04	704	(6.2-	0.4-)	1999 11 30	704	0.4+	0.9+	2000 01 10	704	0.5-	0.1+
1998 06 23	704	0.0	0.1+	1999 11 30	704	0.8+	0.7+	2000 01 10	704	0.6-	0.3+
1998 06 23	704	1.0+	1.1+	1999 11 30	704	0.8+	1.0+				

(13820)* 1999 VQ = 1988 VW₅ = 1990 DT₁ = 1993 RL₉

Discovered 1999 Nov. 1 by C. W. Juels at Fountain Hills.

Id. K. Ichikawa (*MPC* 36860), G. V. Williams (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	18.45985	(2000.0)	P		Q	
<i>n</i>	0.18014831	ω	249.09927	+0.54299413	-0.83972482	
<i>a</i>	3.1049117	Ω	168.01003	+0.77814545	+0.50117912	
<i>e</i>	0.1843938	<i>i</i>	1.22106	+0.31566919	+0.20900171	
<i>P</i>	5.47	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>

Residuals in seconds of arc

1988 11 04	046	(8.4-	4.7-)	1999 11 04	704	0.5-	0.4-	1999 11 17	704	0.1+	0.6-
1988 11 04	046	(8.5-	4.3-)	1999 11 04	704	0.4-	0.4-	1999 11 17	704	0.3+	0.2-
1988 11 05	046	(2.7-	3.2-)	1999 11 06	678	0.4+	0.1+	1999 11 17	691	0.4+	0.0
1988 11 05	046	(4.6-	3.4-)	1999 11 06	678	0.1-	0.0	1999 11 27	734	0.1-	0.3-
1988 11 06	675	0.6-	0.3-	1999 11 06	678	0.6-	0.2-	1999 11 27	734	0.0	0.3-
1988 11 06	675	0.4-	0.6-	1999 11 07	120	0.4-	0.3+	1999 11 27	734	0.0	0.3-
1988 11 11	046	(9.1-	0.5-)	1999 11 08	120	0.2+	0.2-	1999 11 27	734	0.2-	0.1-
1988 11 12	046	(8.5-	1.6-)	1999 11 08	120	0.2+	0.3-	1999 12 04	703	0.3-	0.2+
1988 11 12	046	(6.3-	1.8-)	1999 11 08	120	0.2+	0.2-	1999 12 04	703	0.1-	0.6+
1990 02 23	046	0.4+	1.0+	1999 11 09	704	0.0	0.3-	1999 12 04	703	0.4-	0.4+
1990 02 23	046	0.4+	1.3-	1999 11 09	704	0.2-	0.3-	1999 12 04	703	0.7-	0.7+
1990 02 24	046	(3.1+	0.2+)	1999 11 09	704	0.0	0.3-	1999 12 05	703	0.2+	0.5+
1990 02 24	046	0.5-	0.3-	1999 11 09	704	0.4-	0.1-	1999 12 05	703	0.3-	0.0
1993 09 14	809	1.5+	1.6+	1999 11 09	704	1.2-	0.1-	1999 12 05	703	0.0	0.0
1993 09 14	809	0.5+	1.7+	1999 11 10	120	0.1-	0.5-	1999 12 05	703	0.2-	0.2+
1993 09 14	809	0.2-	1.0+	1999 11 10	120	0.1-	0.6-	1999 12 07	704	0.4+	0.1+
1993 09 19	809	0.6+	0.2-	1999 11 12	699	0.5+	0.1+	1999 12 07	704	0.2+	0.4+

1993 09 19	809	0.1−	0.9−	1999 11 12	699	0.2+	0.1+	1999 12 07	704	0.0	0.0
1993 09 19	809	0.9−	0.1+	1999 11 12	699	0.1−	0.4+	1999 12 07	704	0.1+	0.7+
1998 08 17	704	0.2−	0.2+	1999 11 12	704	0.3+	0.3−	1999 12 07	704	0.4+	0.5+
1998 08 17	704	0.5−	0.1+	1999 11 12	704	0.4+	0.8−	1999 12 08	704	0.4+	0.5+
1998 08 17	704	0.6+	0.0	1999 11 12	704	0.2+	0.9−	1999 12 08	704	0.1+	0.6+
1998 08 17	704	0.9+	1.9−	1999 11 12	704	0.0	0.9−	1999 12 08	704	0.3+	0.3+
1998 08 17	704	0.4−	1.1−	1999 11 12	704	0.1−	0.9−	1999 12 08	704	0.0	1.0+
1998 08 27	699	0.1−	0.0	1999 11 12	120	0.6+	0.5−	1999 12 08	704	0.1−	1.2+
1998 08 27	699	0.8−	1.3+	1999 11 12	120	0.5+	0.9−	1999 12 13	699	0.3+	1.2+
1998 08 27	699	1.1−	0.7+	1999 11 13	704	0.1−	0.5−	1999 12 13	699	0.6−	0.6+
1999 10 30	703	0.6−	0.2−	1999 11 13	704	0.1+	0.6−	1999 12 13	699	0.7+	1.6+
1999 10 30	703	0.3−	0.5+	1999 11 13	704	0.1−	0.2−	1999 12 30	699	0.8+	0.3+
1999 10 30	703	0.4+	0.3+	1999 11 13	704	0.1−	0.4−	1999 12 30	699	0.3−	0.4+
1999 10 30	703	0.0	0.1+	1999 11 13	704	0.2−	0.5−	1999 12 30	699	0.3+	0.4+
1999 11 01	678	1.7−	0.9−	1999 11 13	704	0.2+	0.5−	2000 02 03	704	0.5−	0.6+
1999 11 01	678	0.6+	0.2+	1999 11 13	704	0.4−	0.4−	2000 02 03	704	0.2+	0.2+
1999 11 03	678	0.1−	0.0	1999 11 13	704	0.3−	0.2−	2000 02 03	704	0.1+	0.1+
1999 11 03	678	0.5−	0.4−	1999 11 13	704	0.8−	0.3−	2000 02 03	704	0.4+	1.4+
1999 11 03	678	0.4−	0.1+	1999 11 13	704	0.3−	0.4−	2000 02 07	703	0.4−	0.4+
1999 11 04	678	0.6+	0.1+	1999 11 17	704	0.2+	0.2−	2000 02 07	703	(2.1−	1.3+)
1999 11 04	678	0.6+	0.1−	1999 11 17	704	0.2+	0.2−	2000 02 07	703	0.7+	0.1+
1999 11 04	704	0.2+	0.1+	1999 11 17	691	0.4+	0.0	2000 02 07	703	0.3+	1.0+
1999 11 04	704	0.2−	0.3−	1999 11 17	704	0.6+	0.2−				
1999 11 04	704	0.6−	0.3−	1999 11 17	691	0.5+	0.2+				

(13821)* 1999 VE₈ = 1980 WY₂ = 1991 RY₂₀ = 1996 AO₁₁

Discovered 1999 Nov. 8 by K. Korlević at Višnja.

Id. G. V. Williams (*MPC* 37828)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	75.40605		(2000.0)	P	Q
<i>n</i>	0.26275642	ω	265.09718	+0.95722983	−0.28516381
<i>a</i>	2.4141662	Ω	111.46488	+0.28190023	+0.88116431
<i>e</i>	0.2139234	<i>i</i>	3.01287	+0.06514075	+0.37713535
<i>P</i>	3.75	<i>H</i>	14.7	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1980 11 29	675	0.3+	0.1−	1999 11 30	120	0.5+	0.1+	2000 01 03	704	0.6−	0.2−
1980 12 01	675	0.1−	0.3−	1999 12 07	704	0.3−	0.5+	2000 01 03	704	0.4−	0.6−
1991 09 14	675	0.7+	0.5−	1999 12 07	704	0.4+	0.1+	2000 01 04	120	0.2−	0.1−
1991 09 14	675	0.1−	0.5−	1999 12 07	704	0.2+	0.8+	2000 01 04	120	1.0−	0.2−
1991 09 16	675	0.1−	0.3+	1999 12 07	704	0.0	0.3+	2000 01 04	120	0.6−	0.6−
1991 09 16	675	0.0	0.1−	1999 12 07	704	0.4−	0.1+	2000 01 05	704	0.3−	1.2−
1996 01 14	691	0.3−	0.3+	1999 12 07	120	0.0	0.7+	2000 01 05	704	1.0+	0.2−
1996 01 14	691	0.2+	0.1−	1999 12 08	120	0.4−	0.1+	2000 01 05	704	0.1−	1.3−
1996 01 14	691	0.2+	0.1+	1999 12 08	704	0.0	0.1+	2000 01 05	704	0.5−	0.3−
1996 01 24	691	0.3−	0.4+	1999 12 08	704	0.0	0.5+	2000 01 08	704	0.4−	1.3−
1996 01 24	691	0.3−	0.5+	1999 12 08	704	0.4−	0.6+	2000 01 08	704	0.6−	0.4−
1996 01 24	691	0.4−	0.0	1999 12 08	704	0.1−	0.1−	2000 01 08	704	0.3−	0.1+
1999 11 08	120	1.4+	0.2−	1999 12 08	704	0.0	0.2−	2000 01 08	704	0.5−	0.0
1999 11 08	120	0.2+	0.1+	1999 12 31	120	1.6+	0.1+	2000 01 08	704	0.1+	0.8+
1999 11 08	120	1.1−	0.1−	1999 12 31	120	0.5+	1.4−	2000 01 13	849	0.2−	0.2−
1999 11 09	120	0.4−	0.2+	1999 12 31	120	1.3+	0.6−	2000 01 13	849	0.1+	0.4+
1999 11 09	120	0.2+	0.7+	1999 12 31	120	0.6+	0.6−	2000 01 13	849	1.5−	0.4+
1999 11 09	120	1.5+	0.1−	2000 01 03	691	0.3+	0.3−	2000 01 30	704	0.7+	0.0
1999 11 29	120	0.0	0.5+	2000 01 03	691	0.3+	0.3−	2000 01 30	704	0.0	1.3+
1999 11 29	120	0.5+	1.2+	2000 01 03	691	0.2+	0.3−	2000 01 30	704	0.2−	0.4−
1999 11 29	120	0.1−	0.7+	2000 01 03	704	0.4−	0.2+	2000 01 30	704	0.1+	0.1+
1999 11 30	120	(0.9+	2.9+)	2000 01 03	704	0.1−	0.8−	2000 01 30	704	0.4+	1.0+

(13822)* 1999 VV₁₇ = 1978 WN₁₈ = 1989 YN₄

Discovered 1999 Nov. 2 by Spacewatch at Kitt Peak.

Id. G. V. Williams (*MPC* 37829)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	50.60282		(2000.0)	P	Q
<i>n</i>	0.27978012	ω	104.28872	+0.99107845	−0.12334940
<i>a</i>	2.3152158	Ω	262.81504	+0.09399254	+0.91539790
<i>e</i>	0.1667344	<i>i</i>	2.91655	+0.09449288	+0.38318613
<i>P</i>	3.52	<i>H</i>	15.0	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1978 11 30	675	0.2−	0.8−	1999 11 02	691	0.2−	0.1−	1999 12 04	699	0.1−	0.7+
1978 12 01	675	0.3+	0.3−	1999 11 02	691	0.4−	0.0	1999 12 04	699	0.8−	0.9+
1989 12 30	413	0.9+	0.6−	1999 11 03	691	0.3+	0.0	1999 12 07	704	0.5−	0.2+
1989 12 31	413	(5.1+	2.5−)	1999 11 03	691	0.4+	0.1−	1999 12 07	704	0.5+	0.3+
1989 12 31	413	0.4−	0.9+	1999 11 03	691	0.3+	0.1+	1999 12 07	704	0.1+	0.1−
1998 04 21	704	0.2−	1.2+	1999 11 04	704	0.1−	0.2+	1999 12 07	704	0.1−	0.8+
1998 04 21	704	0.6−	0.0	1999 11 04	704	0.1−	0.5−	1999 12 07	704	1.2+	0.9−
1998 04 21	704	0.6+	1.1−	1999 11 04	704	0.2−	0.2+	1999 12 12	703	0.2+	0.7+
1998 04 21	704	(2.6−	0.1−)	1999 11 04	703	0.0	0.3+	1999 12 12	703	0.2+	0.6+
1998 04 21	704	(5.4−	0.9+)	1999 11 04	704	0.4−	0.1−	1999 12 12	703	1.0−	0.0
1998 05 01	704	0.0	1.0−	1999 11 04	703	0.4−	0.4+	1999 12 12	703	0.4−	0.4+
1998 05 01	704	0.8−	0.5+	1999 11 04	704	0.4+	0.1−	1999 12 30	699	0.3+	0.1+
1998 05 01	704	0.1−	0.2+	1999 11 04	703	0.4−	0.3−	1999 12 30	699	1.0−	0.1+
1998 05 01	704	0.1−	0.1+	1999 11 04	703	0.5−	0.4+	1999 12 30	699	0.4−	0.0
1998 05 01	704	1.3+	1.3+	1999 11 14	704	1.3+	0.3+	2000 01 04	704	0.2−	0.6−
1999 10 03	704	0.0	0.0	1999 11 14	704	0.4+	0.3−	2000 01 04	704	0.1−	0.2−
1999 10 03	704	0.3+	0.9−	1999 11 14	704	1.3+	0.3−	2000 01 04	704	0.2−	0.6−
1999 10 03	704	0.5−	0.4+	1999 11 14	704	1.2+	0.7−	2000 01 04	704	0.7+	0.1−
1999 10 03	704	0.3−	0.1−	1999 11 14	704	0.3−	0.8−	2000 01 04	704	0.8−	0.3−
1999 10 03	704	0.0	0.3+	1999 11 16	704	0.7+	0.1+	2000 01 07	704	0.6−	0.8+
1999 10 30	703	0.5+	0.4−	1999 11 16	704	0.3+	0.0	2000 01 07	704	0.1+	0.6−
1999 10 30	703	1.8−	0.4+	1999 11 16	704	0.7+	0.1+	2000 01 07	704	0.1−	0.4+
1999 10 30	703	0.1−	1.5+	1999 11 16	704	0.3+	0.2−	2000 01 07	704	0.6−	0.5−
1999 10 30	703	0.4+	0.2+	1999 11 16	704	0.1+	0.2−	2000 01 07	704	0.3−	0.3+
1999 11 02	691	0.8−	0.1−	1999 12 04	699	0.3−	0.1−				

(13823)* 1999 VO₇₂ = 1982 UW₈ = 1987 SD₂₇ = 1998 XU₆₈

Discovered 1999 Nov. 15 by the Beijing Schmidt CCD Asteroid Program at

Xinglong.

Id. M. E. Sansaturio (*MPC* 37840), G. V. Williams (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	176.09308		(2000.0)	P	Q
<i>n</i>	0.18970984	ω	6.10386	+0.89678075	+0.43316278
<i>a</i>	2.9996885	Ω	327.74036	−0.41278306	+0.74549584
<i>e</i>	0.1024905	<i>i</i>	9.74016	−0.15935630	+0.50656288
<i>P</i>	5.20	<i>H</i>	12.3	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1982 10 21	095	0.5−	1.8+	1999 11 16	704	0.6+	0.6−	2000 01 04	704	0.3+	1.7−
1987 09 26	095	0.6+	2.0−	1999 11 17	703	0.3+	0.4−	2000 01 05	699	0.1+	0.0
1992 08 30	095	0.1+	0.3+	1999 11 17	703	0.4−	0.1−	2000 01 05	699	0.1−	0.6+
1992 08 30	095	(1.7+	2.1−)	1999 11 17	703	0.1+	0.4+	2000 01 05	699	0.3+	0.2+
1998 11 16	704	0.7+	0.5+	1999 11 17	703	0.2−	1.0+	2000 01 07	704	0.7+	0.3+
1998 11 16	704	0.3+	0.0	1999 11 17	327	0.3+	0.1+	2000 01 07	704	0.2+	0.4−
1998 11 16	704	1.1+	1.2−	1999 11 17	327	0.4+	0.3+	2000 01 07	704	0.5−	1.0−
1998 11 16	704	(2.3−	1.9+)	1999 11 17	327	0.3+	0.8−	2000 01 07	704	0.8−	0.1−
1998 11 16	704	1.0+	0.6+	1999 11 17	327	0.0	0.2+	2000 01 07	704	1.2−	0.1−
1998 12 14	704	0.0	0.0	1999 12 05	703	1.0+	0.4−	2000 01 27	120	0.4−	0.6−
1998 12 14	704	0.1−	0.1+	1999 12 05	703	0.2+	0.5+	2000 01 27	120	0.0	0.9−
1998 12 14	704	0.0	0.4−	1999 12 05	703	0.4+	0.1+	2000 01 30	704	0.6−	1.3+
1998 12 17	704	0.0	0.3−	1999 12 05	703	0.1−	0.1−	2000 01 30	704	0.2−	0.0
1998 12 17	704	0.8−	0.8+	1999 12 06	120	1.3−	0.2−	2000 01 30	704	0.6+	0.5−
1998 12 17	704	1.8−	0.1+	1999 12 06	120	0.7+	0.5+	2000 02 02	703	0.0	0.1+
1998 12 17	704	0.4+	0.2+	1999 12 06	704	0.1−	0.0	2000 02 02	703	0.1+	0.6+
1998 12 17	704	0.9−	0.1+	1999 12 06	704	0.1+	0.1+	2000 02 02	703	0.2+	0.8+
1999 01 08	704	0.6+	0.5+	1999 12 06	704	0.0	0.3+	2000 02 02	703	0.2−	0.5+
1999 01 08	704	0.5−	0.6−	1999 12 06	704	0.8−	0.1+	2000 02 04	704	0.0	0.3+

2000 FEB. 22

M.P.C. 38407

1999 01 08	704	0.8+	0.7-	1999 12 06	704	0.2-	0.6-	2000 02 04	704	0.2+	0.2+
1999 01 08	704	(2.0+	0.7-)	1999 12 09	699	0.3+	0.3-	2000 02 04	704	0.0	0.2+
1999 01 08	704	0.8-	0.0	1999 12 09	699	0.1+	1.7+	2000 02 04	704	0.1+	0.3+
1999 11 15	327	0.6+	1.0+	1999 12 09	699	0.8+	0.3+	2000 02 04	704	0.5+	0.1+
1999 11 15	327	0.2-	0.2-	1999 12 18	120	1.7-	0.3-	2000 02 06	106	0.3+	0.1+
1999 11 15	327	0.3+	0.2+	1999 12 18	120	0.0	0.5-	2000 02 06	106	0.1+	0.0
1999 11 16	704	0.5+	0.6+	1999 12 18	120	1.4-	1.3-	2000 02 07	106	0.3-	0.1+
1999 11 16	704	1.3-	0.5+	2000 01 04	704	0.7+	0.3-				
1999 11 16	704	0.1-	1.1-	2000 01 04	704	0.4+	1.4-				

(13824)* 1999 VG₈₆ = 1991 JG₄ = 1994 CT₂ = 1998 MW₂₀

Discovered 1999 Nov. 5 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 37841)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	211.94997	(2000.0)	
<i>n</i>	0.28502801	ω	132.48227
<i>a</i>	2.2867096	Ω	85.84677
<i>e</i>	0.0856020	<i>i</i>	6.27492
<i>P</i>	3.46	<i>H</i>	14.4
		<i>G</i>	0.15
		<i>U</i>	2

Residuals in seconds of arc

1991 05 12	809	1.6+	1.5-	1998 06 24	704	0.1-	0.7+	1999 11 07	704	0.0	0.3-
1991 05 12	809	(2.6+	1.4-)	1998 06 24	704	0.3+	0.3-	1999 11 07	704	0.1-	0.3+
1991 05 12	809	0.4-	1.7-	1998 06 24	704	(2.4-	0.3+)	1999 11 07	704	0.1+	0.1+
1991 05 17	809	1.0-	1.3-	1998 06 24	704	0.3-	0.4+	1999 11 07	704	0.2-	0.0
1991 05 17	809	1.5-	1.5-	1998 06 26	704	0.5-	2.0+	1999 11 08	704	0.4+	0.2+
1991 05 17	809	1.3-	0.9-	1998 06 26	704	(1.4-	2.8+)	1999 11 08	704	0.2-	0.7-
1994 02 13	372	0.4+	0.4-	1998 06 26	704	0.1+	1.2-	1999 11 08	704	0.3+	0.7-
1994 02 13	372	0.2-	0.2+	1998 06 26	704	(3.6-	1.4+)	1999 11 08	704	0.4+	0.6-
1994 02 17	372	0.4+	0.7-	1998 06 26	704	0.4-	0.3-	1999 12 04	699	0.2-	0.8-
1994 02 17	372	0.5-	0.1+	1999 10 03	703	0.4-	0.1-	1999 12 04	699	0.3-	0.1-
1995 09 11	413	0.4+	0.2+	1999 10 03	703	0.1-	0.0	1999 12 04	699	0.2-	0.1+
1995 09 11	413	0.5+	0.2+	1999 10 03	703	0.1+	0.4-	2000 01 05	704	0.2+	1.4-
1998 05 22	704	1.2+	1.9+	1999 10 03	703	0.4+	0.1+	2000 01 05	704	0.0	1.2-
1998 05 22	704	(1.4-	3.2+)	1999 10 30	703	0.5+	0.2+	2000 01 05	704	0.2+	1.1-
1998 05 22	704	0.1+	0.5+	1999 10 30	703	0.1+	0.2+	2000 01 05	704	0.7+	0.7-
1998 05 22	704	1.5+	1.8-	1999 10 30	703	0.0	0.3+	2000 01 05	704	0.9+	0.7-
1998 05 22	704	(5.9-	1.3-)	1999 10 30	703	0.1-	0.2-	2000 01 06	699	1.5+	1.4+
1998 05 24	704	0.6+	1.1-	1999 11 05	704	0.2+	0.5-	2000 01 06	699	0.5+	0.1+
1998 05 24	704	1.8-	0.6+	1999 11 05	704	0.2-	0.3+	2000 01 06	699	0.8-	0.5+
1998 05 24	704	0.4+	0.6+	1999 11 05	704	0.2-	0.3-	2000 01 07	704	0.9-	1.1-
1998 05 24	704	(0.4-	2.3+)	1999 11 05	704	0.7-	0.3+	2000 01 07	704	0.4+	1.1-
1998 06 24	704	0.8-	0.3-	1999 11 05	704	0.3+	0.1-	2000 01 07	704	0.2+	0.6-

(13825)* 1999 VJ₈₇ = 1989 CM₃ = 1994 LZ₆ = 1998 KD₈

Discovered 1999 Nov. 4 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 37842)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	122.78457	(2000.0)	
<i>n</i>	0.24145015	ω	42.45927
<i>a</i>	2.5541774	Ω	241.92023
<i>e</i>	0.1802115	<i>i</i>	6.16694
<i>P</i>	4.08	<i>H</i>	14.3
		<i>G</i>	0.15
		<i>U</i>	1

Residuals in seconds of arc

1989 02 04	809	0.2+	0.7-	1998 05 24	704	0.9-	0.8+	1999 11 11	703	0.0	0.1+
1989 02 04	809	1.0-	0.6-	1998 05 25	699	0.1+	0.1-	1999 11 11	703	0.9+	0.1-
1989 02 04	809	0.2+	0.8-	1998 05 25	699	0.1+	0.1+	1999 11 14	704	0.1+	0.1+
1989 02 07	809	0.2-	0.3+	1998 05 25	699	0.4+	0.0	1999 11 14	704	0.5+	0.1-
1989 02 07	809	0.2-	0.0	1998 06 03	704	(1.6+	2.8-)	1999 11 14	704	0.6-	0.3+
1989 02 07	809	0.5+	0.9+	1998 06 03	704	1.0-	1.3+	1999 11 14	704	0.1-	0.3+
1994 06 03	809	1.3-	0.7-	1998 06 03	704	(2.8-	0.3+)	1999 11 14	704	0.2-	0.2-
1994 06 03	809	0.8-	0.6-	1998 06 03	704	0.1+	0.4+	1999 11 16	704	1.2+	1.8+

1994 06 03	809	0.5-	0.2-	1998 06 16	704	0.5+	0.6-	1999 11 16	704	0.4-	0.4-
1994 06 04	809	0.7+	0.8-	1998 06 16	704	0.2+	0.3+	1999 11 16	704	0.3+	0.2+
1994 06 04	809	0.8+	0.4-	1998 06 16	704	1.2-	0.4+	1999 11 16	704	0.7-	0.4-
1994 06 04	809	1.2+	0.3-	1998 06 16	704	0.1-	0.6-	1999 12 04	703	0.6-	0.9+
1998 04 25	809	0.8+	1.9+	1998 06 16	704	(6.8-	1.3-)	1999 12 04	703	0.3+	0.8+
1998 04 25	809	0.4+	1.7+	1999 10 03	704	0.5+	0.9-	1999 12 04	703	1.1+	0.2+
1998 04 25	809	0.4+	1.1+	1999 10 03	704	0.8+	0.6-	1999 12 04	703	1.1-	0.8+
1998 04 25	809	(1.2+	2.7-)	1999 10 03	704	0.3-	0.2-	1999 12 04	699	0.6+	0.8+
1998 04 25	809	(1.1+	2.6-)	1999 10 03	704	0.3-	0.8+	1999 12 04	699	0.3+	0.2+
1998 04 25	809	(1.1+	2.2-)	1999 10 29	703	0.2+	0.7+	1999 12 04	699	0.4+	0.7+
1998 05 05	699	1.1+	0.6+	1999 10 29	703	0.7-	0.8+	1999 12 07	704	0.0	0.1-
1998 05 05	699	0.8+	0.1+	1999 10 29	703	0.4+	0.7+	1999 12 07	704	0.3+	0.6-
1998 05 05	699	0.9+	0.1-	1999 10 29	703	0.7+	1.4+	1999 12 07	704	0.3+	0.7-
1998 05 22	704	0.0	0.8+	1999 11 04	704	0.3+	0.1-	1999 12 07	704	0.9+	0.7-
1998 05 22	704	0.3-	0.8-	1999 11 04	704	0.3+	0.5-	1999 12 07	704	0.2+	0.7-
1998 05 22	704	0.4+	0.2-	1999 11 04	704	0.4+	0.3-	2000 01 04	704	0.5-	0.4+
1998 05 22	704	1.6+	0.9-	1999 11 04	704	0.1-	0.3-	2000 01 04	704	0.5-	1.2+
1998 05 22	704	(1.7-	2.0+)	1999 11 04	704	0.1-	0.6-	2000 01 04	704	(1.1-	2.2+)
1998 05 23	699	0.1+	0.1+	1999 11 08	704	0.5-	0.6-	2000 01 04	704	0.8+	1.3+
1998 05 23	699	0.6-	0.3+	1999 11 08	704	0.3-	0.0	2000 01 07	704	0.5-	0.3-
1998 05 23	699	0.4+	0.2-	1999 11 08	704	0.9-	0.1-	2000 01 07	704	0.4+	1.0-
1998 05 24	704	0.4-	0.3+	1999 11 08	704	0.8-	0.1+	2000 01 07	704	0.2-	0.4+
1998 05 24	704	1.2-	0.1-	1999 11 08	704	0.9-	0.5+	2000 01 07	704	0.8-	0.4-
1998 05 24	704	0.4-	0.4+	1999 11 11	703	0.1-	0.4-	2000 01 07	704	1.3-	0.8-
1998 05 24	704	1.5-	0.5-	1999 11 11	703	1.1-	0.4-				

(13826)* 1999 WM = 1991 PB₁₉ = 1995 SW₄ = 4315 T-2

Discovered 1999 Nov. 16 by T. Kobayashi at Oizumi.

Id. S. Nakano (*MPC* 37237)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Asher			
<i>M</i>	36.50507	(2000.0)	
<i>n</i>	0.26876650	ω	286.96469
<i>a</i>	2.3780407	Ω	+0.53084711
<i>e</i>	0.2022963	<i>i</i>	+0.80487025
<i>P</i>	3.67	<i>H</i>	14.1
		<i>G</i>	0.15
		<i>U</i>	2

Residuals in seconds of arc

1973 09 29	675	0.8+	1.2-	1999 11 17	704	1.7+	0.1-	2000 01 05	704	0.2+	0.5-
1973 09 29	675	0.3-	1.5-	1999 11 17	704	0.7+	0.4+	2000 01 05	704	0.0	0.7-
1973 09 30	675	1.8-	0.9+	1999 11 17	704	0.2-	0.3+	2000 01 06	704	0.2+	0.4-
1973 09 30	675	1.7-	0.5+	1999 11 17	704	0.1-	0.7+	2000 01 06	704	0.2+	0.5-
1973 10 04	675	0.3-	0.6+	1999 11 18	411	0.1+	0.6+	2000 01 06	704	0.4-	1.3-
1973 10 04	675	0.4-	1.7+	1999 11 18	411	0.7-	0.2+	2000 01 06	704	0.0	0.5-
1973 10 05	675	1.9+	1.1-	1999 11 21	411	1.1-	0.5+	2000 01 06	704	0.0	0.8-
1973 10 05	675	1.9+	0.2+	1999 11 21	411	1.4-	0.1+	2000 02 02	704	0.4-	0.6+
1991 08 02	809	(0.3+	3.9-)	1999 12 06	704	0.1+	0.3-	2000 02 02	704	0.2-	0.1+
1991 08 02	809	0.9-	0.2-	1999 12 06	704	0.4+	0.2-	2000 02 02	704	0.5-	0.2+
1991 08 02	809	(0.3-	3.4-)	1999 12 06	704	0.3+	0.3-	2000 02 02	704	0.4-	0.5+
1991 08 14	809	1.5+	1.4-	1999 12 06	704	0.1+	0.1-	2000 02 03	704	0.7-	0.3-
1991 08 14	809	0.4+	1.9-	1999 12 06	704	0.2+	0.0	2000 02 03	704	0.1-	0.3-
1991 08 14	809	0.2+	1.9-	1999 12 09	411	0.1-	0.8-	2000 02 03	704	0.4-	0.0
1995 09 20	400	1.5-	0.2+	1999 12 09	411	1.3-	0.6-	2000 02 03	704	0.7-	0.1-
1995 09 20	400	0.4-	1.7+	1999 12 14	704	0.1+	0.3-	2000 02 03	704	0.4-	0.2+
1995 09 21	400	0.6+	2.1-	1999 12 14	704	0.4+	0.4+	2000 02 05	106	0.4+	0.5-
1995 09 21	400	(3.0+	1.1+)	1999 12 14	704	0.3+	0.1-	2000 02 05	106	0.8-	0.7+
1995 09 30	400	(2.9-	5.7+)	1999 12 14	704	0.3+	0.2-	2000 02 05	106	0.8+	0.

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	115.79813		(2000.0)		P		Q				
<i>n</i>	0.26236868	ω	234.05353		+0.89934462		+0.43327255				
<i>a</i>	2.4165441	Ω	100.20548		−0.37947023		+0.84021112				
<i>e</i>	0.0935184	<i>i</i>	3.42356		−0.21721324		+0.32606774				
<i>P</i>	3.76	<i>H</i>	13.8		<i>G</i>	0.15	<i>U</i>	1			
Residuals in seconds of arc											
1991 09 12	675	0.1−	0.5−	1999 11 03	704	0.1−	0.1−	2000 01 02	691	0.1−	0.2+
1991 09 12	675	0.3+	0.4+	1999 11 03	704	0.2+	0.3−	2000 01 02	691	0.2+	0.2+
1991 09 14	675	0.8+	0.8−	1999 11 03	704	0.3−	0.5+	2000 01 05	704	0.2+	0.4+
1991 09 14	675	0.1−	0.7−	1999 11 15	704	0.1−	0.2+	2000 01 05	704	0.0	0.1−
1993 01 27	010	0.5−	1.2+	1999 11 15	704	0.4−	0.2−	2000 01 05	704	0.3+	0.2−
1993 01 27	010	0.9−	1.2+	1999 11 15	704	0.2+	0.1−	2000 01 05	704	0.0	0.0
1993 01 27	010	1.3+	0.6+	1999 11 15	704	0.2−	0.4−	2000 01 05	704	0.4+	0.1−
1993 01 28	010	0.7+	1.2−	1999 11 15	704	0.4−	0.3−	2000 01 06	704	0.3−	0.1−
1993 01 28	010	0.5−	1.2−	1999 11 17	704	0.4−	0.2+	2000 01 06	704	0.1+	0.1−
1993 01 28	010	(0.7−	2.7−)	1999 11 17	704	0.1+	0.0	2000 01 06	704	0.2+	0.4−
1995 10 17	691	0.4−	0.2+	1999 11 17	704	0.1−	0.1+	2000 01 06	704	0.3+	0.1−
1995 10 17	691	0.2−	0.1−	1999 11 17	704	0.2−	0.3+	2000 01 08	106	0.3−	0.6−
1995 10 17	691	0.0	0.0	1999 11 17	704	0.3−	0.2+	2000 01 08	106	0.2+	0.3−
1995 10 28	691	0.1−	0.2+	1999 11 28	411	(0.7+	2.3+)	2000 01 08	106	0.0	0.7+
1995 10 28	691	0.2−	0.2+	1999 11 28	411	0.7−	1.1+	2000 01 12	858	0.3−	0.0
1995 10 28	691	0.1+	0.1+	1999 11 29	411	1.5+	1.0+	2000 01 12	858	0.4−	0.4+
1998 06 24	704	0.3−	0.5+	1999 11 29	411	0.1+	1.2+	2000 01 12	858	0.1+	0.2+
1998 06 24	704	1.2+	0.9+	1999 12 07	704	0.5−	0.5+	2000 01 13	858	0.1−	0.2+
1998 06 24	704	0.1−	0.7+	1999 12 07	704	0.5−	0.2−	2000 01 13	858	0.1+	0.3+
1998 06 24	704	(2.3−	0.3+)	1999 12 07	704	0.4−	0.7−	2000 01 13	858	0.2+	0.7+
1998 06 24	704	0.1+	0.5+	1999 12 08	704	0.2+	0.3+	2000 02 11	704	0.1−	0.3−
1998 06 26	704	0.7−	0.8+	1999 12 08	704	1.8+	0.0	2000 02 11	704	0.8+	0.8+
1998 06 26	704	0.0	0.8+	1999 12 08	704	0.4−	0.2−	2000 02 11	704	0.3−	1.1+
1998 06 26	704	0.2−	0.4−	1999 12 08	704	0.4−	0.1−	2000 02 11	704	0.3+	0.2+
1998 06 26	704	0.4−	1.9+	1999 12 09	411	0.1−	0.4−	2000 02 11	704	0.1−	0.5+
1999 11 03	704	0.2+	0.6−	1999 12 09	411	0.6−	0.1−				
1999 11 03	704	0.3−	0.2−	2000 01 02	691	0.2+	0.3+				

(13828)* 1999 WL₆ = 1989 TT₃

Discovered 1999 Nov. 28 by K. Korlević at Višnjan.

Id. G. V. Williams (*MPC* 37849)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	68.23129		(2000.0)		P		Q				
<i>n</i>	0.20580342	ω	283.97816		+0.98265268		-0.17680366				
<i>a</i>	2.8411947	Ω	86.22758		+0.18431130		+0.89755176				
<i>e</i>	0.0845059	<i>i</i>	3.21628		+0.02056822		+0.40390754				
<i>P</i>	4.79	<i>H</i>	14.3		<i>G</i>	0.15	<i>U</i>	1			
Residuals in seconds of arc											
1989 09 29	675	1.3+	1.8-	1998 08 17	704	0.2-	0.7+	1999 12 07	704	0.3+	0.1+
1989 09 29	675	(2.3+	2.8-)	1998 08 17	704	0.6-	1.2+	1999 12 07	704	0.7+	0.5+
1989 10 07	809	1.9+	0.1+	1998 08 17	704	1.1+	1.6+	1999 12 07	704	0.3+	0.4+
1989 10 07	809	0.3+	0.3+	1999 11 15	704	0.5-	0.3+	1999 12 07	704	0.5+	0.1-
1989 10 07	809	0.6-	0.3-	1999 11 15	704	0.8-	0.2+	1999 12 08	704	0.6+	0.1-
1989 10 08	809	0.5-	0.3+	1999 11 15	704	0.9-	0.3+	1999 12 08	704	0.4+	0.1-
1989 10 08	809	0.8-	0.3+	1999 11 15	704	1.2-	0.2-	1999 12 08	704	0.5+	0.5+
1989 10 08	809	1.4-	0.5+	1999 11 15	704	0.4-	0.2-	1999 12 08	704	0.1+	0.2-
1997 04 07	704	0.5+	0.6+	1999 11 28	120	0.3-	1.4+	2000 01 05	704	1.1-	1.1+
1997 04 07	704	0.0	1.6+	1999 11 28	120	0.5+	0.4+	2000 01 05	704	0.1+	0.2-
1997 04 30	704	0.7+	0.9+	1999 11 29	120	1.5-	0.9+	2000 01 05	704	0.1-	0.1+
1997 04 30	704	0.2-	1.2+	1999 11 29	120	0.1-	1.5+	2000 01 05	704	0.0	0.2-
1997 04 30	704	1.1+	1.6+	1999 11 29	120	1.2-	1.2+	2000 01 06	704	1.2+	0.3+
1997 04 30	704	(1.5+	2.0+)	1999 12 06	120	0.7+	1.2-	2000 01 06	704	0.6+	1.4+
1997 04 30	704	(2.7-	0.1+)	1999 12 06	120	1.0+	0.4+	2000 01 06	704	0.5-	0.6-
1998 08 17	704	1.2-	0.2+	1999 12 07	704	0.4+	0.0	2000 01 06	704	1.1-	0.6-

(13829)* 1999 WK₁₈ = 1992 OT₄ = 1996 GU = 1996 GW = 1998 RP₆₉

Discovered 1999 Nov. 29 by K. Korlević at Višnjan.

Id. G. V. Williams (*MPC* 37853), S. Nakano (d, *MPC* 31437)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	162.00781		(2000.0)		P		Q				
<i>n</i>	0.17840278	ω	150.69419		+0.14428473		+0.98917929				
<i>a</i>	3.1251315	Ω	127.58904		-0.91428659		+0.14353712				
<i>e</i>	0.1550814	<i>i</i>	1.92193		-0.37849961		+0.03035512				
<i>P</i>	5.52	<i>H</i>	12.9		<i>G</i>	0.15	<i>U</i>	1			
Residuals in seconds of arc											
1992 07 26	809	0.3+	1.2-	1998 09 18	704	(2.8-	0.5-)	1999 12 06	120	0.2-	0.2+
1992 07 26	809	0.1+	1.5-	1998 09 18	704	(1.6-	2.5+)	1999 12 07	704	0.2+	0.3+
1992 07 26	809	(0.9-	2.5-)	1998 09 18	704	0.7-	1.7+	1999 12 07	704	0.7-	1.1+
1992 07 30	809	0.9+	1.7-	1998 10 14	699	0.3-	1.4+	1999 12 07	704	0.4+	1.0-
1992 07 30	809	1.1+	1.2-	1998 10 14	699	0.2+	0.4+	1999 12 07	120	0.8+	0.0
1992 07 30	809	0.2-	1.3-	1998 10 14	699	0.8+	0.4+	1999 12 07	120	0.3-	0.1-
1996 04 10	608	0.6-	1.0+	1999 11 09	704	0.2-	0.7-	1999 12 08	704	0.3+	0.2-
1996 04 10	608	0.7-	0.9+	1999 11 09	704	0.5-	0.7-	1999 12 08	704	0.1-	0.5-
1996 04 11	608	0.0	0.4-	1999 11 09	704	0.3-	0.7-	1999 12 08	704	0.7+	0.6-
1996 04 11	608	0.0	0.2-	1999 11 09	704	0.5-	1.3-	1999 12 08	704	0.1+	0.3-
1996 04 12	608	0.1-	0.0	1999 11 09	704	0.7-	1.5-	1999 12 08	704	0.0	0.3-
1996 04 12	608	0.1+	0.1+	1999 11 12	704	0.6-	0.6-	2000 01 05	704	0.0	0.8+
1996 04 14	608	0.4+	0.6-	1999 11 12	704	0.5-	0.3-	2000 01 05	704	0.3+	0.1+
1996 04 14	608	0.8+	0.5-	1999 11 12	704	0.4-	0.8-	2000 01 05	704	0.0	0.5+
1998 09 14	704	0.2+	1.0+	1999 11 12	704	0.7-	0.2-	2000 01 05	704	0.2-	0.4-
1998 09 14	704	0.1-	0.3-	1999 11 12	704	0.7-	0.1+	2000 01 06	704	0.2+	0.0
1998 09 14	704	0.5-	0.3+	1999 11 13	120	0.5-	0.0	2000 01 06	704	0.5+	0.1+
1998 09 17	699	0.6-	1.7+	1999 11 13	120	0.7+	0.2-	2000 01 06	704	0.3+	0.5+
1998 09 17	699	0.4-	0.3+	1999 11 29	120	0.5+	0.6+	2000 01 06	704	0.6+	0.4-
1998 09 17	699	0.2-	0.3+	1999 11 29	120	0.5+	0.2-	2000 01 06	704	0.1-	0.5-
1998 09 18	704	0.5-	0.4+	1999 12 06	120	(2.2-	0.0)				
1998 09 18	704	0.9-	0.2-	1999 12 06	120	1.5+	0.8+				

(13830)* 1999 XM₇ = 1975 TW₆ = 1996 BU₁₁ = 1997 JY₁₄

Discovered 1999 Dec. 4 by C. W. Juels at Fountain Hills.

Id. G. V. Williams (*MPC* 37860)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	31.23701		(2000.0)		$\mathbf{P}$		$\mathbf{Q}$				
n	0.20922614	ω	321.81891		+0.61273399		-0.78455513				
a	2.8101236	Ω	90.19055		+0.74643657		+0.53503661				
e	0.0990160	i	5.45296		+0.25959489		+0.31338327				
P	4.71	H	13.4		G	0.15	U	1			
Residuals in seconds of arc											
1975 10 10	033	0.1-	0.7+	1999 11 04	704	0.2-	0.3-	1999 12 08	704	0.0	0.0
1996 01 24	691	0.4-	0.2-	1999 11 04	704	0.6-	0.6-	1999 12 08	704	0.0	0.0
1996 01 24	691	0.4-	0.2-	1999 11 04	704	0.1-	0.6-	1999 12 08	704	0.1-	0.1+
1996 01 24	691	0.3-	0.3-	1999 11 15	704	1.3+	0.0	1999 12 31	703	0.3-	0.7+
1996 01 27	691	0.5-	0.2-	1999 11 15	704	0.3-	1.2+	1999 12 31	703	0.1-	0.5+
1996 01 27	691	0.7-	0.3-	1999 11 15	704	0.4+	0.5-	1999 12 31	703	0.2-	0.8+
1996 01 27	691	0.6-	0.1-	1999 11 15	704	0.3+	0.2-	1999 12 31	703	0.3-	0.9+
1997 05 03	809	(0.8+	2.2+)	1999 11 15	704	0.0	0.5-	2000 01 04	106	0.3+	1.1+
1997 05 03	809	(0.2-	2.5+)	1999 11 17	704	0.2+	0.1-	2000 01 04	106	0.2-	0.7+
1997 05 03	809	0.9+	1.8+	1999 11 17	704	0.3+	0.3-	2000 01 04	106	0.0	0.7+
1997 05 04	809	1.6+	0.8+	1999 11 17	704	0.1-	0.2+	2000 01 05	704	0.4+	0.5-
1997 05 04	809	0.4+	0.9+	1999 11 17	704	0.1+	0.0	2000 01 05	704	0.0	0.7+
1997 05 04	809	1.2+	1.1+	1999 11 17	704	0.1-	0.1+	2000 01 05	704	0.0	0.5+
1998 07 31	699	0.7+	0.1+	1999 12 03	699	0.6+	0.6+	2000 01 05	704	0.4-	0.5-
1998 07 31	699	0.6+	0.3+	1999 12 03	699	0.4+	0.1+	2000 01 05	704	0.7-	0.0
1998 07 31	699	1.0+	0.3-	1999 12 03	699	0.7+	0.6+	2000 01 06	704	0.5+	0.1-
1998 08 17	704	0.6+	0.5+	1999 12 04	678	0.7-	0.1-	2000 01 06	704	0.5+	0.3+
1998 08 17	704	0.9-	0.9-	1999 12 04	678	0.7-	0.5-	2000 01 06	704	0.2-	0.2+
1998 08 17	704	(1.6-	2.7+)	1999 12 05	678	1.1-	0.3-	2000 01 06	704	0.2-	0.4-
1998 08 17	704	0.3-	0.7-	1999 12 05	678	1.4-	0.5+	2000 01 06	704	0.1-	1.6-
1998 08 17	704	(6.0-	1.7+)	1999 12 07	704	0.4+	0.1-	2000 02 03	704	0.9+	1.4+
1998 08 23	704	1.9-	0.6+	1999 12 07	704	0.3+	0.1+	2000 02 03	704	0.4+	0.7+

2000 FEB. 22

M.P.C. 38409

1998 08 23	704	0.9−	0.7+	1999 12 07	704	0.5+	0.2−	2000 02 03	704	0.6−	0.3+
1998 08 23	704	0.9−	0.2−	1999 12 07	704	0.2+	0.2−	2000 02 03	704	1.1−	0.7+
1998 08 23	704	(6.6−	0.9−)	1999 12 07	704	0.1−	0.3−	2000 02 03	704	0.5+	0.4+
1999 11 04	704	0.1−	0.4+	1999 12 08	704	0.2+	0.2+				
1999 11 04	704	0.1+	0.2−	1999 12 08	704	0.1+	0.0				

(13831)* 1999 XD₈ = 1981 RV₇ = 1991 LN₄

Discovered 1999 Dec. 3 by T. Kobayashi at Oizumi.

Id. S. Nakano (*MPC* 37245)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Asher

M	87.39612		(2000.0)	P	Q
n	0.28185550	ω	252.59749	+0.99481702	−0.02030051
a	2.3038368	Ω	108.47578	+0.05552358	+0.92933741
e	0.1690793	i	6.02997	−0.08518346	+0.36867311
P	3.50	H	14.4	G 0.15	U 2

Residuals in seconds of arc

1981 09 03	675	0.1+	0.2+	1999 11 15	704	0.2+	0.2−	1999 12 14	704	0.1+	0.4+
1981 09 04	675	0.1−	0.1+	1999 11 15	704	0.1−	0.5−	1999 12 14	704	0.2+	0.3+
1991 06 06	809	1.3+	0.5+	1999 11 15	704	0.2−	0.2−	1999 12 14	704	0.2+	0.1+
1991 06 06	809	0.2+	0.1+	1999 11 15	704	0.5−	0.0	1999 12 14	704	0.4−	0.4+
1991 06 06	809	0.2−	0.2+	1999 11 17	704	0.4+	0.6−	2000 01 05	704	0.8−	0.3−
1991 06 08	809	(3.1−	0.4−)	1999 11 17	704	0.2+	0.7+	2000 01 05	704	0.2−	0.2−
1991 06 08	809	1.5−	0.4−	1999 11 17	704	0.3−	0.7+	2000 01 05	704	0.7+	1.4−
1991 06 08	809	0.4−	1.5−	1999 11 17	704	0.1+	0.3+	2000 01 05	704	0.1−	0.9−
1998 05 22	704	0.1−	0.8+	1999 11 17	704	0.3−	0.1−	2000 01 05	106	0.6−	0.5+
1998 05 22	704	0.6+	0.2+	1999 12 03	411	1.3+	0.3−	2000 01 05	106	0.0	0.8+
1998 05 22	704	1.7+	0.4−	1999 12 03	411	1.1−	0.3−	2000 01 06	704	0.4+	0.1+
1998 05 22	704	0.9+	0.9−	1999 12 06	411	(2.6−	1.8−)	2000 01 06	704	0.2+	0.2−
1998 05 22	704	(2.4−	1.4−)	1999 12 06	411	0.7−	0.9−	2000 01 06	704	0.6+	0.3−
1998 06 24	704	1.3−	0.4−	1999 12 08	704	0.4+	0.3−	2000 01 06	704	0.3+	0.0
1998 06 24	704	1.0−	0.4+	1999 12 08	704	0.1−	0.5−	2000 01 06	704	0.6+	0.4+
1998 06 24	704	0.5−	0.1+	1999 12 08	704	0.1−	0.6−	2000 02 02	704	0.3−	0.0
1998 06 24	704	0.1−	0.5+	1999 12 11	411	0.2−	0.3−	2000 02 02	704	0.9−	0.8+
1998 06 24	704	(0.1+	2.3+)	1999 12 11	411	0.0	0.6+	2000 02 02	704	0.2+	1.8+
1999 11 15	704	0.6+	0.2−	1999 12 14	704	0.1+	0.4−				

(13832)* 1999 XR₁₃ = 1970 EJ = 1971 HP = 1980 WM = 1983 EZ = 1984 KH₁

Discovered 1999 Dec. 5 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 37864)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	235.00595		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.15905538	ω	116.68136	−0.88552523	+0.37251646
a	3.3736793	Ω	86.28601	−0.45898626	−0.79400499
e	0.1134468	i	16.15346	+0.07194921	−0.48040354
P	6.20	H	10.5	G 0.15	U 1

Residuals in seconds of arc

1955 10 23	675	0.7+	0.2+	1999 10 31	703	0.4−	0.1−	1999 12 31	849	0.1−	0.2+
1955 10 23	675	0.3+	0.3−	1999 10 31	703	0.4−	0.1−	1999 12 31	849	0.0	0.4+
1970 03 07	095	2.3−	2.3−	1999 10 31	703	0.4−	0.1−	1999 12 31	849	0.3−	0.4+
1971 04 27	095	0.9+	0.2−	1999 10 31	703	0.1−	0.1−	2000 01 05	704	0.9+	0.6−
1980 11 30	095	0.1+	1.7−	1999 12 04	699	1.8+	0.2−	2000 01 05	704	1.1+	1.2+
1983 03 11	675	0.6+	0.7−	1999 12 04	699	0.1+	0.4+	2000 01 05	704	0.7+	1.0+
1983 03 11	675	0.9−	0.2+	1999 12 04	699	0.3−	0.1+	2000 01 05	704	1.1+	1.3+
1983 03 13	675	0.6−	0.1+	1999 12 05	704	0.6−	1.7−	2000 01 05	704	0.6−	1.8+
1983 03 13	675	0.1−	1.1+	1999 12 05	704	0.4−	0.2+	2000 01 05	106	0.3−	0.2+
1983 03 15	675	0.9+	0.7+	1999 12 05	704	0.3+	1.1−	2000 01 05	106	0.3+	0.1−
1983 03 15	675	1.3+	0.5+	1999 12 05	704	1.4−	0.4−	2000 01 05	106	0.1+	0.0
1984 05 22	413	0.3−	0.6−	1999 12 06	704	0.4+	0.0	2000 01 06	699	0.2−	0.1−
1984 05 22	413	(3.1+	0.5+)	1999 12 06	704	0.1−	0.0	2000 01 06	699	0.2+	0.1+
1984 05 22	413	0.9+	0.5−	1999 12 06	704	0.3−	0.0	2000 01 06	699	0.1−	0.0
1997 08 03	566	0.7−	0.0	1999 12 06	704	0.5−	0.3+	2000 01 07	704	0.4+	0.5−

1997 08 03	566	0.7−	0.1+	1999 12 06	704	0.4−	0.2−	2000 01 07	704	0.7+	0.6+
1997 08 03	566	0.0	1.1+	1999 12 14	704	0.2+	1.1−	2000 01 07	704	1.3+	1.2+
1998 10 03	699	0.2−	0.2−	1999 12 14	704	0.6−	1.9−	2000 01 07	704	0.1+	0.6+
1998 10 03	699	0.6+	0.2−	1999 12 14	704	1.2−	1.3−	2000 01 07	704	0.3−	1.6+
1998 10 03	699	0.5+	0.4−	1999 12 14	699	0.4+	0.4+	2000 02 04	704	1.1−	0.2−
1998 12 08	704	1.2−	0.3+	1999 12 14	699	0.4+	0.1+	2000 02 04	704	0.3−	0.4+
1998 12 08	704	1.0−	0.5+	1999 12 14	699	0.1+	0.1+	2000 02 04	704	0.4+	0.5−
1998 12 08	704	0.0	0.7+	1999 12 27	849	0.2+	0.5+	2000 02 04	704	0.4−	0.2+
1998 12 08	704	(0.5+	3.0+)	1999 12 27	849	0.0	0.5+	2000 02 04	704	0.1+	0.8+
1998 12 08	704	(2.3−	2.1+)	1999 12 27	849	0.2+	0.2+				

(13833)* 1999 XW₁₃ = 1983 UO = 1991 GP₄ = 1998 RT₁₆

Discovered 1999 Dec. 5 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 37864)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	6.49896		(2000.0)	P	Q
n	0.18851280	ω	248.07125	+0.22626583	−0.97363202
a	3.0123735	Ω	188.99995	+0.94813750	+0.22698246
e	0.0797068	i	10.70561	+0.22324662	+0.02279577
P	5.23	H	12.3	G 0.15	U 1

Residuals in seconds of arc

1983 10 30	675	(3.8+	3.3−)	1998 08 23	704	0.9−	0.6+	1999 11 16	703	0.3−	0.1+
1983 11 04	675	0.2+	0.7−	1998 09 14	704	0.7−	0.2+	1999 11 16	703	0.0	0.1−
1991 04 08	809	(1.2−	5.7−)	1998 09 14	704	0.3+	0.3+	1999 11 16	703	0.3+	0.0
1991 04 08	809	(0.9−	5.3−)	1998 09 14	704	0.0	0.3−	1999 11 17	703	0.1+	0.1+
1991 04 08	809	(1.7−	5.9−)	1998 09 14	704	0.3−	0.7+	1999 11 17	703	0.4−	0.1−
1991 04 10	809	(1.4−	2.3−)	1998 09 14	704	0.1+	1.0−	1999 11 17	703	1.4+	1.2−
1991 04 10	809	(1.8−	2.5−)	1998 09 18	704	0.4+	0.3+	1999 11 17	703	0.2−	0.0
1991 04 10	809	(1.0−	3.2−)	1998 09 18	704	0.8−	0.7−	1999 12 05	704	0.1+	0.1−
1991 04 11	033	0.6+	0.2+	1998 09 18	704	0.5+	0.4−	1999 12 05	704	0.1+	0.0
1991 04 11	033	0.6−	0.6+	1998 09 18	704	0.2+	0.2−	1999 12 05	704	0.2−	0.0
1991 04 12	033	1.0−	1.3+	1998 09 18	704	0.1−	0.7−	1999 12 05	704	0.2−	0.2+
1991 04 19	809	(0.7−	2.1−)	1998 10 11	699	0.0	0.0	1999 12 05	704	0.2+	0.3+
1991 04 19	809	(3.1−	0.1−)	1998 10 11	699	0.1−	0.1−	1999 12 06	704	0.2−	0.1−
1991 04 19	809	0.4−	1.9−	1998 10 11	699	0.2+	0.1+	1999 12 06	704	0.2+	0.7−
1991 04 19	675	0.7+	0.2+	1999 10 20	704	0.3+	0.7+	1999 12 06	704	0.5−	0.3−
1991 04 19	675	0.7+	0.3+	1999 10 20	704	0.6+	0.1+	1999 12 06	704	0.1+	0.2+
1996 03 21	566	0.4−	1.0−	1999 10 20	704	0.5−	0.3+	1999 12 14	704	0.3+	0.4−
1996 03 21	566	0.1−	0.7−	1999 10 20	704	0.1+	0.3−	1999 12 14	704	0.3−	0.1+
1996 03 21	566	0.1−	0.6−	1999 10 20	704	1.4−	1.7−	1999 12 14	704	0.0	0.3−
1996 04 21	566	0.2−	0.3−	1999 11 05	704	0.3−	0.0	1999 12 14	704	0.0	0.1−
1996 04 21	566	0.0	0.6−	1999 11 05	704	0.4−	0.4+	1999 12 14	704	1.3−	0.3−
1996 04 21	566	0.1−	0.9−	1999 11 05	704	0.4−	0.1−	2000 01 04	699	0.2+	0.3+
1998 07 31	699	0.4−	0.3+	1999 11 05	704	0.6−	0.2−	2000 01 04	699	0.2+	0.2+
1998 07 31	699	0.2−	0.3+	1999 11 05	704	0.0	0.3−	2000 01 04	699	0.1+	0.2+
1998 07 31	699	0.2−	0.5+	1999 11 12	699	0.3−	0.2+	2000 01 05	106	0.7+	0.1−
1998 08 23	699	0.2+	1.1+	1999 11 12	699	0.1−	0.5+	2000 01 05	106	0.1+	0.2+
1998 08 23	699	0.4+	0.4+	1999 11 12	699	0.2−	0.3+	2000 01 05	106	0.2+	0.1+
1998 08 23	699	0.1+	0.2+	1999 11 16	703	0.0	0.1−	2000 01 11	704	0.5+	1.3−
1998 08 23	704	0.3+	0.6−	1999 11 16	703	0.1−	0.0	2000 01 11	704	1.5+	0.6+
1998 08 23	704	0.4+	0.5−	1999 11 16	703	0.4−	0.1−	2000 01 11	704	1.8+	0.6+
1998 08 23	704	0.1−	1.2−	1999 11 16	703	0.3−	0.1+	2000 01 11	704	0.2+	1.5+
1998 08 23	704	1.2+	1.2−	1999 11 16	703	0.1−	0.0				

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	63.41363		(2000.0)	P	Q
<i>n</i>	0.23735431	ω	260.34898	+0.89607685	+0.43986190
<i>a</i>	2.5834772	Ω	73.53603	-0.37892924	+0.82805675
<i>e</i>	0.2013114	<i>i</i>	3.57097	-0.23121184	+0.34762556
<i>P</i>	4.15	<i>H</i>	13.7	<i>G</i>	0.15

Residuals in seconds of arc

1995 12 02	327	0.6+	0.3+	1998 05 01	699	0.6+	0.3-	1999 11 17	704	0.1-	0.9+
1995 12 02	327	0.2+	0.3+	1998 05 01	704	1.1-	0.7+	1999 11 17	704	0.3-	1.0+
1995 12 02	327	0.1+	0.1-	1998 05 01	699	0.7+	0.1+	1999 12 03	704	(0.8+	2.9-)
1995 12 07	327	0.9-	0.6+	1998 05 01	704	0.3-	0.0	1999 12 03	704	1.8+	1.3-
1995 12 07	327	0.2-	0.1+	1998 05 01	704	0.6-	1.0+	1999 12 03	704	0.2-	0.9-
1995 12 07	327	0.2-	0.1+	1998 05 22	704	0.9+	0.7+	1999 12 03	704	1.1+	1.0+
1997 03 04	704	0.3+	0.3-	1998 05 22	704	0.1-	1.7+	1999 12 07	704	0.4-	0.5-
1997 03 04	704	(0.2+	2.3-)	1998 05 22	704	0.5-	0.8+	1999 12 07	704	0.2-	0.8-
1997 03 05	704	0.1+	0.4+	1998 05 22	704	1.0-	1.1+	1999 12 07	704	0.5-	0.9-
1997 03 05	704	0.1-	0.8+	1998 05 22	704	0.1-	1.8+	1999 12 07	704	0.3+	0.9-
1997 03 06	704	0.1-	0.3+	1999 10 03	703	0.6-	0.5+	1999 12 07	704	0.0	0.2-
1997 03 06	704	0.0	0.2+	1999 10 03	703	0.1+	0.4+	1999 12 13	699	0.0	0.2+
1998 04 21	704	0.0	0.2+	1999 10 03	703	0.1-	0.4+	1999 12 13	699	0.9-	0.4-
1998 04 21	704	0.1+	0.1-	1999 10 03	703	0.1-	0.3+	1999 12 13	699	0.8-	0.2-
1998 04 21	704	0.4-	1.0-	1999 10 04	704	0.3-	0.3+	2000 01 08	704	0.6-	0.4+
1998 04 21	704	0.1+	0.7-	1999 10 04	704	0.3-	0.2-	2000 01 08	704	0.3+	0.5+
1998 04 21	704	0.3-	0.1-	1999 10 04	704	0.4-	0.3-	2000 01 08	704	0.8+	0.0
1998 04 22	704	0.3+	0.1+	1999 10 04	704	0.4-	0.2+	2000 01 08	704	0.5+	0.6+
1998 04 22	704	0.5+	0.8-	1999 10 04	704	1.0-	0.0	2000 01 10	704	0.0	1.0+
1998 04 22	704	0.1+	0.7-	1999 11 15	704	0.9+	0.2+	2000 01 10	704	0.3-	0.2-
1998 04 22	704	0.7+	0.9-	1999 11 15	704	0.1+	0.6+	2000 01 10	704	0.5+	1.2+
1998 04 22	704	0.4+	0.0	1999 11 15	704	0.3+	0.3+	2000 01 10	704	0.1-	0.2+
1998 05 01	704	0.7+	0.5-	1999 11 15	704	0.5-	0.6-	2000 01 10	704	0.0	0.1-
1998 05 01	699	0.0	0.3+	1999 11 15	704	(2.3-	1.1+)	2000 01 10	704	0.5-	1.1-
1998 05 01	704	0.9+	0.2+	1999 11 17	704	1.5+	0.6+				

(13835)* 1999 XJ₂₀ = 1975 VC₄ = 1982 KH = 1985 YS₁ = 1997 ET₅₈
= 1998 MP₂₉

Discovered 1999 Dec. 5 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 37868)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	98.22428		(2000.0)	P	Q
<i>n</i>	0.20512693	ω	248.43793	+0.73021630	+0.68141662
<i>a</i>	2.8474379	Ω	68.56964	-0.60549712	+0.67904337
<i>e</i>	0.0583286	<i>i</i>	3.05152	-0.31647652	+0.27307782
<i>P</i>	4.80	<i>H</i>	13.0	<i>G</i>	0.15

Residuals in seconds of arc

1975 11 02	095	0.1-	1.5-	1999 10 01	703	0.2-	0.2-	1999 11 17	704	0.1-	0.8-
1982 05 26	801	1.2-	2.1+	1999 10 20	704	0.2+	0.1+	1999 12 05	704	1.3+	0.4+
1985 12 17	010	2.2+	1.6-	1999 10 20	704	0.2+	0.2-	1999 12 05	704	0.2-	1.8+
1985 12 17	010	0.8+	0.6-	1999 10 20	704	0.0	0.3-	1999 12 05	704	0.3+	1.2+
1997 03 10	809	0.6+	0.2+	1999 10 20	704	0.3+	0.0	1999 12 05	704	1.2-	0.5-
1997 03 10	809	0.3+	0.3-	1999 10 20	704	0.1+	0.3-	1999 12 07	704	1.1+	0.3+
1997 03 10	809	0.1+	0.4+	1999 10 29	703	0.6-	0.2-	1999 12 07	704	0.4+	0.6+
1997 03 11	809	0.8-	1.7-	1999 10 29	703	0.8-	0.4+	1999 12 07	704	0.0	0.1+
1997 03 11	809	1.4-	1.8-	1999 10 29	703	0.4-	0.1-	1999 12 07	704	0.4+	0.1+
1997 03 11	809	0.7-	1.8-	1999 10 29	703	0.3-	0.2-	1999 12 07	704	0.5-	0.3+
1998 06 24	704	0.3+	1.0-	1999 11 05	704	0.3+	0.0	2000 01 04	704	0.2+	0.1+
1998 06 24	704	0.6-	0.9-	1999 11 05	704	0.4+	0.5-	2000 01 04	704	0.2+	0.2-
1998 06 24	704	0.4+	0.2-	1999 11 05	704	0.3+	0.1-	2000 01 04	704	0.7+	0.2+
1998 06 24	704	0.2+	0.9-	1999 11 05	704	0.1+	0.4-	2000 01 04	704	0.5-	1.2-
1998 06 24	704	0.6+	1.0-	1999 11 05	704	0.1+	0.5-	2000 01 04	704	0.7+	0.1+
1998 06 26	704	0.1-	0.1-	1999 11 12	704	0.1+	0.3-	2000 01 07	704	0.1+	0.2+
1998 06 26	704	1.1+	0.9-	1999 11 12	704	0.0	0.3-	2000 01 07	704	0.3+	0.3-
1998 06 26	704	0.5-	0.7-	1999 11 12	704	0.1-	0.5-	2000 01 07	704	0.3-	0.2+

1998 06 26	704	1.4+	1.0-	1999 11 12	704	0.3+	0.8-	2000 01 07	704	0.5+	0.4-
1998 06 26	704	0.1-	0.6-	1999 11 12	704	(0.1+	2.6-)	2000 01 07	704	0.1+	1.1-
1998 06 28	809	0.7-	1.6+	1999 11 17	704	0.5+	0.9-	2000 01 30	703	1.5-	1.1+
1998 06 28	809	0.4-	1.3+	1999 11 17	704	0.2+	0.2-	2000 01 30	703	0.3+	0.8+
1998 06 28	809	0.7-	1.7+	1999 11 17	704	0.6-	0.2+	2000 01 30	703	0.8-	0.6-
1998 07 01	809	(1.9+	2.4+)	1999 11 17	704	0.2-	0.6-	2000 01 30	703	1.0-	0.2+
1998 07 01	809	(1.4+	2.4+)	1999 11 17	704	0.6-	0.0	2000 02 04	704	0.2+	0.7+
1998 07 01	809	(1.5+	2.4+)	1999 11 17	704	0.1-	0.7-	2000 02 04	704	0.1+	0.4+
1999 10 01	703	0.8+	0.0	1999 11 17	704	0.2-	0.5+	2000 02 04	704	0.9-	0.0
1999 10 01	703	0.4-	0.8+	1999 11 17	704	0.7-	0.1+	2000 02 04	704	0.7-	0.8+
1999 10 01	703	0.1-	0.3-	1999 11 17	704	(1.1-	2.1+)				

(13836)* 1999 XF₂₄ = 1957 UL = 1980 DJ₁ = 1990 JG

Discovered 1999 Dec. 6 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. T. Urata (*MPC* 37247)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	48.66818		(2000.0)	P	Q
<i>n</i>	0.23508529	ω	319.45372	+0.95947593	-0.19531822
<i>a</i>	2.6000742	Ω	52.97821	+0.27511440	+0.80526081
<i>e</i>	0.1731036	<i>i</i>	14.73825	-0.06097550	+0.55982660
<i>P</i>	4.19	<i>H</i>	12.7	<i>G</i>	0.15

Residuals in seconds of arc

1957 10 30	024	1.4-	2.1+	1999 11 01	703	0.4+	0.8+	1999 12 07	704	0.4+	0.4-
1980 02 20	033	0.3-	0.6+	1999 11 01	703	0.2-	0.1+	1999 12 07	704	0.0	0.2-
1980 02 20	033	0.7+	0.3+	1999 11 04	704	0.3-	0.2-	1999 12 07	704	0.3+	0.1+
1990 05 03	413	0.0	0.5-	1999 11 04	704	0.4-	0.2-	1999 12 07	704	0.0	0.2+
1990 05 04	413	0.6+	0.5-	1999 11 04	704	0.3-	0.1-	1999 12 12	385	0.2-	0.4-
1998 05 24	704	0.4-	0.1-	1999 11 04	704	0.4-	0.1-	1999 12 12	385	0.1-	0.4-
1998 05 24	704	0.6+	0.0	1999 11 04	704	0.1+	0.9+	1999 12 12	385	0.1-	0.4-
1998 05 24	704	0.3+	0.3+	1999 11 17	704	0.5+	0.7+	1999 12 13	888	0.2-	0.4+
1998 05 24	704	0.5-	0.7+	1999 11 17	704	0.7+	0.8+	1999 12 13	888	0.1-	0.3+
1998 06 24	704	0.5+	0.5+	1999 11 17	704	0.5+	0.2+	1999 12 13	888	0.1-	0.4+
1998 06 24	704	(2.4+	0.1+)	1999 11 17	704	0.6+	0.4+	1999 12 14	888	0.0	0.7+
1998 06 24	704	0.7+	1.9+	1999 11 17	704	0.3+	0.0	1999 12 14	888	0.0	0.8+
1998 06 24	704	(2.5-	1.6+)	1999 11 17	704	0.6+	0.5+	1999 12 14	888	0.1+	0.7+
1999 09 13	703	0.2+	0.2+	1999 11 17	704	0.1+	0.0	2000 01 04	704	0.2-	0.2-
1999 09 13	703	0.2+	0.1-	1999 11 17	704	0.3+	0.1+	2000 01 04	704	0.3-	0.3-
1999 09 13	703	0.8-	0.0	1999 11 17	704	0.4+	0.1-	2000 01 04	704	0.1-	0.1-
1999 09 13	703	0.7-	1.3-	1999 11 17	704	0.2+	0.0	2000 01 04	704	0.1+	0.2-
1999 09 16	704	0.1-	1.7-	1999 12 04	703	1.3-	0.3-	2000 01 04	704	0.2+	0.3+
1999 09 16	704	(0.0	2.3-)	1999 12 04	703	0.9-	0.8-	2000 01 05	106	0.3-	0.5+
1999 09 16	704	0.8+	0.2-	1999 12 04	703	0.2-	0.2+	2000 01 05	106	0.2-	0.4+
1999 10 20	704	0.1+	0.2+	1999 12 04	703	0.5-	0.1+	2000 01 05	106	0.2-	0.3+
1999 10 20	704	0.1-	0.0	1999 12 06	704	0.2+	0.6-	2000 01 06	704	0.2-	0.2-
1999 10 20	704	0.2+	0.4-	1999 12 06	704	0.0	0.4-	2000 01 06	704	0.1-	0.1-
1999 10 20	704	0.3+	0.0	1999 12 06	704	0.0	0.5-	2000 01 06	704	0.1+	0.2-
1999 10 20	704	0.1+	0.3-	1999 12 06	704	0.3+	0.1-	2000 01 06	704	0.1+	0.5+
1999 11 01	703	0.1-	0.3+	1999 12 06	704	0.7-	0.1+	2000 01 06	704	0.5+	0.2-
1999 11 01	703	0.2-	0.1+	1999 12 07	704	0.6+	0.6-				

(13837)* 1999 XF₂₅ = 1984 EG₂ = 1988 XE₃ = 1991 LE₆ = 1998 QY₆₅

Discovered 1999 Dec. 6 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 37872)

2000 FEB. 22

M.P.C. 38411

Residuals in seconds of arc

1984 03 07	413	0.7+	0.2+	1999 11 04	704	0.3+	0.3+	1999 12 04	703	0.4-	0.0
1984 03 07	413	1.6+	1.7-	1999 11 04	704	0.0	0.4+	1999 12 04	703	0.4-	0.3+
1988 12 07	033	0.9-	0.4-	1999 11 04	704	0.5+	0.5+	1999 12 06	704	0.1+	0.3+
1988 12 07	033	1.4-	0.1-	1999 11 09	691	0.6+	0.1+	1999 12 06	704	0.3+	0.1+
1991 06 06	809	0.4-	1.5+	1999 11 09	691	0.7+	0.0	1999 12 06	704	0.1+	0.2-
1991 06 06	809	1.2-	1.8+	1999 11 09	691	0.4+	0.1+	1999 12 06	704	0.0	0.6-
1991 06 06	809	0.7-	1.4+	1999 11 10	699	0.5-	0.7+	1999 12 06	704	0.1-	0.1-
1998 08 24	704	0.6+	0.5-	1999 11 10	699	0.4-	0.8+	1999 12 07	704	0.2+	0.3-
1998 08 24	704	0.2-	0.1-	1999 11 10	699	0.3+	0.7+	1999 12 07	704	0.2+	0.3+
1998 08 24	704	0.9-	1.4-	1999 11 15	704	0.2-	0.3+	1999 12 07	704	0.0	0.2-
1998 08 24	704	0.6+	0.8+	1999 11 15	704	0.3-	0.5+	1999 12 07	704	0.2-	0.5-
1998 08 24	704	0.0	0.7-	1999 11 15	704	(0.4+	2.7-)	1999 12 07	704	0.6-	0.3-
1998 08 27	704	0.0	0.7-	1999 11 15	704	0.5-	0.2+	1999 12 12	703	0.0	0.2+
1998 08 27	704	0.4-	1.2-	1999 11 15	704	0.8+	0.2-	1999 12 12	703	0.0	0.0
1998 08 27	704	0.4+	0.3-	1999 11 15	704	0.3-	0.7+	1999 12 12	703	0.4-	0.5+
1998 08 27	704	1.3+	1.1-	1999 11 15	704	0.6+	0.2+	1999 12 12	703	0.2-	0.3+
1998 09 17	699	0.8+	0.6+	1999 11 15	704	0.4+	0.1-	1999 12 14	704	0.2+	0.1+
1998 09 17	699	0.4-	0.5+	1999 11 17	704	0.0	0.4-	1999 12 14	704	1.2-	0.1-
1998 09 17	699	0.3-	1.1+	1999 11 17	704	0.2-	0.5-	1999 12 14	704	0.6-	0.6-
1998 10 18	327	0.0	0.1-	1999 11 17	704	0.2-	0.5-	1999 12 14	704	0.4-	0.4+
1998 10 18	327	0.3+	0.5+	1999 11 17	704	0.1+	0.5-	1999 12 14	704	0.4-	0.1-
1998 10 18	327	0.1+	0.5+	1999 11 17	704	0.3+	0.3-	2000 01 04	106	0.2+	0.6-
1999 11 04	704	0.4+	0.1+	1999 12 04	703	0.3+	1.0+	2000 01 04	106	0.4+	0.4+
1999 11 04	704	0.5+	0.2+	1999 12 04	703	0.1-	0.8+				

(13838)* 1999 XW₂₆ = 1982 XD₁ = 1993 SV₇ = 1997 HW₁₃
= 1998 MK₄₃

Discovered 1999 Dec. 6 by the Lincoln Laboratory Near-Earth Asteroid
Research Team at Socorro.

Id. G. V. Williams (*MPC* 37247), M. E. Sansaturio (*MPC* 37874)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	52.32301		(2000.0)		$\mathbf{P}$	$\mathbf{Q}$	
n	0.17387846	ω	242.59056		+0.99931810	-0.02768401	
a	3.1791098	Ω	118.98682		+0.03496449	+0.92216911	
e	0.1824608	i	1.60053		-0.01186650	+0.38579492	
P	5.67	H	13.9	G	0.15	U	1

Residuals in seconds of arc

1982 12 13	381	1.9+	1.1+	1998 07 26	704	(1.2-	3.4+)	1999 11 04	704	0.1+	1.3-
1982 12 13	381	0.8+	0.5+	1999 10 07	691	0.3+	0.0	1999 11 04	704	0.5-	1.2-
1982 12 14	381	0.2-	0.0	1999 10 07	691	0.2-	0.1-	1999 11 04	704	0.7-	1.1-
1982 12 14	381	0.7-	0.4-	1999 10 07	691	0.0	0.1-	1999 11 04	704	0.7-	1.1-
1993 09 17	809	(2.4-	0.9-)	1999 10 08	703	0.0	0.0	1999 11 17	704	0.2+	0.6-
1993 09 17	809	(3.3-	0.8-)	1999 10 08	703	0.3-	0.4+	1999 11 17	704	0.3-	0.3-
1993 09 17	809	(3.6-	0.2-)	1999 10 08	703	0.2+	0.7-	1999 11 17	704	0.9+	0.2-
1993 09 18	809	1.4-	0.8-	1999 10 08	703	0.5+	0.0	1999 11 17	704	0.2+	0.4-
1993 09 18	809	1.1-	0.2-	1999 10 10	704	0.3+	0.9+	1999 11 17	704	0.3+	0.9-
1993 09 18	809	1.8-	0.8-	1999 10 10	704	0.6+	0.5-	1999 12 04	703	0.4-	0.6-
1997 04 30	704	0.3-	0.6+	1999 10 10	704	0.8+	0.1+	1999 12 04	703	0.1+	0.5+
1997 04 30	704	0.7+	1.4+	1999 10 10	704	0.3+	0.4+	1999 12 04	703	0.9-	0.1+
1997 04 30	704	0.6+	0.8+	1999 10 10	704	0.2+	0.4+	1999 12 04	703	0.4-	1.0+
1997 04 30	704	0.4-	0.9-	1999 10 11	691	0.1-	0.6+	1999 12 05	691	0.7+	0.1-
1997 05 05	704	0.0	0.4+	1999 10 11	691	0.3-	0.6+	1999 12 05	691	0.7+	0.1+
1997 05 05	704	0.6-	0.7+	1999 10 11	691	0.2-	0.8+	1999 12 05	691	0.9+	0.0
1997 05 05	704	0.5-	0.2-	1999 10 15	704	0.4+	0.6+	1999 12 06	704	0.5-	1.2+
1997 05 05	704	0.7-	0.2-	1999 10 15	704	0.6+	0.9+	1999 12 06	704	0.0	0.3-
1997 05 05	704	(2.1-	0.3-)	1999 10 15	704	0.2+	0.5+	1999 12 06	704	0.0	0.1+
1998 06 26	809	1.5+	0.3+	1999 10 15	704	0.6+	0.6+	1999 12 07	704	0.3+	0.2-
1998 06 26	809	1.2+	0.0	1999 10 16	120	0.2+	0.8+	1999 12 07	704	0.2+	0.1+
1998 06 26	809	1.0+	0.5+	1999 10 16	120	1.0+	0.8-	1999 12 07	704	0.5-	0.2-
1998 06 26	704	0.6-	1.8+	1999 10 21	704	0.7-	0.1+	1999 12 07	704	0.4+	0.3+
1998 06 26	704	(2.0-	2.1+)	1999 10 21	704	0.5-	0.5-	1999 12 12	691	0.4+	0.4-
1998 06 26	704	0.6-	0.1+	1999 10 21	704	0.3-	0.1-	1999 12 12	691	0.4+	0.5-
1998 06 26	704	(4.6-	0.3-)	1999 10 21	704	1.0-	0.4+	1999 12 12	691	0.3+	0.4-
1998 06 27	809	0.2+	1.2-	1999 10 21	704	0.5-	0.5+	1999 12 12	703	0.3-	0.6+

1998 06 27	809	0.6-	0.7-	1999 11 01	703	0.6-	0.2+	1999 12 12	703	0.7-	0.7+
1998 06 27	809	0.9-	1.3-	1999 11 01	703	0.3+	0.4+	1999 12 12	703	0.0	0.5+
1998 07 26	704	0.9+	0.4+	1999 11 01	703	0.2-	0.2+	1999 12 12	703	0.5+	1.0+
1998 07 26	704	(1.3-	2.8+)	1999 11 01	703	0.1-	0.0				
1998 07 26	704	1.1+	0.8+	1999 11 04	704	0.6-	0.5-				

(13839)* 1999 XF₂₉ = 1951 CG₂ = 1978 GL₂ = 1980 WS₁ = 1991 RR₂₅
= 1998 MN₃₇

Discovered 1999 Dec. 6 by the Lincoln Laboratory Near-Earth Asteroid
Research Team at Socorro.

Id. G. V. Williams (*MPC* 37876)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	296.92947		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.25878424	ω	52.67211	-0.89697815	-0.42885036
a	2.4388074	Ω	101.70619	+0.36296927	-0.85302062
e	0.0260419	i	6.29223	+0.25235592	-0.29739400
P	3.81	H	13.1	G 0.15	U 1

Residuals in seconds of arc

1951 02 04	675	0.9+	0.1-	1999 10 30	703	0.5-	0.4-	1999 12 30	699	0.1-	0.4+
1951 02 04	675	0.2-	0.2+	1999 10 30	703	0.2-	0.1+	1999 12 30	699	0.2-	0.5+
1978 04 11	095	(2.9-	4.9+)	1999 11 04	704	0.1-	0.4-	1999 12 30	699	0.3-	0.6+
1980 11 30	095	1.3-	1.9-	1999 11 04	704	0.4-	0.4-	2000 01 04	106	0.2-	0.4+
1980 12 10	095	1.3-	1.3-	1999 11 04	704	0.2+	0.2-	2000 01 04	106	0.1-	0.4+
1991 09 12	675	0.9+	0.7-	1999 11 04	704	0.0	0.2-	2000 01 04	106	0.2-	0.4+
1991 09 12	675	0.4+	1.2-	1999 11 04	704	0.1-	0.0	2000 01 05	704	0.9+	0.4-
1991 09 13	675	1.1+	0.2+	1999 11 17	704	0.2-	0.0	2000 01 05	704	0.5+	0.1+
1991 09 13	675	0.3+	0.1-	1999 11 17	704	0.3-	0.1+	2000 01 05	704	0.5+	0.3+
1991 09 15	675	1.3+	0.5+	1999 11 17	704	0.0	0.0	2000 01 05	704	0.0	0.4-
1991 09 15	675	0.6+	0.8+	1999 11 17	704	0.3-	0.1-	2000 01 05	704	0.1-	0.4+
1991 09 16	675	0.1+	1.2-	1999 11 17	704	0.0	0.2+	2000 01 06	704	0.5+	0.5-
1991 09 16	675	0.7+	1.1-	1999 12 06	704	0.0	0.3+	2000 01 06	704	0.8+	0.4+
1997 03 13	095	0.3+	1.7-	1999 12 06	704	0.0	0.2+	2000 01 06	704	0.6+	0.7+
1997 03 13	095	(2.7-	3.4-)	1999 12 06	704	0.1+	0.3+	2000 01 06	704	0.7+	0.7+
1998 06 24	699	0.1-	0.8+	1999 12 06	704	0.0	0.0	2000 01 06	704	0.1+	1.3+
1998 06 24	699	0.2-	0.5+	1999 12 06	704	0.2-	0.0	2000 01 11	691	0.7-	0.5+
1998 06 24	699	1.3-	0.1-	1999 12 07	704	0.4+	0.4+	2000 01 11	691	0.6-	0.3+
1998 07 02	699	0.5+	0.8+	1999 12 07	704	0.1+	0.0	2000 01 11	691	0.5-	0.3-
1998 07 02	699	0.3+	0.9+	1999 12 07	704	0.2+	0.4+	2000 02 03	704	0.5-	0.1+
1998 07 02	699	0.1-	1.0+	1999 12 07	704	0.3+	0.7+	2000 02 03	704	0.3+	0.0
1998 07 16	699	0.1+	0.2+	1999 12 07	704	0.1-	0.5+	2000 02 03	704	0.1+	0.1+
1998 07 16	699	0.6+	0.4+	1999 12 08	704	0.3+	0.3+	2000 02 03	704	0.1-	0.0
1998 07 16	699	0.3+	0.0	1999 12 08	704	0.3+	0.0	2000 02 03	704	0.2+	0.4-
1998 08 17	704	0.2+	0.3-	1999 12 08	704	0.1+	0.1+	2000 02 03	049	1.0-	0.6-
1998 08 17	704	0.6-	0.2-	1999 12 08	704	0.1+	0.5+	2000 02 03	049	1.2-	0.3-
1998 08 17	704	0.8-	0.1+	1999 12 08	704	0.2+	0.5+	2000 02 03	049	1.1-	0.1-
1998 08 17	704	1.3+	0.2-	1999 12 14	704	0.5+	0.6-	2000 02 07	703	0.2+	0.2+
1998 08 17	704	1.6-	0.1+	1999 12 14	704	1.4-	1.3-	2000 02 07	703	0.6-	0.5+
1999 10 30	703	0.1-	0.5+	1999 12 14	704	0.0	0.5-	2000 02 07	703	0.0	0.9+
1999 10 30	703	0.1+	0.2+	1999 12 14	704	(2.2+	0.9-)	2000 02 07	703	0.5+	0.1-

(1384

Residuals in seconds of arc

1987 09 23	095	0.0	1.1+	1999 11 05	703	1.1+	0.4+	2000 01 07	704	0.3-	0.4+
1991 12 04	372	0.5-	0.7+	1999 11 05	703	0.9+	0.5+	2000 01 07	704	1.3-	0.1-
1991 12 04	372	0.9+	0.9-	1999 11 05	703	1.1+	0.5+	2000 02 02	704	0.5+	0.5+
1996 01 16	098	0.2+	0.4-	1999 12 06	704	0.1+	0.5-	2000 02 02	704	0.2+	0.1+
1996 01 16	098	1.1-	1.2-	1999 12 06	704	0.4-	0.2-	2000 02 02	704	0.2+	0.1+
1996 01 17	098	0.7+	0.4+	1999 12 06	704	0.4+	0.4-	2000 02 02	704	0.7+	0.0
1996 01 17	098	0.7-	0.4-	1999 12 06	704	0.4-	0.7-	2000 02 02	704	0.6+	0.3-
1996 01 19	098	0.6+	0.2+	1999 12 06	704	0.3+	0.6-	2000 02 04	704	0.5+	0.4+
1996 01 19	098	1.4-	0.3+	1999 12 07	704	0.2-	0.1+	2000 02 04	704	0.4+	0.3+
1998 08 17	704	0.3-	0.0	1999 12 07	704	0.3+	0.3+	2000 02 04	704	0.5+	0.1-
1998 08 17	704	0.5-	0.9-	1999 12 07	704	0.5-	0.5-	2000 02 04	704	0.8+	0.1+
1998 08 17	704	0.5+	0.6+	1999 12 07	704	0.3-	0.2-	2000 02 04	704	0.5-	0.3-
1998 08 17	704	(0.4+ 2.2-)		1999 12 07	704	0.1-	0.0	2000 02 05	106	0.2+	0.7+
1998 08 17	704	0.1-	0.9+	2000 01 05	704	0.0	0.1+	2000 02 05	106	0.2+	0.2+
1998 08 26	699	0.6-	0.4-	2000 01 05	704	0.8-	1.1-	2000 02 06	106	0.0	0.5+
1998 08 26	699	0.2+	0.3+	2000 01 05	704	0.7-	0.3+	2000 02 12	704	0.1+	0.2+
1998 08 26	699	0.1+	0.9-	2000 01 05	704	0.6-	0.2-	2000 02 12	704	0.1-	0.5+
1998 09 15	699	0.8-	0.7+	2000 01 05	704	1.7-	0.1-	2000 02 12	704	0.2+	0.8+
1998 09 15	699	0.4+	1.2+	2000 01 07	704	0.0	0.0	2000 02 12	704	0.1+	0.4+
1998 09 15	699	0.0	0.8+	2000 01 07	704	0.6-	0.4-	2000 02 12	704	1.9+	1.0+
1999 11 05	703	1.1+	0.2+	2000 01 07	704	0.5-	0.3+				

(13841)* 1999 XO₃₂ = 1978 EB₉ = 1998 SN₇

Discovered 1999 Dec. 6 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 37880)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		344.78982		(2000.0)		P		Q	
<i>n</i>		0.26600727	ω	338.04552		-0.91104568		-0.41230466	
<i>a</i>		2.3944570	Ω	177.60435		+0.38105592		-0.84273061	
<i>e</i>		0.1268736	<i>i</i>	1.09014		+0.15745523		-0.34613578	
<i>P</i>		3.71	<i>H</i>	14.2		<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1978 03 15	675	0.3-	0.6+	1999 12 07	704	0.8+	1.2+	2000 01 09	704	0.2-	0.9-
1978 03 16	675	0.6+	0.0	1999 12 07	704	0.4+	0.2-	2000 02 02	704	0.0	0.5+
1993 04 25	809	0.7-	0.2-	1999 12 07	704	0.0	0.7-	2000 02 02	704	0.2+	0.3+
1993 04 25	809	0.1-	0.2-	1999 12 31	699	0.8+	0.1-	2000 02 02	704	0.4+	0.5+
1993 04 25	809	0.7+	0.4+	1999 12 31	699	0.6+	0.2+	2000 02 02	704	0.2+	0.9+
1998 09 14	704	(0.7+ 2.2-)		1999 12 31	699	0.7+	0.0	2000 02 02	704	0.3+	0.8+
1998 09 14	704	0.9+	0.5-	2000 01 04	120	1.0-	0.5+	2000 02 03	704	0.1+	0.5+
1998 09 14	704	0.7-	0.9+	2000 01 04	120	0.4-	0.2-	2000 02 03	704	0.4+	0.4+
1998 09 18	704	0.0	0.8-	2000 01 04	120	0.9+	0.2-	2000 02 03	704	0.5+	0.7+
1998 09 18	704	1.1-	0.4-	2000 01 05	120	0.4-	0.1-	2000 02 03	704	0.1+	0.8+
1998 09 18	704	0.3-	0.2+	2000 01 05	704	0.2+	0.2-	2000 02 03	704	0.5+	1.3+
1998 09 18	704	0.6-	0.8+	2000 01 05	704	0.1-	0.0	2000 02 05	704	0.1+	0.0
1998 09 18	704	0.2+	1.2+	2000 01 05	704	0.0	0.2-	2000 02 05	704	0.1-	0.3+
1998 09 20	691	0.4+	0.1+	2000 01 05	704	0.3-	0.2+	2000 02 05	704	0.1-	0.3+
1998 09 20	691	0.6+	0.0	2000 01 05	704	0.2-	0.0	2000 02 05	704	0.1-	0.4+
1998 09 21	691	0.2+	0.1-	2000 01 06	106	0.0	0.2-	2000 02 05	704	0.3-	0.7+
1998 09 21	691	0.1+	0.1-	2000 01 06	106	0.1+	0.6+	2000 02 06	704	0.4+	0.6-
1998 09 21	691	0.4+	0.1+	2000 01 06	106	0.2+	0.2-	2000 02 06	704	1.2-	0.3+
1998 09 23	691	0.2-	0.2+	2000 01 06	704	0.5-	0.4-	2000 02 06	704	0.4-	0.5+
1998 09 23	691	0.2-	0.0	2000 01 06	704	0.6-	0.1-	2000 02 06	704	0.1+	0.7+
1998 09 23	691	0.3-	0.1+	2000 01 06	704	0.4-	0.2-	2000 02 06	704	0.0	0.7+
1999 11 11	703	0.9-	0.0	2000 01 06	704	0.6-	0.1-	2000 02 08	704	0.3+	0.4+
1999 11 11	703	0.4+	0.6-	2000 01 07	704	0.1-	0.5-	2000 02 08	691	0.2+	1.6-
1999 11 11	703	0.4-	0.3+	2000 01 07	704	0.1-	0.5-	2000 02 08	704	0.2-	0.0
1999 11 11	703	1.0+	0.3+	2000 01 07	704	0.1+	0.5-	2000 02 08	704	0.9-	0.2-
1999 12 05	699	0.8-	0.8+	2000 01 07	704	0.1+	0.6-	2000 02 08	691	0.0	1.7-
1999 12 05	699	1.0+	0.4+	2000 01 07	704	0.3+	1.0-	2000 02 08	704	0.1+	0.3+
1999 12 05	699	0.2+	0.7+	2000 01 08	704	0.4+	0.3-	2000 02 08	691	0.1+	1.7-
1999 12 06	704	0.2-	0.4-	2000 01 08	704	0.0	0.5-	2000 02 08	704	0.1+	0.4+
1999 12 06	704	0.4-	0.1-	2000 01 08	704	0.4+	0.2-	2000 02 12	704	0.4+	0.1+
1999 12 06	704	0.1-	0.4-	2000 01 08	704	0.1+	0.5-	2000 02 12	704	0.5-	0.3+

1999 12 06	704	0.3-	0.1+	2000 01 08	704	0.3+	0.7-	2000 02 12	704	0.6-	0.7+
1999 12 06	704	0.1-	0.5-	2000 01 09	704	0.0	0.4-	2000 02 12	704	0.2-	0.4+
1999 12 07	704	0.1+	1.2+	2000 01 09	704	0.1-	0.8-	2000 02 12	704	0.6-	0.9+
1999 12 07	704	0.4-	0.5-	2000 01 09	704	0.1+	1.0-				

(13842)* 1999 XR₃₃ = 1953 YN = 1993 OU₆ = 1998 QY₈₉

Discovered 1999 Dec. 6 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 37881)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		90.08516		(2000.0)		P		Q	
<i>n</i>		0.21836994	ω	85.70375		+0.82796409		-0.54485204	
<i>a</i>		2.7311202	Ω	307.25380		+0.42523992		+0.76428459	
<i>e</i>		0.1504533	<i>i</i>	9.59763		+0.36557691		+0.34497147	
<i>P</i>		4.51	<i>H</i>	12.9		<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1953 12 31	675	(9.6+ 0.8+)	1998 12 09	704	1.2- 0.4-	2000 01 06	704	1.5- 0.3+
1953 12 31	675	0.3- 0.1+	1998 12 22	699	0.0 0.7+	2000 01 07	704	0.3+ 0.5-
1991 02 11	511	(1.0- 4.0-)	1998 12 22	699	0.1+ 0.3+	2000 01 07	704	0.5+ 0.7-
1991 02 12	511	0.8+ 0.2-	1998 12 22	699	0.3- 0.7+	2000 01 07	704	0.5+ 1.0-
1993 07 13	809	(0.5- 2.1+)	1999 11 16	704	0.0 0.1-	2000 01 07	704	0.4+ 0.9-
1993 07 13	809	0.4+ 1.9+	1999 11 16	704	0.3- 0.3+	2000 01 07	704	0.4+ 1.0-
1993 07 13	809	1.2- 1.7+	1999 11 16	704	0.2- 0.3-	2000 01 12	120	0.1+ 0.7-
1993 07 20	809	0.2+ 0.2+	1999 11 16	704	0.4- 0.2-	2000 01 12	120	0.5+ 0.6-
1993 07 20	809	0.1+ 0.1-	1999 12 04	703	1.0- 0.1+	2000 01 30	703	0.0 0.1+
1993 07 20	809	0.2- 0.1-	1999 12 04	703	0.3- 0.4-	2000 01 30	703	0.0 0.5+
1993 07 24	809	0.1+ 0.2-	1999 12 04	703	0.0 0.5+	2000 01 30	703	0.1- 0.2+
1998 06 30	704	(2.7- 0.9+)	1999 12 04	703	0.9+ 1.3-	2000 01 30	703	0.1- 0.4+
1998 06 30	704	1.1- 1.6-	1999 12 06	704	0.2- 0.0	2000 02 01	703	0.1+ 0.5+
1998 06 30	704	0.2+ 0.4+	1999 12 06	704	0.4+ 0.3-	2000 02 01	703	0.2- 0.4+
1998 06 30	704	1.4- 0.8+	1999 12 06	704	1.3+ 0.6+	2000 02 01	703	0.1- 0.2+
1998 06 30	704	1.6- 0.1-	1999 12 06	704	0.0 0.3+	2000 02 01	703	0.2+ 0.4+
1998 08 20	699	0.0 0.2-	1999 12 06	704	0.6+ 0.4-	2000 02 02	704	0.3- 0.3+
1998 08 20	699	0.3- 0.3-	1999 12 07	704	0.1+ 1.7+	2000 02 02	704	0.1- 0.3+
1998 08 20	699	0.0 0.3-	1999 12 07	704	1.0+ 0.4+	2000 02 02	704	0.3+ 0.5+
1998 08 24	704	1.2+ 1.2-	1999 12 07	704	0.9+ 0.2+	2000 02 02	704	0.2+ 0.9+
1998 08 24	704	0.0 0.0	1999 12 07	704	0.5+ 0.3-	2000 02 02	704	0.2- 1.1+
1998 08 24	704	0.4- 1.2-	1999 12 09	699	0.2- 0.7+	2000 02 04	704	0.5- 0.1+
1998 08 24	704	0.0 1.8-	1999 12 09	699	0.5- 0.6+	2000 02 04	704	0.0 0.7+
1998 08 24	704	0.7- 0.5-	1999 12 09	699	0.6- 1.0+	2000 02 04	704	0.2- 0.1+
1998 08 27	704	0.4+ 0.5+	2000 01 04	704	0.0 0.4-	2000 02 04	704	0.2+ 0.5+
1998 08 27	704	0.1+ 0.4+	2000 01 04	704	0.0 0.9-	2000 02 04	704	0.0 0.7+
1998 08 27	704	0.1+ 0.1-	2000 01 04	704	0.0 0.6-	2000 02 12	704	0.2+ 0.0
1998 08 27	704	0.1- 1.6+	2000 01 04	704	0.2- 1.0-	2000 02 12	704	0.0 0.7+
1998 08 27	704	0.2- 1.7+	2000 01 04	704	0.2- 1.0-	2000 02 12	704	0.2+ 0.1+
1998 09 18	699	0.2+ 0.6+	2000 01 05	704	0.5+ 0.3-	2000 02 12	704	0.6- 0.8+
1998 09 18	699	0.1- 0.5+	2000 01 05	704	0.2- 0.2-	2000 02 12	704	0.3- 0.4+
1998 09 18	699	0.4+ 0.1+	2000 01 05	704	0.1- 0.8-	2000 02 13	704	0.4+ 0.9+
1998 12 09	704	0.2+ 0.3-	2000 01 05	704	0.1- 0.5-	2000 02 13	704	0.1+ 0.4+
1998 12 09	704	0.8+ 0.7+	2000 01 06	704	0.3- 1.0-	2000 02 13	704	0.3+ 0.6+
1998 12 09	704	0.6+ 0.2+	2000 01 06	704	0.3- 0.2+	2000 02 13	704	0.2- 0.6+
1998 12 09	704	0.9+ 0.5+	2000 01 06	704	0.6- 0.1+			

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M.P.C. 38413

Residuals in seconds of arc

1990 01 24	033	0.3+	0.3-	2000 01 05	704	0.1-	0.5-	2000 01 30	703	0.2-	0.6+
1990 01 25	033	0.3+	0.3+	2000 01 05	704	0.3+	0.2-	2000 01 30	703	0.4-	1.0+
1990 02 23	033	0.3-	0.6-	2000 01 05	704	0.2+	0.2+	2000 01 30	703	0.3-	0.6+
1990 02 23	033	0.3-	0.6+	2000 01 05	704	0.7-	0.3-	2000 01 30	703	0.0	0.9+
1997 03 08	809	0.4+	1.2-	2000 01 07	704	1.3+	0.4-	2000 02 02	704	0.2+	0.5+
1997 03 08	809	0.5+	1.3-	2000 01 07	704	0.1-	0.9-	2000 02 02	704	0.1+	0.7+
1997 03 08	809	0.4-	1.4-	2000 01 07	704	0.8+	0.9-	2000 02 02	704	0.2+	0.3+
1997 03 09	809	0.6-	0.8+	2000 01 07	704	0.1-	0.7-	2000 02 02	704	0.1+	1.0+
1997 03 09	809	0.4-	0.1+	2000 01 07	704	0.2+	0.7-	2000 02 02	704	0.4+	1.0+
1997 03 09	809	0.4-	0.4+	2000 01 12	120	(4.0+	1.9-)	2000 02 03	704	0.0	0.3+
1998 08 17	704	(1.4-	3.0-)	2000 01 12	120	0.1+	0.1+	2000 02 03	704	0.3+	1.0+
1998 08 17	704	0.1+	0.5-	2000 01 13	120	0.7+	0.4-	2000 02 03	704	0.5+	0.6+
1998 08 17	704	0.2-	0.3+	2000 01 16	120	0.3-	1.0-	2000 02 03	704	0.2-	0.5+
1998 08 17	704	0.3+	0.4-	2000 01 16	120	0.5-	1.1-	2000 02 03	704	0.8+	0.1+
1999 12 06	704	0.8+	0.4-	2000 01 16	120	0.2-	0.9-	2000 02 05	704	0.7-	0.3-
1999 12 06	704	0.5-	0.1+	2000 01 16	120	0.4+	0.1-	2000 02 05	704	0.4-	0.9+
1999 12 06	704	0.1+	0.3-	2000 01 17	120	0.0	1.2-	2000 02 05	704	0.0	0.1-
1999 12 07	704	1.0-	0.6-	2000 01 24	120	(2.5-	1.0-)	2000 02 05	704	0.3-	0.3+
1999 12 07	704	0.4-	0.2+	2000 01 24	120	0.4-	0.5-	2000 02 05	704	0.1+	0.0
1999 12 07	704	0.6-	0.6-	2000 01 24	120	(1.5+	2.2+)	2000 02 06	704	0.0	0.8+
1999 12 07	704	0.1+	0.5-	2000 01 25	120	0.2-	0.2+	2000 02 06	704	0.2-	0.6+
1999 12 07	704	0.3-	0.7-	2000 01 25	120	0.9-	0.4-	2000 02 06	704	0.1+	0.9+
1999 12 31	699	0.1+	0.4+	2000 01 25	120	0.7-	0.6-	2000 02 06	704	1.1+	0.2-
1999 12 31	699	0.2+	0.9+	2000 01 26	106	0.2-	0.1+	2000 02 12	704	(5.1+	1.0+)
1999 12 31	699	0.1+	0.1-	2000 01 26	106	0.5+	0.5+	2000 02 12	704	(2.7+	2.8+)
2000 01 05	704	0.5-	0.7-	2000 01 26	106	0.1+	0.4-	2000 02 12	704	(1.8+	4.6+)

(13844)* 1999 XW₃₄ = 1991 TZ = 1994 NF₈ = 1998 VB₁₀

Discovered 1999 Dec. 6 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 37883)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	217.43547		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.28225635	ω	184.49994	+0.40556085	+0.91062013
a	2.3016551	Ω	109.44278	-0.83599406	+0.40461225
e	0.1524239	i	4.82513	-0.36964082	+0.08402329
P	3.49	H	13.8	G 0.15	U 1

Residuals in seconds of arc

1991 09 12	675	0.2+	0.7+	1998 11 11	704	0.3-	0.2+	2000 01 26	120	0.9-	0.1+
1991 09 12	675	0.6+	0.7-	1999 11 16	704	0.4-	1.1+	2000 01 26	120	0.8-	0.5-
1991 09 14	675	0.3-	0.8+	1999 11 16	704	1.3+	1.0-	2000 01 26	120	0.1-	0.6+
1991 09 14	675	0.5-	1.5-	1999 11 16	704	0.1-	0.6-	2000 01 27	106	1.2+	1.2-
1991 10 01	372	(2.8-	0.6+)	1999 11 16	704	1.5+	1.5-	2000 01 27	106	0.5+	0.9+
1991 10 01	372	(4.6-	1.8+)	1999 12 06	704	1.2+	0.2+	2000 01 30	704	0.6-	0.2+
1991 10 02	372	(0.4+	3.7+)	1999 12 06	704	0.5+	0.8-	2000 01 30	704	0.4-	0.4+
1994 07 11	809	1.0+	0.6+	1999 12 06	704	1.1+	1.9+	2000 01 30	703	0.1-	0.3+
1994 07 11	809	0.2-	0.1+	1999 12 06	704	1.5+	0.5+	2000 01 30	704	0.4-	0.1+
1994 07 11	809	0.6+	0.3+	1999 12 07	704	0.1-	0.2+	2000 01 30	703	0.3-	0.5+
1994 07 12	809	1.1+	0.2+	1999 12 07	704	0.5+	0.0	2000 01 30	703	0.2-	0.6+
1994 07 12	809	0.7-	1.0-	1999 12 07	704	0.4+	0.7-	2000 01 30	704	0.1+	0.2+
1994 07 12	809	1.7-	0.8-	1999 12 07	704	0.4-	0.7-	2000 01 30	703	0.3-	0.5+
1998 10 11	699	0.3-	0.2+	1999 12 07	704	0.7+	0.3+	2000 02 03	704	0.0	0.0
1998 10 11	699	0.3+	0.1+	2000 01 04	704	0.2+	0.7-	2000 02 03	704	0.0	0.2-
1998 10 11	699	0.2+	0.2+	2000 01 04	704	0.4-	0.2+	2000 02 03	704	0.3+	0.3-
1998 11 10	704	0.5-	0.3-	2000 01 04	704	0.8-	0.1-	2000 02 03	704	0.0	0.4-
1998 11 10	704	0.3+	0.4-	2000 01 04	704	0.0	0.4-	2000 02 03	704	0.1-	0.8-
1998 11 10	704	0.1-	0.0	2000 01 04	704	0.0	0.1-	2000 02 11	704	0.6+	0.5+
1998 11 10	704	0.3-	0.2+	2000 01 06	704	0.6-	0.4-	2000 02 11	704	0.3+	0.7+
1998 11 11	704	0.0	0.4-	2000 01 06	704	0.4-	0.1+	2000 02 11	704	0.2+	0.3-
1998 11 11	704	0.1+	0.2-	2000 01 06	704	1.5-	1.0-	2000 02 11	704	0.0	0.3+
1998 11 11	704	0.3+	0.2+	2000 01 06	704	1.2-	0.4-	2000 02 11	704	0.1+	0.4+
1998 11 11	704	0.1+	0.5+	2000 01 06	704	0.8-	0.0				

(13845)* 1999 XL₆₃ = 1996 FL₁₂ = 1997 LS₁₁ = 1998 RY₂₉

Discovered 1999 Dec. 7 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 37901)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	138.14630		(2000.0)	P	Q
n	0.17487538	ω	160.31410	+0.30084295	+0.95319199
a	3.1670161	Ω	127.18247	-0.87999684	+0.28970921
e	0.1573617	i	2.18010	-0.36755827	+0.08656558
P	5.64	H	14.4	G 0.15	U 1

Residuals in seconds of arc

1996 03 17	691	0.9+	0.3-	1998 08 17	704	1.6-	1.5-	1999 12 08	704	0.6-	1.6-
1996 03 17	691	0.8+	0.0	1998 08 17	704	0.6+	0.5+	1999 12 08	704	0.4-	0.1-
1996 03 17	691	0.6+	0.4+	1998 09 14	704	0.4+	0.8-	1999 12 08	704	1.2-	0.1-
1996 03 23	691	0.7-	0.6+	1998 09 14	704	(1.1+	3.1-)	1999 12 12	691	0.5+	0.1-
1996 03 23	691	0.5-	0.8+	1998 09 14	704	0.3+	1.4+	1999 12 12	691	0.6+	0.1-
1996 03 23	691	0.4-	0.3+	1998 09 14	704	0.9-	1.3+	1999 12 12	691	0.6+	0.1+
1997 06 07	809	0.9+	0.7+	1998 09 18	704	0.5-	0.9+	1999 12 17	691	0.5+	0.0
1997 06 07	809	0.1+	0.2-	1998 09 18	704	1.7+	0.0	1999 12 17	691	0.2+	0.1+
1997 06 07	809	0.1-	0.6-	1998 09 18	704	1.4-	0.7-	1999 12 17	691	0.0	0.1-
1997 06 08	809	0.6-	1.3-	1998 09 18	704	0.2-	1.4-	2000 01 04	691	0.1-	0.5+
1997 06 08	809	1.2-	1.9-	1999 12 07	704	0.5-	1.4-	2000 01 04	691	0.4+	0.2-
1997 06 08	809	(1.5-	2.2-)	1999 12 07	704	0.3-	0.5+	2000 01 04	691	1.4+	0.4-
1998 08 17	704	0.2+	0.6+	1999 12 07	704	0.1-	0.4-				
1998 08 17	704	0.9+	1.1+	1999 12 08	704	0.0	0.2-				

(13846)* 1999 XV₆₉ = 1954 PS = 1994 LA₇ = 1997 EO₃₆ = 1998 QJ₁₉

Discovered 1999 Dec. 7 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 37906)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	196.24122		(2000.0)	P	Q
n	0.26923565	ω	177.02828	-0.14012041	+0.98845270
a	2.3752774	Ω	84.91189	-0.90962072	-0.10549565
e	0.1845123	i	3.32002	-0.39109643	-0.10877464
P	3.66	H	13.8	G 0.15	U 1

Residuals in seconds of arc

1954 08 04	675	0.4+	0.3-	1998 08 23	704	1.1-	0.9+	1999 12 08	704	0.2-	0.3+
1954 08 04	675	0.1-	0.6-	1998 08 23	704	(3.3-	2.4+)	1999 12 08	704	0.6+	0.2-
1994 06 03	809	1.1-	0.0	1998 08 23	704	0.6+	0.0	1999 12 08	704	0.1+	0.1-
1994 06 03	809	0.0	0.3+	1998 09 24	699	0.3-	0.2+	1999 12 08	704	0.0	0.0
1994 06 03	809	0.4+	1.0+	1998 09 24	699	0.4-	0.2+	1999 12 08	704	0.3-	0.0
1994 06 04	809	0.1+	1.0+	1998 09 24	699	0.2-	0.7+	1999 12 18	691	0.0	0.2+
1994 06 04	809	1.5+	1.2+	1998 10 17	699	0.4-	1.0+	1999 12 18	691	0.1+	0.2+
1994 06 04	809	0.5+	1.2+	1998 10 17	699	0.3-	0.3+	1999 12 18	691	0.2+	0.2+
1997 03 04	704	0.4+	0.3-	1998 10 17	699	0.4-	1.3-	2000 01 03	704	1.2+	0.2+
1997 03 04	704	(7.2-	2.2+)	1999 11 03	704	1.3+	0.7-	2000 01 03	704	0.2+	0.3+
1997 03 04	704	0.1-	0.9+	1999 11 03	704	0.3-	0.1-	2000 01 03	704	0.3+	0.0
1997 03 04	704	0.6-	0.2+	1999 11 03	704	0.1+	0.3+	2000 01 03	704	1.0-	0.8-
1997 03 05	704	0.2+	0.1+	1999 11 09	704	0.5+	0.4+	2000 01 03	704	0.4-	0.7-
1997 03 05	704	0.4-	0.4+	1999 11 09	704	0.2+	0.2+	2000 01 04	704	0.2-	0.8+
1997 03 06	704	0.0	0.8+	1999 11 09	704	0.2+	0.4+	2000 01 04	704	0.1-	0.2-
1997 03 06	704	0.4+	0.6+	1999 11 09	704	0.1-	0.5+	2000 01 04	704	0.0	0.4+
1998 08 17	704	0.2+	0.5-	1999 11 09	704	0.1-	0.4+	2000 01 04	704	0.5+	1.0+
1998 08 17	704	0.5+	0.4+	1999 12 07	704	0.0	0.6+	2000 01 04	704	0.4+	1.0+
1998 08 17	704	0.7-	0.7+	1999 12 07	704	0.1+	0.0	2000 01 07	691	0.5-	0.1+
1998 08 17	704	0.3+	0.4-	1999 12 07	704	0.3-	0.7+	2000 01 07	691	0.5-	0.5+
1998 08 17	704	0.3-	0.8+	1999 12 07	704	0.3-	0.0	2000 01 07	691	1.8-	0.5+
1998 08 23	704	0.3+	0.6+	1999 12 07	704	0.4+	0.1-				

(13847)* 1999 XC₇₄ = 1976 GX₁ = 1982 DO₁ = 1989 RY₄ = 1992 OH₁

Discovered 1999 Dec. 7 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 37909)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	194.01967	(2000.0)	P	Q	
<i>n</i>	0.31778311	ω	177.37615	+0.00442751	+0.99919868
<i>a</i>	2.1267454	Ω	92.87545	−0.91819683	+0.01981905
<i>e</i>	0.1494208	<i>i</i>	2.28267	−0.39609971	−0.03477363
<i>P</i>	3.10	<i>H</i>	14.6	<i>G</i>	0.15 <i>U</i> 2

Residuals in seconds of arc

1976 04 01	095	2.2−	1.4−	1998 06 26	704	0.1−	0.4+	2000 01 03	691	0.3−	0.7−
1976 04 04	095	(1.7−	2.8−)	1998 06 26	704	(4.6−	1.1+)	2000 01 03	691	0.3−	0.6−
1982 02 24	801	1.8+	1.9−	1999 11 03	704	0.6+	0.2+	2000 01 03	704	0.3+	0.2−
1989 09 09	095	(0.5−	12.0+)	1999 11 03	704	0.3−	0.8+	2000 01 03	704	0.1+	0.7−
1989 09 09	095	1.7−	1.8+	1999 11 03	704	0.7−	0.4−	2000 01 03	704	0.6+	0.0
1992 07 26	809	1.9+	1.6−	1999 11 03	704	0.4−	0.8+	2000 01 03	704	0.3+	0.3−
1992 07 26	809	(2.0+	2.1−)	1999 12 07	704	0.2−	0.2−	2000 01 03	704	1.0+	1.2+
1992 07 26	809	(2.0+	2.6−)	1999 12 07	704	0.1−	0.3+	2000 01 05	704	0.6+	0.6−
1992 07 28	809	1.0+	1.5−	1999 12 07	704	0.2−	0.0	2000 01 05	704	0.6+	0.5−
1992 07 28	809	0.7+	1.6−	1999 12 08	704	0.2−	0.0	2000 01 05	704	0.6+	0.4−
1992 07 28	809	0.4+	1.7−	1999 12 08	704	0.3+	1.4+	2000 01 05	704	0.1+	0.9−
1998 06 03	704	0.2+	0.5−	1999 12 08	704	0.6−	0.0	2000 01 05	704	0.2+	0.9−
1998 06 03	704	0.9−	0.6+	1999 12 08	704	0.1+	0.0	2000 01 13	691	0.2−	0.5−
1998 06 03	704	0.9+	0.9−	1999 12 27	691	0.8−	0.7−	2000 01 13	691	0.2−	0.5−
1998 06 03	704	0.3−	1.1+	1999 12 27	691	0.9−	0.7−	2000 01 13	691	0.2−	0.5−
1998 06 26	704	0.3−	0.1−	1999 12 27	691	(0.1+	2.1−)				
1998 06 26	704	(2.1+	2.3+)	2000 01 03	691	0.1−	0.6−				

(13848)* 1999 XD₇₅ = 1974 HF₃ = 1982 YW₃ = 1992 WD₉ = 1998 KS₄₀

Discovered 1999 Dec. 7 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 37909)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	129.28062	(2000.0)	P	Q	
<i>n</i>	0.28901326	ω	210.48884	+0.75414219	+0.65224973
<i>a</i>	2.2656398	Ω	108.59842	−0.58507783	+0.72016529
<i>e</i>	0.1653161	<i>i</i>	4.62476	−0.29825073	+0.23649999
<i>P</i>	3.41	<i>H</i>	14.1	<i>G</i>	0.15 <i>U</i> 2

Residuals in seconds of arc

1974 04 25	805	0.0	0.5+	1998 06 29	699	0.7−	0.2+	1999 12 08	704	0.2−	0.8+
1982 12 23	095	0.4+	1.8−	1998 06 29	699	0.4−	0.3+	1999 12 08	704	0.4−	1.0+
1992 11 18	400	1.2−	0.0	1998 06 29	699	0.5−	0.8+	1999 12 15	703	0.3−	0.9+
1992 11 18	400	0.2+	0.3−	1999 11 03	704	1.2+	0.0	1999 12 15	703	(3.3−	3.5−)
1992 11 21	399	0.1+	0.3+	1999 11 03	704	0.5+	0.2−	1999 12 15	703	0.0	0.8+
1992 11 21	399	1.4+	1.8−	1999 11 03	704	0.3−	0.7−	1999 12 15	703	1.3+	0.7−
1992 11 27	399	(4.9−	0.7−)	1999 11 03	704	1.2−	1.0−	2000 01 05	704	0.5−	0.5−
1992 11 27	399	(3.6−	0.6+)	1999 11 15	704	0.4+	0.0	2000 01 05	704	0.4−	0.1−
1998 05 22	704	0.3+	0.3−	1999 11 15	704	0.3+	0.3+	2000 01 05	704	0.2+	0.1−
1998 05 22	704	0.9+	0.4−	1999 11 15	704	0.6+	0.2+	2000 01 05	704	0.4+	0.2−
1998 05 22	704	0.4+	0.1−	1999 11 15	704	0.0	0.6+	2000 01 05	704	0.2+	0.1+
1998 05 22	704	0.6+	1.0−	1999 11 15	704	0.2−	0.6+	2000 01 06	704	0.4−	0.4+
1998 05 22	704	0.4+	0.7−	1999 12 07	704	0.1+	0.2−	2000 01 06	704	0.0	0.1−
1998 05 24	704	0.2+	0.3−	1999 12 07	704	0.6−	0.0	2000 01 06	704	1.6−	0.4+
1998 05 24	704	0.3−	0.1−	1999 12 07	704	0.3−	0.7+	2000 01 06	704	1.8+	1.9−
1998 05 24	704	0.7−	1.2+	1999 12 07	704	0.2−	0.6+	2000 01 06	704	0.9−	0.5−
1998 05 24	704	0.1−	0.5−	1999 12 08	704	0.2+	0.4+				
1998 05 24	704	0.2−	0.1−	1999 12 08	704	0.4−	0.7+				

(13849)* 1999 XN₈₆ = 1981 JN₃ = 1991 LQ₆ = 1997 HM₅ = 1998 SL₁₁

Discovered 1999 Dec. 7 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 37915)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

		Williams			
<i>M</i>	8.88919	(2000.0)	P	Q	
<i>n</i>	0.30125348	ω	222.82694	−0.43462743	−0.89730595
<i>a</i>	2.2038465	Ω	253.06923	+0.84655088	−0.37783465
<i>e</i>	0.0899571	<i>i</i>	4.62134	+0.30732817	−0.22821702
<i>P</i>	3.27	<i>H</i>	14.4	<i>G</i>	0.15 <i>U</i> 2

Residuals in seconds of arc

1981 05 08	675	(2.1−	3.0+)	1998 09 22	910	0.2−	0.2+	1999 12 11	411	0.3−	0.1+
1981 05 09	675	(3.0+	0.7+)	1998 09 22	910	0.2−	0.0	2000 01 05	704	0.7−	0.1+
1991 06 06	809	0.5+	0.5−	1999 11 17	704	0.3−	0.3+	2000 01 05	704	0.6−	0.1+
1991 06 06	809	0.2−	0.0	1999 11 17	704	0.1+	0.5−	2000 01 05	704	0.6−	0.1+
1991 06 06	809	0.3−	0.7+	1999 11 17	704	0.2+	0.5−	2000 01 05	704	0.6−	0.2+
1997 04 28	704	0.9−	0.2+	1999 11 17	704	0.1−	0.6−	2000 01 05	704	0.4−	0.3+
1997 04 28	704	0.4−	1.1−	1999 11 17	704	0.4+	0.1−	2000 01 06	106	0.3+	0.1+
1997 04 28	704	1.0−	0.2+	1999 12 05	699	0.1+	0.9+	2000 01 06	106	0.1+	0.7−
1997 04 28	704	1.0−	0.3+	1999 12 05	699	0.1+	0.9+	2000 01 06	106	0.3+	0.3+
1997 04 28	704	0.8−	0.9+	1999 12 05	699	0.4+	0.4+	2000 01 13	849	0.4−	0.2−
1997 04 29	704	1.2+	0.6+	1999 12 07	704	1.3+	0.3+	2000 01 13	849	0.7+	0.0
1997 04 29	704	1.1+	0.4−	1999 12 07	704	(0.3−	2.9+)	2000 01 13	849	0.1−	0.0
1997 04 29	704	1.3+	1.8−	1999 12 07	704	0.3+	1.1−	2000 02 02	704	0.2+	0.3+
1997 04 29	704	0.2+	0.1−	1999 12 07	704	0.4+	1.0−	2000 02 02	704	0.3+	0.0
1998 08 17	704	1.1+	0.1+	1999 12 07	704	0.2−	1.3−	2000 02 02	704	0.1+	0.2+
1998 08 17	704	0.8−	0.5−	1999 12 08	704	1.2+	0.2−	2000 02 02	704	0.5+	0.1−
1998 08 17	704	0.8+	0.6−	1999 12 08	704	0.5−	0.1−	2000 02 02	704	0.1+	0.4+
1998 08 17	704	0.6+	0.0	1999 12 08	704	0.1−	0.6−	2000 02 03	704	0.2+	1.2−
1998 08 17	704	0.6−	0.7−	1999 12 08	704	0.0	0.3−	2000 02 03	704	0.2−	0.1−
1998 09 19	910	1.4−	0.6+	1999 12 08	704	0.7−	1.2−	2000 02 03	704	1.4+	0.4+
1998 09 19	910	0.4+	0.5+	1999 12 10	411	0.4−	0.7+	2000 02 03	704	0.8−	1.4+
1998 09 19	910	0.3+	0.4+	1999 12 10	411	1.3−	0.9+	2000 02 03	704	0.2+	0.6+
1998 09 22	910	0.1−	0.2+	1999 12 11	411	0.4−	0.5+				

(13850)* 1999 XO₈₈ = 1984 GN = 1991 NG₄ = 1997 EZ₃₄

Discovered 1999 Dec. 7 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 37918)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

		Williams			
<i>M</i>	236.62907	(2000.0)	P	Q	
<i>n</i>	0.29416484	ω	134.08642	−0.34664895	+0.93633767
<i>a</i>	2.2391106	Ω	115.55547	−0.87728110	−0.30260877
<i>e</i>	0.1596232	<i>i</i>	3.54186	−0.33198250	−0.17804408
<i>P</i>	3.35	<i>H</i>	14.3	<i>G</i>	0.15 <i>U</i> 1

Residuals in seconds of arc

1984 04 02	801	0.8−	0.3−	1998 08 23	704	0.4−	0.5−	2000 01 05	704	0.3+	1.2−
1991 07 08	809	0.5−	0.2−	1998 08 23	704	0.6−	0.5+	2000 01 05	704	0.2+	0.4−
1991 07 08	809	0.1−	0.4−	1998 08 23	704	0.2−	0.8+	2000 01 05	704	0.8+	0.3−
1991 07 08	809	0.2+	0.4−	1998 08 23	704	0.0	0.3−	2000 01 06	704	0.5+	0.1−
1991 07 08	809	0.7+	0.4−	1998 08 23	704	0.4−	0.5−	2000 01 06	704	0.3+	0.1−
1991 07 08	809	0.9+	0.3−	1998 08 30	699	0.5−	0.4+	2000 01 06	704	0.3+	0.7+
1991 07 08	809	1.2+	0.3−	1998 08 30	699	0.7−	0.3+	2000 01 31	704	0.2+	1.3+
1991 07 18	809	0.6−	0.4+	1998 08 30	699	0.3+	0.6+	2000 01 31	704	0.1+	0.3+
1991 07 18	809	0.2−	0.5+	1999 12 07	704	0.1−	1.2−	2000 01 31	704	0.0	0.8+
1991 07 18	809	0.0	0.4+	1999 12 07	704	0.8−	1.1−	2000 01 31	704	0.0	0.6+
1997 03 04	704	0.1−	0.3+	1999 12 07	704	0.5−	0.8−	2000 02 02	704	0.2−	0.7+
1997 03 04	704	0.7−	0.4−	1999 12 07	704	0.1+	0.6−	2000 02 02	704	0.2+	0.9+
1997 03 05	704	0.6−	0.5+	1999 12 08	704	0.1−	1.2+	2000 02 02	704	0.1+	0.5−
1997 03 05	704	0.7+	0.7+	1999 12 08	704	0.7−	1.1−	2000 02 02	704	0.7+	0.9+
1997 03 06	704	0.4+	0.7+	1999 12 08	704	0.1−	0.7−				
1997 03 06	704	0.4−	0.7+	2000 01 05	704	0.3+	0.5−				

2000 FEB. 22

M.P.C. 38415

Id. G. V. Williams (*MPC* 37921)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	123.78089		(2000.0)	P		Q	
<i>n</i>	0.17648792	ω	246.35087	+0.94073622	+0.28183692		
<i>a</i>	3.1476956	Ω	96.84558	-0.19783357	+0.90782324		
<i>e</i>	0.1909654	<i>i</i>	10.95219	-0.27545823	+0.31052361		
<i>P</i>	5.58	<i>H</i>	12.3	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1987 10 21	092	1.5+	1.1+	1999 02 04	704	0.0	0.8-	1999 12 15	704	0.7-	0.1-
1987 10 21	092	1.4-	0.4+	1999 02 04	704	1.2+	0.2-	1999 12 15	704	0.9-	0.2+
1987 10 22	092	(9.0-	3.2+)	1999 02 04	704	0.1-	1.3+	1999 12 18	699	0.0	0.4+
1987 10 22	092	0.4-	0.0	1999 02 04	704	(5.3-	0.7+)	1999 12 18	699	0.4-	0.7-
1991 05 17	809	0.5+	0.2+	1999 02 04	699	0.1-	0.2+	1999 12 18	699	0.4+	0.1+
1991 05 17	809	0.3+	0.1-	1999 02 04	699	1.6-	0.1+	2000 01 03	704	0.1+	1.0-
1991 05 17	809	0.0	1.3+	1999 02 04	699	0.7-	0.3+	2000 01 03	704	0.3+	1.0-
1992 08 25	675	(1.0-	3.5-)	1999 11 11	703	1.1-	0.6+	2000 01 03	704	0.3+	0.4-
1992 08 25	675	(1.5+	2.3-)	1999 11 11	703	0.2+	1.0+	2000 01 03	704	0.2+	0.5-
1992 08 27	675	0.7-	0.2+	1999 11 11	703	0.5-	0.2+	2000 01 03	704	0.4+	0.5-
1998 10 12	699	0.1+	0.3-	1999 11 11	703	0.9+	0.9+	2000 01 04	704	0.3+	0.6-
1998 10 12	699	1.3+	0.6-	1999 12 07	704	0.0	0.2-	2000 01 04	704	0.3+	0.1+
1998 10 12	699	0.6+	0.3-	1999 12 07	704	0.1-	0.6-	2000 01 04	704	0.1+	0.0
1998 10 29	699	0.5+	0.1+	1999 12 07	704	0.5-	1.0-	2000 01 04	704	0.1+	0.5+
1998 10 29	699	0.4+	0.1-	1999 12 07	704	0.3+	0.5-	2000 01 04	704	0.1+	0.8+
1998 10 29	699	0.2+	0.1+	1999 12 07	704	0.8-	0.3+	2000 01 25	106	0.7+	1.1+
1998 11 13	704	0.9+	1.4-	1999 12 08	703	0.1-	0.8+	2000 01 25	106	0.1+	0.3+
1998 11 13	704	0.6-	0.5+	1999 12 08	703	0.3+	0.0	2000 01 25	106	0.1-	0.4+
1998 11 13	704	0.3+	0.3-	1999 12 08	703	0.3-	0.4-	2000 01 30	704	0.0	0.0
1998 11 13	704	0.1+	0.6+	1999 12 08	703	0.4+	0.0	2000 01 30	704	0.1-	0.2+
1998 11 13	704	(2.9-	0.2-)	1999 12 08	704	0.9+	1.1-	2000 01 30	704	0.6-	0.4+
1998 12 11	699	0.3-	0.1-	1999 12 08	704	0.7+	0.1-	2000 01 30	704	0.2-	0.3+
1998 12 11	699	0.0	0.2-	1999 12 08	704	0.6+	0.3-	2000 01 30	704	0.2-	0.5+
1998 12 11	699	0.1-	0.2-	1999 12 08	704	0.2+	0.1+	2000 01 31	704	0.1+	0.1-
1999 01 11	704	0.1+	0.1+	1999 12 08	704	0.3-	0.9+	2000 01 31	704	0.4-	0.1+
1999 01 11	704	0.5-	1.0+	1999 12 09	704	0.1+	0.9-	2000 01 31	704	0.2-	0.4+
1999 01 11	704	0.6-	1.1+	1999 12 09	704	1.0-	0.7-	2000 01 31	704	0.1-	0.7+
1999 01 11	704	0.0	0.0	1999 12 09	704	0.2-	0.5-	2000 02 11	704	0.1-	0.2+
1999 01 11	704	0.5-	0.6+	1999 12 09	704	0.2-	0.2-	2000 02 11	704	0.0	0.1-
1999 01 17	699	0.8-	0.1-	1999 12 15	704	0.1-	0.3-	2000 02 11	704	0.1-	0.1+
1999 01 17	699	0.9-	0.1+	1999 12 15	704	0.1+	0.2-	2000 02 11	704	0.2+	0.3+
1999 01 17	699	0.3-	0.4-	1999 12 15	704	0.1+	0.3-				

(13852)* 1999 XM₉₆ = 1969 RE = 1979 SQ₉ = 1991 ED₄ = 1991 EH₉
 = 1998 HA₁₄₃

Discovered 1999 Dec. 7 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 37923)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	114.30184		(2000.0)	P		Q	
<i>n</i>	0.30046530	ω	39.11305	+0.79764950	+0.60272384		
<i>a</i>	2.2076989	Ω	283.80797	-0.55885603	+0.72497116		
<i>e</i>	0.2002091	<i>i</i>	1.29173	-0.22679333	+0.33337785		
<i>P</i>	3.28	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1969 09 08	095	(0.1+	4.8+)	1998 04 22	704	0.5-	0.1-	1999 12 07	704	0.1-	0.0
1979 09 22	095	0.2+	1.8+	1998 05 16	704	0.7-	0.2-	1999 12 07	704	0.1-	0.6-
1979 09 28	095	1.6-	0.6+	1998 05 16	704	1.3-	1.7+	1999 12 10	704	0.2+	0.3+
1991 03 12	809	0.7+	0.8-	1998 05 16	704	0.9+	0.4+	1999 12 10	704	0.3-	0.4-
1991 03 12	809	0.5+	0.9+	1998 05 16	704	1.1+	1.8+	1999 12 10	704	0.6+	0.1-
1991 03 12	809	(0.4+	2.7+)	1998 05 16	704	(1.6-	2.3+)	1999 12 10	704	0.6+	0.9+
1991 03 14	809	(3.0-	1.7+)	1999 11 03	704	0.4+	0.5-	1999 12 10	704	0.2+	0.7+
1991 03 14	809	0.8-	1.2+	1999 11 03	704	0.6+	0.2-	2000 01 03	704	0.1-	0.4+
1991 03 14	809	1.6+	1.0+	1999 11 03	704	0.2+	0.2-	2000 01 03	704	0.3-	0.0
1992 08 31	095	0.0	0.4+	1999 11 03	704	0.0	0.2+	2000 01 03	704	0.4+	0.2-

1992 08 31	095	0.2-	1.7+	1999 11 03	704	0.3-	0.1-	2000 01 03	704	0.6+	0.2+
1997 01 10	566	0.6+	0.2-	1999 11 12	704	0.3-	0.2-	2000 01 03	704	0.8-	0.5+
1997 01 10	566	0.1-	0.0	1999 11 12	704	0.3-	0.1-	2000 01 04	704	0.3+	0.6+
1997 01 10	566	0.0	0.2-	1999 11 12	704	0.1-	0.2+	2000 01 04	704	0.2-	0.1+
1998 04 01	704	0.1-	0.2-	1999 11 12	704	1.4-	0.5+	2000 01 04	704	0.2+	0.2-
1998 04 01	704	1.0-	0.3+	1999 11 12	704	0.4-	0.1+	2000 01 04	704	0.6+	0.3-
1998 04 01	704	0.4-	0.7-	1999 11 16	704	0.6+	1.4-	2000 01 04	704	0.1-	0.8+
1998 04 01	704	(0.6-	2.3-)	1999 11 16	704	0.4-	0.9-	2000 01 04	704	0.3-	0.1+
1998 04 01	704	0.7-	1.9-	1999 11 16	704	0.2+	0.2+	2000 01 04	704	0.1-	0.6+
1998 04 21	704	0.6+	0.3-	1999 11 16	704	0.3-	0.5-	2000 01 04	704	0.1-	0.4+
1998 04 21	704	0.2+	0.8+	1999 11 16	704	0.6-	0.7-	2000 01 04	704	0.0	0.3-
1998 04 21	704	1.1+	0.1+	1999 12 05	703	0.2-	0.1+	2000 01 04	704	0.2-	1.5+
1998 04 21	704	0.8+	0.3+	1999 12 05	703	0.4+	0.6+	2000 02 11	704	0.0	0.2+
1998 04 21	704	0.4+	0.2-	1999 12 05	703	0.1-	0.2+	2000 02 11	704	0.3+	0.3+
1998 04 22	704	0.1+	0.3+	1999 12 05	703	0.1-	0.7-	2000 02 11	704	0.2-	0.2+
1998 04 22	704	(1.9+	2.7+)	1999 12 07	704	0.1+	0.2+	2000 02 11	704	0.4-	0.5+
1998 04 22	704	0.3-	1.1+	1999 12 07	704	0.2-	0.1-				
1998 04 22	704	0.3+	0.0	1999 12 07	704	0.1-	0.2-				

(13853)* 1999 XR₉₆ = 3044 T-1 = 1976 SV₇ = 1991 RC₃₁

Discovered 1999 Dec. 7 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 37924)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	87.41542		(2000.0)	P		Q	
<i>n</i>	0.26176982	ω	3.58703	+0.98238410	+0.18664769		
<i>a</i>	2.4202283	Ω	345.64588	-0.17236008	+0.88603507		
<i>e</i>	0.1801891	<i>i</i>	2.12018	-0.07220445	+0.42438720		
<i>P</i>	3.77	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1971 03 24	675	0.3+	0.8-	1999 11 14	704	0.7+	0.0	1999 12 10	704	0.6+	0.5-
1971 03 25	675	0.8-	0.6-	1999 11 14	704	0.6+	0.2-	1999 12 10	704	0.5+	0.9-
1971 03 26	675	0.2+	1.5-	1999 11 16	704	0.1+	0.3+	1999 12 30	888	0.1-	0.5+
1971 03 26	675	1.2-	1.4-	1999 11 16	704	0.0	0.1+	1999 12 30	888	0.1+	0.6+
1971 04 02	675	0.5-	0.1-	1999 11 16	704	0.1-	0.1+	2000 01 03	704	0.1-	0.6-
1976 09 25	095	1.5-	1.2+	1999 11 16	704	0.1-	0.5+	2000 01 03	704	0.3+	0.2-
1976 09 28	095	2.0+	2.0-	1999 11 16	704	0.3+	0.1+	2000 01 03	704	0.5+	0.5+
1991 09 09	691	0.3+	0.6+	1999 12 05	703	0.8-	0.3+	2000 01 03	704	0.4+	0.2-
1991 09 09	691	0.3+	0.1+	1999 12 05	703	0.4-	0.6+	2000 01 03	704	1.0+	0.4+
1991 09 09	691	0.5+	0.1+	1999 12 05	703	0.6-	0.5+	2000 01 04	704	0.1+	0.3+
1991 09 11	675	0.4-	1.5-	1999 12 05	703	0.2+	0.2-	2000 01 04	704	0.2-	0.6+
1991 09 11	675	0.1-	0.7-	1999 12 07	704	0.1+	0.3-	2000 01 04	704	0.1-	0.1+
1999 11 03	704	0.9-	0.9-	1999 12 07	704	0.2-	0.5-	2000 01 04	704	0.6-	0.2+
1999 11 03	704	0.0	0.8-	1999 12 07	704	0.0	0.3-	2000 01 04	704	0.0	0.6+
1999 11 03	704	1.5-	0.0	1999 12 07	704	0.1+	0.3-	2000 02 11	704	0.6-	0.1+
1999 11 03	704	0.4-	0.8-	1999 12 07	704	0.2+	0.4-	2000 02 11	704	0.4-	0.1-
1999 11 03	704	0.1-	1.4-	1999 12 10	704	0.2+	0.2-	2000 02 11	704	0.3-	0.6+
1999 11 14	704	1.2+	0.3+	1999 12 10	704	0.3+	0.4-	2000 02 11	704	1.3-	0.8+
1999 11 14	704	0.2-	0.2+	1999 12 10	704	0.4+	0.0	2000 02 11	704	(0.4-	2.1+)

(13854)* 1999 XX₁₀₄ = 1979 MU₃ = 1979 OW₁ = 1993 FP₂₈

Discovered 1999 Dec. 10 by T. Kobayashi at Oizumi.

Id. G. V. Williams (*MPC* 37931)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	353.99523		(2000.0)

1979 07 25	675(30.3+ 25.8+)	1999 12 08	691 0.0 0.3-	2000 01 05	704 (2.6- 0.4+)
1993 03 21	809 (4.2- 0.2-)	1999 12 10	411 0.3+ 0.2-	2000 01 10	411 0.3- 0.2-
1993 03 21	809 (2.6+ 0.1-)	1999 12 10	411 0.1- 0.6-	2000 01 10	411 0.4- 1.8-
1993 03 22	809 1.3- 0.4-	1999 12 11	411 0.2- 1.2+	2000 02 02	704 0.1+ 0.4-
1993 03 26	809 0.4+ 1.6-	1999 12 11	411 1.3- 0.1+	2000 02 02	704 0.1+ 0.1+
1998 08 17	704 0.7+ 1.0-	1999 12 15	691 0.0 0.1-	2000 02 02	704 0.0 0.4+
1998 08 17	704 1.1- 0.5+	1999 12 15	691 0.0 0.2-	2000 02 02	704 0.2- 0.5+
1998 08 17	704 1.3+ 1.6-	1999 12 15	691 0.1+ 0.2+	2000 02 02	704 0.1+ 0.5+
1998 08 17	704 0.9- 1.0-	1999 12 19	411 0.7+ 0.5-	2000 02 03	704 0.2- 0.0
1998 08 17	704 1.0+ 0.4+	1999 12 19	411 0.5- 1.0-	2000 02 03	704 0.0 0.8+
1999 11 14	703 0.2+ 0.8+	2000 01 05	106 0.1+ 0.6+	2000 02 03	704 0.1+ 0.3+
1999 11 14	703 0.3+ 0.1-	2000 01 05	106 0.0 0.4+	2000 02 03	704 0.1+ 0.8+
1999 11 14	703 0.2+ 0.7-	2000 01 05	106 0.1- 0.7+	2000 02 03	704 0.1- 0.6+

(13855)* 1999 XX₁₀₅ = 1979 SN₁₃ = 1998 MO₃₄

Discovered 1999 Dec. 11 by T. Kobayashi at Oizumi.

Id. S. Nakano (*MPC* 37932), M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Asher			
<i>M</i>	108.14837	(2000.0)	P	Q	
<i>n</i>	0.25528570	ω 211.71073	+0.98853775	+0.12913492	
<i>a</i>	2.4610384	Ω 140.63167	-0.09932099	+0.94642116	
<i>e</i>	0.1586370	<i>i</i> 7.08291	-0.11370335	+0.29599182	
<i>P</i>	3.86	<i>H</i> 14.3	<i>G</i> 0.15	<i>U</i> 2	

Residuals in seconds of arc

1979 09 20	675 0.1+ 0.7-	1998 06 27	809 (3.3+ 4.6+)	2000 01 04	411 0.4- 1.1+
1979 09 21	675 0.4+ 0.8-	1998 08 15	704 0.1+ 1.2-	2000 01 05	704 0.5+ 0.7+
1997 01 31	910 0.1+ 0.4-	1998 08 15	704 1.1- 0.5-	2000 01 05	704 0.2- 0.4+
1997 01 31	910 0.1+ 0.6-	1998 08 15	704 2.1- 1.4+	2000 01 05	704 0.1+ 0.2+
1997 01 31	910 0.1- 0.4-	1998 08 15	704 0.1+ 0.4+	2000 01 05	704 0.2- 0.2+
1998 06 24	704 2.0+ 1.4+	1998 08 15	704 (2.6- 3.4+)	2000 01 05	704 0.2- 0.5-
1998 06 24	704 0.6+ 0.2+	1999 12 06	704 (0.9- 3.3-)	2000 01 06	704 0.3+ 0.6+
1998 06 24	704 0.2+ 0.1-	1999 12 06	704 0.8+ 0.8-	2000 01 06	704 0.1- 0.9+
1998 06 24	704 0.0 0.5-	1999 12 06	704 0.6- 1.5+	2000 01 06	704 0.1- 0.5+
1998 06 24	704 0.7- 0.4+	1999 12 11	411 0.6- 0.1+	2000 02 02	704 0.1- 0.8+
1998 06 26	809 0.9+ 2.0+	1999 12 11	411 0.4- 0.2+	2000 02 02	704 0.0 0.3+
1998 06 26	809 0.3- 1.4+	1999 12 12	411 1.1- 0.4-	2000 02 02	704 0.6+ 0.6+
1998 06 26	809 0.2- 1.9+	1999 12 12	411 0.1- 1.1+	2000 02 02	704 0.6- 0.4+
1998 06 26	704 0.2- 0.4-	1999 12 14	704 0.6+ 0.4+	2000 02 02	704 0.1- 0.1-
1998 06 26	704 0.2- 1.3+	1999 12 14	704 2.0+ 0.5+	2000 02 03	704 0.1- 0.5+
1998 06 26	704 0.2+ 0.3+	1999 12 14	704 2.1- 0.0	2000 02 03	704 0.5+ 0.5+
1998 06 26	704 0.8- 0.4+	1999 12 14	704 0.2+ 0.3+	2000 02 03	704 0.1+ 0.1-
1998 06 26	704 0.6+ 1.4+	1999 12 19	411 0.6+ 0.6-	2000 02 03	704 0.3+ 0.0
1998 06 27	809 (2.1+ 3.6+)	1999 12 19	411 0.7- 0.1-	2000 02 03	704 0.5+ 0.1+
1998 06 27	809 (1.3+ 3.0+)	2000 01 04	411 0.4+ 1.2+		

(13856)* 1999 XZ₁₀₅ = 1990 VB₁₀ = 1990 WN₁₃ = 1990 YF₁ = 1993 JS = 1998 MN₅

Discovered 1999 Dec. 11 by T. Kobayashi at Oizumi.

Id. S. Nakano (*MPC* 37933)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Asher			
<i>M</i>	73.94947	(2000.0)	P	Q	
<i>n</i>	0.22570410	ω 143.36393	+0.90797410	-0.38770990	
<i>a</i>	2.6716306	Ω 240.18254	+0.32764945	+0.89336963	
<i>e</i>	0.1901423	<i>i</i> 10.55620	+0.26120659	+0.22709411	
<i>P</i>	4.37	<i>H</i> 12.7	<i>G</i> 0.15	<i>U</i> 1	

Residuals in seconds of arc

1990 11 14	675 (2.4- 2.7-)	1998 06 18	699 0.3- 0.5+	2000 01 04	411 0.9+ 0.0
1990 11 14	675 0.4- 1.2-	1998 06 25	699 0.5- 0.4-	2000 01 07	704 0.1+ 0.5-
1990 11 20	095 (2.7+ 8.7-)	1998 06 25	699 0.1- 0.2+	2000 01 07	704 0.3+ 0.1+
1990 11 20	095 1.2+ 0.6+	1998 06 25	699 0.3+ 0.3-	2000 01 07	704 0.4+ 0.5-
1990 12 26	413 0.9- 0.8-	1999 12 11	411 0.6- 0.1+	2000 01 07	704 0.1- 0.1-
1993 05 14	809 (0.7- 2.4+)	1999 12 11	411 0.3- 0.5-	2000 01 07	704 0.2+ 0.2+
1993 05 14	809 0.1- 1.2+	1999 12 12	411 1.1- 0.0	2000 01 11	704 0.1+ 0.0

1993 05 14	809 1.1- 1.2+	1999 12 12	411 0.5+ 0.8-	2000 01 11	704 0.1- 0.0
1993 05 15	809 1.1- 0.5-	1999 12 14	704 0.2- 1.2+	2000 01 11	704 0.0 0.2-
1993 05 15	809 0.8- 0.3-	1999 12 14	704 0.4+ 0.6+	2000 01 11	704 0.2- 0.4-
1993 05 15	809 1.0- 0.7-	1999 12 14	704 0.3+ 1.8+	2000 01 11	704 0.0 0.5-
1993 06 17	809 1.8+ 0.8-	1999 12 14	704 1.4- 0.0	2000 01 26	106 0.0 0.7+
1993 06 17	809 1.1+ 0.7-	1999 12 14	704 0.5- 0.4-	2000 01 26	106 0.1+ 0.1-
1993 06 17	809 1.0+ 1.2-	1999 12 19	411 0.1- 0.5-	2000 02 04	704 0.2+ 0.2-
1998 06 18	699 0.4+ 0.2-	1999 12 19	411 0.4- 0.1+	2000 02 04	704 0.1+ 0.2-
1998 06 18	699 0.4+ 0.3-	2000 01 04	411 0.9+ 0.1-	2000 02 04	704 0.1+ 0.1-

(13857)* 1999 XE₁₀₉ = 1986 VP₄ = 1990 QD₁₂ = 1998 KM₆₅

Discovered 1999 Dec. 4 by the Catalina Sky Survey.

Id. G. V. Williams (*MPC* 37935)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	94.11028	(2000.0)	P	Q	
<i>n</i>	0.23133160	ω 219.89262	+0.79642656	+0.59953446	
<i>a</i>	2.6281253	Ω 103.09372	-0.53204116	+0.75687262	
<i>e</i>	0.1584854	<i>i</i> 4.66057	-0.28746642	+0.26019660	
<i>P</i>	4.26	<i>H</i> 14.0	<i>G</i> 0.15	<i>U</i> 1	

Residuals in seconds of arc

1986 11 07	010 1.1- 0.7-	1999 11 01	703 0.3- 0.1+	1999 11 17	704 0.2- 0.2-
1986 11 07	010 (3.8+ 0.0)	1999 11 01	703 0.2- 0.7+	1999 11 17	704 0.1- 0.2-
1990 08 26	675 1.0+ 0.6+	1999 11 01	703 0.6- 0.2-	1999 12 04	703 0.4+ 0.2+
1990 08 26	675 0.2+ 0.1+	1999 11 01	703 0.2- 0.1-	1999 12 04	703 0.2- 0.3+
1997 02 04	566 0.5+ 0.1+	1999 11 04	704 0.0 0.4-	1999 12 04	703 0.3- 0.7+
1997 02 04	566 0.3- 0.3-	1999 11 04	704 0.1- 0.1-	1999 12 04	703 0.3- 0.6+
1997 02 04	566 0.6+ 0.2-	1999 11 04	704 0.3+ 0.1-	1999 12 12	703 0.0 0.0
1998 05 22	704 (0.4+ 2.1+)	1999 11 04	704 0.2+ 0.1+	1999 12 12	703 0.8- 0.1+
1998 05 22	704 0.7+ 1.7+	1999 11 04	704 0.1- 0.5+	1999 12 12	703 0.1+ 0.3-
1998 05 22	704 (1.1- 2.7+)	1999 11 05	704 0.3+ 0.3-	1999 12 12	703 0.2- 0.6+
1998 05 22	704 0.3+ 1.5+	1999 11 05	704 0.3+ 0.3-	1999 12 14	704 0.2- 1.0+
1998 05 24	704 1.2+ 1.0-	1999 11 05	704 0.4+ 0.1+	1999 12 14	704 0.1+ 1.4+
1998 05 24	704 1.2- 0.1+	1999 11 05	704 0.2+ 0.2-	1999 12 14	704 0.0 0.9+
1998 05 24	704 (0.3- 3.8+)	1999 11 05	704 0.1+ 0.2-	1999 12 14	704 0.0 0.3-
1998 05 24	704 0.5+ 0.9+	1999 11 12	699 0.3+ 0.4+	1999 12 14	704 0.2- 0.5+
1998 06 24	704 1.5- 1.4-	1999 11 12	699 0.5+ 0.0	2000 01 05	704 0.1- 0.7-
1998 06 24	704 0.4+ 0.0	1999 11 12	699 0.5+ 0.2+	2000 01 05	704 0.1- 0.4-
1998 06 24	704 0.5- 0.1-	1999 11 15	704 0.5+ 0.4-	2000 01 05	704 0.1+ 0.2+
1998 06 24	704 0.8- 0.5-	1999 11 15	704 0.3+ 0.8-	2000 01 05	704 0.2- 0.5-
1998 06 24	704 (3.0+ 0.0)	1999 11 15	704 0.3+ 0.3-	2000 01 05	704 0.3+ 1.2+
1999 10 20	704 0.1- 0.3-	1999 11 15	704 0.1+ 0.4-	2000 01 07	704 0.8- 0.4-
1999 10 20	704 0.2- 0.2-	1999 11 15	704 0.3+ 0.3-	2000 01 07	704 0.3+ 0.5-
1999 10 20	704 0.6- 0.6+	1999 11 17	704 0.4+ 0.2+	2000 01 07	704 0.8+ 0.7-
1999 10 20	704 0.7- 0.1-	1999 11 17	704 0.2+ 0.7-	2000 01 07	704 0.9- 0.6-
1999 10 20	704 0.6- 0.6+	1999 11 17	704 0.1+ 0.2+	2000 01 07	704 0.0 0.3+

(13858)* 1999 XT₁₁₀ = 1983 RN₇ = 1991 RS₃₆ = 1996 XS₃₀ = 1998 HQ₉₃

Discovered 1999 Dec. 5 by the Catalina Sky Survey.

Id. G. V. Williams (*MPC* 37937)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	107.51756	(2000.0)	P	Q	
<i>n</i>	0.25349722	ω 30.22976	+0.55636608	+0.82665883	
<i>a</i>	2.4726003	Ω 273.69876	-0.77827337	+0.48291440	
<i>e</i>	0.2111156	<i>i</i> 4.84092	-0.29111398	+0.28884054	
<i>P</i>	3.89	<i>H</i> 14.6	<i>G</i> 0.15	<i>U</i> 1	

Residuals in seconds of arc

1983 09 11	095 0.6- 0.4+	1998 04 22	704 1.4+ 0.0	1999 12 05	703 0.4- 0.1+
1991 09 14	675 1.5+ 0.2+	1998 05 22	704 (1.4- 2.8+)	1999 12 05	703 0.1+ 0.1+
1991 09 14	675 0.5- 0.0	1998 05 22	704 1.1+ 0.1-	1999 12 05	703 0.3- 0.6-
1996 12 15	691 0.2+ 0.4+	1998 05 22	704 0.5+ 1.3+	1999 12 08	704 0.3- 0.0
1996 12 15	691 0.2+ 0.5-	1998 05 22	704 0.6+ 0.1-	1999 12 08	704 0.6+ 0.6+
1996 12 15	691 0.2- 0.2+	1998 05 22	704 0.7+ 1.8+	1999 12 08	704 0.3- 0.5+

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1996 12 17	691	0.0	0.2+	1999 11 03	704	0.1+	0.3-	1999 12 08	704	0.7-	0.1-
1996 12 17	691	0.1-	0.0	1999 11 03	704	0.1-	0.0	1999 12 12	703	0.6-	0.1+
1996 12 17	691	0.3-	0.0	1999 11 03	704	0.2-	0.4-	1999 12 12	703	0.1-	0.1+
1998 04 21	704	0.4-	0.4-	1999 11 03	704	0.4+	0.1-	1999 12 12	703	0.5-	0.3+
1998 04 21	704	0.2-	0.4+	1999 11 09	699	0.3+	0.1-	1999 12 12	703	0.2+	0.3+
1998 04 21	704	0.3+	0.4+	1999 11 09	699	0.1-	0.5+	2000 01 04	704	0.4+	0.2+
1998 04 21	704	0.7-	0.4+	1999 11 09	699	0.1-	1.6+	2000 01 04	704	0.3-	0.4+
1998 04 21	704	1.2-	0.6+	1999 11 16	704	0.0	0.7+	2000 01 04	704	0.5-	0.2-
1998 04 22	704	0.3+	0.5-	1999 11 16	704	0.8-	0.1+	2000 01 04	704	0.7+	0.5-
1998 04 22	704	0.9-	0.3-	1999 11 16	704	0.2-	0.7+	2000 01 06	704	0.1+	0.1+
1998 04 22	704	0.4+	0.6+	1999 11 16	704	0.4-	0.9+	2000 01 06	704	0.3+	1.1-
1998 04 22	704	0.3-	0.2+	1999 12 05	703	0.3+	0.6+	2000 01 06	704	0.7+	0.5-

(13859)* 1999 XQ₁₃₆ = 1981 BK = 1992 PH₃

Discovered 1999 Dec. 13 by C. W. Juels at Fountain Hills.

Id. G. V. Williams (*MPC* 37950)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	332.47547		(2000.0)	P	Q		
<i>n</i>	0.21080974	ω	252.84291	-0.95661783	+0.21215271		
<i>a</i>	2.7960329	Ω	299.00468	-0.09034524	-0.86767459		
<i>e</i>	0.2088047	<i>i</i>	13.20008	-0.27698387	-0.44960369		
<i>P</i>	4.68	<i>H</i>	12.0	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1981 01 30	688	0.9-	1.3-	1999 01 09	699	0.3+	1.2-	2000 01 05	704	0.4-	0.7-
1981 01 30	688	0.3-	1.8-	1999 11 05	703	1.7-	0.6-	2000 01 08	704	(1.0-	2.4+)
1992 08 06	675	0.5-	1.2-	1999 11 05	703	0.6+	0.3+	2000 01 08	704	0.7+	0.5-
1992 08 06	675	0.1+	0.9-	1999 11 05	703	0.4-	0.3+	2000 01 08	704	0.6+	0.1-
1992 08 07	675	0.1+	1.0-	1999 11 05	703	0.3+	0.5+	2000 01 08	704	1.1-	1.3-
1992 08 07	675	0.3+	0.6-	1999 12 05	703	0.6+	0.3-	2000 01 30	106	1.0+	0.6-
1992 08 23	675	0.9+	1.2+	1999 12 05	703	0.1+	0.3-	2000 01 30	106	0.1+	0.9-
1992 08 23	675	0.3+	0.7+	1999 12 05	704	0.2-	0.5+	2000 01 31	106	0.6+	0.2+
1998 11 14	704	1.3-	0.6+	1999 12 05	703	0.6+	0.3-	2000 02 02	704	0.0	0.2+
1998 11 14	704	0.8-	0.3-	1999 12 05	704	0.1-	0.3+	2000 02 02	704	0.1+	0.2+
1998 11 14	704	0.6-	0.2-	1999 12 05	703	0.0	0.0	2000 02 02	704	0.1+	0.4+
1998 11 14	704	1.2-	0.2+	1999 12 05	704	0.3-	0.4+	2000 02 02	704	0.3+	0.5+
1998 11 14	704	0.4+	1.4-	1999 12 05	704	0.5+	0.2+	2000 02 02	704	0.2+	0.6+
1998 11 16	704	0.1-	0.8+	1999 12 05	704	0.4+	0.5+	2000 02 06	704	0.1-	0.2+
1998 11 16	704	0.2+	0.7+	1999 12 09	699	0.3+	0.2+	2000 02 06	704	0.1-	0.1+
1998 11 16	704	0.5-	0.6+	1999 12 09	699	0.1-	0.2+	2000 02 06	704	0.2-	0.2+
1998 11 16	704	0.9-	0.8+	1999 12 09	699	0.1-	0.1+	2000 02 06	704	0.1-	0.2+
1998 11 16	704	0.5-	0.4+	1999 12 13	678	0.1-	0.5-	2000 02 06	704	0.2-	0.2+
1998 12 09	704	1.6+	0.4-	1999 12 13	678	0.1+	0.3-	2000 02 13	704	0.1-	0.4+
1998 12 09	704	0.0	0.1-	1999 12 15	678	0.7-	0.2-	2000 02 13	704	0.2+	0.7+
1998 12 09	704	1.3+	0.3+	1999 12 15	678	0.8-	0.3-	2000 02 13	704	0.0	0.9+
1998 12 09	704	0.6+	0.9+	2000 01 05	704	0.5+	0.6+	2000 02 13	704	0.7-	0.4+
1998 12 09	704	1.9+	0.7+	2000 01 05	704	0.9+	0.4-	2000 02 13	704	0.7-	0.4-
1999 01 09	699	0.3-	0.4-	2000 01 05	704	0.1+	0.4-				
1999 01 09	699	0.5-	0.3-	2000 01 05	704	0.1+	0.5-				

(13860)* 1999 XH₁₄₃ = 1937 OC = 1970 NA = 1987 QK = 1989 YK₄

Discovered 1999 Dec. 15 by C. W. Juels at Fountain Hills.

Id. G. V. Williams (*MPC* 37954)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	117.70781		(2000.0)	P	Q		
<i>n</i>	0.17930815	ω	188.57112	+0.63453856	+0.73092181		
<i>a</i>	3.1146030	Ω	121.23286	-0.69055691	+0.68214074		
<i>e</i>	0.1981705	<i>i</i>	17.08605	-0.34711953	-0.02091190		
<i>P</i>	5.50	<i>H</i>	11.5	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1937 07 30	078(73.3+ 35.3-)	X	1998 12 08	704	0.8-	0.6+	1999 12 31	678	0.3-	0.3+
1937 08 05	078 (7.9+ 9.1-)	X	1998 12 08	704	0.2-	0.0	2000 01 08	704	0.4+	0.0
1970 07 03	095 (6.1- 4.8+)		1998 12 08	704	1.0+	0.5-	2000 01 08	704	0.4+	0.2+
1970 07 04	095 (1.1+ 4.5-)		1998 12 08	704	(2.8- 1.2-)		2000 01 08	704	0.2-	0.6+

1970 07 14	095	0.1+	1.1+	1999 11 05	704	0.0	0.4-	2000 01 08	704	0.2+	0.4+
1987 08 24	675(13.7+ 1.2+)			1999 11 05	704	0.3-	0.6-	2000 01 08	704	0.5+	0.8+
1987 08 26	675 (3.0+ 1.2+)			1999 11 05	704	0.3+	0.3-	2000 01 11	704	0.3+	0.3-
1989 12 30	413	0.2-	0.1-	1999 11 05	704	0.4-	0.4-	2000 01 11	704	0.3+	0.3-
1989 12 30	413	0.3+	0.5+	1999 12 05	704	(0.4+ 3.3-)		2000 01 11	704	0.3+	0.0
1989 12 31	413	0.4-	0.8-	1999 12 05	704	0.8-	0.8-	2000 01 11	704	0.4+	0.6+
1989 12 31	413	0.1+	0.7+	1999 12 05	704	0.8-	0.2-	2000 01 11	704	0.2+	0.2+
1998 06 29	704	0.6-	0.9+	1999 12 05	704	0.3+	1.5+	2000 02 02	703	0.2+	0.5+
1998 06 29	704	1.4-	0.0	1999 12 14	699	0.1+	0.2-	2000 02 02	703	0.6+	0.1+
1998 06 29	704	(0.5- 2.2+)		1999 12 14	699	0.0	0.4+	2000 02 02	703	0.8+	0.1+
1998 06 29	704	0.3+	0.2-	1999 12 14	699	0.9+	1.8-	2000 02 02	703	0.2-	0.4+
1998 06 29	704	1.1+	1.0-	1999 12 15	678	1.1-	0.1-	2000 02 04	704	0.5+	0.3+
1998 06 29	704	0.3+	0.8+	1999 12 15	678	0.5+	0.2+	2000 02 04	704	0.0	0.1-
1998 06 29	704	0.2-	0.2-	1999 12 16	678	1.0-	0.2-	2000 02 04	704	0.1+	0.3+
1998 06 29	704	0.5+	0.1+	1999 12 16	678	0.5-	0.0	2000 02 04	704	0.6+	0.6-
1998 06 29	704	0.2+	1.4-	1999 12 18	678	0.4-	1.1-	2000 02 04	704	0.1+	0.2+
1998 06 29	704	(2.8+ 0.5+)		1999 12 18	678	0.8-	0.4+				
1998 12 08	704	0.2-	0.6+	1999 12 31	678	0.5-	0.5+				

(13861)* 1999 XE₁₅₇ = 6764 P-L = 1998 RP₃₅

Discovered 1999 Dec. 8 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 37959)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	6.89292		(2000.0)	P	Q		
<i>n</i>	0.18025077	ω	293.31442	-0.08669293	-0.99612121		
<i>a</i>	3.1037350	Ω	161.63993	+0.93060728	-0.08636943		
<i>e</i>	0.1392468	<i>i</i>	2.74083	+0.35560432	-0.01681825		
<i>P</i>	5.47	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1960 09 24	675	0.7-	0.4-	1998 09 14	704	1.8+	0.1-	1999 12 14	704	0.7-	0.8+
1960 09 24	675	0.4-	1.0-	1998 09 14	704	1.2-	0.5+	1999 12 14	704	0.3-	0.5+
1960 09 26	675	0.0	0.8+	1998 09 18	704	0.8-	0.5+	1999 12 14	704	0.2-	0.1-
1960 09 26	675	0.2-	1.3-	1998 09 18	704	1.0+	0.2+	2000 01 05	704	0.0	0.1+
1960 09 27	675	1.6+	1.3+	1998 09 18	704	1.2-	0.1+	2000 01 05	704	0.0	0.4+
1960 09 27	675	0.9+	0.1-	1999 11 17	704	0.3+	0.0	2000 01 05	704	0.1-	0.2+
1960 09 28	675	0.2-	0.8+	1999 11 17	704	1.5+	0.4-	2000 01 05	704	0.1+	0.1+
1960 09 28	675	0.4-	1.0-	1999 11 17	704	0.2-	0.4+	2000 01 05	704	0.0	0.4+
1996 04 18	809	(0.8+ 2.7+)		1999 12 08	704	0.4-	0.3+	2000 01 06	704	1.3-	0.1-
1996 04 18	809	0.4+	1.5+	1999 12 08	704	0.3+	0.4+	2000 01 06	704	0.6+	0.8-
1996 04 18	809	(1.1+ 2.4+)		1999 12 08	704	0.0	0.3-	2000 01 06	704	0.2+	0.1-
1998 09 14	704	0.8-	1.2+	1999 12 08	704	0.1-	0.1-	2000 01 06	704	0.5+	0.8-
1998 09 14	704	0.5+	0.5-	1999 12 08	704	0.2-	0.3+				

(13862)* 1999 XT₁₆₀ = 1977 DL₆ = 1996 RD₃₃

Discovered 1999 Dec. 8 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 37962)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	52.98541		(2000.0)	P	Q		
<i>n</i>	0.08097932	ω	277.53932	+0.63817373	-0.76227560		
<i>a</i>	5.2911894	Ω	132.21799	+0.75131191	+0.58596999		
<i>e</i>	0.0863242	<i>i</i>	8.38753	+0.16812107	+0.27490922		
<i>P</i>	12.17	<i>H</i>	11.1	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1977 02 19	381	0.2+	0.1+	1998 12 22	704	0.7+	0.6-	2000 01 05	704	0.1-	0.6-

1997 11 07	809	0.1−	0.5+	1999 12 14	704	0.5−	0.1−	2000 01 07	704	1.4−	0.9−
1998 12 15	704	0.3+	0.2−	1999 12 14	704	1.3−	0.5−	2000 02 02	704	0.4+	0.3+
1998 12 15	704	1.9−	0.1−	1999 12 14	704	0.1−	0.6+	2000 02 02	704	0.4+	0.1+
1998 12 15	704	0.7+	0.1+	1999 12 15	704	0.4−	0.4−	2000 02 02	704	0.9+	1.0+
1998 12 15	704	(3.5−	0.4+)	1999 12 15	704	0.8+	0.2−	2000 02 02	704	0.0	0.9+
1998 12 16	699	0.6+	0.8+	1999 12 15	704	0.0	0.8−	2000 02 03	704	0.4+	0.6+
1998 12 16	699	0.3+	0.3+	1999 12 15	704	1.0+	1.4−	2000 02 03	704	0.5+	0.1+
1998 12 16	699	0.5−	1.9+	2000 01 05	704	0.5−	0.8+	2000 02 03	704	0.8+	0.1−
1998 12 22	704	0.0	0.2+	2000 01 05	704	0.1−	0.3−	2000 02 03	704	0.4+	0.3+
1998 12 22	704	1.5+	0.5−	2000 01 05	704	0.2+	0.4+	2000 02 03	704	0.7+	0.6+

(13863)* 1999 XE₁₆₆ = 1975 RV = 1989 PN = 1994 TS₁₅

Discovered 1999 Dec. 10 by the Lincoln Laboratory Near-Earth Asteroid
Research Team at Socorro.

Id. G. V. Williams (*MPC* 37965)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	58.04512		(2000.0)	P		Q	
<i>n</i>	0.20928111	ω	35.49830	+0.98855583		+0.12936948	
<i>a</i>	2.8096315	Ω	316.86071	−0.15071629		+0.86906496	
<i>e</i>	0.2411686	<i>i</i>	6.51594	+0.00647833		+0.47748261	
<i>P</i>	4.71	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1975 09 03	095	0.1−	2.5+	1999 12 07	703	0.1−	0.2−	1999 12 15	704	0.2+	0.5−
1975 09 06	095	1.8−	1.4+	1999 12 07	703	0.0	0.1+	1999 12 31	699	0.5−	0.2+
1989 07 29	675	1.4+	1.3−	1999 12 07	699	0.0	0.2+	1999 12 31	699	0.1+	0.7+
1989 07 29	675	(7.6+	1.9+)	1999 12 07	699	0.2−	0.8+	1999 12 31	699	0.8−	0.4+
1989 08 01	675	0.5−	0.6+	1999 12 07	699	0.1+	0.4+	2000 01 03	704	0.1−	0.0
1989 08 01	675	0.5−	0.6−	1999 12 10	704	0.5+	0.4−	2000 01 03	704	0.4+	0.3+
1994 10 04	033	0.1−	0.4−	1999 12 10	704	0.0	0.1−	2000 01 03	704	1.1+	1.7+
1994 10 06	033	0.5+	0.9−	1999 12 10	704	0.4+	0.7−	2000 01 03	704	1.0+	0.1+
1994 10 07	033	0.7+	0.9−	1999 12 10	704	0.3+	0.0	2000 01 04	704	0.4−	0.2−
1999 09 26	699	0.2−	0.0	1999 12 10	704	0.2+	0.7−	2000 01 04	704	0.0	0.0
1999 09 26	699	0.5−	0.4−	1999 12 13	703	0.0	0.3+	2000 01 04	704	0.6+	0.6−
1999 09 26	699	0.8+	0.9+	1999 12 13	703	1.2−	0.5+	2000 01 04	704	0.7+	0.4+
1999 10 05	704	0.6+	0.5−	1999 12 13	703	0.5−	0.4+	2000 01 04	704	0.7+	0.5+
1999 10 05	704	0.1−	0.7−	1999 12 13	703	0.3−	0.4−	2000 01 31	704	0.3−	0.1−
1999 10 05	704	0.0	0.8−	1999 12 15	704	0.3+	0.6+	2000 01 31	704	0.7−	0.5+
1999 10 05	704	1.1−	0.8−	1999 12 15	704	0.4+	0.2−	2000 01 31	704	0.9−	0.1−
1999 12 07	703	0.0	0.1+	1999 12 15	704	0.2−	0.9−	2000 01 31	704	0.5−	0.1+
1999 12 07	703	0.1−	0.2+	1999 12 15	704	0.6−	0.8−	2000 01 31	704	0.5+	0.7+

(13864)* 1999 XU₁₆₆ = 1950 TH₁ = 1990 DG₁ = 1998 MW₃₃

Discovered 1999 Dec. 10 by the Lincoln Laboratory Near-Earth Asteroid
Research Team at Socorro.

Id. G. V. Williams (*MPC* 37966)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	334.77292		(2000.0)	P		Q	
<i>n</i>	0.28343235	ω	137.24159	−0.55662303		−0.83044496	
<i>a</i>	2.2952840	Ω	346.52742	+0.73297893		−0.47784771	
<i>e</i>	0.0985218	<i>i</i>	5.68146	+0.39104052		−0.28639610	
<i>P</i>	3.48	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1950 10 13	024	0.1+	0.6−	1999 10 05	704	0.7−	0.4+	2000 01 03	704	0.1−	0.6−
1990 02 20	046	0.5−	1.5−	1999 10 05	704	0.1+	0.3+	2000 01 04	704	0.2+	1.3+
1990 02 20	046	1.3−	1.1−	1999 10 05	704	0.1+	0.3+	2000 01 04	704	1.8+	0.9+
1990 02 21	046	0.0	1.3−	1999 10 05	704	0.4+	0.1+	2000 01 04	704	0.9+	0.5+
1990 02 21	046	1.0−	0.4−	1999 11 03	704	0.8−	0.2+	2000 01 04	704	0.4+	0.3+
1990 02 22	046	0.7+	0.5−	1999 11 03	704	0.3+	0.8−	2000 01 04	704	0.2−	1.1−
1990 02 22	046	0.8+	1.1+	1999 11 03	704	0.3−	0.4−	2000 01 30	704	0.4+	0.2+
1995 08 19	809	1.1+	0.1+	1999 11 03	704	0.0	0.4−	2000 01 30	704	0.3−	0.2−
1995 08 20	809	0.2+	0.1−	1999 11 03	704	0.2−	0.2−	2000 01 30	704	0.6−	0.2−
1995 08 22	809	0.3+	0.2−	1999 12 07	703	1.2−	0.2−	2000 01 30	704	0.3−	0.1+
1995 08 26	809	0.2+	0.2+	1999 12 07	703	0.0	0.0	2000 01 30	704	0.5−	0.5−

1995 08 27	809	0.6−	0.6+	1999 12 07	703	0.2−	0.1+	2000 01 31	704	0.4−	0.2+
1995 09 17	809	0.3−	0.6−	1999 12 07	703	0.5−	0.3+	2000 01 31	704	0.6−	0.7+
1998 06 24	704	0.6+	1.6−	1999 12 10	704	0.5−	0.3−	2000 01 31	704	0.4−	0.0
1998 06 24	704	0.6+	0.5−	1999 12 10	704	0.1−	0.1−	2000 01 31	704	0.7−	0.2−
1998 06 24	704	0.3−	0.3+	1999 12 10	704	0.0	0.8−	2000 01 31	704	0.8−	0.9−
1998 06 24	704	1.2−	0.9−	1999 12 10	704	0.1+	0.0	2000 02 02	704	0.1+	1.0+
1998 06 24	704	(3.2−	0.4+)	1999 12 10	704	0.3+	0.4−	2000 02 02	704	0.0	0.1−
1998 06 26	704	0.2+	0.3−	1999 12 15	704	0.1+	0.4−	2000 02 02	704	0.1−	0.5+
1998 06 26	704	0.6−	0.1+	1999 12 15	704	0.4+	0.6−	2000 02 02	704	0.1−	0.2+
1998 06 26	704	1.1+	0.4−	1999 12 15	704	0.7+	0.8−	2000 02 02	704	0.2+	0.2−
1998 06 26	704	0.8+	1.7−	1999 12 15	704	0.0	1.3−	2000 02 03	704	0.4+	0.2−
1999 09 03	704	0.6+	0.2+	1999 12 15	704	0.4+	0.9−	2000 02 03	704	0.6+	0.3+
1999 09 03	704	0.8−	0.5+	2000 01 03	704	0.3−	1.3+	2000 02 03	704	0.1−	0.2−
1999 09 03	704	0.6−	0.3+	2000 01 03	704	0.9+	0.5+	2000 02 03	704	0.1−	0.5+
1999 10 05	704	0.1+	0.4−	2000 01 03	704	1.1+	0.6+	2000 02 03	704	0.0	0.0

(13865)* 1999 XA₁₇₀ = 1977 UZ₁ = 1981 SZ₅ = 1981 ST₂ = 1994 RY₁₀

Discovered 1999 Dec. 10 by the Lincoln Laboratory Near-Earth Asteroid
Research Team at Socorro.

Id. G. V. Williams (*MPC* 37969)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	95.94855		(2000.0)	P		Q	
<i>n</i>	0.22655892	ω	17.75034	+0.90652323		+0.42043093	
<i>a</i>	2.6649063	Ω	317.32332	−0.39382137		+0.80969531	
<i>e</i>	0.2298017	<i>i</i>	3.22413	−0.15205379		+0.40942807	
<i>P</i>	4.35	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1977 10 20	033	1.7+	0.2+	1998 06 26	704	(0.4+	2.9−)	1999 12 10	704	0.0	0.3−
1981 09 28	095	0.2+	0.4+	1998 06 26	704	(2.6+	0.2−)	1999 12 15	704	0.3+	1.4+
1981 09 29	511	0.7+	0.2−	1998 06 26	704	0.2+	1.6−	1999 12 15	704	0.2−	0.3+
1981 09 29	511	0.5−	0.8−	1998 06 26	704	(2.0−	3.2−)	1999 12 15	704	0.0	0.3+
1981 09 29	511	1.1−	1.2−	1999 11 14	704	0.2−	0.5−	1999 12 15	704	0.6−	0.7−
1994 08 10	809	1.2+	1.5+	1999 11 14	704	0.8+	0.7−	2000 01 03	704	0.5−	0.5+
1994 08 10	809	0.9+	1.7+	1999 11 14	704	1.9+	0.4+	2000 01 03	704	0.1−	0.7−
1994 08 10	809	0.1+	1.7+	1999 11 14	704	0.9−	0.4−	2000 01 03	704	0.1+	0.2−
1994 08 11	809	(1.7−	3.1−)	1999 11 14	704	0.9+	0.3−	2000 01 03	704	0.4+	1.6−
1994 08 11	809	(1.9−	2.4−)	1999 11 16	704	0.1+	0.1−	2000 01 03	704	0.0	0.4−
1994 08 11	809	(1.8−	2.2−)	1999 11 16	704	0.5−	0.2−	2000 01 04	704	0.5−	0.2−
1994 09 01	399	0.3−	1.0−	1999 11 16	704	0.5−	0.1−	2000 01 04	704	0.1−	0.5−
1994 09 01	399	(1.2−	2.2−)	1999 11 16	704	1.0+	0.1+	2000 01 04	704	0.1−	0.2−
1994 09 03	809	(3.5+	3.6+)	1999 11 16	704	0.0	0.3+	2000 01 04	704	0.0	0.4−
1994 09 03	809	(2.0+	3.6+)	1999 12 05	703	0.5−	0.1+	2000 01 04	704	0.3+	0.4−
1994 09 03	809	(2.6+	3.4+)	1999 12 05	703	0.5−	1.0+	2000 02 11	704	0.2+	0.2+
1994 09 04	809	(1.4+	2.9+)	1999 12 05	703	0.9−	0.2+	2000 02 11	704	0.3−	1.7+
1994 09 04	809	(1.0+	2.5+)	1999 12 05	703	0.1+	0.2+	2000 02 11	704	0.2−	1.6+
1994 09 04	809	(1.2+	2.4+)	1999 12 10	704	0.6−	0.9−	2000 02 11	704	0.2−	1.3+
1994 09 09	399	0.9−	0.1−	1999 12 10	704	0.3+	1.0−	2000 02 11	704	0.1−	0.8+
1994 09 09	399	1.3−	1.1−	1999 12 10	704	0.0	0.1+				

(13866)* 1999 XS₁₇₄ = 1988 BC₁ = 1990 OX₅

Discovered 1999 Dec. 10 by the Lincoln Laboratory Near-Earth Asteroid
Research Team at Socorro.

Id. G. V. Williams (*MPC* 37972)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	132.38630		(2000.0)	P		Q	
n	0.25123172	ω	277.39262	+0.96300194		+0.25527834	
a	2.4874426	Ω	67.84808	-0.19545494		+0.88224242	
e	0.0951361	i	5.35096	-0.18553876		+0.39557716	
P	3.92	H	13.4	G	0.15	U	2

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1988 01 22	511	1.2+	2.0-	1999 11 16	704	1.0+	0.2-	2000 01 04	704	0.2+	0.5-
1990 07 26	675	0.5+	0.9-	1999 12 08	703	0.3-	0.1+	2000 01 04	704	0.2-	0.3-
1990 07 26	675	0.1-	0.9-	1999 12 08	703	0.0	0.4+	2000 01 30	704	0.7-	0.8+
1998 08 28	699	0.2-	0.1+	1999 12 08	703	0.1+	0.2+	2000 01 30	704	0.2-	0.3-
1998 08 28	699	0.5-	0.1+	1999 12 08	703	0.2+	0.0	2000 01 30	704	0.6+	0.4+
1998 08 28	699	0.1+	0.2+	1999 12 10	704	1.3+	0.5-	2000 01 30	704	0.8-	0.2-
1998 09 16	699	0.8+	1.6-	1999 12 10	704	0.6+	0.0	2000 01 30	704	0.9+	0.6+
1998 09 16	699	0.9+	0.2+	1999 12 10	704	0.5+	0.3-	2000 01 30	704	0.6-	0.2-
1998 09 16	699	0.0	1.1+	1999 12 10	704	0.3-	0.1-	2000 01 30	704	0.1-	0.7+
1998 09 22	699	0.2-	0.7+	1999 12 15	704	0.2+	0.0	2000 01 30	704	0.6-	0.4+
1998 09 22	699	0.2-	1.3+	1999 12 15	704	0.3+	0.2-	2000 01 31	704	0.2-	0.8+
1998 09 22	699	0.4-	0.9+	1999 12 15	704	0.2+	0.4-	2000 01 31	704	0.2-	0.2+
1998 11 11	699	1.3-	1.0-	1999 12 15	704	0.1-	0.1-	2000 01 31	704	0.2-	0.2+
1998 11 11	699	0.3+	0.0	1999 12 15	704	1.1-	0.3-	2000 02 11	704	0.2-	0.4+
1998 11 11	699	0.2+	0.4-	2000 01 03	704	0.4-	1.0-	2000 02 11	704	0.2-	0.7+
1998 11 23	699	0.5+	0.6-	2000 01 03	704	0.4+	0.7-	2000 02 11	704	0.0	0.9+
1998 11 23	699	0.7-	0.5+	2000 01 03	704	0.3-	0.8-	2000 02 11	704	0.4-	0.6+
1998 11 23	699	0.1-	0.5-	2000 01 03	704	0.0	0.8-	2000 02 11	704	0.3-	0.7+
1999 11 16	704	0.5-	0.3+	2000 01 03	704	0.2-	0.4-				

(13867)* 1999 XR₁₈₂ = 1978 UN₆ = 1993 RN₁₅ = 1998 RT₃₈

Discovered 1999 Dec. 12 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 37975)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	271.56580		(2000.0)	P	Q		
<i>n</i>	0.19341145	ω	180.08481	-0.99982587	+0.01854325		
<i>a</i>	2.9612922	Ω	0.98503	-0.01704865	-0.86206697		
<i>e</i>	0.0560048	<i>i</i>	6.99328	-0.00758792	-0.50645502		
<i>P</i>	5.10	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1978 10 27	675	0.0	0.9+	1996 03 21	566	0.0	0.0	1999 12 15	704	0.0	1.1+
1978 10 28	675	0.4-	0.7+	1996 04 20	566	0.7-	0.3-	1999 12 15	704	0.2+	1.5+
1978 10 29	675	0.7-	0.5+	1996 04 20	566	0.1-	0.3+	1999 12 15	704	0.0	0.4+
1993 09 15	809	(1.9+ 2.4-)		1996 04 20	566	0.5-	0.5-	1999 12 16	704	1.4+	0.4-
1993 09 15	809	0.0	1.5-	1998 09 14	704	0.9+	0.4+	1999 12 16	704	0.2+	0.1+
1993 09 15	809	(0.7- 2.2-)		1998 09 14	704	0.3+	0.4+	1999 12 16	704	0.4-	0.2-
1993 09 19	675	0.6+	0.8-	1998 09 14	704	0.0	0.3+	1999 12 16	704	0.2+	0.9-
1993 09 19	675	1.2+	0.2-	1998 09 14	704	0.8+	0.3+	1999 12 16	704	0.2-	0.2-
1993 09 20	691	0.4-	0.6+	1998 09 18	704	(1.3+ 3.0-)		2000 01 02	704	1.0-	0.4+
1993 09 20	691	0.1-	0.4+	1998 09 18	704	0.9+	0.8-	2000 01 02	704	0.6+	0.2-
1993 09 20	691	0.1-	0.4+	1998 09 18	704	1.3-	0.1+	2000 01 02	704	0.4+	1.2-
1993 09 22	809	0.3-	0.3-	1998 09 18	704	0.4-	1.7-	2000 01 04	704	0.3-	0.3+
1993 09 22	809	0.6-	1.5-	1999 12 12	704	0.0	0.4+	2000 01 04	704	0.1-	0.6-
1993 09 22	809	0.2-	1.4-	1999 12 12	704	0.2-	0.0	2000 01 04	704	0.2+	0.1-
1993 09 23	675	0.7+	0.9+	1999 12 12	704	0.4-	1.5-	2000 01 04	704	0.6-	0.1-
1993 09 23	675	0.3-	1.3+	1999 12 12	704	0.1-	0.1+	2000 01 04	704	0.0	0.1-
1996 03 21	566	0.2-	0.8-	1999 12 12	704	0.5+	0.4+				
1996 03 21	566	0.6+	0.2-	1999 12 15	704	0.3-	0.5-				

(13868)* 1999 YZ₈ = 1990 TJ₆ = 1998 OB₉

Discovered 1999 Dec. 29 by J. Guarro at Piera Observatory, Barcelona.

Id. G. V. Williams (*MPC* 37988)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	68.16832		(2000.0)	P	Q		
<i>n</i>	0.24120761	ω	100.97196	+0.72015095	-0.69104636		
<i>a</i>	2.5558893	Ω	302.77552	+0.60432497	+0.66861880		
<i>e</i>	0.1216716	<i>i</i>	4.22524	+0.34084299	+0.27459758		
<i>P</i>	4.09	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1990 10 09	413	1.4-	0.0	1999 12 07	704	0.7+	0.3-	2000 01 03	704	0.3-	0.5-
1990 10 11	413	0.8+	0.6+	1999 12 07	704	0.7+	1.0+	2000 01 04	704	0.3-	0.7+
1994 08 11	809	0.1+	0.1-	1999 12 07	704	0.7+	1.5-	2000 01 04	704	0.3-	0.2-

1994 08 11	809	0.2+	0.3+	1999 12 07	704	0.6+	1.7-	2000 01 04	704	0.0	0.5+
1994 08 11	809	0.3+	0.5-	1999 12 07	704	0.7-	0.9-	2000 01 04	704	0.4-	0.3+
1998 07 26	809	0.1+	1.0+	1999 12 29	165	0.2+	0.3+	2000 01 08	176	1.3+	1.3+
1998 07 26	809	0.3-	0.0	1999 12 29	165	0.3-	0.7+	2000 01 08	176	0.1+	0.1+
1998 07 26	809	0.1-	0.7+	1999 12 30	165	0.4-	1.0+	2000 01 08	176	(3.1- 1.1-)	
1998 07 27	809	0.6+	0.1-	1999 12 30	699	0.1-	0.2-	2000 01 08	691	0.2-	0.1-
1998 07 27	809	0.0	0.0	1999 12 30	699	0.6+	0.1-	2000 01 08	691	0.3-	0.1-
1998 07 27	809	0.5-	0.1-	1999 12 30	699	0.1+	0.5+	2000 01 08	691	0.3-	0.1-
1998 08 17	704	0.5-	0.2+	1999 12 31	691	0.1+	0.8-	2000 01 11	691	0.0	0.1+
1998 08 17	704	0.1+	0.1+	1999 12 31	691	0.1+	0.8-	2000 01 11	691	0.1-	0.1+
1998 08 17	704	0.0	0.5-	1999 12 31	691	0.2+	0.9-	2000 01 11	691	0.2-	0.5-
1998 08 17	704	0.5-	0.3-	2000 01 01	165	0.1+	0.4+	2000 01 30	704	0.3+	0.1+
1998 08 17	704	0.2+	0.9-	2000 01 01	165	0.1-	0.8+	2000 01 30	704	0.1-	0.3+
1998 08 28	699	0.2+	0.1+	2000 01 01	165	0.1+	0.4+	2000 01 30	704	0.1+	0.6+
1998 08 28	699	0.5-	0.3-	2000 01 01	165	1.1-	0.5+	2000 01 30	704	0.8+	0.3+
1998 08 28	699	0.0	0.3-	2000 01 02	165	0.6+	0.2+	2000 01 30	704	0.3+	0.1-
1998 09 21	699	1.0+	1.3-	2000 01 02	678	1.2-	0.2+	2000 01 31	704	0.2+	0.3+
1998 09 21	699	0.6-	1.0+	2000 01 02	678	1.7-	0.5+	2000 01 31	704	0.2+	0.9+
1998 09 21	699	0.2+	1.5+	2000 01 03	678	0.5+	0.0	2000 01 31	704	0.5+	0.1-
1999 11 16	704	1.4-	0.5+	2000 01 03	678	0.1-	1.1-	2000 02 11	704	0.2+	0.1+
1999 11 16	704	0.1+	1.0-	2000 01 03	704	0.3-	0.4-	2000 02 11	704	0.7+	0.0
1999 11 16	704	0.7-	0.2+	2000 01 03	704	0.6+	0.1+	2000 02 11	704	0.0	0.1-
1999 11 16	704	0.1-	0.3-	2000 01 03	704	0.1-	0.3-				
1999 11 16	704	0.2-	0.5+	2000 01 03	704	0.3+	0.5-				

(13869)* 2000 AR₁₉₄ = 1990 TT₂ = 1997 LB₁₃ = 1998 QZ₇₀

Discovered 2000 Jan. 8 by the Lincoln Laboratory Near-Earth Asteroid

Research Team at Socorro.

Id. G. V. Williams (*MPC* 38002)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	69.15426		(2000.0)	P	Q		
<i>n</i>	0.23805078	ω	186.75892	+0.62722217	-0.77162618		
<i>a</i>	2.5784357	Ω	224.46510	+0.72145445	+0.62678464		
<i>e</i>	0.1109496	<i>i</i>	8.68400	+0.29342090	+0.10832383		
<i>P</i>	4.14	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1990 10 11	033	0.8+	1.6-	1998 08 24	704	1.5+	0.1-	2000 01 04	699	0.9+	0.4-
1990 10 11	033	1.0+	1.0-	1998 08 24	704	0.1+	0.4+	2000 01 04	699	0.7+	0.7+
1990 10 12	033	0.2-	0.8-	1998 08 24	704	1.4-	1.1+	2000 01 04	699	0.8+	0.4+
1990 10 13	033	0.4-	0.9+	1998 08 27	704	0.2-	0.6-	2000 01 08	704	0.0	0.1+
1990 10 14	033	0.6-	0.1-	1998 08 27	704	0.0	0.0	2000 01 08	704	0.2-	0.3-
1997 06 07	809	0.2+	0.0	1998 08 27	704	0.0	1.0+	2000 01 08	704	0.8-	0.7+
1997 06 07	809	0.5+	0.2-	1998 08 27	704	(1.3+	2.6+)	2000 01 08	704	0.2+	0.0
1997 06 07	809	0.2+	0.2+	1998 09 18	699	0.3-	0.2+	2000 01 08	704	0.2-	0.2+
1997 06 08	809	0.2+	0.2-	1998 09 18	699	0.8-	0.4+	2000 01 11	704	0.8-	0.3-
1997 06 08	809	0.3-	0.9+	1998 09 18	699	0.3+	0.4+	2000 01 11	704	0.2-	0.5+
1997 06 08	809	0.3-	0.3+	1999 12 14	704	0.1+	0.3+	2000 01 11	704	0.7-	0.6+
1998 08 19	704	0.2+	0.2-	1999 12 14	704	0.7+	0.3+	2000 01 11	704	0.2+	0.0
1998 08 19	704	(0.4-	2.7+)	1999 12 14	704	0.5+	0.2+	2000 01 11	704	1.4-	0.4+
1998 08 19	704	0.1-	1.1+	1999 12 14	704	0.4-	0.2+	2000 02 06	704	0.3+	0.3+
1998 08 19	704	0.7-	1.2+	1999 12 14	704	0.5-	0.2-	2000 02 06	704	0.8+	0.4-
1998 08 19	704	0.9-	0.9+	1999 12 16	699	0.2-	0.4+	2000 02 06	704	0.0	0.2+
1998 08 24	704	0.3-	0.1+	1999 12 16	699	0.8+	0.5+	2000 02 06	704	0.6+	0.1-
1998 08 24	704	0.7+	0.6-	1999 12 16	699	0.1+	0.5+				

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	58.56241	(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.25816659	ω 234.26419	+0.16856980	-0.98460754
<i>a</i>	2.4426956	Ω 206.14559	+0.93481388	+0.17454951
<i>e</i>	0.1005672	<i>i</i> 6.01504	+0.31258156	+0.00896977
<i>P</i>	3.82	<i>H</i> 14.8	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1960 09 24	675	0.8+	0.1-	1998 08 23	704	0.2-	1.1+	1998 09 27	704	0.7-	0.9-
1960 09 26	675	0.2+	0.5-	1998 08 23	704	1.5-	0.5+	1998 09 27	704	0.7-	0.6-
1960 09 28	675	0.5-	0.1-	1998 08 23	704	(4.7-	1.1+)	1998 09 27	704	0.4-	1.0+
1960 09 29	675	0.7+	0.1-	1998 09 14	704	1.0-	0.3+	2000 01 08	704	0.2+	0.1-
1960 10 25	675	0.4-	0.3-	1998 09 14	704	(2.8-	0.7+)	2000 01 08	704	0.2-	0.2+
1960 10 26	675	0.4-	0.3-	1998 09 14	704	0.1-	0.9-	2000 01 08	704	0.1+	1.0-
1997 06 10	691	0.2-	0.2-	1998 09 14	704	0.7-	0.5-	2000 01 08	704	0.6-	0.4+
1997 06 10	691	0.5-	0.1-	1998 09 18	704	0.4+	0.3+	2000 01 08	704	0.2+	0.9-
1997 06 10	691	0.3-	0.7-	1998 09 18	704	0.6-	0.3+	2000 02 02	704	0.0	0.2+
1997 06 27	691	0.1+	0.2+	1998 09 18	704	0.1+	0.9+	2000 02 02	704	0.1-	0.2+
1997 06 27	691	0.3+	0.2+	1998 09 18	704	0.3-	0.6+	2000 02 02	704	0.1-	0.7+
1997 06 27	691	0.4+	0.1+	1998 09 18	704	0.8-	0.6+	2000 02 02	704	0.3+	0.7+
1997 07 03	691	0.1+	0.0	1998 09 25	704	0.4+	0.6-	2000 02 02	704	0.5-	0.6+
1997 07 03	691	0.0	0.0	1998 09 25	704	1.0+	1.6-	2000 02 06	704	0.4+	0.9-
1997 07 03	691	0.3+	0.0	1998 09 25	704	1.2+	0.2-	2000 02 06	704	0.2+	0.8+
1998 08 17	704	0.3-	1.0+	1998 09 25	699	(0.2+	2.6+)	2000 02 06	704	0.6+	0.3+
1998 08 17	704	0.4+	0.4+	1998 09 25	699	0.5+	0.3+	2000 02 06	704	0.3-	0.2+
1998 08 17	704	1.4+	1.7+	1998 09 25	704	0.3+	1.5-	2000 02 06	704	1.2+	0.4+
1998 08 17	704	0.2-	0.8+	1998 09 25	699	0.6+	0.1+	2000 02 12	704	(3.6-	2.2+)
1998 08 17	704	0.3-	0.9+	1998 09 25	704	0.6-	1.6-	2000 02 12	704	0.7-	0.7+
1998 08 23	704	(1.6-	2.9+)	1998 09 27	704	0.1+	0.2-	2000 02 12	704	(3.8+	1.6-)
1998 08 23	704	1.1+	1.9+	1998 09 27	704	0.0	0.1-				

(13871)* 2635 P-L = 1997 GX₂₈

Discovered 1960 Sept. 24 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. G. V. Williams (*MPC* 29936)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	245.41582	(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.28627177	ω 72.50575	-0.12725983	+0.99182151
<i>a</i>	2.2800815	Ω 190.19777	-0.92963459	-0.12269565
<i>e</i>	0.1616183	<i>i</i> 3.15629	-0.34580986	-0.03515493
<i>P</i>	3.44	<i>H</i> 14.8	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1960 09 24	675	0.8-	0.4-	1997 04 08	691	0.6-	0.1+	1998 10 29	704	0.1-	0.9+
1960 09 25	675	0.1-	1.2+	1997 04 15	691	0.2+	0.1-	1998 10 29	691	0.2-	0.3-
1960 09 26	675	0.4+	1.1+	1997 04 15	691	0.2+	0.1+	1998 10 29	691	0.2-	0.3-
1960 09 28	675	0.7+	0.8+	1997 04 15	691	0.1+	0.1-	1998 10 29	691	0.1-	0.1-
1960 09 28	675	0.9+	0.5-	1997 04 16	691	0.7-	0.4-	2000 01 05	704	0.7+	0.2-
1960 10 17	675	0.8+	0.1-	1997 04 16	691	0.7-	0.3-	2000 01 05	704	0.7+	0.3+
1960 10 22	675	1.0-	0.7+	1997 04 16	691	0.5-	0.3-	2000 01 05	704	0.6+	0.3+
1960 10 22	675	0.9-	0.8-	1998 09 26	704	0.6-	0.3-	2000 01 05	704	1.4+	0.1-
1960 10 25	675	1.1-	0.7+	1998 09 26	704	1.3+	0.9-	2000 01 05	704	0.6+	0.2+
1960 10 26	675	0.4-	0.1+	1998 09 26	704	0.4+	1.6-	2000 01 07	704	0.3-	0.5+
1960 10 26	675	0.4+	0.7-	1998 09 26	704	0.4+	1.8-	2000 01 07	704	0.4+	0.1+
1991 10 06	691	0.5+	0.3-	1998 09 26	704	0.8+	0.9-	2000 01 07	704	0.3-	1.1-
1991 10 06	691	0.1+	0.4-	1998 09 27	704	0.4-	0.3-	2000 01 07	704	0.1+	0.0
1991 10 06	691	0.3+	0.4-	1998 09 27	704	1.3+	0.9+	2000 01 07	704	0.2+	0.4+
1997 03 05	809	(3.6+	0.7+)	1998 09 27	704	1.4-	0.5-	2000 02 02	704	0.2-	0.4+
1997 03 05	809	(3.4+	0.3+)	1998 09 27	704	(3.1-	2.9-)	2000 02 02	704	0.2-	0.2-
1997 03 05	809	(3.3+	0.6+)	1998 09 27	704	0.4+	0.4-	2000 02 02	704	0.1-	0.1+
1997 03 06	809	(2.5+	0.3-)	1998 10 28	704	0.0	0.2+	2000 02 02	704	0.2-	0.1-
1997 03 06	809	(2.4+	0.3-)	1998 10 28	704	(2.1+	1.5+)	2000 02 02	704	0.1+	0.5-
1997 03 06	809	(2.6+	0.4-)	1998 10 28	704	0.9+	1.2-	2000 02 03	704	0.6-	0.1+
1997 03 28	327	0.4+	0.8-	1998 10 28	704	0.3-	0.5+	2000 02 03	704	0.8-	0.1+
1997 03 28	327	0.7+	1.0-	1998 10 28	704	(2.6+	0.9+)	2000 02 03	704	0.2-	0.2+

1997 03 28	327	0.2+	0.3-	1998 10 29	704	0.6-	0.4-	2000 02 03	704	0.9-	0.8+
1997 03 28	327	0.4+	0.8-	1998 10 29	704	0.2+	0.4+	2000 02 03	704	0.2-	0.8-
1997 04 08	691	0.7-	0.1+	1998 10 29	704	0.2+	0.6+				
1997 04 08	691	0.6-	0.1-	1998 10 29	704	0.5-	0.0				

(13872)* 2649 P-L = 1993 FY₂₁

Discovered 1960 Sept. 24 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. K. Kinoshita (*MPC* 23680)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	209.92112	(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.22750503	ω 9.71411	-0.93932943	+0.34132502
<i>a</i>	2.6575129	Ω 190.43729	-0.32597019	-0.91912572
<i>e</i>	0.1211679	<i>i</i> 10.82430	-0.10678788	-0.19673623
<i>P</i>	4.33	<i>H</i> 14.0	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1960 09 24	675	0.4-	1.1-	1998 06 19	704	1.1-	0.0	1999 11 01	703	0.9-	0.5+
1960 09 26	675	0.7+	0.6+	1998 06 19	704	1.8+	1.6-	1999 11 01	703	0.8-	0.2+
1960 09 28	675	0.0	0.2-	1998 06 19	704	0.7-	1.8+	1999 11 01	703	1.1-	0.3+
1960 09 29	675	0.3-	0.5-	1998 06 19	704	0.1-	0.6+	1999 11 01	703	1.2-	0.7+
1960 10 22	675	1.5-	0.1+	1999 10 02	703	0.5-	0.2+	1999 11 05	691	0.4+	0.4+
1960 10 25	675	1.2+	0.2-	1999 10 02	703	0.1-	0.1+	1999 11 05	691	0.4+	0.4+
1960 10 26	675	0.4+	0.4+	1999 10 02	703	0.6-	0.0	1999 11 05	691	0.3+	0.5+
1993 03 21	809	0.5+	1.2+	1999 10 02	703	0.2-	0.5+	1999 11 15	704	0.3+	0.2+
1993 03 22	809	1.4+	0.8+	1999 10 04	704	0.5+	0.1+	1999 11 15	704	0.2-	0.4+
1993 03 26	809	0.4-	1.0+	1999 10 04	704	1.1+	0.5-	1999 11 15	704	0.1+	0.1-
1993 03 27	809	0.0	0.4+	1999 10 04	704	0.4+	0.1-	1999 11 15	704	0.3-	0.0
1993 03 29	399	0.1+	1.2-	1999 10 31	691	0.8+	0.1-	1999 11 15	704	0.3+	0.2+
1993 03 29	399	(0.5+	2.1-)	1999 10 31	691	0.3+	0.1-				
1993 04 18	413	1.1-	0.1+	1999 10 31	691	0.4+	0.2-				

(13873)* 2657 P-L = 1997 FN₂

Discovered 1960 Sept. 24 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. G. V. Williams (*MPC* 30681)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	245.63786	(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.25774825	ω 190.57777	-0.71893536	+0.69417319
<i>a</i>	2.4453380	Ω 33.47282	-0.63293770	-0.63274355
<i>e</i>	0.0838197	<i>i</i> 3.68347	-0.28726611	-0.34316057
<i>P</i>	3.82	<i>H</i> 14.7	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1960 09 24	675	0.6+	0.2+	1997 03 11	809	0.6+	1.0+	1999 12 07	704	0.4+	1.1-
1960 09 26	675	0.1-	0.1-	1997 03 31	704	0.5-	0.3+	1999 12 15	704	0.4+	1.9+
1960 09 27	675	0.4+	1.8+	1997 03 31	704	0.4-	0.4+	1999 12 15	704	0.9+	0.1+
1960 09 28	675	0.4-	0.9+	1997 04 03	704	0.9-	0.7-	1999 12 15	704	0.8+	0.3+
1960 10 17	675	0.5-	0.5+	1997 04 03	704	0.7-	0.5+	1999 12 15	703	1.5-	0.5+
1960 10 22	675	0.8-	0.1+	1998 08 17	704	0.2-	1.3+	1999 12 15	703	0.9-	0.1-
1960 10 25	675	1.7-	0.0	1998 08 17	704	0.5+	1.3+	1999 12 15	703	0.1-	1.0+
1960 10 25	675	0.4+	0.4+	1998 08 17	704	(0.5-	2.7+)	1999 12 15	703	0.3-	0.5+
1960 10 26	675	0.8-	0.4+	1998 08 17	704	1.6-	0.1+	2000 01 03	704	0.0	0.8-
1960 10 26	675	0.9+	0.2-	1999 11 14	704	0.4-	0.6+	2000 01 03	704	0.2+	0.7-
1997 03 10	809	1.8+	1.8+	1999 11 14	704	1.0-	1.1+	2000 01 03	704	1.0+	0.4-
1997 03 10	809	1.1+	1.2+	1999 11 14	704	0.8-	0.9+	2000 01 04	704	0.1+	0.0
1997 03 10	809	1.1+	1.1+	1999 12 07	704	0.2-	0.9-	2000 01 04	704	0.5+	0.6-
1997 03 11	809	0.8+	0.1+	1999 12 07	704	0.4-	0.4-	2000 01 04	704	0.2+	0.4+
1997 03 11	809	0.4+	0.8+	1999 12 07	704	0.2-	0.6-	2000 01 04	704	1.5+	0.2-

(13874)* 3013 P-L = 1991 OO₁ = 1998 XQ₂₉

Discovered 1960 Sept. 24 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. M. E. Sansaturio (*MPC*

2000 FEB. 22

M.P.C. 38421

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	295.13731		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.18630027	ω	277.08415	-0.71598286	+0.67578683
<i>a</i>	3.0361768	Ω	305.61444	-0.52467907	-0.68640356
<i>e</i>	0.1064265	<i>i</i>	12.44252	-0.46052191	-0.26863044
<i>P</i>	5.29	<i>H</i>	13.0	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1960 09 24	675	0.2+	0.4-	1998 11 16	704	0.3-	0.4-	2000 02 02	704	0.3+	1.0+
1960 09 24	675	0.2+	1.8+	1998 12 14	704	(2.2-	0.5-)	2000 02 02	704	0.0	0.5+
1960 09 25	675	0.2-	0.1-	1998 12 14	704	0.9-	1.1+	2000 02 02	704	0.2+	0.6+
1960 09 26	675	0.3-	0.8+	1998 12 14	704	0.5-	0.4-	2000 02 02	704	0.6+	0.5+
1960 09 26	675	0.2-	0.5-	1998 12 14	704	1.4+	1.1-	2000 02 02	704	1.0+	0.2-
1960 09 27	675	0.3-	0.2-	1998 12 17	704	1.3+	0.2+	2000 02 04	704	0.1+	0.4+
1960 09 28	675	0.2-	0.3-	1998 12 17	704	0.9-	0.1+	2000 02 04	704	0.2-	0.3+
1960 09 29	675	0.2-	0.5+	1998 12 17	704	0.5+	0.7-	2000 02 04	704	0.1-	0.6+
1991 07 18	809	1.3-	1.1+	1998 12 17	704	0.6-	1.9+	2000 02 04	704	0.0	0.1-
1991 07 18	809	0.5-	0.7+	2000 01 05	704	1.1-	0.1-	2000 02 04	704	0.4+	0.2+
1991 07 18	809	0.5+	0.7+	2000 01 05	704	0.2-	0.1+	2000 02 05	106	0.7+	0.2-
1991 07 21	809	(4.7+	0.2+)	2000 01 05	704	0.2-	0.8+	2000 02 05	106	0.3+	0.4+
1991 07 21	809	(4.6+	0.3+)	2000 01 05	704	0.0	0.1-	2000 02 12	704	0.7+	0.2+
1991 07 21	809	(4.5+	0.5+)	2000 01 05	704	1.1-	0.3-	2000 02 12	704	0.5-	0.8-
1998 11 16	704	0.8+	1.2+	2000 01 07	704	0.7+	0.4-	2000 02 12	704	0.3-	0.6-
1998 11 16	704	0.4+	1.1-	2000 01 07	704	(0.4+	3.3-)	2000 02 12	704	0.4+	0.5+
1998 11 16	704	1.1-	1.0-	2000 01 07	704	(0.0	3.3-)	2000 02 12	704	0.1+	0.2-

(13875)* 4525 P-L = 1998 RP₆₈

Discovered 1960 Sept. 24 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. E. Bowell (*MPC* 33054), G. V. Williams (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	79.53871		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.18197731	ω	183.15738	+0.86576979	-0.50035768
<i>a</i>	3.0840723	Ω	206.87249	+0.45959234	+0.80224818
<i>e</i>	0.1884625	<i>i</i>	1.16777	+0.19803420	+0.32563791
<i>P</i>	5.42	<i>H</i>	13.4	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1960 09 24	675	0.6+	0.4-	1998 10 15	704	1.1-	0.8-	2000 01 07	704	0.1+	0.5-
1960 09 24	675	0.1-	0.6-	1998 10 15	704	0.6+	0.5+	2000 01 07	704	0.4-	0.4-
1960 09 25	675	1.0+	0.4+	1998 10 15	704	1.0-	0.9+	2000 01 08	704	0.1+	0.4-
1960 09 26	675	0.3+	0.2+	1998 10 28	704	1.0-	0.9+	2000 01 08	704	0.5-	0.8-
1960 09 26	675	0.3+	0.5-	1998 10 28	704	1.0+	0.1-	2000 01 08	704	0.3+	0.1+
1960 09 27	675	0.6+	0.3+	1998 10 28	704	0.7-	0.9-	2000 01 08	704	0.0	0.8-
1960 09 28	675	0.3-	0.1-	1998 10 28	704	1.2-	1.2-	2000 01 08	704	0.1-	0.8-
1960 09 28	675	0.8-	0.3-	1998 10 28	704	1.0-	0.3+	2000 01 25	106	0.1+	0.3+
1960 10 17	675	0.0	0.2+	1998 10 29	704	0.1+	0.1-	2000 01 25	106	0.1+	0.4+
1960 10 22	675	0.6-	0.4+	1998 10 29	704	1.0+	0.9+	2000 01 25	106	0.8+	1.2-
1960 10 24	675	1.1-	0.1+	1998 10 29	704	1.5+	0.1+	2000 02 02	704	0.0	0.8+
1996 03 24	809	1.5+	1.4+	1998 10 29	704	1.4+	0.3-	2000 02 02	704	0.1+	0.3+
1996 03 24	809	0.4+	1.0+	1998 12 08	699	0.6-	0.5-	2000 02 02	704	0.1-	0.6+
1996 03 24	809	1.0-	1.1+	1998 12 08	699	0.6-	0.9-	2000 02 02	704	0.3-	0.3+
1998 09 14	704	0.7+	0.5+	1998 12 08	699	1.4-	0.6-	2000 02 02	704	0.6+	0.9+
1998 09 14	704	1.7-	0.4-	1998 12 18	327	0.2+	0.6-	2000 02 03	704	0.2+	0.5+
1998 09 14	704	0.3+	1.0-	1998 12 18	327	0.4+	0.2+	2000 02 03	704	0.1+	0.7+
1998 09 15	699	0.3-	0.9+	1998 12 18	327	0.3-	0.4-	2000 02 03	704	0.4+	0.1+
1998 09 15	699	0.1+	0.5+	1999 12 31	699	0.5-	0.5+	2000 02 03	704	0.1-	0.5+
1998 09 15	699	0.2-	0.5+	1999 12 31	699	0.7+	0.1+	2000 02 05	704	0.4+	0.2-
1998 09 18	704	0.2-	0.6+	1999 12 31	699	0.3+	0.4+	2000 02 05	704	0.5+	0.1+
1998 09 18	704	1.0+	0.2+	2000 01 04	120	1.0+	0.8+	2000 02 05	704	0.4+	0.8+
1998 09 18	704	1.5+	0.3+	2000 01 04	120	0.0	0.2+	2000 02 05	704	0.2-	0.0
1998 09 18	704	0.3+	0.0	2000 01 05	704	0.2-	0.1-	2000 02 05	704	0.2+	0.5+
1998 09 18	704	0.9-	0.7+	2000 01 05	704	0.9-	0.5-	2000 02 06	704	0.3+	0.3-
1998 09 19	691	0.4-	0.5+	2000 01 05	704	0.7-	0.1+	2000 02 06	704	0.0	0.1+
1998 09 19	691	0.7-	0.5+	2000 01 05	704	0.7-	0.3-	2000 02 06	704	0.4+	0.2-

1998 09 19	691	0.8-	0.7+	2000 01 06	704	0.7-	0.2-	2000 02 06	704	0.1+	0.2+
1998 10 14	704	0.8+	0.1+	2000 01 06	704	0.8-	0.0	2000 02 08	704	0.4+	0.3+
1998 10 14	704	(0.2+	2.1-)	2000 01 06	704	0.4-	0.0	2000 02 08	704	0.3-	0.1-
1998 10 14	704	0.8+	0.4+	2000 01 06	704	0.3+	0.3+	2000 02 08	704	0.1-	0.2+
1998 10 14	704	0.7-	0.7+	2000 01 07	704	0.7-	0.5-	2000 02 08	704	0.8+	0.2-
1998 10 15	704	0.1-	0.7+	2000 01 07	704	0.4-	0.2-	2000 02 08	704	0.1-	0.0
1998 10 15	704	0.5+	0.7-	2000 01 07	704	0.1+	0.2-				

(13876)* 4625 P-L = 1997 EZ₅₆

Discovered 1960 Sept. 24 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. A. Gnädig (*MPC* 32729)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	273.07429		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.28489057	ω	191.46872	-0.70301473	+0.71084522
<i>a</i>	2.2874450	Ω	33.86865	-0.64937734	-0.62920730
<i>e</i>	0.0924032	<i>i</i>	2.22794	-0.28996440	-0.31432030
<i>P</i>	3.46	<i>H</i>	15.0	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1960 09 24	675	0.1-	0.1-	1998 09 14	704	0.0	1.0-	2000 01 03	704	0.0	0.9-
1960 09 26	675	1.3-	0.4+	1998 09 14	704	1.4-	0.3+	2000 01 03	704	0.1+	0.3-
1960 09 28	675	0.2-	1.0+	1998 09 14	704	0.1-	0.4-	2000 01 03	704	0.1-	0.0
1960 10 17	675	0.1-	0.7+	1998 09 14	704	1.6+	1.1+	2000 01 03	704	0.8+	1.0+
1960 10 22	675	0.1-	0.6-	1998 09 14	704	0.7-	0.2+	2000 01 03	704	0.4-	0.4+
1960 10 25	675	0.2-	0.3+	1998 09 16	691	0.7-	0.7+	2000 01 04	704	0.6+	0.2-
1960 10 26	675	0.7+	1.3+	1998 09 16	691	0.1-	0.5+	2000 01 04	704	0.7-	0.4-
1991 09 08	691	0.2-	0.6+	1998 09 16	691	0.1-	0.4+	2000 01 04	704	0.0	0.6-
1991 09 08	691	0.2-	0.7+	1998 09 17	699	0.3+	0.2-	2000 01 04	704	0.2+	0.8-
1991 09 08	691	0.0	0.5+	1998 09 17	699	0.2-	0.5+	2000 01 04	704	0.5+	0.0
1997 03 10	809	0.5+	0.9+	1998 09 17	699	0.2-	0.2-	2000 01 30	704	0.0	0.1+
1997 03 10	809	0.1+	1.1+	1998 09 18	704	0.4+	0.5-	2000 01 30	704	0.3-	0.1-
1997 03 10	809	0.2+	0.5+	1998 09 18	704	0.5-	0.6-	2000 01 30	704	0.1+	0.3+
1997 03 11	809	0.5+	0.0	1998 09 18	704	0.8+	0.7-	2000 01 30	704	0.1+	0.1+
1997 03 11	809	0.1+	0.8+	1998 09 18	704	0.2-	0.7-	2000 01 31	704	0.4-	0.2-
1997 03 11	809	0.2+	0.6+	1998 09 18	704	0.4-	0.1-	2000 01 31	704	0.3-	0.5+
1998 09 14	704	1.1+	1.0-	1998 09 25	699	0.8-	0.2+	2000 01 31	704	0.7-	0.5+
1998 09 14	704	0.9+	0.3+	1998 09 25	699	0.1-	1.3+	2000 01 31	704	0.7+	0.8+
1998 09 14	704	0.2+	0.1+	1998 09 25	699	0.1+	0.5-				

(13877)* 6063 P-L = 1992 UZ₈

Discovered 1960 Sept. 24 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. G. V. Williams (*MPC* 21806)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	174.89167		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.31002273	ω	4.88291	+0.75937198	+0.64997574
<i>a</i>	2.1620896	Ω	314.53062	-0.59837052	+0.67965357
<i>e</i>	0.1453810	<i>i</i>	2.39269	-0.25555217	+0.34000378
<i>P</i>	3.18	<i>H</i>	15.2	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1960 09 24	675	0.5-	0.3+	1998 08 27	699	0.3+	0.4+	2000 02 03	704	0.0	0.3+
1960 09 25	675	0.1+	0.6+	1998 10 13	725	0.2+	0.2+	2000 02 03	704	0.5+	0.2+
1960 09 26	675	0.0	0.5-	1998 10 13	725	0.2+	0.4+	2000 02 03	704	0.2+	0.1-
1960 09 28	675	0.2+	0.9+	1998 10 13	725	0.4+	0.4+	2000 02 03	704	0.4-	0.7+
1960 10 17	675	0.5+	0.2+	1998 10 20	699	0.8-	0.7-	2000 02 03	704	0.4-	0.0
1960 10 22	675	0.8-	1.1-	1998 10 20	699	1.1-	1.2-	2000 02 08	704	0.1+	0.3-
1960 10 24	675	0.8+	0.3-	1998 10 20	699	0.4-	0.2-	2000 02 08	704	0.1-	0.6+
1960 10 26	675	0.0	0.5-	1998 10 23	725	(2.5-	3.9+)	2000 02 08	704	0.4+	1.0+
1989 11 28	675	2.4-	2.3-	1998 10 23	725	0.2+	0.1+	2000 02 08	704	0.9+	0.6+
1992 10 31	033	0.3+	0.4+	1998 10 23	725	0.4+	0.8-	2000 02 08	704	0.3+	1.3+
1992 10 31	033	0.0	0.3+	1998 12 08	910	1.5-	0.6-	2000 02 10	691	0.8+	0.2-
1992 11 01	033	0.0	0.3+	1998 12 08	910	(2.2-	1.1-)	2000 02 10	691	0.9+	0.3-
1995 10 18	691	1.8+	0.1+	1998 12 08	910	1.9-	0.4-	2000 02 10	691	0.8+	0.2-

1995 10 18	691	0.9+	0.2+	2000 01 03	120	(2.8−	0.1+)	2000 02 11	704	0.3+	0.2+
1995 10 18	691	0.7+	0.5+	2000 01 03	120	1.0−	0.3+	2000 02 11	704	0.1−	0.6+
1998 08 17	704	0.4+	0.2+	2000 01 04	704	0.3−	0.3−	2000 02 11	704	0.7+	0.3−
1998 08 17	704	0.3+	0.9+	2000 01 04	704	0.3−	0.8−	2000 02 11	704	(1.3+ 2.2+)	
1998 08 17	704	0.3−	0.5+	2000 01 04	704	0.2+	1.2+	2000 02 11	704	0.0	1.2+
1998 08 17	704	0.0	0.4−	2000 01 04	704	0.8−	0.8+	2000 02 12	691	0.2+	0.4−
1998 08 17	704	0.0	0.4+	2000 01 04	704	0.3+	0.5+	2000 02 12	691	0.1+	0.4−
1998 08 23	704	1.1−	0.4+	2000 01 05	691	0.2+	0.4−	2000 02 12	691	0.1+	0.5−
1998 08 23	704	0.6−	1.7+	2000 01 05	691	0.7+	0.7−	2000 02 12	552	0.6+	0.5+
1998 08 23	704	0.5+	1.9+	2000 01 05	691	0.3+	0.3−	2000 02 12	552	0.6+	1.0+
1998 08 23	704	1.2−	0.7−	2000 01 30	703	1.1−	0.5+	2000 02 12	552	1.3+	0.4+
1998 08 23	704	1.4−	0.9+	2000 01 30	703	1.6−	1.5+	2000 02 12	552	1.1+	1.2+
1998 08 27	699	0.3+	0.8+	2000 01 30	703	0.1−	0.1+				
1998 08 27	699	0.4+	0.9+	2000 01 30	703	1.3−	0.6+				

(13878)* 6106 P-L = 1996 DE₆

Discovered 1960 Sept. 24 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. G. V. Williams (*MPC* 26912)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		Williams			
<i>M</i>		(2000.0)		P	Q		
<i>n</i>	0.23309858	ω	55.05995	+0.94198202	−0.33469245		
<i>a</i>	2.6148270	Ω	324.47437	+0.29187333	+0.85425855		
<i>e</i>	0.0808759	<i>i</i>	2.51635	+0.16577042	+0.39777291		
<i>P</i>	4.23	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1960 09 24	675	0.8+	0.4−	1998 08 23	704	(4.4−	0.8−)	1998 09 18	704	1.7−	1.6+
1960 09 25	675	0.7+	0.2−	1998 09 14	704	0.2+	0.9+	1999 12 30	699	1.6+	1.3+
1960 09 26	675	0.0	0.4+	1998 09 14	704	0.6−	1.1−	1999 12 30	699	0.5−	0.4+
1960 09 28	675	0.2+	0.6+	1998 09 14	704	0.3+	0.5+	1999 12 30	699	0.5+	0.9+
1960 10 17	675	0.0	0.4−	1998 09 14	704	0.5+	0.4+	2000 01 06	704	0.2−	0.8−
1960 10 22	675	0.3−	1.4−	1998 09 15	120	0.8−	0.6−	2000 01 06	704	0.1+	0.5−
1960 10 26	675	0.4−	0.9−	1998 09 15	120	0.4+	0.3−	2000 01 06	704	0.3+	0.9−
1992 03 01	809	1.1−	0.7+	1998 09 15	120	1.4+	0.0	2000 01 06	704	0.2−	0.8−
1992 03 06	809	1.1−	0.3+	1998 09 16	691	1.6−	0.3+	2000 01 29	691	0.6−	0.1+
1996 02 16	010	1.9+	0.9+	1998 09 16	691	1.4−	0.0	2000 01 29	691	0.6−	0.0
1996 02 16	010	(2.3+ 0.8+)		1998 09 16	691	1.2−	0.2−	2000 01 29	691	0.7−	0.1−
1996 02 16	010	(2.5+ 0.1+)		1998 09 17	120	0.8+	0.0	2000 01 30	704	0.2+	0.4+
1996 02 17	010	0.9+	1.4−	1998 09 17	120	0.5−	0.0	2000 01 30	704	0.3−	0.1−
1996 02 17	010	0.6+	0.2−	1998 09 17	120	0.2+	0.9+	2000 01 30	704	0.8−	0.3−
1996 02 17	010	1.1+	0.4−	1998 09 18	704	0.6−	0.9+	2000 01 31	704	0.9−	1.0+
1998 08 23	704	1.1+	0.9−	1998 09 18	704	0.5+	0.0	2000 01 31	704	0.0	0.0
1998 08 23	704	0.8−	1.0+	1998 09 18	704	0.2+	0.8−	2000 01 31	704	0.0	0.4+
1998 08 23	704	0.6+	0.4+	1998 09 18	704	1.8+	0.2−				

(13879)* 6328 P-L = 3048 T-1

Discovered 1960 Sept. 24 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. T. Kobayashi (*MPC* 19875), S. Nakano (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		Asher			
<i>M</i>		(2000.0)		P	Q		
<i>n</i>	0.23621788	ω	180.82467	−0.98444079	+0.17550730		
<i>a</i>	2.5917565	Ω	9.29677	−0.16091147	−0.88081611		
<i>e</i>	0.0910180	<i>i</i>	3.04263	−0.07059631	−0.43972738		
<i>P</i>	4.17	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1960 09 24	675	0.2−	0.5+	1971 04 16	675	0.4−	0.4+	1998 10 24	691	0.3−	0.1−
1960 09 25	675	0.3+	0.2+	1971 04 16	675	2.1+	1.0+	1998 11 11	704	0.1+	0.5+
1960 09 26	675	0.3+	0.2−	1971 05 13	675	0.2−	1.5−	1998 11 11	704	0.2−	0.5−
1960 09 28	675	0.4+	1.2−	1971 05 14	675	0.7+	0.0	1998 11 11	704	0.2−	0.3−
1960 10 17	675	1.0+	0.9−	1996 03 17	566	0.7−	0.2−	1998 11 11	704	0.3−	1.5−
1960 10 22	675	0.3+	1.9−	1996 03 17	566	1.0−	0.1−	1998 11 16	691	1.1+	0.2+
1960 10 25	675	0.8−	0.3−	1996 03 17	566	0.8−	0.2−	1998 11 16	691	0.9+	0.1+

1960 10 26	675	0.3−	0.1+	1996 03 17	566	0.6−	0.8−	1998 11 16	691	1.1+	0.3+
1960 10 26	675	0.5+	1.2−	1996 03 17	566	0.5−	1.0−	1999 11 17	703	(0.8−	2.5+)
1971 03 24	675	0.0	0.4−	1996 03 17	566	0.7−	1.0−	1999 11 17	703	1.0−	0.1+
1971 03 24	675	0.6−	1.4+	1996 03 18	566	0.0	0.0	1999 11 17	703	0.8−	0.5+
1971 03 25	675	0.9−	0.2+	1996 03 18	566	0.0	0.5−	1999 11 17	703	0.6+	0.1+
1971 03 26	675	0.1+	1.2+	1996 03 18	566	0.1−	0.4−	2000 02 04	704	0.2+	0.2+
1971 03 26	675	1.0+	1.3−	1996 04 17	566	0.2+	0.8−	2000 02 04	704	0.6+	0.1+
1971 03 26	675	0.7−	0.5+	1996 04 17	566	0.3−	0.7−	2000 02 04	704	0.6+	0.6+
1971 03 26	675	0.3+	1.6−	1996 04 17	566	0.3+	0.6−	2000 02 04	704	0.5+	0.7+
1971 03 27	675	1.3−	0.1+	1996 04 22	566	0.2+	0.3−	2000 02 04	704	0.3+	0.3+
1971 03 27	675	(0.6+ 2.8−)		1996 04 22	566	0.4−	0.2−	2000 02 11	704	0.0	0.7+
1971 04 02	675	0.1−	0.3−	1996 04 22	566	0.0	0.6−	2000 02 11	704	0.3−	0.0
1971 04 16	675	0.2+	0.9−	1998 10 24	691	0.1−	0.4−	2000 02 11	704	0.2+	0.5+
1971 04 16	675	0.3+	0.1+	1998 10 24	691	0.4−	0.2−	2000 02 11	704	0.0	0.2−

(13880)* 6607 P-L = 1990 QP₇

Discovered 1960 Sept. 24 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. B. G. Marsden (*MPC* 17462)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		Marsden			
<i>M</i>		(2000.0)		P	Q		
<i>n</i>	0.26096945	ω	75.07180	−0.86905197	+0.49239230		
<i>a</i>	2.4251742	Ω	134.39883	−0.47577285	−0.80527031		
<i>e</i>	0.1417726	<i>i</i>	3.84747	−0.13560553	−0.33028706		
<i>P</i>	3.78	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1960 09 24	675	0.3−	0.4−	1998 09 27	704	0.1−	0.2−	2000 01 05	704	0.2+	0.1+
1960 09 26	675	0.0	0.2−	1998 09 27	704	0.3+	0.1−	2000 01 06	704	0.4−	0.3−
1960 09 27	675	1.2+	0.1+	1998 09 27	704	0.7+	1.9−	2000 01 06	704	0.1+	0.2−
1960 09 28	675	0.3−	0.6−	1998 10 14	704	0.5+	1.1−	2000 01 06	704	0.2−	0.2−
1960 10 17	675	0.2−	1.2+	1998 10 14	704	0.1+	1.0+	2000 01 06	704	0.2−	0.1+
1960 10 22	675	1.6−	0.5−	1998 10 14	704	1.2−	0.6−	2000 01 06	704	0.4+	0.1+
1960 10 24	675	0.4+	0.3−	1998 10 14	704	(2.1−	0.3−)	2000 01 06	120	0.5+	0.3−
1960 10 26	675	1.0+	0.2−	1998 10 19	699	0.1−	0.2+	2000 01 06	120	1.6−	0.6−
1990 08 16	809	(4.6+ 1.6+)		1998 10 19	699	0.6−	0.1−	2000 01 10	120	0.5+	0.6−
1990 08 16	809	(2.3+ 1.5+)		1998 10 19	699	0.4−	0.2−	2000 01 10	120	0.1+	0.1+
1990 08 16	809	(2.8+ 0.3+)		1998 10 28	704	0.8−	1.0+	2000 01 27	691	0.2−	0.8−
1990 08 18	809	(2.9+ 1.0+)		1998 10 28	704	0.0	0.7+	2000 01 27	691	0.2−	0.5−
1990 08 18	809	(2.4+ 1.0+)		1998 10 28	704	1.8+	0.8+	2000 01 27	691	0.2−	0.5−
1990 08 18	809	1.7+	0.3+	1998 10 28	704	0.1−	0.8+	2000 02 02	704	0.1+	0.0
1990 08 24	809	0.2−	0.0	1998 10 28	704	0.5+	0.6+	2000 02 02	704	0.1+	0.0
1990 08 24	809	0.7−	0.8+	1998 10 29	704	0.7−	0.0	2000 02 02	704	0.2+	0.2+
1990 08 24	809	0.0	0.4+	1998 10 29	704	0.3−	1.0+	2000 02 02	704	0.2+	0.5+
1990 08 26	809	0.5−	0.4+	1998 10 29	704	0.8−	0.0	2000 02 02	704	0.2+	0.4+
1990 08 26	809	0.2−	0.2−	1998 10 29	704	0.4−	1.4−	2000 02 03	704	0.1+	0.3+
1990 08 26	809	0.5−	0.4+	1998 10 29	704	0.7−	0.5−	2000 02 03	704	0.1+	0.2+
1990 09 14	675	0.3+	1.1−	1998 11 10	704	1.5+	0.6−	2000 02 03	704	0.1+	0.3+
1990 09 14	675	(2.6−	1.2−)	1998 11 10	704	0.7+	0.1+	2000 02 03	704	0.6+	0.3+
1990 09 16	675	0.2+	1.3−	1998 11 10	704	0.8−	0.5+	2000 02 03	704	0.2−	1.1+
1990 09 16	675	(0.4+ 2.3−)		1998 11 10	704	0.9−	1.6+	2000 02 05	106	0.4−	0.4+
1998 09 18	699	0.5−	0.5−	2000 01 02	120	0.4+	0.2−	2000 02 05	106	0.3−	0.2+
1998 09 18	699	0.2−	0.3−	2000 01 02	120	0.0	0.2−	2000 02 05	106	0.2−	0.3+
1998 09 18	699	0.9+	0.4−	2000 01 03	120	0.3−	0.0	2000 02 12	704	0.0	0.5−
1998 09 26	704	0.4−	0.2+	2000 01 04	120	0.1+	0.2−	2000 02 12	704	0.1−	0.1−
1998 09 26	704	0.3+	0.2+	2000 01 05	704	0.1−	0.1+	2000 02 12	704	0.1−	0.0
1998 09 26	704	0.1+	1.4+	2000 01 05	704	0.0	0.2+	2000 02 12	704	0.2+	0.0
1998 09 26	704	1.0+	0.7−	2000 01 05	704	0.7+	0.1+	2000 02 12	704	0.7−	0.5−
1998 09 26	704	0.1+	0.3−	2000 01 05	704	0.0	0.1+				

2000 FEB. 22

M.P.C. 38423

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	221.58688		(2000.0)	P		Q					
<i>n</i>	0.26129402	ω	148.70669	+0.25395153	+0.96668999						
<i>a</i>	2.4231655	Ω	135.98220	-0.89662598	+0.24766660						
<i>e</i>	0.1205412	<i>i</i>	2.63312	-0.36272644	+0.06458888						
<i>P</i>	3.77	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	1				
Residuals in seconds of arc											
1960 09 24	675	0.2+	2.0+	1997 05 07	704	0.7+	0.1+	2000 01 30	691	0.3-	0.4-
1960 09 26	675	0.8+	0.7+	1997 05 07	704	0.5+	0.8-	2000 01 30	691	0.0	0.4-
1960 09 27	675	1.0+	0.3+	1998 10 14	699	0.2-	0.4+	2000 01 30	691	0.0	0.5-
1960 09 28	675	0.8+	0.4+	1998 10 14	699	0.9-	0.8-	2000 02 03	704	0.7-	0.5+
1960 10 17	675	1.7-	0.2+	1998 10 14	699	0.0	0.9-	2000 02 03	704	0.3+	0.8+
1960 10 22	675	1.3-	1.5-	2000 01 12	561	0.0	0.2+	2000 02 03	704	1.3+	0.3+
1960 10 24	675	0.3+	0.3-	2000 01 12	561	0.1+	0.7+	2000 02 03	704	0.7+	0.5+
1960 10 26	675	0.8-	0.2-	2000 01 12	561	0.2+	0.4+	2000 02 03	704	0.6+	0.2-
1993 03 19	809	(2.8-	1.6+)	2000 01 12	561	0.3-	0.5+	2000 02 04	691	0.2-	1.8-
1993 03 20	809	1.7-	0.8+	2000 01 12	561	0.1+	0.6+	2000 02 04	691	0.0	0.9-
1993 03 24	809	0.5-	0.4+	2000 01 12	561	0.2+	0.5+	2000 02 04	691	0.1+	0.9-
1993 04 18	413	1.6-	0.4+	2000 01 13	691	0.2-	0.1-	2000 02 11	704	0.5+	0.1+
1997 05 07	704	0.6+	0.2+	2000 01 13	691	0.2-	0.2+	2000 02 11	704	0.2+	0.4+
1997 05 07	704	0.6+	0.2+	2000 01 13	691	0.4-	0.0	2000 02 11	704	0.5+	0.1+

(13882)* 6637 P-L = 1997 LD₁₇ = 1998 RH₅₀

Discovered 1960 Sept. 24 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. G. V. Williams (*MPC* 32730)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	37.71872			(2000.0)			P		Q		
<i>n</i>	0.28512709		ω	321.95745			-0.49619036		-0.86763513		
<i>a</i>	2.2861799		Ω	157.73684			+0.81567074		-0.47835695		
<i>e</i>	0.1118448		<i>i</i>	4.79852			+0.29744977		-0.13558731		
<i>P</i>	3.46		<i>H</i>	15.2			<i>G</i>	0.15	<i>U</i>	1	
Residuals in seconds of arc											
1960 09 24	675	0.1-	0.3+	1998 08 26	691	1.0+	0.0	1998 09 27	704	0.2-	1.0+
1960 09 26	675	0.4+	0.2+	1998 09 14	704	0.2-	1.2-	1998 09 27	704	0.9+	0.4+
1960 09 27	675	0.4+	1.0+	1998 09 14	704	0.0	0.7+	1998 09 27	704	(0.2-	2.9+)
1960 09 28	675	0.9+	0.0	1998 09 14	704	0.9-	0.1-	2000 01 06	699	0.6-	1.3+
1960 10 17	675	1.1-	0.5-	1998 09 14	704	0.3-	0.2+	2000 01 06	699	0.5+	1.0+
1960 10 22	675	(2.9-	1.1-)	1998 09 14	704	0.3-	1.7+	2000 01 06	699	1.2-	0.9+
1960 10 24	675	0.9-	0.1-	1998 09 17	699	0.1-	0.8-	2000 01 08	704	0.0	0.9-
1960 10 26	675	0.4+	0.0	1998 09 17	699	0.0	0.1-	2000 01 08	704	0.3-	0.2+
1991 09 08	691	0.6-	0.6+	1998 09 17	699	0.0	0.9-	2000 01 08	704	0.2-	0.6-
1991 09 08	691	1.0-	0.0	1998 09 18	704	(2.1-	1.1+)	2000 01 08	704	0.5-	0.6-
1991 09 08	691	0.8-	0.1+	1998 09 18	704	0.5-	0.2-	2000 01 08	704	0.3-	0.2-
1997 06 08	809	0.0	0.7+	1998 09 18	704	(3.0-	1.0-)	2000 02 11	704	0.2+	0.1-
1997 06 08	809	0.2+	0.2+	1998 09 18	704	0.4-	0.5-	2000 02 11	704	0.8+	0.8+
1997 06 08	809	0.2+	0.3-	1998 09 26	704	0.8-	1.1+	2000 02 11	704	0.5+	0.2+
1997 06 09	809	0.6+	0.2-	1998 09 26	704	0.4+	0.2+	2000 02 16	703	0.7+	0.9+
1997 06 09	809	0.4-	0.6+	1998 09 26	704	0.2-	0.3-	2000 02 16	703	0.3+	0.3+
1997 06 09	809	0.3-	0.1+	1998 09 26	704	0.0	0.4+	2000 02 16	703	0.5+	0.5+
1998 08 26	691	1.0+	0.5-	1998 09 26	704	0.2+	1.4+	2000 02 16	703	0.1+	0.5+
1998 08 26	691	1.4+	0.1-	1998 09 27	704	(2.3+	2.1+)				

(13883)* 7066 P-L = 1992 UO₉

Discovered 1960 Oct. 17 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. A. Gnädig (*MPC* 32731)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	204.66658		(2000.0)	P		Q					
<i>n</i>	0.18702937	ω	109.72622	+0.69783090		+0.71100702					
<i>a</i>	3.0282810	Ω	205.20114	-0.70940491		+0.66938627					
<i>e</i>	0.1599506	<i>i</i>	11.73605	-0.09887726		+0.21538578					
<i>P</i>	5.27	<i>H</i>	12.2	<i>G</i>	0.15	<i>U</i>	2				
Residuals in seconds of arc											
1960 09 24	675	0.5+	0.8-	1997 10 30	704	0.2-	0.4-	1999 12 14	704	0.6+	0.0
1960 10 17	675	0.3+	0.3+	1997 10 30	704	0.1-	1.4+	1999 12 14	704	0.6+	0.3+
1960 10 22	675	0.3+	0.6-	1997 10 30	704	0.1-	0.0	2000 01 11	704	0.7+	0.7+
1960 10 24	675	0.8-	0.1+	1997 10 30	704	0.2+	0.1-	2000 01 11	704	0.1-	0.0
1960 10 26	675	0.6-	1.1-	1997 10 30	704	0.6-	0.3-	2000 01 11	704	0.6-	0.4+
1992 10 22	399	1.3+	1.5+	1997 11 18	910	0.8-	0.1-	2000 01 11	704	0.1-	0.0
1992 10 22	399	1.7+	0.1+	1997 11 18	910	0.5-	0.3-	2000 01 11	704	0.8-	0.0
1992 10 26	400	0.9+	1.1+	1997 11 18	910	0.6-	0.1-	2000 02 08	704	0.6+	0.1+
1992 10 26	400	0.3+	0.3+	1998 12 15	704	1.0-	0.6-	2000 02 08	704	0.3+	0.6+
1997 10 28	704	(3.4+	3.5-)	1998 12 15	704	0.8-	0.9+	2000 02 08	704	0.4+	0.4-
1997 10 28	704	(2.9+	2.8-)	1998 12 15	704	0.1+	1.8-	2000 02 08	704	0.3+	0.6-
1997 10 28	704	(3.0+	2.8-)	1998 12 15	704	0.4+	0.4-	2000 02 08	704	0.6+	0.8-
1997 10 28	704	(3.7+	2.9-)	1998 12 15	704	1.7-	0.3+	2000 02 10	106	0.0	0.6+
1997 10 28	704	(4.1+	4.1-)	1999 12 14	704	1.4-	0.0	2000 02 10	106	(0.6-	2.3-)

(13884)* 1064 T-1 = 1997 EL₂

Discovered 1971 Mar. 25 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. G. V. Williams (*MPC* 29314)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	295.87814		(2000.0)	P			Q				
n	0.30305097	ω	217.32399	-0.85139444			+0.52447012				
a	2.1951234	Ω	354.29280	-0.46076758			-0.75479816				
e	0.0855125	i	4.41508	-0.25064066			-0.39396806				
P	3.25	H	15.7	G	0.15		U	2			
Residuals in seconds of arc											
1971 03 24	675	1.1+	0.5-	1997 03 08	120	0.1+	0.3+	2000 01 04	704	1.0-	0.5-
1971 03 25	675	0.0	0.3+	1997 03 08	120	1.3+	0.1-	2000 01 05	699	1.0+	0.4+
1971 03 25	675	1.5-	0.9-	1998 08 26	691	0.3-	0.1-	2000 01 05	699	0.4+	0.4-
1971 03 26	675	1.1+	0.0	1998 08 26	691	0.8-	0.2-	2000 01 05	699	1.6+	1.2-
1971 03 27	675	0.9-	0.7+	1998 08 26	691	0.5-	0.4-	2000 01 06	704	0.1-	0.5-
1971 03 27	675	0.3-	0.6-	1998 09 13	691	0.4-	0.6+	2000 01 06	704	0.3+	0.7-
1997 03 04	120	0.6-	0.2+	1998 09 13	691	0.0	0.2+	2000 01 06	704	0.4-	0.2+
1997 03 04	120	0.1-	0.4-	1998 09 13	691	0.1-	0.2+	2000 01 06	704	0.0	0.7-
1997 03 04	120	0.9-	0.4+	1998 09 19	691	0.1+	0.4+	2000 02 11	704	0.4+	0.3+
1997 03 06	120	1.0-	0.2-	1998 09 19	691	0.9+	0.3+	2000 02 11	704	0.1+	0.3-
1997 03 06	120	0.2-	0.5+	1998 09 19	691	0.3+	0.3+	2000 02 11	704	0.6+	0.3+
1997 03 06	120	0.2-	0.1+	2000 01 04	704	1.1-	0.1+	2000 02 11	704	0.3+	1.5+
1997 03 08	120	0.5+	0.3-	2000 01 04	704	1.2-	1.0-	2000 02 11	704	0.0	1.5+
1997 03 08	120	0.9+	0.4+	2000 01 04	704	0.1-	0.5+				
1997 03 08	120	0.8+	0.4+	2000 01 04	704	1.2-	0.7+				

(13885)* 2104 T-1 = 1994 RG₂₃

Discovered 1971 Mar. 25 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. T. Kobayashi (*MPC* 25076)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	268.04097		(2000.0)	P		Q		Williams	
<i>n</i>	0.26743056	ω	205.15399	-0.68033490	+0.73271429				
<i>a</i>	2.3859538	Ω	21.98837	-0.66472521	-0.60737520				
<i>e</i>	0.1434099	<i>i</i>	2.53475	-0.30868241	-0.30696113				
<i>P</i>	3.69	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	1		

Residuals in seconds of arc

1971 03 24	675	0.4−	1.2−	1998 09 26	704	0.3−	0.4−	2000 01 04	704	0.3+	1.0+
1971 03 25	675	0.0	0.6+	1998 09 26	704	0.7+	0.3+	2000 01 07	704	0.1−	0.4−
1971 03 25	675	0.3−	0.8+	1998 09 26	704	1.6+	0.8−	2000 01 07	704	0.1+	0.4+
1971 03 26	675	1.0+	0.5+	1998 09 26	704	(2.3+	0.6−)	2000 01 07	704	0.4+	0.0
1971 03 27	675	0.3−	0.3−	1998 09 27	704	0.7+	0.6−	2000 01 07	704	0.1+	0.1+
1971 04 02	675	0.1+	0.2−	1998 09 27	704	0.6+	0.3−	2000 01 07	704	0.6−	0.5−
1994 09 05	809	(5.3+	3.3+)	1998 09 27	704	0.1+	0.8+	2000 01 07	704	0.2+	0.6−
1994 09 05	809	(4.1+	2.4+)	1998 09 27	704	0.0	1.8+	2000 01 07	704	0.0	0.8−
1994 09 05	809	(5.4+	3.3+)	1998 09 27	704	0.8−	1.0−	2000 01 07	704	0.1+	0.5−
1994 09 06	809	(4.2+	1.6+)	1998 10 01	691	0.7−	0.2−	2000 01 07	704	0.4+	0.5−
1994 09 06	809	(4.5+	2.2+)	1998 10 01	691	1.0−	0.3−	2000 01 30	704	0.0	0.6+
1994 09 06	809	(4.5+	2.5+)	1998 10 01	691	0.5−	0.1−	2000 01 30	704	0.2+	0.4+
1997 04 07	367	0.0	0.8−	2000 01 03	704	0.2−	0.3−	2000 01 30	704	0.1−	0.4+
1997 04 07	367	0.6−	0.7−	2000 01 03	704	1.5+	0.0	2000 01 30	704	0.3−	0.1−
1997 04 09	367	0.4−	0.6−	2000 01 03	704	0.3+	1.0−	2000 01 30	704	1.2−	0.4+
1997 04 09	367	0.0	0.6−	2000 01 03	704	0.1+	0.2−	2000 02 11	704	0.6−	0.2+
1998 09 18	704	1.0+	0.8+	2000 01 03	704	0.3+	0.1+	2000 02 11	704	0.5−	0.5+
1998 09 18	704	(2.3−	0.0)	2000 01 04	704	0.2−	0.7−	2000 02 11	704	1.1−	0.6−
1998 09 18	704	0.5−	0.6−	2000 01 04	704	0.2−	0.7−	2000 02 11	704	0.2−	1.2+
1998 09 18	704	1.2+	1.3−	2000 01 04	704	0.3+	0.1−				
1998 09 26	704	0.6−	0.9−	2000 01 04	704	0.8+	0.1+				

(13886)* 2312 T-1 = 3115 T-2

Discovered 1971 Mar. 25 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. G. V. Williams (*MPC* 19322)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>		117.89010	(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.20303463	ω	11.17599	+0.67804465	−0.73454748
<i>a</i>	2.8669666	Ω	36.14189	+0.67087410	+0.60381321
<i>e</i>	0.0504983	<i>i</i>	2.56275	+0.30030549	+0.30959588
<i>P</i>	4.85	<i>H</i>	13.9	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1949 11 23	675	1.1−	0.2+	1973 09 19	675	0.9−	1.1+	1998 12 14	704	(2.3−	1.1−)
1949 11 23	675	0.4+	0.5−	1973 09 20	675	0.9−	0.1+	1998 12 17	704	0.6−	0.5+
1951 02 04	675	1.3+	0.5+	1973 09 24	675	0.2−	0.3−	1998 12 17	704	0.1+	0.4−
1951 02 04	675	0.4+	0.0	1973 09 24	675	1.2−	0.2+	1998 12 17	704	0.3+	1.0−
1971 03 24	675	(2.5+	3.4−)	1973 09 25	675	0.2+	2.0−	1998 12 17	704	0.9+	0.5−
1971 03 24	675	(0.1+	3.1−)	1973 09 25	675	0.2−	1.5−	1998 12 17	704	1.1+	0.8−
1971 03 25	675	0.7−	2.2−	1973 09 29	675	0.5+	0.5−	1999 12 09	703	0.7+	0.9−
1971 03 25	675	1.4−	0.8−	1973 09 29	675	0.4+	0.7−	1999 12 09	703	0.1−	0.3+
1971 03 26	675	2.3−	0.3−	1973 09 30	675	0.4+	1.3−	1999 12 09	703	0.8+	0.3−
1971 03 26	675	(1.8−	3.5−)	1973 09 30	675	0.4+	1.0−	1999 12 09	703	1.9+	0.3−
1971 03 26	675	1.2−	2.0−	1973 10 04	675	(2.6+	0.6−)	2000 02 06	704	0.0	0.4+
1971 03 27	675	1.1+	1.6−	1973 10 04	675	2.4+	1.1−	2000 02 06	704	0.8−	0.7+
1971 04 02	675	0.6+	2.3−	1973 10 05	675	2.0+	0.9−	2000 02 06	704	0.7−	0.2+
1971 04 16	675	0.0	0.1−	1973 10 05	675	2.4+	2.3−	2000 02 06	704	0.2+	1.0+
1971 04 16	675	0.8−	0.7+	1998 12 14	704	0.0	0.4+	2000 02 11	704	0.9+	0.1−
1971 05 13	675	0.7−	1.2+	1998 12 14	704	1.1−	0.7−	2000 02 11	704	0.1−	0.2−
1971 05 14	675	1.5−	0.1+	1998 12 14	704	0.9−	0.4+	2000 02 11	704	0.1+	1.6−
1973 09 19	675	0.0	2.2+	1998 12 14	704	1.2−	1.5+	2000 02 11	704	0.3−	1.6−

(13887)* 3041 T-1 = 1997 CA₂₉

Discovered 1971 Mar. 26 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. A. Milani (*MPC* 34269)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>		97.42968	(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.22338381	ω	338.17235	+0.65849332	+0.75135699
<i>a</i>	2.6900990	Ω	332.95505	−0.67574280	+0.56513750
<i>e</i>	0.1995131	<i>i</i>	5.42689	−0.33129777	+0.34070849
<i>P</i>	4.41	<i>H</i>	14.2	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1971 03 25	675	2.3+	1.6+	1999 10 13	704	0.6−	0.1+	1999 12 07	703	1.1−	0.9+
1971 03 26	675	0.1−	0.7+	1999 10 13	704	0.1−	0.3−	1999 12 07	703	0.2+	0.2−
1971 03 26	675	0.9−	0.7+	1999 10 13	704	0.3−	0.6−	1999 12 07	703	0.3−	0.2−
1971 03 27	675	(3.1+	1.4−)	1999 10 13	704	0.3−	0.0	1999 12 08	704	0.3+	0.7+
1971 03 27	675	1.1+	1.5+	1999 10 15	699	0.5+	1.6+	1999 12 08	704	0.0	0.1−
1971 04 02	675	(2.6−	1.5+)	1999 10 15	699	0.6−	1.8+	1999 12 08	704	0.0	0.1+
1997 02 07	327	0.3+	0.3+	1999 10 15	699	0.9−	1.7+	1999 12 08	704	0.1+	0.1−
1997 02 07	327	0.4+	0.3−	1999 11 03	704	0.2+	0.2−	1999 12 08	704	0.5+	0.1−
1997 02 07	327	1.1−	0.2+	1999 11 03	704	0.2−	0.2−	1999 12 13	703	0.1+	0.1+
1997 02 10	691	0.1−	0.2+	1999 11 03	704	0.5+	0.6+	1999 12 13	703	0.0	0.4+
1997 02 10	691	0.1+	0.1−	1999 11 03	704	0.5+	0.0	1999 12 13	703	0.2−	0.3−
1997 02 10	691	0.1+	0.5−	1999 11 03	704	0.7+	0.6+	1999 12 13	703	0.4−	1.0−
1997 02 14	327	0.9−	0.5−	1999 11 09	699	0.0	0.6+	2000 01 04	704	0.3−	0.2+
1997 02 14	327	0.7−	0.1+	1999 11 09	699	0.0	0.1−	2000 01 04	704	0.0	0.3+
1997 02 14	327	0.4−	0.2−	1999 11 09	699	0.4−	0.2−	2000 01 04	704	0.5+	0.5+
1997 03 11	327	0.3−	0.1−	1999 11 13	703	0.5−	0.3−	2000 01 04	704	0.6+	0.8−
1997 03 11	327	0.8+	0.3−	1999 11 13	703	0.2−	0.4−	2000 01 06	704	0.6−	0.2−
1997 03 11	327	0.4+	0.5−	1999 11 13	703	0.5−	0.5+	2000 01 06	704	0.7+	0.4+
1998 05 24	704	0.1−	0.3−	1999 11 13	703	0.1−	0.3−	2000 01 06	704	0.6+	1.2+
1998 05 24	704	0.9+	1.2+	1999 12 05	703	0.5−	0.2+	2000 01 06	704	1.2+	0.2−
1998 05 24	704	0.8−	1.0+	1999 12 05	703	1.1+	0.6−	2000 01 08	704	0.2+	0.8+
1998 05 24	704	0.6+	0.9+	1999 12 05	703	1.0−	0.1+	2000 01 08	704	0.9−	0.7+
1998 05 24	704	(3.6−	2.1+)	1999 12 05	703	0.3+	0.1+	2000 01 08	704	1.3−	0.6−
1999 10 13	704	0.2+	0.5−	1999 12 07	703	0.6+	0.3+	2000 01 08	704	0.4−	0.3−

(13888)* 3290 T-1 = 1998 SZ₁₆₀

Discovered 1971 Mar. 26 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. E. Bowell (*MPC* 33056), G. V. Williams (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>		241.51828	(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.26796589	ω	272.26635	−0.06678695	+0.99769960
<i>a</i>	2.3827750	Ω	353.86782	−0.86675100	−0.06378203
<i>e</i>	0.0905449	<i>i</i>	6.24477	−0.49424914	−0.02296448
<i>P</i>	3.68	<i>H</i>	14.7	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1971 03 24	675	0.1+	0.7+	1998 09 27	704	0.1−	0.0	2000 01 04	704	0.3+	1.1−
1971 03 25	675	1.1+	0.1+	1998 09 27	704	0.8−	1.4+	2000 01 04	704	0.4−	0.6−
1971 03 26	675	1.2−	0.1−	1998 09 27	704	(0.2−	2.2+)	2000 01 06	704	0.4−	0.1+
1971 03 26	675	1.0−	0.5+	1998 09 27	704	1.5+	0.0	2000 01 06	704	0.7+	0.4−
1971 03 27	675	1.8−	1.0+	1998 10 17	699	0.6+	1.3+	2000 01 06	704	0.5−	1.0−
1971 04 02	675	0.8+	0.9−	1998 10 17	699	0.5−	0.2+	2000 01 06	699	1.2+	0.7−
1971 04 16	675	2.1+	0.2+	1998 10 17	699	0.3+	0.7+	2000 01 06	704	0.4+	0.2−
1971 04 16	675	0.4+	0.8−	1998 10 28	704	0.8−	1.2−	2000 01 06	704	0.2−	0.3−
1971 05 13	675	1.2−	1.5+	1998 10 28	704	0.3−	1.4−	2000 01 06	699	0.7+	0.4+
1971 05 14	675	0.8+	0.5−	1998 10 28	704	(2.0−	1.9−)	2000 01 06	699	0.2−	1.1+
1971 05 14	675	0.0	0.3+	1998 10 28	704	(0.8−	2.5−)	2000 01 30	704	0.5+	0.9+
1971 05 14	675	0.7+	0.7+	1998 10 28	704	(3.2−	0.0)	2000 01 30	704	0.0	0.2+
1971 05 16	675	1.5+	1.1+	1998 10 29	704	0.2+	0.3−	2000 01 30	704	0.3−	0.3+
1993 03 25	691	0.3−	0.5−	1998 10 29	704	0.2+	0.2+	2000 01 30	704	0.5+	0.0
1993 03 25	691	0.1−	0.5−	1998 10 29	704	1.4−	0.7+	2000 02 10	704	0.2−	0.2+
1993 03 25	691	0.0	0.2−	1998 10 29	704	(2.8−	1.1+)	2000 02 10	704	0.4+	0.3−
1998 09 14	699	0.1−	0.3−	1998 10 29	704	0.8+	1.1+	2000 02 10	704	0.5+	1.4−
1998 09 14	699	0.9−	0.2−	1998 11 10	704	0.8−	0.8+	2000 02 10	704	0.4−	0.8+
1998 09 14	699	0.9−	0.3+	1998 11 10	704	1.7+	0.8−	2000 02 10	704	0.2−	0.3+
1998 09 26	704	0.1−	0.5+	1998 11 10	704	0.5+	0.3+	2000 02 11	704	0.0	0.4+
1998 09 26	704	(0.9−	2.2−)	1998 11 10	704	(2.3+	1.3+)	2000 02 11	704	0.5−	0.1+
1998 09 26	704	1.2−	0.9−	2000 01 04	704	0.4−	0.4−	2000 02 11	704	0.5−	0.9+
1998 09 26	704	0.5−	0.2−	2000 01 04	704	0.2−	0.1−	2000 02 11	704	0.2−	0.6+
1998 09 26	704	0.9+	1.1+	2000 01 04	704	0.2−	0.4−	2000 02 11	704	0.6−	0.7+

Id. G. V. Williams (*MPC* 19326)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	331.84035	(2000.0)	P		Q	
<i>n</i>	0.26954940	ω	37.76989	−0.99912393	−0.02865192	
<i>a</i>	2.3734339	Ω	140.55506	+0.01562229	−0.93154037	
<i>e</i>	0.1757571	<i>i</i>	2.75188	+0.03882412	−0.36250738	
<i>P</i>	3.66	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i> 2

Residuals in seconds of arc

1971 03 24	675	0.0	0.7+	1999 12 05	699	0.9−	0.1+	2000 01 06	691	0.3−	0.5−
1971 03 26	675	0.6−	0.4+	1999 12 05	699	0.3+	0.0	2000 01 06	691	0.3−	0.6−
1971 03 26	675	0.5−	0.0	1999 12 06	704	0.1−	0.2−	2000 01 09	704	0.4+	1.9−
1971 03 27	675	2.4−	0.9−	1999 12 06	704	0.3+	0.3+	2000 01 09	704	1.6−	1.1−
1971 04 02	675	0.9−	0.5−	1999 12 06	704	0.0	0.2−	2000 01 09	704	0.2−	0.1−
1971 04 16	675	0.9+	1.0−	1999 12 06	704	0.6+	0.0	2000 01 09	704	0.5−	0.7+
1971 04 16	675	0.7+	1.0−	1999 12 06	704	0.0	0.1+	2000 01 30	703	0.2−	0.5−
1971 05 13	675	0.3+	0.4+	1999 12 07	704	0.5+	0.0	2000 01 30	703	0.1−	0.2−
1971 05 14	675	1.1+	0.2−	1999 12 07	704	0.1+	0.2+	2000 01 30	703	0.4+	0.0
1971 05 16	675	1.1+	0.4−	1999 12 07	704	0.1−	0.4−	2000 01 30	703	0.1+	0.1+
1979 07 24	675	0.2−	0.5−	1999 12 07	704	0.8−	0.9−	2000 01 30	704	0.3−	0.1+
1979 07 25	675	0.0	0.8+	1999 12 07	704	0.3+	0.0	2000 01 30	704	0.1−	0.2+
1989 01 08	675	0.2+	0.4−	1999 12 30	106	0.7+	0.0	2000 01 30	704	0.6−	0.5+
1989 01 08	675	0.2−	0.1−	1999 12 30	106	0.5+	0.2+	2000 02 02	704	0.1+	0.0
1998 09 26	704	1.0−	1.2−	1999 12 30	106	0.2+	0.2+	2000 02 02	704	0.1+	0.1−
1998 09 26	704	0.3−	0.3+	1999 12 31	699	0.3+	0.2−	2000 02 02	704	0.2−	0.2+
1998 09 26	704	0.4−	0.1+	1999 12 31	699	0.2−	0.1−	2000 02 02	704	0.1+	0.2+
1998 09 26	704	0.3−	0.8−	1999 12 31	699	0.2−	0.1+	2000 02 02	704	0.1−	0.1−
1998 09 27	704	0.8+	1.2−	2000 01 05	704	0.1+	0.1+	2000 02 03	704	0.1+	0.1−
1998 09 27	704	0.7+	1.1+	2000 01 05	704	0.1+	0.4−	2000 02 03	704	0.1−	0.0
1998 09 27	704	0.6+	0.6−	2000 01 05	704	0.5−	0.3−	2000 02 03	704	0.1+	0.2−
1998 09 27	704	0.9+	0.4−	2000 01 05	704	0.3−	0.8+	2000 02 03	704	0.0	0.2+
1998 09 27	704	(4.4− 1.3−)		2000 01 05	704	0.4−	0.9+	2000 02 03	704	0.1+	0.2+
1999 11 17	704	0.6+	0.5−	2000 01 06	704	0.1+	1.1+	2000 02 05	704	0.6+	0.2−
1999 11 17	704	0.3−	0.3+	2000 01 06	704	0.4−	0.6+	2000 02 05	704	0.8+	0.3+
1999 11 17	704	0.2−	1.5−	2000 01 06	704	0.1−	0.2+	2000 02 05	704	0.2+	0.3+
1999 11 17	704	0.7+	0.9+	2000 01 06	704	0.5−	0.7+	2000 02 05	704	0.8+	0.0
1999 11 17	704	0.2+	0.8+	2000 01 06	704	0.9−	0.0	2000 02 05	704	1.0+	0.2−
1999 12 05	699	0.4+	0.5+	2000 01 06	691	0.2−	0.0				

(13890)* 1186 T-2 = 1996 KP₄ = 1998 RB₃₈ = 1999 XE₃₉

Discovered 1973 Sept. 29 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. M. E. Sansaturio (*MPC* 38006)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	0.88281	(2000.0)	P		Q	
<i>n</i>	0.15629412	ω	251.00568	+0.17887547	−0.98376023	
<i>a</i>	3.4132986	Ω	188.72994	+0.93540977	+0.17471187	
<i>e</i>	0.0527112	<i>i</i>	5.60015	+0.30497889	+0.04112870	
<i>P</i>	6.31	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i> 1

Residuals in seconds of arc

1973 09 19	675	1.8−	1.0−	1998 08 17	704	1.6+	0.8−	1999 12 03	699	0.2+	0.5−
1973 09 19	675	0.2−	1.2−	1998 08 17	704	(3.0− 0.4+)		1999 12 03	699	0.6+	0.7−
1973 09 20	675	0.4+	1.9−	1998 09 14	704	0.5−	1.7+	1999 12 03	699	0.7+	0.5−
1973 09 24	675	0.7+	0.7−	1998 09 14	704	0.7+	0.1+	1999 12 06	704	0.2−	0.1−
1973 09 24	675	0.8−	1.5−	1998 09 14	704	0.4+	1.3−	1999 12 06	704	0.1+	0.0
1973 09 25	675	(2.3− 2.6−)		1998 09 14	704	1.2+	0.1+	1999 12 06	704	0.1+	0.1−
1973 09 25	675	1.6−	1.2−	1998 09 18	704	1.2−	1.1+	1999 12 06	704	0.1+	0.6+
1973 09 29	675	0.8+	0.5−	1998 09 18	704	1.1−	1.1+	1999 12 06	704	0.7+	0.2−
1973 09 29	675	1.5+	0.8−	1998 09 18	704	0.7+	0.9+	1999 12 08	704	0.2−	0.1−
1973 09 30	675	0.9+	0.7+	1998 09 18	704	0.5−	1.0+	1999 12 08	704	0.1−	0.1+
1973 09 30	675	0.9+	0.3+	1998 09 18	704	1.9−	0.9+	1999 12 08	704	0.5−	0.4+
1973 10 04	675	0.8+	1.0+	1999 11 04	704	0.4−	1.1−	1999 12 08	704	0.6−	0.2+
1973 10 04	675	0.2−	1.0+	1999 11 04	704	0.7−	0.9−	1999 12 08	704	1.1−	0.1+
1973 10 05	675	0.3+	0.5+	1999 11 04	704	0.4−	0.6−	1999 12 14	704	0.4−	1.3+

1973 10 05	675	(2.7+ 1.5+)		1999 11 04	704	0.4+	0.2+	1999 12 14	704	0.3−	1.2+
1996 05 22	809	(2.7+ 2.9+)		1999 11 04	704	0.1−	0.2+	1999 12 14	704	0.2−	1.4+
1996 05 22	809	(2.0+ 2.3+)		1999 11 17	704	1.0+	0.7−	1999 12 30	699	0.2−	1.3+
1996 05 22	809	(2.2+ 2.2+)		1999 11 17	704	0.4+	1.1−	1999 12 30	699	0.0	1.7+
1996 05 24	809	0.4+	0.6+	1999 11 17	704	0.4+	0.2−	2000 01 07	704	1.3−	1.2+
1996 05 24	809	0.6+	0.8+	1999 11 17	704	0.2−	0.2−	2000 01 07	704	0.4−	0.1+
1996 05 24	809	0.4−	0.8+	1999 11 17	704	0.4+	0.3+	2000 01 07	704	1.2−	0.5+
1998 08 17	704	0.0	0.7+	1999 11 28	049	1.7+	0.6−	2000 01 07	704	1.3−	0.2+
1998 08 17	704	0.5−	0.6+	1999 11 28	049	(2.1+ 0.7−)					
1998 08 17	704	1.4−	0.6+	1999 11 28	049	1.8+	0.5−				

(13891)* 1237 T-2 = 1993 SP₁₂

Discovered 1973 Sept. 29 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. T. Kobayashi (*MPC* 24236)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	342.95819	(2000.0)	P		Q	
<i>n</i>	0.19706298	ω	134.54261	−0.57085794	−0.82103803	
<i>a</i>	2.9245969	Ω	350.26485	+0.74605262	−0.51656381	
<i>e</i>	0.0326981	<i>i</i>	1.42867	+0.34282168	−0.24301932	
<i>P</i>	5.00	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i> 1

Residuals in seconds of arc

1973 09 19	675	0.7−	1.9−	1993 09 19	675	1.3−	0.5+	1998 10 27	691	0.6−	0.3−
1973 09 19	675	0.2−	0.2−	1993 09 23	809	0.0	0.6−	1998 10 27	691	1.3−	0.2+
1973 09 20	675	0.2−	0.7−	1993 09 23	809	1.1−	1.7−	1998 10 27	691	0.8−	0.1+
1973 09 24	675	1.0−	0.2−	1993 09 23	809	(2.4− 3.9−)		1999 12 07	704	1.6+	1.4+
1973 09 24	675	1.2−	1.1−	1997 06 29	704	1.0+	0.1+	1999 12 07	704	1.0−	0.8+
1973 09 25	675	1.6−	2.1−	1997 06 29	704	0.2+	0.0	1999 12 07	704	0.3+	0.1−
1973 09 25	675	0.9−	1.0−	1997 06 29	704	0.0	1.2−	1999 12 07	704	0.5−	0.1−
1973 09 29	675	1.6+	0.4+	1997 06 29	704	0.6+	0.7−	2000 01 03	704	0.3−	1.5−
1973 09 29	675	1.1+	0.8−	1997 06 29	704	1.6−	0.2+	2000 01 03	704	0.1−	1.2−
1973 09 30	675	1.1+	2.4+	1998 09 16	699	0.1+	1.5+	2000 01 03	704	0.0	0.4−
1973 09 30	675	2.1+	1.0+	1998 09 16	699	0.2−	1.0+	2000 01 03	704	0.1+	0.8−
1973 10 04	675	1.2+	0.3−	1998 09 16	699	0.1+	0.3−	2000 01 04	704	0.2−	0.3+
1973 10 04	675	0.0	0.8+	1998 09 27	704	0.2−	0.9+	2000 01 04	704	0.1−	0.8−
1973 10 05	675	0.1+	0.1+	1998 09 27	704	1.5+	0.8+	2000 01 04	704	0.2−	0.1+
1973 10 05	675	0.3+	1.1+	1998 09 27	704	1.2+	1.5+	2000 01 04	704	0.6+	0.9−
1993 09 16	809	1.3+	1.5−	1998 09 27	704	0.6−	1.1+	2000 01 25	704	0.0	0.3+
1993 09 16	809	0.3−	1.1−	1998 10 01	691	0.1+	0.5+	2000 01 25	704	0.3−	0.1+
1993 09 16	809	(1.0− 2.4−)		1998 10 01	691	0.1+	0.4+	2000 01 25	704	0.2+	1.2+
1993 09 18	675	0.9−	0.5−	1998 10 01	691	0.5+	0.1+				

(13892)* 1266 T-2 = 1991 RW₁

Discovered 1973 Sept. 29 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. G. V. Williams (*MPC* 19035)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	151.88987	(2000.0)	P		Q	
<i>n</i>	0.27259516	ω	324.03537	+0.72757813	+0.68587687	
<i>a</i>	2.3557215	Ω	352.60957	−0.60070533	+0.62692310	
<i>e</i>	0.0637763	<i>i</i>	6.35910	−0.33133543	+0.36951366	
<i>P</i>	3.62	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i> 1

Residuals in seconds of arc

1973 09 19	675	1.4−	0.7+	1997 03 09	540	0.3+	0.4+	1998 08 29	699	0.0	0.6+
1973 09 19	675	0.8+	0.9−	1997 03 09	540	0.2−	0.8+	1998 08 29	699	0.5+	0.0
1973 09 19	675	(2.9−	0.6+)	1997 03 10	552	0.9−	0.1−	1998 09 14	699	0.5−	0.2+
1973 09 19	675	1.7+	0.2−	1997 03 10	552	0.8−	0.2−	1998 09 14	699	0.5−	1.3+
1973 09 20	675	(3.3−	1.1+)	1997 03 11	552	0.5−	0.4−	1998 09 14	699	0.8−	1.2+
1973 09 24	675	2.4−	0.6+	1997 03 11	540	0.1+	0.4−	1999 12 15	704	0.6+	0.3+
1973 09 24	675	1.2−	0.8+	1997 03 11	540	0.1−	0.3−	1999 12 15	704	0.3+	0.5+
1973 09 25	675	(2.8−	1.4−)	1997 03 11	552	0.0	0.5−	1999 12 15	704	0.3−	0.4+
1973 09 25	675	1.4−	0.1+	1997 03 11	552	0.0	0.6−	1999 12 15	704	0.6+	1.0+
1973 09 29	675	1.2+	1.8−	1997 03 15	552	0.5−	0.0	2000 01 02	704	0.8+	0.1+

1973 09 29	675	0.4+	0.0	1997 03 15	552	0.2-	0.1+	2000 01 02	704	0.3-	0.6+
1973 09 30	675	0.4+	0.6+	1997 03 15	552	0.1-	0.2-	2000 01 02	704	0.0	0.9+
1973 09 30	675	0.8+	0.8+	1997 03 15	552	0.2-	0.1-	2000 01 02	704	0.7+	0.8+
1973 10 04	675	1.7+	1.5-	1997 03 15	552	0.2-	0.1-	2000 01 02	704	0.3+	0.4+
1973 10 04	675	1.7+	0.9-	1997 03 15	552	0.3-	0.4+	2000 01 29	704	0.2-	0.2-
1973 10 05	675	0.1+	0.7-	1997 04 28	704	0.8-	0.4+	2000 01 29	704	0.3-	0.8-
1973 10 05	675	0.6+	0.7-	1997 04 28	704	1.0-	0.3+	2000 01 29	704	0.1+	0.7-
1991 09 06	511	1.5+	0.2-	1997 04 28	704	1.0-	0.2-	2000 01 29	704	0.2-	0.8-
1991 09 06	511	(0.4- 2.2-)		1997 04 28	704	0.3-	0.4-	2000 01 29	704	0.2+	0.3-
1991 09 07	511	(6.5+ 13.6+)		1997 04 29	704	1.4+	0.2-	2000 01 30	704	0.4-	0.4-
1991 09 07	511	0.4-	0.4-	1997 04 29	704	1.5+	0.3-	2000 01 30	704	0.0	0.8+
1991 09 10	691	0.6-	0.5+	1997 04 29	704	1.2+	0.7-	2000 01 30	704	0.1-	0.5+
1991 09 10	691	0.4-	0.1+	1997 04 29	704	1.0+	0.3-	2000 01 30	704	0.1-	0.3-
1991 09 10	691	0.3-	0.3+	1997 04 29	704	0.1-	0.6-	2000 02 11	704	0.3-	0.0
1991 09 13	675	0.1-	0.7-	1998 08 17	704	0.3+	0.9+	2000 02 11	704	0.2+	0.7-
1991 09 13	675	0.8-	0.7-	1998 08 17	704	1.9+	0.4-	2000 02 11	704	0.6+	0.1+
1991 09 16	675	0.7-	0.8-	1998 08 17	704	(2.2+ 1.4-)		2000 02 11	704	0.2+	0.3-
1991 09 16	675	0.4-	0.8-	1998 08 17	704	(2.5+ 2.0-)		2000 02 11	704	0.5-	0.1-
1997 03 09	540	0.2-	0.5+	1998 08 29	699	0.0	0.4-				

(13893)* 1296 T-2 = 1993 OM₅

Discovered 1973 Sept. 29 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. B. G. Marsden (*MPC* 22597)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		283.68325		(2000.0)		P		Q	
<i>n</i>		0.23906402	ω	52.70407		-0.82116555		+0.57058546	
<i>a</i>		2.5711450	Ω	162.07879		-0.53419206		-0.76177095	
<i>e</i>		0.1445616	<i>i</i>	2.03486		-0.20081332		-0.30681795	
<i>P</i>		4.12	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	1	

Residuals in seconds of arc

1973 09 19	675	1.1-	0.8-	1993 07 20	809	0.7-	0.6+	2000 01 05	704	0.2+	0.5-
1973 09 19	675	1.9+	2.1+	1993 07 20	809	1.7-	0.5+	2000 01 05	704	0.3-	0.9-
1973 09 19	675	0.2+	0.4+	1993 07 24	809	0.9+	1.0+	2000 01 05	704	0.3+	1.0-
1973 09 20	675	1.6-	0.3-	1996 01 13	691	0.2-	0.4+	2000 01 05	704	0.1+	0.9-
1973 09 24	675	1.4+	1.3-	1996 01 13	691	0.1-	0.2+	2000 01 05	704	0.6+	1.0-
1973 09 24	675	0.5-	1.5+	1996 01 13	691	0.3-	0.2+	2000 02 02	704	0.2+	0.3+
1973 09 24	675	0.0	0.1-	1996 01 19	691	0.1-	0.4+	2000 02 02	704	0.2-	0.5+
1973 09 25	675	0.0	0.3+	1996 01 19	691	0.7-	0.2+	2000 02 02	704	0.2-	0.1-
1973 09 25	675	1.9+	0.0	1996 01 19	691	0.2-	0.2+	2000 02 02	704	0.7-	0.7+
1973 09 29	675	0.2+	0.7-	1997 07 02	704	0.1-	0.2-	2000 02 02	704	0.9+	0.5+
1973 09 29	675	0.7-	0.5-	1997 07 02	704	0.1+	0.9+	2000 02 03	704	0.3+	0.1+
1973 09 30	675	0.5-	0.4-	1997 07 02	704	1.1+	0.0	2000 02 03	704	0.4+	0.4+
1973 09 30	675	0.1-	0.5-	1997 07 02	704	0.2+	0.4-	2000 02 03	704	0.5-	0.2+
1973 10 04	675	1.2+	0.0	1998 10 21	360	0.6-	0.8+	2000 02 03	704	0.5+	0.7+
1973 10 04	675	0.8-	1.6-	1998 10 21	360	0.3-	0.6+	2000 02 03	704	0.1+	0.5+
1993 07 20	809	0.1-	1.5-	1998 10 21	360	0.7-	0.8+				

(13894)* 2039 T-2 = 1998 QY₁₈

Discovered 1973 Sept. 29 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. G. V. Williams (*MPC* 32504)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		280.52990		(2000.0)		P		Q	
<i>n</i>		0.27203519	ω	189.53502		-0.98662228		+0.16302264	
<i>a</i>		2.3589532	Ω	359.84635		-0.14099459		-0.85425125	
<i>e</i>		0.0511850	<i>i</i>	6.58556		-0.08183521		-0.49363794	
<i>P</i>		3.62	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	1	

Residuals in seconds of arc

1973 09 19	675	0.4+	0.6+	1998 08 17	704	0.4-	0.9+	1999 12 15	704	0.1-	0.0
1973 09 19	675	0.1-	0.5-	1998 08 17	704	0.1-	1.1+	1999 12 15	704	0.5-	0.0
1973 09 20	675	0.6-	1.5-	1998 08 17	704	0.9-	0.8+	1999 12 15	704	0.4-	0.3-
1973 09 24	675	0.1-	0.4+	1998 08 17	704	0.3-	0.8+	1999 12 15	704	0.2-	0.4-

1973 09 24	675	0.1+	1.0+	1998 08 23	704	1.4-	0.3+	2000 01 02	704	0.2+	0.4+
1973 09 25	675	0.9+	2.3-	1998 08 23	704	0.3+	1.6+	2000 01 02	704	0.1+	0.1+
1973 09 25	675	1.5+	1.5-	1998 08 23	704	0.3+	0.7+	2000 01 02	704	0.8+	0.4+
1973 09 29	675	0.4+	0.4+	1998 09 14	699	0.8-	1.6+	2000 01 02	704	0.5+	0.0
1973 09 29	675	0.2+	0.6+	1998 09 14	699	0.5-	1.4+	2000 01 02	704	0.8+	0.3+
1973 09 30	675	2.0+	0.2-	1998 09 14	699	0.8-	1.6+	2000 01 29	704	1.2-	1.3+
1973 09 30	675	0.0	0.4-	1999 10 14	704	0.0	0.5-	2000 01 29	704	0.4-	0.8+
1973 09 30	675	2.4+	0.3+	1999 10 14	704	0.0	0.3+	2000 01 29	704	0.0	0.5+
1973 09 30	675	0.5-	0.1-	1999 10 14	704	0.1-	0.4+	2000 01 29	704	1.4-	0.5+
1973 10 04	675	0.1-	0.9-	1999 10 14	704	0.5-	0.6+	2000 01 29	704	1.1-	1.0-
1973 10 04	675	1.0-	1.4-	1999 10 14	704	0.4-	0.7+	2000 01 30	704	0.6+	1.0+
1973 10 04	675	0.2+	0.5-	1999 12 01	106	0.4-	0.9+	2000 01 30	704	0.1-	0.2-
1973 10 04	675	0.6-	0.1-	1999 12 01	106	0.6-	0.6+	2000 01 30	704	0.3+	0.2-
1973 10 05	675	0.3+	1.8-	1999 12 07	560	0.5+	0.3-	2000 01 30	704	0.6+	0.4-
1973 10 05	675	0.3+	1.3-	1999 12 07	560	1.4-	0.5+	2000 01 30	704	0.4-	0.6-
1973 10 05	675	0.3+	1.2-	1999 12 12	704	1.3+	0.1-	2000 02 11	704	0.2+	0.4+
1973 10 05	675	0.5+	0.9-	1999 12 12	704	0.3-	0.1+	2000 02 11	704	0.2+	1.3+
1997 04 12	658	0.4-	0.6-	1999 12 12	704	0.0	0.4+	2000 02 11	704	0.3+	0.3+
1997 04 12	658	0.5-	0.5-	1999 12 12	704	0.1+	0.4+	2000 02 11	704	0.9+	0.4+
1997 04 12	658	0.5-	0.7-	1999 12 12	704	0.3+	0.8+	2000 02 11	704	1.6+	0.4-
1997 04 12	658	0.4-	0.6-	1999 12 15	704	0.2-	0.2+				

(13895)* 2168 T-2 = 1978 SS

Discovered 1973 Sept. 29 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. D. W. E. Green (*MPC* 15083), T. Kobayashi (*ibid.*)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		77.14237		(2000.0)		P		Q	
<i>n</i>		0.19612953	ω	185.07572		+0.91839830		-0.39555605	
<i>a</i>		2.9338690	Ω	198.23288		+0.36400678		+0.85357378	
<i>e</i>		0.1196132	<i>i</i>	1.63787		+0.15506008		+0.33903866	
<i>P</i>		5.03	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	2	

Residuals in seconds of arc

1973 09 19	675	0.2-	0.3-	1998 08 26	699	0.6+	0.6+	1999 10 22	704	0.1+	1.0+
1973 09 19	675	1.1+	0.1+	1998 08 26	699	0.3+	1.1+	1999 10 22	704	0.1-	1.0+
1973 09 20	675	0.8-	2.2-	1998 09 14	704	0.1+	0.3+	1999 10 22	704	0.1+	0.8+
1973 09 24	675	(2.9-	0.2-)	1998 09 14	704	0.1-	0.0	1999 12 07	704	0.1+	0.3-
1973 09 24	675	(3.4-	0.8+)	1998 09 14	704	0.4-	1.0+	1999 12 07	704	0.3-	0.0
1973 09 25	675	0.8+	1.8-	1998 09 14	704	0.5-	0.2+	1999 12 07	704	0.0	0.3+
1973 09 25	675	0.9+	2.2-	1998 09 14	560	0.0	0.2+	1999 12 07	704	0.3-	0.0
1973 09 29	675	0.3+	0.4+	1998 09 14	560	0.4-	0.5+	1999 12 08	704	0.2-	0.0
1973 09 29	675	0.5+	0.7+	1998 09 14	560	0.2-	0.3+	1999 12 08	704	0.0	0.4-
1973 09 30	675	0.1-	0.7-	1998 09 15	560	0.7-	1.2+	1999 12 08	704	0.0	0.4+
1973 09 30	675	0.0	0.8-	1998 09 15	560	0.9-	1.2+	1999 12 08	704	0.2-	0.2-
1973 10 04	675	0.0	0.2-	1998 09 15	560	0.0	0.9+	1999 12 08	704	0.2-	0.9-
1973 10 04	675	1.0+	1.5-	1998 09 18	704	0.3+	0.3+	2000 01 05	704	0.1-	0.1-
1973 10 05	675	0.1+	1.8-	1998 09 18	704	0.1-	0.3+	2000 01 05	704	0.1-	0.4-
1973 10 05	675	1.8+	0.1-	1998 09 18	704	1.0+	0.1+	2000 01 05	704	0.4-	0.1-
1978 09 26	801	0.3+	0.2-	1998 09 18	704	0.0	0.5+	2000 01 05	704	0.2-	0.1-
1978 09 27	801	0.3-	0.8-	1998 09 18	704	0.5-	0.1+	2000 01 05	704	0.3-	0.0
1978 09 28	801	0.1-	0.5+	1998 09 21	610	0.0	0.6-	2000 01 06	704	0.3-	0.0
1978 10 03	801	0.6+	1.9+	1998 09 21	610	1.1+	1.2+	2000 01 06	704	0.4-	0.5-
1988 09 12	675	(2.6-	1.8-)	1998 09 21	610	(2.2+	2.9+)	2000 01 06	704	0.2-	0.2-
1988 09 12	675	2.3-	1.9-	1998 09 25	704	1.3-	0.3-	2000 01 07	704	0.4-	0.0
1988 09 15	675	2.1-	0.9-	1998 09 25	704	0.1-	0.5+	2000 01 07	704	0.1-	0.0
1988 09 15	675	0.4+	0.2+	1998 09 25	704	0.8-	0.8+	2000 01 07	704	0.2+	0.0
1988 09 16	675	0.7-	1.3-	1998 09 25	704	0.8-	1.0+	2000 01 07	704	0.1+	0.2+
1988 09 16	675	0.8-	0.9-	1998 09 25	704	(0.2+	2.0+)	2000 01 26	106	0.0	0.6+
1988 11 03	807	1.0+	0.6-	1998 09 27	704	0.4+	0.2+	2000 01 26	106	0.3-	0.2-
1988 11 06	807	0.3+	0.5-	1998 09 27	704	0.0	0.1-	2000 01 26	106	0.3+	0.7+
1988 11 08	807	1.8+	0.1-	1998 09 27	704	0.3+	0.2-	2000 02 02	704	0.2+	1.1+
1998 08 17	704	0.4+	0.8+	1998 09 27	704	1.5+	0.7+	2000 02 02	704	0.1-	0.3-
1998 08 17	704	0.3-	0.5+	1998 09 27	704	0.2-	1.6+	2000 02 02	704	0.2+	0.1-
1998 08 17	704	0.5+	0.8-	1999 01 05	910	1.1-	0.1-	2000 02 02	704	0.3+	0.2+
1998 08 17	704	0.0	0.0	1999 01 05	910	1.1-	0.1-	2000 02 02	704	0.5-	0.4+

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1998 08 23	704	1.2+	0.2+	1999 01 05	910	1.2-	0.2+	2000 02 03	704	0.7+	0.7+
1998 08 23	704	(1.0-	2.4+)	1999 10 12	704	0.4+	0.3+	2000 02 03	704	0.8+	0.3+
1998 08 23	704	0.8-	0.1+	1999 10 12	704	0.6+	0.1+	2000 02 03	704	0.4+	0.4+
1998 08 23	704	0.3-	0.8+	1999 10 12	704	0.7+	0.1+	2000 02 03	704	0.2-	0.3-
1998 08 23	704	(2.8-	0.6-)	1999 10 12	704	0.8+	0.9+				
1998 08 26	699	0.2-	0.2+	1999 10 22	704	(2.5+	0.7+)				

(13896)* 3310 T-2 = 1997 GA₄₄

Discovered 1973 Sept. 30 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. G. V. Williams (*MPC* 30467)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	96.78583		(2000.0)	P	Q		
<i>n</i>	0.27309280	ω	279.00849	+0.89698802	-0.44037157		
<i>a</i>	2.3528589	Ω	107.12687	+0.41977163	+0.82119750		
<i>e</i>	0.1189994	<i>i</i>	2.31130	+0.13857947	+0.36291535		
<i>P</i>	3.61	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1973 09 19	675	0.2-	1.2-	1997 04 03	704	0.4-	0.2+	2000 01 30	703	0.8-	1.0+
1973 09 19	675	0.3-	1.7-	1997 04 03	704	0.6-	0.0	2000 01 30	703	0.8-	0.9+
1973 09 20	675	1.1-	0.3-	1997 04 11	704	0.7-	0.0	2000 01 30	703	2.0-	1.0+
1973 09 24	675	0.1+	0.6-	1997 04 11	704	0.4+	0.6-	2000 01 30	703	0.1+	0.4+
1973 09 24	675	1.1+	1.0+	1998 08 17	704	0.3+	0.7+	2000 01 30	704	0.6+	0.8+
1973 09 25	675	0.7+	1.4-	1998 08 17	704	0.7+	1.5+	2000 01 30	704	0.3+	0.9+
1973 09 25	675	0.7+	0.6-	1998 08 17	704	0.4+	0.4+	2000 01 30	704	0.6-	0.7+
1973 09 29	675	0.7-	0.3-	1998 08 17	704	1.0-	1.8+	2000 02 03	704	0.3-	0.4+
1973 09 29	675	0.7+	1.0+	1998 08 17	704	0.2-	1.9+	2000 02 03	704	0.5+	0.1-
1973 09 30	675	0.0	1.0-	1998 08 23	704	0.6-	0.5-	2000 02 03	704	0.6+	0.3-
1973 09 30	675	0.4-	1.6-	1998 08 23	704	0.5-	0.4-	2000 02 03	704	0.0	0.5-
1973 09 30	675	0.6-	0.2-	1998 08 23	704	0.3-	0.3+	2000 02 07	703	0.0	0.5-
1973 09 30	675	1.1+	0.3+	1998 08 23	704	0.5-	0.5+	2000 02 07	703	0.7+	0.1+
1973 10 04	675	0.1+	2.2+	2000 01 04	704	0.0	0.0	2000 02 07	703	1.9+	0.7+
1973 10 04	675	0.3-	1.4+	2000 01 04	704	0.4-	0.2-	2000 02 07	703	1.0+	0.1+
1973 10 05	675	(3.4+	0.9-)	2000 01 04	704	0.8-	0.3-	2000 02 11	704	0.9-	0.2+
1973 10 05	675	0.1-	0.5-	2000 01 04	704	0.6-	0.8-	2000 02 11	704	0.0	0.6+
1973 10 05	675	(3.2+	1.0-)	2000 01 04	704	0.5-	0.3+	2000 02 11	704	1.5+	1.4-
1973 10 05	675	0.5+	0.2+	2000 01 05	699	0.5+	0.5+	2000 02 11	704	0.3+	0.7-
1997 04 03	704	0.1+	0.1+	2000 01 05	699	0.6-	1.8+				
1997 04 03	704	0.3+	1.6-	2000 01 05	699	1.5+	0.4-				

(13897)* 4216 T-2 = 1989 TP₂

Discovered 1973 Sept. 29 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. E. Bowell (*MPC* 15769)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	173.37895		(2000.0)	P	Q		
<i>n</i>	0.12498499	ω	143.87943	+0.68559068	+0.72736761		
<i>a</i>	3.9618449	Ω	169.28944	-0.70006186	+0.67004596		
<i>e</i>	0.1515413	<i>i</i>	9.29873	-0.19969681	+0.14823891		
<i>P</i>	7.89	<i>H</i>	12.2	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1973 09 19	675	0.8+	0.7-	1989 11 28	688	0.3+	1.3+	1998 12 22	704	0.5-	0.9-
1973 09 19	675	1.2+	1.2-	1989 11 28	688	0.0	1.1+	2000 01 05	704	0.2-	0.6+
1973 09 20	675	0.0	0.8-	1992 01 26	691	0.3+	0.7-	2000 01 05	704	0.1+	0.6+
1973 09 24	675	1.2-	0.2+	1992 01 26	691	0.9+	0.4-	2000 01 05	704	0.7-	0.3-
1973 09 24	675	0.6-	0.6-	1992 01 26	691	0.5+	0.3-	2000 01 05	704	0.5-	0.0
1973 09 25	675	0.8-	0.3+	1996 08 09	010	(1.2-	2.2-)	2000 01 07	704	0.6-	0.8+
1973 09 25	675	0.4+	0.6+	1996 08 09	010	(3.3-	3.6-)	2000 01 07	704	0.6-	0.1+
1973 09 29	675	(0.1-	3.0-)	1996 08 09	010	(1.1-	3.7-)	2000 01 07	704	0.0	0.3-
1973 09 29	675	1.4+	2.2-	1996 09 20	327	0.1+	0.4+	2000 01 07	704	0.5-	0.4+
1973 09 30	675	0.3+	0.5+	1996 09 20	327	0.1+	0.1+	2000 01 12	561	0.1+	0.1+
1973 09 30	675	1.4+	1.2+	1996 09 20	327	0.4-	0.3+	2000 01 12	561	0.2-	0.1+
1973 10 04	675	0.3-	1.1-	1997 11 23	684	0.5-	0.4+	2000 01 12	561	0.1+	0.0

1973 10 04	675	0.6-	0.8-	1997 11 23	684	0.3-	0.4+	2000 01 12	561	0.0	0.0
1973 10 05	675	1.4-	0.8-	1997 11 24	684	0.2+	0.6+	2000 01 12	561	0.0	0.1-
1973 10 05	675	0.3-	0.5-	1997 11 24	684	0.0	0.7+	2000 01 12	561	0.1+	0.0
1988 08 16	675	0.1-	0.4-	1997 11 24	684	0.1-	0.6+	2000 02 02	704	0.3-	0.1-
1988 08 16	675	0.3+	0.7+	1997 11 25	809	0.7-	0.4+	2000 02 02	704	0.7-	0.4+
1989 10 03	807	0.9+	0.9+	1997 11 25	809	0.1+	0.1-	2000 02 02	704	0.3+	0.5+
1989 10 06	807	0.4+	0.0	1997 11 27	809	1.2-	0.1-	2000 02 02	704	0.7+	1.3-
1989 10 30	807	0.9+	0.6+	1997 11 27	809	0.2+	0.1+	2000 02 04	704	0.2+	0.3-
1989 11 01	807	0.4+	0.4-	1998 12 22	704	0.6-	0.7-	2000 02 04	704	0.9+	0.2+
1989 11 22	675	0.5+	0.5+	1998 12 22	704	0.5-	0.7-	2000 02 04	704	0.3-	0.0
1989 11 22	675	0.6+	0.2-	1998 12 22	704	0.5-	0.7-				

(13898)* 4834 T-2 = 1993 FT₃

Discovered 1973 Sept. 25 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. A. Milani (*MPC* 34273)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	310.11930		(2000.0)	P	Q		
<i>n</i>	0.28079090	ω	130.21685	-0.55531915	+0.82781999		
<i>a</i>	2.3096564	Ω	105.87673	-0.78594095	-0.49110948		
<i>e</i>	0.0946690	<i>i</i>	4.74651	-0.27187765	-0.27115596		
<i>P</i>	3.51	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1973 09 19	675	0.6+	0.3-	1997 07 02	704	0.1+	0.0	1998 11 24	704	0.2+	1.6-
1973 09 19	675	0.8-	0.8-	1997 07 02	704	0.5+	0.1-	1998 11 24	704	0.7+	0.0
1973 09 20	675	0.7+	1.9-	1997 07 02	704	0.0	0.4+	1998 11 24	704	(3.9-	2.4-)
1973 09 24	675	2.4-	1.8+	1997 07 02	704	1.4-	1.6+	1998 12 11	699	0.9-	1.0-
1973 09 24	675	0.6+	1.7+	1998 11 11	699	0.9+	0.3-	1998 12 11	699	0.5+	0.5+
1973 09 25	675	0.5+	1.7+	1998 11 11	699	0.5+	1.0-	1998 12 11	699	0.2-	0.6+
1973 09 25	675	0.2+	1.3+	1998 11 11	699	0.5+	0.4+	2000 01 08	704	0.9+	0.6+
1993 03 17	809	(1.5+	2.0+)	1998 11 18	704	0.9+	0.9+	2000 01 08	704	0.6-	0.7-
1993 03 18	809	0.9+	0.8+	1998 11 18	704	0.1-	0.4+	2000 01 08	704	1.2+	1.2-
1993 03 19	675	(0.1-	2.4-)	1998 11 18	704	1.4-	0.0	2000 01 08	704	0.8+	0.5-
1993 03 19	675	1.4-	0.2+	1998 11 18	704	1.0-	1.6+	2000 02 06	704	1.1+	0.6+
1993 03 21	675	0.9-	0.8+	1998 11 18	704	(2.1-	0.2-)	2000 02 06	704	0.6+	0.5+
1993 03 21	675	0.3-	0.5-	1998 11 23	699	0.6-	0.0	2000 02 06	704	0.7+	1.4+
1993 03 23	809	0.9+	0.4+	1998 11 23	699	0.4-	0.1-	2000 02 07	106	0.3-	1.0+
1995 12 20	566	0.5-	0.1+	1998 11 23	699	0.2-	0.1+	2000 02 07	106	0.3+	0.0
1995 12 20	566	0.2-	0.3+	1998 11 24	704	0.2-	0.6+	2000 02 07	106	0.3+	0.0
1995 12 20	566	0.7-	0.0	1998 11 24	704	0.5+	0.3+				

(13899)* 5036 T-2 = 1995 WO₅

Discovered 1973 Sept. 25 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. S. Nakano (*MPC* 26417)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Asher			
<i>M</i>	352.21904		(2000.0)	P	Q		
<i>n</i>	0.23063046	ω	181.20714	+0.11540708	-0.98253187		
<i>a</i>	2.6334492	Ω	262.17890	+0.91258211	+0.16291493		
<i>e</i>	0.0365118	<i>i</i>	8.47386	+0.39226916	-0.08994364		
<i>P</i>	4.27	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1973 09 19	675	(5.6+	0.7-)	1999 10 12	704	0.3+	0.5-	1999 12 05	703	0.3+	0.0
1973 09 20	675	0.8+	0.2-	1999 10 12	704	0.3+	0.1-	1999 12 05	703	0.2-	0.3+
1973 09 20	675	1.3+	0.4+	1999 10 12	704	0.3-	0.3-	1999 12 07	699	1.1-	0.1-
1973 09 24	675	0.3+	1.2-	1999 10 12	704	0.9-	0.4+	1999 12 07	699	0.5+	0.5+
1973 09 24	675	0.5-	0.6-	1999 10 12	704	0.5-	0.2+	1999 12 07	699	0.5+	0.1+
1973 09 25	675	0.6-	0.3-	1999 10 13	704	0.4-	0.2-	1999 12 08	704	0.1-	0.6+
1973 09 25	675	0.1-	0.3-	1999 10 13	704	0.5-	0.3-	1999 12 08	704	0.3+	0.1+
1973 09 29	675	0.7+	0.3-	1999 10 13	704	0.5-	0.4+	1999 12 08	704	0.1+	0.4+
1973 09 29	675	0.2+	0.5-	1999 10 13	704	0.5-	0.2+	1999 12 08	704	0.2+	0.3+
1973 09 30	675	0.6-	0.1+	1999 10 13	704	0.8-	0.6+	1999 12 08	704	0.6+	0.3+
1973 09 30	675	0.4-	0.2+	1999 10 30	699	0.2-	0.4+	1999 12 13	703	0.0	0.0

1995 11 24	411	0.8−	0.9−	1999 10 30	699	0.5+	0.0	1999 12 13	703	0.9−	0.7+
1995 11 24	411	0.4+	0.3+	1999 10 30	699	0.0	0.5+	1999 12 13	703	0.5−	0.0
1995 11 26	411	0.2−	0.2−	1999 10 31	106	0.5−	0.4−	1999 12 13	703	0.4−	0.9+
1995 11 26	411	0.0	0.2−	1999 10 31	106	0.5+	0.6−	2000 01 04	704	0.3+	0.0
1995 11 28	411	0.6−	0.2+	1999 10 31	106	0.2+	0.0	2000 01 04	704	1.1+	0.4+
1995 11 28	411	0.5−	0.3−	1999 11 03	704	0.8−	0.8+	2000 01 04	704	0.5+	0.0
1995 12 01	411	0.9+	1.1−	1999 11 03	704	0.1+	0.9+	2000 01 04	704	0.5+	1.2−
1995 12 10	411	0.0	1.3−	1999 11 03	704	0.3+	0.3+	2000 01 04	704	1.3+	1.7−
1995 12 10	411	0.0	0.2−	1999 11 03	704	0.6+	0.5+	2000 01 06	704	0.0	0.2−
1998 06 24	704	0.8−	1.0−	1999 11 03	704	0.0	0.2+	2000 01 06	704	0.6+	0.9+
1998 06 24	704	0.8+	1.5+	1999 11 09	699	1.0−	0.0	2000 01 06	704	0.5+	0.4+
1998 06 24	704	0.2+	0.4−	1999 11 09	699	0.3−	0.7+	2000 01 06	704	0.7+	1.0+
1998 06 24	704	0.2−	0.3−	1999 12 05	703	0.3+	0.7−				
1998 06 24	704	0.1−	0.2+	1999 12 05	703	0.2−	0.6−				

(13900)* 5211 T-2 = 1993 TA₂

Discovered 1973 Sept. 25 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. S. Nakano (*MPC* 22695)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	75.02670		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.19903480	ω	207.66218	+0.24071113	−0.96315799
a	2.9052490	Ω	228.67333	+0.91739704	+0.26612242
e	0.2098929	i	9.19018	+0.31692401	−0.03880132
P	4.95	H	12.8	G 0.15	U 2

Residuals in seconds of arc

1973 09 19	675	(4.3+ 2.9+)	1998 11 10	704	0.6+	0.5+	1999 01 07	704	1.9+	1.0−
1973 09 20	675	0.2− 0.5+	1998 11 10	704	1.1− 1.3+	1999 01 11	704	1.4− 0.3−		
1973 09 20	675	1.7+ 0.8+	1998 11 11	704	0.1+ 0.3−	1999 01 11	704	(2.5− 2.6−)		
1973 09 24	675	0.1+ 0.7+	1998 11 11	704	0.4− 0.1−	1999 01 11	704	0.8+ 0.7−		
1973 09 24	675	0.0 0.9+	1998 11 11	704	0.9− 0.8+	1999 01 11	704	0.5− 1.0−		
1973 09 25	675	0.6+ 0.0	1998 11 11	704	1.0− 0.5+	1999 01 11	704	(2.9− 0.7−)		
1973 09 25	675	0.9+ 0.3+	1998 11 11	699	0.1+ 0.3+	1999 01 14	704	0.5− 0.0		
1973 09 29	675	0.2+ 0.7−	1998 11 11	704	0.8− 1.0+	1999 01 14	704	0.1+ 0.3−		
1973 09 29	675	0.0 0.7−	1998 11 11	699	0.1+ 0.2+	1999 01 14	704	0.8− 0.8−		
1973 09 30	675	1.2− 0.0	1998 11 11	699	0.5+ 0.1+	1999 01 14	704	0.8− 0.5−		
1973 09 30	675	1.5− 0.1−	1998 11 11	127	0.9+ 0.1−	1999 02 04	704	1.0+ 0.5−		
1993 10 15	400	0.9− 0.4+	1998 11 11	127	0.7+ 0.3−	1999 02 04	704	0.1+ 0.5−		
1993 10 15	400	1.2− 1.1−	1998 11 16	566	(3.1− 0.5+)	1999 02 04	704	0.6+ 0.2−		
1993 10 16	400	1.6− 0.5−	1998 11 16	566	(0.2+ 2.2+)	1999 02 04	704	1.3+ 0.7+		
1993 10 16	400	1.0− 0.9+	1998 11 16	566	(3.3+ 4.1+)	1999 02 04	704	0.6+ 0.1+		
1993 11 16	801	0.1− 0.1−	1998 11 24	699	1.0+ 0.2+	1999 02 20	699	1.2− 0.7+		
1993 11 16	801	0.1− 0.0	1998 11 24	699	0.8+ 0.5+	1999 02 20	699	0.3− 0.5+		
1993 11 17	801	0.3+ 0.0	1998 11 24	699	0.9+ 0.1+	1999 02 20	699	1.1− 1.0+		
1993 11 17	801	0.1+ 0.2+	1998 11 24	491	0.8− 1.9−	2000 01 10	704	0.0 0.1+		
1993 12 17	801	0.5+ 1.2−	1998 12 13	716	0.4− 0.4−	2000 01 10	704	0.3+ 0.5+		
1993 12 17	801	0.1+ 0.2−	1998 12 13	716	0.5− 0.0	2000 01 10	704	0.4− 0.2+		
1998 10 18	699	0.5+ 0.2+	1998 12 14	716	0.5− 0.3−	2000 01 10	704	0.4− 0.1+		
1998 10 18	699	0.4+ 0.0	1998 12 14	716	1.2+ 0.6−	2000 01 10	704	0.5+ 0.1+		
1998 10 18	699	0.4+ 0.4−	1998 12 22	120	0.8+ 0.5−	2000 01 11	704	0.2− 1.0+		
1998 10 29	704	0.5+ 0.5+	1998 12 22	120	0.5+ 0.1+	2000 01 11	704	0.2− 0.3−		
1998 10 29	704	0.3+ 0.3+	1999 01 07	699	0.2+ 0.2+	2000 01 11	704	0.7− 0.1−		
1998 10 29	704	0.0 0.7−	1999 01 07	699	0.0 0.2+	2000 01 11	704	0.1− 0.4−		
1998 10 29	704	1.1− 0.9−	1999 01 07	704	0.2− 0.4−	2000 01 11	704	0.3− 0.3+		
1998 11 10	704	0.4+ 0.3+	1999 01 07	699	0.0 0.2+	2000 02 10	704	1.3+ 0.5+		
1998 11 10	704	0.5+ 0.7+	1999 01 07	704	(2.1− 1.9−)	2000 02 10	704	0.3− 0.3+		
1998 11 10	704	0.2+ 1.0+	1999 01 07	704	0.5− 1.7+	2000 02 10	704	0.7+ 0.4+		

(13901)* 1140 T-3 = 1997 NB₃

Discovered 1977 Oct. 17 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. G. V. Williams (*MPC* 30683)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	113.66577		(2000.0)	P	Q
n	0.18943976	ω	108.67423	+0.96996880	−0.21196182
a	3.0025388	Ω	263.69804	+0.15204157	+0.91122835
e	0.1332405	i	6.89362	+0.18985230	+0.35317855
P	5.20	H	13.7	G 0.15	U 1

Residuals in seconds of arc

1977 10 07	675	0.5+ 1.3−	1998 10 29	704	1.3+ 1.3−	2000 01 07	704	1.3+ 0.1+
1977 10 11	675	0.1+ 1.2+	1998 11 10	704	0.7− 0.7+	2000 01 07	704	0.2+ 0.6−
1977 10 11	675	0.8+ 1.3+	1998 11 10	704	1.2− 0.3+	2000 02 02	704	0.3− 0.2+
1977 10 12	675	0.2− 1.5+	1998 11 10	704	1.0− 0.6+	2000 02 02	704	0.1− 0.0
1977 10 12	675	0.2− 1.7+	1998 11 10	704	0.5− 1.0+	2000 02 02	704	0.1+ 0.5+
1977 10 16	675	0.7− 0.9+	1998 11 11	704	0.8− 0.8+	2000 02 02	704	0.7− 0.7+
1977 10 16	675	1.3− 0.6+	1998 11 11	704	1.1− 1.1+	2000 02 02	704	0.3− 0.1+
1977 10 17	675	0.8− 1.0−	1998 11 11	704	1.5− 1.8+	2000 02 05	704	0.1− 0.7+
1977 10 17	675	0.4− 0.1−	1998 11 11	704	0.6− 0.0	2000 02 05	704	0.6− 0.3−
1977 10 22	675	0.4+ 1.8−	1998 11 11	704	1.7− 0.1−	2000 02 05	704	0.4− 0.8+
1977 10 22	675	0.7+ 0.2−	1998 11 15	699	0.6+ 0.6−	2000 02 05	704	0.7− 0.2+
1997 07 07	327	0.2+ 1.2+	1998 11 15	699	0.8+ 0.4−	2000 02 06	704	0.2− 0.4−
1997 07 07	327	0.3− 0.9+	1998 11 15	699	1.1+ 1.0−	2000 02 06	704	0.4+ 0.6+
1997 07 07	327	0.2− 0.6+	1999 01 06	725	0.4+ 0.3−	2000 02 06	704	0.5+ 0.7+
1997 07 08	327	0.8− 0.2+	1999 01 06	725	0.5+ 0.5−	2000 02 06	704	0.3− 0.5+
1997 07 08	327	0.1+ 0.6+	1999 01 10	725	0.3− 0.5−	2000 02 06	704	0.4− 1.0+
1997 07 12	327	0.2− 0.7+	1999 01 10	725	0.2+ 0.7−	2000 02 08	704	0.1− 0.1+
1997 07 12	327	0.1+ 0.3+	2000 01 05	704	1.1+ 0.3+	2000 02 08	704	0.3+ 0.2−
1998 10 29	704	1.6+ 0.7−	2000 01 05	704	0.5+ 1.4−	2000 02 08	704	0.2− 0.2+
1998 10 29	704	0.9+ 1.0−	2000 01 05	704	0.5+ 0.4−	2000 02 08	704	0.4+ 0.1+
1998 10 29	704	1.0+ 0.3−	2000 01 07	704	0.7+ 1.3+	2000 02 08	704	0.6+ 0.5+
1998 10 29	704	1.2+ 0.4−	2000 01 07	704	0.4+ 0.2+			

(13902)* 4205 T-3 = 1998 WY₁₄

Discovered 1977 Oct. 16 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. G. V. Williams (*MPC* 33329)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	188.45234		(2000.0)	P	Q
n	0.23806310	ω	218.30974	+0.72134026	+0.68984328
a	2.5783468	Ω	97.95367	−0.61913072	+0.68209991
e	0.2104879	i	3.56126	−0.31039552	+0.24260246
P	4.14	H	13.6	G 0.15	U 1

Residuals in seconds of arc

1977 10 07	675	0.4+	0.9−	1998 11 21	704	0.0	0.3+	2000 01 04	704	0.6+	0.0
1977 10 11	675	1.7+	0.9−	1998 11 21	704	0.1+	0.6−	2000 01 06	704	0.2+	0.1−
1977 10 11	675	1.2+	0.8−	1998 11 21	704	0.2+	0.6−	2000 01 06	704	0.3−	1.1−
1977 10 12	675	0.2+	2.2−	1998 11 21	704	0.8−	0.1+	2000 01 06	704	0.2+	0.0
1977 10 12	675	0.3−	1.0−	1998 11 23	699	0.6−	0.6+	2000 01 06	704	0.2−	0.4+
1977 10 16	675	0.9+	0.3+	1998 11 23	699	0.6−	0.6+	2000 01 26	120	1.2−	0.7−
1977 10 16	675	0.2+	0.4+	1998 11 23	699	0.5−	0.8+	2000 01 26	120	0.1−	1.1−
1977 10 17	675	0.6+	1.4−	1998 11 24	704	0.1−	0.3−	2000 01 26	120	1.1−	0.3−
1977 10 17	675	0.7−	0.2−	1998 11 24	704	0.4−	0.3−	2000 01 30	704	0.4+	0.2+
1977 10 21	675	0.6+	0.0	1998 11 24	704	0.9−	0.1−	2000 01 30	704	0.3−	0.1−
1977 10 21	675	0.3−	1.8−	1998 11 24	704	0.1+	0.1−	2000 01 30	703	1.9−	0.6−
1977 10 22	675	1.5−	0.6+	1998 11 24	704	1.1−	1.3+	2000 01 30	704	0.7+	0.8−
1977 10 22	675	0.8+	1.6−	1998 12 08	699	1.5+	1.0+	2000 01 30	703	0.4+	1.4−
1992 03 02	809	0.1+	0.3−	1998 12 08	699	0.1−	0.9+	2000 01 30	703	0.5−	0.3−
1997 06 04	566	0.0	0.2−	1998 12 08	699	0.9+	0.4+	2000 01 30	704	0.4+	0.3−
1997 06 04	566	0.2−	0.1−	1998 12 15	910	0.4+	1.1+	2000 01 30	703	0.8+	1.0−
1997 06 04	566	0.2+	0.2−	1998 12 15	910	0.5+	1.2+	2000 02 03	704	0.5−	0.6−
1998 10 20	699	0.6+	0.3−	1998 12 15	910	0.6+	1.1+	2000 02 03	704	0.6−	0.3−
1998 10 20	699	0.6+	0.6−	1998 12 21	910	0.6−	0.4+	2000 02 03	704	0.7−	0.2−
1998 10 20	699	0.6−	0.3−	1998 12 21	910	0.6−	0.3+	2000 02 03	704	0.1−	0.5+
1998 11 18	704	0.4−	0.9+	1998 12 21	910	0.4−	0.5+	2000 02 03	704	0.1−	0.2+
1998 11 18	704	0.7+	1.4−	2000 01 04	704	0.2−	0.4−	2000 02 11	704	0.2+	0.2+

2000 FEB. 22

1998 11 18	704	0.5−	1.0+	2000 01 04	704	0.1−	0.7−	2000 02 11	704	0.1+	0.5+
1998 11 18	704	1.3−	0.8+	2000 01 04	704	0.3+	0.2−	2000 02 11	704	0.2+	0.1+
1998 11 18	704	0.5+	1.0+	2000 01 04	704	0.1+	0.7−	2000 02 11	704	0.4+	0.5+

1973 SU = 1999 XJ₃₁

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr							
<i>M</i>	76.10955		(2000.0)	P		Q	
<i>n</i>	0.08450432	ω	184.90286	+0.94135780		−0.33715518	
<i>a</i>	5.1430029	Ω	194.82117	+0.31128389		+0.88280315	
<i>e</i>	0.1606905	<i>i</i>	2.93777	+0.13018384		+0.32708558	
<i>P</i>	11.66	<i>H</i>	11.1	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1973 09 19	675	0.9+	1.9−	1973 10 04	675	0.6+	1.1−	1999 12 07	704	0.5−	0.6−
1973 09 19	675	0.1−	1.8+	1973 10 04	675	0.7−	1.2+	1999 12 08	704	0.5+	0.6−
1973 09 20	675	0.6−	1.6+	1973 10 05	675	1.9+	0.5−	1999 12 08	704	0.7+	0.1−
1973 09 24	675	0.2−	1.3−	1973 10 05	675	0.5−	0.2+	1999 12 08	704	0.8+	0.5+
1973 09 24	675	1.3−	1.0+	1999 12 06	704	0.1+	0.6+	2000 02 02	704	0.3+	0.3+
1973 09 25	675	(1.2−	3.3−)	1999 12 06	704	0.4−	0.2−	2000 02 02	704	0.2−	0.5+
1973 09 25	675	1.3−	0.2+	1999 12 06	704	0.4−	1.1+	2000 02 02	704	0.4−	0.1+
1973 09 29	675	1.2+	1.0−	1999 12 06	704	0.4+	0.2−	2000 02 02	704	0.2−	0.2−
1973 09 29	675	0.3−	0.5+	1999 12 07	704	0.9−	1.1−	2000 02 02	704	0.5+	0.1−
1973 09 30	675	0.0	1.0−	1999 12 07	704	0.4−	0.7−				
1973 09 30	675	0.5−	0.3+	1999 12 07	704	0.0	0.8+				

1973 SG₁ = 1997 UV₂₆ = 2000 AN₁₇₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr							
<i>M</i>	65.58697		(2000.0)	P		Q	
<i>n</i>	0.08457883	ω	244.84945	+0.76228454		−0.64176384	
<i>a</i>	5.1399818	Ω	154.80854	+0.64183469		+0.73277072	
<i>e</i>	0.0841162	<i>i</i>	11.38636	+0.08348956		+0.22624378	
<i>P</i>	11.65	<i>H</i>	11.3	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1973 09 19	675	1.0+	1.9−	1973 10 04	675	0.3+	0.2+	2000 01 07	704	0.2−	0.6−
1973 09 19	675	2.1−	1.5+	1973 10 05	675	2.3−	1.1+	2000 01 07	704	0.0	0.4+
1973 09 20	675	0.1−	0.3−	1973 10 05	675	2.2+	0.4+	2000 01 07	704	0.1+	0.3−
1973 09 24	675	(2.7−	0.3+)	1996 09 14	809	0.1+	0.3+	2000 01 07	704	0.0	0.5−
1973 09 24	675	0.0	0.5+	1997 10 27	809	0.4−	0.7−	2000 01 11	704	0.1+	0.3−
1973 09 25	675	2.3+	0.9−	1997 10 27	809	0.8+	0.2−	2000 01 11	704	0.3−	0.3−
1973 09 25	675	0.2−	0.2+	1997 11 07	809	0.5−	1.9−	2000 01 11	704	0.0	0.4−
1973 09 29	675	1.1−	0.9+	1997 11 07	809	0.6+	0.3−	2000 01 11	704	0.1−	0.6+
1973 09 29	675	0.6+	0.6+	1998 12 15	704	1.0−	0.0	2000 01 11	704	0.1−	0.5+
1973 09 30	675	0.2−	0.8−	1998 12 15	704	1.4+	0.2+	2000 02 02	704	0.3−	0.4+
1973 09 30	675	1.6+	0.5−	1998 12 15	704	0.2−	0.3+	2000 02 02	704	0.3+	0.1+
1973 10 04	675	2.5−	1.6+	1998 12 15	704	(2.4−	0.5+)	2000 02 02	704	0.2+	1.7+

1977 RM = 1999 XH₁₇₄

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams							
<i>M</i>	97.30450		(2000.0)	P		Q	
<i>n</i>	0.23456295	ω	282.89699	+0.86236040		−0.31473132	
<i>a</i>	2.6039328	Ω	96.56404	+0.45196110		+0.83156851	
<i>e</i>	0.0769152	<i>i</i>	23.52822	−0.22817910		+0.45764398	
<i>P</i>	4.20	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1977 09 05	809	1.1−	0.4+	1999 11 16	704	0.2−	0.0	1999 12 10	704	0.1+	0.4−
1977 09 06	809	1.0+	0.4+	1999 11 16	704	0.0	0.3−	1999 12 15	704	0.0	0.5−
1977 09 07	809	0.3−	0.5+	1999 12 08	703	0.1−	1.2+	1999 12 15	704	0.5−	0.2−
1977 10 09	809	0.4−	0.7+	1999 12 08	703	0.5+	0.4+	1999 12 15	704	0.6+	0.2+
1977 10 11	809	1.1+	0.1−	1999 12 08	703	0.4+	0.6+	1999 12 15	704	0.3−	0.4−

M.P.C. 38429

1977 10 11	809	0.3−	0.1−	1999 12 08	703	0.6−	0.7+	1999 12 15	704	0.2+	0.2−
1977 10 13	809	0.1+	2.2−	1999 12 10	704	0.1−	0.8+	1999 12 15	704	0.4−	0.8−
1977 10 13	809	0.2−	0.1+	1999 12 10	704	0.2−	0.1−	1999 12 15	704	0.6+	0.0
1999 11 16	704	0.4+	0.7−	1999 12 10	704	0.4+	0.3−	1999 12 15	704	0.3−	0.5−
1999 11 16	704	0.1−	0.5+	1999 12 10	704	0.2+	0.5+	1999 12 15	704	0.5−	0.2−

1978 QK₂ = 1991 HR₂ = 1998 KF₁₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr							
<i>M</i>	120.40203		(2000.0)	P		Q	
<i>n</i>	0.28926659	ω	134.65662	+0.81440962		+0.58017231	
<i>a</i>	2.2643169	Ω	189.90044	−0.54981504		+0.76502957	
<i>e</i>	0.2502333	<i>i</i>	3.90444	−0.18558123		+0.27951717	
<i>P</i>	3.41	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1978 08 31	095	0.3+	0.0	1998 05 01	704	0.3−	0.7−	1998 05 22	704	0.0	0.4−
1978 09 05	095	0.1−	0.5−	1998 05 01	704	0.9+	0.8−	1998 05 24	704	0.4+	1.1−
1978 09 26	095	(3.0+	0.5−)	1998 05 01	704	0.2+	0.8−	1998 05 24	704	0.3−	0.1+
1978 09 27	095	(2.3−	6.8−)	1998 05 01	704	0.9−	0.9−	1998 05 24	704	0.4−	0.5+
1991 04 19	809	0.5+	0.1−	1998 05 02	566	0.4−	0.2−	1998 05 24	704	0.2+	0.9+
1991 04 19	809	0.1−	1.1+	1998 05 02	566	0.6−	0.1−	1998 05 24	704	0.5+	0.4−
1998 04 03	561	1.0−	0.6−	1998 05 02	566	0.8−	0.4−	1998 05 28	699	0.2−	0.9+
1998 04 04	561	1.0−	0.2−	1998 05 05	699	0.1+	0.5+	1998 05 28	699	1.5+	0.0
1998 04 22	704	0.4−	0.2−	1998 05 05	699	0.4−	0.2+	1998 05 28	699	0.3−	0.0
1998 04 22	704	1.2+	0.6+	1998 05 05	699	0.0	0.7+	1999 12 14	704	0.5−	0.7−
1998 04 22	704	0.3−	0.1+	1998 05 22	704	1.2+	0.1+	1999 12 14	704	0.1+	0.3+
1998 04 22	704	0.1+	0.5−	1998 05 22	704	0.1+	0.4+	1999 12 14	704	0.3+	0.0
1998 04 22	704	0.1−	0.7+	1998 05 22	704	0.8−	0.2+	1999 12 14	704	0.2+	0.6−
1998 05 01	704	0.4−	0.3+	1998 05 22	704	1.2+	0.9−				

1978 RY₇ = 1996 TB₂₈

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr							
<i>M</i>	104.40618		(2000.0)	P		Q	
<i>n</i>	0.27882309	ω	91.88645	−0.26871234		+0.96247706	
<i>a</i>	2.3205106	Ω	162.38467	−0.92597514		−0.24730494	
<i>e</i>	0.0758691	<i>i</i>	7.18230	−0.26526159		−0.11170571	
<i>P</i>	3.53	<i>H</i>	15.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1978 09 02	809	0.1+	0.0	1996 10 07	691	0.6+	0.3−	1999 07 13	704	0.1−	0.6+
1978 09 02	809	1.1+	0.5+	1996 10 07	691	0.2+	0.0	1999 07 13	704	0.4−	0.1+
1978 09 02	809	0.3−	0.3−	1996 10 12	691	0.4−	0.1+	1999 07 13	704	0.1−	0.6−
1978 09 02	809	0.8−	0.4−	1996 10 12	691	0.1−	0.1+	1999 07 13	704	0.2−	0.1−
1978 09 06	809	0.1−	0.3+	1996 10 12	691	0.2−	0.1+				
1996 10 07	691	0.0	0.0	1999 07 13	704	0.8+	0.0				

1978 VO = 1993 TJ₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams							
<i>M</i>	120.87334		(2000.0)	P		Q	
<i>n</i>	0.19524003	ω	352.03372	+0.97258620		+0.23244565	
<i>a</i>	2.9427733	Ω	354.51141	−0.20929615		+0.86240874	
<i>e</i>	0.2050400	<i>i</i>	4.02620	−0.10134695		+0.44968898	
<i>P</i>	5.05	<i>H</i>	16.4	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1978 10 30	010	1.2+	0.1+	1978 11 02	010	0.0	0.2+	1993 10 15	691	0.4+	0.4−
1978 11 01	010	0.3+	0.0	1993 10 09	691	0.2−	0.1+	1993 10 15	691	0.5+	0.1−
1978 11 01	010	0.3−	0.3−	1993 10 09	691	0.3−	0.2+				
1978 11 02	010	1.2−	0.0	1993 10 09	691	0.4−	0.2+				

1978 VL₉ = 1999 XH₇₁

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	43.41994		(2000.0)		P		Q
<i>n</i>	0.23515800	ω	241.58134	+0.72793253			-0.68558833
<i>a</i>	2.5995383	Ω	161.69561	+0.63877620			+0.67328468
<i>e</i>	0.1609140	<i>i</i>	1.66104	+0.24915698			+0.27686889
<i>P</i>	4.19	<i>H</i>	15.5	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1978 11 05	675	0.5+	0.1+	1999 12 07	704	0.1-	0.4+	2000 01 05	704	0.8-	0.6+
1978 11 07	675	0.5-	0.5+	1999 12 08	704	0.0	0.0	2000 01 05	704	0.2-	0.4-
1978 11 08	675	0.3-	1.0+	1999 12 08	704	0.1-	0.6-	2000 01 06	704	0.2-	0.8+
1978 11 29	675	0.7-	0.3-	1999 12 08	704	0.1+	0.4-	2000 01 06	704	0.1+	0.1-
1978 11 30	675	0.8+	0.5+	1999 12 08	704	0.2-	0.8-	2000 01 06	704	0.7-	0.4-
1999 12 07	704	0.1+	0.1-	1999 12 08	704	0.3-	1.1-	2000 01 06	704	0.4-	0.3+
1999 12 07	704	0.9+	0.7-	2000 01 05	704	0.2-	1.0+	2000 01 07	704	0.2+	0.8-
1999 12 07	704	0.5+	0.7-	2000 01 05	704	0.6+	0.5+	2000 01 07	704	0.3+	0.3-
1999 12 07	704	0.2-	0.3-	2000 01 05	704	0.2-	0.4+	2000 01 07	704	0.5+	1.2+

1978 VT₉ = 1991 RM₂₀ = 1998 UZ₃₁

Id. A. Doppler, G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	200.03444		(2000.0)		P		Q
<i>n</i>	0.29598905	ω	288.70556	+0.96059116			+0.27240625
<i>a</i>	2.2299012	Ω	55.52241	-0.22299212			+0.87400454
<i>e</i>	0.1996457	<i>i</i>	3.84735	-0.16594923			+0.40238154
<i>P</i>	3.33	<i>H</i>	15.5	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1977 04 24	675	1.7-	0.9+	1991 09 14	675	0.0	0.1-	1998 12 17	704	1.0-	1.0-
1977 04 25	675	1.2+	1.2+	1991 09 16	675	0.4-	0.7+	1998 12 17	704	0.5-	0.3+
1977 04 25	675	1.4-	0.4-	1997 04 02	704	1.9+	0.3-	1998 12 17	704	0.8-	1.2-
1978 11 05	675	0.3+	0.4+	1997 04 02	704	0.6+	0.7-	1998 12 17	704	0.2-	0.4-
1978 11 06	675	0.3+	0.8+	1998 10 26	327	0.3+	0.5-	1998 12 17	704	0.5+	1.4+
1978 11 07	675	0.8-	0.1+	1998 10 26	327	0.3+	0.6-	1998 12 17	327	0.1-	0.8+
1978 11 08	675	0.4-	0.3-	1998 10 26	327	0.0	0.0	1998 12 17	327	0.1-	0.2+
1978 11 29	675	2.3+	0.8+	1998 11 01	327	0.6-	0.4-	1998 12 17	327	0.1+	0.1+
1978 11 30	675	0.1-	0.4-	1998 11 01	327	0.3-	0.4+				
1991 09 14	675	0.1+	0.2-	1998 11 01	327	0.8+	0.0				

1978 VF₁₁ = 1999 RE₁₂₁

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	340.24159		(2000.0)		P		Q
<i>n</i>	0.08198591	ω	116.21692	+0.97150440			-0.13830810
<i>a</i>	5.2477914	Ω	252.23568	+0.06791668			+0.94048185
<i>e</i>	0.0785865	<i>i</i>	11.66103	+0.22708264			+0.31042673
<i>P</i>	12.02	<i>H</i>	10.1	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1978 11 05	675	0.1+	0.9-	1999 07 12	704	0.9-	0.0	1999 09 14	704	0.2-	0.1+
1978 11 06	675	0.3+	0.8-	1999 07 22	704	0.5+	0.1-	1999 09 14	704	0.2-	0.2+
1978 11 07	675	0.3-	0.4+	1999 07 22	704	0.9+	0.6-	1999 09 14	704	0.3-	0.0
1978 11 08	675	0.3-	0.1-	1999 07 22	704	0.5+	0.5-	1999 09 14	704	1.3-	0.1-
1998 07 26	704	(0.1+	2.1-)	1999 07 22	704	0.4+	0.1+	1999 11 07	704	0.2-	0.4+
1998 07 26	704	0.9-	1.1-	1999 07 22	704	0.2-	1.2-	1999 11 07	704	0.7-	0.2+
1998 07 26	704	1.4+	0.3-	1999 09 09	704	0.2+	0.2-	1999 11 07	704	0.1+	0.3+
1998 07 26	704	(3.2+	0.4-)	1999 09 09	704	0.4+	0.6-	1999 11 07	704	0.8+	0.0
1999 07 12	704	0.5+	0.2-	1999 09 09	704	0.1+	0.3+	1999 11 12	699	0.7-	0.4+
1999 07 12	704	0.2+	1.0+	1999 09 09	704	0.3-	0.4-	1999 11 12	699	0.0	1.1+
1999 07 12	704	0.9+	1.6+	1999 09 09	704	0.3-	0.4-	1999 11 12	699	0.3-	0.4+
1999 07 12	704	0.3-	0.5-	1999 09 14	704	0.1-	0.2+				

1978 XT = 1982 RN₂ = 1999 YT₁₄

Id. M. E. Sansaturio, S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	65.61510		(2000.0)		P		Q
<i>n</i>	0.23886926	ω	145.20188	+0.92056907			-0.38572865
<i>a</i>	2.5725424	Ω	237.60103	+0.33982442			+0.86844797
<i>e</i>	0.3804435	<i>i</i>	4.16801	+0.19254075			+0.31146674
<i>P</i>	4.13	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1978 12 03	675	0.1+	0.5-	2000 01 02	461	0.1+	0.1+	2000 01 04	402	0.7+	0.3-
1978 12 03	675	0.4-	0.1-	2000 01 02	046	0.6-	1.2-	2000 01 04	402	0.9+	0.2-
1978 12 05	675	0.4+	1.4+	2000 01 02	046	1.5-	0.4-	2000 01 04	402	0.5+	0.4-
1978 12 06	675	0.2+	1.2-	2000 01 02	046	(2.3-	0.5+)	2000 01 04	402	0.3+	0.2-
1978 12 06	675	0.3-	0.0	2000 01 02	954	0.5-	0.9+	2000 01 05	704	0.1-	0.1+
1982 09 12	095	0.1-	0.1+	2000 01 02	954	0.5-	0.8+	2000 01 05	704	0.3-	0.1-
1999 12 31	699	0.3+	0.5-	2000 01 02	954	0.6-	1.2+	2000 01 05	704	0.5+	0.5+
1999 12 31	699	0.5+	0.4+	2000 01 03	104	0.5-	0.5+	2000 01 05	704	0.7+	0.5-
1999 12 31	699	0.4-	0.2-	2000 01 03	104	0.1-	1.1+	2000 01 05	704	0.1-	0.8-
2000 01 01	739	0.6-	0.6-	2000 01 03	422	1.2+	0.8+	2000 02 02	704	0.3+	0.8-
2000 01 01	739	0.4-	0.0	2000 01 03	413	0.2-	0.2-	2000 02 02	704	1.0+	1.1-
2000 01 01	739	1.1-	0.7+	2000 01 03	413	0.1+	0.1+	2000 02 02	704	0.1-	0.1+
2000 01 02	461	0.1-	0.1-	2000 01 03	954	0.0	0.0	2000 02 02	704	1.0+	0.1-
2000 01 02	461	0.1-	0.0	2000 01 03	954	0.3-	0.6+				

1979 MH₃ = 1979 ON₆ = 1987 UT₃ = 1998 MD₃₆ = 2000 AS₆₁Id. H. Oishi (d, *MPC* 11826), M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	94.57697		(2000.0)		P		Q
<i>n</i>	0.25962644	ω	259.59433	+0.94009597			-0.32858285
<i>a</i>	2.4335304	Ω	119.53635	+0.33909985			+0.87386793
<i>e</i>	0.2159828	<i>i</i>	5.99345	+0.03508368			+0.35831292
<i>P</i>	3.80	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1979 06 24	413	1.8-	0.9+	2000 01 06	704	0.6-	0.1+	2000 02 05	704	0.1+	0.5+
1979 06 25	413	(2.6-	0.4+)	2000 01 11	691	0.4-	0.5-	2000 02 05	704	0.2+	0.9+
1979 07 24	675	(2.6+	1.3-)	2000 01 11	691	0.2-	0.7-	2000 02 05	704	0.7+	0.3+
1979 07 24	413	0.6-	0.4-	2000 01 11	691	0.4-	0.7-	2000 02 05	704	0.1+	0.7+
1979 07 27	675	2.2+	0.7-	2000 02 03	704	0.1-	0.4+	2000 02 06	704	0.1-	0.0
1987 10 26	054	0.0	0.9+	2000 02 03	704	0.0	0.3+	2000 02 06	704	0.1+	0.3+
1987 10 26	054	0.4-	0.1+	2000 02 03	704	0.1+	0.1-	2000 02 06	704	0.3+	0.3-
1998 06 24	704	0.5+	0.3+	2000 02 03	704	0.5-	0.4-	2000 02 06	704	0.5+	0.6+
1998 06 24	704	0.6-	0.4+	2000 02 05	704	0.1-	0.4+	2000 02 06	704	0.5+	0.3-
1998 06 24	704	1.5-	0.4+	2000 02 05	704	0.2-	0.2-	2000 02 08	704	0.1-	0.8-
1998 06 24	704	1.6+	0.4+	2000 02 05	704	0.4-	0.2+	2000 02 08	704	0.2+	0.5+
1998 06 26	704	0.4-	0.1-	2000 02 05	704	0.0	0.2+	2000 02 08	704	0.1+	0.6-
1998 06 26	704	0.5-	1.5+	2000 02 05	704	0.4-	0.4+	2000 02 08	704	0.1-	0.8+
1998 06 26	704	0.7-	0.6-	2000 02 05	704	0.3-	0.3-	2000 02 08	704	0.1+	0.5-
1998 06 26	704	1.4+	0.2-	2000 02 05	704	0.1-	0.9+	2000 02 08	704	0.1-	0.1+
2000 01 04	704	0.4+	0.9+	2000 02 05	704	1.0+	0.6-	2000 02 08	704	1.2+	0.3-
2000 01 04	704	0.6-	0.2+	2000 02 05	704	0.3+	1.1+	2000 02 08	704	0.4+	0.5+
2000 01 04	704	0.4+	0.2+	2000 02 05	704	1.1-	0.0	2000 02 08	704	0.1-	0.6-
2000 01 04	704	0.4-	0.5+	2000 02 05	704	0.2+	0.7+	2000 02 08	704	0.9+	0.9+
2000 01 04	704	0.6-	1.3-	2000 02 05	704	1.4-	0.9+	2000 02 11	704	0.1+	0.1-
2000 01 06	704	0.2-	1.7-	2000 02 05	704	0.1-	0.4+	2000 02 11	704	0.1-	0.0
2000 01 06	704	0.1-	0.0	2000 02 05	704	0.2+	0.7+	2000 02 11	704	1.0+	0.2-
2000 01 06	704	0.2-	0.8-	2000 02 05	704	0.1+	0.3+	2000 02 11	704	0.3+	1.0-
2000 01 06	704	0.4-	0.1-	2000 02 05	704	0.4-	0.3+	2000 02 11	704	0.5+	1.2-

1979 OZ₁₀ = 2000 AJ₄₃

Id. M. E. Sansaturio

2000 FEB. 22

M.P.C. 38431

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	170.48284		(2000.0)	P	Q		
n	0.36033433	ω	29.75366	+0.78086367	+0.56285350		
a	1.9558353	Ω	293.49017	-0.61546965	+0.61885101		
e	0.0660408	i	17.18760	-0.10700018	+0.54792277		
P	2.74	H	15.5	G	0.15	U	4

Residuals in seconds of arc

1979 07 24	413	0.5+	1.1+	2000 01 05	704	0.1-	0.9-	2000 02 02	704	0.4+	0.0
1979 07 26	675	0.2-	0.4-	2000 01 06	704	0.4-	0.5+	2000 02 02	704	0.1+	0.8-
1979 07 27	675	1.2-	0.6+	2000 01 06	704	0.3+	0.5+	2000 02 02	704	0.3-	0.4+
1979 07 28	413	0.6+	0.9-	2000 01 06	704	0.2-	0.5+	2000 02 02	704	0.0	0.5-
1999 12 31	699	0.3+	1.2+	2000 01 06	704	0.5+	0.4+	2000 02 02	704	0.1-	0.0
1999 12 31	699	0.1-	0.0	2000 01 07	704	1.0+	0.0	2000 02 04	704	0.2-	0.2-
1999 12 31	699	0.4-	0.4-	2000 01 07	704	0.2-	0.0	2000 02 04	704	0.2+	0.1+
2000 01 05	704	0.6-	0.9-	2000 01 07	704	0.3+	0.8+	2000 02 04	704	0.2-	1.1+
2000 01 05	704	0.2-	0.8-	2000 01 07	704	0.3+	0.4-				

1981 EJ₁₁ = 2000 CT₅₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	230.11705		(2000.0)	P	Q
n	0.25614263	ω	5.70992	+0.50412442	+0.86161548
a	2.4555464	Ω	294.57596	-0.79491009	+0.43623562
e	0.1753050	i	3.71784	-0.33760410	+0.25945569
P	3.85	H	14.1	G 0.15	U 3

Residuals in seconds of arc

1981 02 12	413	(2.8+	0.0)	1981 03 11	413	1.3+	0.2-	1998 12 17	704	0.4+	0.8+
1981 02 13	413	1.4+	1.0+	1981 03 15	413	0.3-	0.2-	1998 12 17	704	0.3+	1.3-
1981 02 14	413	0.4+	0.0	1981 03 15	413	0.8+	1.3+	1998 12 17	704	(4.8-	0.0)
1981 03 01	413	1.4-	0.2+	1981 04 05	413	1.3-	0.5-	2000 02 02	704	0.4-	0.4-
1981 03 01	413	1.9-	1.2+	1981 04 06	413	1.9-	0.3+	2000 02 02	704	0.0	1.1-
1981 03 01	413	2.1-	1.4+	1981 04 06	413	1.4+	0.9-	2000 02 02	704	0.3-	0.1-
1981 03 06	413	(1.4-	3.4+)	1981 04 12	413	0.1-	1.0-	2000 02 02	704	0.1+	1.8-
1981 03 06	413	2.0+	0.2-	1981 04 12	413	0.6+	0.4-	2000 02 06	704	0.0	0.4+
1981 03 07	413	0.9+	0.6+	1981 05 02	413	0.5+	0.9+	2000 02 06	704	0.4-	0.1+
1981 03 08	413	1.0-	0.5+	1981 05 03	413	0.2+	1.8-	2000 02 06	704	0.1-	0.8+
1981 03 08	413	1.2+	0.6-	1998 12 17	704	0.8-	0.9+				

1981 EL₁₁ = 2000 CZ₂₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	342.19234		(2000.0)	P	Q
n	0.30822085	ω	266.59853	-0.96394061	-0.25530394
a	2.1705079	Ω	258.59975	+0.26427793	-0.88525984
e	0.0720993	i	4.39319	+0.03123566	-0.38876074
P	3.20	H	16.6	G 0.15	U 4

Residuals in seconds of arc

1981 02 02	413	0.5-	0.6+	1981 03 15	413	1.0+	0.6-	2000 02 02	704	0.7-	0.4-
1981 02 14	413	1.0+	0.1-	1981 04 12	413	2.3-	1.3+	2000 02 02	704	0.4-	0.9+
1981 03 07	413	1.1-	1.3+	1981 04 12	413	1.7+	2.3-	2000 02 04	704	0.0	1.2-
1981 03 07	413	0.6+	1.1+	1981 04 29	413	0.2-	0.8-	2000 02 04	704	0.6-	0.6-
1981 03 11	413	1.5-	0.7+	2000 02 02	704	0.3-	0.3+	2000 02 04	704	1.7+	0.1-
1981 03 11	413	1.4+	0.6-	2000 02 02	704	0.0	0.5+				
1981 03 15	413	(4.8-	1.9+)	2000 02 02	704	0.0	0.2-				

1981 EE₂₆ = 2000 CW₁₃

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Williams

M	343.82006		(2000.0)	P	Q
n	0.25572839	ω	328.83373	-0.93400714	-0.35699771
a	2.4581974	Ω	190.27734	+0.34140964	-0.88078043
e	0.1405365	i	4.35209	+0.10521465	-0.31109237
P	3.85	H	15.5	G 0.15	U 4

Residuals in seconds of arc

1981 02 12	413	0.1+	0.0	1981 04 06	413	0.3+	0.7+	2000 02 04	704	0.4+	1.4+
1981 02 12	413	1.4+	0.4-	1981 04 10	413	0.2-	1.3+	2000 02 04	704	0.2+	0.5+
1981 03 02	413	0.4+	0.5-	1981 04 26	413	(1.6+	3.3-)	2000 02 04	704	0.1-	0.4+
1981 03 02	413	2.0-	0.4-	1981 05 01	413	0.3+	0.1-	2000 02 08	704	0.2-	0.6-
1981 03 06	413	1.5-	1.1+	2000 02 02	704	0.1-	0.3+	2000 02 08	704	0.1-	0.8-
1981 03 06	413	0.1+	1.1-	2000 02 02	704	0.3+	0.2-	2000 02 08	704	0.1-	0.6-
1981 03 11	413	0.0	0.4-	2000 02 02	704	0.3-	0.1+	2000 02 08	704	1.0+	0.6-
1981 03 11	413	0.5+	0.2-	2000 02 02	704	0.4-	0.4+	2000 02 10	704	0.4-	0.5+
1981 03 15	413	0.8+	0.2-	2000 02 02	704	0.6+	0.5+	2000 02 10	704	0.3-	0.2+
1981 03 15	413	(2.7+	1.6-)	2000 02 04	704	0.0	0.1+	2000 02 10	704	0.3-	1.3-
1981 04 06	413	(2.3-	3.0+)	2000 02 04	704	0.1+	0.0				

1981 ES₂₆ = 2000 BY₁₀

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	301.45538		(2000.0)	P	Q		
n	0.25570835	ω	2.80650	-0.84705705	+0.53108588		
a	2.4583258	Ω	209.30288	-0.48847648	-0.79347069		
e	0.1004185	i	2.46236	-0.20948768	-0.29724074		
P	3.85	H	14.8	G	0.15	U	4

Residuals in seconds of arc

1981 02 12	413	0.1-	0.5+	1999 12 07	704	0.3-	0.1+	2000 02 02	704	0.3+	0.4+
1981 02 12	413	0.3-	0.1-	2000 01 29	682	0.2-	0.7+	2000 02 02	704	0.5-	0.2+
1981 02 13	413	(3.4+	1.9+)	2000 01 29	682	1.4-	1.2+	2000 02 04	704	0.1+	0.1-
1981 03 02	413	0.9-	1.0+	2000 01 29	682	0.2-	1.2-	2000 02 04	704	0.0	0.2-
1981 03 02	413	(3.6+	0.7-)	2000 01 29	682	0.6-	0.5+	2000 02 04	704	0.1+	0.4+
1981 03 06	413	2.1+	1.6-	2000 01 30	682	0.4+	1.1+	2000 02 04	704	0.1+	0.5+
1981 03 11	413	0.5-	0.0	2000 01 30	682	1.1+	0.8-	2000 02 04	704	0.1+	0.5+
1981 03 15	413	1.0-	1.1+	2000 01 30	682	1.8-	1.3-	2000 02 06	704	0.5+	0.0
1981 04 05	413	1.1-	1.7+	2000 01 30	682	1.0-	0.1+	2000 02 06	704	0.4+	0.2-
1981 04 05	413	1.0+	2.0-	2000 02 01	703	1.9+	0.8-	2000 02 06	704	0.5+	0.1+
1981 04 06	413	0.2-	0.5+	2000 02 01	682	0.5-	0.8-	2000 02 06	704	0.1-	0.0
1981 04 06	413	1.2+	0.8-	2000 02 01	703	0.3+	0.6+	2000 02 06	704	0.1+	0.2-
1981 04 10	413	0.1+	0.9+	2000 02 01	703	0.9+	0.1+	2000 02 08	704	0.5+	0.3-
1981 04 10	413	0.6+	0.7-	2000 02 01	682	0.1+	0.2+	2000 02 08	704	0.2+	0.1+
1981 05 01	413	0.0	0.1-	2000 02 01	703	0.8-	0.1-	2000 02 08	704	0.2-	0.4-
1981 05 03	413	0.8-	0.0	2000 02 01	682	(2.1+	0.5+)	2000 02 08	704	0.5-	0.4-
1999 12 07	704	0.9+	0.0	2000 02 02	704	0.0	0.2+	2000 02 08	704	0.4-	0.9-
1999 12 07	704	0.2-	0.8+	2000 02 02	704	0.3+	0.1-				
1999 12 07	704	0.2-	0.3-	2000 02 02	704	0.2+	0.3+				

1981 ED₃₀ = 2000 CC₄₂

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Williams

M	33.42220		(2000.0)	P	Q
n	0.15087331	ω	196.21199	-0.19359461	-0.96695813
a	3.4945756	Ω	265.17741	+0.91760071	-0.11863306
e	0.0612670	i	9.58206	+0.34717439	-0.22565055
P	6.53	H	13.8	G 0.15	U 5

Residuals in seconds of arc

1981 02 02	413	0.5-	0.6+	1981 03 12	413	1.5-	0.9+	2000 02 02	704	0.3-	0.3+
1981 02 09	413	0.6+	0.1+	1981 05 02	413	(0.3+	3.5-)	2000 02 06	704	0.3-	0.2+
1981 03 02	413	0.3-	0.5+	1981 05 03	413	1.1+	1.1-	2000 02 06	704	0.4+	0.2-
1981 03 07	413	0.3+	0.8-	2000 02 02	704	0.2+	0.6+	2000 02 06	704	0.3-	0.4+

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1981 03 10 413 1.5- 0.3+ 2000 02 02 704 0.0 0.8- 2000 02 06 704 0.4+ 0.1+
 1981 03 10 413 1.9+ 0.4- 2000 02 02 704 0.3- 0.7-

1981 EX₄₂ = 2000 BX₂₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	44.07659	(2000.0)	P	Q	
<i>n</i>	0.25399341	ω 72.92024	+0.30435923	-0.95255706	
<i>a</i>	2.4693790	Ω 359.35882	+0.84785802	+0.27124800	
<i>e</i>	0.1992805	<i>i</i> 3.66378	+0.43416844	+0.13805641	
<i>P</i>	3.88	<i>H</i> 15.7	<i>G</i> 0.15	<i>U</i> 4	

Residuals in seconds of arc

1981 02 12	413	1.1-	0.4-	2000 01 30	704	0.1+	0.3-	2000 02 07	703	0.2+	0.4+
1981 02 13	413	1.0+	0.9-	2000 01 30	704	0.1+	0.2+	2000 02 07	703	0.8+	0.4+
1981 03 02	413	(3.7+	2.3-)	2000 01 30	704	0.3+	0.9+	2000 02 07	703	0.1+	0.2+
1981 03 02	413	0.0	1.0+	2000 02 02	704	0.4-	0.0	2000 02 11	704	0.3-	0.4-
1981 03 06	413	0.8-	0.1+	2000 02 02	704	0.1+	0.3+	2000 02 11	704	0.4-	0.3-
1981 03 11	413	(6.1+	2.1-)	2000 02 02	704	0.4-	0.0	2000 02 11	704	0.1-	0.3-
1981 05 01	413	0.7+	0.5-	2000 02 02	704	0.2+	0.1+	2000 02 11	704	0.0	0.5-
1981 05 03	413	0.3+	0.5+	2000 02 02	704	0.4-	0.6-				
2000 01 30	704	0.1+	0.0	2000 02 07	703	0.1+	0.2+				

1982 JV₁ = 1999 CO₂₅

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Spahr			
<i>M</i>	50.77321	(2000.0)	P	Q	
<i>n</i>	0.28261254	ω 115.63955	-0.85092390	+0.52091457	
<i>a</i>	2.2997207	Ω 95.82098	-0.50303548	-0.77100099	
<i>e</i>	0.1555006	<i>i</i> 3.89916	-0.15127397	-0.36634067	
<i>P</i>	3.49	<i>H</i> 15.4	<i>G</i> 0.15	<i>U</i> 4	

Residuals in seconds of arc

1982 05 15	675	1.0+	0.2-	1996 06 21	566	0.2-	0.2-	1999 02 10	704	0.1+	0.2-
1982 05 16	675	0.3+	0.5-	1996 06 21	566	0.2-	0.0	1999 02 10	704	0.5+	0.5+
1982 05 16	675	1.6-	1.0+	1996 06 21	566	0.3+	0.1+	1999 02 10	704	0.3+	0.8+
1982 05 17	675	0.6+	0.7-	1996 06 21	566	0.2-	0.2-	1999 02 13	704	0.1+	0.1-
1982 05 18	675	0.2-	0.3+	1996 06 21	566	0.2+	0.1+	1999 02 13	704	0.2+	0.5-
1996 05 22	566	(1.0-	3.3+)	1996 06 21	566	0.2+	0.3+	1999 02 13	704	0.1-	0.6-
1996 05 22	566	(0.7-	4.0+)	1999 02 10	704	0.4+	0.1-	1999 02 13	704	0.6-	0.1-
1996 05 22	566	(0.3-	4.5+)	1999 02 10	704	0.7-	0.8+	1999 02 13	704	0.2-	0.4-

1982 VN₃ = 1992 EJ₃₀ = 2000 AC₁₅₁Id. T. Kobayashi (*MPC* 24227), G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	54.73946	(2000.0)	P	Q	
<i>n</i>	0.23712935	ω 327.30237	+0.56262498	-0.82418626	
<i>a</i>	2.5851109	Ω 88.38189	+0.77169938	+0.49556253	
<i>e</i>	0.2294472	<i>i</i> 3.70402	+0.29653532	+0.27410724	
<i>P</i>	4.16	<i>H</i> 15.2	<i>G</i> 0.15	<i>U</i> 4	

Residuals in seconds of arc

1982 11 14	381	0.4-	1.3+	2000 01 04	704	0.1+	1.1-	2000 01 09	704	0.4-	0.4+
1982 11 14	381	0.7-	0.4+	2000 01 05	699	1.0-	0.3+	2000 01 09	704	0.9-	0.1-
1982 12 13	381	0.6+	0.6-	2000 01 05	699	0.1+	0.3-	2000 01 09	704	1.3-	0.1+
1982 12 13	381	0.1-	0.7-	2000 01 05	699	0.3+	0.3-	2000 01 16	104	0.2+	0.1-
1982 12 14	381	0.2+	0.2+	2000 01 06	104	0.3+	0.4-	2000 01 16	104	0.6+	0.3+
1982 12 14	381	0.9+	1.5-	2000 01 06	104	0.5+	0.6-	2000 01 30	704	0.8+	0.7+
1992 03 03	809	0.7+	1.9-	2000 01 06	704	0.5+	0.2+	2000 01 30	704	0.3+	0.7+
1992 03 07	809	1.2-	0.6+	2000 01 06	704	1.4+	0.2+	2000 01 30	704	0.9-	0.9-
2000 01 04	704	0.0	0.0	2000 01 06	704	0.6-	0.2-	2000 02 11	704	0.5+	0.5+
2000 01 04	704	0.4+	0.5-	2000 01 06	704	0.4+	0.0	2000 02 11	704	0.1-	0.4+
2000 01 04	704	0.8-	0.2-	2000 01 07	104	1.1-	1.2+	2000 02 11	704	0.5+	1.4+
2000 01 04	704	0.9+	0.2-	2000 01 07	104	0.6-	0.8+	2000 02 11	704	0.1+	0.5-

1983 QV = 1995 UN₃₄

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		(2000.0)		Williams		P		Q	
<i>M</i>	297.15578								
<i>n</i>	0.17167030	ω	183.98888	+0.99769343	+0.06605592				
<i>a</i>	3.2063131	Ω	172.17207	-0.05867079	+0.95497961				
<i>e</i>	0.1611613	<i>i</i>	6.59147	-0.03414014	+0.28922407				
<i>P</i>	5.74	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	6		

Residuals in seconds of arc

1983 08 30	675	0.8-	0.5-	1983 09 02	675	1.1+	0.9+	1995 10 26	691	0.0	0.1+
1983 08 31	675	1.5-	1.1-	1995 10 21	691	0.3+	0.1+	1995 10 26	691	0.1-	0.1-
1983 09 01	675	0.7+	0.3+	1995 10 21	691	0.1+	0.1+	1995 10 26	691	0.1-	0.0
1983 09 02	675	0.6+	0.5+	1995 10 21	691	0.2-	0.0				

1984 SL₄ = 1996 BL₇

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		(2000.0)		Williams		P		Q	
<i>M</i>	258.56495								
<i>n</i>	0.29479365	ω	327.59328	+0.59110830	+0.80610392				
<i>a</i>	2.2359253	Ω	338.60129	-0.72267099	+0.51383439				
<i>e</i>	0.2212563	<i>i</i>	4.41107	-0.35824241	+0.29354846				
<i>P</i>	3.34	<i>H</i>	15.6	<i>G</i>	0.15	<i>U</i>	6		

Residuals in seconds of arc

1984 09 27	046	0.1+	0.0	1984 09 30	046	1.9-	0.5-	1996 01 19	691	0.0	0.5+
1984 09 27	046	0.7+	0.8-	1984 09 30	046	1.6+	0.4+	1996 01 25	691	0.1-	0.2-
1984 09 29	046	0.4-	0.9+	1996 01 19	691	0.2+	0.2-	1996 01 25	691	0.0	0.2-
1984 09 29	046	(5.1-	1.1-)	1996 01 19	691	0.2-	0.2+	1996 01 25	691	0.2+	0.2-

1985 PF = 2000 CH₉₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		(2000.0)		Williams		P		Q	
<i>M</i>	156.50087								
<i>n</i>	0.23715550	ω	205.88260	+0.99220460	-0.03786283				
<i>a</i>	2.5849209	Ω	155.39574	+0.05486510	+0.98814558				
<i>e</i>	0.2315561	<i>i</i>	16.56877	-0.11189217	+0.14877741				
<i>P</i>	4.16	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	5		

Residuals in seconds of arc

1985 08 14	688	1.6-	0.7-	1985 09 04	809	0.7-	1.5-	2000 02 11	704	0.0	1.0+
1985 08 14	688	1.3-	0.2+	1985 09 04	809	1.5-	0.9+	2000 02 11	704	0.2-	0.1+
1985 08 17	675	(5.5+	0.8-)	1985 09 04	809	(2.3-	3.2+)	2000 02 16	703	0.0	0.5-
1985 08 19	675	(3.8+	1.2-)	1985 09 12	688	(3.4+	2.8+)	2000 02 16	703	0.8+	0.3-
1985 08 20	688	1.6+	1.5+	2000 02 06	704	0.8-	0.3-	2000 02 16	703	0.8+	0.8-
1985 08 20	688	0.2+	0.5-	2000 02 06	704	0.1+	0.6-	2000 02 16	703	0.5-	1.0+
1985 08 22	688	1.6-	0.6-	2000 02 06	704	0.6-	0.5-				
1985 08 22	688	(2.3+	1.1-)	2000 02 11	704	0.4+	0.5+				

1985 QY₂ = 1999 XU₂

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		(2000.0)		Williams		P		Q	
<i>M</i>	20.62879								
<i>n</i>	0.28849907	ω	155.65598	+0.58176714	-0.80608601				
<i>a</i>	2.2683311	Ω	258.59400	+0.72691472	+0.57513695				
<i>e</i>	0.1558185	<i>i</i>	6.35489	+0.36488627	+0.13943752				
<i>P</i>	3.42	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	3		

Residuals in seconds of arc

1985 08 16	675	0.4-	0.4-	1999 10 22	704	0.4-	0.5+	1999 12 04	703	0.0	0.4+
1985 08 16	675	4.0+	1.1+	1999 10 22	704	0.2+	0.6+	1999 12 05	678	0.8-	0.5-
1985 08 17	675	2.2-	1.1-	1999 10 22	704	0.0	0.7+	1999 12 05	678	0.1-	0.4-
1985 08 17	675	0.9+	0.1+	1999 11 01	699	0.2+	0.2+	1999 12 06	704	0.6+	0.2+
1985 08 23	675	2.1-	0.8-	1999 11 01	699	0.4+	0.1-	1999 12 06	704	0.5+	0.6-

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1985 08 23	675	0.1+	0.4+	1999 11 01	699	0.8+	0.1+	1999 12 06	704	0.6+	0.4-
1999 09 07	703	0.4+	0.1+	1999 11 03	704	0.1+	0.4-	1999 12 06	704	0.7+	0.1+
1999 09 07	703	0.1+	0.3+	1999 11 03	704	0.5-	2.4-	1999 12 06	704	0.4+	0.6-
1999 09 07	703	0.3+	0.3+	1999 11 03	704	0.6-	0.7-	1999 12 12	703	0.1-	0.1+
1999 09 07	703	0.0	0.9+	1999 11 03	704	0.9-	0.8-	1999 12 12	703	0.4-	0.2+
1999 10 03	704	0.9+	0.7+	1999 11 03	704	0.6-	0.8-	1999 12 12	703	0.5-	0.6+
1999 10 03	704	0.2+	0.8+	1999 11 11	703	0.0	0.4+	1999 12 12	703	0.5-	0.2+
1999 10 03	704	1.0+	0.5-	1999 11 11	703	0.4-	0.4+	2000 01 04	704	0.1+	0.4-
1999 10 03	704	1.8-	1.6-	1999 11 11	703	0.6-	0.6+	2000 01 04	704	0.4+	0.3-
1999 10 04	699	0.5-	0.5+	1999 11 11	703	0.3-	0.4+	2000 01 04	704	0.1-	0.4+
1999 10 04	699	0.0	0.3-	1999 12 03	699	0.1+	0.4+	2000 01 04	704	0.3+	0.5+
1999 10 04	699	0.1+	0.4+	1999 12 03	699	0.1-	0.3+	2000 01 04	704	0.7+	1.1+
1999 10 12	704	0.5+	0.1-	1999 12 03	699	0.3-	0.6+	2000 01 06	704	0.0	0.8-
1999 10 12	704	0.3+	0.0	1999 12 04	678	1.1+	0.6-	2000 01 06	704	0.1-	0.5-
1999 10 12	704	0.4+	0.0	1999 12 04	703	0.1+	0.1-	2000 01 06	704	0.1+	0.1-
1999 10 12	704	0.3+	0.0	1999 12 04	703	0.7-	0.3-	2000 01 06	704	0.3-	0.3-
1999 10 12	704	0.2+	0.1+	1999 12 04	678	0.5+	0.0	2000 01 06	704	0.3-	0.3+
1999 10 22	704	0.4-	0.7+	1999 12 04	703	0.7-	0.2-				

1986 QH₁ = 2000 AJ₂₃₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	126.24658	(2000.0)	
<i>n</i>	0.17529359	ω	14.98204
<i>a</i>	3.1619769	Ω	341.78292
<i>e</i>	0.1112627	<i>i</i>	15.26573
<i>P</i>	5.62	<i>H</i>	12.7
Residuals in seconds of arc			
<i>G</i>	0.15	<i>U</i>	4

1986 08 27	809	0.1+	0.3+	1986 09 03	809	0.0	0.5+	1986 09 09	809	0.4-	0.0
1986 08 27	809	0.2+	0.4+	1986 09 04	809	0.2+	0.6+	1986 09 09	809	0.2-	0.1+
1986 08 27	809	0.3+	0.5+	1986 09 04	809	0.1+	0.2+	2000 01 03	704	0.5+	0.7+
1986 08 28	809	0.4+	0.2-	1986 09 04	809	0.1+	0.1+	2000 01 03	704	0.3+	0.1+
1986 08 28	809	0.4+	0.1-	1986 09 05	809	0.1-	0.5-	2000 01 03	704	0.2-	0.2+
1986 08 28	809	0.4+	0.1-	1986 09 05	809	0.3-	0.6-	2000 01 03	704	0.3-	0.1+
1986 08 29	809	0.1-	0.4+	1986 09 05	809	0.2-	0.5-	2000 01 03	704	0.0	0.5+
1986 08 29	809	0.1-	0.3+	1986 09 06	809	0.1+	0.4-	2000 01 06	699	0.2+	1.4-
1986 08 29	809	0.1-	0.4+	1986 09 06	809	0.1+	0.0	2000 01 06	699	1.0-	0.3-
1986 09 01	809	0.4+	0.2-	1986 09 06	809	0.4+	0.4+	2000 01 06	699	0.4-	0.9+
1986 09 01	809	0.3+	0.3-	1986 09 06	809	0.1+	0.1+	2000 01 29	704	0.3+	0.2+
1986 09 01	809	0.5+	0.3-	1986 09 06	809	0.5-	0.0	2000 01 29	704	0.4+	0.2-
1986 09 02	809	0.2+	0.6-	1986 09 06	809	0.4-	0.1+	2000 01 29	704	0.2+	0.0
1986 09 02	809	0.3+	0.5-	1986 09 07	809	0.4-	0.2-	2000 01 29	704	0.3+	0.4-
1986 09 02	809	0.1+	0.6-	1986 09 07	809	0.3-	0.1-	2000 01 29	704	0.3-	0.5-
1986 09 03	809	0.3-	0.5+	1986 09 07	809	0.3-	0.1-				
1986 09 03	809	0.2-	0.5+	1986 09 09	809	0.9-	0.2-				

1987 QX₇ = 2000 AB₂₁₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	221.32447	(2000.0)	
<i>n</i>	0.20491394	ω	153.96278
<i>a</i>	2.8494107	Ω	151.89892
<i>e</i>	0.2394695	<i>i</i>	5.72019
<i>P</i>	4.81	<i>H</i>	13.1
Residuals in seconds of arc			
<i>G</i>	0.15	<i>U</i>	4

1987 08 21	809	0.5+	0.1+	1987 08 27	809	1.3+	0.2+	2000 02 04	704	0.5+	0.1+
1987 08 21	809	0.2+	1.0+	1992 09 03	095	(0.3+	3.1+)	2000 02 04	704	0.3+	0.7-
1987 08 21	809	0.1+	0.6-	1992 09 03	095	0.1+	0.6-	2000 02 04	704	0.1+	1.7+
1987 08 25	809	1.3-	0.4+	2000 01 05	691	0.3+	0.2-	2000 02 04	704	0.4-	0.3-
1987 08 25	809	1.1-	0.6+	2000 01 05	691	0.4+	0.3-	2000 02 11	704	0.2+	0.0
1987 08 25	809	0.2-	0.4+	2000 01 05	691	0.4+	0.2-	2000 02 11	704	1.1-	0.5-
1987 08 26	809	0.8-	1.7-	2000 01 08	691	0.3-	0.4-	2000 02 11	704	0.0	0.2-
1987 08 26	809	0.8-	1.1-	2000 01 08	691	0.3-	0.5-	2000 02 11	704	0.2+	1.0-
1987 08 27	809	0.3+	0.0	2000 01 08	691	0.4-	0.5-	2000 02 11	704	0.2-	0.1+
1987 08 27	809	0.2+	0.4-	2000 02 04	704	0.4-	1.1+				

1988 RM₂ = 2000 AZ₁₆₇

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr			
<i>M</i>	112.09293	(2000.0)	
<i>n</i>	0.28836812	ω	98.60473
<i>a</i>	2.2690177	Ω	278.67352
<i>e</i>	0.1873026	<i>i</i>	5.11415
<i>P</i>	3.42	<i>H</i>	14.2
Residuals in seconds of arc			
<i>G</i>	0.15	<i>U</i>	2

1988 09 08	054	0.3+	0.5+	2000 01 08	704	0.3+	0.2-	2000 02 02	704	0.3+	0.7+
1988 09 08	054	1.0-	1.1-	2000 01 08	704	1.2+	0.2+	2000 02 06	704	0.6+	0.2+
1988 09 09	054	0.3+	0.4+	2000 01 08	704	0.7-	1.1-	2000 02 06	704	0.1+	0.7+
1988 09 11	675	0.3+	0.4+	2000 01 10	704	0.6-	0.6-	2000 02 06	704	0.0	0.3+
1988 09 11	675	2.0-	0.3+	2000 01 10	704	0.3-	0.5-	2000 02 06	704	0.3+	0.2+
1988 09 16	054	1.6+	0.2+	2000 01 10	704	0.4-	0.8-	2000 02 06	704	0.5+	0.4+
1996 12 06	711	1.0+	0.3+	2000 01 10	704	0.2-	0.2-	2000 02 08	819	0.4-	0.2-
1996 12 06	711	0.3+	0.2+	2000 01 10	704	0.6-	0.2-	2000 02 08	819	0.5-	0.3-
1998 08 17	704	0.7+	0.9+	2000 01 11	704	(2.5+	0.1+)	2000 02 08	819	0.4-	0.0
1998 08 17	704	0.5-	0.1-	2000 01 11	704	0.1+	0.2-	2000 02 08	819	0.3-	0.0
1998 08 17	704	0.8-	1.1+	2000 01 11	704	0.3-	0.6-	2000 02 08	819	0.2-	0.1+
1998 08 17	704	0.0	0.5+	2000 01 11	704	0.5+	1.0+	2000 02 10	819	0.6-	0.3+
1998 08 17	704	(0.0	2.2+)	2000 01 11	704	0.5-	0.1+	2000 02 10	819	0.0	0.1+
1999 12 05	703	0.6+	0.5-	2000 02 02	704	0.1+	0.3+	2000 02 10	819	0.7-	0.1-
1999 12 05	703	0.3+	1.1+	2000 02 02	704	0.2+	0.5+	2000 02 10	819	1.0+	0.1-
1999 12 05	703	0.8+	0.8+	2000 02 02	704	0.3+	0.2+	2000 02 10	819	1.2-	0.0
1999 12 05	703	1.8+	0.3+	2000 02 02	704	0.4+	0.6+	2000 02 10	819	0.2+	0.6+

1988 VV₁ = 2000 AL₉

Id. G. V. Williams, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr			
<i>M</i>	160.29910	(2000.0)	
<i>n</i>	0.19822119	ω	356.82368
<i>a</i>	2.9131935	Ω	302.63467
<i>e</i>	0.2538295	<i>i</i>	12.51956
<i>P</i>	4.97	<i>H</i>	12.5
Residuals in seconds of arc			
<i>G</i>	0.15	<i>U</i>	4

1988 11 02	888	(3.5+	1.5-)	1998 10 02	699	0.0	0.7-	2000 01 04	704	0.7-	0.2+
1988 11 02	888	(5.3+	0.6-)	1998 10 02	699	0.0	0.3-	2000 01 06	704	0.3-	0.2-
1988 11 07	888	0.0	0.3+	1998 10 02	699	0.4+	0.5-	2000 01 06	704	0.0	0.4-
1988 11 07	888	0.1+	0.2+	1998 11 15	699	0.4+	0.4-	2000 01 06	704	0.7+	0.1+
1988 11 10	888	2.0-	1.4+	1998 11 15	699	0.1+	0.3-	2000 01 08	704	0.4-	0.4-
1988 11 10	888	1.3-	2.1+	1998 11 15	699	0.3+	0.0	2000 01 08	704	0.7-	0.3+
1988 11 14	888	(0.2+	4.7-)	2000 01 02	704	0.4+	0.1+	2000 01 08	704	0.4+	0.1+
1988 11 30	888	1.1+	0.7-	2000 01 02	704	0.3+	0.1+	2000 01 08	704	0.3+	0.5+
1988 11 30	888	1.0+	1.0-	2000 01 02	704	0.3-	0.2+	2000 01 08	704	0.3+	0.3-
1998 08 29	704	1.9+	1.0-	2000 01 02	704	0.5+	0.8-	2000 01 30	704	0.8-	0.1-
1998 08 29	704	0.1+	0.0	2000 01 04	704	0.3+	0.8+	2000 01 30	704	0.5-	0.1+
1998 08 29	704	1.3-	0.1+	2000 01 04	704	0.4+	0.6+	2000 01 30	704	0.1+	0.0
1998 08 29	704	1.5-	0.2+	2000 01 04	704	0.2-	0.2-				
1998 08 29	704	0.5+	0.3+	2000 01 04	704	0.2-	0.6-				

1988 VR₇ = 1991 RH₂₄

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	213.99874	(2000.0)	
<i>n</i>	0.30506496	ω	234.34533
<i>a</i>	2.1854515	Ω	125.01731
<i>e</i>	0.1837968	<i>i</i>	3.05593
<i>P</i>	3.23	<i>H</i>	15.5
Residuals in seconds of arc			
<i>G</i>	0.15	<i>U</i>	5

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Residuals in seconds of arc

1988 11 03	033	0.2+	0.2+	1988 11 06	033	0.2-	0.4-	1991 09 16	675	0.1+	0.8-
1988 11 03	033	0.3-	0.3+	1991 09 12	675	0.2+	0.4+	1991 09 16	675	0.0	0.0
1988 11 05	033	0.3+	0.1-	1991 09 12	675	0.2-	0.3+				

1989 CC₃ = 2000 AE₂₃₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	95.47457		(2000.0)		P		Q
n	0.17804533	ω	88.96099		+0.93176095		-0.27590935
a	3.1293129	Ω	287.02325		+0.14618101		+0.88007896
e	0.2517224	i	14.28900		+0.33234415		+0.38643893
P	5.54	H	13.2	G	0.15	U	3

Residuals in seconds of arc

1989 02 04	809	1.2-	0.1-	1998 08 29	704	0.8+	0.2+	2000 01 07	704	0.1+	0.9-
1989 02 04	809	0.2+	0.2+	1998 08 29	704	0.5-	1.3-	2000 02 02	703	0.3+	0.6-
1989 02 04	809	0.6+	0.5-	1998 09 28	699	0.3+	0.1-	2000 02 02	703	0.5+	0.5+
1989 02 07	809	0.6+	1.1-	1998 09 28	699	0.0	0.1-	2000 02 02	704	0.9+	0.3+
1989 02 07	809	0.5+	1.7-	1998 09 28	699	0.3-	0.1-	2000 02 02	703	0.0	0.5+
1989 02 07	809	0.4+	0.9-	1998 11 15	699	0.3+	0.3+	2000 02 02	704	0.2+	0.2+
1989 03 02	809	0.2-	1.1+	1998 11 15	699	0.2-	0.1+	2000 02 02	703	0.0	0.8+
1989 03 02	809	0.6-	0.8+	1998 11 15	699	0.5+	0.0	2000 02 02	704	0.1+	0.1+
1989 03 02	809	0.5-	0.3+	2000 01 05	699	0.5-	0.8+	2000 02 02	704	0.3+	0.2+
1989 03 03	809	0.6-	0.1+	2000 01 05	699	0.5+	0.5+	2000 02 02	704	0.4+	0.4+
1989 03 03	809	1.7-	1.5-	2000 01 05	699	0.1-	0.4-	2000 02 04	704	0.1-	0.7+
1989 03 03	809	0.4+	0.3-	2000 01 07	704	0.4+	0.5-	2000 02 04	704	0.3-	0.4+
1998 08 29	704	1.2+	0.2+	2000 01 07	704	0.1+	0.2+	2000 02 04	704	0.9-	1.0+
1998 08 29	704	0.2-	1.3-	2000 01 07	704	0.0	0.4-				
1998 08 29	704	1.8-	1.7+	2000 01 07	704	0.0	0.4-				

1989 EV₂ = 2000 CK₄₅

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	38.01036		(2000.0)		P		Q
n	0.27073395	ω	221.45051		-0.28804990		-0.95294928
a	2.3665058	Ω	245.48539		+0.90365678		-0.23786513
e	0.0743702	i	5.95650		+0.31690956		-0.18790381
P	3.64	H	14.5	G	0.15	U	5

Residuals in seconds of arc

1989 02 04	809	1.1+	1.9-	1989 03 03	809	1.7-	0.1-	2000 02 02	704	0.1-	0.6+
1989 02 04	809	0.7+	2.3-	1999 12 05	704	0.8-	1.1+	2000 02 02	704	0.1-	1.2+
1989 02 04	809	1.0+	2.3-	1999 12 05	704	0.2+	1.2+	2000 02 06	704	0.6+	0.6+
1989 03 02	809	1.1-	0.4+	1999 12 05	704	1.5+	0.5+	2000 02 06	704	0.3-	0.0
1989 03 02	809	0.6-	0.0	1999 12 05	704	0.4+	0.3+	2000 02 06	704	0.4+	0.4+
1989 03 02	809	0.3-	0.5-	2000 02 02	704	0.6+	0.2-	2000 02 06	704	0.3+	0.5+
1989 03 03	809	0.2+	0.4+	2000 02 02	704	0.1+	0.1+	2000 02 06	704	0.2+	0.2+
1989 03 03	809	0.6-	0.1+	2000 02 02	704	0.4-	0.2+				

1989 GR₁ = 1999 UW₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	327.02713		(2000.0)		P		Q
n	0.23431684	ω	225.96438		+0.13437256		-0.98077254
a	2.6057558	Ω	217.01403		+0.96306744		+0.16288531
e	0.0641220	i	13.59674		+0.23333480		-0.10748771
P	4.21	H	14.5	G	0.15	U	3

Residuals in seconds of arc

1989 04 03	809	0.4-	0.6-	1999 09 18	704	0.7+	0.7-	1999 11 03	703	0.8-	0.2-
1989 04 03	809	1.2-	0.4-	1999 09 18	704	0.1-	0.7+	1999 11 03	703	0.3+	0.0
1989 04 03	809	2.0-	0.3+	1999 09 18	704	0.3+	0.3+	1999 11 05	704	0.2+	0.4-
1989 04 05	809	0.0	1.0-	1999 09 29	703	(3.5-	1.1-)	1999 11 05	704	0.1-	0.1+
1989 04 05	809	0.3+	2.2-	1999 09 29	703	(0.8+	2.3+)	1999 11 05	704	0.5+	1.1-
1989 04 05	809	0.9+	2.2-	1999 09 29	703	0.0	0.6+	1999 11 05	704	0.1+	0.1+

1989 04 08	809	0.3+	1.2-	1999 09 29	703	0.1+	0.2-	1999 11 05	704	(2.1+	0.3-)
1989 04 08	809	0.5+	0.6-	1999 10 04	704	0.4+	0.8-	1999 11 05	704	1.5-	0.9-
1989 04 08	809	0.3+	1.3-	1999 10 04	704	0.2-	0.1+	1999 11 05	704	0.1-	0.3-
1989 04 10	809	(2.5+	3.3-)	1999 10 04	704	0.1+	0.9+	1999 11 05	704	(2.1-	0.9+)
1989 04 10	809	(5.6+	5.9-)	1999 10 04	704	0.3+	1.0-	1999 11 16	704	0.5+	0.8-
1989 04 10	809	(7.5+	7.6-)	1999 10 04	704	0.3-	1.9+	1999 11 16	704	0.4+	0.2+
1998 06 19	704	0.4-	0.8+	1999 10 20	704	0.5+	1.8-	1999 11 16	704	0.3+	0.3-
1998 06 19	704	0.1-	0.5+	1999 10 20	704	0.8+	0.8-	1999 11 16	704	1.3-	0.3-
1998 06 19	704	0.3+	0.2-	1999 10 20	704	0.9+	0.1-	1999 11 16	704	1.0-	1.1-
1998 06 19	704	(5.0-	1.9+)	1999 10 20	704	0.1+	0.4+	1999 12 07	704	1.1+	0.7-
1999 09 08	704	1.0+	1.0-	1999 10 29	703	0.4-	0.2-	1999 12 07	704	0.4+	0.7-
1999 09 08	704	0.3-	0.2+	1999 10 29	703	0.1-	0.2+	1999 12 07	704	0.6+	0.6-
1999 09 08	704	0.5+	0.4-	1999 10 29	703	0.8-	0.7-	1999 12 07	704	0.7+	0.3-
1999 09 08	704	0.2-	0.3-	1999 10 29	703	0.6+	1.3-	1999 12 07	704	1.0+	0.4+
1999 09 08	704	0.6-	0.4-	1999 11 03	703	1.3-	0.8+				
1999 09 18	704	0.2-	1.0+	1999 11 03	703	0.6-	0.2-				

1989 GF₃ = 1998 TW₂₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

$\dot{M}$	279.71982		(2000.0)		P		Q
n	0.25791656	ω	15.96478		-0.50846016		+0.85964651
a	2.4442740	Ω	223.50685		-0.79772791		-0.49201778
e	0.1608454	i	4.14497		-0.32418889		-0.13757315
P	3.82	H	15.3	G	0.15	U	6

Residuals in seconds of arc

1989 04 03	809	0.6+	0.7+	1989 04 08	809	0.6+	1.0+	1998 10 14	691	0.1-	0.1-
1989 04 03	809	0.1+	0.1+	1989 04 08	809	0.0	1.3+	1998 10 14	691	0.2-	0.4-
1989 04 03	809	0.2-	0.9+	1989 04 08	809	0.1-	0.2+	1998 10 14	691	0.2-	0.2-
1989 04 05	809	0.7+	0.2-	1989 04 10	809	0.2-	0.2-	1998 10 19	691	0.3+	0.2+
1989 04 05	809	0.7-	1.1-	1989 04 10	809	0.9-	0.8-	1998 10 19	691	0.3+	0.2+
1989 04 05	809	0.1-	0.8-	1989 04 10	809	0.2+	1.3-	1998 10 19	691	0.1+	0.1+

1989 SO₂ = 1999 XQ₂₂₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	126.96422		(2000.0)		P		Q
n	0.31199694	ω	260.14567		+0.96885932		+0.24369558
a	2.1529593	Ω	85.73981		-0.20643440		+0.89278924
e	0.1399912	i	2.52103		-0.13673501		+0.37886651
P	3.16	H	16.1	G	0.15	U	5

Residuals in seconds of arc

1989 09 26	809	0.2+	0.1-	1989 10 03	809	1.8-	0.4+	1999 12 13	691	0.3+	0.3+
1989 09 26	809	0.9-	0.1-	1989 10 07	809	0.1-	0.5-	1999 12 17	691	0.5-	0.2+
1989 09 26	809	0.3-	0.4-	1989 10 07	809	0.1-	0.5-	1999 12 17	691	0.4-	0.3+
1989 09 28	809	0.1-	0.1-	1989 10 07	809	1.1+	0.9-	1999 12 17	691	0.5-	0.2+
1989 09 28	809	0.8+	0.4+	1989 10 08	809	0.2-	0.7-	2000 01 03	704	0.4+	0.4-
1989 09 28	809	0.4-	0.1+	1989 10 08	809	0.5+	0.7-	2000 01 03	704	0.8-	0.2-
1989 09 29	675	1.2+	0.7-	1989 10 08	809	0.6+	0.1+	2000 01 03	704	0.9+	0.2-
1989 10 03	809	0.2-	1.6+	1999 12 13	691	0.4+	0.5+	2000 01 03	704	0.1+	0.9-
1989 10 03	809	0.4-	1.8+	1999 12 13	691	0.3+	0.6+				

1989 TG₁₆ = 1999 FO₁₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	318.44679		(2000.0)		P		Q
n	0.26916088	ω	149.38417		+0.96326494		+0.26852172
a	2.3757173	Ω	195.04116		-0.24947704		+0.88909721
e	0.2059905	i	0.90362		-0.09940761		+0.37067807
P	3.66	H	16.0	G	0.15	U	6

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Residuals in seconds of arc

1989 10 04	809	0.3−	0.4+	1989 10 08	809	0.3+	0.4−	1999 03 18	691	0.5−	0.0
1989 10 04	809	0.1+	0.6+	1989 10 08	809	0.5+	0.4−	1999 03 18	691	0.6−	0.1−
1989 10 04	809	0.6+	0.3+	1989 10 08	809	0.5+	0.4−	1999 03 18	691	0.7−	0.1−
1989 10 06	809	0.7−	0.1−	1999 03 09	691	0.1+	0.6−	1999 03 22	691	0.5+	0.1−
1989 10 06	809	0.6−	0.2−	1999 03 09	691	0.2−	0.1−	1999 03 22	691	0.4+	0.2+
1989 10 06	809	0.1−	0.3−	1999 03 09	691	0.4+	0.1−	1999 03 22	691	0.4+	0.0

1989 WY₁ = 2000 BD₂₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Marsden

<i>M</i>	114.97028		(2000.0)	P	Q
<i>n</i>	0.21318367	ω	302.75885	+0.92110322	−0.29496549
<i>a</i>	2.7752371	Ω	75.50117	+0.38204022	+0.81043433
<i>e</i>	0.1901046	<i>i</i>	15.21568	−0.07492754	+0.50615368
<i>P</i>	4.62	<i>H</i>	13.0	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1989 11 29	400	1.9+	1.7−	1989 12 19	400	0.7−	0.6−	2000 02 03	012	0.1−	0.1−
1989 11 29	400	0.8+	0.5−	2000 01 27	012	0.1−	0.1+	2000 02 03	012	0.1−	0.1+
1989 11 29	400	1.5−	0.2−	2000 01 27	012	0.1+	0.1−	2000 02 03	012	0.2+	0.1+
1989 12 01	400	0.8−	1.7+	2000 01 27	012	0.1+	0.1−	2000 02 03	012	0.1−	0.0
1989 12 01	400	0.5+	0.1+	2000 01 27	012	0.1+	0.0	2000 02 11	012	0.1+	0.1+
1989 12 01	400	1.0−	1.0+	2000 01 27	012	0.2−	0.0	2000 02 11	012	0.3−	0.2+
1989 12 19	400	0.7+	0.3+	2000 02 03	012	0.3+	0.2−				

1990 BH = 1999 YU₁

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	336.90792		(2000.0)	P	Q
<i>n</i>	0.29390916	ω	56.27789	−0.93764790	+0.07102864
<i>a</i>	2.2404089	Ω	125.42432	−0.12499455	−0.98231683
<i>e</i>	0.3708009	<i>i</i>	24.67985	+0.32433437	−0.17322983
<i>P</i>	3.35	<i>H</i>	14.7	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1990 01 22	675	0.7+	0.2−	1999 12 20	704	0.2−	0.3−	2000 02 02	704	0.3−	0.1−
1990 01 22	675	0.5+	1.5−	1999 12 20	704	0.0	1.2−	2000 02 02	704	0.0	0.9−
1990 01 25	675	0.4−	0.3+	1999 12 20	704	0.2−	0.9−	2000 02 02	704	0.2−	0.3+
1990 01 25	675	0.1−	0.8+	1999 12 20	704	0.5−	0.1−	2000 02 02	704	0.1+	0.2+
1990 01 30	399	0.3−	0.2+	1999 12 20	704	0.3+	0.2−	2000 02 02	704	0.1+	0.7+
1990 01 30	399	0.6+	0.8+	2000 01 08	704	0.5+	0.3+	2000 02 03	704	0.3+	0.1+
1990 01 30	399	0.2−	0.9−	2000 01 08	704	0.4+	0.3+	2000 02 03	704	0.5+	0.1−
1990 02 02	399	0.7−	0.3−	2000 01 08	704	0.4+	0.3+	2000 02 03	704	0.2−	0.1+
1990 02 02	399	(1.2−	2.6+)	2000 01 08	704	0.3+	0.6+	2000 02 03	704	0.3−	0.0
1990 02 02	399	(1.3−	4.1+)	2000 01 08	704	0.3+	0.6+	2000 02 03	704	0.6−	0.3+
1999 12 16	704	0.4−	0.1+	2000 01 10	704	0.4+	0.5+	2000 02 12	704	0.6−	0.0
1999 12 16	704	0.2−	0.2−	2000 01 10	704	0.7+	0.0	2000 02 12	704	0.3−	0.4−
1999 12 16	704	0.4−	0.1−	2000 01 10	704	0.4+	0.5+	2000 02 12	704	0.3−	0.4−
1999 12 16	704	0.3−	0.4−	2000 01 10	704	0.5+	1.0+	2000 02 12	704	0.0	0.3−
1999 12 16	704	0.5−	0.2−	2000 01 10	704	0.1−	0.2+				

1990 ET₁ = 1999 XO₃₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	40.50640		(2000.0)	P	Q
<i>n</i>	0.28856583	ω	162.34383	+0.06045882	−0.99390708
<i>a</i>	2.2679812	Ω	284.11361	+0.90395690	+0.09367544
<i>e</i>	0.1219441	<i>i</i>	5.45295	+0.42332807	−0.05808288
<i>P</i>	3.42	<i>H</i>	15.0	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1990 02 24	809	0.0	0.8+	1999 12 06	704	0.9+	0.2−	2000 01 06	704	0.4−	0.1+
1990 02 24	809	0.2+	0.5−	1999 12 06	704	0.7+	0.2+	2000 01 06	704	0.4+	0.3+
1990 02 24	809	(3.1+	0.7+)	1999 12 06	704	0.5−	0.4+	2000 02 02	704	0.5+	0.1+
1990 03 02	809	0.2+	0.7+	1999 12 06	704	0.5−	1.0−	2000 02 02	704	1.0+	0.1+

1990 03 02	809	0.7+	0.5−	1999 12 07	704	0.3−	0.8−	2000 02 02	704	0.2+	0.0
1990 03 02	809	0.4−	0.4−	1999 12 07	704	0.2−	0.1+	2000 02 02	704	0.2+	0.0
1990 03 04	809	0.9−	0.5−	1999 12 07	704	0.3−	0.1−	2000 02 02	704	0.0	0.0
1990 03 04	809	0.0	0.1+	1999 12 07	704	0.5−	0.2−	2000 02 03	704	0.3+	0.1+
1990 03 04	809	(2.3−	0.1+)	1999 12 07	704	0.6−	0.1−	2000 02 03	704	0.2+	0.4+
1998 08 17	704	0.3−	0.7+	1999 12 31	699	0.2+	0.9+	2000 02 03	704	0.2−	0.1−
1998 08 17	704	0.0	0.6−	1999 12 31	699	0.1+	0.3+	2000 02 03	704	0.2−	0.2+
1998 08 17	704	(3.0−	0.6−)	1999 12 31	699	0.3−	0.5+	2000 02 03	704	0.1−	0.2+
1998 08 17	704	0.1−	0.8+	2000 01 06	704	0.1−	0.2−				
1998 08 17	704	(5.8−	0.4+)	2000 01 06	704	0.7−	0.1−				

1990 HZ₁ = 2000 AG₁₈₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	329.09299		(2000.0)	P	Q
<i>n</i>	0.18089721	ω	3.74530	−0.70230610	−0.68376547
<i>a</i>	3.0963364	Ω	131.00628	+0.64612340	−0.72905899
<i>e</i>	0.1766120	<i>i</i>	15.21653	+0.29881548	−0.03062289
<i>P</i>	5.45	<i>H</i>	13.4	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1990 04 27	413	0.5+	0.7+	1999 12 16	699	0.4+	0.0	2000 01 11	704	0.1−	0.3−
1990 04 29	413	0.1−	0.3+	1999 12 16	699	0.3+	0.5+	2000 01 11	704	0.0	0.2−
1990 05 26	413	0.0	1.0−	2000 01 07	699	0.9−	0.5+	2000 01 11	704	0.4+	0.0
1990 05 26	413	0.5−	0.1−	2000 01 07	699	0.1−	0.4+	2000 01 11	704	0.4+	0.0
1999 12 03	704	0.1+	0.0	2000 01 07	699	0.3+	0.0	2000 01 11	704	0.1+	0.3+
1999 12 03	704	0.2+	0.1−	2000 01 08	704	0.8−	0.1+	2000 02 04	704	1.0+	0.7−
1999 12 03	704	0.1+	0.3−	2000 01 08	704	0.1+	0.6−	2000 02 04	704	0.1+	0.2−
1999 12 03	704	0.3−	0.3−	2000 01 08	704	0.4−	0.6−	2000 02 04	704	0.1−	0.3+
1999 12 16	699	0.1−	0.7+	2000 01 08	704	0.3−	0.3+				

1990 OR₃ = 1990 PE = 1999 XG₂₂₉Id. G. V. Williams (d, *MPC* 16995; unpublished)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	226.76292		(2000.0)	P	Q
<i>n</i>	0.26716412	ω	335.88708	+0.51385646	+0.85602687
<i>a</i>	2.3875399	Ω	324.95851	−0.77029334	+0.43151349
<i>e</i>	0.0970047	<i>i</i>	5.62703	−0.37762377	+0.28462978
<i>P</i>	3.69	<i>H</i>	13.6	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1990 07 27	675	0.4+	0.2−	1998 08 31	704	1.1−	1.4+	2000 01 05	704	0.1−	1.6−
1990 07 27	675	0.6+	0.6−	1998 08 31	704	(4.3−	0.6+)	2000 01 06	699	0.2+	1.2+
1990 07 30	675	0.3−	0.2−	1998 11 16	704	0.1−	1.5+	2000 01 06	699	0.3+	0.6+
1990 07 30	675	0.3+	0.3+	1998 11 16	704	0.2+	0.5+	2000 01 06	699	0.5+	0.1+
1990 08 15	372	(3.4−	0.6+)	1998 11 16	704	0.3+	0.1+	2000 01 27	691	0.0	0.3−
1990 08 15	372	(3.2−	1.1+)	1998 11 16	704	0.0	0.8−	2000 01 27	691	0.0	0.4−
1990 08 18	372	(0.1−	2.2+)	1998 11 16	704	0.8+	0.6−	2000 01 27	691	0.1−	0.5−
1990 08 18	372	(0.6−	2.6+)	1998 12 18	699	0.7+	0.5−	2000 02 02	704	0.6−	0.0
1990 08 24	372	(1.8+	2.9+)	1998 12 18	699	0.7−	0.5−	2000 02 02	704	0.5+	0.2−
1990 08 24	372	(3.2+	3.2+)	1998 12 18	699	0.1−	0.3+	2000 02 02	704	0.8−	0.7−
1990 08 26	372	(3.5−	1.1−)	1999 12 09	327	0.5−	0.0	2000 02 02	704	0.9−	0.5−
1990 08 26	372	0.9−	1.1−	1999 12 09	327	0.4−	0.4−	2000 02 05	704	0.1−	0.3−
1990 09 14	675	(1.1+	2.1−)	1999 12 09	327	0.2+	0.3−	2000 02 05	704	0.5+	0.1+
1990 09 14	675	(2.7+	0.8−)	1999 12 10	327	0.7−	0.1−	2000 02 05	704	0.1−	0.7−
1990 09 18	675	1.4+	1.7−	1999 12 10	327	0.7−	0.1+	2000 02 06	704	0.4+	0.2+
1990 09 18	675	(2.0+	4.9−)	1999 12 10	327	0.4−	0.1+	2000 02 06	704	0.1−	0.1+
1998 08 31	704	0.5+	1.2−	2000 01 05	704	0.2−	0.3+	2000 02 06	704	0.0	0.0
1998 08 31	704	0.7−	0.9−	2000 01 05	704	0.1+	0.4+	2000 02 06	704	0.1−	0.1−
1998 08 31	704	(2.4+	0.2+)	2000 01 05	704	0.3+	1.5−	2000 02 06	704	0.2−	0.1+

1990 QJ₁₀ = 1999 FF₁₄

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	252.00163		(2000.0)	P	Q				
<i>n</i>	0.18398566	ω	358.23352	+0.98805941	-0.15394047				
<i>a</i>	3.0615879	Ω	10.62826	+0.14178152	+0.89219498				
<i>e</i>	0.0982245	<i>i</i>	1.98801	+0.06030427	+0.42460623				
<i>P</i>	5.36	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	5		

Residuals in seconds of arc

1990 08 16	809	0.7+	0.1+	1990 08 26	809	1.3+	1.4+	1999 04 17	703	0.7+	0.8-
1990 08 16	809	0.1-	0.1-	1999 03 19	691	0.1+	0.1+	1999 04 17	703	0.8+	0.3-
1990 08 16	809	0.1-	1.2-	1999 03 19	691	0.1-	0.2-	1999 04 17	703	0.8+	0.0
1990 08 24	809	1.4-	0.8-	1999 03 19	691	0.0	0.1+	1999 04 18	703	0.7-	0.9-
1990 08 24	809	0.9-	0.1-	1999 03 23	691	0.4+	0.3+	1999 04 18	703	1.3-	0.2+
1990 08 24	809	0.1+	0.5-	1999 03 23	691	0.1+	0.3+	1999 04 18	703	0.2-	1.1+
1990 08 26	809	0.3-	0.2+	1999 03 23	691	0.4-	0.3+	1999 04 18	703	(0.9+	2.3+)
1990 08 26	809	0.6+	1.2+	1999 04 17	703	(2.8+	1.5-)				

1990 SW₁₄ = 1998 XG₂₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	351.61205		(2000.0)	P	Q				
<i>n</i>	0.17728926	ω	282.73087	-0.88148689	+0.43679057				
<i>a</i>	3.1382034	Ω	283.40293	-0.32899543	-0.84065904				
<i>e</i>	0.5016908	<i>i</i>	10.62924	-0.33873716	-0.32016617				
<i>P</i>	5.56	<i>H</i>	11.5	<i>G</i>	0.15	<i>U</i>	6		

Residuals in seconds of arc

1990 09 17	675	0.5-	1.4+	1990 09 20	675	0.1+	1.5-	1998 12 17	704	0.3+	0.2+
1990 09 17	675	1.1-	1.5+	1998 12 14	704	0.9+	0.7-	1998 12 17	704	0.2-	0.4+
1990 09 19	675	0.6+	0.4+	1998 12 14	704	0.0	0.8+	1998 12 17	704	0.7-	0.8-
1990 09 19	675	0.1-	0.2+	1998 12 14	704	0.7-	0.2-	1998 12 17	704	0.9+	0.5-
1990 09 20	675	0.9+	2.0-	1998 12 14	704	0.5-	0.5+	1998 12 17	704	0.1+	0.2+

1990 TJ₈ = 1952 KT = 1999 FR₅₆

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	25.91762		(2000.0)	P	Q				
<i>n</i>	0.29147553	ω	223.68320	-0.03078131	+0.99670373				
<i>a</i>	2.2528623	Ω	44.71186	-0.88524045	+0.00768518				
<i>e</i>	0.1802603	<i>i</i>	6.12457	-0.46411405	-0.08076264				
<i>P</i>	3.38	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	2		

Residuals in seconds of arc

1952 05 24	711	(12.0+	7.2-)Y	1998 01 29	327	0.4+	0.1+	1999 03 23	704	1.0-	0.3+
1990 10 13	033	0.2+	0.2-	1998 02 15	327	0.2-	0.8+	1999 03 23	704	1.0-	0.6+
1990 10 13	033	0.5-	0.2-	1998 02 15	327	0.3+	0.2-	1999 03 23	704	1.1-	0.1-
1990 10 14	033	0.2+	0.4-	1998 02 15	327	0.2+	0.4-	1999 03 23	704	0.7+	0.3+
1990 10 18	033	0.0	0.9+	1999 02 23	699	0.3+	0.9+	1999 04 06	699	0.2+	0.3+
1993 08 17	675	1.0-	0.9+	1999 02 23	699	0.9+	0.2+	1999 04 06	699	0.6+	0.1-
1993 08 17	675	0.1-	1.0+	1999 02 23	699	0.3-	0.9+	1999 04 06	699	0.3+	0.6+
1997 12 04	704	0.4-	0.4-	1999 03 20	704	0.5+	0.6-	1999 04 18	703	1.6+	1.2-
1997 12 04	704	(0.1-	3.2-)	1999 03 20	704	0.4+	0.0	1999 04 18	703	0.1-	0.2-
1997 12 04	704	(0.4+	2.9+)	1999 03 20	704	0.4+	0.3-	1999 04 18	703	0.9-	0.8+
1997 12 04	704	0.7-	0.4+	1999 03 20	704	0.6+	1.3-	1999 04 18	703	1.2-	1.9+
1998 01 29	327	0.6+	0.1+	1999 03 20	704	0.7+	0.9-				
1998 01 29	327	0.2+	0.3+	1999 03 23	704	0.4-	0.3+				

1990 TF₉ = 1998 KB₁₄ = 1999 RX₂₀₈

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	67.33814		(2000.0)	P	Q				
<i>n</i>	0.21734379	ω	95.58412	+0.76866630	+0.63137250				
<i>a</i>	2.7397098	Ω	225.31787	-0.62900354	+0.71695593				
<i>e</i>	0.1859463	<i>i</i>	8.29441	-0.11621819	+0.29553842				
<i>P</i>	4.53	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	2		

Residuals in seconds of arc

1990 10 10	033	0.0	0.3+	1999 07 23	704	0.3+	0.2-	1999 10 20	704	0.1+	0.7+
1990 10 11	033	0.3-	0.8-	1999 07 23	704	0.2-	0.7+	1999 10 20	704	0.6-	0.1+
1990 10 11	033	0.9+	0.5-	1999 07 23	704	0.1+	0.4-	1999 10 20	704	0.5-	0.0
1990 10 12	033	0.4+	0.8-	1999 07 23	704	0.1+	0.1-	1999 10 20	704	0.3-	0.3+
1990 10 13	033	0.5+	1.0-	1999 09 06	703	0.2-	0.4+	1999 11 03	703	0.4-	0.3+
1990 10 14	033	0.3-	1.4-	1999 09 06	703	0.0	0.2+	1999 11 03	703	0.1-	0.2+
1998 04 22	704	1.4+	0.1+	1999 09 06	703	0.8-	0.5-	1999 11 03	703	0.9-	0.1-
1998 04 22	704	0.2+	0.7-	1999 09 06	703	(1.2-	2.4-)	1999 11 03	703	0.5-	0.3+
1998 04 22	704	1.7+	1.4-	1999 09 08	704	0.4+	0.3+	1999 11 05	704	0.3-	0.4+
1998 04 22	704	1.1-	0.1+	1999 09 08	704	0.5+	0.4+	1999 11 05	704	0.0	0.2+
1998 05 01	704	0.3+	0.8+	1999 09 08	704	0.1+	0.9+	1999 11 05	704	0.0	0.8-
1998 05 01	704	0.4-	0.2-	1999 09 08	704	0.3-	0.3+	1999 11 05	704	1.4-	0.8+
1998 05 01	704	0.2+	0.1-	1999 09 08	704	0.3+	0.3+	1999 11 05	704	0.0	0.3+
1998 05 01	704	0.4-	1.2-	1999 09 18	704	0.3+	0.2-	1999 11 13	699	0.3+	0.9-
1998 05 22	704	0.7-	0.3-	1999 09 18	704	0.3-	0.6-	1999 11 13	699	1.5+	0.1-
1998 05 22	704	1.2+	1.2+	1999 09 18	704	0.2+	0.7-	1999 11 13	699	0.1-	0.9+
1998 05 22	704	0.1+	1.4-	1999 09 18	704	0.5+	0.0	1999 11 14	704	1.3+	0.2-
1998 05 22	704	0.8-	0.4-	1999 09 18	704	0.1+	0.2+	1999 11 14	704	0.2+	0.1-
1998 05 22	704	1.8-	1.1+	1999 09 30	703	0.8-	0.4+	1999 11 14	704	0.1+	0.9-
1998 05 23	704	1.7+	1.2+	1999 09 30	703	0.7-	0.0	1999 11 14	704	0.4-	1.6-
1998 05 23	704	0.4+	0.4+	1999 09 30	703	0.5-	0.2-	1999 11 27	699	0.7-	0.9+
1998 05 23	704	0.6+	0.1-	1999 09 30	703	0.6-	0.3+	1999 11 27	699	1.0-	1.0+
1998 05 23	704	1.3-	0.5+	1999 10 04	704	0.3+	0.8-	1999 11 27	699	1.4+	1.8+
1998 05 24	704	0.3-	0.6-	1999 10 04	704	0.2-	0.0	1999 12 07	704	0.4+	0.2-
1998 05 24	704	(0.5-	2.8-)	1999 10 04	704	0.2+	0.5-	1999 12 07	704	1.4+	0.6+
1998 05 24	704	0.3+	0.3+	1999 10 04	704	0.2+	0.3-	1999 12 07	704	(1.6+	2.3+)
1998 05 24	704	1.4-	0.0	1999 10 04	704	1.0+	0.4-				
1999 07 23	704	0.4+	0.0	1999 10 20	704	0.4-	1.1+				

1990 TS₁₀ = 1979 QV = 1999 CQ₁₅₀

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	244.22237		(2000.0)	P	Q				
<i>n</i>	0.27458878	ω	32.69102	+0.97640183	+0.21478404				
<i>a</i>	2.3443054	Ω	314.88844	-0.20434367	+0.88509085				
<i>e</i>	0.1774498	<i>i</i>	1.82175	-0.06987936	+0.41289466				
<i>P</i>	3.59	<i>H</i>	16.6	<i>G</i>	0.15	<i>U</i>	5		

Residuals in seconds of arc

1979 08 22	809	1.1-	0.9-	1990 10 11	033	0.2+	0.6-	1999 02 08	691	0.1-	0.3+
1979 08 22	809	0.3+	1.3+	1990 10 11	033	0.1+	0.2-	1999 02 08	691	0.1+	0.1-
1979 08 22	809	0.2-	0.4+	1990 10 12	033	0.4+	0.6-	1999 02 16	691	0.2+	0.3-
1979 08 23	809	0.7-	0.6-	1990 10 13	033	0.2+	0.5+	1999 02 16	691	0.1+	0.0
1979 08 23	809	1.7+	0.3-	1990 10 14	033	0.7-	0.4+	1999 02 16	691	0.2-	0.1-
1990 10 10	033	0.2-	0.5+	1999 02 08	691	0.1-	0.0				

1990 VY₁ = 1990 VW₄ = 2000 AO₁₉₂Id. S. Nakano (d, *MPC* 17600), M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	65.74188		(2000.0)	P	Q				
<i>n</i>	0.22694457	ω	179.66571	+0.86993858	-0.48324433				
<i>a</i>	2.6618864	Ω	209.87613	+0.45200587	+0.86110308				
<i>e</i>	0.2516346	<i>i</i>	11.39269	+0.19722467	+0.15803924				
<i>P</i>	4.34	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	4		

2000 FEB. 22

M.P.C. 38437

Residuals in seconds of arc

1990 11 11	372	1.1-	0.8+	1990 11 21	809	0.8-	0.5+	2000 01 11	704	0.1-	0.2-
1990 11 11	372	1.1+	1.3+	1990 11 23	372	1.6+	1.1-	2000 01 11	704	0.3+	0.4-
1990 11 13	372	(2.9+	1.6+)	1990 11 23	372	1.2+	0.9-	2000 01 12	704	0.4-	0.1+
1990 11 13	372	0.8-	1.6+	1999 10 20	704	0.8+	1.2-	2000 01 12	704	0.2-	0.4+
1990 11 14	372	1.0+	0.6-	1999 10 20	704	0.2+	0.5-	2000 01 12	704	0.2-	0.3+
1990 11 14	372	0.6+	1.5+	1999 10 20	704	0.2-	0.4-	2000 01 12	704	0.0	0.2-
1990 11 15	809	1.4-	0.2+	1999 10 20	704	0.8-	0.5-	2000 02 05	704	0.1+	0.1-
1990 11 15	809	0.8-	0.3+	1999 10 20	704	0.4-	0.5+	2000 02 05	704	0.4+	0.4+
1990 11 15	809	1.7-	0.3-	2000 01 08	704	0.4-	0.6-	2000 02 05	704	0.1-	0.3-
1990 11 15	372	(2.3+	1.9-)	2000 01 08	704	0.0	0.3-	2000 02 05	704	0.2-	0.0
1990 11 15	372	1.0-	1.6-	2000 01 08	704	0.3-	0.0	2000 02 05	704	0.8+	0.4+
1990 11 17	809	1.1+	0.7-	2000 01 08	704	0.2-	0.5+	2000 02 06	704	0.1-	0.1+
1990 11 17	809	0.6+	0.4+	2000 01 08	704	0.1-	0.0	2000 02 06	704	0.6+	0.1+
1990 11 17	809	0.6-	1.0-	2000 01 11	704	0.1-	0.1+	2000 02 06	704	0.5+	0.2+
1990 11 21	809	1.0+	0.1-	2000 01 11	704	0.1-	0.2+	2000 02 06	704	0.4+	0.5+
1990 11 21	809	0.2-	0.4+	2000 01 11	704	0.3-	0.0				

1990 VY₅ = 2000 BG₁₅

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P	Williams	Q
<i>n</i>	0.12597945	ω	36.41054	-0.63530260	-0.72460431	
<i>a</i>	3.9409679	Ω	94.65643	+0.63007377	-0.68632554	
<i>e</i>	0.1669780	<i>i</i>	15.54401	+0.44653965	-0.06249677	
<i>P</i>	7.82	<i>H</i>	12.0	<i>G</i>	0.15	<i>U</i> 3

Residuals in seconds of arc

1990 11 15	809	0.4-	0.4-	1998 12 15	704	0.4+	0.2+	2000 01 03	704	0.1-	0.1-
1990 11 15	809	0.3+	1.4-	1998 12 15	704	0.1+	0.5+	2000 01 03	704	0.5+	0.5-
1990 11 15	809	0.9-	0.1+	1998 12 22	704	0.1-	0.3+	2000 01 03	704	0.1+	0.0
1990 11 17	809	0.2+	0.9+	1998 12 22	704	(0.6+	3.3-)	2000 01 03	704	0.5+	0.5+
1990 11 17	809	0.6+	0.5-	1998 12 22	704	0.5+	0.9-	2000 01 03	704	0.9+	0.6+
1990 11 17	809	0.3+	0.3-	1998 12 22	704	0.3+	0.8-	2000 01 31	411	0.1+	0.6-
1990 11 23	809	(0.7+	2.3+)	1998 12 22	704	(0.7+	2.2-)	2000 01 31	411	0.4+	0.3-
1990 11 23	809	0.2+	1.5+	1999 12 15	704	0.0	0.0	2000 02 01	411	0.0	0.3-
1990 11 23	809	0.9-	1.6+	1999 12 15	704	0.2-	0.5+	2000 02 01	411	0.8+	0.4-
1998 12 15	704	1.0+	0.5-	1999 12 15	704	0.1-	0.5+	2000 02 09	411	1.7-	0.4+
1998 12 15	704	1.5-	0.6-	1999 12 15	704	0.5-	0.3+	2000 02 09	411	0.5-	0.0

1991 AE₂ = 2000 CM₉₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P	Williams	Q
<i>n</i>	0.23992619	ω	267.22871	+0.52289832	-0.84373797	
<i>a</i>	2.5649817	Ω	150.23085	+0.84636076	+0.49703808	
<i>e</i>	0.1448130	<i>i</i>	14.12610	+0.10124625	+0.20263114	
<i>P</i>	4.11	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i> 3

Residuals in seconds of arc

1991 01 07	413	0.3-	0.2+	1998 11 13	704	1.3+	0.7+	2000 02 02	703	0.5+	0.0
1991 01 08	413	1.1-	0.4-	1999 12 09	703	0.1-	1.4+	2000 02 02	703	0.5+	0.9+
1991 01 08	413	0.1+	0.8-	1999 12 09	703	1.5+	0.1+	2000 02 06	704	0.5+	0.1+
1991 01 12	413	0.3+	0.1+	1999 12 09	703	0.3-	0.1+	2000 02 06	704	0.2-	0.3+
1991 02 04	413	1.0+	0.6-	1999 12 09	703	0.1-	0.1-	2000 02 06	704	(1.0-	2.2+)
1991 02 04	413	0.7+	0.8-	2000 01 08	704	0.6-	0.3+	2000 02 11	704	0.0	0.2-
1998 09 28	699	0.6-	0.3+	2000 01 08	704	0.5-	0.0	2000 02 11	704	0.3-	0.1+
1998 09 28	699	1.0-	0.1+	2000 01 08	704	0.4-	0.3-	2000 02 11	704	0.0	0.4-
1998 09 28	699	0.7-	0.3+	2000 01 08	704	0.1-	0.2-	2000 02 11	704	0.4+	0.0
1998 11 13	704	1.3+	1.2+	2000 01 08	704	0.3-	0.4-	2000 02 11	704	0.0	0.1+
1998 11 13	704	(2.2-	4.3+)	2000 02 02	703	0.4-	0.5+				
1998 11 13	704	1.0-	0.1-	2000 02 02	703	0.1+	0.4+				

1991 DB

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P	Williams	Q
<i>n</i>	0.43838012	ω	51.10763	-0.86434505	+0.49759560	
<i>a</i>	1.7162036	Ω	158.43157	-0.50051616	-0.83709244	
<i>e</i>	0.4026571	<i>i</i>	11.42907	-0.04889998	-0.22732107	
<i>P</i>	2.25	<i>H</i>	18.5	<i>G</i>	0.15	<i>U</i> 1

Residuals in seconds of arc

1991 02 13	675	1.5-	1.4-	1991 03 21	657	0.3-	0.3-	2000 02 05	046	0.3+	0.3+
1991 02 13	675	0.4-	1.2-	1991 04 18	657	1.9-	0.8-	2000 02 05	046	0.5+	0.2+
1991 02 18	675	0.8-	0.4+	1991 04 18	657	1.9+	0.2+	2000 02 05	046	0.3-	0.8+
1991 02 18	675	0.1-	1.7-	1991 04 19	657	0.2-	1.1+	2000 02 05	046	0.8-	1.3+
1991 02 19	675	(2.3+	0.8+)	1991 04 19	657	(0.3-	2.3+)	2000 02 05	046	0.5+	0.0
1991 02 20	675	0.2+	0.8+	1991 05 13	801	0.2-	0.4+	2000 02 05	046	0.4+	0.9+
1991 02 20	675	1.1-	1.1-	1991 05 17	801	0.3-	0.5+	2000 02 05	046	0.8+	0.5+
1991 02 22	413	0.7+	1.1-	1991 05 17	801	(2.7+	2.3-)	2000 02 05	046	0.1+	0.1+
1991 02 23	413	0.4-	0.8-	1991 06 09	801	0.6-	1.1-	2000 02 05	046	0.3+	0.3+
1991 02 25	413	0.4-	0.5+	1991 06 09	801	0.6+	1.1+	2000 02 07	703	0.2+	0.8+
1991 02 26	568	1.7-	1.7-	1991 06 11	801	0.0	0.2-	2000 02 07	703	0.6+	0.6+
1991 03 09	674	0.1-	1.4-	1991 06 11	801	0.4+	0.7-	2000 02 07	703	0.1+	0.1+
1991 03 09	674	1.9+	0.9+	1991 06 14	801	0.0	0.7+	2000 02 07	703	0.6+	0.4+
1991 03 09	674	(3.6+	3.0+)	1991 06 14	801	0.6-	0.2-	2000 02 08	704	0.4+	0.1+
1991 03 09	674	1.0+	1.8+	1991 07 09	801	0.2-	0.9-	2000 02 08	704	0.2+	0.2+
1991 03 09	674	(2.3-	0.4+)	1991 07 09	801	0.6+	1.5+	2000 02 08	704	0.7+	1.0+
1991 03 09	674	(4.3-	0.7+)	1991 07 10	801	(3.0+	1.8-)	2000 02 08	704	0.5+	0.1+
1991 03 11	657	0.3-	0.9-	1991 07 10	801	0.2+	0.7-	2000 02 10	360	0.1+	0.1+
1991 03 12	675	(2.6+	1.2-)	2000 02 04	046	0.6-	0.0	2000 02 10	360	0.2+	0.3-
1991 03 12	675	1.9+	1.9-	2000 02 04	046	0.1-	0.2-	2000 02 10	360	0.1+	0.1-
1991 03 13	801	0.1+	0.8+	2000 02 04	046	0.3-	0.2+	2000 02 13	704	0.6+	0.5+
1991 03 13	801	0.1+	0.8+	2000 02 04	046	0.2-	0.2+	2000 02 13	704	1.3-	0.5+
1991 03 14	801	0.5-	0.1-	2000 02 04	046	0.1-	0.2+	2000 02 13	704	0.5+	0.3+
1991 03 14	801	0.4-	0.3+	2000 02 04	422	0.3-	0.1-	2000 02 13	704	0.3+	0.2-
1991 03 17	675	0.9+	1.6-	2000 02 04	422	0.3-	0.1-	2000 02 14	557	0.3-	0.0
1991 03 17	675	(0.4-	2.4-)	2000 02 04	422	0.3-	0.1-	2000 02 14	557	0.1-	0.1+
1991 03 18	675	(2.3+	1.2+)	2000 02 04	422	0.1-	0.1+	2000 02 14	557	0.2-	0.0
1991 03 21	801	0.5-	0.8+	2000 02 05	422	0.0	0.5-	2000 02 14	557	0.3-	0.0
1991 03 21	801	0.6-	0.7+	2000 02 05	422	0.2-	0.4-	2000 02 14	557	0.1+	0.4+
1991 03 21	657	0.1+	1.1+	2000 02 05	422	0.0	0.4-	2000 02 14	557	0.2-	0.1+

1991 GR₁₀ = 1999 XU₁₂₉

Id. A. Doppler, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P	Williams	Q
<i>n</i>	0.19300565	ω	63.71166	-0.27167205	-0.95375035	
<i>a</i>	2.9654416	Ω	42.71055	+0.80142909	-0.29822275	
<i>e</i>	0.0647894	<i>i</i>	10.93459	+0.53282804	-0.03772873	
<i>P</i>	5.11	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i> 4

Residuals in seconds of arc

1991 04 09	033	0.1-	0.4+	1999 12 12	704	0.4-	1.6-	1999 12 16	704	0.5-	0.1-
1991 04 09	033	0.2-	0.3+	1999 12 13	704	0.2+	0.4-	1999 12 16	704	0.3-	0.2+
1991 04 11	033	0.9-	0.4+	1999 12 13	704	0.1-	0.2+	2000 01 02	704	0.7+	0.5-
1991 04 11	033	0.2+	0.2-	1999 12 13	704	0.3+	0.4+	2000 01 02	704	0.0	0.1+
1991 04 12	033	0.1+	0.2-	1999 12 13	704	0.8+	0.3+	2000 01 02	704	0.7+	0.1+
1991 04 13	033	0.7+	0.7-	1999 12 13	704	0.7+	0.2+	2000 01 02	704	0.6+	0.3+
1991 04 19	675	0.1-	0.4-	1999 12 15	704	0.3-	0.4+	2000 01 02	704	0.3+	0.9+
1991 04 19	675	(3.7-	2.6-)	1999 12 15	704	0.3-	0.1-	2000 02 11	704	0.5-	0.7+
1999 12 12	704	0.3+	0.3+	1999 12 15	704	0.9-	0.4+	2000 02 11	704	0.9-	0.7+
1999 12 12	704	0.0	0.6-	1999 12 15	704	0.4-	0.0	2000 02 11	704	0.1+	0.2-
1999 12 12	704	0.0	0.5-	1999 12 15	704	0.4-	0.1+	2000 02 11	704	0.1-	0.1+
1999 12 12	704	0.2-	1.3-	1999 12 16	704	(2.1-	0.0)	2000 02 11	704	0.3+	0.3+

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	103.50389	(2000.0)	P	Q
<i>n</i>	0.18570004	ω	216.28609	+0.96982093
<i>a</i>	3.0427157	Ω	149.50444	+0.14767164
<i>e</i>	0.0398798	<i>i</i>	23.57981	+0.07683692
<i>P</i>	5.31	<i>H</i>	12.1	<i>G</i> 0.15 <i>U</i> 2

Residuals in seconds of arc

1990 03 03	809	0.3+	0.8-	1999 12 16	704	0.4-	1.7+	2000 01 10	704	0.4-	0.8-
1990 03 03	809	0.1+	0.1+	2000 01 09	704	0.3-	0.2-	2000 01 11	704	0.1-	0.4-
1990 03 03	809	0.3-	0.9+	2000 01 09	704	0.3-	0.1+	2000 01 11	704	0.1+	0.6-
1991 05 13	675	0.1+	0.5-	2000 01 09	704	0.5-	0.3-	2000 01 11	704	0.3+	0.7-
1991 05 15	675	0.4-	0.1+	2000 01 09	704	0.3-	0.1+	2000 01 11	704	0.7-	0.3-
1991 05 15	675	0.8-	0.4+	2000 01 09	704	1.0-	0.2-	2000 01 12	704	0.3-	0.2-
1991 05 19	675	0.2-	0.2-	2000 01 10	704	0.7-	1.0-	2000 01 12	704	0.4+	1.1-
1991 05 19	675	1.1-	0.8+	2000 01 10	704	0.1+	0.3-	2000 01 12	704	0.4+	1.7-
1991 06 06	675	1.5+	0.3-	2000 01 10	704	0.1+	0.8-	2000 01 12	704	0.3+	1.3-
1991 06 06	675	0.5+	0.5+	2000 01 10	704	0.5+	0.4-	2000 02 06	704	0.8+	1.0+
1991 06 08	675	0.5+	0.6-	2000 01 10	704	0.0	0.5-	2000 02 06	704	0.8+	0.5+
1999 12 16	704	0.1-	1.3+	2000 01 10	704	0.0	0.5-	2000 02 06	704	0.5+	1.0+
1999 12 16	704	0.4-	1.8+	2000 01 10	704	0.3+	0.2-	2000 02 06	704	0.5+	1.1+
1999 12 16	704	0.6-	1.4+	2000 01 10	704	0.2+	0.5-	2000 02 06	704	0.4+	1.4+
1999 12 16	704	0.3-	1.4+	2000 01 10	704	0.7+	0.4-				

1991 NK₄ = 2000 AL₁₆₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	215.40231	(2000.0)	P	Q
<i>n</i>	0.29861065	ω	176.44841	+0.49496787
<i>a</i>	2.2168307	Ω	123.19530	-0.80009274
<i>e</i>	0.2080915	<i>i</i>	6.78332	+0.08706088
<i>P</i>	3.30	<i>H</i>	13.9	<i>G</i> 0.15 <i>U</i> 3

Residuals in seconds of arc

1991 07 08	809	1.7+	0.2+	1998 08 31	704	(2.6+	1.2-)	2000 01 07	704	0.1+	0.0
1991 07 08	809	(2.6+	0.2+)	1998 10 12	699	0.3+	0.2-	2000 01 07	704	0.5-	0.6-
1991 07 08	809	(3.1+	0.2+)	1998 10 12	699	0.1+	0.0	2000 01 07	704	0.0	0.3+
1991 07 10	809	1.6-	0.7-	1998 10 12	699	0.1+	0.2-	2000 01 07	704	0.8-	0.6-
1991 07 10	809	0.8-	0.6-	1998 11 13	704	0.9+	0.3+	2000 01 30	704	0.5+	0.2-
1991 07 10	809	0.3-	0.4-	1998 11 13	704	0.5-	1.0+	2000 01 30	704	0.4+	0.0
1991 07 11	809	0.9-	0.2+	1998 11 13	704	1.6-	0.8+	2000 01 30	704	0.2-	0.4-
1991 07 11	809	0.4-	0.1+	1998 11 13	704	0.1-	0.4-	2000 01 30	704	0.0	0.9+
1991 07 11	809	0.1+	0.1+	1998 11 13	704	0.6-	0.3-	2000 01 30	703	0.2-	0.2+
1991 07 18	809	0.4+	0.7+	1999 12 04	703	0.5+	0.7+	2000 01 30	703	0.3-	0.8+
1991 07 18	809	0.7+	0.7+	1999 12 04	703	1.0+	0.2-	2000 01 30	703	0.5-	0.3+
1991 07 18	809	1.3+	0.6+	1999 12 04	703	0.3-	1.1+	2000 01 30	703	0.1-	0.6+
1991 07 22	809	0.8-	0.8+	1999 12 04	703	0.5+	1.0+	2000 02 03	704	0.3+	0.3+
1991 07 22	809	0.1+	0.7+	1999 12 07	704	0.1+	0.8-	2000 02 03	704	0.3+	1.0+
1991 07 23	809	0.2-	0.5+	1999 12 07	704	0.7+	1.3-	2000 02 03	704	0.1-	0.3+
1991 07 23	809	0.1+	0.6+	1999 12 07	704	0.5+	0.7+	2000 02 03	704	0.9+	0.2+
1991 07 23	809	0.4+	0.6+	2000 01 04	704	0.1-	0.2-	2000 02 03	704	0.3+	0.6+
1991 07 24	809	0.2+	1.7-	2000 01 04	704	0.2+	0.1-	2000 02 11	704	0.1+	0.1+
1998 08 31	704	(2.5-	0.5+)	2000 01 04	704	0.2-	0.6-	2000 02 11	704	0.7-	0.2+
1998 08 31	704	(2.5-	0.7-)	2000 01 04	704	0.7+	0.0	2000 02 11	704	0.0	0.1+
1998 08 31	704	(1.8-	3.5-)	2000 01 04	704	1.8-	0.2-	2000 02 11	704	0.1+	0.1-
1998 08 31	704	1.1+	0.3+	2000 01 07	704	0.1+	0.1-	2000 02 11	704	0.2+	0.2-

1991 PG₁₈ = 2000 CY₂₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	169.55083	(2000.0)	P	Q
<i>n</i>	0.16857782	ω	47.43138	+0.85968932
<i>a</i>	3.2454065	Ω	281.90327	-0.47862438
<i>e</i>	0.2379072	<i>i</i>	2.07293	-0.17847400
<i>P</i>	5.85	<i>H</i>	13.0	<i>G</i> 0.15 <i>U</i> 5

Residuals in seconds of arc

1991 08 08	675	0.1+	0.2+	1991 09 16	675	0.8+	0.1+	2000 02 02	704	1.6-	1.0-
1991 08 08	675	0.1+	0.4-	1991 09 16	675	1.0+	0.9-	2000 02 04	704	0.2-	0.3-
1991 09 10	675	0.1+	0.1+	2000 02 02	704	0.5+	0.3+	2000 02 04	704	0.6+	0.0
1991 09 10	675	0.5+	0.1+	2000 02 02	704	0.2-	0.0	2000 02 04	704	0.3+	0.9-
1991 09 14	675	1.4-	0.3+	2000 02 02	704	0.6+	0.8+				
1991 09 14	675	1.1-	0.3+	2000 02 02	704	0.0	0.9+				

1991 RQ = 1991 PN₁₆ = 2000 AA₁₈₂Id. S. Nakano (d, *MPC* 19274), M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	124.53991	(2000.0)	P	Q
<i>n</i>	0.27075291	ω	186.61920	+0.92989256
<i>a</i>	2.3663953	Ω	152.01690	-0.32629582
<i>e</i>	0.2730658	<i>i</i>	13.03171	-0.16979654
<i>P</i>	3.64	<i>H</i>	15.2	<i>G</i> 0.15 <i>U</i> 3

Residuals in seconds of arc

1991 08 07	675	0.6+	0.4+	1998 06 19	704	(2.9-	0.6-)	2000 01 07	704	0.3-	0.3+
1991 08 08	675	0.4-	1.2-	1998 06 19	704	1.1-	1.3+	2000 01 07	704	0.0	0.1+
1991 09 07	675	0.4+	0.5-	1998 06 19	704	1.5-	0.8-	2000 01 07	704	1.2-	0.2-
1991 09 07	675	0.0	0.3-	1998 06 25	704	1.7+	1.7-	2000 01 07	704	0.4+	0.4-
1991 09 08	675	0.6-	1.3-	1998 06 25	704	(0.8+	2.5+)	2000 01 07	704	0.2-	1.5-
1991 09 09	675	0.1-	1.8+	1998 06 25	704	(3.9+	0.6-)	2000 01 11	704	0.7-	0.1-
1991 09 09	675	0.1+	1.0+	1998 06 25	704	1.7-	0.3+	2000 01 11	704	0.5+	0.6+
1998 06 19	704	1.8+	0.8+	1998 06 25	704	0.7+	0.4+	2000 01 11	704	1.4+	1.3+

1991 RD₈ = 1996 BG₇

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	44.62152	(2000.0)	P	Q
<i>n</i>	0.30280593	ω	79.68519	-0.99608714
<i>a</i>	2.1963074	Ω	97.53433	+0.01554848
<i>e</i>	0.0547385	<i>i</i>	4.29225	+0.08699805
<i>P</i>	3.25	<i>H</i>	16.0	<i>G</i> 0.15 <i>U</i> 6

Residuals in seconds of arc

1991 09 12	675	1.3+	0.6+	1996 01 19	691	0.3-	0.9+	1996 01 25	691	0.3+	0.3-
1991 09 12	675	0.4+	1.4+	1996 01 19	691	0.5-	0.1+	1996 01 25	691	0.7+	0.4-
1991 09 14	675	0.3-	0.7-	1996 01 19	691	0.4-	0.2+				
1991 09 14	675	1.4-	1.3-	1996 01 25	691	0.1+	0.5-				

1991 RO₁₁ = 2000 AX₁₂₈

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	147.55485	(2000.0)	P	Q
<i>n</i>	0.17359073	ω	34.53773	+0.97217548
<i>a</i>	3.1826218	Ω	322.24671	-0.16859596
<i>e</i>	0.1277151	<i>i</i>	22.42527	+0.16263529
<i>P</i>	5.68	<i>H</i>	12.7	<i>G</i> 0.15 <i>U</i> 4

Residuals in seconds of arc

1991 09 04	809	0.8+	0.6+	1998 11 16	704	0.3-	0.6-	2000 01 07	704	0.9+	0.1+
1991 09 04	809	1.7-	0.4+	1998 12 12	704	0.1+	0.9+	2000 01 07	704	0.2+	0.6+
1991 09 04	809	0.8-	0.2+	1998 12 12	704	0.3+	1.0+	2000 01 07	704	0.2+	0.5+
1991 09 05	809	1.8+	0.9-	1998 12 12	704	0.6-	1.1+	2000 01 07	704	0.0	0.1-
1991 09 05	809	(5.7-	2.1+)	1998 12 12	704	0.0	1.5+	2000 01 10	691	0.1-	0.1-
1991 09 05	809	1.3-	0.1+	1998 12 12	704	0.1-	0.9+	2000 01 10	691	0.2-	0.1-
1991 09 06	809	0.2-	0.8+	2000 01 04	691	0.1-	0.1+	2000 01 10	691	0.1-	0.1-
1991 09 06	809	1.3-	1.8+	2000 01 04	691	0.1+	0.4-	2000 02 02	703	0.2+	0.4+
1991 09 06	809	1.5-	1.7+	2000 01 04	691	0.3+	0.0	2000 02 02	703	0.1-	1.3+
1991 09 07	809	(0.8-	2.2+)	2000 01 05	704	0.5+	0.3+	2000 02 02	703	1.2-	0.3+
1991 09 07	809	0.7-	1.5+	2000 01 05	704	0.9+	1.0-	2000 02 02	703	0.1-	0.1+
1991 09 07	809	0.6-	1.2+	2000 01 05	704	0.6+	0.5+	2000 02 04	704	0.4+	0.1+

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1998 11 16	704	(0.3–	2.5–)	2000 01 05	704	0.4+	0.4–	2000 02 04	704	0.4+	0.7+
1998 11 16	704	0.0	0.9–	2000 01 05	699	1.4+	0.1+	2000 02 04	704	0.7+	0.2+
1998 11 16	704	0.3+	0.9–	2000 01 05	699	0.9+	1.1+	2000 02 04	704	0.0	1.2+
1998 11 16	704	0.1+	1.8–	2000 01 05	699	0.5+	0.9+				

1991 RP₁₂ = 2000 CO₈₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	206.25989	<i>ω</i>	329.71352	+0.70802594	+0.70548550		
<i>a</i>	2.2327660	<i>Ω</i>	345.28108	−0.62053963	+0.60027618		
<i>e</i>	0.1603456	<i>i</i>	7.11175	−0.33709024	+0.37677411		
<i>P</i>	3.34	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1991 08 10	675	0.2+	1.2+	1998 08 31	704	0.8+	0.0	2000 02 01	703	0.5–	0.3–
1991 08 10	675	0.2+	0.0	1998 11 14	704	(3.3+	0.7–)	2000 02 01	703	0.3–	0.6–
1991 09 04	809	0.1–	0.5–	1998 11 14	704	1.5–	1.1+	2000 02 01	703	0.0	0.8–
1991 09 04	809	0.0	0.7–	1998 11 14	704	0.4+	0.8+	2000 02 04	704	0.6–	0.2–
1991 09 04	809	0.3–	0.7–	1998 11 14	704	0.3+	0.4+	2000 02 04	704	0.4–	0.4–
1991 09 06	809	0.5+	0.6–	1998 11 14	704	0.8+	0.0	2000 02 04	704	0.1–	0.7–
1991 09 06	809	0.3+	0.1–	1998 11 16	704	0.0	0.2–	2000 02 04	704	0.2–	0.2–
1991 09 06	809	0.1–	0.3+	1998 11 16	704	0.6–	0.1+	2000 02 04	704	0.8–	0.0
1991 09 07	809	0.7+	0.1–	1998 11 16	704	0.9–	0.0	2000 02 11	704	0.7+	0.3+
1991 09 07	809	0.5+	0.5–	1998 11 16	704	0.0	0.7–	2000 02 11	704	0.4+	0.0
1991 09 07	809	0.6–	1.5–	1999 01 08	704	0.5–	0.5+	2000 02 11	704	0.0	0.2–
1998 08 31	704	0.3+	0.2–	1999 01 08	704	0.7+	1.0–	2000 02 11	704	0.3–	0.5–
1998 08 31	704	0.1+	0.2–	1999 01 08	704	(1.4+	2.4–)	2000 02 11	704	0.2+	0.1+
1998 08 31	704	0.2+	0.1–	1999 01 08	704	0.2+	0.9–				
1998 08 31	704	0.1+	0.1–	2000 02 01	703	0.3–	0.5–				

1991 SU = 2000 CD₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26291204	<i>ω</i>	284.91702	+0.81043369	−0.56952216		
<i>a</i>	2.4132134	<i>Ω</i>	109.98092	+0.57779810	+0.73840327		
<i>e</i>	0.1386096	<i>i</i>	8.39849	+0.09667777	+0.36111651		
<i>P</i>	3.75	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1991 09 14	675	0.4+	0.9+	1999 10 20	704	0.7+	0.2–	2000 02 03	049	0.5+	0.6+
1991 09 14	675	1.3+	0.5–	2000 02 02	704	0.2+	0.5–	2000 02 03	049	0.4+	0.3+
1991 09 15	675	0.5–	0.0	2000 02 02	704	0.4+	0.7+	2000 02 03	049	0.1+	0.1+
1991 09 15	675	1.0–	0.5+	2000 02 02	704	0.5–	0.2–	2000 02 08	049	0.0	0.1–
1991 09 30	413	0.6–	0.6–	2000 02 02	704	0.0	0.3–	2000 02 08	049	0.1–	0.1–
1991 10 01	413	0.3+	0.1–	2000 02 02	704	0.6+	0.1–	2000 02 08	049	0.2–	0.0
1991 10 12	413	0.2+	0.4–	2000 02 03	704	0.5–	0.2+	2000 02 08	049	0.3+	0.2–
1999 10 20	704	0.6–	0.0	2000 02 03	704	0.1–	0.4+	2000 02 08	049	0.2–	0.4–
1999 10 20	704	0.5–	0.0	2000 02 03	704	0.3–	0.4–	2000 02 08	049	0.2+	0.5–
1999 10 20	704	0.4+	0.2–	2000 02 03	704	0.4–	0.5+				
1999 10 20	704	0.1–	0.6+	2000 02 03	704	0.2–	0.0				

1991 TL₁₄

Id. T. Kobayashi (2000 observations)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.29254091	<i>ω</i>	247.98567	+0.11907381	+0.99140670		
<i>a</i>	2.2473893	<i>Ω</i>	29.01533	−0.86480464	+0.13036146		
<i>e</i>	0.1508547	<i>i</i>	6.41199	−0.48778515	+0.01089286		
<i>P</i>	3.37	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1991 09 13	675	0.8–	0.6+	1991 10 03	691	0.6–	0.8+	2000 01 30	411	0.6+	0.2–
1991 09 13	675	0.9–	0.5–	1991 10 07	675	0.2+	0.1–	2000 01 30	411	0.2+	1.7–
1991 09 16	675	0.1–	0.7+	1991 10 07	675	0.1+	1.0–	2000 02 06	703	0.4+	0.5+
1991 09 16	675	1.9+	1.1–	1991 10 08	675	1.1–	0.8–	2000 02 06	703	1.0–	0.1+

1991 10 03	691	1.5+	0.7+	2000 01 28	411	0.8–	0.2+	2000 02 06	703	0.3+	0.7+
1991 10 03	691	0.2–	0.8+	2000 01 28	411	1.4+	0.1+	2000 02 06	703	1.1–	0.2+

1991 UR₂ = 2000 DB

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.25818629	<i>ω</i>	24.73943	+0.47209101	−0.87729007		
<i>a</i>	2.4425714	<i>Ω</i>	37.25949	+0.78314145	+0.37228341		
<i>e</i>	0.3165122	<i>i</i>	8.21972	+0.40474627	+0.30293099		
<i>P</i>	3.82	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1991 10 17	675	0.0	0.0	1999 11 16	703	0.2–	1.5+	2000 02 14	704	(1.4+	2.1–)
1991 10 29	400	0.7+	0.5+	1999 12 15	704	0.0	0.6–	2000 02 14	704	0.1–	0.6+
1991 10 29	400	0.0	0.5–	1999 12 15	704	1.3+	0.7–	2000 02 14	704	0.3–	0.3+
1991 10 31	400	0.1+	1.1–	1999 12 15	704	0.6+	0.6–	2000 02 16	704	0.1–	0.5+
1991 10 31	400	0.1–	0.2–	1999 12 15	704	0.6+	0.7–	2000 02 16	704	0.1+	0.3+
1991 11 02	400	0.4+	0.1+	1999 12 17	699	0.4–	0.0	2000 02 16	704	0.6+	0.4+
1991 11 02	400	0.8+	0.9+	1999 12 17	699	0.8–	0.4+	2000 02 16	704	0.3–	0.2+
1991 11 12	691	0.6–	0.1+	1999 12 17	699	0.1–	0.2+	2000 02 16	704	0.8–	0.5+
1991 11 12	691	0.7–	0.2+	2000 01 31	704	0.1–	0.1–	2000 02 17	704	1.3+	0.5–
1991 11 12	691	0.4–	0.2–	2000 01 31	704	0.1–	0.1–	2000 02 17	704	0.0	1.1–
1999 11 16	703	1.0–	0.6+	2000 01 31	704	0.4–	0.3–	2000 02 17	704	0.6+	0.2–
1999 11 16	703	1.1+	0.5+	2000 01 31	704	0.6–	0.1+				
1999 11 16	703	0.3–	0.5–	2000 01 31	704	0.5–	0.5–				

1991 VJ = 1977 XH₁ = 2000 BW₁₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.27537644	<i>ω</i>	261.31377	+0.82084989	+0.43413508		
<i>a</i>	2.3398330	<i>Ω</i>	72.23051	−0.23361739	+0.84815740		
<i>e</i>	0.3393401	<i>i</i>	22.93679	−0.52117980	+0.30357167		
<i>P</i>	3.58	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1977 12 07	675	0.1+	0.2+	1991 11 26	413	0.2+	0.0	2000 01 29	704	0.1–	0.5+
1977 12 08	675	0.4–	0.3+	1991 11 27	413	0.4–	0.0	2000 01 31	704	0.2–	1.1–
1991 11 09	413	0.1+	0.1–	1991 11 27	413	0.5–	0.2+	2000 01 31	704	0.1+	0.2–
1991 11 09	413	1.8+	0.9+	1991 11 27	413	0.0	0.1+	2000 01 31	704	0.4+	0.5–
1991 11 13	413	1.1–	1.6–	2000 01 29	704	0.1+	0.7+				
1991 11 26	413	0.1+	0.2–	2000 01 29	704	0.2–	0.2–				

1991 VY₅ = 1993 FK₈₄ = 2000 AF₉₉Id. M. E. Sansaturio (*MPC* 36329, unpublished)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.24374055	<i>ω</i>	293.35236	+0.61627741	−0.78404170		
<i>a</i>	2.5381514	<i>Ω</i>	118.39410	+0.74979151	+0.55539641		
<i>e</i>	0.2247486	<i>i</i>	4.82752	+0.24086273	+0.27715236		
<i>P</i>	4.04	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1991 11 02	809	1.3+	0.1+	1999 08 22	703	1.2+	1.3–	2000 01 05	704	0.8+	0.1+
1991 11 02	809	1.3+	0.2+	1999 08 22	703	0.5–	0.1–	2000 01 05	704	0.3–	0.3+
1991 11 02	809	0.3–	0.1+	1999 11 07	704	0.7–	0.3–	2000 01 05	704	0.0	0.4+
1991 11 06	809	0.9+	1.5–	1999 11 07	704	0.3–	0.2–	2000 01 05	704	0.3–	0.4+
1991 11 06	809	0.6–	1.9–	1999 11 07	704	0.3–	0.6+	2000 01 05	704	0.6–	0.6+
1991 11 06	809	1.5–	1.2–	1999 11 07	704	0.1+	0.5–	2000 01 06	699	0.5–	0.7+
1991 11 09	809	(0.8+	2.8–)	1999 11 07	704	0.1–	0.2–	2000 01 06	699	1.1–	1.7–
1991 11 09	809	(1.3–	3.9–)	1999 11 07	704	0.1+	0.5–	2000 01 06	699	1.3–	0.1–
1991 11 09	809	(0.5–	3.4–)	1999 11 07	704	0.7–	0.2–	2000 01 06	699	0.7–	0.3–
1993 03 24	809	(5.8–	2.1–)	1999 12 08	699	0.7+	1.8+	2000 01 06	699	0.2+	0.6+
1993 03 25	691	0.3–	0.6–	1999 12 08	699	0.2+	0.8+	2000 01 07	704	0.9+	0.4+
1993 03 25	691	0.3–	0.6–	1999 12 14	704	0.4+	0.1–	2000 01 07	704	0.2–	0.9+
1993 03 25	691	0.3–	1.1–	1999 12 14	704	0.3–	0.5–	2000 01 07	704	0.1+	0.6+

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1999 08 22	703	0.2+	0.7+	1999 12 14	704	0.2-	0.0	2000 01 07	704	0.3+	0.3+
1999 08 22	703	1.1+	0.0	1999 12 14	704	0.5+	0.1-	2000 01 07	704	0.5+	0.4+

1992 CQ = 1992 CF₄ = 2000 AL₁₇₃Id. S. Nakano (d, *MPC* 22385), M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	217.27449		(2000.0)		P		Q
<i>n</i>	0.22654981	ω	115.26155	-0.33233973			+0.92650439
<i>a</i>	2.6649777	Ω	134.11299	-0.92937501			-0.28982790
<i>e</i>	0.1333643	<i>i</i>	14.22816	-0.16066234			-0.23997794
<i>P</i>	4.35	<i>H</i>	12.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1992 02 01	372	0.4+	0.4+	1999 11 05	704	1.6+	0.0	2000 01 07	704	0.0	0.0
1992 02 01	372	1.3-	1.2+	1999 11 05	704	0.3+	0.5-	2000 01 07	704	0.2-	0.1+
1992 02 08	372	0.5-	1.1-	1999 11 05	704	0.0	0.1-	2000 01 07	704	0.3-	0.0
1992 02 08	372	0.3-	0.6+	1999 11 05	704	0.8-	0.2+	2000 01 07	704	0.2-	0.1+
1992 02 13	372	0.4-	0.7-	1999 11 05	704	0.5-	0.1-	2000 01 07	704	0.0	0.1+
1992 02 13	372	0.1+	1.0-	1999 12 05	704	0.1-	0.8+	2000 01 11	704	0.3-	0.0
1992 02 24	691	0.4+	0.2+	1999 12 05	704	0.8+	0.0	2000 01 11	704	0.2-	0.2+
1992 02 24	691	0.6+	0.2+	1999 12 05	704	0.3+	0.4-	2000 01 11	704	0.2-	0.2-
1992 02 24	691	1.0+	0.2+	1999 12 05	704	0.2+	0.7+	2000 01 11	704	0.3-	0.9-

1992 DH₁ = 2000 AX₉₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	83.69225		(2000.0)		P		Q
<i>n</i>	0.37086728	ω	93.93211	+0.46886396			-0.85972578
<i>a</i>	1.9186262	Ω	325.64428	+0.59832925			+0.47785663
<i>e</i>	0.0866171	<i>i</i>	21.03713	+0.64974510			+0.18034585
<i>P</i>	2.66	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1992 02 01	372	0.1-	0.8+	2000 01 07	704	0.3-	0.2+	2000 02 04	704	0.3+	0.1-
1992 02 01	372	(3.4-	0.7-)	2000 01 07	704	0.1-	0.2-	2000 02 04	704	0.5-	0.1-
1992 02 25	675	0.5+	0.8-	2000 01 07	704	0.3-	0.1+	2000 02 04	704	0.1-	0.3+
1992 02 25	675	0.9-	1.2-	2000 01 07	704	0.8+	0.3-	2000 02 09	720	1.4+	0.1-
1992 02 27	675	0.6-	0.9-	2000 01 07	704	0.0	0.3+	2000 02 09	720	0.7+	1.1+
1992 02 27	675	1.2-	0.7-	2000 01 10	699	0.3-	0.6+	2000 02 10	720	0.4+	1.4+
1999 12 15	704	0.3+	0.4-	2000 01 10	699	0.5+	0.0	2000 02 10	720	0.0	0.7+
1999 12 15	704	0.4-	0.4-	2000 01 10	699	0.1-	0.5+	2000 02 10	720	0.9-	0.5+
1999 12 15	704	0.2-	0.7-	2000 01 12	113	(2.1-	2.6+)	2000 02 12	704	0.3+	0.4+
1999 12 15	704	0.3-	1.0-	2000 01 12	113	(2.4-	1.8+)	2000 02 12	704	(1.2+	2.5+)
1999 12 17	699	1.6+	0.7+	2000 01 12	113	0.4-	0.2+	2000 02 12	704	1.5-	0.4-
1999 12 17	699	0.6-	0.2-	2000 01 13	113	0.1+	0.2-	2000 02 12	704	0.0	0.2+
1999 12 17	699	0.2+	0.3+	2000 02 02	703	0.0	0.2+	2000 02 12	704	0.4-	0.6+
2000 01 04	704	0.2-	0.6-	2000 02 02	703	0.2-	0.1+	2000 02 13	704	0.0	0.0
2000 01 04	704	0.4+	0.3-	2000 02 02	703	0.4-	0.2+	2000 02 13	704	(2.1-	3.3-)
2000 01 04	704	0.1-	0.2-	2000 02 02	703	0.1+	0.1-	2000 02 13	704	0.8+	0.8-
2000 01 04	704	0.2-	0.1+	2000 02 04	704	0.0	0.3+	2000 02 13	704	1.8+	0.5-
2000 01 04	704	0.2+	0.4-	2000 02 04	704	0.4+	0.1-				

1992 DR₆ = 2000 AU₆₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	22.49563		(2000.0)		P		Q
<i>n</i>	0.23979174	ω	16.91014	-0.42711838			-0.90334516
<i>a</i>	2.5659404	Ω	98.38901	+0.82493021			-0.40706402
<i>e</i>	0.0573361	<i>i</i>	2.27144	+0.37021620			-0.13515325
<i>P</i>	4.11	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1992 02 29	809	1.1+	0.1-	2000 01 06	704	0.4-	0.3+	2000 02 03	704	0.1-	0.1-
1992 03 03	809	0.4-	0.1-	2000 01 06	704	0.1-	1.1-	2000 02 03	704	0.2-	0.7-
1992 03 07	809	0.6-	0.3+	2000 01 30	704	0.0	0.2+	2000 02 11	704	0.3-	0.5-
2000 01 04	704	0.6+	0.6+	2000 01 30	704	0.1-	0.4-	2000 02 11	704	0.5+	0.4+
2000 01 04	704	0.1-	0.4+	2000 01 30	704	0.2+	0.6+	2000 02 11	704	0.8+	0.4+

2000 01 04	704	1.1-	0.4+	2000 02 03	704	0.4-	1.4+	2000 02 11	704	0.6-	0.2+
2000 01 04	704	1.0+	0.3+	2000 02 03	704	0.9+	0.3-				
2000 01 06	704	0.2+	0.7-	2000 02 03	704	0.6-	1.4-				

1992 DP₇ = 2000 CG₉₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	61.46146		(2000.0)		P		Q
<i>n</i>	0.24677143	ω	337.85353	-0.12046044			-0.99128599
<i>a</i>	2.5173260	Ω	119.02977	+0.91969858			-0.13165155
<i>e</i>	0.0519808	<i>i</i>	3.49511	+0.37368946			+0.00446626
<i>P</i>	3.99	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1992 02 29	809	0.7+	1.2-	1998 10 14	699	0.2-	0.2+	2000 02 11	704	0.2-	0.4+
1992 03 03	809	0.4-	0.3+	1998 10 14	699	0.5-	0.2+	2000 02 11	704	0.7-	0.4+
1992 03 07	809	0.4+	0.6+	2000 02 06	704	0.1-	0.3+	2000 02 11	704	0.4-	0.4+
1992 04 06	809	0.6-	0.8+	2000 02 06	704	0.5+	0.8-	2000 02 11	704	0.6+	0.4-
1998 10 14	699	0.6+	0.2-	2000 02 06	704	0.1+	0.6-				

1992 EX₄ = 2000 AE₁₈₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	279.07802		(2000.0)		P		Q
<i>n</i>	0.23716635	ω	75.13108	-0.76004278			+0.63351437
<i>a</i>	2.5848420	Ω	143.83636	-0.64946905			-0.73259003
<i>e</i>	0.1015515	<i>i</i>	14.21407	-0.02291100			-0.24894054
<i>P</i>	4.16	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1992 03 01	809	0.7+	1.0-	2000 01 07	704	0.9+	0.5-	2000 02 02	704	0.2-	0.6-
1992 03 04	809	0.3+	0.2-	2000 01 11	704	0.7+	0.3+	2000 02 02	704	0.1+	0.3-
1992 03 06	809	1.5-	1.9+	2000 01 11	704	0.4-	0.8+	2000 02 04	704	0.3+	0.7+
1992 04 04	809	0.6+	0.6-	2000 01 11	704	0.4+	1.2+	2000 02 04	704	0.1-	0.7-
2000 01 07	704	0.3+	0.1+	2000 01 11	704	0.3-	0.2+	2000 02 04	704	1.3-	0.8+
2000 01 07	704	0.4-	0.5-	2000 02 02	704	0.1+	0.0				
2000 01 07	704	0.8-	0.9-	2000 02 02	704	0.8+	1.0-				

1992 EY₅ = 2000 AR₁₄₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	327.76540		(2000.0)		P		Q
<i>n</i>	0.24351520	ω	40.99974	-0.98251393			+0.12411208
<i>a</i>	2.5397170	Ω	145.38019	-0.15069488			-0.96787343
<i>e</i>	0.0954960	<i>i</i>	14.14004	+0.10935000			-0.21867146
<i>P</i>	4.05	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1992 03 02	809	0.9+	1.0-	2000 01 05	704	0.5-	0.2+	2000 02 06	704	0.3+	0.6-
1992 03 05	809	0.8-	0.4+	2000 01 05	704	0.4-	1.4+	2000 02 06	704	0.2+	0.5-
1992 03 07	809	0.0	0.5-	2000 01 08	704	0.8-	0.4-	2000 02 06	704	0.5+	0.8-
1992 04 04	809	0.5-	0.7-	2000 01 08	704	0.8-	0.2-	2000 02 06	704	0.4+	0.4-
1998 10 25	703	0.3-	0.4+	2000 01 08	704	0.5-	0.1-	2000 02 06	704	0.6+	1.1-
1998 10 25	703	0.4+	0.3-	2000 01 08	704	0.3-	0.1+	2000 02 11	691	0.6-	0.4-
1998 10 25	703	0.0	0.3-	2000 01 08	704	0.2-	0.6+	2000 02 11	691	0.6-	0.4-
1999 12 05	704	(1.6+	2.3-)	2000 02 02	704	0.4-	0.2+	2000 02 11	691	0.5-	0.5-
1999 12 05	704	0.9+	1.9-	2000 02 02	704	0.1+	0.2+	2000 02 12	704	1.8+	1.5-
1999 12 05	704	1.1+	0.2+	2000 02 02	704	0.2-	0.4+	2000 02 12	704	0.9+	0.6+
1999 12 14	704	1.6-	0.8-	2000 02 02	704	0.0	0.3-	2000 02 12	704	0.6-	0.1+
1999 12 14	704	0.0	0.5+	2000 02 02	704	0.1+	0.3-	2000 02 12	704	0.5-	0.0
1999 12 14	704	0.7-	0.9-	2000 02 04	704	0.3-	0.4+	2000 02 16	704	0.7+	1.2+
1999 12 14	704	0.9+	0.7+	2000 02 04	704	0.1-	0.6+	2000 02 16	704	0.6+	0.2-
2000 01 05	704	0.6-	0.3-	2000 02 04	704	0.6-	0.6+	2000 02 16	704	0.2+	1.8+
2000 01 05	704	0.2-	0.1-	2000 02 04	704	0.3-	0.7+	2000 02 16	704	1.5+	1.5+
2000 01 05	704	0.2-	0.1+	2000 02 04	704	0.3-	1.1+	2000 02 16	704	0.7+	0.4-

2000 FEB. 22

M.P.C. 38441

1992 EQ₂₆ = 1999 FS₄₆

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	147.62590		(2000.0)		P		Q
<i>n</i>	0.28655999	ω	336.52205	−0.50627742		−0.86173784	
<i>a</i>	2.2785523	Ω	143.86963	+0.79982241		−0.48353370	
<i>e</i>	0.0764780	<i>i</i>	3.21145	+0.32243958		−0.15363288	
<i>P</i>	3.44	<i>H</i>	15.6	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1992 02 25	675	1.1−	0.8−	1993 07 20	809	0.3−	0.8−	1999 03 23	699	(0.1−	2.1+)
1992 02 25	675	0.5+	1.5−	1993 07 20	809	0.2−	0.8−	1999 03 23	704	0.9+	0.1−
1992 02 27	675	0.8−	0.9−	1996 05 22	566	0.1−	1.6+	1999 03 23	704	0.4−	0.7+
1992 02 27	675	0.2+	1.2−	1996 05 22	566	(0.4−	2.1+)	1999 03 23	704	0.9+	1.1+
1992 02 28	675	(0.9−	2.2−)	1996 05 22	566	(1.2−	2.1+)	1999 03 23	704	0.8−	1.0+
1992 02 28	675	0.6+	1.8−	1999 01 19	910	1.1−	1.3−	1999 03 23	704	0.0	0.6+
1992 03 02	809	0.9−	1.4+	1999 01 19	910	1.2−	1.4−	1999 03 23	704	0.7−	0.5+
1992 03 04	809	0.7−	0.0	1999 01 19	910	1.0−	1.3−	1999 03 23	704	0.8+	0.3−
1992 03 07	809	0.3+	1.1−	1999 03 20	704	0.4+	0.3+	1999 03 23	704	0.9−	0.8+
1993 07 13	809	1.4+	0.6−	1999 03 20	704	0.7−	0.1+	1999 03 23	704	0.2+	0.5−
1993 07 13	809	0.1−	1.7−	1999 03 20	704	0.5+	0.1−	1999 04 12	704	0.1+	0.4−
1993 07 13	809	(2.8−	2.9−)	1999 03 20	704	0.4−	0.3+	1999 04 12	704	1.4+	0.3+
1993 07 13	809	(0.6−	3.1−)	1999 03 20	704	0.1−	0.2−	1999 04 12	704	0.9+	1.3+
1993 07 13	809	(1.7+	2.7−)	1999 03 23	699	1.4+	1.1−	1999 04 12	704	(0.1+	2.2+)
1993 07 13	809	0.2+	1.9−	1999 03 23	699	1.5+	0.1−	1999 04 12	704	0.5−	0.9+
1993 07 20	809	0.1+	0.6−	1999 03 23	704	0.8−	0.3+				

1992 HO = 1996 JY₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	122.95454		(2000.0)		P		Q
<i>n</i>	0.25534435	ω	305.92544	+0.13977459		−0.98955969	
<i>a</i>	2.4606616	Ω	135.99809	+0.92399082		+0.11759185	
<i>e</i>	0.1306085	<i>i</i>	2.89935	+0.35595509		+0.08332936	
<i>P</i>	3.86	<i>H</i>	16.1	<i>G</i>	0.15	<i>U</i>	7

Residuals in seconds of arc

1992 04 23	691	0.1+	0.3−	1992 04 28	691	0.3−	0.1+	1996 05 11	691	0.1+	0.3+
1992 04 23	691	0.1+	0.0	1992 04 28	691	0.1+	0.2+	1996 05 16	691	0.5+	0.7−
1992 04 23	691	0.1−	0.2−	1996 05 11	691	0.1+	0.2−	1996 05 16	691	0.2−	0.1−
1992 04 28	691	0.1+	0.3+	1996 05 11	691	0.1−	0.5+	1996 05 16	691	0.4−	0.2+

1992 HJ₇ = 1931 TZ₂ = 1935 US = 1973 GL = 1988 BA₅ = 1988 JY₁
= 1989 NK = 1996 GP₂₁

Id. M. E. Sansaturio, G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	242.54405		(2000.0)		P		Q
<i>n</i>	0.25345350	ω	132.38833	+0.82850317		+0.55601759	
<i>a</i>	2.4728846	Ω	194.25543	−0.55942494		+0.81650282	
<i>e</i>	0.1918516	<i>i</i>	15.67610	−0.02502458		+0.15545928	
<i>P</i>	3.89	<i>H</i>	12.8	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1931 10 07	690	(4.7+	5.5+)	1996 04 13	399	1.2−	0.1−	1999 01 22	704	0.5+	0.6−
1931 10 10	690	0.9−	0.2+	1996 04 13	399	(0.4−	2.4−)	1999 01 22	704	(2.1−	4.3+)
1931 10 11	690	(8.1+	0.1+)	1996 04 14	399	0.1−	1.0+	1999 01 22	704	(2.8−	0.9+)
1935 10 18	078	0.8+	2.3+	1996 04 14	399	1.4−	0.1−	1999 01 22	704	0.0	0.5+
1973 04 10	805	0.3+	0.3+	1996 04 20	566	1.0+	0.9−	1999 01 22	704	1.4−	0.2+
1988 01 29	413	0.6−	0.9+	1996 04 20	566	0.7+	1.0−	1999 01 23	704	0.3+	0.3+
1988 01 29	413	1.2+	0.3+	1996 04 20	566	0.4+	0.7−	1999 01 23	704	0.7−	1.0+
1988 05 11	413	1.2+	0.9+	1997 09 30	566	0.1+	0.1−	1999 01 23	704	0.2−	0.8−
1988 05 11	413	2.1−	0.9−	1997 09 30	566	0.3−	0.2−	1999 01 23	704	0.8−	1.0−
1989 07 02	675	0.1−	0.4+	1997 09 30	566	0.3−	0.0	1999 01 23	704	(1.3−	2.5−)
1989 07 02	675	0.1+	0.1+	1997 10 30	704	0.6+	0.0	1999 04 07	704	0.3+	0.4+

1989 07 04	675	0.2−	0.4+	1997 10 30	704	0.6−	0.5−	1999 04 07	704	0.7−	1.1+
1989 07 04	675	0.6−	0.9−	1997 10 30	704	0.5+	0.1+	1999 04 07	704	(2.2−	2.4+)
1992 04 29	033	0.1+	0.3+	1997 10 30	704	0.2+	0.7−	1999 04 07	704	0.8+	1.1−
1992 04 30	033	0.7−	0.2+	1997 10 30	704	0.7+	1.0−	1999 04 07	704	(2.9−	2.0−)
1992 05 03	033	0.1−	0.7−	1997 12 27	566	0.5+	1.6−	2000 02 10	704	0.1+	1.0−
1992 05 04	033	0.8+	0.9−	1997 12 27	566	0.4+	1.5−	2000 02 10	704	0.7+	0.3−
1992 05 05	033	0.4+	0.3−	1997 12 27	566	0.5+	1.1−	2000 02 10	704	0.9+	0.5+

1992 JS₃ = 1986 VR₉ = 1999 CZ₅₂ = 1999 LL₁

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	60.23840		(2000.0)		P		Q
<i>n</i>	0.26647366	ω	162.51315	−0.91733632		+0.39021274	
<i>a</i>	2.3916623	Ω	40.73915	−0.37819095		−0.79221567	
<i>e</i>	0.1360037	<i>i</i>	6.94554	−0.12436107		−0.46917838	
<i>P</i>	3.70	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1986 11 07	046	0.1+	2.0−	1992 05 13	809	0.0	0.5−	1999 02 10	704	0.1+	0.0
1986 11 07	046	1.8+	2.0−	1992 05 13	809	0.1+	0.3−	1999 02 10	704	0.1−	0.1−
1992 05 11	809	0.1+	0.4+	1992 05 13	809	0.4+	0.8−	1999 02 10	704	0.2−	0.7−
1992 05 11	809	0.9+	0.5+	1997 10 29	566	0.2−	0.1+	1999 02 13	704	0.5+	0.4+
1992 05 11	809	1.8+	0.7+	1997 10 29	566	0.1+	0.3+	1999 02 13	704	0.5−	0.8+
1992 05 11	809	0.4−	0.1−	1997 10 29	566	0.2−	0.1+	1999 02 13	704	0.2+	0.3+
1992 05 11	809	0.3+	0.3−	1998 12 01	704	1.2+	0.5−	1999 02 13	704	0.3−	0.3+
1992 05 11	809	1.2+	0.3−	1998 12 01	704	0.0	0.4−	1999 02 13	704	0.3+	0.2+
1992 05 12	809	0.4−	1.0−	1998 12 01	704	1.7−	0.1−	1999 06 07	704	0.1+	0.4+
1992 05 12	809	0.1+	1.3−	1998 12 01	704	(0.6−	2.3−)	1999 06 07	704	1.2−	0.2−
1992 05 12	809	(0.3+	2.4−)	1998 12 01	704	0.5+	0.2+	1999 06 07	704	0.1−	0.2+
1992 05 12	809	(0.5+	2.6−)	1998 12 21	704	(4.7−	4.0−)	1999 06 07	704	0.2+	0.3−
1992 05 12	809	1.4−	0.2+	1998 12 21	704	0.4−	0.7+	1999 06 08	704	0.4−	0.4−
1992 05 12	809	1.1−	0.1−	1998 12 21	704	(1.5+	3.4−)	1999 06 08	704	0.4+	1.2−
1992 05 12	809	0.7−	0.3−	1998 12 21	704	0.7+	1.7−	1999 06 08	704	0.2−	0.1+
1992 05 13	809	0.9−	0.6+	1999 02 10	704	0.2−	0.3+	1999 06 08	704	0.2+	0.2−
1992 05 13	809	0.8−	0.7+	1999 02 10	704	0.3+	0.3+	1999 06 08	704	0.3−	1.1−

1992 SP₁ = 2000 BM₅

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	115.23690		(2000.0)		P		Q
<i>n</i>	0.17415943	ω	4.53051	+0.96133825		+0.25102727	
<i>a</i>	3.1756897	Ω	339.80213	−0.26182905		+0.70593815	
<i>e</i>	0.2067938	<i>i</i>	19.13915	−0.08528961		+0.66229648	
<i>P</i>	5.66	<i>H</i>	13.3	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1992 08 26	399	(2.7−	2.7+)	1992 09 28	399	(4.1−	0.7+)	1999 12 30	704	1.3+	0.1+
1992 08 26	399	1.4−	0.8+	1998 08 29	704	0.4−	0.5+	1999 12 30	704	0.0	0.4+
1992 08 26	399	(3.1−	1.4−)	1998 08 29	704	0.1−	0.8−	2000 01 27	704	0.9+	0.4+
1992 09 02	809	1.2+	0.6−	1998 08 29	704	0.4−	0.2+	2000 01 27	704	0.5−	0.4+
1992 09 02	809	0.9+	0.5−	1998 08 29	704	1.1+	0.7−	2000 01 27	704	0.7−	0.6−
1992 09 02	809	0.8−	0.4−	1998 08 29	704	0.0	0.0	2000 01 27	704	0.5+	1.0−
1992 09 03	809	0.3−	0.9+	1998 10 02	699	0.1+	0.2−	2000 01 29	704	0.8−	0.1+
1992 09 20	399	(5.0−	0.6+)	1998 10 02	699	0.5−	0.6+	2000 01 29	704	0.3−	0.2+
1992 09 20	399	(4.1−	0.2+)	1998 10 02	699	0.4+	0.1+	2000 01 29	704	0.1−	0.4+
1992 09 28	399	(4.1−	0.3−)	1999 12 30	704	0.3−	0.3−				

1992 US₈ = 2000 CY₄₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	96.29198		(2000.0)		P		Q
<i>n</i>	0.30246709	ω	95.80539	+0.87850633		−0.47632848	
<i>a</i>	2.1979474	Ω	292.64527	+0.42113041		+0.80829827	
<i>e</i>	0.2061235	<i>i</i>	2.27131	+0.22555665		+0.34607093	
<i>P</i>	3.26	<i>H</i>	15.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1992 10 31	033	0.5+	0.1+	2000 02 02	704	1.5+	0.5+	2000 02 08	704	0.3-	0.2+
1992 10 31	033	0.2-	0.1-	2000 02 02	704	0.2+	1.1+	2000 02 08	691	0.3-	0.5-
1992 11 01	033	0.2-	0.0	2000 02 02	704	0.4+	0.6+	2000 02 08	704	0.1-	1.7-
1992 11 23	033	0.3+	0.2+	2000 02 06	704	0.2-	1.0+	2000 02 08	691	0.3-	0.6-
1992 11 23	033	0.6-	0.2+	2000 02 06	704	0.2+	0.5+	2000 02 08	704	0.4-	0.4-
1996 01 22	704	1.0+	0.1-	2000 02 06	704	0.3-	0.7-	2000 02 11	691	0.6-	0.6-
1996 01 22	704	0.3-	0.4-	2000 02 06	704	0.1+	0.2+	2000 02 11	691	0.6-	0.7-
1996 01 22	704	0.0	1.0-	2000 02 06	704	0.2+	0.4+	2000 02 11	691	0.7-	0.5-
2000 02 02	704	1.0+	0.5+	2000 02 08	704	0.4-	0.3+				
2000 02 02	704	0.9+	0.6+	2000 02 08	691	0.4-	0.4-				

1992 VF = 2000 CY₂₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	101.85365		(2000.0)	P	Q
n	0.29953574	ω	179.10720	+0.94025612	-0.33999402
a	2.2122640	Ω	200.79700	+0.31205892	+0.88169325
e	0.1960253	i	2.89913	+0.13615307	+0.32714075
P	3.29	H	14.8	G 0.15	U 5

Residuals in seconds of arc

1992 11 02	365	1.6-	0.1+	2000 02 02	704	0.3+	0.5-	2000 02 06	704	0.3+	0.2+
1992 11 02	365	0.0	0.4-	2000 02 02	704	0.6+	0.2+	2000 02 06	704	1.2-	0.8-
1992 11 04	365	1.2+	0.2-	2000 02 02	704	0.5+	0.3-	2000 02 06	704	0.5-	0.2+
1992 11 04	365	0.7+	0.5-	2000 02 02	704	0.4+	0.3+	2000 02 06	704	0.3-	0.7+
1992 11 21	399	0.2-	0.8+	2000 02 02	704	0.2+	1.0-	2000 02 06	704	0.1-	0.4+
1992 11 21	399	0.9-	0.0	2000 02 02	704	0.3+	0.2+	2000 02 08	704	0.7+	0.4-
1992 11 21	896	0.4+	0.6+	2000 02 02	704	0.0	0.8-	2000 02 08	704	0.1-	0.4-
1992 11 21	896	0.2-	0.3-	2000 02 02	704	0.8+	0.7+	2000 02 08	704	0.2-	0.1-
1992 11 23	896	0.6+	0.2-	2000 02 04	704	0.2+	0.2+	2000 02 08	704	1.3-	0.0
1992 11 23	896	(4.0+	0.1-)Y	2000 02 04	704	0.2+	0.4+	2000 02 10	704	0.2+	0.5-
1992 11 27	365	(2.1-	1.3-)Y	2000 02 04	704	0.2-	0.9+	2000 02 10	704	0.3-	0.0
2000 02 02	704	0.1-	0.5-	2000 02 04	704	0.3-	0.4+	2000 02 10	704	0.5-	0.4-
2000 02 02	704	0.2+	0.1-	2000 02 04	704	0.1-	0.3+	2000 02 10	704	0.3+	0.6+

1992 WU = 2000 AY₁₁₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	78.25019		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.29481568	ω	161.85261	+0.82286975	-0.56414591
a	2.2358140	Ω	232.68270	+0.51017378	+0.78618694
e	0.1784858	i	4.90538	+0.25021609	+0.25228851
P	3.34	H	14.4	G 0.15	U 4

Residuals in seconds of arc

1992 11 16	400	(3.1+	2.0+)Y	1992 12 03	372	1.2-	1.2+	2000 01 07	704	0.3-	0.0
1992 11 16	400	0.0	0.7+	1999 12 06	704	0.0	0.5+	2000 01 07	704	0.1+	0.3+
1992 11 17	400	(2.8+	0.7-)Y	1999 12 06	704	0.6+	0.4-	2000 01 07	704	0.3+	0.3+
1992 11 17	400	(1.8+	2.7-)Y	1999 12 06	704	0.1-	0.2+	2000 02 02	704	0.1+	0.1+
1992 11 18	399	0.7-	1.3-	1999 12 06	704	0.3-	0.4-	2000 02 02	704	0.0	0.2+
1992 11 18	399	0.4-	0.5+	2000 01 04	699	0.6+	0.5+	2000 02 02	704	0.0	0.3+
1992 11 21	399	0.7-	0.0	2000 01 04	699	0.4+	0.1-	2000 02 02	704	0.0	0.0
1992 11 21	399	0.1+	1.9+	2000 01 04	699	0.5+	0.0	2000 02 02	704	0.1+	0.3+
1992 11 25	675	0.9+	1.2-	2000 01 05	704	0.7-	0.1+	2000 02 04	704	0.1-	0.1+
1992 11 25	675	0.5+	1.1-	2000 01 05	704	0.4-	0.2+	2000 02 04	704	0.1-	0.1+
1992 11 27	400	1.8+	1.2+	2000 01 05	704	0.7-	0.1+	2000 02 04	704	0.3+	0.8-
1992 11 27	400	0.2-	0.9-	2000 01 05	704	0.3-	0.0	2000 02 04	704	0.5+	0.2+
1992 11 28	675	0.2+	0.1-	2000 01 05	704	0.1-	1.2-	2000 02 04	704	0.3+	0.1-
1992 11 28	675	0.2-	0.7-	2000 01 07	704	0.6-	0.1+				
1992 12 03	372	(3.4-	1.9+)Y	2000 01 07	704	0.3-	0.5-				

1993 BG = 1984 PE = 1997 AA₁₅ = 2000 AP₁₈₇

Id. G. V. Williams, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	62.29162		(2000.0)	P	Q
n	0.26881421	ω	233.92721	+0.97785766	+0.01530807
a	2.3777594	Ω	124.29138	+0.03914779	+0.96633449
e	0.2880580	i	14.63261	-0.20557686	+0.25683325
P	3.67	H	13.9	G 0.15	U 2

Residuals in seconds of arc

1984 08 02	675	0.5+	0.1-	1998 05 23	704	1.7-	0.7+	1999 12 16	699	0.3+	0.1+
1984 08 02	675	0.3-	1.7+	1998 05 23	704	(0.9-	2.0+)Y	1999 12 16	699	0.5+	0.1-
1993 01 16	372	(0.2-	2.0+)Y	1998 05 23	704	0.1-	1.1+	1999 12 16	699	0.5+	0.2+
1993 01 16	372	(2.3-	3.9+)Y	1998 05 23	704	(0.2-	2.1+)Y	2000 01 07	699	0.2+	0.6-
1993 01 18	372	(3.7-	3.7-)Y	1998 05 23	704	0.7-	1.4+	2000 01 07	699	0.2+	0.5-
1993 01 18	372	(0.0	2.8-)Y	1999 09 14	704	0.3-	0.0	2000 01 07	699	0.4+	0.7-
1993 01 25	372	1.5-	0.0	1999 09 14	704	0.8+	0.6+	2000 01 08	704	0.3-	0.3+
1993 01 25	372	0.1-	1.0-	1999 09 14	704	0.1+	0.3-	2000 01 08	704	0.2+	0.2+
1997 01 13	566	0.1+	0.2+	1999 09 14	704	0.3+	0.6-	2000 01 08	704	0.5-	0.6+
1997 01 13	566	0.2-	0.7+	1999 09 14	704	0.0	0.2-	2000 01 08	704	0.2+	0.8+
1997 01 13	566	0.4+	0.1+	1999 11 07	704	0.9-	0.4-	2000 01 08	704	0.0	0.7+
1997 01 14	566	0.4+	0.2+	1999 11 07	704	1.0-	0.1-	2000 01 11	704	0.5+	0.5+
1997 01 14	566	0.3+	0.1-	1999 11 07	704	0.8-	0.3-	2000 01 11	704	0.3+	0.3+
1997 01 14	566	0.1+	0.3+	1999 11 07	704	0.7-	0.6-	2000 01 11	704	0.8+	0.7+
1998 04 24	704	0.5+	0.2-	1999 11 07	704	1.2-	0.5-	2000 01 11	704	0.4+	0.8+
1998 04 24	704	(1.4+	2.8-)Y	1999 12 16	704	0.2-	0.5-	2000 01 11	704	0.8+	1.0+
1998 04 24	704	1.4+	0.9-	1999 12 16	704	0.3-	0.3-	2000 02 04	704	0.5+	1.0+
1998 04 24	704	0.9+	1.7-	1999 12 16	704	0.1-	0.4-	2000 02 04	704	0.8+	0.8+
1998 04 24	704	0.9-	0.2-	1999 12 16	704	0.2-	0.5-	2000 02 04	704	1.0+	0.6+

1993 BL₂

Id. T. Kobayashi (2000 observations)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	328.00130		(2000.0)	P	Q
n	0.28401349	ω	59.35485	-0.99043224	+0.08254914
a	2.2921519	Ω	125.16009	-0.11433743	-0.93958596
e	0.0773596	i	7.77410	+0.07727181	-0.33221056
P	3.47	H	14.1	G 0.15	U 6

Residuals in seconds of arc

1993 01 19	372	1.5-	1.0+	1993 01 30	372	1.3-	0.6+	2000 01 30	411	0.6-	0.9+
1993 01 19	372	(0.9+	4.0+)Y	1993 01 30	372	0.9+	1.7+	2000 01 30	411	0.1+	0.6-
1993 01 22	372	1.4-	1.1-	1993 02 02	372	0.3+	0.5-	2000 02 11	704	0.2-	0.0
1993 01 22	372	0.6+	0.5+	1993 02 02	372	(3.2+	1.2-)Y	2000 02 11	704	0.0	0.2+
1993 01 25	372	0.5+	1.4-	1993 02 10	399	0.6-	0.2+	2000 02 11	704	0.1+	0.1+
1993 01 25	372	(2.0-	3.2+)Y	1993 02 10	399	(0.4+	2.4-)Y	2000 02 11	704	0.2-	0.4-
1993 01 28	372	0.9+	0.8-	2000 01 27	411	0.2-	0.1-	2000 02 11	704	0.1-	0.4-
1993 01 28	372	1.5+	0.4-	2000 01 27	411	1.2+	0.4+				

1993 BJ₅ = 1977 CO = 1999 XH₁₉₃Id. T. B. Spahr (*MPC* 30658), G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	237.09569		(2000.0)	P	Q		
<i>n</i>	0.12405083	ω	272.53985	-0.63427348	+0.76756204		
<i>a</i>	3.9817097	Ω	317.62085	-0.64358434	-0.59047386		
<i>e</i>	0.0997976	<i>i</i>	7.88288	-0.42836474	-0.24937749		
<i>P</i>	7.95	<i>H</i>	11.9	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1977 02 11	675	(7.9+	0.2+)Y	1998 11 14	704	(23.1+	3.2+)Y	2000 01 04	704	0.2+	0.7+
1977 02 12	675	0.5+	1.2+	1998 11 14	704	(22.4+	2.9+)Y	2000 01 04	704	0.2+	0.9+
1977 02 14	675	0.9+	1.6+	1998 11 14	704	(22.7+	2.6+)Y	2000 01 04	704	0.7+	0.5+
1993 01 27	010	0.9-	0.6-	1998 11 14	704	(20.9+	2.3+)Y	2000 01 04	704	0.5-	0.3+
1993 01 27	010	0.7-	0.2-	1999 12 12	704	0.1+	0.2-	2000 01 29	704	0.3-	0.5+
1993 01 27	010	0.5-	0.5+	1999 12 12	704	0.2-	0.3-	2000 01 29	704	0.4-	0.2+
1993 01 28	010	0.3-	0.7+	1999 12 12	704	0.2-	0.4-	2000 01 29	704	0.3+	0.2+
1993 01 28	010	0.1+	0.3+	1999 12 12	704	0.1-	0.4-	2000 01 29	704	0.0	0.3-

2000 FEB. 22

M.P.C. 38443

1993 01 28	010	0.0	1.2−	1999 12 12	704	0.5−	0.6−	2000 01 30	704	0.1+	0.3+
1993 02 18	511	(2.4−	1.9+)	1999 12 15	704	0.2+	0.5−	2000 01 30	704	0.1+	0.8+
1993 02 18	511	0.6−	1.4+	1999 12 15	704	0.2+	0.4−	2000 01 30	704	0.9+	0.1+
1993 02 19	511	(3.2−	1.5+)	1999 12 15	704	0.2+	0.7−	2000 01 30	704	0.0	1.1−
1993 02 20	010	0.0	1.2−	2000 01 02	704	0.5+	0.6+	2000 01 30	704	1.8−	0.2+
1993 02 20	010	0.6+	1.3−	2000 01 02	704	0.4+	0.6+	2000 01 30	704	0.8−	0.7+
1993 02 20	010	0.5+	0.5−	2000 01 02	704	0.3+	0.5+	2000 01 30	704	1.1−	1.1−
1993 02 22	010	0.5+	0.8−	2000 01 02	704	0.5+	1.0−	2000 01 30	704	0.0	0.0
1993 02 23	010	(0.7+	2.5−)	2000 01 04	704	0.4+	0.2+				

1993 DN₁ = 1998 RJ₃₈ = 2000 AZ₁₇₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	323.82687		(2000.0)	$\mathbf{P}$		$\mathbf{Q}$	
n	0.27119287	ω	6.34422	−0.98678740		−0.15943566	
a	2.3638352	Ω	164.39230	+0.14354426		−0.94281776	
e	0.2580910	i	6.15035	+0.07513773		−0.29270282	
P	3.63	H	14.7	G	0.15	U	5

Residuals in seconds of arc

1993 02 19	511	(0.8+	2.8+)	1993 02 25	511	(0.0	3.3+)	2000 01 07	704	0.8−	0.3+
1993 02 19	511	1.3+	0.6−	1993 02 25	511	1.0−	1.4+	2000 01 07	704	0.7−	0.0
1993 02 19	511	(0.6+	2.7+)	1998 09 14	704	0.7−	0.0	2000 01 07	704	0.7−	0.1+
1993 02 19	511	(4.4+	0.1−)	1998 09 14	704	0.5+	1.9−	2000 01 11	704	0.0	0.2−
1993 02 20	511	1.5−	0.3−	1998 09 14	704	0.8+	0.3+	2000 01 11	704	1.0+	0.5−
1993 02 20	511	(1.2−	2.8−)	1998 09 14	704	0.8−	0.9+	2000 01 11	704	0.3−	0.8−
1993 02 21	511	(0.4+	3.7+)	1998 09 18	704	1.0−	0.2−	2000 01 11	704	0.4+	0.1−
1993 02 22	511	0.6+	0.8−	1998 09 18	704	0.2+	1.0+	2000 02 02	704	0.1−	0.4−
1993 02 22	511	1.1+	0.0	1998 09 18	704	(0.6−	2.4+)	2000 02 02	704	1.3+	0.2+
1993 02 22	511	0.4+	0.6+	1998 09 18	704	0.8+	1.3+	2000 02 02	704	0.9+	0.2+
1993 02 24	511	0.8−	0.2+	2000 01 07	704	0.5−	0.1+	2000 02 02	704	0.2+	0.8+
1993 02 25	511	0.1+	0.6+	2000 01 07	704	0.4−	0.1+				

1993 FX₃ = 2000 CU₄₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	303.70669		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.27444306	ω	45.59539	−0.49206318	+0.87018032
a	2.3451351	Ω	194.98846	−0.82429397	−0.47520230
e	0.2672320	i	5.70104	−0.28002370	−0.13026506
P	3.59	H	14.8	G 0.15	U 5

Residuals in seconds of arc

1993 03 17	372	0.5−	0.4+	1993 04 18	413	1.8−	0.1+	2000 02 06	704	0.4−	0.3+
1993 03 17	372	1.7+	0.4−	1993 04 21	413	1.6+	0.2−	2000 02 06	704	0.4−	0.4−
1993 03 18	372	0.3−	2.0−	2000 02 02	704	0.3+	0.6+	2000 02 06	704	0.2−	0.1+
1993 03 21	809	1.1−	0.5+	2000 02 02	704	0.1+	0.2−	2000 02 06	704	0.0	0.1+
1993 03 22	809	0.4−	0.2+	2000 02 02	704	0.2+	0.1−	2000 02 06	704	0.3+	0.4+
1993 03 26	809	0.5−	1.3+	2000 02 02	704	0.1−	0.3−				
1993 03 27	809	1.3+	0.1−	2000 02 02	704	0.3+	0.5−				

1993 FK₈ = 1999 UD₂₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	261.79623		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.23857945	ω	108.29947	−0.94006345	−0.33601330
a	2.5746253	Ω	52.10727	+0.27841222	−0.85468147
e	0.1535005	i	4.22218	+0.19689426	−0.39574569
P	4.13	H	16.1	G 0.15	U 5

Residuals in seconds of arc

1993 03 17	809	0.6+	0.7−	1999 10 31	691	0.1+	0.2+	1999 11 05	691	0.3+	0.5−
1993 03 18	809	0.7−	0.1+	1999 10 31	691	0.0	0.2+	1999 11 05	691	1.0−	0.2−
1993 03 23	809	0.2+	0.5+	1999 10 31	691	0.1−	0.4+				
1993 04 16	413	0.0	0.2+	1999 11 05	691	0.6+	0.1+				

1993 FC₁₄ = 1999 LF₃₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	10.80074		(2000.0)	$\mathbf{P}$		$\mathbf{Q}$	
n	0.17949214	ω	271.10902	+0.40067566		+0.90958313	
a	3.1124742	Ω	23.48452	−0.69165604		+0.37907570	
e	0.2286908	i	16.03558	−0.60089179		+0.17017678	
P	5.49	H	13.1	G	0.15	U	4

Residuals in seconds of arc

1993 03 17	809	1.0−	0.7−	1999 05 10	704	0.8+	0.1+	1999 06 09	704	0.3+	1.9−
1993 03 18	809	0.1−	0.5−	1999 05 10	704	0.1+	1.9+	1999 06 09	704	0.1+	0.1+
1993 03 23	809	0.1+	0.6−	1999 05 10	704	1.4+	0.5−	1999 06 09	704	0.2−	0.1−
1993 04 16	413	1.4−	1.3−	1999 05 10	704	1.1+	0.2+	1999 06 09	704	0.2+	0.6+
1998 03 25	704	0.3+	0.6−	1999 05 22	699	0.0	0.5+	1999 06 13	699	1.2−	0.1+
1998 03 25	704	0.7−	0.2+	1999 05 22	699	0.2+	0.6+	1999 06 13	699	0.7−	0.3−
1998 03 25	704	1.3+	1.6+	1999 05 22	699	0.1+	0.1−	1999 06 13	699	1.5−	0.6+
1998 03 25	704	0.5+	1.3+	1999 06 09	704	0.0	0.1+				

1993 FX₁₆ = 2000 CP₉₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	222.86912		(2000.0)	P	Q
n	0.27694166	ω	150.15004	+0.73476675	+0.67772530
a	2.3310085	Ω	167.06153	−0.64475356	+0.71079995
e	0.1355367	i	7.28556	−0.21073841	+0.18828661
P	3.56	H	15.8	G 0.15	U 5

Residuals in seconds of arc

1993 03 19	809	0.1−	0.2+	2000 02 13	732	(1.1+	2.2+)	2000 02 16	732	0.8+	0.2−
1993 03 20	809	0.1+	0.0	2000 02 14	732	0.1+	1.1+	2000 02 16	732	1.2−	0.2+
1993 03 23	809	0.2+	0.3+	2000 02 14	732	1.5+	1.2−	2000 02 16	732	0.1+	0.9+
1993 03 23	691	0.3−	0.2−	2000 02 14	732	0.1−	0.7+	2000 02 16	732	0.2−	0.4+
1993 03 23	691	0.3−	0.1−	2000 02 15	732	(0.4−	2.3−)	2000 02 16	732	0.7−	0.1+
1993 03 23	691	0.1+	0.4−	2000 02 15	732	1.6−	0.0	2000 02 17	732	0.5+	1.0−
1993 04 16	413	0.3+	0.3+	2000 02 15	732	0.1+	0.5+	2000 02 17	732	0.2−	1.4−
2000 02 13	732	0.6+	0.9−	2000 02 16	732	0.2+	0.8+				

1993 FY₁₉ = 2000 AN₁₄₀

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	329.87274		(2000.0)	P	Q
n	0.24130989	ω	318.17871	−0.21869821	−0.97293826
a	2.5551671	Ω	144.26673	+0.92572894	−0.23103779
e	0.0788309	i	7.33689	+0.30854015	+0.00356034
P	4.08	H	14.3	G	0.15
					U
					2

Residuals in seconds of arc

1993 03 17	809	0.6−	0.0	1999 11 03	703	0.4−	1.3+	2000 01 05	704	0.5+	0.2−
1993 03 18	809	0.3+	0.3+	1999 11 03	703	0.2−	0.4−	2000 01 05	704	0.3−	0.8+
1993 03 23	809	1.4+	0.7+	1999 11 03	703	0.1+	0.3+	2000 01 05	704	0.2−	0.0
1993 04 16	413	0.7−	0.5+	1999 11 03	703	0.3−	0.2+	2000 01 08	704	1.1+	0.4−
1997 01 31	910	0.1−	0.3−	1999 12 03	704	0.1−	0.7+	2000 01 08	704	0.4+	0.6−
1997 01 31	910	0.0	0.2−	1999 12 03	704	0.4−	0.4−	2000 01 08	704	(2.3+	1.0−)
1997 01 31	910	0.2−	0.1−	1999 12 03	704	0.2−	0.1−	2000 01 08	704	0.4+	0.4−

1993 FC₃₃ = 2000 BL₁₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	292.84319		(2000.0)	P	Q		
n	0.26940516	ω	94.15005	−0.70359805	+0.70937167		
a	2.3742810	Ω	131.04057	−0.67194354	−0.64506990		
e	0.1211720	i	3.17182	−0.23117454	−0.28403635		
P	3.66	H	16.2	G	0.15	U	6

Residuals in seconds of arc

1993 03 19	809	0.0	0.5−	2000 01 28	691	0.5+	0.5−	2000 02 03	704	0.2+	0.4+
1993 03 20	809	0.1+	0.1−	2000 01 30	691	0.1−	0.1−	2000 02 03	704	0.5−	1.6+
1993 03 24	809	0.2−	0.6+	2000 01 30	691	0.2−	0.2−	2000 02 03	704	0.0	0.1+
2000 01 28	691	0.6+	0.4−	2000 01 30	691	0.3−	0.2−				
2000 01 28	691	0.6+	0.7−	2000 02 03	704	0.8−	0.1+				

1993 FJ₃₇ = 1999 VY₉₁

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	86.16317		(2000.0)	P	Q
<i>n</i>	0.21656413	ω	285.98259	+0.56237914	+0.82555987
<i>a</i>	2.7462814	Ω	18.46874	−0.69105414	+0.50026255
<i>e</i>	0.0990275	<i>i</i>	8.47673	−0.45406374	+0.26112885
<i>P</i>	4.55	<i>H</i>	14.1	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1993 03 19	809	0.3+	0.7−	1999 09 30	703	0.5−	0.8+	1999 10 29	703	0.7+	1.0+
1993 03 20	809	0.9+	0.6−	1999 09 30	703	0.2−	0.8+	1999 11 09	704	0.6+	0.1−
1993 03 24	809	0.0	0.9+	1999 09 30	703	1.1−	0.2+	1999 11 09	704	0.0	0.1−
1993 04 18	413	1.4−	0.0	1999 10 02	704	1.5+	0.5−	1999 11 09	704	0.5+	0.6−
1999 09 14	704	1.0−	0.3−	1999 10 02	704	0.8+	0.4−	1999 11 09	704	0.2+	0.5+
1999 09 14	704	0.0	0.7−	1999 10 02	704	1.1+	0.8−	1999 11 09	704	0.3−	0.4+
1999 09 14	704	0.4−	0.3+	1999 10 02	704	1.1+	0.2+	1999 11 12	704	0.9+	0.8−
1999 09 14	704	0.2−	0.1+	1999 10 29	703	0.4−	0.1+	1999 11 12	704	0.0	0.4−
1999 09 14	704	0.5−	0.4−	1999 10 29	703	1.0−	0.1+	1999 11 12	704	0.8−	0.0
1999 09 30	703	0.5−	0.1+	1999 10 29	703	0.1−	0.3+				

1993 FG₅₀ = 2000 CM₉₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	260.80418		(2000.0)	P	Q
<i>n</i>	0.26952098	ω	298.17441	−0.15615052	+0.98751960
<i>a</i>	2.3736007	Ω	322.82420	−0.89388898	−0.15013267
<i>e</i>	0.1428347	<i>i</i>	1.94833	−0.42021364	−0.04759426
<i>P</i>	3.66	<i>H</i>	15.2	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1993 03 19	809	0.6−	0.3−	1993 04 15	691	0.3+	0.0	2000 02 06	704	0.6+	0.1−
1993 03 20	809	0.5+	0.4−	1993 04 17	413	0.6−	0.3+	2000 02 11	704	0.4−	0.4+
1993 03 24	809	0.3−	0.0	2000 02 06	704	0.8+	0.1+	2000 02 11	704	1.0−	0.3+
1993 04 15	691	0.3+	0.1−	2000 02 06	704	0.2−	1.3−	2000 02 11	704	0.8−	0.0
1993 04 15	691	0.4+	0.4+	2000 02 06	704	1.1+	0.7+				

1993 FA₅₃ = 2000 CE₂₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	297.49499		(2000.0)	P	Q
<i>n</i>	0.27325365	ω	69.66728	−0.65517919	+0.75483442
<i>a</i>	2.3519354	Ω	159.30212	−0.72178226	−0.61328720
<i>e</i>	0.1480335	<i>i</i>	5.04290	−0.22309324	−0.23260224
<i>P</i>	3.61	<i>H</i>	15.2	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1993 03 17	809	(3.5−	1.6−)	2000 02 02	704	0.2−	0.4−	2000 02 04	704	1.3+	0.3+
1993 03 17	809	0.5+	0.4+	2000 02 02	704	0.4+	0.1−	2000 02 04	704	0.0	0.6+
1993 03 18	809	0.8−	0.2−	2000 02 02	704	0.2−	0.7−	2000 02 04	704	0.5+	0.7−
1993 03 23	809	0.4+	0.3−	2000 02 02	704	0.6−	0.1+				
1993 04 16	413	0.1−	0.1+	2000 02 02	704	1.3−	1.0+				

1993 FF₅₃ = 1998 FJ₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	9.94654		(2000.0)	P	Q
<i>n</i>	0.20030067	ω	261.58411	+0.82440537	+0.56350414
<i>a</i>	2.8929957	Ω	64.10149	−0.49330021	+0.76133868
<i>e</i>	0.1003288	<i>i</i>	3.38360	−0.27750800	+0.32066571
<i>P</i>	4.92	<i>H</i>	14.8	<i>G</i> 0.15	<i>U</i> 7

Residuals in seconds of arc

1993 03 17	809	0.5−	1.2−	1998 03 18	691	0.0	0.1+	1998 03 25	691	0.0	0.1−
1993 03 18	809	0.3−	0.5−	1998 03 18	691	0.3+	0.1+	1998 03 29	704	0.5+	1.6−
1993 03 19	691	0.0	0.6+	1998 03 18	691	0.1−	0.2−	1998 03 29	704	0.6−	1.8+
1993 03 19	691	0.1+	0.5+	1998 03 25	691	0.2−	0.1+	1998 03 29	704	1.0+	0.7−
1993 03 19	691	0.8+	0.6+	1998 03 25	691	0.1+	0.5+	1998 03 29	704	1.0−	0.1−

1993 FT₅₆ = 2000 CW₉₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	298.09692		(2000.0)	P	Q
<i>n</i>	0.27751094	ω	115.85304	−0.47393355	+0.87772132
<i>a</i>	2.3278195	Ω	125.67660	−0.83583630	−0.42316448
<i>e</i>	0.1196061	<i>i</i>	4.98991	−0.27706438	−0.22480461
<i>P</i>	3.55	<i>H</i>	14.6	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1993 03 17	809	0.0	0.5+	2000 02 06	704	0.7+	0.1−	2000 02 11	704	0.1+	0.3−
1993 03 18	809	0.1−	0.6+	2000 02 06	704	0.5−	0.2−	2000 02 11	704	0.6+	0.4−
1993 03 19	691	0.2+	0.0	2000 02 06	704	0.3−	0.4+	2000 02 11	704	0.1−	0.8−
1993 03 19	691	0.0	0.0	2000 02 06	704	0.1−	1.7+	2000 02 16	703	0.6−	0.9−
1993 03 19	691	0.4−	0.0	2000 02 06	704	0.4+	1.0+	2000 02 16	703	0.3−	0.1+
1993 03 23	809	0.1−	0.5−	2000 02 11	704	0.8+	0.4−	2000 02 16	703	1.0−	0.1−
1993 04 16	413	0.5+	0.2−	2000 02 11	704	0.1+	0.5+	2000 02 16	703	0.1+	0.7−

1993 FY₈₀ = 1994 NS₃ = 1997 EH₆

Id. M. E. Sansaturio, A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	66.48693		(2000.0)	P	Q
<i>n</i>	0.23762921	ω	235.28322	+0.99953391	+0.01805768
<i>a</i>	2.5814844	Ω	123.67021	−0.00727036	+0.92390256
<i>e</i>	0.0785454	<i>i</i>	1.69485	−0.02964971	+0.38220148
<i>P</i>	4.15	<i>H</i>	15.3	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1993 03 18	809	1.0+	1.1+	1997 03 06	684	0.3−	0.5−	1999 11 04	704	0.2+	0.4+
1993 03 23	809	0.1−	0.8+	1997 03 06	684	0.2−	0.2+	1999 11 04	704	0.0	0.1+
1993 03 23	691	0.2−	0.3−	1997 03 07	684	0.1+	0.1−	1999 11 04	704	0.9−	0.2+
1993 03 23	691	0.4−	0.9−	1997 03 07	684	0.2−	0.1+	1999 11 04	704	0.7+	0.2−
1993 03 23	691	0.5−	1.3−	1997 03 08	684	0.4+	0.9+	1999 11 04	704	0.2−	0.1−
1994 07 11	809	(9.6+	6.0+)	1997 03 08	684	0.0	0.2+	1999 12 07	704	0.8+	0.5−
1994 07 11	809	(9.4+	5.5+)	1997 03 08	684	0.6+	0.2+	1999 12 07	704	0.5+	0.8−
1994 07 11	809	(9.3+	4.9+)	1999 11 01	703	1.7−	0.3+	1999 12 07	704	0.6+	0.4−
1994 07 12	809	(10.3+	5.4+)	1999 11 01	703	0.7+	0.8+	1999 12 07	704	0.5−	0.5−
1994 07 12	809	(9.7+	4.2+)	1999 11 01	703	0.3−	0.9+	1999 12 07	704	0.3+	0.5−
1994 07 12	809	(8.6+	4.2+)	1999 11 01	703	0.0	0.4+				

1993 MT = 1993 OE₁₀ = 1999 XC₁₀₉Id. A. Doppler (d, *MPC* 36125; unpublished)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	29.43513		(2000.0)	P	Q
<i>n</i>	0.20163019	ω	253.01198	+0.75031179	−0.66065777
<i>a</i>	2.8802643	Ω	148.32611	+0.62243286	+0.69388966
<i>e</i>	0.0730817	<i>i</i>	2.59120	+0.22273203	+0.28644101
<i>P</i>	4.89	<i>H</i>	15.0	<i>G</i> 0.15	<i>U</i> 5

2000 FEB. 22

M.P.C. 38445

Residuals in seconds of arc

1993 06 21	691	0.7−	0.8−	1999 11 01	703	0.1+	0.0	1999 12 04	703	1.4−	0.5+
1993 06 21	691	1.0−	0.9−	1999 11 01	703	0.8+	1.4+	1999 12 07	704	0.5−	0.6−
1993 06 21	691	0.5−	1.6−	1999 11 01	703	0.9+	0.2+	1999 12 07	704	0.8−	0.4−
1993 06 22	691	0.2−	0.1+	1999 11 04	704	0.2−	0.6−	1999 12 07	704	0.3+	0.5+
1993 06 22	691	0.4−	0.8−	1999 11 04	704	0.4+	0.3−	1999 12 07	704	0.6−	0.4−
1993 06 22	691	1.0−	0.7−	1999 11 04	704	0.7+	0.3−	1999 12 07	704	0.1−	0.9−
1993 07 20	809	1.7+	1.4+	1999 11 04	704	0.2+	0.6−	1999 12 12	703	0.6−	0.1−
1993 07 20	809	0.2+	1.5+	1999 11 04	704	0.3+	0.4+	1999 12 12	703	0.4−	0.5+
1993 07 20	809	(0.7+	2.4+)	1999 12 04	703	0.1−	0.1−	1999 12 12	703	0.4−	0.2+
1993 07 24	809	1.8+	1.3+	1999 12 04	703	0.8+	0.4+	1999 12 12	703	0.4+	0.7−
1999 11 01	703	0.3−	0.2+	1999 12 04	703	0.5+	0.1+				

1993 MB₁ = 2000 BZ₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	232.99263		(2000.0)	P	Q
<i>n</i>	0.23945899	<i>ω</i>	121.04916	−0.27718069	+0.94470125
<i>a</i>	2.5683170	<i>Ω</i>	131.78881	−0.94205376	−0.23133919
<i>e</i>	0.1418519	<i>i</i>	13.59371	−0.18895922	−0.23242575
<i>P</i>	4.12	<i>H</i>	12.4	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1993 06 17	675	0.2−	0.5−	1999 12 06	704	0.3−	0.3−	2000 01 28	704	0.1−	0.1+
1993 06 17	675	0.1−	0.4−	1999 12 06	704	0.8−	0.7+	2000 01 28	704	0.6+	0.3+
1993 06 19	675	1.4+	0.3−	1999 12 06	704	0.3−	0.1+	2000 01 29	704	0.2+	0.1+
1993 06 19	675	0.3−	0.3−	1999 12 06	704	0.3−	0.4−	2000 01 29	704	0.0	0.2+
1993 06 21	675	0.6+	0.4−	1999 12 14	704	0.2−	0.4−	2000 01 29	704	0.1−	0.0
1993 06 21	675	1.6−	1.0+	1999 12 14	704	0.1−	0.3−	2000 01 29	704	0.0	0.0
1993 06 23	675	(3.2+	2.1−)	1999 12 14	704	0.5−	0.2−	2000 01 29	704	0.3+	0.1+
1993 06 23	675	0.3−	1.3−	1999 12 14	704	0.1−	0.2−	2000 02 02	704	0.2+	0.1−
1998 12 18	699	0.5+	0.0	1999 12 14	704	0.1+	0.2−	2000 02 02	704	1.0+	0.1−
1998 12 18	699	0.6+	0.4+	2000 01 07	704	0.2−	0.3−	2000 02 02	704	0.1+	0.4+
1998 12 18	699	0.5−	0.9−	2000 01 07	704	0.1+	0.0	2000 02 02	704	0.5+	0.3+
1999 10 20	704	0.3+	0.4−	2000 01 07	704	0.2−	0.2−	2000 02 02	704	0.5+	0.8+
1999 10 20	704	0.1+	0.9−	2000 01 07	704	0.0	0.3−	2000 02 03	704	0.3+	0.2−
1999 10 20	704	0.2+	0.1+	2000 01 07	704	0.0	0.1+	2000 02 03	704	0.1+	0.3−
1999 10 20	704	0.1−	0.4−	2000 01 28	704	0.2−	0.2+	2000 02 03	704	0.1−	0.4−
1999 10 20	704	0.1−	0.2+	2000 01 28	704	0.4−	0.2+	2000 02 03	704	0.0	0.5−
1999 12 06	704	0.0	0.5−	2000 01 28	704	0.1−	0.1−	2000 02 03	704	0.2−	0.1−

1993 OM₇ = 1999 XJ₁₄₁ = 2000 BN₁₉

Id. S. Nakano, G. V. Williams (d)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

<i>M</i>	354.90608		(2000.0)	P	Q
<i>n</i>	0.67857822	<i>ω</i>	195.35412	−0.66170901	−0.65636952
<i>a</i>	1.2825356	<i>Ω</i>	297.66460	+0.72376717	−0.43303905
<i>e</i>	0.1897671	<i>i</i>	24.15181	+0.19570968	−0.61778333
<i>P</i>	1.45	<i>H</i>	17.6	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1993 07 20	809	0.7−	0.4+	1999 12 13	704	0.7+	1.5+	2000 01 06	118	(1.3−	2.4+)
1993 07 20	809	0.6+	0.2−	1999 12 13	704	0.5+	1.3+	2000 01 31	704	0.5+	0.4+
1993 07 20	809	0.0	0.3−	1999 12 16	611	1.8−	0.4−	2000 01 31	704	0.3−	0.2−
1993 07 20	809	1.5−	0.5+	1999 12 18	651	0.9+	0.9−	2000 01 31	704	0.0	0.2+
1993 07 20	809	0.4+	0.9−	1999 12 18	651	0.6−	0.6+	2000 01 31	704	0.4−	0.6+
1993 07 20	809	0.6−	0.4+	1999 12 19	046	1.2+	0.6+	2000 02 01	858	0.4−	0.8+
1993 07 20	809	(3.1−	0.3+)	1999 12 19	046	(2.9+	0.2+)	2000 02 01	858	0.4+	0.1−
1993 07 20	809	1.0−	0.2−	1999 12 19	046	0.4+	0.1+	2000 02 01	858	0.1+	0.0
1993 07 20	809	0.9−	0.4−	1999 12 19	046	1.1−	0.4+	2000 02 01	858	0.3+	0.1−
1993 07 24	809	(3.1+	3.4−)	1999 12 20	704	0.4+	1.2−	2000 02 01	557	0.5+	0.4−
1993 07 24	809	(3.9+	4.4−)	1999 12 20	704	0.1−	0.7−	2000 02 01	557	0.0	1.6−
1993 07 24	809	(4.9+	4.4−)	1999 12 20	704	0.3−	1.2−	2000 02 01	557	0.9+	0.5−
1993 07 24	809	(1.3+	3.1−)	1999 12 20	704	0.2+	0.2+	2000 02 01	557	0.0	1.3−
1993 07 24	809	(4.4+	4.4−)	1999 12 22	402	0.2−	0.4−	2000 02 01	046	0.6−	0.6−
1993 07 24	809	(1.1+	2.2−)	1999 12 22	402	0.4+	1.0−	2000 02 01	046	0.4+	1.0+
1993 07 24	809	(3.2+	3.1−)	1999 12 22	402	0.4+	0.1−	2000 02 01	046	1.5−	0.4+

1993 07 24	809	(5.2+	4.8−)	1999 12 22	118	0.1+	0.1−	2000 02 01	046	0.3−	0.7+
1993 07 24	809	(2.0+	3.6−)	1999 12 22	118	0.3+	0.7+	2000 02 01	046	(2.4+	1.7+)
1993 07 24	809	0.7+	1.0−	1999 12 24	402	0.2−	0.5−	2000 02 02	858	0.3+	0.5+
1993 07 24	809	1.0+	0.3−	1999 12 24	402	(0.7−	2.1+)	2000 02 02	858	0.1+	0.9+
1993 07 24	809	0.4+	1.6+	1999 12 24	402	0.0	0.6−	2000 02 03	557	0.1+	0.2−
1993 07 24	809	0.1−	0.1+	1999 12 29	360	0.2−	0.2+	2000 02 03	557	0.2−	0.4−
1993 07 24	809	0.5+	0.6+	1999 12 29	360	0.5+	0.2+	2000 02 03	557	0.5−	0.7−
1993 07 24	809	0.0	0.7+	1999 12 29	360	0.3−	0.2+	2000 02 07	747	0.2+	0.0
1993 07 24	809	0.2+	0.1−	2000 01 05	118	0.8−	0.8−	2000 02 07	747	0.4+	0.0
1993 07 24	809	0.6+	0.7−	2000 01 05	118	1.3−	0.2+	2000 02 07	747	0.5+	0.1−
1993 07 24	809	(2.3−	2.3+)	2000 01 05	118	0.8−	0.1+	2000 02 07	747	0.6−	0.0
1999 12 13	704	0.1−	0.5+	2000 01 06	118	0.4−	0.4−	2000 02 07	747	0.6+	0.3+
1999 12 13	704	0.5+	0.1+	2000 01 06	118	0.6+	1.4+	2000 02 07	747	0.5+	0.8+

1993 QY₃ = 2000 AN₁₇₄

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	88.25450		(2000.0)	P	Q
<i>n</i>	0.19534373	<i>ω</i>	204.00453	+0.99565180	−0.06753813
<i>a</i>	2.9417317	<i>Ω</i>	159.55637	+0.08075691	+0.96909365
<i>e</i>	0.1052878	<i>i</i>	10.58419	−0.04643080	+0.23726798
<i>P</i>	5.05	<i>H</i>	14.2	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1993 08 18	010	1.2+	0.5−	1993 08 24	809	0.6+	1.0+	2000 01 07	704	0.1+	1.5−
1993 08 19	010	1.3+	1.3−	1993 08 24	809	1.4+	0.9+	2000 01 07	704	0.9+	0.1−
1993 08 19	010	(0.9+	2.7−)	1993 09 10	691	1.4−	0.4−	2000 01 07	704	0.2+	0.3−
1993 08 19	010	(1.3+	2.5−)	1993 09 10	691	1.4−	0.2+	2000 01 11	704	0.6−	0.1+
1993 08 20	809	(0.0	2.0+)	1993 09 10	691	1.4−	0.2−	2000 01 11	704	0.2−	0.6+
1993 08 20	809	0.1−	1.8+	1998 09 01	327	0.6+	1.3−	2000 01 11	704	0.3−	0.3+
1993 08 20	809	1.1−	1.6+	1998 09 01	327	0.1+	1.4−	2000 01 11	704	0.0	0.7+
1993 08 24	809	0.0	1.2+	1998 09 01	327	0.2+	1.7−				

1993 QP₆ = 2000 AF₁₇₀

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	61.81897		(2000.0)	P	Q
<i>n</i>	0.18859588	<i>ω</i>	216.25576	+0.95506029	−0.29194944
<i>a</i>	3.0114888	<i>Ω</i>	160.52767	+0.29500671	+0.91941418
<i>e</i>	0.1230846	<i>i</i>	8.84178	+0.02882495	+0.26352057
<i>P</i>	5.23	<i>H</i>	14.0	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1993 08 20	809	(2.2+	2.5+)	1998 08 17	704	0.2−	0.1+	1999 12 14	704	0.3+	0.3+
1993 08 20	809	0.8+	1.6+	1999 11 05	704	0.7−	0.0	2000 01 07	704	0.4+	0.7+
1993 08 20	809	(2.6+	3.0+)	1999 11 05	704	0.2+	1.0−	2000 01 07	704	0.3+	0.4+
1993 08 24	809	1.3+	1.7+	1999 11 05	704	0.2+	0.2+	2000 01 07	704	0.2−	0.7+
1993 08 24	809	0.1+	0.1+	1999 12 05	704	0.9−	0.5+	2000 01 07	704	0.5+	0.8−
1993 08 24	809	0.4+	0.0	1999 12 05	704	0.0	1.1−	2000 01 07	704	0.7+	0.8+
1993 09 10	691	1.2−	1.1−	1999 12 05	704	0.0	1.7+	2000 01 11	704	0.6−	0.2−
1993 09 10	691	1.0−	0.2−	1999 12 05	704	1.6+	0.5−	2000 01 11	704	0.2−	0.1+
1993 09 10	691	0.7−	1.0−	1999 12 05	704	0.1−	0.4−	2000 01 11	704	0.0	0.1−
1998 08 17	704	1.5+	0.6−	1999 12 14	704	0.4+	0.5+	2000 01 11	704	0.7−	0.4−
1998 08 17	704	0.5−	0.3+	1999 12 14	704	0.9−	1.3−	2000 01 11	704	0.5−	1.0−
1998 08 17	704	0.5−	1.0−	1999 12 14	704	0.1+	0.5+				

Residuals in seconds of arc

1993 09 15	691	0.0	0.5−	1993 09 20	691	0.4+	0.1+	1996 04 17	809	0.2+	0.1−
1993 09 15	691	0.0	0.4+	1993 09 20	691	0.1−	0.2+	1996 04 18	809	0.4+	0.0
1993 09 15	691	0.0	0.2+	1996 04 17	809	0.3+	0.7+	1996 04 18	809	0.1−	0.7−
1993 09 20	691	0.2−	0.4−	1996 04 17	809	0.8−	1.0+	1996 04 18	809	0.0	0.8−

1993 SO₃ = 1998 VN₄₄ = 1999 XZ₁₈₀

Id. M. E. Sansaturio, G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	76.45554	(2000.0)	<i>P</i>	Spahr	<i>Q</i>
<i>n</i>	0.17852806	<i>ω</i>	332.01760	+0.99328841	+0.04037480
<i>a</i>	3.1236694	<i>Ω</i>	26.34881	+0.03110283	+0.80934242
<i>e</i>	0.0376106	<i>i</i>	14.13507	−0.11140356	+0.58594771
<i>P</i>	5.52	<i>H</i>	12.1	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1993 09 22	303	0.7−	0.8−	1996 02 29	327	0.2−	0.0	1999 12 07	703	0.4+	0.1+
1993 09 22	303	0.8−	0.1−	1996 02 29	327	0.1+	0.2−	1999 12 07	703	0.1−	0.1−
1993 09 22	303	0.8−	0.3−	1996 02 29	327	0.8−	0.9−	1999 12 07	703	0.2+	0.2+
1993 09 23	303	0.8+	0.3−	1996 02 29	327	1.0+	0.0	1999 12 07	703	0.3+	0.0
1993 10 09	809	1.6+	0.0	1996 04 23	566	0.6−	0.4+	1999 12 12	704	0.4+	0.3−
1993 10 09	809	0.7+	0.3+	1996 04 23	566	0.0	0.6+	1999 12 12	704	0.2+	0.1−
1993 10 09	809	0.4+	0.1+	1996 04 23	566	0.3−	0.6+	1999 12 12	704	0.2−	0.5+
1993 10 10	675	0.4−	0.4−	1998 11 11	699	0.1−	0.8+	1999 12 12	704	0.5−	0.0
1993 10 10	675	0.3−	0.3−	1998 11 11	699	0.5−	0.1+	1999 12 12	704	0.2−	0.2+
1993 10 11	809	0.9+	0.8+	1998 11 11	699	0.9−	0.1+	1999 12 15	704	0.5+	0.9+
1993 10 11	809	0.7+	0.0	1998 11 20	699	0.3+	0.9+	1999 12 15	704	0.1+	0.5+
1993 10 11	809	0.2−	0.2−	1998 11 20	699	1.3−	0.5+	1999 12 15	704	0.9−	0.1+
1993 10 12	809	0.6+	0.5+	1998 11 20	699	1.2+	1.1+	1999 12 15	704	1.9−	0.3+
1993 10 12	809	0.4−	0.4+	1998 12 08	704	0.5+	0.3+	1999 12 15	704	1.8−	1.1+
1993 10 12	809	0.8−	0.1+	1998 12 08	704	1.1−	1.3−	2000 01 02	704	1.3+	0.4+
1993 10 13	675	0.0	0.4−	1998 12 08	704	0.1−	0.3−	2000 01 02	704	0.4+	0.7−
1993 10 13	675	0.3−	0.6−	1998 12 08	704	1.5+	0.0	2000 01 02	704	0.2+	0.0
1993 10 22	809	(4.0+	4.3−)	1998 12 08	704	0.2−	0.6−	2000 01 02	704	0.3+	0.9−
1993 10 22	809	(1.0+	2.4−)	1999 09 03	704	0.3+	0.3−	2000 01 02	704	0.2+	0.2−
1993 10 22	809	(5.9−	0.3+)	1999 09 03	704	0.3+	0.8−				
1996 02 29	327	0.8+	0.3−	1999 09 03	704	0.1+	0.3−				

1993 TF₁₅ = 1999 XU₁₃₃

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	52.62515	(2000.0)	<i>P</i>	Williams	<i>Q</i>
<i>n</i>	0.18565593	<i>ω</i>	20.65660	+0.71777704	−0.69318988
<i>a</i>	3.0431977	<i>Ω</i>	23.62812	+0.61371271	+0.58546568
<i>e</i>	0.1371881	<i>i</i>	9.39866	+0.32886599	+0.42037807
<i>P</i>	5.31	<i>H</i>	14.2	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1993 10 09	809	0.3+	0.2−	1993 10 20	809	0.9−	0.2+	1999 12 15	704	0.0	0.0
1993 10 09	809	0.2−	0.6−	1993 10 22	809	1.2−	1.4−	1999 12 15	704	0.6+	0.2−
1993 10 09	809	0.3−	1.2−	1993 10 22	809	(2.4−	1.3−)	1999 12 15	704	0.3−	0.4−
1993 10 10	809	(1.4−	3.0−)	1993 10 22	809	(3.2−	0.1+)	1999 12 15	704	0.3+	0.0
1993 10 10	809	(2.5−	3.5−)	1999 12 12	704	1.1−	1.4+	1999 12 15	704	0.0	0.3−
1993 10 10	809	(2.5−	4.2−)	1999 12 12	704	0.2+	0.0	1999 12 15	704	0.5−	0.3+
1993 10 11	809	1.2+	0.3+	1999 12 12	704	0.4+	1.0−	1999 12 15	704	0.2−	0.6−
1993 10 11	809	0.8+	1.7+	1999 12 13	704	1.2−	0.2−	1999 12 15	704	0.2+	0.0
1993 10 11	809	0.9+	0.3+	1999 12 13	704	0.2−	0.0	2000 01 29	704	0.5−	0.1−
1993 10 20	809	0.3+	0.3+	1999 12 13	704	1.1+	0.5+	2000 01 29	704	0.0	0.7+
1993 10 20	809	1.0−	0.8+	1999 12 13	704	0.5+	0.1−	2000 01 29	704	0.4+	0.0

1993 TA₁₆ = 1999 XH₁₀₇

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	356.82578	(2000.0)	<i>P</i>	Williams	<i>Q</i>
<i>n</i>	0.17093221	<i>ω</i>	324.43828	+0.26498130	−0.96367245
<i>a</i>	3.2155365	<i>Ω</i>	110.17525	+0.89273009	+0.23205893
<i>e</i>	0.1575057	<i>i</i>	2.04356	+0.36444190	+0.13222735
<i>P</i>	5.77	<i>H</i>	14.4	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1993 10 09	809	0.7+	0.1−	1999 10 20	704	0.3+	0.9−	1999 12 07	704	0.5+	0.9+
1993 10 09	809	0.1+	0.4+	1999 10 20	704	0.3−	0.4−	1999 12 07	704	0.7+	0.3−
1993 10 09	809	0.5−	0.3−	1999 11 04	704	0.9+	0.2−	1999 12 07	704	1.0+	0.2−
1993 10 11	809	1.2+	0.8−	1999 11 04	704	0.1+	0.1+	1999 12 12	703	0.8+	0.8+
1993 10 11	809	0.1+	0.1+	1999 11 04	704	0.3−	0.4−	1999 12 12	703	1.7−	0.8+
1993 10 11	809	0.7−	0.5−	1999 11 04	704	0.8+	0.5+	1999 12 12	703	0.8−	0.5+
1993 10 20	809	0.0	1.2+	1999 12 04	703	0.5−	0.1+	1999 12 12	703	0.3+	0.5+
1993 10 20	809	1.0−	0.8+	1999 12 04	703	0.1−	0.4+	2000 01 05	704	0.8−	0.2+
1993 10 20	809	0.4−	0.6+	1999 12 04	703	0.1+	0.5+	2000 01 05	704	1.0+	0.0
1999 10 20	704	0.0	0.5−	1999 12 04	703	0.9−	0.5+	2000 01 05	704	0.0	0.2−
1999 10 20	704	0.5−	1.8−	1999 12 07	704	0.2+	0.3−	2000 01 05	704	0.2−	0.3−
1999 10 20	704	0.4−	0.1−	1999 12 07	704	0.3+	0.9−	2000 01 05	704	0.2−	0.4−

1993 TM₂₂ = 1998 VR₁₉ = 2000 AH₁₉₈

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	49.88138	(2000.0)	<i>P</i>	Spahr	<i>Q</i>
<i>n</i>	0.20492964	<i>ω</i>	268.48090	+0.00370302	−0.99998662
<i>a</i>	2.8492652	<i>Ω</i>	181.32321	+0.96838662	+0.00448688
<i>e</i>	0.0218887	<i>i</i>	8.99873	+0.24942663	−0.00257416
<i>P</i>	4.81	<i>H</i>	13.8	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1993 10 09	809	1.1+	1.0+	1998 11 11	704	0.2+	1.0+	2000 01 11	704	0.7−	0.6−
1993 10 09	809	0.9+	0.0	1998 11 11	704	0.6+	0.7−	2000 01 11	704	0.6−	0.1+
1993 10 11	809	(0.7+	3.0+)	1999 12 05	704	0.3−	0.7+	2000 01 11	704	0.2−	0.3+
1993 10 11	809	0.8−	1.7+	1999 12 05	704	0.1+	0.3+	2000 02 01	703	(3.9−	3.4+)
1993 10 11	809	(1.3−	2.2+)	1999 12 05	704	0.5−	0.2−	2000 02 01	703	1.0+	1.4+
1993 10 20	809	0.3+	0.1+	2000 01 05	699	0.3+	1.0+	2000 02 01	703	0.3+	0.2+
1993 10 20	809	1.0−	0.1−	2000 01 05	699	1.7+	1.7+	2000 02 01	703	1.8−	0.2−
1993 10 20	809	0.9−	1.2−	2000 01 05	699	1.1+	0.8+	2000 02 06	704	1.8+	0.4−
1998 11 10	704	(0.6−	2.3+)	2000 01 08	704	0.4−	0.0	2000 02 06	704	1.2+	0.8−
1998 11 10	704	0.7−	0.1−	2000 01 08	704	0.5−	0.9−	2000 02 06	704	0.3+	0.0
1998 11 10	704	0.5−	0.8−	2000 01 08	704	1.1−	0.1+	2000 02 06	704	0.6−	0.6−
1998 11 10	704	0.2−	0.4+	2000 01 08	704	0.3−	0.1+	2000 02 06	704	0.1+	0.5−
1998 11 11	704	0.2−	0.1+	2000 01 11	704	0.9−	0.5−				
1998 11 11	704	1.0+	1.6−	2000 01 11	704	0.0	0.9−				

1993 TA₂₅ = 1999 XD₆₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	47.79727	(2000.0)	<i>P</i>	Doppler	<i>Q</i>
<i>n</i>	0.17913181	<i>ω</i>	228.78635	+0.81949890	−0.57262045
<i>a</i>	3.1166467	<i>Ω</i>	166.09618	+0.55023483	+0.77499584
<i>e</i>	0.1658066	<i>i</i>	5.48408	+0.16019733	+0.26737102
<i>P</i>	5.50	<i>H</i>	15.6	<i>G</i>	0.15
				<i>U</i>	6

Residuals in seconds of arc

1993 10 09	809	0.1+	0.6−	1993 10 20	809	0.3+	0.4−	1999 12 07	704	0.3+	0.3+
1993 10 09	809	1.1−	1.6−	1993 10 20	809	0.4−	0.0	1999 12 08	704	1.4−	0.5+
1993 10 09	809	1.2−	1.0−	1993 10 20	809	0.4−	0.2−	1999 12 08	704	0.3−	0.4−
1993 10 11	809	0.9+	1.0+	1999 12 07	704	0.8+	0.2−	1999 12 08	704	1.2−	0.3−
1993 10 11	809	1.7+	1.4+	1999 12 07	704	0.9+	0.2−				
1993 10 11	809	0.2+	1.5+	1999 12 07	704	1.0+	0.3+				

1993 TB₂₆ = 1987 NEId. S. Nakano (*MPC* 32232), G. V. Williams (*ibid.*), A. Doppler (*ibid.*); 1993 TB₂₆ = 1996 HY₁₄ (*ibid.*) is invalid

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	58.13421		(2000.0)		P		Q				
<i>n</i>	0.19119685	ω	344.93559		+0.49626108		−0.86614281				
<i>a</i>	2.9841150	Ω	75.28021		+0.80274237		+0.43175356				
<i>e</i>	0.1697278	<i>i</i>	3.51768		+0.33065031		+0.25176475				
<i>P</i>	5.15	<i>H</i>	13.2		<i>G</i> 0.15		<i>U</i> 6				
Residuals in seconds of arc											
1987 07 01	809	0.5+	1.0+	1987 07 02	809	0.2+	1.0−	1993 10 11	809	0.7+	0.0
1987 07 01	809	0.7+	0.9−	1993 10 09	809	1.2−	0.0	1993 10 11	809	0.2+	0.0
1987 07 01	809	1.7−	1.1−	1993 10 09	809	0.5−	0.2−	1993 10 20	809	1.0+	0.2+
1987 07 02	809	(6.5+	2.3+)	1993 10 09	809	0.9−	0.0	1993 10 20	809	0.0	0.1−
1987 07 02	809	0.2+	2.1+	1993 10 11	809	1.9+	0.6+	1993 10 20	809	1.2−	0.6−

1994 AW₁₄ = 1996 TP₂₁

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	63.21744		(2000.0)		P		Q				
<i>n</i>	0.24593567	ω	293.75277		-0.32835568		+0.94425897				
<i>a</i>	2.5230259	Ω	317.05550		-0.85350403		-0.30731973				
<i>e</i>	0.0825721	<i>i</i>	1.98619		-0.40461515		-0.11802367				
<i>P</i>	4.01	<i>H</i>	16.7		<i>G</i> 0.15		<i>U</i> 6				
Residuals in seconds of arc											
1994 01 13	691	0.0	0.3+	1994 01 17	691	1.1-	0.9-	1996 10 06	691	0.1+	0.1+
1994 01 13	691	0.5-	0.2+	1994 01 17	691	0.1-	0.0	1996 10 10	691	0.2-	0.2-
1994 01 13	691	0.3+	0.3+	1996 10 06	691	0.0	0.1-	1996 10 10	691	0.2+	0.2-
1994 01 17	691	1.4+	0.1+	1996 10 06	691	0.2+	0.2-	1996 10 10	691	0.4-	0.6+

1994 CX₉ = 1998 HK₈₃ = 1999 RN₅₇

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	337.68994		(2000.0)		P		Q				
n	0.27858424	ω	298.26723		+0.53998107		-0.83923099				
a	2.3218368	Ω	118.90931		+0.79561478		+0.48408841				
e	0.1055214	i	4.20076		+0.27462261		+0.24768882				
P	3.54	H	14.7		G 0.15		U 4				
Residuals in seconds of arc											
1994 02 07	809	1.9+	1.3+	1998 04 21	704	0.9-	0.4+	1999 09 07	699	0.8-	1.5+
1994 02 07	809	0.1+	1.9+	1998 04 21	704	(2.2-	0.2-)	1999 09 07	699	0.3+	0.1-
1994 02 07	809	0.8-	1.0+	1998 04 21	704	(1.9-	2.1+)	1999 09 07	704	0.7-	0.5+
1994 02 09	809	(1.2+	4.7+)	1998 04 21	704	1.6-	0.6+	1999 09 07	699	0.8-	0.9+
1994 02 09	809	(0.9+	3.5+)	1998 04 21	704	(1.1-	3.4+)	1999 09 07	704	0.0	0.6-
1994 02 09	809	(0.5+	3.4+)	1998 04 22	704	0.1-	1.1+	1999 09 07	704	0.2-	0.5-
1994 02 12	809	(0.1+	3.7+)	1998 04 22	704	0.4-	0.5+	1999 09 07	704	0.1-	0.1-
1994 02 12	809	(0.4-	3.1+)	1998 04 22	704	1.1-	0.6-	1999 09 07	704	0.7-	0.2-
1994 02 12	809	(0.6-	4.5+)	1998 04 22	704	0.3-	1.0-	1999 09 13	704	0.7+	0.1-
1994 02 15	691	0.1+	0.2+	1998 04 22	704	0.1-	0.3+	1999 09 13	704	0.0	0.6-
1994 02 15	691	0.4-	0.5-	1998 05 01	704	0.1-	0.6-	1999 09 13	704	0.1-	0.5+
1994 02 15	675	0.1+	0.6-	1998 05 01	704	1.1+	0.7-	1999 09 13	704	0.0	0.4+
1994 02 15	691	0.2+	0.0	1998 05 01	704	0.1+	0.2-	1999 09 13	704	0.6+	0.1+
1994 02 15	675	(0.2-	2.6-)	1998 05 01	704	0.4+	0.1-	1999 09 30	704	0.4+	0.2+
1998 03 24	704	1.0+	1.4-	1998 05 01	704	0.6+	1.0+	1999 09 30	704	0.7+	0.1-
1998 03 24	704	1.4+	0.2+	1999 08 08	699	0.5-	0.7+	1999 09 30	704	0.4+	0.4-
1998 03 24	704	(0.2+	2.1-)	1999 08 08	699	0.2-	1.2+	1999 09 30	704	0.3+	0.3-
1998 03 24	704	(4.1-	1.5-)	1999 08 08	699	0.2-	0.5+	1999 09 30	704	0.2+	0.7-

1994 JR₄ = 2000 CJ₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	108.12945		(2000.0)	P			Q				
n	0.27237214	ω	150.58182	+0.99655150			+0.08097319				
a	2.3570073	Ω	204.79329	-0.08204006			+0.92879137				
e	0.1809281	i	2.47699	-0.01243154			+0.36164891				
P	3.62	H	15.1	G	0.15		U	6			
Residuals in seconds of arc											
1994 05 03	691	0.1-	0.0	1994 05 17	691	0.2+	0.5+	2000 02 02	704	0.4+	0.7+
1994 05 03	691	0.1-	0.1+	1994 05 17	691	0.0	0.0	2000 02 02	704	0.3-	0.2+
1994 05 03	691	0.3-	0.0	1994 05 17	691	0.1-	0.1-	2000 02 03	704	0.1+	0.2+
1994 05 11	691	0.2+	0.3-	2000 02 02	704	0.1-	0.1-	2000 02 03	704	0.1-	0.2-
1994 05 11	691	0.1+	0.1-	2000 02 02	704	0.3-	0.4+	2000 02 03	704	0.3+	1.2-

1994 LM = 1997 XZ₁₁ = 1999 NY₄₃

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	62.94018		(2000.0)		P		Q				
<i>n</i>	0.37084879	ω	37.66784		+0.48513282		+0.80684718				
<i>a</i>	1.9186900	Ω	263.74028		-0.86186169		+0.37603892				
<i>e</i>	0.0505738	<i>i</i>	19.82405		-0.14778558		+0.45562304				
<i>P</i>	2.66	<i>H</i>	16.1		<i>G</i> 0.15		<i>U</i> 3				
Residuals in seconds of arc											
1994 06 05	691	0.2-	0.3-	1997 12 15	327	1.0-	0.0	1999 07 13	704	1.1+	0.3-
1994 06 05	691	0.2-	0.4-	1997 12 15	327	0.6+	0.4+	1999 07 13	704	1.6+	1.3-
1994 06 05	691	0.2-	0.8-	1997 12 24	327	0.1+	0.2-	1999 07 13	704	0.5+	1.0+
1994 06 06	691	0.0	0.4+	1997 12 24	327	0.4+	0.2-	1999 07 13	704	0.3-	0.0
1994 06 06	691	0.3+	0.5+	1997 12 24	327	0.3+	0.2-	1999 07 19	704	0.1-	0.2+
1994 06 06	691	0.1-	0.2+	1999 06 15	704	0.3-	0.1-	1999 07 19	704	0.6-	0.2-
1994 06 08	691	0.3+	0.6+	1999 06 15	704	0.3-	0.3-	1999 07 19	704	0.5-	0.5+
1994 06 08	691	0.2+	0.3-	1999 06 15	704	0.4-	0.7+	1999 07 19	704	0.3-	0.0
1997 12 15	327	0.3-	0.6+	1999 06 15	704	0.4-	0.1+				

1994 PO₆ = 1992 EJ₃₄ = 2000 CY₁₅

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Williams

<i>M</i>	53.22097		(2000.0)		P		Q				
<i>n</i>	0.23547523	ω	158.64435		+0.54608543		-0.83742204				
<i>a</i>	2.5972030	Ω	258.25023		+0.76520507		+0.50965211				
<i>e</i>	0.2036130	<i>i</i>	1.32824		+0.34095734		+0.19743113				
<i>P</i>	4.19	<i>H</i>	15.5		<i>G</i> 0.15		<i>U</i> 4				
Residuals in seconds of arc											
1992 03 01	809	0.4-	0.9-	1994 09 03	809	1.5+	0.5+	2000 02 02	704	0.0	0.6-
1994 08 10	809	0.1-	1.3-	1994 09 03	809	0.7-	0.1+	2000 02 02	704	0.6-	0.1+
1994 08 10	809	1.1+	0.7-	1994 09 03	809	0.3-	0.7-	2000 02 02	704	1.1+	1.8-
1994 08 10	809	0.8-	0.9-	1994 09 04	809	1.2+	1.7+	2000 02 03	704	0.0	0.7+
1994 08 11	809	1.7-	0.6-	1994 09 04	809	(2.5+	1.5+)	2000 02 03	704	0.1+	0.3+
1994 08 11	809	1.1-	0.6-	1994 09 04	809	(2.8+	1.0+)	2000 02 03	704	0.1-	0.4+
1994 08 11	809	1.4+	0.8+	2000 02 02	704	0.6+	0.4-	2000 02 03	704	1.2-	0.5+

1994 PQ₈ = 2000 CW₉₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	195.06662		(2000.0)		P		Q				
<i>n</i>	0.26970675	ω	8.05588		+0.70407591		+0.71001643				
<i>a</i>	2.3725107	Ω	306.70014		-0.65238583		+0.63983283				
<i>e</i>	0.1906688	<i>i</i>	0.88621		-0.28048145		+0.29409286				
<i>P</i>	3.65	<i>H</i>	15.9		<i>G</i> 0.15		<i>U</i> 6				
Residuals in seconds of arc											
1994 08 10	809	0.9+	1.6-	1994 09 03	809	0.2-	0.1+	2000 02 08	691	0.2-	0.9-
1994 08 10	809	0.8+	1.0-	1994 09 03	809	0.6+	0.6+	2000 02 08	691	0.0	0.9-
1994 08 10	809	0.2+	1.9-	1994 09 03	809	0.3+	0.7+	2000 02 08	691	0.1-	0.9-

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1994 08 11	809	0.0	0.0	1994 09 04	809	0.1+	0.8+	2000 02 14	691	0.2-	0.7-
1994 08 11	809	0.1+	0.9-	1994 09 04	809	1.3-	0.1-	2000 02 14	691	0.8-	0.9-
1994 08 11	809	0.2+	0.2-	1994 09 04	809	0.1-	0.0	2000 02 14	691	0.4-	0.3-

1994 PK₁₅ = 1987 RF₄ = 2000 CJ₃₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams							
<i>M</i>		289.14176		(2000.0)		P		Q			
<i>n</i>		0.28121264	ω	303.51462		-0.52744244		+0.84801025			
<i>a</i>		2.3073465	Ω	294.56952		-0.75937679		-0.49789947			
<i>e</i>		0.1373781	<i>i</i>	3.26507		-0.38098735		-0.18158949			
<i>P</i>		3.50	<i>H</i>	14.1		<i>G</i>	0.15	<i>U</i>	4		

Residuals in seconds of arc

1987 09 02	095	0.1-	0.3+	1994 08 13	809	(2.2+	1.7-)	2000 02 02	704	0.1+	0.2-
1994 08 10	809	0.3+	0.7+	1994 08 13	809	0.9+	1.1-	2000 02 02	704	0.2+	0.3+
1994 08 10	809	0.1+	0.9+	1994 08 13	809	0.8+	1.1-	2000 02 02	704	0.3-	0.3+
1994 08 10	809	0.8-	0.9+	1994 09 05	809	1.9-	0.5-	2000 02 02	704	0.1+	0.1+
1994 08 11	809	0.1-	0.6+	1994 09 05	809	0.3-	1.1-	2000 02 04	704	0.1-	0.2+
1994 08 11	809	0.9-	0.9+	1994 09 05	809	0.6+	0.9-	2000 02 04	704	0.3+	0.0
1994 08 11	809	0.9-	0.8+	1994 09 06	809	0.7+	1.4+	2000 02 04	704	0.2-	0.2-
1994 08 12	809	0.8+	1.9-	1994 09 06	809	0.6+	1.4+	2000 02 04	704	0.4-	0.4-
1994 08 12	809	0.0	1.5-	1994 09 06	809	0.9+	0.9+	2000 02 04	704	0.1-	0.4-
1994 08 12	809	0.6-	1.2-	2000 02 02	704	0.2+	0.3-				

1994 PO₂₂ = 2000 CQ₈₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams							
<i>M</i>		190.45761		(2000.0)		P		Q			
<i>n</i>		0.26899938	ω	339.07822		+0.82105285		+0.57016711			
<i>a</i>		2.3766680	Ω	346.05383		-0.50588791		+0.70405054			
<i>e</i>		0.1711746	<i>i</i>	6.66166		-0.26447995		+0.42334655			
<i>P</i>		3.66	<i>H</i>	14.2		<i>G</i>	0.15	<i>U</i>	3		

Residuals in seconds of arc

1994 08 12	809	0.4-	0.4+	1994 09 06	809	0.7+	0.4+	1998 08 31	704	0.7-	0.1+
1994 08 12	809	0.4-	0.2+	1994 09 06	809	0.4+	0.9+	2000 02 04	704	1.0+	0.5-
1994 08 12	809	1.1-	0.4+	1994 09 30	675	0.9-	0.3+	2000 02 04	704	0.1-	1.1+
1994 08 13	809	0.1-	0.5+	1994 09 30	675	0.9-	0.1+	2000 02 04	704	0.1+	0.3+
1994 08 13	809	1.5-	0.3+	1994 10 01	399	(1.6-	2.5+)	2000 02 04	704	0.2-	0.5+
1994 08 13	809	1.8-	0.5-	1994 10 01	399	(4.5-	0.8+)	2000 02 11	704	1.2+	1.7+
1994 09 05	809	(2.2+	0.7-)	1998 08 31	704	1.8-	0.3-	2000 02 11	704	0.3+	0.1-
1994 09 05	809	1.7+	0.5-	1998 08 31	704	1.8+	0.3-	2000 02 11	704	0.2-	0.6+
1994 09 05	809	1.0+	0.5-	1998 08 31	704	0.9+	0.0	2000 02 11	704	0.2-	0.3-
1994 09 06	809	1.4+	0.7+	1998 08 31	704	0.1+	0.1-	2000 02 11	704	0.2-	0.1-

1994 QE = 2000 CK₉₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams							
<i>M</i>		191.04119		(2000.0)		P		Q			
<i>n</i>		0.26897300	ω	349.33866		+0.75321667		+0.65681741			
<i>a</i>		2.3768235	Ω	329.51117		-0.59823864		+0.66165497			
<i>e</i>		0.1330482	<i>i</i>	4.00468		-0.27345052		+0.36166779			
<i>P</i>		3.66	<i>H</i>	16.0		<i>G</i>	0.15	<i>U</i>	5		

Residuals in seconds of arc

1994 08 10	809	(2.8-	0.5-)	1994 08 26	595	0.1-	0.2-	1994 09 04	809	0.7-	0.4-
1994 08 10	809	(2.7-	0.4-)	1994 08 27	595	0.0	0.1+	1994 09 04	809	1.9+	0.4+
1994 08 10	809	(3.0-	0.9-)	1994 08 27	595	0.3+	0.4+	1994 09 04	809	1.5+	0.2+
1994 08 11	809	0.5-	0.4+	1994 09 01	595	0.3+	0.0	1994 09 04	809	(2.6+	1.3+)
1994 08 11	809	1.1-	0.6+	1994 09 01	595	0.5+	0.1-	1994 09 04	809	0.6+	1.2+
1994 08 11	809	0.3-	0.1+	1994 09 02	691	0.1-	0.2+	1994 09 04	809	(1.2+	2.3+)
1994 08 12	809	0.1+	0.5+	1994 09 02	691	0.0	0.1+	1994 09 07	595	(2.1-	0.8-)
1994 08 12	809	0.5+	0.1-	1994 09 02	691	0.2-	0.2-	1994 09 07	595	1.0-	0.8+
1994 08 12	809	0.8+	1.4-	1994 09 03	809	0.2+	0.6+	2000 02 08	691	0.5-	0.1-
1994 08 13	809	1.6+	0.1+	1994 09 03	809	0.0	0.7+	2000 02 08	691	0.1-	0.0
1994 08 13	809	0.5+	0.6+	1994 09 03	809	0.7+	0.2+	2000 02 08	691	0.5-	0.1-
1994 08 13	809	0.4-	0.3-	1994 09 03	809	0.6-	0.7-	2000 02 14	691	0.4+	0.2+

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1994 08 26	595	0.5-	0.8-	1994 09 03	809	0.8-	0.8-	2000 02 14	691	0.3+	0.3-
1994 08 26	595	0.4+	0.1-	1994 09 03	809	1.7-	1.4-	2000 02 14	691	0.2+	0.1-

1994 TG₉ = 1998 XD₈₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams							
<i>M</i>		6.07074		(2000.0)		P		Q			
<i>n</i>		0.28168471	ω	11.09012		-0.84429947		+0.53434469			
<i>a</i>		2.3047679	Ω	201.35917		-0.49975464		-0.81237718			
<i>e</i>		0.1284043	<i>i</i>	6.37250		-0.19340037		-0.23349321			
<i>P</i>		3.50	<i>H</i>	15.2		<i>G</i>	0.15	<i>U</i>	6		

Residuals in seconds of arc

1994 10 08	691	0.2+	0.2+	1994 10 10	691	0.2+	0.2-	1998 12 15	704	0.9+	1.3-
1994 10 08	691	0.0	0.2+	1998 12 15	704	0.2-	0.5+	1998 12 22	704	0.6+	0.5-
1994 10 08	691	0.1+	0.1+	1998 12 15	704	0.2+	1.1+	1998 12 22	704	0.6+	1.4+
1994 10 10	691	0.4-	0.1+	1998 12 15	704	1.0-	1.1-	1998 12 22	704	0.4+	1.1-
1994 10 10	691	0.1-	0.5-	1998 12 15	704	0.0	1.1+	1998 12 22	704	1.5-	0.1-

1994 UL₆ = 1999 VM₁₅₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams							
<i>M</i>		311.53683		(2000.0)		P		Q			
<i>n</i>		0.20895471	ω	231.18493		-0.69333573		-0.71830372			
<i>a</i>		2.8125566	Ω	262.81382		+0.67785840		-0.62295212			
<i>e</i>		0.0525090	<i>i</i>	3.33203		+0.24452721		-0.30979094			
<i>P</i>		4.72	<i>H</i>	15.3		<i>G</i>	0.15	<i>U</i>	5		

Residuals in seconds of arc

1994 10 28	691	0.0	0.5+	1994 11 05	691	0.3-	0.2+	1999 11 14	704	0.2-	0.2-
1994 10 28	691	0.4+	0.0	1994 11 09	691	0.1+	0.1-	1999 11 14	704	0.5+	0.4-
1994 10 28	691	0.1+	0.6+	1994 11 09	691	0.0	0.2-	1999 11 14	704	0.5-	0.9+
1994 11 01	691	0.7-	0.6-	1998 09 10	910	0.0	0.1-	1999 11 15	704	0.4+	0.2-
1994 11 01	691	0.1+	0.2-	1998 09 11	910	0.2-	0.2+	1999 11 15	704	1.6+	0.6+
1994 11 01	691	0.1-	0.1+	1998 09 11	910	0.2+	0.0	1999 11 15	704	0.8-	0.5-
1994 11 05	691	0.0	0.8-	1999 11 14	704	0.4-	0.1+	1999 11 15	704	0.3-	0.4-
1994 11 05	691	0.5+	0.2+	1999 11 14	704	0.4-	0.6+				

1994 UP₈ = 1999 XA₁₂₈

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams							
<i>M</i>		100.20602		(2000.0)		P		Q			
<i>n</i>		0.21180242	ω	23.08380		+0.93553458		+0.35245861			
<i>a</i>		2.7872897	Ω	316.25611		-0.32913804		+0.84574058			
<i>e</i>		0.0835911	<i>i</i>	1.94014		-0.12823102		+0.40061927			
<i>P</i>		4.65	<i>H</i>	14.5		<i>G</i>	0.15	<i>U</i>	5		

Residuals in seconds of arc

1994 10 28	691	0.2-	0.1+	1999 11 14	704	0.3-	0.2+	1999 12 13	704	0.6-	0.1-
1994 10 28	691	0.1-	0.3+	1999 11 16	704	1.4+	0.1-	1999 12 13	704	0.5-	0.1+
1994 10 28	691	0.1-	0.4+	1999 11 16	704	1.4+	0.3+	1999 12 13	704	0.0	0.8+

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1994 VG₁ = 2000 AQ₂₄₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	75.20109		(2000.0)	P		Q	
<i>n</i>	0.21605899	ω	174.85961	+0.88391604		-0.46001131	
<i>a</i>	2.7505602	Ω	212.94999	+0.42335369		+0.86357926	
<i>e</i>	0.1743394	<i>i</i>	8.90072	+0.19865570		+0.20644721	
<i>P</i>	4.56	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i>	2
Residuals in seconds of arc							
1994 11 04	411	1.3-	0.7-	1998 08 24	704	(0.1+ 2.5+)	2000 01 07 704 1.1- 0.2-
1994 11 04	411	0.4-	0.6-	1998 08 24	704	1.5- 0.1-	2000 01 07 704 0.5- 1.6+
1994 11 08	411	0.4+	0.7+	1998 08 24	704	(5.2- 0.3-)	2000 01 07 704 (2.6- 1.6+)
1994 11 08	411	1.0+	0.3+	1998 08 27	704	1.2+ 0.4+	2000 01 11 704 0.7- 0.2-
1994 11 24	411	0.2+	0.6+	1998 08 27	704	0.3+ 0.3-	2000 01 11 704 1.6+ 1.2-
1994 11 24	411	0.1+	0.2-	1998 08 27	704	0.7+ 0.3+	2000 01 11 704 0.3- 0.5+
1998 08 24	704	0.9-	0.8-	1998 08 27	704	(2.3+ 0.0)	2000 01 11 704 1.3+ 0.6-
1998 08 24	704	0.2+	0.6+	1998 08 27	704	(4.1- 0.2-)	2000 01 11 704 0.4- 0.0

1994 XV₄ = 2000 AP₂₄₅

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Williams

<i>M</i>	81.09020		(2000.0)	P		Q	
<i>n</i>	0.22409044	ω	160.52418	+0.23959665		-0.94859727	
<i>a</i>	2.6844408	Ω	275.18566	+0.86095502		+0.30603168	
<i>e</i>	0.1360382	<i>i</i>	11.98331	+0.44872030		-0.08067116	
<i>P</i>	4.40	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	2
Residuals in seconds of arc							
1994 12 09	411	0.2+	0.2-	1998 11 14	704	(2.1+ 2.3-)	1998 12 17 699 0.1- 0.1-
1994 12 09	411	1.2+	0.2+	1998 11 14	704	0.6- 0.3-	1998 12 17 699 0.4- 0.7+
1994 12 10	411	1.1-	0.4-	1998 11 14	704	1.0- 0.8-	1999 01 08 704 0.6- 0.8+
1994 12 10	411	0.4-	0.5-	1998 11 14	704	0.2- 1.1-	1999 01 08 704 (2.1+ 1.9+)
1994 12 24	411	0.2-	1.0-	1998 11 15	699	0.1+ 1.4+	1999 01 08 704 1.5- 0.9-
1994 12 24	411	0.2-	0.9-	1998 11 15	699	0.4+ 1.2+	1999 01 08 704 0.0 0.2-
1994 12 25	411	0.4-	0.1+	1998 11 15	699	0.1- 1.4+	1999 01 08 704 (4.8- 0.4-)
1995 01 06	411	0.6-	1.3-	1998 11 16	704	0.8+ 0.6-	2000 01 10 704 0.5+ 0.2+
1995 01 06	411	0.2-	1.7-	1998 11 16	704	1.3- 1.2+	2000 01 10 704 0.2+ 0.6+
1998 08 29	704	1.2+	0.3-	1998 11 16	704	(0.1+ 2.2+)	2000 01 10 704 0.6+ 1.5+
1998 08 29	704	1.1+	0.3-	1998 11 16	704	0.1+ 1.5+	2000 01 10 704 0.3+ 0.3+
1998 08 29	704	0.8-	0.2-	1998 11 16	704	0.4- 0.8+	2000 01 10 704 0.1+ 1.0+
1998 08 29	704	0.9+	0.1-	1998 12 09	704	1.1+ 0.2-	2000 01 11 704 0.5+ 0.2-
1998 08 29	704	0.4-	0.0	1998 12 09	704	0.0 1.2+	2000 01 11 704 0.1+ 1.4+
1998 10 01	699	0.3+	0.1+	1998 12 09	704	(0.0 2.4+)	2000 01 11 704 0.1+ 0.5+
1998 10 01	699	0.6+	0.4+	1998 12 09	704	0.7- 0.9-	2000 01 11 704 (0.9- 2.4+)
1998 10 01	699	0.2-	1.2+	1998 12 09	704	0.0 0.1+	2000 01 11 704 0.6+ 1.4+
1998 11 14	704	0.6+	0.8-	1998 12 17	699	0.3- 0.0	

1994 YM₁ = 2000 AS₂₂

Id. T. Kobayashi

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Marsden

<i>M</i>	165.12128		(2000.0)	P		Q	
<i>n</i>	0.19193508	ω	208.39691	+0.49046627		+0.84731066	
<i>a</i>	2.9764584	Ω	91.63253	-0.75603112		+0.52998501	
<i>e</i>	0.0899896	<i>i</i>	11.76023	-0.43342794		+0.03435897	
<i>P</i>	5.14	<i>H</i>	12.7	<i>G</i>	0.15	<i>U</i>	4
Residuals in seconds of arc							
1994 12 31	411	0.9-	1.2+	2000 01 03	704	0.2+ 0.7-	2000 01 30 704 1.6+ 0.1+
1994 12 31	411	0.1-	0.9+	2000 01 03	704	0.4+ 0.8-	2000 01 30 704 0.1+ 1.2+
1995 01 01	411	1.5+	0.4-	2000 01 03	704	0.2+ 0.6-	2000 01 30 704 0.1+ 0.6+
1995 01 01	411	0.4-	1.5-	2000 01 04	704	0.4- 0.5-	2000 01 30 704 0.6+ 0.1+
1995 01 05	411	0.6-	0.2+	2000 01 04	704	0.4- 0.2+	2000 01 31 704 0.2- 0.1+
1995 01 05	411	0.2-	0.3-	2000 01 04	704	0.1+ 0.3-	2000 01 31 704 0.3- 0.2-
1995 01 10	411	0.1+	1.2+	2000 01 04	704	0.0 0.2-	2000 01 31 704 1.1+ 0.2-
1995 01 10	411	1.1-	0.1+	2000 01 04	704	0.2+ 0.2+	2000 01 31 704 0.7- 0.3+
1995 01 19	411	0.4+	1.0-	2000 01 08	704	0.0 0.0	2000 02 13 012 0.5- 0.0

1995 01 19	411	0.8+	1.3-	2000 01 08	704	0.4-	0.1-	2000 02 13	012	0.1+	0.3-
1995 02 03	411	0.4-	0.7-	2000 01 08	704	0.1-	0.2-	2000 02 13	012	0.1-	0.0
1995 02 03	411	1.0+	0.9+	2000 01 08	704	0.1-	0.6+	2000 02 13	012	1.2-	0.6+
2000 01 03	704	0.7-	0.9+	2000 01 08	704	0.2+	0.5+				
2000 01 03	704	0.2+	0.3-	2000 01 30	704	0.6-	0.3-				

1995 AS₂ = 2000 AZ₁₀

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	19.57172		(2000.0)		P		Q				
<i>n</i>	0.17835572	ω	132.04680		+0.40668415		-0.90466135				
<i>a</i>	3.1256812	Ω	293.54243		+0.79182477		+0.41853106				
<i>e</i>	0.0341835	<i>i</i>	7.97942		+0.45565507		+0.08012239				
<i>P</i>	5.53	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	4				
Residuals in seconds of arc											
1995 01 10	897	0.7+	0.3+	1995 01 23	897	0.6-	0.2-	2000 01 03	704	0.3-	0.4-
1995 01 10	897	0.2+	0.3-	1995 01 25	897	(0.4+ 2.7+)		2000 01 03	704	0.7-	0.0
1995 01 10	897	0.5+	1.2-	1995 01 25	897	0.1-	0.3+	2000 01 03	704	0.1-	0.5+
1995 01 10	897	1.1+	0.9-	1995 01 25	897	0.2-	0.7+	2000 01 03	704	0.0	0.3-
1995 01 10	897	0.6+	0.2+	1995 02 01	897	0.6-	0.6+	2000 01 03	704	0.2-	1.2+
1995 01 13	897	0.4+	0.5-	1995 02 01	897	0.8-	0.7+	2000 01 04	704	0.0	0.3-
1995 01 13	897	0.1+	0.2-	1999 12 15	704	0.4+	0.0	2000 01 04	704	0.3+	0.1+
1995 01 13	897	0.8+	1.4-	1999 12 15	704	0.9+	0.7-	2000 01 04	704	0.5+	0.1+
1995 01 23	897	1.1-	1.3+	1999 12 15	704	0.4-	0.0	2000 01 04	704	0.5-	0.5-
1995 01 23	897	1.1-	0.3+	1999 12 15	704	0.2-	0.5+	2000 01 04	704	0.0	0.1-

1995 CG₃ = 2000 CD₇₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	268.18232		(2000.0)	P			Q				
n	0.20217767	ω	103.79735	-0.28253067			+0.95608070				
a	2.8750622	Ω	149.44178	-0.92869360			-0.25225643				
e	0.1200433	i	8.82663	-0.24021787			-0.14925277				
P	4.87	H	14.9	G	0.15		U	5			
Residuals in seconds of arc											
1995 02 01	691	0.1+	0.2-	1995 02 04	691	0.1+	0.2-	2000 02 08	691	0.1+	0.0
1995 02 01	691	0.1+	0.0	1995 02 07	691	0.1+	0.1+	2000 02 08	691	0.2-	0.0
1995 02 01	691	0.2-	0.2+	1995 02 07	691	0.1+	0.2+	2000 02 11	691	0.2-	0.0
1995 02 04	691	0.3-	0.3+	1995 02 07	691	0.0	0.3-	2000 02 11	691	0.1+	0.1+
1995 02 04	691	0.1+	0.0	2000 02 08	691	0.3+	0.0	2000 02 11	691	0.1-	0.1-

1995 DG₁₃ = 1997 TM₁₆ = 1998 XE₂₆ = 2000 AT₈₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	292.16853		(2000.0)		P		Q				
<i>n</i>	0.18199774	ω	55.93641		-0.83540001		+0.54956107				
<i>a</i>	3.0838415	Ω	157.39602		-0.51204857		-0.77189163				
<i>e</i>	0.1098092	<i>i</i>	1.40998		-0.19978258		-0.31963408				
<i>P</i>	5.42	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	1				
Residuals in seconds of arc											
1995 02 25	098	0.7+	0.5+	1998 12 21	910	0.0	0.0	2000 01 25	120	1.6-	0.7-
1995 02 25	098	1.6+	1.7+	1998 12 21	910	0.3+	0.0	2000 01 25	120	0.1+	0.3-
1995 02 26	098	(2.3- 0.0)		1999 12 31	699	0.5+	0.9+	2000 01 25	120	0.4+	0.2-
1995 02 26	098	(0.2- 3.8-)		1999 12 31	699	0.2-	0.0	2000 01 26	120	0.4-	0.0
1995 02 27	098	1.5-	1.3-	1999 12 31	699	0.7+	0.3+	2000 01 26	120	0.1+	0.4+
1995 02 27	098	1.0+	1.7-	2000 01 03	691	0.3+	0.7+	2000 01 26	120	0.4-	0.0
1995 03 02	691	0.7-	0.2-	2000 01 03	691	0.4+	0.3+	2000 02 02	704	0.2-	0.2-
1995 03 02	691	0.6-	0.1-	2000 01 03	691	0.8+	0.2+	2000 02 02	704	0.1-	0.1+
1995 03 02	691	0.7-	0.4+	2000 01 05	704	0.0	0.6-	2000 02 02	704	0.1+	0.1+
1997 10 08	691	0.3-	0.1+	2000 01 05	704	0.3-	0.5-	2000 02 02	704	0.4+	0.4+
1997 10 08	691	0.2-	0.7+	2000 01 05	704	0.2+	0.1-	2000 02 02	704	0.3+	0.6+
1997 10 08	691	0.0	0.2+	2000 01 05	704	0.2+	0.1+	2000 02 03	704	0.4+	0.0
1997 10 09	691	0.0	0.2+	2000 01 06	704	0.3+	1.0-	2000 02 03	704	0.2-	0.9+

M.P.C. 38450

2000 FEB. 22

1997 10 09	691	0.1−	0.3+	2000 01 06	704	0.4−	0.7−	2000 02 03	704	0.1+	1.2+
1997 10 09	691	0.1−	0.1+	2000 01 06	704	0.7+	1.0−	2000 02 03	704	0.2−	0.4+
1998 12 15	910	0.0	0.3−	2000 01 06	704	0.2−	0.9−	2000 02 03	704	0.1−	1.0+
1998 12 15	910	0.2+	0.9−	2000 01 24	120	1.1−	0.7−	2000 02 05	704	0.6−	0.4+
1998 12 15	910	0.1−	0.4−	2000 01 24	120	1.1−	0.2+	2000 02 05	704	0.7+	0.7+
1998 12 21	910	0.1+	0.2−	2000 01 24	120	0.9+	0.3+	2000 02 05	704	0.2+	0.0

1995 GF₃ = 1999 JA₁₂₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	118.74531	<i>ω</i>	3.96675	−0.98474119	−0.16796984		
<i>a</i>	2.4364283	<i>Ω</i>	166.11095	+0.15399427	−0.96287550		
<i>e</i>	0.1464139	<i>i</i>	10.92828	+0.08105891	−0.21132182		
<i>P</i>	3.80	<i>H</i>	15.5	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1995 04 02	691	0.0	0.0	1999 05 12	704	1.5−	0.6+	1999 05 16	703	0.9+	0.5+
1995 04 02	691	0.1+	0.1−	1999 05 12	704	1.1+	0.2+	1999 05 16	703	1.1+	0.6+
1995 04 06	691	0.3−	0.2+	1999 05 12	704	0.7−	0.1−	1999 05 17	704	0.7−	0.5−
1995 04 06	691	0.1+	0.1−	1999 05 12	704	0.4+	1.1−	1999 05 17	704	0.4−	0.1−
1995 04 06	691	0.1+	0.0	1999 05 16	703	0.9+	0.6+	1999 05 17	704	0.8−	1.5−
1999 05 12	704	0.0	0.0	1999 05 16	703	0.6+	0.5+	1999 05 17	704	0.9−	0.2+

1995 KQ₄ = 1998 BE₃₇

Id. A. Doppler, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	23.51881	<i>ω</i>	174.88802	+0.57258999	+0.81981432		
<i>a</i>	2.4634855	<i>Ω</i>	130.04282	−0.75250107	+0.52879468		
<i>e</i>	0.1615442	<i>i</i>	0.50308	−0.32539643	+0.21972862		
<i>P</i>	3.87	<i>H</i>	16.6	<i>G</i>	0.15	<i>U</i>	7

Residuals in seconds of arc

1995 05 26	691	0.3−	0.6−	1995 05 30	691	0.9+	0.8+	1998 02 03	691	0.4+	0.0
1995 05 26	691	0.3−	0.6−	1995 05 30	691	0.5+	1.2+	1998 02 03	691	0.7+	0.4+
1995 05 27	691	0.5−	0.0	1995 05 30	691	0.0	0.4+	1998 02 03	691	0.7−	0.2+
1995 05 27	691	0.0	0.7−	1998 01 26	691	0.5−	0.1−				
1995 05 27	691	0.2−	0.5−	1998 01 26	691	0.2+	0.4−				

1995 ST₃ = 1999 XD₉₀

Id. G. V. Williams, A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	132.06879	<i>ω</i>	59.39096	+0.87449518	+0.48230289		
<i>a</i>	2.2541512	<i>Ω</i>	271.72907	−0.46075899	+0.79294377		
<i>e</i>	0.1893815	<i>i</i>	2.94773	−0.15152339	+0.37232257		
<i>P</i>	3.38	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1995 09 20	400	0.4+	0.6−	1998 06 26	704	(2.6−	2.9+)	2000 01 06	704	0.1+	0.0
1995 09 20	400	0.5+	0.0	1999 12 07	704	0.5+	0.2+	2000 01 25	704	0.3−	0.3+
1995 09 21	801	0.4−	0.2−	1999 12 07	704	1.0+	0.1−	2000 01 25	704	0.6−	0.5−
1995 09 21	801	0.3−	0.1−	1999 12 07	704	0.2−	0.6−	2000 01 25	704	1.4+	0.3+
1995 09 21	400	0.2−	0.2+	1999 12 07	704	0.2+	1.2−	2000 01 25	704	0.5+	0.9−
1995 09 21	400	0.4+	0.6+	1999 12 08	704	0.0	0.3+	2000 02 02	704	0.5−	1.2+
1995 09 30	400	0.4+	0.0	1999 12 08	704	0.5+	0.1+	2000 02 02	704	0.3−	0.5+
1995 09 30	400	(2.3−	0.9−)	1999 12 08	704	0.0	0.0	2000 02 02	704	0.2+	0.5+
1995 10 10	400	1.2−	0.3+	1999 12 08	704	0.1+	0.0	2000 02 02	704	0.1+	0.5+
1995 10 10	400	0.1+	0.5+	1999 12 08	704	0.6−	0.0	2000 02 02	704	0.5−	0.4+
1997 02 06	566	0.6−	0.2−	2000 01 05	704	0.2−	0.7+	2000 02 03	704	0.3−	0.3+
1997 02 06	566	0.6−	0.5−	2000 01 05	704	0.9−	0.6−	2000 02 03	704	0.0	0.4+
1997 02 06	566	0.8+	0.3−	2000 01 05	704	0.1−	0.2+	2000 02 03	704	0.1+	0.2+
1998 06 26	704	0.8−	0.5+	2000 01 05	704	0.1−	1.0+	2000 02 03	704	0.1+	0.1+

1998 06 26	704	0.9+	0.2−	2000 01 05	704	0.1−	0.0	2000 02 03	704	0.0	0.6+
1998 06 26	704	0.3+	0.5+	2000 01 06	704	0.1−	0.0				
1998 06 26	704	0.3−	1.7+	2000 01 06	704	0.5+	0.2+				

1995 SL₂₁ = 1999 XK₁₂₂

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	15.12019	<i>ω</i>	79.43943	+0.35629167	−0.93408436		
<i>a</i>	2.3539019	<i>Ω</i>	349.59696	+0.79889276	+0.31746530		
<i>e</i>	0.1492823	<i>i</i>	7.41214	+0.48458911	+0.16340804		
<i>P</i>	3.61	<i>H</i>	16.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1995 09 19	691	0.2−	0.2+	1999 11 13	703	0.4−	0.0	1999 12 10	704	1.2+	0.2−
1995 09 19	691	0.1−	0.3+	1999 11 13	703	0.2−	0.3−	1999 12 10	704	0.0	1.6−
1995 09 19	691	0.0	0.1+	1999 11 13	703	0.2−	0.2+	1999 12 13	703	0.5+	0.7+
1995 09 25	691	0.0	0.1+	1999 11 13	703	0.1−	0.3−	1999 12 13	703	0.1+	0.6−
1995 09 25	691	0.1−	0.0	1999 12 07	703	0.4−	0.1+	1999 12 13	703	0.1+	0.6+
1995 09 25	691	0.2+	0.2+	1999 12 07	703	0.7+	1.1+	1999 12 13	703	0.0	0.4+
1995 10 01	691	0.1−	0.3−	1999 12 07	703	1.0−	0.1−	1999 12 31	699	0.2−	0.0
1995 10 01	691	0.2+	0.3−	1999 12 07	703	0.1+	0.1+	1999 12 31	699	0.8−	0.3+
1995 10 01	691	0.0	0.1−	1999 12 10	704	0.8+	0.6−	1999 12 31	699	0.2−	0.5+

1995 SK₂₉ = 2000 CN₁₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	133.66132	<i>ω</i>	164.21431	+0.97776574	+0.20963787		
<i>a</i>	2.2347007	<i>Ω</i>	183.69600	−0.19995408	+0.92470352		
<i>e</i>	0.1993498	<i>i</i>	4.54665	−0.06318635	+0.31776620		
<i>P</i>	3.34	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1995 09 26	114	0.6+	0.3+	1995 10 16	114	(4.7−	2.3−)	2000 02 02	704	0.1+	0.4−
1995 09 26	114	0.8−	0.5+	1995 10 16	114	0.1+	1.5+	2000 02 02	704	1.1+	0.2+
1995 09 26	114	0.1−	1.4−	1995 10 17	114	0.0	0.1−	2000 02 02	704	0.5−	1.4−
1995 09 28	114	0.4+	0.1+	1995 10 17	114	1.6−	1.3−	2000 02 02	704	0.3−	0.5+
1995 09 29	114	0.3−	0.1−	1995 10 19	114	0.5+	0.2−	2000 02 04	704	0.2−	0.1+
1995 10 01	114	1.0+	1.1+	1995 10 19	114	0.8+	0.0	2000 02 04	704	0.1+	0.3−
1995 10 01	114	0.6−	0.5−	2000 02 02	704	0.3+	0.3+	2000 02 04	704	0.7−	1.1+

1995 SE₃₃ = 1999 XY₁₉₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	97.85621	<i>ω</i>	9.79136	+0.99972594	+0.00883749		
<i>a</i>	2.2714286	<i>Ω</i>	349.62832	−0.01855486	+0.86376392		
<i>e</i>	0.1385835	<i>i</i>	6.91597	+0.01427487	+0.50381921		
<i>P</i>	3.42	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1995 09 21	691	0.9−	0.6+	1995 09 27	010	(2.5+	0.9−)	1999 12 15	704	0.1−	0.1−
1995 09 21	691	0.8−	0.8+	1995 09 27	010	1.9+	0.0	1999 12 15	704	0.2−	0.1−
1995 09 21	691	0.8−	0.5+	1995 09 27	010	1.5+	0.3−	1999 12 15	704	0.0	0.5+
1995 09 26	691	1.0−	0.2−	1999 12 12	704	0.9+	0.7+	1999 12 15	704	0.5−	0.4+
1995 09 26	691	1.0−	0.1−	1999 12 12	704	0.1−	0.1−	2000 01 02	704	0.0	0.1+
1995 09 26	691	0.9−	0.0	1999 12 12	704	0.3−	0.3−	2000 01 02	704	0.1−	0.8−
1995 09 26	010	0.2+	0.5−	1999 12 12	704	0.1−	0.0	2000 01 02	704	0.0	0.4+
1995 09 26	010	1.0+	0.2−	1999 12 12	704	0.0	0.8−	2000 01 02	704	0.1+	0.0
1995 09 26	010	0.7+	0.5−	1999 12 15	704	0.3+	0.2+				

1995 SP₅₂ = 1995 TW₃ = 2000 AB₂₃₀Id. S. Nakano (d, *MPC* 31161), G. V. Williams

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	23.90637		(2000.0)	P		Q	
<i>n</i>	0.28070142	ω	93.48971	-0.23902513	-0.97096736		
<i>a</i>	2.3101472	Ω	10.35395	+0.86869997	-0.21817950		
<i>e</i>	0.1650745	<i>i</i>	3.01513	+0.43385177	-0.09808206		
<i>P</i>	3.51	<i>H</i>	16.5	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1995 09 29	691	0.0	0.1+	2000 01 03	704	1.0-	1.2-	2000 02 02	704	0.2-	0.2+
1995 09 29	691	0.2+	0.1-	2000 01 03	704	1.3+	0.8+	2000 02 02	704	0.7-	0.3+
1995 09 29	691	0.4+	0.2+	2000 01 03	704	0.6+	0.2+	2000 02 07	703	0.2-	0.3-
1995 10 02	691	0.2+	0.2-	2000 01 05	699	0.7-	0.9+	2000 02 07	703	0.4+	0.4-
1995 10 02	691	0.5+	0.1+	2000 01 05	699	0.2+	0.7-	2000 02 07	703	0.3+	0.1-
1995 10 02	691	0.1+	0.2-	2000 01 05	699	0.3+	1.7+	2000 02 07	703	0.8-	0.9-
1995 10 15	691	0.1-	0.1-	2000 01 30	704	0.1+	0.3+	2000 02 11	704	0.9-	0.5-
1995 10 15	691	0.2+	0.2-	2000 01 30	704	0.3-	0.4-	2000 02 11	704	0.4-	0.2-
1995 10 15	691	0.0	0.4-	2000 01 30	704	0.3-	0.4+	2000 02 11	704	0.6+	0.7+
1995 10 21	691	1.0-	0.3+	2000 02 02	704	0.2-	0.2+	2000 02 11	704	1.2+	0.2+
1995 10 21	691	0.4-	0.3+	2000 02 02	704	0.2+	0.3-				
2000 01 03	704	0.1-	0.9-	2000 02 02	704	0.6+	0.0				

1995 UH₁ = 1999 XY₂₀₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	61.73298		(2000.0)	P		Q	
<i>n</i>	0.28090323	ω	26.58997	+0.60727466	-0.79264002		
<i>a</i>	2.3090406	Ω	26.12539	+0.70525502	+0.50638809		
<i>e</i>	0.1210219	<i>i</i>	7.07231	+0.36583172	+0.33954808		
<i>P</i>	3.51	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1995 10 23	817	0.7+	0.4-	1995 10 27	817	0.6-	0.3+	1999 12 15	704	1.0-	1.1+
1995 10 23	817	0.1-	0.3+	1995 10 27	817	0.4-	0.1+	1999 12 15	704	0.3-	0.6-
1995 10 23	817	0.0	0.2-	1995 10 27	817	0.4-	0.1+	1999 12 15	704	0.5-	0.4-
1995 10 24	817	0.1+	0.2-	1999 12 12	704	0.1+	0.2+	1999 12 15	704	0.3+	0.1-
1995 10 24	817	0.3+	0.1+	1999 12 12	704	0.0	0.3-	1999 12 15	704	1.4+	0.0
1995 10 24	817	0.2+	0.0	1999 12 12	704	0.1+	0.4-				
1995 10 24	817	0.3+	0.0	1999 12 12	704	0.1-	0.4+				

1995 UG₁₃ = 1999 XR₄₄

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	17.12736		(2000.0)	P		Q	
<i>n</i>	0.25707929	ω	71.36038	+0.36948511	-0.92923630		
<i>a</i>	2.4495782	Ω	356.95539	+0.84667945	+0.33701924		
<i>e</i>	0.1630023	<i>i</i>	0.87783	+0.38290293	+0.15145276		
<i>P</i>	3.83	<i>H</i>	16.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1995 10 17	691	0.6-	0.4+	1999 11 03	704	1.6+	0.7+	1999 12 07	704	0.4+	1.1-
1995 10 17	691	0.3-	0.4+	1999 11 14	704	0.4-	0.4-	1999 12 07	704	0.4+	0.8+
1995 10 17	691	0.0	0.2+	1999 11 14	704	0.1-	0.7-	1999 12 08	704	0.1-	0.2-
1995 10 22	691	0.2+	0.2-	1999 11 14	704	0.2-	0.4-	1999 12 08	704	0.5-	0.2-
1995 10 22	691	0.0	0.2+	1999 11 14	704	0.1-	0.8-	1999 12 08	704	0.1+	0.5+
1995 10 22	691	0.4+	0.2+	1999 11 14	704	0.7-	0.7-	1999 12 08	704	0.4-	0.0
1995 10 28	691	0.3-	0.2-	1999 11 16	704	0.6+	0.2+	1999 12 12	703	0.4-	1.1+
1995 10 28	691	0.1+	0.1-	1999 11 16	704	0.4+	0.1+	1999 12 12	703	0.4+	1.3+
1995 10 28	691	0.0	0.1-	1999 11 16	704	0.4-	0.1-	1999 12 12	703	1.3-	1.0-
1999 11 03	704	1.2-	0.6-	1999 12 07	704	0.2-	1.1+	1999 12 12	703	1.0+	0.2+
1999 11 03	704	0.3+	0.4-	1999 12 07	704	0.0	0.1+				

1995 UC₁₄ = 1999 VB₁₀₈

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	86.31797		(2000.0)	P		Q	
<i>n</i>	0.26054589	ω	145.98160	+0.92308479	+0.38459313		
<i>a</i>	2.4278018	Ω	191.40025	-0.35465137	+0.84958250		
<i>e</i>	0.2069067	<i>i</i>	0.46751	-0.14878469	+0.36096772		
<i>P</i>	3.78	<i>H</i>	15.8	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1995 10 17	691	0.2+	0.2-	1995 10 27	691	0.4-	0.3+	1999 11 12	704	0.2+	0.8-
1995 10 17	691	0.1-	0.1+	1995 10 27	691	0.0	0.4+	1999 11 12	704	0.4-	0.8-
1995 10 17	691	0.1-	0.1-	1999 11 09	704	0.8+	0.1-	1999 11 12	704	0.4-	0.7-
1995 10 22	691	0.2-	0.1-	1999 11 09	704	0.2+	0.2-	1999 11 12	704	0.5-	0.7-
1995 10 22	691	0.1+	0.1+	1999 11 09	704	0.7+	1.0+	1999 12 08	704	1.0-	0.5+
1995 10 22	691	0.2+	0.1-	1999 11 09	704	0.6-	0.7+	1999 12 08	704	0.0	0.1+
1995 10 27	691	0.1+	0.1+	1999 11 12	704	0.3+	0.6-	1999 12 08	704	0.8+	1.4+

1995 UF₂₆ = 1998 MA₇

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	221.49749		(2000.0)	P		Q	
<i>n</i>	0.27231268	ω	81.71323	-0.77790132	+0.62739014		
<i>a</i>	2.3573504	Ω	137.13485	-0.59506421	-0.71739583		
<i>e</i>	0.1909541	<i>i</i>	2.98049	-0.20191117	-0.30286109		
<i>P</i>	3.62	<i>H</i>	16.2	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1995 10 20	691	0.2+	0.0	1995 10 24	691	0.1-	0.0	1998 06 21	691	0.2-	0.1-
1995 10 20	691	0.1-	0.0	1995 10 24	691	0.1-	0.1+	1998 06 25	691	0.3-	0.1-
1995 10 20	691	0.2+	0.2-	1998 06 21	691	0.2+	0.0	1998 06 25	691	0.2+	0.2+
1995 10 24	691	0.0	0.2+	1998 06 21	691	0.0	0.0				

1995 UD₃₄ = 1993 FB₁₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	341.19943		(2000.0)	P		Q	
<i>n</i>	0.23820780	ω	352.54148	+0.25434557	-0.96406632		
<i>a</i>	2.5773025	Ω	82.70086	+0.89125467	-0.20286254		
<i>e</i>	0.1045806	<i>i</i>	4.43551	+0.37546430	+0.17153111		
<i>P</i>	4.14	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1993 03 17	809	1.2-	0.8+	1995 10 21	691	0.6+	0.0	1995 10 26	691	0.5-	0.1-
1993 03 18	809	0.7+	0.2-	1995 10 21	691	0.4+	0.1+	1995 10 26	691	0.3-	0.0
1993 03 23	809	0.9-	0.9-	1995 10 21	691	0.4+	0.1+				
1993 03 23	809	1.4+	0.2+	1995 10 26	691	0.5-	0.2-				

1995 VS₁ = 1991 RJ₈ = 1999 XH₁₆₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	72.62450		(2000.0)	P		Q	
<i>n</i>	0.26009277	ω	328.23623	+0.94705218	-0.30777312		
<i>a</i>	2.4306207	Ω	49.96985	+0.31389473	+0.82755512		
<i>e</i>	0.1353128	<i>i</i>	6.86130	+0.06754454	+0.46949784		
<i>P</i>	3.79	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1991 09 12	675	0.4-	0.2-	1999 10 05	704	0.9+	1.1-	1999 12 15	704	0.1+	0.5-
1991 09 12	675	0.9-	0.2+	1999 10 05	704	0.5+	0.4+	1999 12 15	704	0.1-	0.7-
1991 09 14	675	0.8+	0.4+	1999 10 05	704	0.0	0.4-	1999 12 15	704	0.5-	0.5-
1991 09 14	675	0.0	0.6-	1999 10 05	704	0.1-	0.0	1999 12 15	704	0.6-	0.9-
1995 11 01	894	(2.3-	0.6+)	1999 11 14	704	0.1+	0.4-	2000 01 02	704	0.1+	0.3-
1995 11 01	894	(2.5+	4.7-)	1999 11 14	704	1.2-	1.6-	2000 01 02	704	0.3-	0.4-
1995 11 02	894	0.8-	1.5+	1999 11 14	704	1.1-	0.3-	2000 01 02	704	(3.4-	0.8+)
1995 11 02	894	0.7+	0.4-	1999 11 14	704	0.3-	0.3-	2000 01 04	704	0.1+	0.2-

1995 11 12	894	0.2−	1.6+	1999 11 16	704	0.0	0.2−	2000 01 04	704	0.0	0.2+
1995 11 12	894	1.0+	1.9+	1999 11 16	704	0.1+	0.2+	2000 01 04	704	0.3−	0.2−
1995 11 16	894	1.3−	0.4+	1999 11 16	704	0.2+	0.4+	2000 01 04	704	0.5−	0.5−
1995 11 16	894	0.2−	0.1−	1999 11 16	704	0.0	0.3−	2000 01 04	704	0.1−	0.8−
1997 04 11	327	0.6+	0.6+	1999 11 16	704	0.1+	0.0	2000 02 11	704	0.9−	0.3+
1997 04 11	327	0.3+	0.6+	1999 12 10	704	0.7+	0.3+	2000 02 11	704	0.3−	1.1+
1997 04 11	327	0.3+	0.6+	1999 12 10	704	0.9+	1.1+	2000 02 11	704	0.3−	0.8+
1998 06 26	704	0.0	2.0+	1999 12 10	704	0.3+	0.4+	2000 02 11	704	0.1+	1.4+
1998 06 26	704	0.2−	1.1−	1999 12 10	704	0.4+	0.2−	2000 02 11	704	0.2−	0.9+
1998 06 26	704	0.9+	0.6−	1999 12 10	704	0.8+	0.2+				
1998 06 26	704	0.7−	1.0+	1999 12 15	704	0.3+	0.3−				

1995 VE₁₃ = 1993 BU₁₀

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	88.84504	(2000.0)		P	Q		
<i>n</i>	0.26667094	ω	274.25738	+0.99753975	−0.02820289		
<i>a</i>	2.3904826	Ω	87.36753	+0.05158873	+0.91520945		
<i>e</i>	0.0960606	<i>i</i>	3.68365	−0.04746629	+0.40199037		
<i>P</i>	3.70	<i>H</i>	16.8	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1993 01 22	691	0.9−	0.5−	1993 01 26	691	0.8+	0.6+	1995 11 20	691	0.3−	0.3+
1993 01 22	691	0.6−	0.5−	1993 01 26	691	0.2+	0.5+	1995 11 20	691	0.3−	0.5+
1993 01 22	691	0.4−	0.3−	1995 11 15	691	0.1+	0.7−	1995 11 20	691	0.1−	0.5+
1993 01 26	691	0.8+	0.2+	1995 11 15	691	0.5+	0.7−				

1995 WP₁₀ = 1998 RA₂₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>	210.33228	(2000.0)		P	Q		
<i>n</i>	0.29227708	ω	35.76740	+0.12859409	+0.99061666		
<i>a</i>	2.2487415	Ω	241.66208	−0.92165347	+0.10215250		
<i>e</i>	0.1314027	<i>i</i>	3.01432	−0.36608530	+0.09079371		
<i>P</i>	3.37	<i>H</i>	16.1	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1995 11 16	691	0.4+	0.0	1998 08 17	704	0.1+	0.6+	1998 09 14	704	2.0−	1.3+
1995 11 16	691	0.4+	0.3−	1998 08 17	704	0.7−	0.7+	1998 09 18	704	0.2+	0.4−
1995 11 16	691	0.1+	0.1−	1998 08 26	699	1.5+	1.5−	1998 09 18	704	0.5+	0.5+
1995 11 21	691	0.3−	0.2+	1998 08 26	699	0.3+	1.2−	1998 09 18	704	0.8+	0.9+
1995 11 21	691	0.2−	0.3−	1998 08 26	699	0.3+	0.1+	1998 09 18	704	(2.3−	1.9+)
1995 11 21	691	0.2−	0.2−	1998 09 14	704	0.4−	0.1+	2000 01 05	704	0.6+	0.8+
1998 08 17	704	0.3−	0.0	1998 09 14	704	0.8−	0.7−	2000 01 05	704	0.9−	0.3+
1998 08 17	704	0.7+	0.2+	1998 09 14	704	0.7−	1.1+	2000 01 05	704	0.5+	0.6−
1998 08 17	704	1.6+	0.3+	1998 09 14	704	1.5−	1.3−				

1995 WW₂₈ = 1998 KO₂₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>	207.02466	(2000.0)		P	Q		
<i>n</i>	0.17900071	ω	71.42108	−0.57124589	−0.78105158		
<i>a</i>	3.1181682	Ω	56.05875	+0.59044126	−0.60453690		
<i>e</i>	0.1334801	<i>i</i>	17.70246	+0.57013793	−0.15650419		
<i>P</i>	5.51	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1995 11 19	691	0.1+	0.7−	1997 02 08	566	0.2−	0.2−	1998 05 22	704	0.2−	0.3+
1995 11 19	691	0.1+	0.8−	1998 04 22	704	1.4−	1.5−	1998 05 22	704	0.0	0.5+
1995 11 19	691	0.2+	0.7−	1998 04 22	704	(2.5−	2.3+)	1998 05 24	704	0.3−	1.8−
1995 11 27	691	0.3+	0.2−	1998 04 22	704	0.4−	0.2+	1998 05 24	704	(2.4−	0.1+)
1995 11 27	691	0.7+	0.2−	1998 04 22	704	0.6+	1.6+	1998 05 24	704	1.2−	0.6−
1995 11 27	691	0.5+	0.1−	1998 05 22	704	0.3+	1.3−	1998 05 24	704	0.3+	1.0−

1997 02 08	566	0.1+	0.0	1998 05 22	704	0.0	0.1−	1998 05 24	704	0.3+	0.7+
1997 02 08	566	0.1−	0.4−	1998 05 22	704	0.3+	0.2+				

1995 YP₈ = 1998 KA₄₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>	89.61289	(2000.0)		P	Q		
<i>n</i>	0.22007203	ω	64.36401	+0.53180213	+0.78025974		
<i>a</i>	2.7170199	Ω	241.74696	−0.84686863	+0.49001557		
<i>e</i>	0.0529059	<i>i</i>	21.94634	+0.00009009	+0.38868944		
<i>P</i>	4.48	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1995 12 18	691	0.1+	0.0	1998 05 22	704	1.4−	0.7+	1998 06 24	704	1.5+	0.0
1995 12 18	691	0.0	0.1−	1998 05 24	704	0.0	0.0	1999 11 03	704	0.2+	0.4−
1995 12 18	691	0.1+	0.3−	1998 05 24	704	0.2+	0.3−	1999 11 03	704	0.0	0.1+
1995 12 28	691	0.1−	0.5+	1998 05 24	704	0.2+	0.3+	1999 11 03	704	0.3+	0.2−
1995 12 28	691	0.0	0.3+	1998 05 24	704	0.5+	0.2+	1999 11 03	704	0.5+	0.5−
1995 12 28	691	0.0	0.3+	1998 05 24	704	0.4+	1.4+	1999 11 03	704	0.5+	0.4+
1998 05 22	704	0.6−	0.5+	1998 06 24	704	0.2+	0.6−	1999 11 13	703	0.5−	0.5−
1998 05 22	704	0.4−	0.8+	1998 06 24	704	0.0	0.8−	1999 11 13	703	0.2−	1.3+
1998 05 22	704	0.8−	0.1−	1998 06 24	704	0.6+	0.6−	1999 11 13	703	0.7−	0.4+
1998 05 22	704	1.4−	0.6−	1998 06 24	704	0.6+	0.3−	1999 11 13	703	0.1−	0.0

1995 YM₁₀ = 1978 RR₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	146.12965	(2000.0)		P	Q		
<i>n</i>	0.19393174	ω	106.89211	−0.00058153	+0.99992698		
<i>a</i>	2.9559933	Ω	163.06086	−0.93252881	+0.00381625		
<i>e</i>	0.0697235	<i>i</i>	2.37432	−0.36109512	−0.01146582		
<i>P</i>	5.08	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1978 09 02	809	0.4+	0.5+	1995 12 23	691	0.3+	0.1−	1999 10 30	703	0.4+	0.9+
1978 09 02	809	0.5−	0.2+	1995 12 29	691	0.2−	0.2+	1999 10 30	703	0.8−	0.5−
1978 09 02	809	1.0−	0.8−	1995 12 29	691	0.0	0.0	1999 11 05	704	0.8−	0.7+
1978 09 02	809	0.0	0.3+	1995 12 29	691	0.9−	0.8−	1999 11 05	704	0.4−	0.3+
1978 09 02	809	0.6+	0.4−	1999 10 20	704	0.8−	1.1+	1999 11 05	704	0.1−	0.7−
1978 09 06	809	0.6+	0.2−	1999 10 20	704	0.0	0.0	1999 11 05	704	0.1−	0.3+
1995 12 18	691	0.3−	0.2+	1999 10 20	704	0.1+	0.1+	1999 12 07	704	0.2+	0.2−
1995 12 18	691	0.3+	0.1−	1999 10 20	704	0.5+	0.2+	1999 12 07	704	0.3+	0.4−
1995 12 18	691	0.2−	0.0	1999 10 20	704	1.1+	0.5−	1999 12 07	704	0.6−	0.9−
1995 12 23	691	0.6+	0.2+	1999 10 30	703	0.8−	0.1−	1999 12 07	704	0.3+	0.6−
1995 12 23	691	0.3+	0.3+	1999 10 30	703	1.5+	0.4+				

1996 AH₁₀ = 2000 AT₅₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>	321.51761	(2000.0)		P	Q		
<i>n</i>	0.23919162	ω	246.57794	−0.98460784	−0.13876551		
<i>a</i>	2.5702305	Ω	285.31059	+0.17102221	−0.89029681		
<i>e</i>	0.1520394	<i>i</i>	6.32522	−0.03603894	−0.43372309		
<i>P</i>	4.12	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1996 01 13	691	0.3+	0.1−	1999 12 08	704	0.5+	0.0	2000 01 06	704	0.3−	0.2−
1996 01 13	691	0.2−	0.1+	2000 01 03	691	0.1+	0.1−	2000 01 08	691	0.2+	0.4−
1996 01 13	691	0.2−	0.0	2000 01 03	691	0.1+	0.2−	2000 01 08	691	0.2+	0.4−
1996 01 20	691	0.3+	0.1−	2000 01 03	691	0.3+	0.1−	2000 01 08	691	0.4+	0.8−
1996 01 20	691	0.2+	0.1+	2000 01 04	704	0.5−	0.5+	2000 01 13	691	0.5+	0.3−
1996 01 20	691	0.3+	0.1+	2000 01 04	704	0.6−	0.4−	2000 01 13	691	0.0	0.1−
1996 01 27	691	0.1+	0.1+	2000 01 04	704	0.8+	0.2−	2000 01 13	691	0.1+	0.1−
1996 01 27	691	0.2−	0.0	2000 01 04	704	0.1−	1.4+	2000 02 03	704	0.1−	0.3+

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1996 01 27	691	0.5−	0.4−	2000 01 06	704	0.2+	0.4+	2000 02 03	704	0.5+	0.1−
1999 12 08	704	0.5−	0.5−	2000 01 06	704	0.5−	0.7+	2000 02 03	704	0.4−	0.0
1999 12 08	704	0.8−	0.2−	2000 01 06	704	0.1−	0.9+				

1996 BG₃ = 2000 AA₁₇₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	2.81854		(2000.0)	P		Q	
<i>n</i>	0.23571876	ω	343.88090	−0.48903418		−0.85183346	
<i>a</i>	2.5954139	Ω	134.93526	+0.82671221		−0.52126346	
<i>e</i>	0.1380806	<i>i</i>	15.37444	+0.27819507		+0.05161556	
<i>P</i>	4.18	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1996 01 18	369	0.4−	1.2−	1999 12 05	704	0.2+	0.2−	2000 01 07	704	0.2+	0.2+
1996 01 18	369	1.0+	0.6−	1999 12 05	704	1.0−	1.1−	2000 01 11	704	0.3+	0.4−
1996 01 18	369	0.1+	0.6−	1999 12 05	704	0.3−	0.7+	2000 01 11	704	0.2−	0.0
1996 01 18	369	0.7+	0.0	1999 12 05	704	0.3−	0.0	2000 01 11	704	0.2+	0.2−
1996 01 27	369	0.0	0.5+	1999 12 05	704	0.2+	0.3−	2000 01 11	704	0.7+	0.3+
1996 01 27	369	0.4−	1.5+	1999 12 14	704	0.2+	0.0	2000 01 11	704	0.0	0.1−
1996 01 27	369	0.5+	0.3+	1999 12 14	704	0.2+	0.4+	2000 02 02	704	0.2−	0.8−
1996 02 10	327	0.5−	0.3−	1999 12 14	704	0.5+	0.3+	2000 02 02	704	0.1−	0.3−
1996 02 10	327	0.5−	0.1−	1999 12 14	704	0.0	0.1−	2000 02 02	704	0.0	0.1+
1996 02 12	327	0.6−	0.2−	2000 01 07	704	0.1−	0.1+	2000 02 02	704	0.5−	0.1+
1996 02 12	327	0.1+	0.3+	2000 01 07	704	0.2−	0.3+	2000 02 02	704	0.0	0.4+
1996 02 12	327	0.3+	0.1+	2000 01 07	704	0.1+	0.8+				

1996 BW₆ = 1999 XY₅₄

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	316.63486		(2000.0)	P		Q	
<i>n</i>	0.21671290	ω	55.92911	−0.65787915		−0.75140557	
<i>a</i>	2.7450244	Ω	75.29353	+0.67250269		−0.61650183	
<i>e</i>	0.0168515	<i>i</i>	3.01296	+0.33902087		−0.23519178	
<i>P</i>	4.55	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1996 01 19	691	0.4−	0.1+	1999 11 12	704	0.4+	0.4−	1999 12 07	704	0.8+	0.6−
1996 01 19	691	0.2−	0.2−	1999 11 12	704	0.3−	0.2+	1999 12 07	704	0.7+	0.2+
1996 01 19	691	0.2−	0.1−	1999 12 05	703	0.6−	0.5−	1999 12 08	704	0.3−	0.0
1996 01 25	691	0.2+	0.1+	1999 12 05	703	0.8−	1.0+	1999 12 08	704	0.2+	0.2+
1996 01 25	691	0.3+	0.3+	1999 12 05	703	0.8−	0.1+	1999 12 08	704	0.1−	0.1−
1996 01 25	691	0.2+	0.2−	1999 12 05	703	0.1−	0.9+	1999 12 08	704	1.1+	0.3+
1999 11 12	704	0.3+	0.0	1999 12 07	704	0.4−	0.6−	1999 12 08	704	1.5−	0.3−
1999 11 12	704	0.0	0.2+	1999 12 07	704	0.7+	0.1−				
1999 11 12	704	0.2+	0.1+	1999 12 07	704	0.4+	0.7−				

1996 CL₁ = 2000 CH₅₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	341.56871		(2000.0)	P		Q	
<i>n</i>	0.25665742	ω	68.41605	−0.89863268		+0.40606583	
<i>a</i>	2.4522618	Ω	135.08597	−0.43591657		−0.86908204	
<i>e</i>	0.1852781	<i>i</i>	13.60173	+0.04935635		−0.28250125	
<i>P</i>	3.84	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1996 02 11	411	0.7−	0.2+	1996 02 18	411	0.8+	0.6−	2000 02 05	704	1.2+	0.4+
1996 02 11	411	0.3−	0.2+	1996 02 23	411	0.7+	0.7−	2000 02 05	704	0.2+	0.5−
1996 02 12	411	0.4+	0.0	1996 02 23	411	0.4+	0.8+	2000 02 05	704	0.6+	0.5−
1996 02 12	411	0.3−	0.1+	1996 02 27	411	1.1+	1.0+	2000 02 06	704	0.8−	1.1−
1996 02 18	691	0.6−	0.1−	1996 02 27	411	0.0	0.8−	2000 02 06	704	0.6−	0.3−
1996 02 18	691	0.2−	0.0	1996 03 12	411	1.0−	0.2−	2000 02 06	704	0.1−	1.0+
1996 02 18	691	0.1−	0.1−	1996 03 12	411	0.3+	0.2+	2000 02 06	704	0.3−	0.6+
1996 02 18	411	0.6−	0.0	2000 02 05	704	0.2−	0.5+				

1996 CP₁ = 2000 AQ₂₃₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	25.88917		(2000.0)	P		Q	
<i>n</i>	0.24168129	ω	6.18124	−0.21057626		−0.97091435	
<i>a</i>	2.5525487	Ω	96.01622	+0.89193112		−0.23852723	
<i>e</i>	0.1156922	<i>i</i>	6.57904	+0.40014562		+0.02073831	
<i>P</i>	4.08	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1996 02 12	411	0.3−	0.0	1999 12 07	704	0.6−	0.4−	2000 01 04	704	0.2+	0.3+
1996 02 12	411	0.1+	1.2−	1999 12 07	704	0.2+	0.6−	2000 01 04	704	0.4+	0.1−
1996 02 13	411	0.4+	0.6+	1999 12 07	704	0.2−	0.9−	2000 01 05	699	0.4+	0.4+
1996 02 13	411	0.6+	0.0	1999 12 07	704	0.1−	0.4−	2000 01 05	699	0.1+	0.2+
1996 02 13	411	0.4+	0.0	1999 12 07	704	0.1−	0.5+	2000 01 05	699	0.1+	0.1−
1996 02 15	411	0.1−	0.4−	1999 12 15	703	1.1−	0.7−	2000 01 30	704	0.5+	0.2+
1996 02 20	411	1.0−	0.4−	1999 12 15	703	0.7−	0.6+	2000 01 30	704	0.3+	0.0
1996 02 21	411	0.7−	0.1+	1999 12 15	703	0.2−	0.8+	2000 01 30	704	0.6+	0.0
1996 02 21	411	0.3+	0.0	1999 12 15	703	0.2−	0.8+	2000 01 30	704	1.0+	1.1+
1996 02 21	411	0.1−	0.5−	1999 12 18	120	0.7+	0.3+	2000 02 11	704	0.5−	0.7+
1999 11 16	704	0.2−	0.6−	1999 12 18	120	1.2−	0.2+	2000 02 11	704	0.3−	0.3+
1999 11 16	704	1.2+	0.6−	1999 12 18	120	0.1+	0.7−	2000 02 11	704	0.4−	0.2+
1999 11 16	704	0.0	0.3−	2000 01 04	704	0.2+	0.1−	2000 02 11	704	(0.9−	4.0+)
1999 11 16	704	0.4−	0.8+	2000 01 04	704	0.3−	0.1−				
1999 11 16	704	0.8+	0.3−	2000 01 04	704	0.0	0.1+				

1996 EM₁ = 1999 XM₁₆₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	321.38093		(2000.0)	P		Q	
<i>n</i>	0.23662410	ω	229.08112	−0.90143106		+0.42592502	
<i>a</i>	2.5887894	Ω	335.82140	−0.31800574		−0.77295631	
<i>e</i>	0.2018392	<i>i</i>	10.91047	−0.29375907		−0.47024080	
<i>P</i>	4.17	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1996 03 10	400	0.5+	0.7+	1999 12 08	704	0.1−	0.8−	2000 02 03	704	0.0	0.2−
1996 03 13	400	1.3−	0.3−	1999 12 08	704	0.4−	0.2+	2000 02 03	704	0.1+	0.1+
1996 03 13	400	0.6+	1.5−	1999 12 15	704	0.4−	0.2−	2000 02 03	704	0.1−	0.2−
1996 03 20	400	(2.9−	1.2+)	1999 12 15	704	0.1−	0.3−	2000 02 06	703	0.5−	0.0
1996 03 20	400	0.5−	0.3+	1999 12 15	704	0.3+	0.3−	2000 02 06	703	0.1−	0.0
1996 04 12	400	0.5+	0.4+	1999 12 15	704	0.6−	0.0	2000 02 06	703	0.4−	0.4−
1999 12 04	703	0.3−	0.6+	2000 01 30	704	0.1−	0.3−	2000 02 06	703	0.2−	0.1+
1999 12 04	703	0.2−	0.7+	2000 01 30	704	0.0	0.1+	2000 02 11	704	0.2+	0.1−
1999 12 04	703	0.9+	0.6+	2000 01 30	704	0.7−	0.2+	2000 02 11	704	0.5+	0.4−
1999 12 04	703	0.7+	0.1−	2000 01 30	704	0.2+	0.4+	2000 02 11	704	0.6+	0.2−
1999 12 08	704	0.5−	0.2+	2000 01 30	704	0.2−	1.2+	2000 02 11	704	0.4+	0.3+
1999 12 08	704	0.2−	1.1−	2000 02 03	704	0.1+	0.2+	2000 02 11	704	0.8+	0.1+
1999 12 08	704	0.0	0.5−	2000 02 03	704	0.3+	0.4+				

1996 EA₃ = 1999 XH₁₈₈

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	302.61971		(2000.0)	P		Q	
<i>n</i>	0.21101246	ω	140.08306	−0.97967807		−0.19110550	
<i>a</i>	2.7942418	Ω	29.07116	+0.13658627		−0.85800047	
<i>e</i>	0.1402741	<i>i</i>	7.20087	+0.14688452		−0.47677446	
<i>P</i>	4.67	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1996 03 09	327	0.4−	0.0	1996 03 11	327	1.5−	0.1−	1999 12 15	704	0.3−	0.4−
1996 03 09	327	0.6+	0.5−	1996 03 11	327	0.6+	0.6−	1999 12 15	704	0.0	0.7−
1996 03 09	327	0.3+	0.2+	1999 12 12	704	0.5+	0.4−	1999 12 15	704	0.3+	0.1+
1996 03 10	327	0.3+	0.1+	1999 12 12	704	0.3−	0.1−	2000 01 02	704	0.0	0.9+
1996 03 10	327	0.3+	0.1+	1999 12 12	704	0.3+	0.1−	2000 01 02	704	0.2+	0.3−

1996 03 10 327 0.7− 0.6+ 1999 12 12 704 0.6− 1.2+ 2000 01 02 704 0.2− 0.4−
 1996 03 11 327 0.6+ 0.2+ 1999 12 15 704 0.0 0.2+

1996 EY₇ = 2000 CR₂₇

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	173.70511		(2000.0)	P	Q
<i>n</i>	0.22696367	ω	167.96258	+0.87922926	+0.47589794
<i>a</i>	2.6617371	Ω	163.56578	−0.44324220	+0.83398092
<i>e</i>	0.1077004	<i>i</i>	4.42777	−0.17462035	+0.27927937
<i>P</i>	4.34	<i>H</i>	14.0	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1996 03 11	691	0.0	0.1−	1996 03 26	691	0.0	0.1+	2000 02 04	704	0.7−	0.3−
1996 03 11	691	0.2+	0.1−	2000 02 02	704	0.3+	0.4+	2000 02 04	704	0.9+	0.1+
1996 03 11	691	0.2+	0.1−	2000 02 02	704	0.6+	0.6−	2000 02 06	704	0.0	0.6−
1996 03 18	691	0.3−	0.2+	2000 02 02	704	0.2−	0.8+	2000 02 06	704	0.3−	0.0
1996 03 18	691	0.2−	0.2+	2000 02 02	704	0.4−	0.2−	2000 02 06	704	0.4+	0.3−
1996 03 18	691	0.2−	0.1+	2000 02 04	704	0.4−	0.8+	2000 02 06	704	0.2−	0.3−
1996 03 26	691	0.1−	0.0	2000 02 04	704	0.4+	0.5+	2000 02 06	704	0.4−	0.1+
1996 03 26	691	0.5+	0.2−	2000 02 04	704	0.0	0.3−				

1996 GG₁₄ = 1995 CS₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	259.35392		(2000.0)	P	Q
<i>n</i>	0.22388445	ω	249.14775	+0.56638356	+0.82297069
<i>a</i>	2.6860872	Ω	55.42686	−0.73492375	+0.52846794
<i>e</i>	0.3659699	<i>i</i>	3.05754	−0.37295676	+0.20842478
<i>P</i>	4.40	<i>H</i>	16.2	<i>G</i> 0.15	<i>U</i> 6

Residuals in seconds of arc

1995 02 04	691	0.6+	0.5−	1995 02 05	691	0.2+	0.2−	1996 04 12	691	0.2−	0.2−
1995 02 04	691	1.0−	0.7+	1995 02 05	691	0.2+	0.0	1996 04 19	691	0.1+	0.0
1995 02 04	691	1.0−	0.2+	1996 04 12	691	0.0	0.2−	1996 04 19	691	0.1−	0.3+
1995 02 05	691	1.0+	0.2−	1996 04 12	691	0.0	0.3−	1996 04 19	691	0.2+	0.4+

1996 GN₁₅ = 1999 CR₁₃₁

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	242.50875		(2000.0)	P	Q
<i>n</i>	0.22309890	ω	275.53406	+0.73654872	+0.67565602
<i>a</i>	2.6923887	Ω	41.96635	−0.60050711	+0.67457028
<i>e</i>	0.3503002	<i>i</i>	2.69003	−0.31126708	+0.29739515
<i>P</i>	4.42	<i>H</i>	16.3	<i>G</i> 0.15	<i>U</i> 6

Residuals in seconds of arc

1996 04 13	691	0.1+	0.3+	1996 04 19	691	0.0	0.3+	1999 02 09	568	0.0	0.4−
1996 04 13	691	0.1+	0.1−	1996 04 19	691	0.1+	0.1−	1999 02 09	568	0.0	0.4−
1996 04 13	691	0.1−	0.0	1999 02 08	568	0.7−	0.4+				
1996 04 19	691	0.1−	0.5−	1999 02 08	568	0.7+	0.4+				

1996 GY₁₇ = 1991 HJ₁ = 2000 CW₉₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	209.82704		(2000.0)	P	Q
<i>n</i>	0.20608007	ω	280.17858	+0.49992717	+0.86598606
<i>a</i>	2.8386514	Ω	19.83014	−0.78026935	+0.45630816
<i>e</i>	0.0571751	<i>i</i>	2.00577	−0.37583582	+0.20457520
<i>P</i>	4.78	<i>H</i>	14.2	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1991 04 19	809	1.2+	0.2+	1998 11 18	704	(2.4−	0.5−)	2000 02 03	704	0.1−	0.2−
1991 04 19	809	1.1−	0.0	1998 11 18	704	0.3−	1.4+	2000 02 03	704	1.1−	0.4+
1991 04 19	809	(2.2−	0.7−)	1998 11 24	704	0.4+	1.8+	2000 02 06	703	0.1−	0.5+

1996 03 24	809	0.7+	0.8−	1998 11 24	704	1.2−	0.5+	2000 02 06	703	0.6−	0.1−
1996 03 24	809	0.0	1.1−	1998 11 24	704	0.8+	0.7−	2000 02 06	703	1.6−	0.9+
1996 03 24	809	1.0−	0.1−	1998 11 24	704	0.2−	0.6−	2000 02 06	703	1.0+	0.1−
1996 03 27	809	0.7+	1.9+	1998 11 24	704	(5.8−	1.0+)	2000 02 08	704	0.1+	0.4−
1996 03 27	809	0.7+	1.8+	1998 11 25	699	0.6+	1.2+	2000 02 08	704	0.2−	0.6−
1996 03 27	809	(0.1+	2.7+)	1998 11 25	699	0.2−	0.4−	2000 02 08	704	0.7+	1.5−
1996 04 15	809	0.8+	1.5+	1998 11 25	699	0.9+	1.5+	2000 02 08	704	0.2−	0.6−
1996 04 15	809	0.1−	0.8+	1998 12 14	704	0.0	0.4+	2000 02 08	704	0.3−	0.9−
1996 04 15	809	0.4+	1.1+	1998 12 14	704	0.6+	0.7−	2000 02 11	704	1.0−	0.4−
1996 04 17	809	(2.0+	4.4+)	1998 12 14	704	(0.7+	2.2−)	2000 02 11	704	0.1+	0.1−
1996 04 17	809	(1.9+	2.9+)	1998 12 14	704	(6.5−	0.2−)	2000 02 11	704	0.9+	0.8+
1996 04 17	809	(1.6+	3.4+)	2000 02 03	704	1.6+	0.2−	2000 02 11	704	0.1−	0.2−
1998 11 18	704	1.9−	0.7+	2000 02 03	704	0.1−	0.4−				
1998 11 18	704	0.8−	0.2+	2000 02 03	704	0.0	0.3+				

1996 HC₂₁ = 1999 XO₁₉₇

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	230.43733		(2000.0)	P	Q
<i>n</i>	0.17861140	ω	211.22682	−0.24430666	+0.95562879
<i>a</i>	3.1226976	Ω	45.22408	−0.83500710	−0.12102502
<i>e</i>	0.2538371	<i>i</i>	13.40612	−0.49302880	−0.26856388
<i>P</i>	5.52	<i>H</i>	13.3	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1996 04 18	809	0.2+	0.9+	1996 05 14	566	0.4−	0.8+	1999 12 12	704	0.1+	1.1+
1996 04 18	809	0.2+	0.1+	1996 05 14	566	0.5−	0.8+	1999 12 12	704	0.8+	1.1+
1996 04 18	809	0.0	1.2+	1996 05 19	566	0.2+	0.3−	1999 12 15	704	0.2−	0.8−
1996 04 20	809	0.2−	1.2−	1996 05 19	566	0.0	0.7−	1999 12 15	704	0.5−	0.4−
1996 04 20	809	0.7+	0.8−	1996 05 19	566	0.0	0.3−	1999 12 15	704	0.2+	0.9−
1996 04 20	809	0.4+	0.9−	1999 12 12	704	0.1−	0.3−	1999 12 15	704	0.3+	0.1+
1996 05 14	566	0.5−	0.4+	1999 12 12	704	0.6−	0.2+				

1996 HH₂₁ = 1991 PC₂₇ = 2000 CX₉₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	190.75264		(2000.0)	P	Q
<i>n</i>	0.17422925	ω	192.61743	+0.46395143	+0.88496921
<i>a</i>	3.1748412	Ω	105.03651	−0.80914477	+0.44160361
<i>e</i>	0.1967118	<i>i</i>	2.35780	−0.36060202	+0.14770156
<i>P</i>	5.66	<i>H</i>	14.0	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1991 08 05	809	0.7+	0.5−	1996 05 19	809	0.9+	0.3−	2000 02 03	704	0.2+	1.0+
1991 08 05	809	0.4+	0.9−	1996 05 19	809	0.0	1.2+	2000 02 03	704	0.3−	0.2+
1991 08 05	809	0.7−	0.6−	1996 05 22	809	0.1+	0.1+	2000 02 03	704	0.2+	0.2−
1996 04 18	809	0.2−	1.0+	1996 05 22	809	0.8−	0.1+	2000 02 03	704	1.4−	0.4+
1996 04 18	809	1.0−	0.6+	1996 05 22	809	1.3−	0.2−	2000 02 03	704	1.3−	1.0−
1996 04 18	809	1.7−	0.5+	1996 05 22	557	0.5−	0.7+	2000 02 07	691	0.2−	0.2−
1996 04 20	809	0.5+	0.4−	1996 05 22	557	0.9−	0.0	2000 02 07	691	0.2+	0.3−
1996 04 20	809	0.6+	0.7−	1996 05 23	809	1.1+	0.0	2000 02 07	691	0.2−	0.4−
1996 04 20	809	0.7+	0.5−	1996 05 23	809	0.7+	1.1−	2000 02 14	691	0.5+	0.8−
1996 04 20	691	(4.5−	0.2+)	1996 05 23	809	0.5+	0.6−	2000 02 14	691	0.5+	0.7−
1996 04 20	691	(4.5−	0.3+)	2000 01 28	691	0.6+	0.1−	2000 02 14	691	0.9+	0.5−
1996 04 20	691	(4.4−	0.1+)	2000 01 28	691	0.1+	0.0				
1996 05 19	809	1.1+	0.7−	2000 01 28	691	0.2−	0.0				

1996 JC₁ = 1978 WZ₁₅ = 1998 XE₄₃ = 1999 XS₃₁

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	195.34842		(2000.0)	P	Q
<i>n</i>	0.19949614	ω	260.47664	+0.81573814	+0.57258944
<i>a</i>	2.9007684	Ω	64.54929	−0.48870667	+0.75803598
<i>e</i>	0.0851713	<i>i</i>	5.20595	−0.30941409	+0.31228638
<i>P</i>	4.94	<i>H</i>	12.8	<i>G</i> 0.15	<i>U</i> 1

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Residuals in seconds of arc

1978 11 30	675	0.6−	0.5−	1998 12 16	704	0.3−	0.7+	1999 12 07	704	0.2−	0.6−
1978 12 01	675	0.5+	0.1+	1998 12 16	704	0.1−	0.8−	1999 12 07	704	0.0	0.1+
1996 05 14	566	0.0	0.6+	1998 12 16	704	0.5+	0.1−	1999 12 08	704	0.3−	0.0
1996 05 14	566	0.1+	0.0	1998 12 16	704	(2.5+	0.5−)	1999 12 08	704	0.5+	0.4+
1996 05 14	566	0.4+	0.2−	1998 12 16	704	1.5+	0.1+	1999 12 08	704	0.7−	0.4−
1996 05 15	566	0.2−	0.2−	1998 12 17	704	0.4+	0.6−	1999 12 08	704	0.1+	0.9+
1996 05 15	566	0.1+	0.0	1998 12 17	704	0.2+	0.9−	1999 12 08	704	0.4−	0.4+
1996 05 15	566	0.7+	0.1−	1998 12 17	704	0.0	0.3−	2000 02 02	411	0.2+	0.5−
1996 05 19	566	0.0	0.7−	1998 12 17	704	0.1+	0.1−	2000 02 02	411	0.1−	1.2−
1996 05 19	566	0.2−	0.8−	1998 12 17	704	1.1+	0.0	2000 02 03	411	1.9+	0.8+
1996 05 19	566	0.2−	0.7−	1999 12 06	704	0.7−	0.9+	2000 02 03	411	0.4+	0.4−
1997 10 01	566	1.0−	0.5+	1999 12 06	704	0.6+	0.1+	2000 02 11	704	0.2+	0.3+
1997 10 01	566	0.7−	0.7+	1999 12 06	704	0.8−	0.3+	2000 02 11	704	0.2+	0.4+
1997 10 01	566	0.5−	0.2+	1999 12 06	704	0.1−	0.9−	2000 02 11	704	0.2+	0.5+
1998 12 14	704	(2.1+	0.3−)	1999 12 06	704	0.4+	0.7−	2000 02 11	704	1.4−	1.5+
1998 12 14	704	1.0−	0.3−	1999 12 07	704	1.5−	1.9+	2000 02 11	704	0.1+	1.2+
1998 12 14	704	0.7+	0.8−	1999 12 07	704	0.7−	0.1+				
1998 12 14	704	0.3+	0.0	1999 12 07	704	0.3−	0.0				

1996 KO₁ = 1987 YN₂

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	353.57213	(2000.0)	
<i>n</i>	0.25563777	<i>ω</i>	20.96868
<i>a</i>	2.4587783	<i>Ω</i>	164.18432
<i>e</i>	0.1512000	<i>i</i>	5.23207
<i>P</i>	3.86	<i>H</i>	14.7

Residuals in seconds of arc

1982 11 05	413	0.0	1.2+	1996 04 21	566	0.3−	0.4−	1996 06 06	327	0.1+	0.3+
1987 12 20	010	0.6+	1.4−	1996 04 21	566	0.3−	0.1+	1999 12 09	703	0.3−	0.2+
1987 12 20	010	0.8−	0.3−	1996 04 21	566	0.1−	0.2−	1999 12 09	703	0.4−	0.6+
1990 09 01	675	0.4−	0.3−	1996 05 17	327	0.1−	0.4−	1999 12 09	703	0.3+	0.6+
1990 09 01	675	0.0	0.4+	1996 05 17	327	0.3+	0.3−	1999 12 09	703	0.3+	1.0+
1995 12 20	327	0.2+	0.1+	1996 05 17	327	0.2−	0.6−	2000 01 11	699	0.1−	0.3+
1995 12 20	327	0.3+	0.3+	1996 05 17	327	0.5−	0.0	2000 01 11	699	0.7−	0.4+
1995 12 20	327	0.1−	0.2+	1996 05 19	327	0.1+	0.1−	2000 01 11	699	0.3+	0.8+
1995 12 20	327	1.8+	0.5+	1996 05 19	327	0.1−	0.1+	2000 02 08	704	0.4+	1.5−
1996 03 26	691	0.7−	0.0	1996 05 19	327	0.7+	0.2+	2000 02 08	704	0.1+	0.2+
1996 03 26	691	0.8−	0.5−	1996 05 20	327	0.3−	0.4−	2000 02 08	704	0.0	1.0+
1996 03 26	691	0.6−	0.3−	1996 05 20	327	0.2+	0.2+	2000 02 08	704	0.2+	0.1−
1996 04 20	566	0.1+	0.3−	1996 05 20	327	0.9+	0.0	2000 02 08	704	0.9+	0.9+
1996 04 20	566	0.2+	0.6−	1996 06 06	327	0.4−	1.2+				
1996 04 20	566	0.1+	0.3−	1996 06 06	327	0.2−	0.9+				

1996 RB₁₂ = 1995 FO₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	184.02378	(2000.0)	
<i>n</i>	0.30573708	<i>ω</i>	90.08463
<i>a</i>	2.1822474	<i>Ω</i>	94.08980
<i>e</i>	0.1204022	<i>i</i>	2.12163
<i>P</i>	3.22	<i>H</i>	17.2

Residuals in seconds of arc

1995 03 23	691	0.1−	0.0	1995 03 29	691	0.1+	0.1+	1996 09 11	691	0.1−	0.3+
1995 03 23	691	0.1−	0.1−	1996 09 08	691	0.4−	0.7+	1996 09 17	691	0.2−	0.4+
1995 03 23	691	0.0	0.2−	1996 09 08	691	0.5−	0.4+	1996 09 17	691	0.7−	0.7+
1995 03 29	691	0.2+	0.1−	1996 09 08	691	0.6−	0.2+				
1995 03 29	691	0.0	0.3+	1996 09 11	691	2.6+	2.8−				

1996 RH₂₆ = 1999 RN₄₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	57.76338	(2000.0)	
<i>n</i>	0.31719328	<i>ω</i>	322.29795
<i>a</i>	2.1293811	<i>Ω</i>	3.23255
<i>e</i>	0.2285684	<i>i</i>	4.25769
<i>P</i>	3.11	<i>H</i>	16.6

Residuals in seconds of arc

1996 09 14	566	0.2−	0.7−	1999 09 07	704	0.5−	0.5+	1999 09 11	704	0.2−	0.0
1996 09 14	566	0.2+	0.5−	1999 09 07	704	0.0	0.6+	1999 09 11	704	1.1−	0.0
1996 09 14	566	0.1+	0.5−	1999 09 07	704	0.4+	0.0	1999 09 30	704	0.3−	0.8−
1996 09 19	691	0.1−	0.7+	1999 09 07	704	0.6+	0.3+	1999 09 30	704	0.2−	0.6−
1996 09 19	691	0.2−	0.7+	1999 09 11	704	0.2−	0.1+	1999 09 30	704	1.2+	0.3−
1996 09 19	691	0.2−	0.9+	1999 09 11	704	0.8−	0.1+	1999 09 30	704	0.7+	0.4−
1999 09 07	704	0.8+	0.3−	1999 09 11	704	0.1−	0.3−				

1996 RY₂₇ = 1999 XA₁₅₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	38.10766	(2000.0)	
<i>n</i>	0.31235767	<i>ω</i>	100.05403
<i>a</i>	2.1513014	<i>Ω</i>	243.03647
<i>e</i>	0.3185101	<i>i</i>	0.93511
<i>P</i>	3.16	<i>H</i>	17.6

Residuals in seconds of arc

1996 09 10	809	0.1+	0.6−	2000 01 08	568	0.6−	0.0	2000 01 11	568	1.1+	0.1+
1996 09 11	809	0.4−	0.5−	2000 01 09	568	0.1+	0.5+	2000 01 11	568	0.2−	0.3+
1996 09 13	809	0.2+	0.0	2000 01 09	568	0.6−	0.2+	2000 01 12	568	0.3+	0.2−
1996 09 13	809	0.1+	0.6+	2000 01 09	568	0.2−	0.0	2000 01 12	568	0.5+	0.1−
1996 09 13	809	0.1+	0.6+	2000 01 10	568	0.0	0.2−	2000 01 18	568	0.1−	0.2−
1999 12 08	568	0.1−	0.0	2000 01 10	568	0.2+	0.2−	2000 01 18	568	0.2−	0.1−
1999 12 08	568	0.1+	0.0	2000 01 10	568	0.0	0.2−				
2000 01 08	568	0.1+	0.0	2000 01 10	568	0.4−	0.0				

1996 RF₂₉ = 1997 TH₂₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	208.92673	(2000.0)	
<i>n</i>	0.08105496	<i>ω</i>	64.64325
<i>a</i>	5.2878971	<i>Ω</i>	174.16603
<i>e</i>	0.1152269	<i>i</i>	11.39293
<i>P</i>	12.16	<i>H</i>	12.1

Residuals in seconds of arc

1996 09 08	691	0.1−	1.0−	1996 09 13	809	0.4+	0.3+	1997 10 06	809	2.9+	1.4+
1996 09 08	691	0.2−	0.8−	1996 09 16	809	0.7+	0.1+	1997 10 07	809	1.5−	1.0−
1996 09 08	691	0.2−	1.1−	1996 10 08	809	0.5−	0.9−	1997 10 07	809	0.5−	0.5+
1996 09 11	809	0.4−	1.7+	1996 10 09	809	0.5+	0.2+				
1996 09 12	809	0.1−	1.6+	1997 10 06	809	0.9−	0.9−				

1996 RK₃₀ = 1999 XM₁₉₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano			
<i>M</i>	357.26531	(2000.0)	
<i>n</i>	0.08213930	<i>ω</i>	121.79617
<i>a</i>	5.2412559	<i>Ω</i>	333.58378
<i>e</i>	0.0640076	<i>i</i>	7.09892
<i>P</i>	12.00	<i>H</i>	11.2

Residuals in seconds of arc

1996 09 13	809	(3.6+	2.6+)	1999 12 12	704	0.5−	0.4+	2000 01 02	704	0.7−	0.8+
1996 09 14	809	0.1+	0.3−	1999 12 12	704	1.2−	0.9−	2000 01 02	704	0.5−	0.3+
1996 09 14	809	0.1−	0.3−	1999 12 12	704	0.3+	0.3+	2000 01 02	704	0.2+	0.4−
1996 09 14	809	(4.1+	2.9+)	1999 12 15	704	0.6+	0.2−	2000 01 02	704	0.6+	0.1+

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1996 09 15	809	0.0	0.3+	1999 12 15	704	0.2+	0.0	2000 01 04	704	0.5-	0.2-
1996 09 15	809	0.2+	0.1+	1999 12 15	704	0.2+	0.0	2000 01 04	704	0.2+	0.4-
1996 09 21	809	0.1-	0.0	1999 12 15	704	0.0	0.5+	2000 01 04	704	0.2+	0.6-
1996 09 21	809	0.1-	0.1+	1999 12 15	704	0.6+	0.2+	2000 01 04	704	0.3+	0.2+

1996 VS₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	43.44879	(2000.0)	
		P	Q
<i>n</i>	0.36746889	ω	51.25020
<i>a</i>	1.9304371	Ω	52.02469
<i>e</i>	0.0895012	<i>i</i>	23.29941
<i>P</i>	2.68	<i>H</i>	13.8
		<i>G</i>	0.15
		<i>U</i>	2

Residuals in seconds of arc

1996 11 08	587	0.9+	0.2-	1996 12 01	108	0.7-	0.6-	1997 03 02	587	0.1-	0.5-
1996 11 08	587	0.8+	0.2+	1996 12 03	108	0.6-	0.1+	1997 03 30	587	0.2-	0.8+
1996 11 09	587	0.3-	0.4+	1996 12 03	108	0.1+	0.0	1997 03 30	587	0.2+	1.1+
1996 11 09	587	0.2-	0.1-	1996 12 03	108	0.4-	0.6+	1999 09 13	699	0.6+	0.4+
1996 11 09	108	0.8-	1.8+	1996 12 03	108	0.6+	1.0-	1999 09 13	699	0.7-	1.0+
1996 11 09	108	(2.1+	1.1-)	1996 12 05	108	1.3-	0.0	1999 09 13	699	(1.1+	2.3+)
1996 11 09	108	0.8+	0.2-	1996 12 05	108	0.1+	0.3-	1999 12 30	704	0.1+	0.0
1996 11 09	108	0.2+	1.0+	1996 12 05	108	1.3-	0.6-	1999 12 30	704	0.0	0.0
1996 11 09	108	0.5+	0.4-	1996 12 14	587	0.5-	0.2-	1999 12 30	704	0.0	0.1-
1996 11 12	596	0.2-	0.5+	1996 12 14	587	0.4-	0.4-	1999 12 30	704	0.5-	0.4-
1996 11 12	596	0.0	0.2+	1996 12 15	587	0.2-	0.2-	1999 12 30	704	0.8-	0.1+
1996 11 12	596	0.0	0.1-	1996 12 15	587	0.4-	0.2-	2000 01 26	587	0.0	0.3-
1996 11 20	587	0.1+	0.1-	1996 12 29	587	0.2+	0.6-	2000 01 26	587	0.2-	0.5-
1996 11 20	587	0.1-	0.3+	1996 12 29	587	0.3+	0.2-	2000 02 13	587	0.0	0.3-
1996 11 20	587	0.3+	0.2+	1997 01 11	587	0.3+	0.3+	2000 02 13	587	0.2+	0.2-
1996 11 22	587	0.5+	0.0	1997 01 11	587	1.1+	0.4+	2000 02 13	587	0.4+	0.7-
1996 11 22	587	0.2+	0.0	1997 01 29	587	0.4+	0.1+	2000 02 16	704	0.0	0.3-
1996 11 28	587	0.1-	0.5-	1997 01 29	587	0.1+	0.2+	2000 02 16	704	0.1-	0.4+
1996 11 28	587	0.0	0.6-	1997 01 30	587	0.2+	0.8+	2000 02 16	704	0.2+	0.2+
1996 12 01	108	0.1+	0.1-	1997 01 30	587	0.2-	0.5+	2000 02 16	704	0.1-	0.8+
1996 12 01	108	0.4+	1.0-	1997 02 11	587	0.1-	0.8+	2000 02 16	704	0.2-	0.6+
1996 12 01	108	0.7+	0.1-	1997 03 02	587	0.2-	0.4-				

1997 AN₃ = 1993 FK₇₇ = 1995 SR₂₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	315.97591	(2000.0)	
		P	Q
<i>n</i>	0.19632226	ω	48.57521
<i>a</i>	2.9319486	Ω	326.15471
<i>e</i>	0.0893786	<i>i</i>	0.97417
<i>P</i>	5.02	<i>H</i>	15.4
		<i>G</i>	0.15
		<i>U</i>	5

Residuals in seconds of arc

1993 03 21	809	0.6-	0.3+	1995 09 24	691	0.1+	0.1-	1997 01 06	691	0.4-	0.1+
1993 03 22	809	0.6+	0.3-	1995 09 24	691	0.0	0.1-	1997 01 06	691	0.2-	0.0
1995 09 19	691	0.1-	0.1+	1997 01 03	691	0.1+	0.1-	1997 01 12	691	0.2-	0.4-
1995 09 19	691	0.2-	0.1-	1997 01 03	691	0.9+	0.2+	1997 01 12	691	0.3+	0.2+
1995 09 19	691	0.0	0.4+	1997 01 03	691	0.3+	0.3+				
1995 09 24	691	0.2+	0.1-	1997 01 06	691	0.7-	0.3-				

1997 CO₂ = 1995 UX₃₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	225.98499	(2000.0)	
		P	Q
<i>n</i>	0.24974163	ω	86.59297
<i>a</i>	2.4973270	Ω	119.75837
<i>e</i>	0.2289672	<i>i</i>	4.44694
<i>P</i>	3.95	<i>H</i>	17.8
		<i>G</i>	0.15
		<i>U</i>	6

Residuals in seconds of arc

1995 10 21	691	0.5+	0.6-	1995 10 26	691	0.2-	0.5+	1997 02 03	691	0.4-	0.3+
1995 10 21	691	0.2+	0.4-	1997 02 02	691	0.6+	0.4+	1997 02 03	691	0.8-	0.4+
1995 10 21	691	0.4-	0.6-	1997 02 02	691	0.3+	0.3-	1997 02 04	691	0.2+	0.2-
1995 10 26	691	0.4-	0.5+	1997 02 02	691	0.2+	0.6-	1997 02 04	691	0.3+	0.3-
1995 10 26	691	0.4+	0.5+	1997 02 03	691	0.4-	0.2+				

1997 CH₂₀ = 2000 CD₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	86.24871	(2000.0)	
		P	Q
<i>n</i>	0.29236826	ω	251.87139
<i>a</i>	2.2482740	Ω	128.86354
<i>e</i>	0.1642394	<i>i</i>	5.27994
<i>P</i>	3.37	<i>H</i>	15.1
		<i>G</i>	0.15
		<i>U</i>	5

Residuals in seconds of arc

1997 02 12	411	0.5+	0.1+	1997 02 26	411	0.6+	0.2-	2000 02 02	704	0.4-	0.6-
1997 02 12	411	0.3-	0.3-	1997 03 09	411	0.6-	0.5-	2000 02 03	704	0.1-	0.2+
1997 02 13	411	0.3-	0.2-	1997 03 09	411	0.7+	0.0	2000 02 03	704	0.2-	0.1-
1997 02 13	411	0.0	0.2-	2000 02 02	704	0.7-	0.9+	2000 02 03	704	0.4+	0.2+
1997 02 16	411	0.6+	0.1-	2000 02 02	704	0.5+	1.0+	2000 02 03	704	0.1-	0.7-
1997 02 16	411	0.7-	0.6+	2000 02 02	704	0.1+	0.3+	2000 02 03	704	0.5+	0.1+
1997 02 26	411	0.5-	0.8+	2000 02 02	704	0.0	1.2-				

1997 CT₂₅ = 1998 KG₄₈ = 1999 XZ₁₅₈

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	113.48796	(2000.0)	
		P	Q
<i>n</i>	0.28942381	ω	222.50337
<i>a</i>	2.2634968	Ω	115.95286
<i>e</i>	0.1545068	<i>i</i>	7.39257
<i>P</i>	3.41	<i>H</i>	15.6
		<i>G</i>	0.15
		<i>U</i>	3

Residuals in seconds of arc

1997 02 13	691	0.2-	0.0	1998 05 22	704	1.7+	0.7-	1999 12 08	704	0.0	0.1-
1997 02 13	691	0.1-	0.1+	1998 05 22	704	0.7+	0.5+	1999 12 08	704	0.1+	0.5-
1997 02 13	691	0.2+	0.0	1998 05 22	704	0.8-	0.0	1999 12 14	704	0.0	0.1+
1997 02 15	691	0.0	0.0	1998 05 24	704	0.1+	1.5-	1999 12 14	704	0.6-	0.2+
1997 02 15	691	0.0	0.1-	1998 05 24	704	0.0	2.0-	1999 12 14	704	0.1+	0.1+
1997 02 15	691	0.1+	0.1+	1998 05 24	704	0.3-	2.3+	1999 12 14	704	0.3+	0.4-
1998 05 22	704	1.5-	1.4+	1999 12 08	704	0.1+	0.5+				

1997 EL₁₆ = 1999 UH₃₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	263.09048	(2000.0)	
		P	Q
<i>n</i>	0.24001871	ω	350.44509
<i>a</i>	2.5643226	Ω	183.08152
<i>e</i>	0.1446048	<i>i</i>	1.20934
<i>P</i>	4.11	<i>H</i>	16.3
		<i>G</i>	0.15
		<i>U</i>	4

Residuals in seconds of arc

1997 03 05	691	0.1+	0.5+	1997 03 13	691	0.7-	0.2-	1997 04 13	691	0.3+	0.2-
1997 03 05	691	0.1+	0.4+	1997 03 13	691	0.2-	0.2-	1999 10 31	691	0.0	0.1-
1997 03 05	691	0.4+	0.3+	1997 04 09	691	0.5-	0.1-	1999 10 31	691	0.2+	0.0
1997 03 10	691	0.2+	0.1-	1997 04 09	691	0.3-	0.0	1999 10 31	691	0.2+	0.2-
1997 03 10	691	0.1+	0.1-	1997 04 09	691	0.1-	0.1-	1999 11 05	691	0.2-	0.1+
1997 03 10	691	0.1+	0.0	1997 04 13	691	0.2+	0.4-	1999 11 05	691	0.0	0.1-
1997 03 13	691	0.2-	0.1+	1997 04 13	691	0.2+	0.2-	1999 11 05	691	0.1-	0.0

1997 EV₁₇ = 2000 AZ₆

Id. M. E. Sansaturio

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 281.00500		(2000.0)		P		Q	
<i>n</i>	0.27745232	ω	230.53931	−0.98889012	+0.12922855		
<i>a</i>	2.3281474	Ω	316.74073	−0.08037023	−0.88053998		
<i>e</i>	0.0569177	<i>i</i>	6.15354	−0.12504783	−0.45601461		
<i>P</i>	3.55	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	5
Residuals in seconds of arc							
1997 03 03	400	1.3−	0.4−	1997 03 28	400	0.2−	2.0−
1997 03 03	400	0.7−	0.6+	1997 03 28	400	1.2+	0.1−
1997 03 04	400	0.5+	0.9+	1999 12 12	704	0.2−	0.5−
1997 03 04	400	0.3+	1.1−	1999 12 12	704	0.1−	0.1−
1997 03 12	400	0.5+	0.8+	1999 12 12	704	1.0−	0.2−
1997 03 16	400	0.1−	1.9+	1999 12 12	704	0.5−	0.1+
1997 03 16	400	0.1−	0.7−	2000 01 02	704	0.4+	0.1−
				2000 01 02	704	0.9+	0.1−

1997 ES₄₂ = 1999 VW₅₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 218.96102		(2000.0)		P		Q	
<i>n</i>	0.24450976	ω	10.10417	−0.86066695	+0.50885469		
<i>a</i>	2.5328254	Ω	200.51328	−0.47063920	−0.80844144		
<i>e</i>	0.0972868	<i>i</i>	2.92290	−0.19429651	−0.29578598		
<i>P</i>	4.03	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i>	6
Residuals in seconds of arc							
1997 03 10	704	0.5+	0.6−	1999 11 04	704	0.3−	0.0
1997 03 10	704	0.0	0.4−	1999 11 04	704	0.7+	0.5+
1997 03 11	704	0.0	0.3+	1999 11 04	704	0.3+	1.0−
1997 03 11	704	0.5−	0.6+	1999 11 04	704	0.4+	0.2−
1997 03 12	704	0.2+	0.1+	1999 11 09	704	1.2−	0.3+
1997 03 12	704	0.2−	0.1+	1999 11 09	704	0.3+	0.4+
1999 11 04	704	0.7−	0.1+	1999 11 09	704	0.1+	0.8+

1997 FO₂ = 1999 UD₃₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 122.54893		(2000.0)		P		Q	
<i>n</i>	0.17842801	ω	79.23144	−0.05118916	+0.99800269		
<i>a</i>	3.1248370	Ω	188.11282	−0.98775445	−0.05606387		
<i>e</i>	0.0701794	<i>i</i>	15.20700	−0.14737987	+0.02911130		
<i>P</i>	5.52	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	3
Residuals in seconds of arc							
1997 03 10	809	0.4−	0.2−	1997 04 06	704	0.4−	0.6−
1997 03 10	809	1.8−	1.1+	1997 04 06	704	0.1−	0.1−
1997 03 10	809	0.8−	0.1−	1999 09 05	699	0.2−	0.0
1997 03 11	809	1.4+	0.6−	1999 09 05	699	0.9−	0.8+
1997 03 11	809	0.4+	0.7−	1999 09 05	699	0.4−	0.3+
1997 03 11	809	1.3+	0.3−	1999 10 01	703	0.0	0.2+
1997 03 31	704	0.3−	0.7+	1999 10 01	703	0.1−	0.1+
1997 03 31	704	0.2+	0.2+	1999 10 01	703	0.2−	0.1−
1997 04 03	704	0.5−	0.1−	1999 10 01	703	0.5−	0.5−
1997 04 03	704	0.3−	0.9−	1999 10 04	704	0.8+	0.7−
1997 04 05	704	1.0+	0.1−	1999 10 04	704	0.8+	0.4−
1997 04 05	704	0.1+	0.3+	1999 10 04	704	0.4+	1.1−

1997 FS₂ = 1989 XX = 1999 NO₆₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 322.26747		(2000.0)		P		Q	
<i>n</i>	0.18241877	ω	214.68701	+0.66882584	−0.74198101		
<i>a</i>	3.0790947	Ω	193.53827	+0.71893244	+0.66136981		
<i>e</i>	0.2140596	<i>i</i>	11.38705	+0.18923040	+0.10979138		
<i>P</i>	5.40	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	4
Residuals in seconds of arc							
1989 12 02	809	0.3−	0.2+	1997 04 03	704	0.2+	0.0
1989 12 02	809	0.3−	0.0	1997 04 05	704	1.1−	0.1−
1989 12 02	809	1.1−	0.8−	1997 04 05	704	0.6−	0.2+
1989 12 03	809	1.5+	0.5+	1999 07 13	704	0.3−	0.6−
1989 12 03	809	0.7+	0.1−	1999 07 13	704	0.2+	0.2+
1989 12 03	809	0.4−	0.7−	1999 07 13	704	0.1−	0.4−
1997 03 31	704	0.4−	0.1−	1999 07 13	704	0.1+	0.2+
1997 03 31	704	0.8+	1.7−	1999 07 13	704	0.8−	0.1+
1997 04 03	704	0.8+	0.6+	1999 07 22	704	0.3+	0.4−
				1999 07 22	704	0.9+	1.7−

1997 FD₃ = 1999 VW₁₄₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 115.46477		(2000.0)		P		Q	
<i>n</i>	0.20827255	ω	290.79775	+0.56767941	+0.82313839		
<i>a</i>	2.8186946	Ω	13.81580	−0.73266843	+0.51264909		
<i>e</i>	0.0583704	<i>i</i>	3.24999	−0.37541586	+0.24420094		
<i>P</i>	4.73	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	4
Residuals in seconds of arc							
1997 03 31	704	0.4+	0.1−	1999 10 06	704	0.3+	0.1−
1997 03 31	704	0.0	0.1+	1999 10 06	704	0.1−	0.3+
1997 04 03	704	0.9+	0.5−	1999 10 06	704	0.6−	0.2+
1997 04 03	704	0.6+	0.1−	1999 10 06	704	1.4−	1.5+
1997 04 05	704	0.8+	1.2−	1999 10 06	704	1.2−	0.4+
1997 04 05	704	1.1+	1.1−	1999 10 29	703	0.9+	0.9+
1997 04 06	704	0.5+	0.5−	1999 10 29	703	0.4−	0.8+
1997 04 06	704	0.0	0.6+	1999 10 29	703	0.4−	1.5−
1997 04 07	704	1.3+	0.1+	1999 10 29	703	(2.7−	1.3+)
1997 04 07	704	0.7+	0.8+	1999 11 04	704	0.6+	0.3−
1997 04 27	691	0.9−	0.2+	1999 11 04	704	0.0	0.4+
1997 04 27	691	1.0−	0.3+	1999 11 04	704	0.1+	0.9−
1997 04 27	691	1.1−	0.1−	1999 11 04	704	0.4−	0.7+
1997 05 05	691	1.2+	1.6+	1999 11 04	704	0.3+	0.8−
1997 05 05	691	0.2−	0.4+	1999 11 11	703	0.2−	0.9+
1997 05 05	691	0.1−	0.1−	1999 11 11	703	0.3+	0.8+
1997 05 08	691	1.6−	0.5+	1999 11 11	703	0.5−	1.0+
1997 05 08	691	1.1−	0.4+	1999 11 11	703	0.3−	1.1+
1997 05 08	691	1.2−	0.4+	1999 11 14	704	0.3+	0.1+

1997 FV₃ = 2000 AV₆₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 114.79833		(2000.0)		P		Q	
<i>n</i>	0.28068370	ω	16.31174	+0.95719483	−0.28944210		
<i>a</i>	2.3102444	Ω	0.51705	+0.24926538	+0.82229439		
<i>e</i>	0.1301417	<i>i</i>	7.32915	+0.14712181	+0.48995429		
<i>P</i>	3.51	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	1
Residuals in seconds of arc							
1991 08 06	675	0.1−	0.7+	1998 08 17	704	0.3+	0.9+
1991 08 06	675	0.2+	0.3−	1998 08 17	704	0.3−	0.0
1997 03 11	809	0.8+	0.6−	1998 08 17	704	1.4+	0.6+
1997 03 11	809	1.1−	1.0−	1998 08 17	704	1.4−	0.5−
1997 03 11	809	1.3−	0.8−	1998 08 21	566	0.2−	0.9+
1997 03 13	809	(2.2−	1.1−)	1998 08 21	566	0.0	0.9+
1997 03 13	809	(2.6−	0.2−)	1998 08 21	566	0.3+	0.8+
1997 03 13	809	(2.5−	0.1−)	1998 09 24	699	0.3−	1.8+
				2000 01 06	704	0.7+	0.2−
				2000 01 06	704	0.3+	0.1−
				2000 01 06	704	0.5−	0.4−
				2000 01 06	699	1.1−	1.5+
				2000 01 06	704	1.1−	0.1−
				2000 01 06	699	0.1+	0.3+
				2000 01 06	699	0.4+	1.1+
				2000 02 03	704	0.1+	0.8+

M.P.C. 38458

1997 03 31	704	1.3+	1.0+	1998 09 24	699	0.4−	0.7+	2000 02 03	704	0.6+	0.8+
1997 03 31	704	1.4+	0.1+	1998 09 24	699	0.5−	1.3+	2000 02 03	704	0.6+	0.9+
1997 04 03	704	0.5−	1.2+	1998 10 17	699	1.5−	0.3−	2000 02 03	704	0.9+	0.7+
1997 04 03	704	0.1+	0.5+	1998 10 17	699	0.3+	0.1−	2000 02 03	704	0.7+	0.6+
1997 04 05	704	(1.1+	2.4+)	1998 10 17	699	1.1+	0.7+	2000 02 05	704	0.4+	0.4+
1997 04 05	704	0.4+	0.0	1998 11 19	910	1.2−	0.5−	2000 02 05	704	0.5+	0.0
1997 04 05	704	0.2−	0.3+	1998 11 19	910	1.6−	0.6−	2000 02 05	704	0.5+	0.3+
1997 04 05	704	0.4−	1.0+	1998 11 19	910	1.3−	0.8−	2000 02 05	704	0.4+	0.8+
1997 04 06	704	0.0	0.5−	2000 01 04	704	0.7−	0.8−	2000 02 05	704	0.8+	0.1+
1997 04 06	704	0.1−	0.2+	2000 01 04	704	0.4+	0.9−	2000 02 11	704	0.2+	0.8+
1997 04 07	704	0.2−	0.1−	2000 01 04	704	0.7−	0.4+	2000 02 11	704	0.1−	0.3+
1997 04 07	704	0.5−	0.9+	2000 01 04	704	0.1−	0.3−	2000 02 11	704	0.2+	0.9+
1998 08 17	704	0.2+	0.4+	2000 01 06	704	0.3−	1.1−	2000 02 11	704	0.7+	0.5−

1997 GE₉ = 2000 AE₂₂₈

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		200.04237		(2000.0)		P		Q	
<i>n</i>	0.27249903	ω	11.74057	+0.51957204	+0.85390280				
<i>a</i>	2.3562755	Ω	289.56946	−0.78646848	+0.46427019				
<i>e</i>	0.1633362	<i>i</i>	1.81939	−0.33393446	+0.23516634				
<i>P</i>	3.62	<i>H</i>	16.6	<i>G</i>	0.15	<i>U</i>	7		

Residuals in seconds of arc

1997 04 03	704	0.3−	0.5−	1997 04 10	910	0.3−	0.3−	2000 01 16	691	0.4+	0.6−
1997 04 03	704	0.1−	0.9−	1997 04 10	910	0.1+	0.2−	2000 01 16	691	0.4−	1.0+
1997 04 07	704	0.0	0.2+	2000 01 13	691	0.1+	0.1−	2000 01 16	691	0.0	0.2−
1997 04 07	704	0.5+	1.4+	2000 01 13	691	0.1−	0.1+				
1997 04 10	910	0.1+	0.3+	2000 01 13	691	0.1−	0.3−				

1997 GB₁₄ = 2000 CR₆₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		86.35714		(2000.0)		P		Q	
<i>n</i>	0.30246676	ω	186.43602	+0.51837872	−0.85373892				
<i>a</i>	2.1979490	Ω	232.35187	+0.78732639	+0.49889800				
<i>e</i>	0.1296806	<i>i</i>	3.55721	+0.33376737	+0.14909945				
<i>P</i>	3.26	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i>	2		

Residuals in seconds of arc

1997 04 03	704	0.4+	0.5−	1998 08 17	704	0.7−	0.3+	2000 01 05	704	0.3−	0.1−
1997 04 03	704	0.3−	0.1−	1998 08 17	704	0.3−	1.5+	2000 02 02	704	0.6+	0.0
1997 04 05	704	0.8+	0.2+	1998 08 19	566	0.4+	0.0	2000 02 02	704	0.1−	0.3−
1997 04 05	704	0.3+	0.1+	1998 08 19	566	0.2+	0.3−	2000 02 02	704	0.2+	0.3−
1997 04 06	704	0.4+	0.0	1998 08 19	566	0.8+	0.1−	2000 02 02	704	0.2−	0.3−
1997 04 06	704	0.9−	0.3−	1998 09 17	910	0.5−	0.6−	2000 02 02	704	0.7+	0.3−
1997 04 07	704	0.4−	0.1+	1998 09 17	910	0.0	0.3−	2000 02 08	704	0.1+	0.4+
1997 04 07	704	0.6−	0.3−	1998 09 17	910	0.6−	0.2−	2000 02 08	704	0.1+	0.5+
1998 08 17	704	0.2+	0.4−	2000 01 05	704	0.5−	0.4−	2000 02 08	704	0.6−	0.2+
1998 08 17	704	0.0	0.5+	2000 01 05	704	0.1−	0.7−	2000 02 08	704	0.4−	1.6+
1998 08 17	704	0.2+	0.3+	2000 01 05	704	0.3−	0.1+	2000 02 08	704	1.1+	0.9+

1997 GW₁₄ = 2000 CA₁₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		259.48226		(2000.0)		P		Q	
<i>n</i>	0.28205507	ω	23.53787	−0.30306456	+0.95214343				
<i>a</i>	2.3027499	Ω	228.84549	−0.88249198	−0.29612387				
<i>e</i>	0.2017312	<i>i</i>	3.02115	−0.35966620	−0.07572017				
<i>P</i>	3.49	<i>H</i>	15.3	<i>G</i>	0.15	<i>U</i>	6		

Residuals in seconds of arc

1997 03 11	809	0.7+	0.0	1997 04 05	704	0.6+	0.1−	2000 02 02	704	0.3−	0.4−
1997 03 11	809	0.3+	0.6+	1997 04 06	704	0.3+	0.7−	2000 02 02	704	0.7−	0.0
1997 03 11	809	0.9−	0.0	1997 04 06	704	0.3+	0.4−	2000 02 03	704	0.3−	0.9+
1997 03 13	809	(1.6−	2.3−)	1997 04 06	704	0.3−	0.6+	2000 02 03	704	0.0	0.0
1997 03 13	809	(1.6−	2.7−)	1997 04 06	704	0.3−	0.9−	2000 02 03	704	0.3+	0.0

2000 FEB. 22

1997 03 13	809	(2.6−	3.0−)	1997 04 07	704	0.5−	0.8+	2000 02 03	704	0.2+	0.3−
1997 04 03	704	0.5−	0.3−	1997 04 07	704	0.1+	0.7−	2000 02 03	704	0.6+	0.0
1997 04 03	704	0.5−	1.0+	2000 02 02	704	0.1−	0.1+				
1997 04 05	704	0.6+	0.2+	2000 02 02	704	0.2+	0.4−				

1997 GJ₁₆ = 1999 VP₇₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		348.54941		(2000.0)		P		Q	
<i>n</i>	0.20646766	ω	10.32337	+0.48463502	−0.87403979				
<i>a</i>	2.8350976	Ω	50.69705	+0.79933449	+0.42655594				
<i>e</i>	0.0556165	<i>i</i>	2.54793	+0.35523693	+0.23260368				
<i>P</i>	4.77	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	4		

Residuals in seconds of arc

1997 04 03	704	0.1+	0.3−	1999 10 04	704	0.8+	0.5−	1999 11 05	691	0.0	0.2+
1997 04 03	704	0.8−	0.2+	1999 10 04	704	0.5−	1.7+	1999 11 09	704	1.0−	0.1+
1997 04 06	704	0.3+	0.7+	1999 11 01	703	1.2−	0.1+	1999 11 09	704	0.8+	0.9−
1997 04 06	704	0.1−	0.1+	1999 11 01	703	0.6+	1.6+	1999 11 09	704	0.2+	0.1+
1997 04 07	704	0.0	1.0−	1999 11 01	703	0.7+	0.8+	1999 11 09	704	0.8+	0.4+
1997 04 07	704	0.5+	0.2+	1999 11 01	703	1.1−	0.8+	1999 11 09	704	0.5+	0.7−
1999 10 02	703	0.8−	0.1+	1999 11 01	691	0.3−	0.4−	1999 11 12	704	0.5+	0.1+
1999 10 02	703	0.9+	0.0	1999 11 01	691	0.0	0.4−	1999 11 12	704	0.6+	0.3−
1999 10 02	703	0.4−	0.4+	1999 11 01	691	0.3−	0.5−	1999 11 12	704	0.2−	0.0
1999 10 02	703	0.3−	0.4−	1999 11 05	691	0.0	0.1+	1999 11 12	704	1.1−	0.7−
1999 10 04	704	0.8+	1.8−	1999 11 05	691	0.1+	0.1+				

1997 GP₁₆ = 1999 VW₈₉

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		51.92963		(2000.0)		P		Q	
<i>n</i>	0.19992193	ω	329.94350	+0.99928294	+0.03100497				
<i>a</i>	2.8966482	Ω	28.30449	−0.01849434	+0.90053850				
<i>e</i>	0.0686367	<i>i</i>	2.62698	−0.03303870	+0.43366934				
<i>P</i>	4.93	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	5		

Residuals in seconds of arc

1997 04 03	704	0.8−	0.5−	1999 11 05	704	0.8−	1.5+	1999 11 12	704	0.6−	0.9+
1997 04 03	704	0.4−	0.3−	1999 11 05	704	0.6+	0.0	1999 11 12	704	0.5−	0.7+
1997 04 05	704	(0.3+	2.6+)	1999 11 05	704	0.4+	0.3+	1999 11 14	704	0.2−	0.4−
1997 04 05	704	(2.6+	1.6+)	1999 11 05	704	0.5+	0.0	1999 11 14	704	0.4−	0.2−
1997 04 06	704	0.0	0.5−	1999 11 05	704	0.2−	0.6+	1999 11 14	704	0.6−	0.8−
1997 04 06	704	0.9+	0.8+	1999 11 09	704	0.6+	0.1+	1999 11 14	704	0.7−	0.3−
1997 04 07	704	0.3+	0.0	1999 11 09	704	0.4+	0.2+	1999 11 14	704	0.7−	0.4−
1997 04 07	704	0.0	0.4+	1999 11 09	704	0.3+	0.2+	1999 11 16	704	0.6+	1.3−
1999 10 20	704	0.1−	0.1+	1999 11 09	704	0.4+	0.3+	1999 11 16	704	1.0+	0.7−
1999 10 20	704	0.3+	0.5−	1999 11 09	704	0.4+	0.1+	1999 11 16	704	0.4+	0.0
1999 10 20	704	0.1+	0.8−	1999 11 12	704	0.6−	0.2+	1999 11 16	704	0.3+	0.8−
1999 10 20	704	0.1−	0.4−	1999 11 12	704	0.4−	0.6+				
1999 10 20	704	0.1−	0.4−	1999 11 12	704	0.6−	0.9+				

1997 GE₂₂ = 2000 BM₂₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		248.04308		(2000.0)		P		Q	
<i>n</i>	0.27375514	ω	236.68405	+0.05386031	+0.99646825				
<i>a</i>	2.3490623	Ω	36.57091	−0.87645180	+0.07808924				
<i>e</i>	0.2210715	<i>i</i>	6.20709	−0.47846767	−0.03087223				
<i>P</i>	3.60	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	5		

Residuals in seconds of arc

1997 04 06	704	0.1−

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M.P.C. 38459

1997 04 30	704	0.6−	0.2+	2000 01 31	704	0.7+	0.0	2000 02 08	704	0.5−	0.4−
1997 04 30	704	0.2+	0.2−	2000 01 31	704	0.0	0.0	2000 02 08	704	0.1−	0.7−
1997 04 30	704	0.4−	0.3+	2000 01 31	704	0.4+	0.5−	2000 02 08	704	0.4−	0.5−
1997 04 30	704	0.7−	0.1+	2000 02 03	704	0.2+	0.3−	2000 02 08	704	0.2−	0.3−
1997 05 01	704	0.2−	0.1+	2000 02 03	704	0.3−	0.1+	2000 02 10	704	0.0	0.9+
1997 05 01	704	0.5−	0.3+	2000 02 03	704	0.2−	0.2+	2000 02 10	704	0.1−	0.4−
1997 05 01	704	0.1−	0.2+	2000 02 03	704	0.6−	0.4+	2000 02 10	704	0.7+	1.8+
1997 05 01	704	0.1−	0.1−	2000 02 03	704	1.0−	0.6+	2000 02 10	704	0.6−	0.0
1997 05 01	704	0.5−	0.1+	2000 02 06	704	0.4+	0.8+	2000 02 10	704	0.5+	0.8−

1997 GN₂₃ = 2000 BF₁₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	309.86443		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.24522753	<i>ω</i>	125.96034	−0.85980598	−0.50854701
<i>a</i>	2.5278806	<i>Ω</i>	23.57610	+0.42363431	−0.76070303
<i>e</i>	0.1435099	<i>i</i>	6.60044	+0.28507480	−0.40337433
<i>P</i>	4.02	<i>H</i>	14.4	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1997 04 06	704	0.2+	0.1−	1997 05 05	704	0.1−	0.1−	1999 12 13	703	0.6−	0.3+
1997 04 06	704	0.1−	0.2+	1997 05 05	704	0.1−	0.3−	1999 12 13	703	0.7+	1.1−
1997 04 08	704	1.6+	0.3−	1997 05 05	704	0.6−	0.5−	1999 12 13	703	0.1+	1.1+
1997 04 08	704	0.5−	0.2+	1999 11 03	704	0.4+	0.7+	1999 12 31	699	0.8+	0.6+
1997 04 30	704	0.0	0.3+	1999 11 03	704	0.3+	0.5+	1999 12 31	699	0.7−	0.0
1997 04 30	704	0.1−	0.0	1999 11 03	704	0.4+	1.3+	1999 12 31	699	0.7−	0.6−
1997 04 30	704	0.1+	0.0	1999 11 16	704	0.6−	0.6−	2000 01 30	704	0.9−	0.6−
1997 04 30	704	0.7+	0.7+	1999 11 16	704	0.9−	0.2−	2000 01 30	704	0.6+	0.8+
1997 04 30	704	0.1+	0.1−	1999 11 16	704	0.1+	0.1−	2000 01 30	704	0.8+	1.4−
1997 05 01	704	0.1−	0.2+	1999 11 16	704	0.4−	0.1+	2000 01 30	704	0.5−	0.3+
1997 05 01	704	0.3−	0.1+	1999 11 16	704	0.4−	0.1−	2000 01 30	704	0.2−	0.1+
1997 05 01	704	0.2−	0.5+	1999 12 10	704	0.6+	0.7+	2000 01 31	704	0.1−	0.5+
1997 05 01	704	0.2−	0.4+	1999 12 10	704	0.6+	0.5−	2000 01 31	704	0.8+	0.1+
1997 05 01	704	0.1−	0.2+	1999 12 10	704	0.5+	0.7−	2000 01 31	704	0.1−	0.4−
1997 05 05	704	0.3+	0.3−	1999 12 10	704	0.8−	0.3+				
1997 05 05	704	0.0	0.1−	1999 12 13	703	0.1+	0.4−				

1997 GW₂₈ = 1998 RF₃₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	171.39662		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.26748394	<i>ω</i>	122.60633	+0.66565718	+0.74603927
<i>a</i>	2.3856363	<i>Ω</i>	189.19266	−0.71695150	+0.63261607
<i>e</i>	0.1303399	<i>i</i>	6.48874	−0.20707744	+0.20789978
<i>P</i>	3.68	<i>H</i>	15.8	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1997 04 08	691	0.5−	0.2+	1998 08 17	704	0.5−	0.7+	1998 09 18	704	1.3+	1.0−
1997 04 08	691	0.3−	0.1+	1998 08 17	704	0.3−	0.6−	1998 09 18	704	0.7−	0.2+
1997 04 08	691	0.2−	0.1+	1998 08 17	704	0.5+	0.7+	1998 09 18	704	1.9+	0.0
1997 04 15	691	0.3+	0.2−	1998 08 17	704	0.0	1.6−	1998 09 18	704	0.6−	0.2−
1997 04 15	691	0.5+	0.2−	1998 08 17	704	0.1−	0.7+	1998 09 18	704	0.5−	1.0+
1997 04 15	691	0.6+	0.0	1998 09 14	704	0.5−	0.1+	2000 01 07	704	0.5+	1.1−
1997 04 16	691	0.2−	0.6−	1998 09 14	704	0.3−	1.2−	2000 01 07	704	0.4−	0.8−
1997 04 16	691	0.2−	0.2−	1998 09 14	704	0.1−	0.3+	2000 01 07	704	0.1−	1.5+
1997 04 16	691	0.3−	0.2−	1998 09 14	704	0.0	0.2−				

1997 GE₃₂ = 1999 XU₃₇

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	111.92243		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.18241345	<i>ω</i>	279.63412	+0.47706768	+0.87769467
<i>a</i>	3.0791544	<i>Ω</i>	19.06366	−0.74201822	+0.42991104
<i>e</i>	0.1229510	<i>i</i>	7.98480	−0.47097282	+0.21172759
<i>P</i>	5.40	<i>H</i>	13.8	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1997 04 12	620	1.7+	0.6+	1997 05 02	620	0.5+	0.0	1999 11 14	703	0.1−	0.4+
1997 04 13	620	1.3+	0.4+	1997 05 03	620	0.5−	1.7−	1999 11 14	703	0.1−	0.1+
1997 04 13	620	0.6+	0.3+	1997 05 03	620	(0.8−	2.1−)	1999 11 16	704	0.1+	0.6+
1997 04 13	620	0.4+	0.2+	1997 05 03	620	(0.9−	2.3−)	1999 11 16	704	0.5+	0.8+
1997 04 13	620	1.2−	0.3−	1997 05 09	620	0.1−	0.3+	1999 11 16	704	0.0	0.9+
1997 04 15	620	1.3−	1.1−	1997 05 09	620	0.5−	0.4+	1999 11 16	704	0.3+	0.9−
1997 04 15	620	1.1−	1.0−	1997 05 09	620	1.1−	0.5+	1999 11 16	704	0.4−	1.3−
1997 04 15	620	0.5−	0.9−	1997 05 09	620	1.4−	0.5+	1999 12 02	159	0.5+	0.6−
1997 04 25	620	(2.8−	0.5−)	1999 10 03	704	0.5+	0.3+	1999 12 02	159	0.7−	0.1+
1997 04 25	620	(2.7−	0.7−)	1999 10 03	704	0.5+	0.9+	1999 12 02	159	0.4+	0.4−
1997 04 25	620	(2.6−	1.0−)	1999 10 03	704	0.5+	0.9+	1999 12 02	159	0.3+	0.1+
1997 04 30	620	1.5+	0.4+	1999 11 03	704	0.8−	0.0	1999 12 02	159	0.4+	0.4−
1997 04 30	620	1.0+	0.4+	1999 11 03	704	0.8−	0.5+	1999 12 06	159	0.3−	1.1+
1997 04 30	620	0.3+	0.6+	1999 11 03	704	0.7−	1.6−	1999 12 06	159	0.2−	0.8−
1997 04 30	620	0.1+	0.6+	1999 11 03	704	0.6+	0.1−	1999 12 06	159	0.6+	0.8−
1997 04 30	620	0.2−	0.6+	1999 11 14	703	0.4−	0.5+	1999 12 06	159	0.1−	0.1+
1997 05 02	620	0.9+	0.4+	1999 11 14	703	0.7−	0.6+				

1997 GB₃₆ = 1999 XL₁₆₅

Id. T. Kobayashi (2000 observations), S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

<i>M</i>	20.53238		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.29153702	<i>ω</i>	56.03590	−0.53718567	−0.83602895
<i>a</i>	2.2525455	<i>Ω</i>	66.84120	+0.72821930	−0.52654881
<i>e</i>	0.1599742	<i>i</i>	6.98098	+0.42559159	−0.15427879
<i>P</i>	3.38	<i>H</i>	15.5	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1997 04 06	704	0.5+	0.2+	1997 05 01	704	0.1+	0.4−	1999 12 08	704	0.4−	0.6−
1997 04 06	704	0.3−	0.2+	1997 05 01	704	0.0	0.1−	1999 12 08	704	0.0	0.0
1997 04 11	704	0.1+	0.9+	1997 05 01	704	0.1−	0.7−	1999 12 08	704	0.1−	0.5−
1997 04 11	704	0.0	0.5+	1997 05 27	910	0.6−	0.0	1999 12 15	704	1.3+	0.2−
1997 04 30	704	0.7+	0.8−	1997 05 27	910	0.5−	0.1+	1999 12 15	704	0.1+	0.2−
1997 04 30	704	0.6+	0.5−	1997 05 27	910	0.4−	0.3−	1999 12 15	704	0.3−	0.6+
1997 04 30	704	0.3−	1.1+	1997 05 29	910	0.1−	0.1+	1999 12 15	704	0.5+	0.2+
1997 04 30	704	0.0	0.3+	1997 05 29	910	0.2−	0.0	2000 01 31	411	0.0	0.1−
1997 04 30	704	0.0	0.3−	1997 05 29	910	0.4−	0.3+	2000 01 31	411	1.1−	0.3−
1997 05 01	704	0.2+	0.5−	1999 12 08	704	1.0−	0.5−	2000 02 01	411	0.3+	0.3+
1997 05 01	704	0.2+	0.2−	1999 12 08	704	0.2+	0.0	2000 02 01	411	0.5+	0.7+

1997 JA₁₃ = 1998 VB₂₄ = 2000 AY₂₁₁Id. A. Doppler (*MPC* 33498), G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	184.18946		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.26281321	<i>ω</i>	166.86060	+0.85274665	+0.52206165
<i>a</i>	2.4138184	<i>Ω</i>	161.64020	−0.48385656	+0.80149933
<i>e</i>	0.1503260	<i>i</i>	3.01669	−0.19673834	+0.29163413
<i>P</i>	3.75	<i>H</i>	15.0	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1997 05 03	809	1.2−	1.2+	1998 10 14	699	(2.5−	0.8+)	2000 01 05	691	0.5−	0.0
1997 05 03	809	(6.0−	1.6+)	1998 10 14	699	0.5−	0.2−	2000 01 05	691	0.5−	0.1+
1997 05 03	809	(5.0−	3.7+)	1998 11 10	704	0.4+	0.2−	2000 01 12	691	0.3−	0.1+
1997 05 04	809	0.1+	0.9+	1998 11 10	704	0.7−	0.4−	2000 01 12	691	0.2−	0.0
1997 05 04	809	0.2−	0.4+	1998 11 10	704	1.5−	0.5−	2000 01 12	691	0.3−	0.0
1997 05 04	809	(0.7−	2.9+)	1998 11 10	704	0.7−	0.0	2000 02 08	704	1.5+	1.0−
1997 05 07	704	0.7+	0.2−	1998 11 11	704	0.6+	0.3+	2000 02 08	704	0.1−	0.8+
1997 05 07	704	0.0	0.4−	1998 11 11	704	0.9+	1.9+	2000 02 08	704	0.5+	0.4+
1997 05 07	704	0.6+	0.7−	1998 11 11	704	0.8+	0.7−	2000 02 08	704	0.4+	0

1997 LQ₁ = 2000 AE₁₅₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	50.94183	(2000.0)	P	Q	
<i>n</i>	0.22753980	ω 318.42756	+0.45947615	-0.85308520	
<i>a</i>	2.6572422	Ω 102.84631	+0.86707488	+0.37048844	
<i>e</i>	0.1634034	<i>i</i> 14.68985	+0.19251707	+0.36740164	
<i>P</i>	4.33	<i>H</i> 15.2	<i>G</i> 0.15	<i>U</i> 4	
Residuals in seconds of arc					
1997 06 01	691	0.9- 0.3-	1999 12 07	704	0.9- 0.3+
1997 06 01	691	0.5- 0.2-	2000 01 03	704	0.5- 1.3-
1997 06 08	691	0.2- 0.3+	2000 01 03	704	0.7+ 0.3+
1997 06 08	691	0.2- 0.1+	2000 01 03	704	0.5- 0.8+
1997 06 08	691	0.3- 0.2+	2000 01 04	704	0.3+ 0.1-
1997 06 12	691	0.5+ 0.1+	2000 01 04	704	0.0 0.1+
1997 06 12	691	0.9+ 0.0	2000 01 04	704	0.3- 0.2-
1997 06 12	691	0.7+ 0.1+	2000 01 04	704	0.3- 0.8-
1999 12 07	704	0.2+ 0.8+	2000 01 04	704	0.2+ 0.8-
1999 12 07	704	0.5+ 0.7+	2000 01 30	704	0.5+ 0.5+
1999 12 07	704	1.2- 0.0	2000 01 30	704	0.5+ 0.2-

1997 LB₆ = 1999 XS₁₅₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	269.49863	(2000.0)	P	Q	
<i>n</i>	0.21015194	ω 26.33288	-0.99670546	-0.01843979	
<i>a</i>	2.8018644	Ω 152.26380	-0.00225015	-0.96715073	
<i>e</i>	0.0833507	<i>i</i> 9.77084	+0.08107505	-0.25353392	
<i>P</i>	4.69	<i>H</i> 14.4	<i>G</i> 0.15	<i>U</i> 5	
Residuals in seconds of arc					
1997 06 13	691	0.1+ 0.5+	1997 07 06	691	0.5- 0.3+
1997 06 13	691	0.3+ 0.8-	1997 07 11	691	0.3- 0.1-
1997 06 13	691	0.4+ 0.2-	1997 07 11	691	0.4- 0.3-
1997 06 14	691	0.2+ 0.7+	1997 07 11	691	0.0 0.2-
1997 06 14	691	0.5+ 0.1+	1999 12 04	699	0.3+ 2.5+
1997 06 14	691	0.4+ 0.5+	1999 12 04	699	0.5- 0.7-
1997 07 06	691	0.6- 0.2-	1999 12 04	699	1.7- 0.2+
1997 07 06	691	0.5- 0.1-	1999 12 07	704	1.2- 0.4-

1997 MG = 1986 LB₁ = 2000 AY₂₄₃

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	319.97996	(2000.0)	P	Q	
<i>n</i>	0.27439077	ω 98.56375	-0.83156638	+0.54573914	
<i>a</i>	2.3454331	Ω 114.57136	-0.54373738	-0.76192571	
<i>e</i>	0.1998461	<i>i</i> 6.52061	-0.11334472	-0.34876641	
<i>P</i>	3.59	<i>H</i> 14.7	<i>G</i> 0.15	<i>U</i> 2	
Residuals in seconds of arc					
1986 06 07	675	0.2+ 0.3+	1997 07 06	104	0.2- 0.7-
1986 06 07	675	0.2+ 0.7+	1997 07 06	104	0.3+ 0.4-
1986 06 08	675	0.4- 1.0-	2000 01 07	704	0.3+ 0.3-
1997 06 25	599	0.1- 0.3-	2000 01 07	704	0.5+ 0.3+
1997 06 25	599	0.0 0.5-	2000 01 07	704	0.2+ 0.5-
1997 06 26	599	(2.2+ 3.7+)	2000 01 07	704	(0.1- 2.2+)
1997 06 26	599	(0.0 3.5+)	2000 01 10	699	0.2- 0.3-
1997 07 01	104	0.4+ 1.2+	2000 01 10	699	0.8- 0.7+
1997 07 01	104	0.0 1.0+	2000 01 10	699	0.2- 0.6+
1997 07 01	104	0.3- 0.8+	2000 02 01	703	0.2- 0.1+
1997 07 06	104	0.1- 1.0-	2000 02 01	703	0.1+ 0.2+

1997 MU₁ = 2000 AU₈₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Spahr			
<i>M</i>	291.40042	(2000.0)	P	Q	
<i>n</i>	0.24338472	ω 97.26868	-0.82775873	+0.51560618	
<i>a</i>	2.5406246	Ω 113.99975	-0.56077040	-0.77342866	
<i>e</i>	0.2144368	<i>i</i> 14.01778	+0.01876298	-0.36872533	
<i>P</i>	4.05	<i>H</i> 14.5	<i>G</i> 0.15	<i>U</i> 4	
Residuals in seconds of arc					
1997 06 30	684	0.2- 0.1-	1997 07 29	684	0.5- 0.2+
1997 06 30	684	0.1- 0.1-	1997 08 05	684	1.0+ 0.1-
1997 06 30	684	0.2- 0.1-	1997 08 05	684	0.5+ 0.2-
1997 07 01	684	0.5- 0.4+	1999 12 14	704	0.8+ 0.5-
1997 07 01	684	0.6- 0.4+	1999 12 14	704	0.9+ 0.7+
1997 07 01	684	0.4+ 0.1+	1999 12 14	704	1.0+ 0.3-
1997 07 02	684	0.2+ 0.3-	1999 12 14	704	0.3- 0.2-
1997 07 02	684	1.1+ 0.1+	2000 01 05	704	0.3- 0.4+
1997 07 04	684	0.1+ 0.8-	2000 01 05	704	0.7- 0.5+
1997 07 04	684	(2.4- 0.1+)	2000 01 05	704	0.8+ 0.3-
1997 07 04	684	1.4- 0.2-	2000 01 05	704	0.6+ 0.7-
1997 07 29	684	0.2+ 0.5+	2000 01 06	704	0.1+ 0.1+

1997 MQ₆ = 2000 AU₁₄

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	80.67456	(2000.0)	P	Q	
<i>n</i>	0.17785694	ω 279.69618	+0.94846640	+0.05123881	
<i>a</i>	3.1315223	Ω 77.86294	+0.09632929	+0.89351397	
<i>e</i>	0.1889439	<i>i</i> 18.65429	-0.30188103	+0.44610242	
<i>P</i>	5.54	<i>H</i> 13.6	<i>G</i> 0.15	<i>U</i> 3	
Residuals in seconds of arc					
1997 06 08	809	(2.4+ 1.4+)	1997 07 03	691	0.3+ 0.6+
1997 06 08	809	(2.8+ 1.9+)	1997 07 03	691	(2.7+ 1.4-)
1997 06 08	809	(2.7+ 2.0+)	1997 07 03	691	0.2+ 0.1-
1997 06 09	809	1.1- 0.8+	1997 07 08	691	0.8+ 0.7-
1997 06 09	809	0.4- 1.0+	1997 07 08	691	0.4+ 0.7+
1997 06 09	809	0.8- 1.2+	1997 07 08	691	0.2+ 0.5+
1997 06 11	691	0.4+ 0.8-	1999 11 16	704	0.3- 0.3-
1997 06 11	691	0.1- 0.2-	1999 11 16	704	0.4- 0.1+
1997 06 11	691	0.3+ 1.1-	1999 11 16	704	0.4+ 0.5+
1997 06 28	691	0.1- 0.6-	1999 11 16	704	0.4- 0.3-
1997 06 28	691	0.1- 0.6-	1999 12 07	704	1.1- 0.3-
1997 06 28	691	0.1+ 0.7-	1999 12 07	704	0.4+ 0.6+

1997 NB₁ = 2000 CX₈₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	288.24100	(2000.0)	P	Q	
<i>n</i>	0.26701895	ω 205.61699	-0.42811358	+0.90328685	
<i>a</i>	2.3884051	Ω 39.05234	-0.82128182	-0.37587833	
<i>e</i>	0.1681524	<i>i</i> 2.55958	-0.37711394	-0.20685347	
<i>P</i>	3.69	<i>H</i> 14.8	<i>G</i> 0.15	<i>U</i> 6	
Residuals in seconds of arc					
1997 07 03	595	0.2+ 0.2-	2000 02 02	703	0.4+ 0.1+
1997 07 03	595	0.1- 0.1+	2000 02 04	704	1.0- 1.1+
1997 07 06	595	0.4+ 0.2+	2000 02 04	704	0.2+ 0.2+
1997 07 06	595	0.5- 0.1-	2000 02 04	704	0.8+ 0.6-
1997 07 26	595	0.2+ 0.1+	2000 02 04	704	0.4+ 0.3+
1997 07 26	595	0.1- 0.1-	2000 02 04	704	0.2+ 0.1+
2000 02 02	703	0.1+ 0.1+	2000 02 11	704	0.3- 0.0
2000 02 02	703	1.7- 0.9-	2000 02 11	704	0.7- 0.2-
2000 02 02	703	0.7+ 0.1+	2000 02 11	704	0.1+ 0.7-

2000 FEB. 22

M.P.C. 38461

1997 NW₂ = 2000 CF₆₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.18711957	<i>ω</i>	166.99680	−0.09390487	−0.98776272		
<i>a</i>	3.0273078	<i>Ω</i>	288.28531	+0.90128852	−0.03121047		
<i>e</i>	0.0951898	<i>i</i>	7.53594	+0.42291946	−0.15280944		
<i>P</i>	5.27	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	4
Residuals in seconds of arc							
1997 07 02	691	0.1+	0.0	1997 07 11	691	0.3+	0.1+
1997 07 02	691	0.0	0.0	1997 07 11	691	0.1−	0.1−
1997 07 02	691	0.0	0.0	1997 07 14	691	0.1−	0.1−
1997 07 09	691	0.1−	0.1−	1997 07 14	691	0.0	0.2−
1997 07 09	691	0.2+	0.2−	1997 07 14	691	0.2+	0.3+
1997 07 09	691	0.4−	0.1−	2000 02 02	704	0.5+	0.2−
1997 07 11	691	0.1−	0.3+	2000 02 02	704	0.1+	0.5+
				2000 02 08	704	0.2−	0.0
				2000 02 08	704	0.6−	0.9+
				2000 02 08	704	0.1+	0.0
				2000 02 08	704	0.7+	1.1−

1997 PP₂ = 2000 CC₂₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.17464972	<i>ω</i>	52.96957	+0.95527599	−0.09784355		
<i>a</i>	3.1697435	<i>Ω</i>	310.79954	−0.09045603	+0.80176042		
<i>e</i>	0.0911046	<i>i</i>	21.63171	+0.28154128	+0.58958195		
<i>P</i>	5.64	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	3
Residuals in seconds of arc (or two decimals in units of degrees)							
1997 08 07	824	0.0	0.3+	1997 08 15	824	0.9+	0.0
1997 08 07	824	0.2−	0.2+	1997 08 20	824	0.6−	0.3+
1997 08 07	824	0.1−	0.3+	1997 08 20	824	0.3−	0.0
1997 08 09	824	0.3+	0.7−	1997 08 20	824	0.2+	0.2−
1997 08 09	824	0.0	0.5−	1997 09 22	824	0.1−	0.3+
1997 08 09	824	0.1+	0.4−	1997 09 22	824	0.1+	0.0
1997 08 12	691	0.3−	0.2+	1997 09 28	824(0.01−	0.03−)	2000 02 06
1997 08 12	691	0.2−	0.0	1997 09 28	824	0.1−	0.4−
1997 08 12	691	0.4−	0.2+	1997 09 28	824	0.2+	0.2+
1997 08 15	824	0.3+	0.0	2000 02 02	704 (2.5+	0.8−)	2000 02 06
1997 08 15	824	0.1+	0.3+	2000 02 02	704	0.7+	0.1−
				2000 02 06	704	0.5−	0.6−

1997 PN₃ = 2000 CO₃₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.20214759	<i>ω</i>	309.69590	+0.90759512	+0.41945904		
<i>a</i>	2.8753474	<i>Ω</i>	25.51888	−0.37125459	+0.82187021		
<i>e</i>	0.0622250	<i>i</i>	2.39908	−0.19606407	+0.38546526		
<i>P</i>	4.88	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	4
Residuals in seconds of arc							
1997 08 05	327	0.7−	0.2−	1997 08 26	046	0.7+	0.7+
1997 08 05	327	0.9−	0.1−	1997 08 26	046	0.4+	0.0
1997 08 05	327	0.7−	0.2+	1997 08 26	046	0.9+	0.1−
1997 08 10	327	0.4−	0.0	1997 08 26	046	0.2+	1.0+
1997 08 10	327	0.3−	0.5−	1997 08 26	046	0.5+	0.1+
1997 08 13	327	0.1−	0.0	1997 08 26	046	0.1−	0.6+
1997 08 13	327	0.1−	0.1−	1997 09 04	327	0.1−	0.0
1997 08 13	327	0.2−	0.1+	1997 09 04	327	0.2+	0.1+
1997 08 26	046	1.2+	0.2+	1997 09 04	327	0.2+	0.7+

1997 RO = 2000 CG₆₇

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22299583	<i>ω</i>	129.65193	+0.36380151	+0.93103534		
<i>a</i>	2.6932183	<i>Ω</i>	161.62009	−0.88003844	+0.35363362		
<i>e</i>	0.1010743	<i>i</i>	5.21582	−0.30525531	+0.09009141		
<i>P</i>	4.42	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	4
Residuals in seconds of arc							
1997 08 09	910	0.7+	0.7+	1997 10 03	910	0.1+	0.5+
1997 08 09	910	1.3+	0.3+	1997 10 03	910	0.1+	0.5+
1997 08 09	910	0.4+	0.9+	1997 10 03	910	0.1−	0.4+
1997 09 01	566	0.7−	0.1+	1997 10 04	910	0.2−	0.4+
1997 09 01	566	1.0−	0.0	1997 10 04	910	0.1−	0.5+
1997 09 01	566	0.4−	0.2−	1997 10 04	910	0.1−	0.5+
1997 09 02	566	0.5−	0.4−	2000 02 06	704	0.3+	0.9+
1997 09 02	566	0.1+	0.2−	2000 02 06	704	0.1+	0.2+
1997 09 02	566	0.5−	0.1−	2000 02 06	704	0.3+	0.2+
				2000 02 14	691	0.0	0.2−
				2000 02 14	691	0.1+	0.3+

1997 RC₃ = 2000 CD₅₀

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22064440	<i>ω</i>	103.71186	+0.19806256	+0.98015632		
<i>a</i>	2.7123190	<i>Ω</i>	177.66619	−0.95827118	+0.19535428		
<i>e</i>	0.1680316	<i>i</i>	11.40230	−0.20612512	+0.03361985		
<i>P</i>	4.47	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	4
Residuals in seconds of arc							
1997 09 06	122	0.1+	0.3−	1997 10 03	627	1.1+	0.3+
1997 09 06	122	0.2−	0.5−	1997 10 03	627	2.0+	0.4+
1997 09 06	122	0.3+	0.1+	1997 10 03	627	0.1−	0.2+
1997 09 08	122	0.1−	0.1−	1997 10 04	627	0.5+	0.1+
1997 09 08	122	0.2+	0.1−	1997 10 04	627	0.4−	0.3+
1997 09 08	122	0.3−	0.0	1997 10 04	627	0.1−	0.6−
1997 09 19	122	0.5−	0.0	1997 10 04	627	0.3−	0.5−
1997 09 19	122	0.0	0.0	1997 10 23	691	0.8−	0.0
1997 09 19	122	0.2−	0.0	1997 10 23	691	0.9−	0.0
1997 10 01	124	0.3+	0.4+	1997 10 23	691	1.0−	0.1−
1997 10 01	124	0.1+	0.6−	1998 12 22	704 (2.7−	0.5−)	2000 02 06
1997 10 01	124	0.1+	0.1+	1998 12 22	704	1.3−	0.5−

1997 SV₁₄ = 1996 RV₃₀ = 2000 AJ₂₆

Id. K. Ichikawa (*MPC* 30987), M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.08532443	<i>ω</i>	139.36242	+0.31124555	−0.94817574		
<i>a</i>	5.1099947	<i>Ω</i>	292.41631	+0.85301033	+0.30840081		
<i>e</i>	0.0888755	<i>i</i>	3.96642	+0.41892671	+0.07649644		
<i>P</i>	11.55	<i>H</i>	12.3	<i>G</i>	0.15	<i>U</i>	3
Residuals in seconds of arc							
1996 09 13	809	0.4−	0.1+	2000 01 03	704	0.1+	0.2+
1996 09 14	809	0.1+	0.5+	2000 01 03	691	0.2−	0.3−
1997 09 28	691	0.5+	0.2−	2000 01 03	704	0.6+	1.4+
1997 09 28	691	0.3+	0.2−	2000 01 03	691	0.3−	0.2−
1997 09 28	691	0.7+	0.1−	2000 01 03	704	0.3+	1.6+
1997 09 30	691	0.5−	0.3−	2000 01 03	704	0.4+	0.9+
1997 09 30	691	0.3+	0.1−	2000 01 03	691	0.0	0.7−
1997 09 30	691	0.2+	0.0	2000 01 04	704	0.2−	0.4+
1997 10 05	691	0.7−	0.2+	2000 01 04	704	0.6−	0.1+
1997 10 05	691	0.0	0.0	2000 01 04	704	0.3−	0.2+
1997 10 05	691	0.5−	0.0	2000 01 04	704	0.5+	0.9−

1997 SA₂₀ = 1999 CF₁₃₀

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	223.94842		(2000.0)	P		Q	
<i>n</i>	0.23568402	ω	337.44718	+0.89891272	+0.43811315		
<i>a</i>	2.5956689	Ω	356.56298	−0.39232867	+0.80128717		
<i>e</i>	0.2770206	<i>i</i>	3.41871	−0.19502341	+0.40742574		
<i>P</i>	4.18	<i>H</i>	17.0	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1997 09 28	691	0.1−	0.1+	1997 10 03	691	0.3−	0.0	1999 02 06	568	0.2−	1.2−
1997 09 28	691	0.0	0.1−	1997 10 25	809	(6.5+ 15.6+)		1999 02 06	568	1.0−	1.2−
1997 09 28	691	0.2+	0.1−	1997 10 25	809	(7.2+ 15.2+)		1999 02 07	568	0.9+	1.6+
1997 10 03	691	0.2+	0.1+	1997 10 27	809	(13.4+ 19.0+)		1999 02 07	568	0.3+	0.8+
1997 10 03	691	0.1−	0.1+	1997 10 27	809	(13.1+ 18.7+)					

1997 TA₂₈ = 1999 XO₁₉₄

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	78.17298		(2000.0)	P		Q	
<i>n</i>	0.08372763	ω	334.82852	+0.97047761	−0.21244481		
<i>a</i>	5.1747598	Ω	38.00462	+0.24049672	+0.81644549		
<i>e</i>	0.0825105	<i>i</i>	10.68817	+0.01829034	+0.53692081		
<i>P</i>	11.77	<i>H</i>	11.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 10 01	809	0.4−	0.2+	1997 10 30	704	0.9+	0.6+	1999 12 15	704	0.5+	1.7+
1997 10 01	809	0.2+	0.0	1997 10 30	704	0.9+	1.1+	1999 12 15	704	0.6−	0.1+
1997 10 06	809	0.2+	0.8+	1997 10 30	704	0.4−	0.5−	2000 01 02	704	0.1−	0.2−
1997 10 06	809	0.0	0.4+	1997 10 30	704	0.7−	1.3+	2000 01 02	704	0.6−	0.8−
1997 10 07	809	0.0	0.9−	1999 12 12	704	0.5+	0.4−	2000 01 02	704	0.9−	0.3−
1997 10 07	809	0.1+	1.2−	1999 12 12	704	0.4+	0.4−	2000 01 02	704	1.1−	0.9−
1997 10 26	809	1.5−	1.2−	1999 12 12	704	0.4+	0.0	2000 01 29	704	0.1+	0.4+
1997 10 26	809	0.8+	0.7−	1999 12 12	704	0.0	0.4−	2000 01 29	704	0.6+	0.0
1997 10 28	809	0.3+	0.4+	1999 12 12	704	0.1−	0.5−	2000 01 29	704	1.1+	0.6+
1997 10 28	809	1.0+	0.5+	1999 12 15	704	0.4+	0.4+	2000 01 29	704	0.7−	0.7+
1997 10 30	704	1.6−	0.8−	1999 12 15	704	0.1+	0.0				

1997 TM₂₈ = 1996 RL₂₇ = 1998 UE₃₀ = 2000 AJ₁₇₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	347.60848		(2000.0)	P		Q	
<i>n</i>	0.08251598	ω	276.32611	−0.25731180	−0.96588961		
<i>a</i>	5.2252933	Ω	188.75033	+0.94491202	−0.24518591		
<i>e</i>	0.0314387	<i>i</i>	11.03498	+0.20231636	−0.08331346		
<i>P</i>	11.94	<i>H</i>	11.4	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1996 09 10	809	0.5−	0.1+	1997 10 28	809	0.9−	0.0	2000 01 07	704	0.8+	1.2−
1996 09 15	809	0.8+	0.8−	1998 10 18	809	0.9−	0.5−	2000 01 07	704	0.7−	0.9+
1997 10 06	809	0.4+	0.1+	1998 10 18	809	(1.7− 2.2−)		2000 01 07	704	0.0	0.5+
1997 10 06	809	0.3+	0.4+	1998 10 18	809	(2.2− 2.2−)		2000 01 07	704	0.6+	0.2−
1997 10 07	809	0.8+	1.0+	1998 10 19	809	1.0+	0.3+	2000 01 11	704	0.4−	1.0+
1997 10 07	809	0.0	0.8+	1998 10 19	809	0.2+	0.8−	2000 01 11	704	0.2+	0.1−
1997 10 26	809	1.0−	0.7+	1998 10 19	809	0.2+	0.8−	2000 01 11	704	0.1+	0.2+
1997 10 26	809	0.2−	0.4+	1998 11 11	704	(2.2+ 0.4−)		2000 01 11	704	0.8−	0.0
1997 10 28	809	1.3−	1.7−	1998 11 11	704	0.1−	0.9−				
1997 10 28	809	1.0+	0.9+	1998 11 11	704	(4.7− 0.5−)					

1997 WB = 1996 HF₄ = 1999 CR₆₈

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	318.16371		(2000.0)	P		Q	
<i>n</i>	0.28515224	ω	132.95416	+0.49882855	+0.86630778		
<i>a</i>	2.2860455	Ω	166.89550	−0.82492430	+0.48380364		
<i>e</i>	0.1287638	<i>i</i>	6.60881	−0.26583825	+0.12427738		
<i>P</i>	3.46	<i>H</i>	15.7	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1990 09 28	675	0.1+	0.3−	1997 11 18	426	0.0	1.1+	1999 02 12	704	0.5+	0.4+
1996 04 18	691	0.2+	0.2−	1997 11 18	426	0.1−	0.3+	1999 02 12	704	0.5−	0.9+
1996 04 18	691	0.1+	0.0	1997 11 19	426	0.5−	0.6−	1999 02 12	704	(2.6− 0.6+)	
1996 04 18	691	0.2−	0.1−	1997 11 19	426	0.0	1.3−	1999 02 16	704	0.2+	0.4+
1996 04 23	691	0.0	0.0	1997 11 19	426	1.4−	0.0	1999 02 16	704	1.1+	0.1+
1996 04 23	691	0.2−	0.3−	1997 11 27	426	0.6+	0.2+	1999 02 16	704	0.3−	0.4−
1996 04 23	691	0.2−	0.2−	1997 11 27	426	1.2+	0.2+	1999 02 16	704	0.4−	0.6−
1997 11 18	426	0.5+	0.4−	1999 02 12	704	0.8−	0.7−				

1997 WV₁₃ = 2000 CA₇₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	321.44089		(2000.0)	P		Q	
<i>n</i>	0.17325847	ω	222.95232	−0.80291590	+0.59602282		
<i>a</i>	3.1866894	Ω	353.61378	−0.52232653	−0.71083159		
<i>e</i>	0.1018475	<i>i</i>	4.69382	−0.28722996	−0.37346385		
<i>P</i>	5.69	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 10 30	704	0.5−	0.2+	1997 12 04	691	0.6+	0.5−	1999 01 16	704	0.9+	0.1−
1997 10 30	704	(2.3− 1.6+)		1997 12 04	691	0.1+	0.2+	1999 01 16	704	(4.0− 0.4−)	
1997 10 30	704	0.3+	1.1+	1997 12 04	691	0.3+	0.4+	2000 02 10	120	0.3−	0.8−
1997 10 30	704	1.0−	0.5+	1997 12 06	691	0.4+	0.0	2000 02 10	120	0.7−	0.1+
1997 10 30	704	0.4−	0.2+	1997 12 06	691	0.1+	0.4−	2000 02 11	120	0.3+	0.2−
1997 11 21	691	0.4+	0.2−	1998 12 17	704	0.3+	0.8−	2000 02 11	120	0.2−	0.1−
1997 11 21	691	0.5+	0.4−	1998 12 17	704	1.3−	0.8+	2000 02 11	704	(2.4+ 1.6+)	
1997 11 21	691	0.7+	0.3−	1998 12 17	704	0.3+	0.0	2000 02 11	704	0.6+	0.2+
1997 11 29	691	0.5−	0.3−	1998 12 17	704	0.8+	1.0−	2000 02 11	704	0.6+	1.3+
1997 11 29	691	0.6−	0.1+	1999 01 16	704	1.0−	0.8+				
1997 11 29	691	0.5−	0.3−	1999 01 16	704	(2.6+ 0.5+)					

1997 WW₄₃ = 1990 TW₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	300.50176		(2000.0)	P		Q	
<i>n</i>	0.29464903	ω	59.46301	+0.99058011	−0.13007115		
<i>a</i>	2.2366569	Ω	307.97655	+0.09947213	+0.89835947		
<i>e</i>	0.0774542	<i>i</i>	3.11310	+0.09410819	+0.41956139		
<i>P</i>	3.35	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1990 10 10	033	0.8−	0.8+	1997 11 29	704	0.8−	0.2+	1999 04 11	699	0.4+	0.5+
1990 10 11	033	0.2−	0.4−	1997 11 29	704	0.7−	0.9−	1999 04 11	699	1.0+	0.1−
1990 10 11	033	0.1+	0.0	1997 11 29	704	1.5−	0.0	1999 04 11	699	0.5−	1.2−
1990 10 12	033	0.5+	0.4−	1997 12 04	704	1.9+	0.6+	1999 05 13	704	0.4−	0.7+
1990 10 13	033	0.7+	0.3−	1997 12 04	704	1.2+	0.6+	1999 05 13	704	0.3+	1.4+
1990 10 14	033	0.2−	0.1+	1997 12 04	704	(2.2− 0.7+)		1999 05 13	704	0.4−	1.4−
1997 11 29	704	0.5−	1.2−	1997 12 04	704	0.3+	0.9+	1999 05 13	704	0.4−	0.2−
1997 11 29	704	1.3−	0.4−	1997 12 04	704	1.4+	0.2+				

1998 AV₅ = 1989 TQ₈

Id. A. Doppler

2000 FEB. 22

M.P.C. 38463

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	135.30132		(2000.0)	P	Q
<i>n</i>	0.29138887	ω	122.86033	-0.28305091	+0.95702921
<i>a</i>	2.2533090	Ω	130.56566	-0.90537143	-0.24491476
<i>e</i>	0.1886820	<i>i</i>	4.76207	-0.31651974	-0.15527993
<i>P</i>	3.38	<i>H</i>	14.8	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1989 10 03	809	1.2+	0.8-	1998 01 08	910	0.2+	0.3+	1999 09 14	704	0.2+	0.2-
1989 10 03	809	0.9+	0.8-	1998 01 09	910	0.3+	0.3+	1999 09 14	704	0.2+	0.2+
1989 10 03	809	0.3+	1.3-	1998 01 09	910	0.1+	0.4+	1999 09 14	704	0.1-	0.1-
1989 10 07	809	0.3+	0.0	1998 01 09	910	0.1+	0.3+	1999 09 14	704	0.1+	0.1+
1989 10 07	809	0.6-	0.4+	1998 01 26	566	0.6+	0.6-	1999 10 02	704	0.2-	0.8+
1989 10 07	809	1.0-	0.6+	1998 01 26	566	0.7+	0.4-	1999 10 02	704	0.5-	0.3-
1992 08 02	675	0.1+	0.3+	1998 01 26	566	0.8+	0.7-	1999 10 02	704	0.1-	0.2+
1992 08 02	675	0.6-	0.5+	1999 09 07	704	0.4+	0.4-	1999 10 02	704	1.0-	0.1+
1997 12 08	910	1.5-	0.1+	1999 09 07	704	0.0	0.6-	1999 10 02	704	1.5-	1.2-
1997 12 08	910	1.3-	0.3+	1999 09 07	704	0.0	0.3+	1999 11 07	704	1.5+	1.1+
1997 12 08	910	1.2-	0.3+	1999 09 07	704	0.1-	0.1-	1999 11 07	704	0.2-	1.0+
1998 01 08	910	0.2+	0.4+	1999 09 07	704	0.4+	0.1+	1999 11 07	704	0.4+	0.8+
1998 01 08	910	0.1+	0.5+	1999 09 14	704	0.1+	0.0	1999 11 07	704	0.3+	0.6+

1998 BD₂₇ = 1993 FD₈₁ = 1999 JN₁

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	357.43342		(2000.0)	P	Q
<i>n</i>	0.17077156	ω	144.02167	+0.04489947	+0.99859626
<i>a</i>	3.2175528	Ω	128.53474	-0.92474661	+0.05218685
<i>e</i>	0.1176841	<i>i</i>	2.05859	-0.37792557	-0.00905779
<i>P</i>	5.77	<i>H</i>	14.2	<i>G</i>	0.15
				<i>U</i>	5

Residuals in seconds of arc

1993 03 18	809	0.7+	0.7+	1998 01 30	691	0.0	0.3+	1999 04 16	704	(6.6-	1.2+)
1993 03 23	809	0.3+	0.1-	1998 01 30	691	0.3+	0.4+	1999 05 08	703	0.6+	0.3-
1993 03 23	691	0.5-	0.7-	1999 04 07	704	0.1+	0.7-	1999 05 08	703	0.1-	1.0-
1993 03 23	691	0.8-	1.1-	1999 04 07	704	1.8-	0.2+	1999 05 08	703	0.6-	0.3-
1993 03 23	691	0.6-	1.2-	1999 04 07	704	0.1-	1.0+	1999 05 08	703	1.5-	0.6+
1998 01 22	691	0.1+	0.2+	1999 04 07	704	0.1+	1.7+	1999 05 09	703	0.4+	0.6-
1998 01 22	691	0.1-	0.3-	1999 04 16	704	1.4+	1.1+	1999 05 09	703	0.2-	0.1-
1998 01 22	691	0.2-	0.2+	1999 04 16	704	1.2+	0.7+	1999 05 09	703	1.1+	0.4+
1998 01 30	691	0.1+	0.1+	1999 04 16	704	0.1+	1.0-	1999 05 09	703	0.1+	0.3+

1998 DS₉ = 1999 YN₁₈

Id. G. V. Williams, E. Bowell

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	110.25782		(2000.0)	P	Q
<i>n</i>	0.27122354	ω	144.17541	+0.56195614	+0.81355485
<i>a</i>	2.3636570	Ω	158.72023	-0.82185185	+0.56960554
<i>e</i>	0.1941339	<i>i</i>	24.31685	-0.09362069	-0.11695308
<i>P</i>	3.63	<i>H</i>	12.8	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1998 02 20	327	0.9-	0.5+	1998 04 02	704	0.3-	0.2-	1999 09 14	704	0.0	0.6+
1998 02 20	327	0.0	0.1-	1998 04 02	704	0.4-	0.3+	1999 09 14	704	0.0	0.3+
1998 02 20	327	0.4+	0.5-	1998 04 03	704	0.5-	0.3+	1999 09 14	704	0.4-	0.7+
1998 02 20	327	1.3+	0.7+	1998 04 03	704	0.4-	0.5+	1999 09 14	704	0.1+	0.2+
1998 02 21	327	0.0	0.2-	1998 04 03	704	0.8-	0.3+	1999 09 14	704	0.2-	0.6+
1998 02 21	327	0.1-	0.2-	1998 04 03	704	0.8-	0.1-	1999 11 10	704	0.2+	0.1+
1998 02 21	327	0.2+	0.3-	1998 04 03	704	0.2-	0.0	1999 11 10	704	0.2+	0.5+
1998 02 21	327	0.0	0.4-	1998 04 26	566	0.4-	0.8-	1999 11 10	704	0.3-	0.2+
1998 02 27	327	0.0	0.2-	1998 04 26	566	0.2-	0.8-	1999 11 10	704	0.3+	0.3+
1998 02 27	327	0.1+	0.2-	1998 04 26	566	0.2-	0.8-	1999 11 10	704	0.5-	0.4+
1998 02 27	327	0.0	0.2-	1998 04 28	704	0.4+	0.5-	1999 11 30	704	0.4+	0.6-
1998 02 27	327	0.1+	0.3-	1998 04 28	704	0.8+	0.7+	1999 11 30	704	0.1-	0.7-
1998 03 05	327	(0.5-	2.1-)	1998 04 28	704	0.4-	0.6+	1999 11 30	704	0.6-	0.3-

1998 03 05	327	0.2+	0.5-	1998 04 28	704	0.1-	0.3+	1999 11 30	704	0.2+	0.2+
1998 03 05	327	0.1+	0.4-	1998 04 28	704	0.5+	1.4+	1999 11 30	704	0.2-	0.3-
1998 03 08	327	0.2+	0.4+	1998 04 30	704	0.0	0.3-	1999 12 31	704	0.4-	0.6-
1998 03 08	327	0.4+	0.5+	1998 04 30	704	0.8+	0.1+	1999 12 31	704	0.1+	0.7-
1998 03 08	327	0.1+	0.4+	1998 04 30	704	0.2+	0.4-	1999 12 31	704	0.2+	0.2-
1998 03 11	327	0.1-	0.6+	1998 04 30	704	0.1-	0.6-	1999 12 31	704	1.2+	0.4+
1998 03 11	327	0.1-	0.1+	1998 05 28	704	0.9+	0.7+	1999 12 31	704	0.1-	1.5+
1998 03 11	327	0.1-	0.4+	1998 05 28	704	0.6+	0.7-	2000 01 10	704	0.2-	0.2-
1998 03 11	327	0.0	0.5+	1998 05 28	704	0.6+	0.0	2000 01 10	704	0.1-	0.4-
1998 03 12	327	0.2-	0.3+	1998 05 28	704	1.0+	0.9-	2000 01 10	704	0.1+	0.1-
1998 03 12	327	0.1+	0.4+	1998 05 28	704	1.8-	0.9-	2000 01 10	704	0.3-	0.2-
1998 03 12	327	0.1+	0.0	1998 06 23	699	0.2+	0.2+	2000 01 10	704	0.1+	0.1-
1998 03 12	327	0.1+	0.3+	1998 06 23	699	0.3+	0.4+				
1998 04 02	704	0.3-	0.2+	1998 06 23	699	0.6-	0.9+				

1998 DF₁₆ = 1999 LN₃₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	194.73217		(2000.0)	P	Q
<i>n</i>	0.17458169	ω	312.41381	+0.07737653	-0.96953212
<i>a</i>	3.1705669	Ω	131.57575	+0.98143548	+0.03303590
<i>e</i>	0.1136170	<i>i</i>	18.10099	+0.17549153	+0.24272640
<i>P</i>	5.65	<i>H</i>	13.6	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 02 26	566	0.0	0.3+	1998 03 25	704	0.3-	0.3+	1999 05 17	704	1.0+	0.8-
1998 02 26	566	0.1+	0.5+	1998 03 25	704	1.1+	0.1+	1999 05 17	704	(0.2+	2.6+)
1998 02 26	566	0.1+	0.8+	1998 03 25	704	1.0+	1.0+	1999 06 10	703	1.3+	0.3-
1998 02 27	566	0.1+	0.7-	1998 03 25	704	0.4-	0.7+	1999 06 10	703	0.5-	0.2+
1998 02 27	566	0.4-	0.8-	1999 05 14	703	0.3-	0.4+	1999 06 10	703	1.6-	0.7+
1998 02 27	566	0.2-	0.7-	1999 05 14	703	0.7-	0.1+	1999 06 10	703	0.6-	0.3+
1998 03 24	704	0.6+	0.6-	1999 05 14	703	0.0	1.5+	1999 06 12	704	0.1-	0.9-
1998 03 24	704	0.6-	0.2-	1999 05 14	703	0.9+	2.0+	1999 06 12	704	0.4+	0.0
1998 03 24	704	0.1-	0.2-	1999 05 17	704	1.5-	1.0-	1999 06 12	704	0.3+	0.5-
1998 03 24	704	1.5-	0.1+	1999 05 17	704	0.4+	1.5-	1999 06 12	704	0.2+	0.4-
1998 03 25	704	0.4+	0.5-	1999 05 17	704	0.6+	0.3+				

1998 DG₃₅ = 1995 UJ₄₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Marsden

<i>M</i>	7.47030		(2000.0)	P	Q
<i>n</i>	0.19325671	ω	301.79250	+0.65203662	+0.75768150
<i>a</i>	2.9628727	Ω	9.06066	-0.62251336	+0.55585202
<i>e</i>	0.1012721	<i>i</i>	10.12874	-0.43281100	+0.34197554
<i>P</i>	5.10	<i>H</i>	13.4	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1995 10 20	010	0.6-	2.1-	1998 02 27	566	0.8-	0.0	1998 03 22	704	0.7-	0.8-
1995 10 20	010	0.7-	1.4-	1998 02 28	809	0.9+	0.4-	1998 03 22	704	0.6-	0.9+
1995 10 20	010	1.4-	1.2-	1998 02 28	809	1.0+	0.6+	1998 03 22	704	(2.4-	0.3+)
1995 10 23	010	1.7+	1.3+	1998 02 28	809	0.1+	0.5-	1998 04 02	809	0.4-	0.9+
1995 10 23	010	0.8+	1.4+	1998 03 20	704	0.1+	0.7+	1998 04 02	809	0.0	0.7-
1995 10 23	010	0.1+	1.9+	1998 03 20	704	1.1+	0.1+	1998 04 02	809	0.3-	0.2-
1998 02 27	809	(3.5-	0.8-)	1998 03 20	704	1.3+	1.2+	1998 04 03	809	0.4+	0.2+
1998 02 27	809	(2.5-	1.0-)	1998 03 20	704	0.7-	0.3-	1998 04 03	809	1.0+	0.6-
1998 02 27	809	(3.0-	1.0-)	1998 03 20	704	0.2-	0.4-	1998 04 03	809	0.2+	0.5-
1998 02 27	566	0.2-	0.0	1998 03 22	704	1.2-	0.2+				
1998 02 27	566	0.4-	0.3-	1998 03 22	704	0.6-	0.0				

1998 DR₃₅ = 1999 RO₁₈₄

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	126.30751		(2000.0)	P	Q
<i>n</i>	0.26441650	ω	98.35438	-0.42753669	+0.89876213
<i>a</i>	2.4040511	Ω	145.80256	-0.88245345	-0.39160676
<i>e</i>	0.2301514	<i>i</i>	9.95406	-0.19618431	-0.19715671
<i>P</i>	3.73	<i>H</i>	14.4	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 02 24	566	0.5+	0.1+	1998 03 04	704	0.4+	0.4+	1999 09 09	704	0.2+	0.7-
1998 02 24	566	0.7+	0.1-	1998 03 04	704	0.6+	0.4+	1999 09 09	704	0.3-	0.0
1998 02 24	566	0.8+	0.2+	1999 07 16	704	0.1+	0.2-	1999 09 09	704	0.1-	0.5+
1998 02 27	098	0.4-	1.3-	1999 07 16	704	0.2+	0.4-	1999 09 09	704	0.3-	0.5-
1998 02 28	098	1.1-	0.2-	1999 07 16	704	0.4-	0.5-	1999 09 13	704	0.2+	0.4+
1998 03 02	098	1.4-	1.5-	1999 07 16	704	0.1+	0.9-	1999 09 13	704	0.2+	0.3+
1998 03 03	098	0.5-	0.1+	1999 08 12	699	0.7-	0.8+	1999 09 13	704	0.1+	0.0
1998 03 03	704	0.0	0.3+	1999 08 12	699	1.0+	1.5+	1999 09 13	704	0.2+	0.0
1998 03 03	704	(2.4+	0.5+)	1999 08 12	699	0.7-	0.2+	1999 09 30	704	0.0	0.3+
1998 03 03	704	(2.6-	2.7+)	1999 09 07	704	0.1-	0.8-	1999 09 30	704	0.1-	0.7+
1998 03 03	704	0.3-	0.4+	1999 09 07	704	0.1+	0.1-	1999 09 30	704	0.6-	0.1+
1998 03 03	704	0.4-	0.7+	1999 09 07	704	0.2+	0.5-	1999 09 30	704	0.3+	0.2-
1998 03 04	704	0.5+	0.3+	1999 09 07	704	0.2+	0.4-	1999 09 30	704	0.1-	0.1+
1998 03 04	704	0.2-	0.4-	1999 09 07	704	0.7+	0.0				
1998 03 04	704	0.8+	0.2+	1999 09 09	704	0.4-	0.3-				

1998 DN₃₇ = 1985 UY₂ = 1993 FD₁₁

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	341.55258		(2000.0)	P	Q
<i>n</i>	0.19628174	ω	218.34149	+0.97010270	+0.23697317
<i>a</i>	2.9323521	Ω	127.87004	-0.20306531	+0.91077303
<i>e</i>	0.1224998	<i>i</i>	3.80514	-0.13291061	+0.33813636
<i>P</i>	5.02	<i>H</i>	13.8	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1985 10 17	010(26.6-	4.0-)	1997 01 14	566	0.0	0.0	1998 03 22	704	0.0	0.8+	
1985 10 18	010(25.1-	1.8-)	1998 02 28	809	(2.6-	1.5+)	1998 03 22	704	(0.4+	3.1-)	
1993 03 17	809	0.2+	0.0	1998 02 28	809	0.8-	0.1-	1998 04 20	704	1.4+	1.7+
1993 03 18	809	0.3-	0.6-	1998 03 02	809	0.6+	0.4-	1998 04 20	704	1.0+	0.1+
1993 03 23	809	0.0	0.5+	1998 03 02	809	0.8+	1.2-	1998 04 20	704	1.4-	1.6-
1997 01 14	566	0.0	0.0	1998 03 22	704	0.9-	0.0				
1997 01 14	566	0.0	0.1+	1998 03 22	704	0.5-	0.6+				

1998 FF₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	298.87181		(2000.0)	P	Q
<i>n</i>	0.50491788	ω	264.77464	-0.00748089	+0.99984029
<i>a</i>	1.5619084	Ω	4.88579	-0.82529650	+0.00299164
<i>e</i>	0.2924793	<i>i</i>	10.98571	-0.56465009	-0.01761921
<i>P</i>	1.95	<i>H</i>	18.9	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 03 20	704	0.2-	0.8+	1998 03 23	046	0.5-	0.1-	1998 03 29	704	0.7+	0.6-
1998 03 20	704	0.3+	0.3+	1998 03 24	704	0.5+	0.4-	1998 03 29	658	0.5-	0.1+
1998 03 20	704	0.5+	1.5-	1998 03 24	704	0.3-	0.5-	1998 03 29	704	0.1+	0.7-
1998 03 20	704	1.0+	1.3-	1998 03 24	704	0.3-	0.4+	1998 03 29	658	0.6+	0.1-
1998 03 21	046	0.3-	0.9-	1998 03 24	704	0.3-	1.3+	1998 03 29	658	0.4-	0.4+
1998 03 21	046	(0.3+	2.1-)	1998 03 24	704	0.7-	0.4+	1998 03 29	422	(6.7-	5.8+)
1998 03 21	106	0.7-	0.0	1998 03 24	704	0.4-	0.6+	1998 03 29	422	(5.0-	7.0+)
1998 03 21	106	0.8-	0.1-	1998 03 24	704	0.7+	0.1+	1998 03 29	046	0.3+	0.1-
1998 03 21	106	0.4-	0.2+	1998 03 24	704	0.1-	0.5-	1998 03 29	046	0.3+	0.3+
1998 03 21	557	1.2-	0.1+	1998 03 24	704	0.2-	0.6+	1998 03 29	046	0.0	0.2+
1998 03 21	557	0.0	1.1-	1998 03 24	704	0.3-	0.1+	1998 03 29	046	0.4+	0.1-
1998 03 21	557	0.0	0.6-	1998 03 24	704	0.3+	0.3-	1998 03 31	402	0.3+	0.2+
1998 03 21	557	0.5-	0.7-	1998 03 24	704	0.8+	0.3-	1998 03 31	402	0.8+	0.3+
1998 03 22	557	0.6+	0.4+	1998 03 24	704	0.6-	0.0	1998 03 31	402	0.3+	0.2-

1998 03 22	704	0.6+	0.6-	1998 03 24	704	1.2+	0.8+	1998 03 31	106	0.1-	0.0
1998 03 22	704	1.3+	0.4-	1998 03 24	704	1.0+	0.5+	1998 03 31	106	0.9-	0.5+
1998 03 22	704	0.7-	0.1-	1998 03 24	566	0.2+	0.9-	1998 04 02	360	0.7+	0.2-
1998 03 22	704	0.9+	0.1+	1998 03 24	566	0.2-	0.2+	1998 04 02	360	0.4+	0.1+
1998 03 22	704	(4.6-	0.5+)	1998 03 24	566	0.9-	1.5-	1998 04 02	360	0.4+	0.1+
1998 03 22	900	0.5-	1.3-	1998 03 24	587	0.4+	0.2-	1998 04 15	658	0.6-	0.6-
1998 03 22	900	0.7-	0.2+	1998 03 24	587	0.2+	0.6-	1998 04 15	658	0.6-	0.1-
1998 03 22	108	(2.5+	0.0)	1998 03 25	704	0.0	0.9+	1998 04 15	658	0.5-	0.6-
1998 03 22	557	1.7-	0.7+	1998 03 25	704	0.5+	0.8+	1998 04 16	704	1.7+	0.3+
1998 03 22	557	0.4-	0.1+	1998 03 25	704	0.4+	0.5+	1998 04 16	704	1.4-	1.0+
1998 03 22	557	0.2-	0.4+	1998 03 25	704	0.1-	0.9+	1998 04 16	704	1.1-	1.3-
1998 03 22	108	1.4+	1.2+	1998 03 25	704	0.4-	0.5+	1998 04 16	704	1.0+	1.7-
1998 03 23	557	0.6-	0.3+	1998 03 25	360	0.2+	0.2-	1998 04 17	118	0.1-	0.0
1998 03 23	557	0.1-	0.2-	1998 03 25	360	0.4+	0.1-	1998 04 17	118	0.2+	0.0
1998 03 23	557	0.3-	0.3-	1998 03 25	360	0.2-	0.2-	1998 04 17	118	0.0	0.3-
1998 03 23	557	0.0	0.4+	1998 03 26	557	0.8-	0.2+	1998 04 26	360	0.0	0.6+
1998 03 23	422	0.6-	0.5+	1998 03 26	557	0.2+	0.4-	1998 04 26	360	0.2-	0.8+
1998 03 23	422	0.2-	0.2-	1998 03 26	046	0.2-	0.1+	1998 04 26	360	0.2+	0.4+
1998 03 23	422	0.2-	0.2+	1998 03 26	046	0.4-	0.3-	2000 02 07	413	0.3+	0.4+
1998 03 23	426	0.6-	0.4+	1998 03 26	046	0.2-	0.2-	2000 02 07	413	0.0	0.3+
1998 03 23	426	0.1-	0.5+	1998 03 28	426	0.7+	0.7+	2000 02 07	413	0.2+	0.1+
1998 03 23	426	0.1+	0.4-	1998 03 28	426	0.3+	0.2+	2000 02 08	413	0.3+	0.5-
1998 03 23	046	0.8-	0.1+	1998 03 28	426	0.3+	0.4-	2000 02 08	413	0.4-	0.2+
1998 03 23	046	0.1-	0.1+	1998 03 29	704	1.0+	0.4+				
1998 03 23	046	0.2-	0.4+	1998 03 29	704	0.8+	0.0				

1998 FX₁₅ = 1999 TJ₃₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	359.21840		(2000.0)	P	Q
<i>n</i>	0.38891413	ω	75.31802	+0.15189741	-0.98734171
<i>a</i>	1.8588039	Ω	6.48497	+0.67736937	+0.07035626
<i>e</i>	0.1277589	<i>i</i>	23.83781	+0.71979019	+0.14214902
<i>P</i>	2.53	<i>H</i>	17.2	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 03 22	704	1.0-	0.5+	1998 03 29	704	0.2+	1.2-	1999 10 07	704	0.9-	0.0
1998 03 22	704	1.2-	1.4+	1998 03 29	704	0.7-	1.4+	1999 10 07	704	0.0	0.1+
1998 03 22	704	0.0	0.4+	1998 03 29	704	0.9+	0.3-	1999 10 07	704	0.0	0.9-
1998 03 22	704	(0.1-	3.4+)	1998 03 29	704	(2.7-	2.6+)	1999 10 07	704	0.2+	0.3+
1998 03 28	704	0.3-	0.1+	1999 10 04	704	0.1-	0.1-	1999 10 20	704	0.5-	0.2+
1998 03 28	704	(0.5+	3.7+)	1999 10 04	704	0.3-	0.2+	1999 10 20	704	1.0+	0.6+
1998 03 28	704	0.8+	1.7-	1999 10 04	704	0.3-	0.1+	1999 10 20	704	0.2+	0.1-
1998 03 28	704	(6.6-	1.6+)	1999 10 04	704	0.3+	0.0	1999 10 20	704	0.2-	0.0
1998 03 29	704	1.5+	0.5-	1999 10 07	704	0.6+	0.3-				

1998 FV₂₈ = 1989 YT₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Marsden

<i>M</i>	220.79529		(2000.0)	P	Q
<i>n</i>	0.25431335	ω	58.06916	-0.50096353	-0.86498288
<i>a</i>	2.4673075	Ω	62.02134	+0.78256015	-0.46702328
<i>e</i>	0.1436879	<i>i</i>	1.88088	+0.36964193	-0.18355889
<i>P</i>	3.88	<i>H</i>	14.4	<i>G</i>	0.15
				<i>U</i>	7

Residuals in seconds of arc

1989 12 30	413	0.5-	0.0	1998 03 20	704	0.1+	0.1+	1998 04 02	809	0.1-	0.7-
1989 12 30	413	1.7+	1.3+	1998 03 20	704	0.1+	0.6-	1998 04 02	809	0.8-	1.2-
1989 12 31	413	2.1-	0.7-	1998 03 22	704	0.5-	0.2+	1998 04 02	809	1.0-	1.7-
1989 12 31	413	1.0+	0.4-	1998 03 22	704	0.1+	0.1+	1998 04 03	809	1.4+	2.0+
1998 03 20	704	0.7-	0.4+	1998 03 22	704	0.2+	0.3-	1998 04 03	809	0.9+	1.5+
1998 03 20	704	0.3-	0.5-	1998 03 22	704	0.7-	0.6+	1998 04 03	809	0.6+	1.4+
1998 03 20	704	0.0	0.6-	1998 03 22	704	0.6+	0.4-				

2000 FEB. 22

M.P.C. 38465

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	46.91513		(2000.0)	P	Q
<i>n</i>	0.23912904	ω	280.14620	+0.77867261	+0.62598394
<i>a</i>	2.5706789	Ω	41.11721	-0.54732461	+0.71087169
<i>e</i>	0.1817924	<i>i</i>	3.71254	-0.30676497	+0.32063303
<i>P</i>	4.12	<i>H</i>	14.2	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1998 02 28	809	1.0-	1.4+	1998 03 22	704	(2.5+	0.9-)	1999 09 11	704	0.1-	0.7+
1998 02 28	809	(3.1+	0.0)	1998 03 22	704	0.0	0.0	1999 09 11	704	0.1+	0.2+
1998 03 02	809	0.2+	0.4+	1999 07 16	704	1.2+	0.1-	1999 09 11	704	1.0-	0.7+
1998 03 02	809	0.5+	0.1+	1999 07 16	704	0.2+	0.5-	1999 11 09	699	1.0+	1.0+
1998 03 20	704	1.3-	0.1-	1999 07 16	704	0.1-	1.1-	1999 11 09	699	0.3-	0.3+
1998 03 20	704	0.3+	0.9-	1999 09 07	704	0.5-	0.2-	1999 11 09	699	1.3-	1.2+
1998 03 20	704	0.4+	1.0+	1999 09 07	704	0.1-	0.1+	1999 11 10	704	0.9+	0.6-
1998 03 20	704	1.5-	1.6+	1999 09 07	704	0.2-	0.4+	1999 11 10	704	0.5+	0.4-
1998 03 20	704	0.9+	0.6+	1999 09 07	704	0.1+	0.1+	1999 11 10	704	0.1+	1.1-
1998 03 22	704	0.9+	0.2+	1999 09 07	704	0.2+	0.6+	1999 11 10	704	0.1-	0.8-
1998 03 22	704	0.6+	1.3-	1999 09 11	704	0.0	0.2-				
1998 03 22	704	0.5+	1.5-	1999 09 11	704	0.5-	0.4+				

1998 FF₈₀ = 1999 LA₃₄

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	327.69919		(2000.0)	P	Q
<i>n</i>	0.17004023	ω	223.06713	+0.93754809	+0.33675553
<i>a</i>	3.2267718	Ω	117.06330	-0.28661303	+0.88984592
<i>e</i>	0.1123336	<i>i</i>	5.61784	-0.19712067	+0.30784730
<i>P</i>	5.80	<i>H</i>	14.0	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1998 02 28	809	(1.1-	2.6+)	1998 03 25	704	0.3+	0.6+	1999 06 11	703	0.7+	0.4+
1998 02 28	809	1.0+	0.0	1998 04 20	704	0.3-	1.1-	1999 06 11	703	0.6-	0.5+
1998 03 02	809	1.4-	1.3+	1998 04 20	704	1.6-	1.2+	1999 06 11	703	0.8-	0.6+
1998 03 02	809	0.1-	0.2-	1998 04 20	704	0.8+	1.0+	1999 06 11	703	0.2+	0.2-
1998 03 24	704	0.3-	1.7-	1998 04 20	704	(4.6-	0.1+)	1999 06 11	703	0.5+	0.5+
1998 03 24	704	0.3-	0.9-	1999 05 19	704	0.0	0.6+	1999 06 11	703	0.7+	0.3+
1998 03 24	704	0.4-	0.6-	1999 05 19	704	0.6+	0.2-	1999 06 15	704	0.4+	0.1-
1998 03 24	704	0.8-	0.0	1999 05 19	704	(0.3+	2.5-)	1999 06 15	704	0.1-	0.2-
1998 03 25	704	1.5+	0.2-	1999 05 19	704	1.0-	1.6-	1999 06 15	704	0.4+	0.0
1998 03 25	704	1.7+	0.7+	1999 05 19	704	(2.4-	2.4-)	1999 06 15	704	0.5+	0.0
1998 03 25	704	0.3-	0.6-	1999 06 11	703	0.4-	0.3-	1999 06 15	704	0.3-	0.1-
1998 03 25	704	0.1+	0.8+	1999 06 11	703	0.7-	0.4-				

1998 GC₃ = 1978 NL₅ = 1979 YA₆ = 1992 WZ₈ = 1999 LS₁₂

Id. A. Doppler, G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	265.60793		(2000.0)	P	Q
<i>n</i>	0.22881826	ω	311.74948	+0.52593134	-0.81854944
<i>a</i>	2.6473352	Ω	105.09886	+0.83397238	+0.44297481
<i>e</i>	0.1462146	<i>i</i>	13.84445	+0.16699190	+0.36571865
<i>P</i>	4.31	<i>H</i>	13.2	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1978 07 10	675	(86.0-	10.2-)	Y	1998 04 02	704	0.7-	0.8-	1999 06 09	704	0.1+	0.7-
1978 07 11	675	(96.8-	11.6-)	Y	1998 04 03	704	0.1+	0.2+	1999 06 09	704	0.2+	0.0
1978 07 13	675	(85.0-	1.5-)	Y	1998 04 03	704	0.3-	0.5+	1999 06 09	704	0.7-	0.7+
1979 12 18	095	(98.1-	30.4-)	Y	1998 04 03	704	0.1-	0.2+	1999 06 09	704	0.3-	1.4-
1992 11 28	675	0.1-	1.2-		1998 04 03	704	0.4-	1.0-	1999 06 14	704	0.9-	0.0
1992 11 28	675	0.3+	0.8-		1998 04 03	704	1.0-	1.4-	1999 06 14	704	0.3-	0.0
1992 11 30	675	0.1+	0.7+		1998 04 22	566	0.0	1.4+	1999 06 14	704	0.6-	0.1+
1992 11 30	675	0.0	0.2+		1998 04 22	566	0.1-	1.2+	1999 06 14	704	0.6+	0.7+
1998 02 20	910	1.1+	0.1-		1998 04 22	566	0.7-	1.1+	1999 06 14	704	0.8-	0.4+
1998 02 20	910	1.2+	0.1-		1999 05 14	704	0.4+	1.2+	1999 07 13	704	0.5+	0.5-
1998 02 20	910	1.3+	0.2-		1999 05 14	704	1.3+	1.2-	1999 07 13	704	0.2+	0.0

1998 04 02	704	0.4+	0.7+	1999 05 14	704	1.4+	1.0-	1999 07 13	704	0.0	0.0
1998 04 02	704	0.2-	0.2-	1999 05 14	704	0.6+	0.8-	1999 07 13	704	0.5-	0.4+
1998 04 02	704	0.3-	0.0	1999 05 14	704	0.6-	0.6+	1999 07 13	704	0.5-	0.2+
1998 04 02	704	0.6-	1.0-	1999 06 09	704	0.3-	0.0				

1998 HG₇ = 1999 XR₂₁₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	131.18919		(2000.0)	P	Q
<i>n</i>	0.28621397	ω	249.01385	+0.39560905	+0.86650004
<i>a</i>	2.2803884	Ω	48.13804	-0.61463212	+0.49607988
<i>e</i>	0.2298194	<i>i</i>	24.12641	-0.68243742	+0.05551956
<i>P</i>	3.44	<i>H</i>	14.6	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 04 23	704	0.2+	0.1-	1998 05 16	704	1.0+	0.2-	1999 12 16	704	0.9+	0.2+
1998 04 23	704	0.3-	0.2-	1998 05 16	704	0.7-	0.5+	1999 12 16	704	0.2-	0.7-
1998 04 23	704	0.0	0.3+	1998 05 17	704	0.0	0.0	1999 12 16	704	0.4+	1.0-
1998 04 23	704	0.0	0.0	1998 05 17	704	(3.1-	0.2+)	1999 12 16	704	0.1+	0.2-
1998 04 23	704	0.8+	1.9-	1999 12 07	703	0.2+	0.1-	1999 12 16	704	0.3+	0.4-
1998 04 24	704	0.6+	0.2-	1999 12 07	703	0.7-	1.2+	2000 01 02	704	0.5-	0.3-
1998 04 24	704	(2.9-	1.2+)	1999 12 07	703	0.0	0.1-	2000 01 02	704	0.5-	0.2+
1998 04 24	704	0.0	0.3+	1999 12 07	703	0.2-	0.3+	2000 01 02	704	0.8-	0.5+
1998 04 24	704	0.0	0.8+	1999 12 12	704	0.5+	0.4-	2000 01 02	704	0.5-	0.1+
1998 05 16	704	0.2-	0.3-	1999 12 12	704	0.3+	0.3+	2000 01 02	704	0.7-	0.4-
1998 05 16	704	0.2-	0.2+	1999 12 12	704	0.6+	0.3+				
1998 05 16	704	1.3-	0.7+	1999 12 12	704	0.6+	0.4+				

1998 HK₂₀ = 1999 VG₁₄₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	117.12803		(2000.0)	P	Q
<i>n</i>	0.28348445	ω	95.47379	+0.39431252	+0.91873124
<i>a</i>	2.2950028	Ω	197.79513	-0.86825597	+0.36488280
<i>e</i>	0.1902619	<i>i</i>	3.98260	-0.30108007	+0.15097499
<i>P</i>	3.48	<i>H</i>	15.4	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1992 10 23	010	0.3+	1.1-	1998 04 19	704	0.1+	0.0	1999 10 30	703	1.0-	0.0
1992 10 23	010	(0.2-	2.2-)	1998 04 19	704	0.7+	0.7-	1999 10 30	703	(3.7+	5.1-)
1998 03 20	704	1.5+	0.3+	1998 04 19	704	0.1+	0.1-	1999 10 30	703	0.3-	0.1-
1998 03 20	704	0.3-	0.9+	1998 04 19	704	0.3-	1.3-	1999 11 05	704	0.0	0.1-
1998 03 20	704	0.5+	0.9-	1998 04 19	704	1.0-	1.0-	1999 11 05	704	0.2-	0.7-
1998 03 20	704	1.5-	0.5-	1998 04 20	704	0.1+	0.4+	1999 11 05	704	0.7-	0.6+
1998 03 20	704	(4.7-	0.4-)	1998 04 20	704	0.7+	0.9+	1999 11 05	704	0.0	0.3-
1998 03 22	704	0.6+	1.0+	1998 04 20	704	0.0	0.7+	1999 11 05	704	0.3+	0.5+
1998 03 22	704	0.7-	0.4-	1998 04 20	704	1.2+	0.1+	1999 11 12	704	0.7+	0.3-
1998 03 22	704	1.9-	0.0	1998 04 20	704	(3.5-	1.0-)	1999 11 12	704	0.2+	0.5-
1998 03 22	704	1.9-	0.3+	1998 04 22	704	1.2+	0.2+	1999 11 12	704	0.5+	0.1-
1998 03 29	704	0.1+	0.2+	1998 04 22	704	0.7+	0.2+	1999 11 12	704	0.3+	0.1-
1998 03 29	704	0.1-	0.9-	1998 04 22	704	0.3+	0.6-	1999 11 12	704	0.9+	0.2-
1998 03 29	704	0.5+	1.0+	1998 04 22	704	1.4+	0.9+	1999 11 15	704	0.5-	0.0
1998 03 29	704	(2.5+	0.5+)	1998 04 22	704	0.7-	0.0	1999 11 15	704	0.5-	0.3+
1998 03 29	704	1.3-	0.0	1999 10 20	704	0.0	0.7+	1999 11 15	704	0.2-	0.0
1998 04 01	704	0.4+	0.2-	1999 10 20	704	0.4+	0.6+	1999 11 15	704	0.4-	0.2+
1998 04 01	704	0.5+	0.8-	1999 10 20	704	0.2-	0.2+	1999 11 15	704	0.5-	0.2+
1998 04 01	704	0.4-	0.3+	1999 10 20	704	0.5+	0.1-	1999 12 07	704	0.7+	0.5-
1998 04 01	704	0.2+	0.4+	1999 10 20	704	0.1+	0.6+	1999 12 07	704	0.3+	0.4+
1998 04 01	704	0.3-	0.0	1999 10 30	703	1.0-	0.7+	1999 12 07	704	0.3+	0.1+

1998 HG₃₇ = 1999 RG₁₈₅ = 1999 XL₁₇

Id. A. Doppler, G. V. Williams (d)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	53.13729		(2000.0)		P		Q				
<i>n</i>	0.21649354	ω	306.57330		+0.79390849		+0.60492895				
<i>a</i>	2.7468783	Ω	16.49057		-0.46550730		+0.66966778				
<i>e</i>	0.2317244	<i>i</i>	12.49267		-0.39116782		+0.43082018				
<i>P</i>	4.55	<i>H</i>	13.5		<i>G</i>	0.15	<i>U</i>	3			
Residuals in seconds of arc											
1998 03 25	704	0.5-	1.9+	1998 04 21	704	0.1+	0.4-	1999 09 13	704	0.1-	0.3-
1998 03 25	704	0.8-	0.7+	1998 04 21	704	0.0	0.7-	1999 09 13	704	0.3-	0.1-
1998 03 25	704	0.5+	1.0+	1998 04 21	704	0.2-	0.0	1999 09 13	704	0.4-	0.1-
1998 03 25	704	1.6+	0.7+	1998 04 21	704	0.2+	0.7-	1999 09 13	704	0.3-	0.2-
1998 03 25	704	1.1+	0.1+	1998 04 22	704	0.5+	1.3+	1999 11 07	704	0.8+	0.1-
1998 03 29	704	0.0	0.2+	1998 04 22	704	0.8-	0.7-	1999 11 07	704	0.1+	0.2-
1998 03 29	704	0.5+	0.5-	1998 04 22	704	0.6-	0.9-	1999 11 07	704	0.5-	0.3-
1998 03 29	704	0.0	0.1-	1998 04 22	704	0.6-	0.9+	1999 11 07	704	0.4+	0.3+
1998 03 29	704	0.8-	1.6+	1998 04 22	704	1.7-	1.5-	1999 11 07	704	0.6-	0.0
1998 03 29	704	0.2-	0.5+	1998 04 24	699	1.2-	0.3-	1999 12 02	704	0.2+	0.5+
1998 04 01	704	(1.7-	2.4+)	1998 04 24	699	0.4-	1.0+	1999 12 02	704	0.6+	0.4+
1998 04 01	704	0.3+	1.2+	1998 04 24	699	1.0+	0.8+	1999 12 02	704	0.2+	0.5+
1998 04 01	704	0.4+	0.1-	1998 05 16	704	0.2+	0.3+	1999 12 02	704	0.6+	0.8+
1998 04 01	704	0.6-	1.3-	1998 05 16	704	1.5+	1.0-	1999 12 07	704	0.1+	0.3+
1998 04 01	704	(2.5-	2.6-)	1998 05 16	704	1.5+	0.6-	1999 12 07	704	0.6-	0.5+
1998 04 20	704	0.5+	0.3+	1998 05 16	704	1.5+	0.9+	1999 12 07	704	0.2-	0.1+
1998 04 20	704	(0.1+	2.2-)	1999 09 09	704	0.1-	0.4-	1999 12 07	704	0.1-	0.8-
1998 04 20	704	0.2-	0.3-	1999 09 09	704	0.4-	0.1+	1999 12 07	704	0.3+	0.1-
1998 04 20	704	0.6+	1.1-	1999 09 09	704	0.1-	0.3+	1999 12 31	699	1.2-	0.9+
1998 04 20	704	1.0-	0.5+	1999 09 09	704	0.6+	0.3+	1999 12 31	699	1.2-	0.4+
1998 04 21	704	0.3-	0.8-	1999 09 09	704	0.4+	0.4+	1999 12 31	699	1.0-	0.3+

1998 HY₄₃ = 1999 VR₈₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	119.86898		(2000.0)		P		Q				
<i>n</i>	0.29251570	ω	243.49537		+0.45488681		+0.88936127				
<i>a</i>	2.2475185	Ω	53.63796		-0.79538989		+0.42896206				
<i>e</i>	0.1216453	<i>i</i>	3.27352		-0.40054078		+0.15820267				
<i>P</i>	3.37	<i>H</i>	15.4		<i>G</i>	0.15	<i>U</i>	4			
Residuals in seconds of arc											
1998 03 25	704	0.3+	0.0	1998 04 22	704	0.5+	0.7+	1999 11 05	704	0.5+	0.5-
1998 03 25	704	0.6+	0.7+	1998 04 22	704	0.1+	0.2-	1999 11 05	704	0.1+	0.3-
1998 03 25	704	1.3+	0.9-	1998 04 22	704	0.8+	0.3-	1999 11 05	704	0.7-	0.1-
1998 03 25	704	0.7+	1.7-	1998 04 22	704	0.3-	0.3+	1999 11 05	704	0.4+	0.0
1998 03 25	704	0.5-	1.4-	1998 05 16	704	0.4-	0.3-	1999 11 05	704	0.4-	0.0
1998 03 29	704	0.2+	1.3+	1998 05 16	704	0.4-	0.8-	1999 11 09	704	0.3+	0.4-
1998 03 29	704	1.7+	0.9+	1998 05 16	704	1.4-	1.2-	1999 11 09	704	0.1-	0.8-
1998 03 29	704	0.3+	1.0+	1998 05 16	704	(0.5-	2.8+)	1999 11 09	704	0.4-	0.7-
1998 03 29	704	0.6-	0.8+	1999 10 01	703	0.6-	1.8+	1999 11 09	704	0.4+	0.5-
1998 03 29	704	0.6-	0.8+	1999 10 01	703	0.7-	0.8-	1999 11 09	704	0.6-	0.4+
1998 04 20	704	0.2+	1.4-	1999 10 01	703	1.6-	1.4+	1999 11 12	704	0.3+	0.1+
1998 04 20	704	1.2-	0.4+	1999 10 01	703	1.6-	0.0	1999 11 12	704	0.3-	0.0
1998 04 20	704	1.1-	0.4+	1999 10 20	704	0.3+	0.7-	1999 11 12	704	0.3+	0.1-
1998 04 20	704	0.1-	0.5-	1999 10 20	704	1.2+	1.1-	1999 11 12	704	0.1+	0.8+
1998 04 21	704	1.1+	1.4+	1999 10 20	704	0.0	0.2+	1999 11 12	704	0.5+	0.0
1998 04 21	704	0.4-	1.3+	1999 10 20	704	0.7+	0.4+	1999 11 16	704	1.0+	0.4+
1998 04 21	704	0.6-	0.9+	1999 10 29	703	(2.5-	0.5-)	1999 11 16	704	0.4+	0.2-
1998 04 21	704	0.8-	0.4-	1999 10 29	703	0.7-	0.5+	1999 11 16	704	1.4+	0.0
1998 04 21	704	0.0	0.4-	1999 10 29	703	0.8-	1.2+	1999 11 16	704	0.7+	1.0-
1998 04 22	704	0.7+	1.2-	1999 10 29	703	0.0	0.3+	1999 11 16	704	0.1-	0.1+

1998 HV₄₅ = 1987 SC = 1987 UM₂ = 1995 MFId. M. E. Sansaturio, G. V. Williams, D. W. E. Green (d, *MPC* 15384)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	355.86447		(2000.0)		P		Q				
n	0.23792552	ω	163.92535		+0.95485137		-0.25975820				
a	2.5793406	Ω	212.26436		+0.23404814		+0.95662327				
e	0.1653993	i	15.66820		+0.18297633		+0.13189993				
P	4.14	H	12.7	G	0.15	U	4				
Residuals in seconds of arc											
1987 09 20	675(16.6-	0.5-)	1995 06 25	693	0.2+	0.0	1998 04 21	704	0.7+	0.3-	
1987 09 20	675(17.5-	0.2-)	1998 04 20	704	0.2-	0.1-	1998 04 21	704	0.5+	0.2-	
1987 09 26	095	0.1-	0.1-	1998 04 20	704	0.3+	1.0-	1998 04 21	704	0.6+	0.3-
1987 10 25	054	0.3+	0.3-	1998 04 20	704	0.1-	0.3-	1998 04 22	704	0.0	0.3+
1987 10 25	054	0.1-	0.3-	1998 04 20	704	0.2+	0.3-	1998 04 22	704	0.7-	0.3+
1995 06 24	693	0.4+	0.4-	1998 04 20	704	0.8-	0.6-	1998 04 22	704	0.3+	0.3+
1995 06 24	693	(2.7-	1.7+)	1998 04 21	704	0.3-	0.3+	1998 04 22	704	0.2-	0.5+
1995 06 25	693	0.6-	0.5+	1998 04 21	704	0.3-	0.3+	1998 04 22	704	0.1-	0.3+

1998 HC₄₆ = 1999 RV₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	258.61663		(2000.0)		P		Q				
<i>n</i>	0.26830032	ω	285.32464		-0.50344593		-0.86351191				
<i>a</i>	2.3807946	Ω	195.01382		+0.83032129		-0.47397197				
<i>e</i>	0.0867861	<i>i</i>	6.61063		+0.23897437		-0.17233038				
<i>P</i>	3.67	<i>H</i>	15.1		<i>G</i>	0.15	<i>U</i>	4			
Residuals in seconds of arc											
1998 03 29	704	0.3-	0.4+	1998 04 22	704	0.5+	0.1-	1999 09 04	703	0.3+	1.3+
1998 03 29	704	0.8-	0.2+	1998 04 22	704	0.0	0.4-	1999 09 04	703	0.6-	0.1-
1998 03 29	704	0.6-	0.1-	1998 04 22	704	0.3-	0.1+	1999 09 04	703	0.7-	0.4-
1998 03 29	704	0.9-	0.1+	1998 04 22	704	1.1+	1.2-	1999 09 07	704	0.0	0.8-
1998 03 29	704	1.2+	0.3+	1998 04 22	704	0.4+	0.6-	1999 09 07	704	1.8-	1.7-
1998 04 20	704	0.1+	1.2+	1998 05 19	910	0.3+	0.1+	1999 09 07	704	0.2-	1.8-
1998 04 20	704	(3.0+	1.1+)	1998 05 19	910	0.5+	0.1+	1999 09 08	703	0.8+	1.4+
1998 04 20	704	1.2+	0.4+	1998 05 19	910	0.3+	0.0	1999 09 08	703	1.2+	1.1+
1998 04 20	704	1.0-	0.3-	1999 07 13	704	0.1+	0.8+	1999 09 08	703	1.3+	1.0+
1998 04 21	704	0.5+	1.2-	1999 07 13	704	0.1+	1.1+	1999 09 08	703	0.8-	1.5-
1998 04 21	704	0.1-	1.7-	1999 07 13	704	0.3+	0.4-	1999 09 09	704	1.0+	1.4-
1998 04 21	704	0.1-	0.1+	1999 07 13	704	0.3-	0.8+	1999 09 09	704	(0.2+	2.1-)
1998 04 21	704	1.2-	0.7+	1999 07 13	704	0.3+	1.8+	1999 09 09	704	0.2-	1.4-
1998 04 21	704	1.1-	1.0+	1999 09 04	703	0.7-	0.1-				

1998 HD₄₆ = 1978 TF₅ = 1995 SU₂₁

Id. A. Doppler, G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	208.71195		(2000.0)			P		Q			
<i>n</i>	0.17212815	ω	8.01970			-0.06706272		-0.99708540			
<i>a</i>	3.2006249	Ω	85.83092			+0.91338057		-0.07602422			
<i>e</i>	0.1703471	<i>i</i>	2.09025			+0.40154517		+0.00640474			
<i>P</i>	5.73	<i>H</i>	13.1		<i>G</i>	0.15		<i>U</i>		1	
Residuals in seconds of arc											
1978 10 07	095	0.0	0.1+	1998 03 02	910	0.1-	0.5+	1998 04 21	704	0.2+	0.3-
1995 09 19	691	0.1-	0.4+	1998 03 25	704	0.3+	0.1-	1998 04 21	704	0.8+	1.0-
1995 09 19	691	0.1+	0.5+	1998 03 25	704	0.1-	1.3+	1998 04 21	704	0.7+	0.6-
1995 09 19	691	0.1-	0.5+	1998 03 25	704	0.1-	1.7+	1998 04 21	704	0.5+	0.8-
1995 09 24	691	0.5-	0.3+	1998 03 25	704	0.6-	0.3+	1998 04 21	704	0.1+	1.9-
1995 09 24	691	0.0	0.1+	1998 03 25	704	0.8-	0.7+	1998 04 22	704	0.4-	0.7-
1995 09 24	691	0.2-	0.0	1998 03 29	704	0.3+	1.2+	1998 04 22	704	0.3+	0.1-
1997 01 12	566	0.3-	0.1+	1998 03 29	704	1.0+	1.0+	1998 04 22	704	0.0	0.3+
1997 01 12	566	0.4-	0.1+	1998 03 29	704	0.1+	1.6+	1998 04 22	704	0.1+	0.8-
1997 01 12	566	0.2+	0.0	1998 03 29	704	0.4+	0.9+	1998 04 22	704	0.1+	0.7-
1997 01 14	599	0.1+	0.4+	1998 03 29	704	0.5+	1.0+	1998 05 16	704	0.5-	0.8+
1997 01 14	599	(3.9+	0.1-)	1998 04 20	704	0.5-	0.2-	1998 05 16	704	0.6-	1.2-
1997 01 15	599	0.3+	0.1+	1998 04 20	704	1.1+	0.4-	1998 05 16	704	(0.5+	2.5-)

2000 FEB. 22

1997 01 15	599	0.2+	0.6−	1998 04 20	704	1.3−	0.4−	1998 05 16	704	0.9−	0.5−
1998 03 02	910	0.1−	0.5+	1998 04 20	704	0.5+	0.5−				
1998 03 02	910	0.5−	0.4+	1998 04 20	704	0.0	0.1+				

1998 HN₄₆ = 2739 P-L = 1999 UX₂₀

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	191.96581		(2000.0)		P		Q
<i>n</i>	0.30345236	ω	119.06528		−0.73616411		+0.67587239
<i>a</i>	2.1931872	Ω	103.48111		−0.63295064		−0.66895510
<i>e</i>	0.0985052	<i>i</i>	2.09098		−0.23965784		−0.30934703
<i>P</i>	3.25	<i>H</i>	15.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1960 09 24	675	0.4−	1.1+	1998 04 20	704	0.2+	0.4−	1998 04 22	704	0.3−	0.3−
1960 09 26	675	0.1+	0.7+	1998 04 20	704	0.8+	1.6−	1999 10 02	703	0.3−	0.2+
1960 09 28	675	0.1+	0.2+	1998 04 20	704	0.7+	1.4+	1999 10 02	703	0.7−	0.3+
1960 09 29	675	0.2−	1.0−	1998 04 20	704	0.7+	0.1+	1999 10 02	703	1.2−	0.4+
1998 03 25	704	1.5+	0.3+	1998 04 20	704	1.1−	1.0+	1999 10 02	703	0.9−	1.1+
1998 03 25	704	0.4+	0.3+	1998 04 21	704	0.3+	0.1−	1999 10 04	704	0.9−	0.4+
1998 03 25	704	0.5−	1.3−	1998 04 21	704	0.5−	1.0−	1999 10 04	704	0.4+	0.3+
1998 03 25	704	0.6−	0.4+	1998 04 21	704	0.3−	0.5−	1999 10 04	704	1.3+	1.5−
1998 03 25	704	0.5+	1.1+	1998 04 21	704	0.2−	0.9−	1999 10 31	691	0.3+	0.2−
1998 03 29	704	0.1+	0.2−	1998 04 21	704	0.5−	0.1−	1999 10 31	691	0.4+	0.2−
1998 03 29	704	0.8−	0.3+	1998 04 22	704	0.1−	0.2+	1999 10 31	691	0.4+	0.2−
1998 03 29	704	1.3+	0.9+	1998 04 22	704	0.5−	0.3+	1999 11 04	691	0.5+	0.2−
1998 03 29	704	0.7+	0.5+	1998 04 22	704	0.8−	0.3+	1999 11 04	691	0.4+	0.4−
1998 03 29	704	0.5−	0.8+	1998 04 22	704	0.3−	0.3−	1999 11 04	691	0.4+	0.1−

1998 HG₄₈ = 1954 QY = 2000 AO₁₄

Id. M. E. Sansaturio, S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	107.44552		(2000.0)		P		Q
<i>n</i>	0.30975929	ω	244.67418		+0.88044932		+0.46102613
<i>a</i>	2.1633153	Ω	87.70232		−0.38534519		+0.83185703
<i>e</i>	0.2472845	<i>i</i>	6.36326		−0.27625727		+0.30898023
<i>P</i>	3.18	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1954 08 27	675	0.4+	0.5−	1998 04 23	704	0.1+	0.1+	2000 01 03	704	0.3+	0.5−
1954 08 27	675	0.2+	0.9−	1998 04 23	704	0.2+	0.3+	2000 01 03	704	0.3+	0.6−
1997 01 10	566	0.4−	0.1+	1998 04 23	704	1.0+	0.1+	2000 01 03	704	0.6−	0.9−
1997 01 10	566	0.2−	0.1+	1998 04 23	704	0.4+	0.2−	2000 01 03	704	0.2+	0.3−
1997 01 10	566	0.1−	0.0	1998 04 23	704	0.4+	0.2−	2000 01 04	704	0.1+	0.2+
1998 03 24	704	0.2+	1.0−	1998 04 24	704	0.9+	0.5−	2000 01 04	704	0.6+	0.5−
1998 03 24	704	0.5−	1.4+	1998 04 24	704	0.0	0.1−	2000 01 04	704	0.1−	0.9−
1998 03 24	704	1.8−	0.1+	1998 04 24	704	0.2−	0.0	2000 01 04	704	0.6+	0.9−
1998 03 24	704	(1.6−	2.2−)	1998 04 24	704	0.6+	0.3+	2000 01 04	704	0.0	0.5−
1998 03 24	704	0.9−	0.3−	1998 04 24	704	0.8−	0.7+	2000 01 07	691	0.1+	0.2−
1998 04 20	704	0.4−	0.7−	1999 12 08	704	0.5−	0.2−	2000 01 07	691	0.0	0.1−
1998 04 20	704	0.4+	1.1−	1999 12 08	704	0.0	0.2−	2000 01 07	691	0.2−	0.1−
1998 04 20	704	0.1−	0.8−	1999 12 08	704	0.9−	0.8−	2000 02 11	704	0.3+	0.2−
1998 04 20	704	0.6−	0.2+	1999 12 08	704	0.6−	0.5−	2000 02 11	704	0.4+	0.5+
1998 04 21	704	0.2+	0.4+	1999 12 15	703	0.2−	0.4+	2000 02 11	704	0.5−	1.2+
1998 04 21	704	0.6−	1.0+	1999 12 15	703	1.0+	0.8+	2000 02 11	704	0.6+	0.8+
1998 04 21	704	0.1+	0.9−	1999 12 15	703	0.0	0.6+	2000 02 11	704	0.8+	0.9+
1998 04 21	704	0.5+	1.1−	1999 12 15	703	0.0	0.5+				
1998 04 21	704	0.5+	0.1−	2000 01 03	704	0.2−	0.1+				

1998 HB₆₇ = 1989 SB₁₂ = 1999 RV₅₃

Id. A. Doppler, G. V. Williams

M.P.C. 38467

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	339.48319		(2000.0)		P		Q
<i>n</i>	0.29025459	ω	233.40081		+0.53204210		−0.84670556
<i>a</i>	2.2591756	Ω	184.46295		+0.79440095		+0.50102916
<i>e</i>	0.1348543	<i>i</i>	3.36747		+0.29301593		+0.17905157
<i>P</i>	3.40	<i>H</i>	15.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1989 09 30	809	0.0	0.3−	1998 04 21	704	1.0+	0.9+	1999 09 07	704	0.4−	0.3−
1989 09 30	809	0.6+	0.2−	1998 04 21	704	(2.4−	0.0)	1999 09 07	704	0.5−	0.6+
1989 09 30	809	1.2+	0.3−	1998 04 21	704	1.2−	0.7+	1999 09 07	704	1.0−	0.5−
1989 10 01	809	0.7−	0.6−	1998 04 22	704	1.1−	1.2−	1999 09 13	704	0.9+	0.4−
1989 10 01	809	0.4−	0.5−	1998 04 22	704	0.5+	0.4+	1999 09 13	704	1.2+	0.4+
1989 10 01	809	0.1+	0.4−	1998 04 22	704	0.9+	0.2−	1999 09 13	704	0.3+	0.2−
1998 03 03	910	0.2−	1.3−	1998 04 22	704	0.6−	0.7−	1999 09 13	704	0.1−	0.0
1998 03 03	910	0.4−	1.0−	1998 04 22	704	0.4+	0.9+	1999 09 13	704	0.4−	1.0−
1998 03 03	910	0.0	1.1−	1999 09 07	704	0.0	1.1+				
1998 04 21	704	(2.6−	0.2−)	1999 09 07	704	0.3−	0.9+				

1998 HG₆₈ = 1992 WW₇

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	244.14504		(2000.0)		P		Q
<i>n</i>	0.24166191	ω	131.66659		−0.32505863		−0.94526783
<i>a</i>	2.5526851	Ω	337.25532		+0.84438217		−0.27658906
<i>e</i>	0.1827170	<i>i</i>	4.21007		+0.42585871		−0.17311045
<i>P</i>	4.08	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1992 11 29	691	0.2−	0.1−	1998 04 01	704	0.2+	0.0	1998 04 22	704	0.3−	0.8+
1992 11 29	691	0.0	0.1−	1998 04 01	704	0.4+	0.4+	1998 04 22	704	1.8+	0.6+
1992 11 29	691	0.0	0.3+	1998 04 01	704	0.5+	1.3+	1998 04 22	704	0.7−	0.1−
1992 12 01	691	0.1+	0.1−	1998 04 01	704	(3.9−	2.6+)	1998 04 22	704	0.1+	0.0
1992 12 01	691	0.0	0.0	1998 04 21	704	0.5−	1.2−	1998 04 22	704	0.2+	0.2+
1992 12 01	691	0.1+	0.0	1998 04 21	704	1.3−	0.8−	1998 04 25	699	(2.8−	0.9−)
1998 03 25	910	0.1−	0.6−	1998 04 21	704	0.7+	0.3+	1998 04 25	699	0.2+	0.3−
1998 03 25	910	0.1−	0.3−	1998 04 21	704	0.2−	0.4+	1998 04 25	699	0.3+	0.6−
1998 03 25	910	0.4−	0.4−	1998 04 21	704	0.8−	0.2+				

1998 HH₈₆ = 1999 UR₃₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	160.07746		(2000.0)		P		Q
<i>n</i>	0.29542414	ω	43.30958		−0.17249765		+0.98298480
<i>a</i>	2.2327429	Ω	216.89014		−0.92999721		−0.18364785
<i>e</i>	0.0890777	<i>i</i>	6.03683		−0.32457627		+0.00378776
<i>P</i>	3.34	<i>H</i>	16.6	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 04 21	704	1.9−	0.6−	1998 04 22	704	0.4+	0.7+	1998 05 22	691	0.5+	0.5+
1998 04 21	704	1.3+	0.2−	1998 05 01	704	1.1−	0.0	1998 05 22	691	0.7+	0.3+
1998 04 21	704	0.2+	0.4+	1998 05 01	704	0.9+	1.1−	1998 05 22	691	0.7+	0.1+
1998 04 21	704	0.9−	2.4+	1998 05 01	704	1.4−	2.0−	1999 10 31	691	0.6+	0.1−
1998 04 21	704	2.2−	1.8+	1998 05 01	704	0.7+	0.6+	1999 10 31	691	0.4+	0.1−
1998 04 22	704	0.4−	0.9−	1998 05 01	704	2.5+	0.1+	1999 10 31	691	0.7+	0.1+
1998 04 22	704	0.2−	1.2−	1998 05 20	691	0.9−	0.0	1999 11 05	691	0.4−	0.1−
1998 04 22	704	0.1−	0.3−	1998 05 20	691	0.7−	0.4+	1999 11 05	691	0.6−	0.0
1998 04 22	704	2.4+	0.9−	1998 05 20	691	1.2−	0.3−	1999 11 05	691	0.6−	0.0

1998 HQ₉₈ = 1999 UB₃₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	144.64224	(2000.0)		P		Q					
<i>n</i>	0.26051917	ω	215.84948	-0.11666719	+0.99214240						
<i>a</i>	2.4279678	Ω	47.49756	-0.89634139	-0.08558691						
<i>e</i>	0.1992158	<i>i</i>	3.51425	-0.42773926	-0.09125975						
<i>P</i>	3.78	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	4				
Residuals in seconds of arc											
1998 04 21	704	0.1+	0.1+	1998 05 01	704	0.4-	0.1+	1999 11 05	691	0.1-	0.1-
1998 04 21	704	0.5-	0.7+	1998 05 01	704	0.4-	0.0	1999 11 05	691	0.1-	0.2-
1998 04 21	704	0.9-	0.9+	1998 05 22	704	0.3-	0.0	1999 11 05	691	0.2-	0.1-
1998 04 21	704	0.3-	1.5+	1998 05 22	704	0.1-	0.4+	1999 11 09	704	0.0	0.2+
1998 04 21	704	0.3+	0.9+	1998 05 22	704	0.3-	1.1+	1999 11 09	704	0.0	1.1+
1998 04 22	704	0.9+	0.3+	1998 05 22	704	0.9+	0.2+	1999 11 09	704	0.4-	1.1+
1998 04 22	704	0.1+	0.1-	1998 05 22	704	1.2+	1.0-	1999 11 09	704	0.7-	0.8+
1998 04 22	704	1.1+	0.9-	1998 05 24	704	0.2-	1.2-	1999 11 12	704	0.4+	0.7-
1998 04 22	704	0.1+	1.1-	1998 05 24	704	1.9-	1.7-	1999 11 12	704	0.2-	0.6-
1998 04 25	699	0.1+	0.4+	1998 05 24	704	0.9+	2.0+	1999 11 12	704	0.6+	0.3-
1998 04 25	699	0.3+	0.4+	1998 05 24	704	0.5-	0.2-	1999 11 12	704	0.4-	0.6-
1998 04 25	699	0.8+	0.3+	1998 05 24	704	0.2-	1.2+	1999 11 12	704	0.5-	0.0
1998 05 01	704	0.5+	0.5-	1999 10 31	691	0.3-	0.1+	1999 11 16	704	0.3+	1.4+
1998 05 01	704	0.5-	1.1-	1999 10 31	691	0.3-	0.0	1999 11 16	704	1.2+	0.2+
1998 05 01	704	0.1-	0.7-	1999 10 31	691	0.1-	0.3+	1999 11 16	704	(1.4+	2.2+)

1998 KN₇ = 1999 YT₁₁

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	159.10611		(2000.0)		P		Q				
<i>n</i>	0.30976869	ω	203.64816		+0.37215437		+0.92326480				
<i>a</i>	2.1632715	Ω	88.31319		−0.83564361		+0.37797572				
<i>e</i>	0.1659031	<i>i</i>	5.47131		−0.40398128		+0.06867655				
<i>P</i>	3.18	<i>H</i>	16.9		<i>G</i>	0.15	<i>U</i>	6			
Residuals in seconds of arc											
1998 05 22	704	0.3−	0.2+	1998 05 24	704	1.2−	0.8−	1998 05 24	704	1.0−	2.7+
1998 05 22	704	1.2+	0.4+	1998 05 24	699	0.2−	1.0−	1999 12 27	691	0.6−	0.1−
1998 05 22	704	0.0	0.6+	1998 05 24	699	0.0	0.1−	1999 12 27	691	0.2−	0.0
1998 05 22	704	0.7+	1.3+	1998 05 24	704	0.3−	0.5−	1999 12 27	691	0.4+	0.1−
1998 05 23	699	1.1+	0.4−	1998 05 24	699	0.1−	0.0	2000 01 02	691	0.3+	0.1+
1998 05 23	699	0.0	0.4−	1998 05 24	704	0.4+	0.2+	2000 01 02	691	0.1+	0.2+
1998 05 23	699	1.0−	0.0	1998 05 24	704	0.7+	2.4−	2000 01 02	691	0.0	0.2−

1998 KA₄₈ = 2000 AN₂₃₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	144.28537		(2000.0)		P		Q				
<i>n</i>	0.28415023	ω	206.81408		+0.63961965		+0.75768481				
<i>a</i>	2.2914165	Ω	103.24146		−0.67921113		+0.63602834				
<i>e</i>	0.2339194	<i>i</i>	7.65204		−0.35994298		+0.14622472				
<i>P</i>	3.47	<i>H</i>	15.5		<i>G</i>	0.15	<i>U</i>	5			
Residuals in seconds of arc											
1998 05 22	704	0.9−	1.4−	1998 06 24	704	0.6+	0.9−	1998 06 26	704	0.1+	0.4+
1998 05 22	704	0.7−	0.7+	1998 06 24	704	0.6−	0.7+	2000 01 06	691	0.2−	0.0
1998 05 22	704	1.7+	1.2−	1998 06 24	704	1.0−	0.0	2000 01 06	691	0.6+	0.6+
1998 05 22	704	1.6+	1.3+	1998 06 24	704	0.6+	0.3+	2000 01 06	691	0.1−	0.1+
1998 05 24	704	0.2+	0.7−	1998 06 24	704	0.6+	1.8−	2000 01 07	704	0.1+	0.5−
1998 05 24	704	0.9−	0.1−	1998 06 26	704	0.3+	0.4−	2000 01 07	704	0.1−	0.2−
1998 05 24	704	0.8−	0.3+	1998 06 26	704	0.3−	0.9+	2000 01 07	704	0.4−	0.1+
1998 05 24	704	0.1−	1.6+	1998 06 26	704	0.3+	0.5+				
1998 05 24	704	0.1−	0.3−	1998 06 26	704	0.5−	0.3+				

1998 KS₅₆ = 1989 TF₁₂

Id. A. Gnädig (1996 observations), G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	56.06652	(2000.0)		P		Q					
n	0.29817602	ω	207.29941	+0.98293092	−0.18302355						
a	2.2189843	Ω	163.21517	+0.17838834	+0.92331317						
e	0.1406847	i	3.71014	+0.04499341	+0.33763172						
P	3.31	H	15.2	G	0.15	U	2				
Residuals in seconds of arc											
1989 10 03	809	1.0+	2.0−	1998 05 24	704	1.3+	1.4+	1999 11 05	704	0.5−	0.7+
1989 10 03	809	0.6+	2.4−	1998 05 24	704	(1.5−	2.3−)	1999 11 05	704	0.2−	0.6+
1989 10 03	809	0.8+	2.3−	1998 05 24	704	(0.6+	2.4+)	1999 11 05	704	0.6−	0.7+
1996 11 19	675	0.1−	0.8−	1998 05 24	704	0.3+	0.7−	1999 11 05	704	0.1−	1.0+
1996 11 19	675	0.2−	0.7−	1998 05 24	704	0.2−	0.1+	1999 11 05	704	0.1−	0.8+
1998 04 21	704	1.1−	0.6−	1999 10 02	703	0.3−	0.3+	1999 11 13	699	0.4−	0.7+
1998 04 21	704	0.8−	0.4−	1999 10 02	703	0.1−	0.7+	1999 11 13	699	0.1+	0.2+
1998 04 21	704	(2.6+	1.5+)	1999 10 02	703	0.5−	0.9+	1999 11 13	699	0.2−	0.2+
1998 04 21	704	(3.1+	0.8−)	1999 10 02	703	0.7−	0.7+	1999 12 04	699	0.0	0.4+
1998 04 21	704	(2.6+	1.0+)	1999 10 20	704	0.6+	0.6+	1999 12 04	699	0.7−	0.4+
1998 05 01	704	1.3+	1.1−	1999 10 20	704	0.1+	0.1−	1999 12 04	699	0.0	0.4+
1998 05 01	704	0.7+	1.4+	1999 10 20	704	0.0	0.7+	2000 01 05	704	0.6+	1.1−
1998 05 01	704	1.9+	0.2+	1999 10 20	704	0.1+	0.2+	2000 01 05	704	1.4+	1.2−
1998 05 01	704	0.1−	0.4−	1999 10 20	704	0.0	0.5+	2000 01 05	704	0.2+	0.6−
1998 05 22	704	1.5−	1.5+	1999 10 30	703	0.5−	0.4+	2000 01 05	704	1.1+	0.8−
1998 05 22	704	1.1−	1.8+	1999 10 30	703	0.3−	0.6+	2000 01 05	704	0.2+	1.1−
1998 05 22	704	0.5−	1.9−	1999 10 30	703	0.5−	0.1+				
1998 05 22	704	(0.7−	2.8+)	1999 10 30	703	0.4−	0.2+				

1998 MW₂ = 1999 UP₃₄

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	151.67779	(2000.0)		P			Q				
<i>n</i>	0.26673631	<i>ω</i>	54.20870	−0.06988246			+0.99584339				
<i>a</i>	2.3900921	<i>Ω</i>	211.93479	−0.94717440			−0.08461382				
<i>e</i>	0.0975507	<i>i</i>	6.34046	−0.31301292			+0.03371124				
<i>P</i>	3.70	<i>H</i>	15.9	<i>G</i>	0.15		<i>U</i>	4			
Residuals in seconds of arc											
1998 06 16	691	0.6−	0.4−	1998 06 29	691	0.0	0.1+	1999 10 31	691	0.2−	0.3−
1998 06 16	691	0.2−	0.1−	1998 06 29	691	0.2−	0.1+	1999 10 31	691	0.2−	0.1−
1998 06 16	691	0.7−	0.2−	1998 06 29	691	0.2−	0.3+	1999 10 31	691	0.1−	0.3−
1998 06 22	691	0.4+	0.2+	1999 10 20	704	1.6+	1.2+	1999 11 05	691	0.1+	0.0
1998 06 22	691	0.8+	0.4−	1999 10 20	704	0.0	0.4−	1999 11 05	691	0.2+	0.0
1998 06 22	691	0.8+	0.3+	1999 10 20	704	1.6−	0.1−	1999 11 05	691	0.1+	0.0

1998 MM₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	127.98471		(2000.0)		P		Q				
n	0.26944457	ω	241.78487		+0.92394778		+0.31711016				
a	2.3740495	Ω	99.05582		-0.22820735		+0.90577937				
e	0.2574347	i	12.51057		-0.30698845		+0.28107805				
P	3.66	H	15.1		G	0.15	U	3			
Residuals in seconds of arc											
1998 06 17	426	0.6+	0.1-	1998 07 21	704	1.3+	0.2-	1998 09 23	426	0.7+	0.5+
1998 06 17	426	0.2+	0.2-	1998 07 21	704	1.3-	0.4+	1998 09 23	426	0.2-	0.3+
1998 06 17	426	0.0	0.4-	1998 07 21	704	0.3+	0.9+	2000 01 04	704	0.1+	0.8-
1998 06 17	426	0.1+	0.3-	1998 07 21	704	0.7+	1.2+	2000 01 04	704	0.5-	0.6-
1998 06 25	426	0.3-	0.2-	1998 08 09	426	1.3-	0.4-	2000 01 04	704	0.2+	0.4-
1998 06 25	426	0.6+	0.1+	1998 08 10	426	0.6-	0.1+	2000 01 04	704	0.1-	0.1+
1998 06 25	426	0.3+	0.1+	1998 08 10	426	0.9-	0.2-	2000 01 04	704	0.2-	1.1+
1998 06 25	426	0.4+	0.3-	1998 08 10	426	0.5-	0.8-	2000 01 30	704	0.0	0.1-
1998 06 26	704	0.9-	0.1+	1998 08 12	426	0.5-	0.4-	2000 01 30	704	0.3+	0.2+
1998 06 26	704	0.6+	0.3-	1998 08 12	426	0.6-	0.3-	2000 01 30	704	0.0	0.3+
1998 06 26	704	0.5-	0.2+	1998 08 12	426	0.6-	0.2-	2000 02 11	858	0.3-	0.7-
1998 06 26	704	(2.4-	2.4+)	1998 08 28	426	0.3+	0.3-	2000 02 11	858	0.2-	0.2+

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1998 07 01	426	0.3+	0.0	1998 08 28	426	0.2+	0.5−	2000 02 11	858	0.0	0.1+
1998 07 01	426	0.4+	0.1+	1998 08 28	426	0.3+	0.3−	2000 02 12	858	0.0	0.7−
1998 07 03	426	0.4+	0.5+	1998 09 16	426	0.1−	0.2+	2000 02 12	858	0.3+	0.6+
1998 07 03	426	0.0	0.1+	1998 09 16	426	0.3+	0.3+	2000 02 12	858	0.2+	0.1−
1998 07 03	426	0.1+	0.1+	1998 09 23	426	0.0	0.1−				

1998 MY₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	135.81588		(2000.0)	P	Q
<i>n</i>	0.23417000	ω	60.79907	+0.71301510	+0.67829935
<i>a</i>	2.6068450	Ω	255.86333	−0.68992853	+0.63362343
<i>e</i>	0.2548064	<i>i</i>	10.54931	−0.12493238	+0.37206363
<i>P</i>	4.21	<i>H</i>	14.1	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1990 10 16	675	0.9−	0.3+	1998 06 30	704	1.0−	0.1+	1998 08 27	704	0.3+	0.9+
1990 10 16	675	0.8+	0.7−	1998 06 30	704	0.4+	1.3+	1998 08 27	704	0.8+	0.4+
1993 03 18	413	0.7−	1.2−	1998 06 30	704	(2.1−	1.6+)	1998 08 27	704	0.0	0.1−
1993 03 18	413	0.3−	0.3−	1998 08 22	566	0.5−	1.0−	1998 08 27	704	0.4+	1.3+
1993 04 20	413	0.5−	0.2−	1998 08 22	566	0.7−	1.4−	1998 09 18	699	0.1−	0.6+
1993 04 20	413	1.1+	0.6−	1998 08 22	566	0.4−	1.1−	1998 09 18	699	0.0	0.8+
1995 12 28	675	1.2−	0.3+	1998 08 24	704	0.5+	0.5+	1998 09 18	699	0.2+	0.7+
1995 12 28	675	1.3+	0.9+	1998 08 24	704	1.2+	0.2−	1998 10 14	327	0.1+	0.4−
1998 06 19	699	0.1+	0.0	1998 08 24	704	(3.5+	0.0)	1998 10 14	327	0.2+	0.4−
1998 06 19	699	0.3−	0.3−	1998 08 24	704	0.9+	1.1+	1998 10 14	327	0.2+	0.3−
1998 06 19	699	0.7−	0.1−	1998 08 24	704	0.2−	0.6+	1998 10 22	327	0.5+	0.6−
1998 06 25	699	0.6−	0.1+	1998 08 27	704	(2.1+	0.4+)	1998 10 22	327	0.4−	0.1−
1998 06 25	699	0.6−	0.1+	1998 08 27	704	(3.2−	2.0+)	1998 10 22	327	(2.6−	0.2+)
1998 06 25	699	0.4−	0.3+	1998 08 27	704	(1.5−	4.5−)	1998 12 09	704	(2.2+	0.8−)
1998 06 30	704	0.1−	0.3−	1998 08 27	704	0.0	0.0	1998 12 09	704	(0.2−	2.5−)
1998 06 30	704	1.4−	0.5−	1998 08 27	704	0.7+	1.9−	1998 12 09	704	0.5+	1.1−

1998 MZ₁₁ = 1991 XM₅ = 2000 AY₁₈₈

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	52.41252		(2000.0)	P	Q
<i>n</i>	0.24237725	ω	256.59597	+0.84228439	−0.50932741
<i>a</i>	2.5476601	Ω	133.68621	+0.53843934	+0.81035538
<i>e</i>	0.1974067	<i>i</i>	14.12504	−0.02529996	+0.28967178
<i>P</i>	4.07	<i>H</i>	13.4	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1991 12 09	809	0.2−	0.7+	1998 06 25	704	1.4+	0.8−	2000 01 08	704	0.4+	0.1−
1991 12 09	809	0.7−	0.4+	1998 06 25	704	1.0−	0.9−	2000 01 08	704	0.0	0.2−
1991 12 09	809	0.7+	0.2−	1998 06 25	704	0.8+	0.1−	2000 01 11	704	0.2+	0.1−
1998 06 19	704	0.2−	1.3+	1999 12 03	704	1.9−	0.3+	2000 01 11	704	0.3+	0.1−
1998 06 19	704	0.3+	0.2+	1999 12 03	704	0.4−	0.3−	2000 01 11	704	0.1+	0.2−
1998 06 19	704	0.8−	0.1+	1999 12 03	704	0.6−	0.1−	2000 01 11	704	0.3+	0.1−
1998 06 19	704	0.3−	1.5+	2000 01 08	704	0.4+	0.0	2000 01 11	704	0.1+	0.2−
1998 06 19	704	0.7−	0.3−	2000 01 08	704	0.8+	1.2+				
1998 06 25	704	0.6+	0.6−	2000 01 08	704	0.7+	0.4−				

1998 MN₁₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	325.52938		(2000.0)	P	Q
<i>n</i>	0.50841231	ω	350.21731	−0.34396554	+0.88003355
<i>a</i>	1.5547432	Ω	259.08013	−0.83738924	−0.44526814
<i>e</i>	0.2244808	<i>i</i>	19.48114	−0.42481405	+0.16515823
<i>P</i>	1.94	<i>H</i>	17.8	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1998 06 25	704	(0.6+	2.1−)	1998 06 28	046	0.2+	0.0	1998 07 17	046	0.1−	0.3+
1998 06 25	704	0.6−	0.3−	1998 06 28	633	0.1+	0.3−	1998 07 17	118	0.1−	0.2+
1998 06 25	704	(3.1+	1.9−)	1998 06 28	046	0.1+	0.2−	1998 07 17	118	0.1−	0.3+
1998 06 25	704	0.9−	1.3−	1998 06 28	633	0.3+	0.0	1998 07 18	402	0.1−	0.3+

1998 06 25	704	(4.2−	1.5+)	1998 06 28	633	0.1+	0.3+	1998 07 18	402	0.1−	0.2+
1998 06 26	426	0.2−	0.1−	1998 06 29	108	0.6+	0.5−	1998 07 18	402	0.1+	0.2+
1998 06 26	426	0.5−	0.1+	1998 06 29	108	1.1−	1.3−	1998 07 19	557	0.1−	0.0
1998 06 26	426	0.4−	0.1+	1998 06 29	108	1.1−	2.0−	1998 07 19	633	0.5−	0.3+
1998 06 26	104	0.3−	0.3+	1998 06 30	402	0.2+	0.1−	1998 07 19	557	0.1+	0.1+
1998 06 26	104	0.5−	0.0	1998 06 30	402	0.1−	0.3−	1998 07 19	633	0.4+	0.1−
1998 06 26	104	0.4−	0.6+	1998 06 30	402	0.2−	0.5−	1998 07 19	633	0.1−	0.9+
1998 06 26	104	0.5−	0.5+	1998 07 01	670	0.0	0.4−	1998 07 21	118	0.0	0.0
1998 06 27	468	0.2+	0.0	1998 07 01	670	0.3+	0.0	1998 07 21	118	0.1−	0.3−
1998 06 27	468	0.6+	1.8+	1998 07 01	670	0.4−	0.3+	1998 07 21	557	0.0	0.6−
1998 06 27	468	0.2+	1.6+	1998 07 03	557	0.6−	0.0	1998 07 21	557	0.0	0.1−
1998 06 27	104	0.6+	0.4−	1998 07 03	557	0.6−	0.4+	1998 07 30	108	(2.9+	0.4+)
1998 06 27	104	0.2−	0.3−	1998 07 03	402	0.3−	0.0	1998 07 30	108	0.7+	0.3+
1998 06 27	709	0.1−	0.4+	1998 07 03	402	0.2−	0.1+	1998 08 03	954	1.0+	0.4−
1998 06 27	709	0.2−	0.3+	1998 07 03	402	0.3−	0.2+	1998 08 03	954	1.2+	0.6−
1998 06 27	709	0.0	0.7+	1998 07 03	360	0.3−	0.2+	1998 08 04	954	0.8+	0.7−
1998 06 27	709	0.1−	0.4+	1998 07 03	360	0.3−	0.2+	1998 08 05	954	0.7+	0.7−
1998 06 27	709	0.2−	0.5+	1998 07 03	360	0.3−	0.3+	1998 08 05	954	1.0+	0.7−
1998 06 27	734	1.2+	2.0−	1998 07 03	046	0.2−	0.1+	1998 08 06	557	0.3+	0.1−
1998 06 27	734	0.3+	0.3+	1998 07 03	046	0.1−	0.1+	1998 08 06	046	0.0	0.5−
1998 06 27	734	0.4+	0.9−	1998 07 03	046	0.3−	0.2+	1998 08 06	557	0.4+	0.2−
1998 06 27	711	0.1−	0.4+	1998 07 03	046	0.3−	0.2+	1998 08 06	046	0.3−	0.5−
1998 06 27	711	0.1−	0.6+	1998 07 03	118	0.1−	0.1+	1998 08 06	046	0.1−	0.3+
1998 06 27	711	0.2−	0.3+	1998 07 03	118	0.2−	0.3+	1998 08 06	046	0.2+	0.5−
1998 06 27	426	0.2+	0.1−	1998 07 03	118	0.2−	0.1+	1998 08 08	046	0.1+	1.1−
1998 06 27	426	0.3+	0.0	1998 07 04	143	0.1+	0.5+	1998 08 08	046	0.1+	1.0−
1998 06 27	426	0.1+	0.0	1998 07 04	143	0.4+	0.3+	1998 08 08	046	0.1−	0.7−
1998 06 27	426	0.2+	0.0	1998 07 04	143	0.3−	0.2+	1998 08 08	046	0.7−	1.3−
1998 06 27	121	(0.7+	2.1−)	1998 07 04	143	0.1−	0.0	1998 08 11	402	0.1−	0.4+
1998 06 27	121	0.9+	1.3−	1998 07 04	143	0.8+	1.8−	1998 08 11	402	0.4+	0.0
1998 06 27	121	0.5+	1.5−	1998 07 08	402	0.2+	0.1−	1998 08 11	402	0.4−	0.3−
1998 06 27	104	0.8+	0.7−	1998 07 08	402	0.0	0.1−	1998 08 14	046	0.3−	0.3+
1998 06 27	104	0.5+	0.8+	1998 07 08	402	0.0	0.1−	1998 08 14	046	0.3+	0.1+
1998 06 27	104	0.1+	0.2+	1998 07 08	402	0.2+	0.3−	1998 08 14	046	0.2+	0.5+
1998 06 27	046	0.3+	0.1+	1998 07 10	108	1.0+	1.2−	1998 08 14	118	0.4+	0.6−
1998 06 27	046	0.0	0.0	1998 07 10	108	0.2+	1.1+	1998 08 14	118	0.8−	0.1+
1998 06 27	046	0.1+	0.1+	1998 07 14	104	0.5−	0.6+	1998 08 17	557	0.0	0.6−
1998 06 27	046	0.0	0.0	1998 07 14	104	0.4−	0.8+	1998 08 17	557	0.7−	0.0
1998 06 27	557	0.3+	0.4+	1998 07 14	104	0.5−	0.5+	1998 08 25	711	0.1−	0.2+
1998 06 27	557	0.3+	0.2−	1998 07 14	046	0.5−	0.7+	1998 08 26	711	(2.7−	0.5+)
1998 06 27	540	0.0	0.3−	1998 07 14	046	0.5−	0.6+	1998 08 26	711	0.8−	0.2+
1998 06 27	557	0.0	0.1+	1998 07 14	046	0.6−	0.5+	1998 08 26	658	0.2−	0.2+
1998 06 27	557	0.1−	0.1+	1998 07 14	557	0.7−	0.4+	1998 08 26	658	0.5−	0.0
1998 06 27	540	0.7+	0.0	1998 07 14	557	0.1−	0.7+	1998 08 26	658	0.3−	0.3−
1998 06 27	557	0.1+	0.1+	1998 07 14	557	0.0	0.9+	1998 08 26	587	1.0+	1.2+
1998 06 27	557	0.0	0.1+	1998 07 15	118	0.5−	0.3+	1998 08 26	587	0.5−	1.5+
1998 06 27	540	0.9+	1.1−	1998 07 15	118	0.1−	0.4+	2000 02 07	413	0.3−	0.3+
1998 06 28	633	0.6+	0.4−	1998 07 17	046	0.3−	0.6+	2000 02 07	413	0.3+	0.2+
1998 06 28	046	0.2+	0.4+	1998 07 17	046	0.3−	0.0	2000 02 08	413	0.2−	0.4+
1998 06 28	046	0.3+	0.3+	1998 07 17	046	0.5−	0.2+				

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1998 06 26	809	0.2+	0.0	2000 01 05	704	0.2-	0.1-	2000 02 02	704	0.0	0.2-
1998 06 26	809	0.4+	0.8+	2000 01 05	704	0.3-	0.2-	2000 02 02	704	0.2+	0.3-
1998 06 26	704	1.3+	0.4-	2000 01 05	704	0.6-	0.1-	2000 02 02	704	0.1+	0.5-
1998 06 26	704	(0.6+	3.4-)	2000 01 06	120	1.0+	0.1-	2000 02 02	704	0.2-	0.6+
1998 06 26	704	1.6-	1.3-	2000 01 06	120	0.3+	1.0-	2000 02 02	704	0.4+	0.3+
1998 06 27	809	1.0-	0.3+	2000 01 06	704	0.6+	0.3+	2000 02 03	704	0.1+	0.2-
1998 06 27	809	1.6-	0.2-	2000 01 06	704	0.0	0.1+	2000 02 03	704	0.0	0.2-
1998 06 27	809	1.4-	0.1+	2000 01 06	704	0.0	0.2-	2000 02 03	704	(3.6+	0.1+)
1998 07 26	704	0.4-	0.3-	2000 01 06	704	0.2-	0.3-	2000 02 03	704	1.7-	0.3+
1998 07 26	704	1.0+	0.3+	2000 01 06	704	0.5-	0.4-	2000 02 03	704	0.4+	0.6+
1998 07 26	704	1.4+	1.3-	2000 01 06	120	0.5+	0.4-				

1998 MU₃₃ = 1987 SS₄ = 1999 XW₁₆₈

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26115370	ω	357.75717	+0.54235858		+0.83786449	
<i>a</i>	2.4240334	Ω	305.08092	-0.76963783		+0.46595130	
<i>e</i>	0.0534594	<i>i</i>	4.33728	-0.33690470		+0.28438088	
<i>P</i>	3.77	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1987 09 25	054	0.2-	0.7+	1998 07 03	699	0.3-	0.1+	1999 12 10	704	0.2-	0.4-
1987 09 25	054	0.3+	1.0-	1998 07 03	699	0.3-	0.3-	1999 12 15	704	0.2+	0.5-
1998 06 24	704	0.5-	0.6-	1998 07 26	704	0.6+	0.3-	1999 12 15	704	0.0	0.3-
1998 06 24	704	0.9-	0.0	1998 07 26	704	0.2+	0.0	1999 12 15	704	0.1+	0.3-
1998 06 24	704	1.2-	0.5+	1998 07 26	704	1.6+	0.2+	1999 12 15	704	0.2+	0.9-
1998 06 24	704	0.5-	0.1-	1998 07 26	704	0.9-	0.5+	1999 12 15	704	0.1+	1.0-
1998 06 24	704	(2.2-	0.9+)	1998 08 15	704	0.9+	1.8-	2000 01 03	704	1.2+	1.8+
1998 06 26	704	0.8-	0.4+	1998 08 15	704	(0.9+	2.4-)	2000 01 03	704	0.2+	0.1+
1998 06 26	704	0.1-	1.6+	1998 08 15	704	1.2+	1.4+	2000 01 03	704	0.2-	0.2+
1998 06 26	704	0.1-	0.9-	1998 08 15	704	1.1+	0.1+	2000 01 03	704	1.1-	1.0+
1998 06 26	704	0.3+	0.5-	1999 11 16	704	0.8-	0.2-	2000 01 04	704	0.7+	0.1-
1998 06 28	809	0.7-	1.6+	1999 11 16	704	1.1-	0.6-	2000 01 04	704	0.4+	0.6+
1998 06 28	809	(1.0-	2.2+)	1999 11 16	704	0.2-	0.0	2000 01 04	704	0.4-	0.3+
1998 06 28	809	(1.2-	2.3+)	1999 11 16	704	0.8-	0.5-	2000 01 04	704	0.8+	0.1+
1998 07 01	809	(0.7-	2.1+)	1999 11 16	704	1.0-	0.9-	2000 01 04	704	0.0	0.6+
1998 07 01	809	(0.7-	2.3+)	1999 12 10	704	0.8+	0.3+	2000 02 11	704	0.6+	0.2+
1998 07 01	809	(0.1-	2.5+)	1999 12 10	704	0.3+	0.3+	2000 02 11	704	0.2-	0.2+
1998 07 03	699	0.1-	0.1-	1999 12 10	704	0.1-	1.8+	2000 02 11	704	0.2+	1.3+

1998 MJ₃₄ = 1998 LJ₃ = 1999 XE₇₆

Id. M. E. Sansaturio, A. Doppler, G. V. Williams (d)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26850812	ω	202.93591	+0.52100569		+0.84505141	
<i>a</i>	2.3795660	Ω	98.65580	-0.76306990		+0.52422108	
<i>e</i>	0.1273856	<i>i</i>	6.98191	-0.38246228		+0.10526335	
<i>P</i>	3.67	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 06 02	691	0.2-	0.2+	1998 06 26	704	0.4+	1.1-	1999 12 08	704	0.4+	0.0
1998 06 02	691	0.1-	0.1+	1998 06 28	809	(5.4-	3.0+)	2000 01 05	704	0.3-	0.7+
1998 06 02	691	0.1+	0.2+	1998 06 28	809	(4.6-	2.2+)	2000 01 05	704	0.3+	0.1+
1998 06 24	704	0.5+	1.2+	1998 06 28	809	(4.6-	2.9+)	2000 01 05	704	0.1-	0.5-
1998 06 24	704	0.2+	0.3-	1999 12 07	704	0.7+	0.2-	2000 01 05	704	0.4+	0.7+
1998 06 24	704	1.3+	0.3+	1999 12 07	704	0.1-	0.1-	2000 01 05	704	0.3+	0.1+
1998 06 24	704	0.4-	0.4-	1999 12 07	704	0.1-	0.0	2000 01 06	704	0.3-	0.6+
1998 06 24	704	0.2+	0.3-	1999 12 07	704	0.2-	0.1-	2000 01 06	704	0.2-	0.0
1998 06 26	704	0.4-	0.5+	1999 12 08	704	0.3-	0.4-	2000 01 06	704	0.6+	0.4+
1998 06 26	704	1.4-	0.4+	1999 12 08	704	0.8-	0.2-	2000 01 06	704	0.0	0.2+
1998 06 26	704	0.2-	0.4-	1999 12 08	704	0.4-	0.1-	2000 01 06	704	0.0	0.4-

1998 MM₃₇ = 2000 AH₂₃₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.18775683	ω	209.60953	+0.87444219		+0.46130482	
<i>a</i>	3.0204539	Ω	122.16279	-0.40291175		+0.86298195	
<i>e</i>	0.0858733	<i>i</i>	10.21741	-0.27020914		+0.20605827	
<i>P</i>	5.25	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 06 24	699	(0.1-	2.3+)	1998 08 23	704	1.2+	0.2+	1999 12 14	704	0.3-	0.3+
1998 06 24	699	0.4+	0.4+	1998 08 30	699	0.4-	0.1+	1999 12 14	704	0.7+	0.9-
1998 06 24	699	0.1-	1.3+	1998 08 30	699	0.0	0.5-	1999 12 14	704	0.5+	1.2+
1998 07 02	699	0.6-	0.1+	1998 08 30	699	0.3+	0.6-	2000 01 06	699	0.1-	1.0+
1998 07 02	699	0.4-	1.0-	1999 11 05	704	0.3+	0.4-	2000 01 06	699	0.1-	0.6-
1998 07 02	699	0.0	0.4-	1999 11 05	704	0.0	0.3+	2000 01 06	699	0.3-	0.4-
1998 08 17	704	1.0-	0.4+	1999 11 05	704	0.5+	1.0-	2000 01 11	704	0.2+	0.1+
1998 08 17	704	0.4-	0.5+	1999 11 05	704	0.2-	1.2-	2000 01 11	704	0.2-	0.5+
1998 08 17	704	1.0-	0.6+	1999 11 05	704	0.4-	0.5+	2000 01 11	704	0.3-	0.0
1998 08 17	704	0.2-	1.3+	1999 12 03	704	0.4-	0.1+	2000 01 11	704	0.3-	0.8+
1998 08 23	704	1.3+	0.4-	1999 12 03	704	0.6+	0.1+	2000 01 11	704	0.2+	0.6+
1998 08 23	704	1.4+	0.9-	1999 12 03	704	0.1-	0.3+				
1998 08 23	704	0.6-	0.7-	1999 12 14	704	0.4-	0.9-				

1998 OY = 1999 XH₁₀ = 2000 AU₂₄₅

Id. A. Doppler, G. V. Williams (d)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.19349891	ω	108.40946	+0.85752361		-0.49052931	
<i>a</i>	2.9603998	Ω	281.22224	+0.39184264		+0.81805844	
<i>e</i>	0.0640668	<i>i</i>	9.09384	+0.33333557		+0.30026885	
<i>P</i>	5.09	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 07 20	910	0.0	0.0	1998 07 30	910	0.1-	0.2-	1999 12 05	703	1.1-	0.8+
1998 07 20	910	0.2-	0.2-	1998 08 17	704	0.0	0.5+	1999 12 05	699	0.1+	0.7+
1998 07 20	910	0.3-	0.0	1998 08 17	704	0.5-	1.5+	1999 12 07	703	0.6+	0.1+
1998 07 21	910	0.3+	0.2-	1998 08 17	704	1.1-	0.5-	1999 12 07	703	0.2+	0.4-
1998 07 21	910	0.3+	0.4-	1998 08 17	704	(3.9-	1.0-)	1999 12 07	703	0.2+	0.2+
1998 07 21	910	0.3+	0.3-	1999 11 10	703	0.8-	0.1+	1999 12 07	703	0.3+	0.0
1998 07 23	910	0.6+	0.2+	1999 11 10	703	0.4-	0.4-	1999 12 07	703	1.2-	0.1+
1998 07 24	910	0.5+	0.2+	1999 11 10	703	0.7-	0.2+	2000 01 04	704	0.5+	0.5-
1998 07 24	910	0.8+	0.0	1999 11 10	703	0.0	0.3-	2000 01 04	704	0.4+	0.8+
1998 07 29	910	0.1-	0.2-	1999 12 05	699	0.3+	0.3-	2000 01 04	704	0.3+	0.9-
1998 07 29	910	0.0	0.2-	1999 12 05	703	0.4+	1.2+	2000 01 06	704	0.8-	1.1-
1998 07 29	910	0.1+	0.2-	1999 12 05	703	0.5+	0.4+	2000 01 06	704	0.2+	0.4-
1998 07 30	910	0.1-	0.1-	1999 12 05	699	0.4-	0.4+	2000 01 06	704	0.2+	0.2+
1998 07 30	910	0.2-	0.2-	1999 12 05	703	1.4+	1.3-	2000 01 06	704	0.2+	0.0

1998 OJ₆ = 1993 TU₃₁

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	124.59173		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.16736934	ω	123.21414	+0.19121983	+0.98091195
a	3.2610099	Ω	157.72935	-0.92871345	+0.19245294
e	0.0967230	i	5.34588	-0.31768900	+0.02781394
P	5.89	H	14.0	G 0.15	U 5

2000 FEB. 22

M.P.C. 38471

1998 OS₈ = 2000 CH₂₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	151.46402		(2000.0)	P			Q				
<i>n</i>	0.30302744	ω	44.23000	+0.98233771			+0.17763927				
<i>a</i>	2.1952370	Ω	305.44908	-0.18537145			+0.88107099				
<i>e</i>	0.1847662	<i>i</i>	4.13888	-0.02549592			+0.43835852				
<i>P</i>	3.25	<i>H</i>	15.5	<i>G</i>	0.15		<i>U</i>	4			
Residuals in seconds of arc											
1998 07 26	809	0.5-	1.7-	1998 08 21	566	1.2+	0.9-	1998 09 13	699	0.2-	0.3-
1998 07 26	809	1.2-	1.9-	1998 08 21	566	0.9+	0.5-	1998 09 13	699	0.2-	0.6-
1998 07 26	809	0.4-	1.5-	1998 08 21	566	1.3+	0.9-	1998 09 13	699	0.3-	0.6-
1998 07 27	809	1.1+	1.4+	1998 08 23	704	0.9-	0.6+	2000 02 02	704	0.7+	0.5+
1998 07 27	809	0.8+	1.3+	1998 08 23	704	0.1+	0.9+	2000 02 02	704	0.9+	0.2+
1998 07 27	809	0.4+	0.9+	1998 08 23	704	0.3-	0.3+	2000 02 02	704	0.0	0.6-
1998 08 17	704	0.7-	0.5+	1998 08 23	704	0.3-	1.8+	2000 02 02	704	1.0-	0.6-
1998 08 17	704	0.3-	0.8+	1998 08 23	704	0.4+	0.0	2000 02 02	704	0.6-	0.4+
1998 08 17	704	0.2+	0.6+	1998 08 28	699	0.1+	0.4-	2000 02 04	704	0.5+	0.5+
1998 08 17	704	0.8-	0.4+	1998 08 28	699	0.0	0.0	2000 02 04	704	0.0	0.0
1998 08 17	704	0.9-	0.5+	1998 08 28	699	0.0	0.3-	2000 02 04	704	0.1-	0.4+

1998 OT₁₀ = 2000 AB₁₅₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	42.56226		(2000.0)	P		Q					
<i>n</i>	0.21212924	ω	101.61195	+0.66942264	−0.74141920						
<i>a</i>	2.7844260	Ω	306.26366	+0.65708391	+0.62020330						
<i>e</i>	0.0634367	<i>i</i>	3.31273	+0.34657475	+0.25621367						
<i>P</i>	4.65 <th><i>H</i></th> <td>14.4<th><i>G</i></th><td>0.15<th><i>U</i></th><td>4</td></td></td>	<i>H</i>	14.4 <th><i>G</i></th> <td>0.15<th><i>U</i></th><td>4</td></td>	<i>G</i>	0.15 <th><i>U</i></th> <td>4</td>	<i>U</i>	4				
Residuals in seconds of arc											
1993 07 23	809	1.1−	2.3+	1998 08 25	426	0.6−	0.7−	1999 12 05	703	0.5−	0.1+
1993 07 23	809	0.5−	2.5+	1998 08 27	426	0.4−	0.6−	2000 01 03	704	0.2−	0.3+
1993 07 23	809	0.2+	2.4+	1998 08 27	426	0.5−	0.5−	2000 01 03	704	0.1−	0.6+
1998 07 26	809	(3.2+	2.7−)	1999 11 14	704	0.6−	0.9−	2000 01 03	704	0.9−	1.0+
1998 07 26	809	(3.6+	1.6−)	1999 11 14	704	0.6+	0.5−	2000 01 03	704	1.3−	0.8−
1998 07 26	809	(3.2+	1.1−)	1999 11 14	704	0.2+	0.4−	2000 01 03	704	1.1−	0.7+
1998 07 27	809	(2.8+	3.0−)	1999 11 14	704	0.6+	0.6−	2000 01 04	704	0.4−	2.3+
1998 07 27	809	(2.2+	3.3−)	1999 11 14	704	0.7+	0.4−	2000 01 04	704	0.6−	0.3+
1998 07 27	809	(1.9+	3.3−)	1999 11 16	704	0.9+	0.5−	2000 01 04	704	0.6+	0.7+
1998 08 17	704	1.3+	0.1+	1999 11 16	704	0.2+	1.1−	2000 01 04	704	0.4+	0.5+
1998 08 17	704	0.4−	0.3+	1999 11 16	704	0.9+	0.8−	2000 01 04	704	0.9+	2.3+
1998 08 17	704	0.4+	0.3+	1999 11 16	704	0.5+	0.5−	2000 01 04	704	0.4−	0.1+
1998 08 17	704	1.0+	0.1+	1999 11 16	704	0.3+	0.4−	2000 01 04	704	0.1+	0.6+
1998 08 17	704	0.7+	0.0	1999 12 05	703	0.4−	0.1+	2000 01 04	704	0.3−	0.2+
1998 08 25	426	0.1−	0.5−	1999 12 05	703	1.1−	0.2+	2000 01 04	704	0.8+	1.5+
1998 08 25	426	0.3−	1.0−	1999 12 05	703	0.9−	0.0	2000 01 04	704	0.1+	0.3+

1998 OQ₁₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	140.09607		(2000.0)	P		Q					
n	0.27434831	ω	206.36386	+0.97166103		+0.23439930					
a	2.3456751	Ω	140.04159	-0.20761100		+0.90800520					
e	0.2283855	i	2.72431	-0.11301553		+0.34725138					
P	3.59	H	16.0	G	0.15	U	4				
Residuals in seconds of arc											
1998 07 26	809	1.4+	1.0+	1998 08 23	704	0.5+	0.5+	1998 12 04	097	1.0+	0.2-
1998 07 26	809	0.5+	0.1+	1998 08 23	699	0.3-	0.6+	1998 12 04	097	0.6+	0.3+
1998 07 26	809	0.3+	0.3+	1998 08 23	704	0.4+	0.3+	2000 02 01	691	0.2-	0.6-
1998 07 27	809	0.4+	1.5-	1998 08 23	704	(2.5-	0.9-)	2000 02 01	691	0.2+	0.6-
1998 07 27	809	0.4+	1.9-	1998 08 23	699	0.5-	0.5+	2000 02 01	691	0.1+	0.7-
1998 07 27	809	0.1+	1.7-	1998 08 23	704	0.4-	0.1-	2000 02 07	691	0.2-	0.5-
1998 08 17	704	0.4-	0.2-	1998 08 23	704	0.1+	1.6-	2000 02 07	691	0.1-	0.4-
1998 08 17	704	0.1+	0.4+	1998 08 23	699	0.4-	1.8+	2000 02 07	691	0.1-	0.4-

1998 08 17	704	0.3+	0.1+	1998 10 17	699	0.2-	0.7-	2000 02 10	691	0.2-	0.5-
1998 08 17	704	0.1-	0.6-	1998 10 17	699	0.6-	0.6-	2000 02 10	691	0.4-	0.4-
1998 08 17	704	0.8-	1.0-	1998 10 17	699	0.9-	0.7+	2000 02 10	691	0.4-	0.4-

1998 OZ₁₂ = 1999 YL₁₄

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	93.36105		(2000.0)	P		Q			
<i>n</i>	0.17893813	ω	5.45823	+0.90736149		+0.40248383			
<i>a</i>	3.1188953	Ω	329.87849	-0.39422972		+0.71470623			
<i>e</i>	0.0990050	<i>i</i>	13.98192	-0.14586997		+0.57201554			
<i>P</i>	5.51	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i>	3		
Residuals in seconds of arc									
1998 07 26	809 (0.2+ 3.9+)		1998 08 23 699	0.2+ 0.1+		1999 09 27 704	0.1+ 0.2+		
1998 07 26	809 (0.3+ 4.0+)		1998 08 23 704	0.6+ 0.3-		1999 09 27 704	0.1+ 0.9+		
1998 07 26	809 (0.4- 4.1+)		1998 08 23 704	1.4- 0.2-		1999 11 01 704	0.0 1.3+		
1998 07 27	809 (2.1+ 3.3+)		1998 08 23 699	0.3+ 0.2+		1999 11 01 704	0.9- 0.0		
1998 07 27	809 (2.1+ 3.2+)		1998 09 13 699	0.1+ 0.3-		1999 11 01 704	0.3+ 0.6-		
1998 07 27	809 (2.2+ 3.4+)		1998 09 13 699	1.2+ 0.0		1999 11 01 704	0.3- 0.8-		
1998 07 31	699 0.3+ 0.1+		1998 09 13 699	0.6+ 1.0-		1999 12 13 704	0.1- 0.6+		
1998 07 31	699 0.6+ 0.6-		1998 09 14 704	0.5+ 0.2-		1999 12 13 704	0.2- 0.8+		
1998 07 31	699 0.6+ 0.6+		1998 09 14 704	0.1- 0.4+		1999 12 13 704	1.3+ 0.2+		
1998 08 17	704 0.6- 0.2+		1998 09 14 704	0.1- 0.8+		1999 12 13 704	0.0 0.3-		
1998 08 17	704 (0.6- 2.1+)		1998 09 14 704	0.6+ 0.1+		1999 12 13 704	0.2- 0.4+		
1998 08 17	704 1.3- 0.5+		1998 09 14 704	0.3+ 0.1-		1999 12 30 704	0.0 0.1+		
1998 08 17	704 0.1- 0.5+		1998 09 18 704	0.7+ 1.0-		1999 12 30 704	0.1- 0.1-		
1998 08 17	704 1.4- 1.1+		1998 09 18 704	1.3- 1.9-		1999 12 30 704	0.2- 1.0-		
1998 08 19	566 0.7+ 1.0-		1998 09 18 704	(2.5+ 0.4+)		1999 12 30 704	0.1+ 0.7-		
1998 08 19	566 0.1+ 0.9-		1998 09 18 704	1.4- 1.7+		1999 12 30 704	1.1- 1.3-		
1998 08 19	566 0.1+ 1.2-		1998 09 21 699	0.3+ 0.0		2000 01 02 704	0.2- 0.1-		
1998 08 23	704 0.0 0.6+		1998 09 21 699	0.0 0.5+		2000 01 02 704	0.1- 0.2-		
1998 08 23	699 0.2+ 0.0		1998 09 21 699	0.1- 0.2-		2000 01 02 704	0.4+ 0.2-		
1998 08 23	704 0.6+ 0.3+		1999 09 27 704	0.1- 0.4+		2000 01 02 704	0.2+ 0.1-		
1998 08 23	704 0.3- 0.7+		1999 09 27 704	0.3+ 0.1+		2000 01 02 704	0.8+ 0.5+		

1998 OV₁₃ = 2000 CL₈₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	116.45391		(2000.0)	P			Q				
n	0.28453034	ω	241.89840	+0.93205337		-0.35292911					
a	2.2893753	Ω <td>138.62112</td> <td>+0.36042140</td> <td></td> <td>+0.87999958</td> <td></td> <td></td>	138.62112	+0.36042140		+0.87999958					
e	0.1148131	i <td>7.12234</td> <td>+0.03705306</td> <td></td> <td>+0.31787070</td> <td></td> <td></td>	7.12234	+0.03705306		+0.31787070					
P	3.46	H	15.4	G	0.15	U	4				
Residuals in seconds of arc											
1998 07 26	809	0.7+	0.8+	1998 08 23	704	0.0	0.1-	2000 01 30	703	0.2+	0.4+
1998 07 26	809	0.4+	0.4-	1998 08 23	699	0.2-	0.3+	2000 01 30	703	0.4-	1.1+
1998 07 26	809	0.3+	0.3+	1998 08 23	704	0.5-	0.4-	2000 01 30	703	1.3-	0.6-
1998 07 26	699	(2.4-	0.1-)	1998 08 23	704	0.5-	0.9+	2000 01 30	703	0.6-	0.1-
1998 07 26	699	1.3-	0.5-	1998 08 23	699	0.1-	0.6+	2000 02 04	704	0.9+	0.3+
1998 07 26	699	1.9-	0.2-	1998 08 23	704	0.2+	0.4+	2000 02 04	704	0.6+	0.1-
1998 07 27	809	1.3+	0.4+	1998 08 23	704	0.4-	0.2+	2000 02 04	704	0.1-	0.2+
1998 07 27	809	1.1+	0.3-	1998 08 23	699	0.7-	0.2+	2000 02 04	704	0.5-	0.9+
1998 07 27	809	1.7+	0.3-	1998 08 27	699	0.2-	1.1+	2000 02 04	704	0.8+	0.1+
1998 08 17	704	0.6+	0.4-	1998 08 27	699	0.7+	0.7+	2000 02 11	704	0.0	0.1-
1998 08 17	704	0.5-	1.2-	1998 08 27	699	0.5-	0.1+	2000 02 11	704	0.5-	0.0
1998 08 17	704	1.6-	0.9-	1998 09 24	699	0.3+	0.3-	2000 02 11	704	0.2+	0.3-
1998 08 17	704	0.3+	0.7+	1998 09 24	699	0.2+	0.3-	2000 02 11	704	0.5+	0.6-
1998 08 17	704	0.4-	0.7+	1998 09 24	699	1.0+	1.2-	2000 02 11	704	0.3+	0.0

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 229.43329		(2000.0)		P		Q	
<i>n</i>	0.29834990	ω	271.59026	−0.36790200	+0.92912793		
<i>a</i>	2.2181221	Ω	336.71649	−0.81157767	−0.34027180		
<i>e</i>	0.1507547	<i>i</i>	5.37180	−0.45386100	−0.14469415		
<i>P</i>	3.30	<i>H</i>	15.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 07 26	809	0.8+	0.8+	1998 08 17	704	0.7+	0.7−	1998 08 23	704	0.0	0.3+
1998 07 26	809	0.3+	0.2−	1998 08 17	704	0.0	0.8+	1998 08 23	699	0.2+	0.4+
1998 07 26	809	0.3+	0.3+	1998 08 17	704	0.0	0.7+	1999 12 12	704	0.2−	0.8+
1998 07 27	809	0.6−	0.1−	1998 08 23	704	0.6−	0.4−	1999 12 12	704	0.3−	0.3−
1998 07 27	809	0.5−	0.5−	1998 08 23	699	1.0+	1.1+	1999 12 12	704	0.1−	0.9−
1998 07 27	809	0.5−	0.2−	1998 08 23	704	1.6−	1.2−	1999 12 15	704	0.5+	0.5−
1998 08 17	704	0.4+	0.1+	1998 08 23	704	0.7−	0.1−	1999 12 15	704	0.3−	0.2+
1998 08 17	704	0.4−	1.1−	1998 08 23	699	1.2+	0.1+	1999 12 15	704	0.4+	0.7+

1998 OM₁₄ = 2000 CM₂₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 83.58694		(2000.0)		P		Q	
<i>n</i>	0.22769277	ω	249.90095	+0.80304948	−0.58513470		
<i>a</i>	2.6560519	Ω	145.63548	+0.59357240	+0.76866776		
<i>e</i>	0.2304261	<i>i</i>	11.52984	+0.05275729	+0.25839360		
<i>P</i>	4.33	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 07 26	809	0.1−	0.2−	1998 08 23	704	0.5−	0.1+	1998 11 20	699	0.6−	1.0−
1998 07 26	809	0.9−	1.9−	1998 08 23	704	0.8−	0.6+	1998 11 20	699	0.9−	1.7−
1998 07 26	809	0.6−	1.5−	1998 08 23	699	0.1+	0.5+	1998 12 08	704	0.2−	0.4+
1998 07 26	699	0.4−	1.7+	1998 08 23	704	1.7+	0.2−	1998 12 08	704	0.1−	1.5+
1998 07 26	699	0.7+	1.4+	1998 09 14	704	0.9−	0.3+	1998 12 08	704	0.2+	0.8+
1998 07 26	699	0.1−	1.8+	1998 09 14	704	0.5−	0.3−	2000 02 02	704	0.2−	0.3−
1998 07 27	809	0.2+	0.4−	1998 09 14	704	0.7−	1.0−	2000 02 02	704	0.0	0.2−
1998 07 27	809	0.2+	1.1−	1998 09 14	704	0.9−	0.3+	2000 02 02	704	0.1−	0.5+
1998 07 27	809	0.3−	0.7−	1998 09 14	704	0.0	0.6+	2000 02 02	704	0.4−	0.0
1998 08 17	704	0.0	0.0	1998 09 18	704	0.6+	0.9−	2000 02 02	704	0.4−	0.0
1998 08 17	704	0.5+	0.1+	1998 09 18	704	0.8+	0.7+	2000 02 04	704	0.0	0.2−
1998 08 17	704	0.4−	0.5−	1998 09 18	704	0.4+	0.7−	2000 02 04	704	0.6+	0.2−
1998 08 17	704	0.8+	0.9−	1998 09 18	704	0.3+	0.1+	2000 02 04	704	0.2+	0.4+
1998 08 17	704	0.7+	0.0	1998 09 18	704	0.9−	0.5+	2000 02 04	704	0.0	0.6−
1998 08 23	699	0.3+	0.5+	1998 09 21	699	0.0	0.4+	2000 02 04	704	0.7+	0.0
1998 08 23	704	0.1−	0.0	1998 09 21	699	0.1+	0.1−	2000 02 11	691	0.3−	0.3−
1998 08 23	704	0.2+	0.2−	1998 09 21	699	0.0	0.3−	2000 02 11	691	0.2−	0.4−
1998 08 23	699	0.4+	0.1−	1998 11 20	699	1.3+	0.1+	2000 02 11	691	0.0	0.2−

1998 ON₁₄ = 2000 CJ₈₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 79.99530		(2000.0)		P		Q	
<i>n</i>	0.26091357	ω	302.18559	+0.56126604	−0.82598367		
<i>a</i>	2.4255204	Ω	113.58358	+0.77724621	+0.50434505		
<i>e</i>	0.1890347	<i>i</i>	3.26911	+0.28437433	+0.25176784		
<i>P</i>	3.78	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 07 26	809	0.8+	0.5+	1998 08 17	704	0.6−	0.9+	1998 08 27	699	1.0−	0.8+
1998 07 26	809	0.4−	0.2+	1998 08 17	704	1.0−	0.5+	2000 02 04	704	1.1+	1.4+
1998 07 26	809	0.2−	0.2−	1998 08 23	704	1.0−	0.2−	2000 02 04	704	0.1−	0.4+
1998 07 27	809	0.1+	0.5+	1998 08 23	704	0.6+	1.1−	2000 02 04	704	0.1−	0.5+
1998 07 27	809	0.3−	1.2−	1998 08 23	704	0.0	0.5−	2000 02 11	704	0.2+	0.4−
1998 07 27	809	0.0	0.8+	1998 08 23	704	1.3+	0.2+	2000 02 11	704	0.3−	0.3+
1998 08 17	704	0.1−	0.3−	1998 08 23	704	(3.1−	0.6+)	2000 02 11	704	0.3−	0.8−
1998 08 17	704	0.9+	0.9−	1998 08 27	699	0.5+	0.2−	2000 02 11	704	0.9−	0.2−
1998 08 17	704	0.2+	0.2+	1998 08 27	699	0.1+	0.3+	2000 02 11	704	0.5+	0.8−

1998 OR₁₄ = 2000 AS₁₅₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	5.24787		(2000.0)		P		Q		
n	0.22172437	ω	116.54733		−0.04958659		−0.99804195		
a	2.7035045	Ω	336.20231		+0.87944643		−0.02553796		
e	0.0456640	i	5.42146		+0.47340801		−0.05709710		
P	4.45	H	14.2	G	0.15		U	4	

Residuals in seconds of arc

1998 07 26	809	(2.1+ 0.9+)	1998 08 23	704	0.9−	1.4+	1999 12 15	704	0.5+	1.4−
1998 07 26	809	1.5+ 0.1+	1998 08 23	699	0.6−	0.4−	1999 12 15	704	0.3−	0.5+
1998 07 26	809	0.9+ 0.5−	1998 08 23	704	0.1+ 0.7−	1999 12 15	704	1.8+ 0.9−		
1998 07 27	809	1.2+ 1.3+	1998 08 23	704	0.2+ 1.6+	2000 01 02	704	1.1+ 0.6+		
1998 07 27	809	0.4+ 0.3−	1998 08 23	699	0.3+ 0.3+	2000 01 02	704	0.4− 0.4−		
1998 07 27	809	0.0 0.2+	1998 08 23	704	1.8+ 0.6−	2000 01 02	704	0.4+ 0.3−		
1998 08 17	704	1.4− 0.5−	1999 12 12	704	1.5− 0.4+	2000 01 02	704	0.6+ 0.4+		
1998 08 17	704	0.2+ 0.5−	1999 12 12	704	1.1− 0.2+	2000 01 02	704	0.1+ 0.1−		
1998 08 17	704	0.7− 0.7−	1999 12 12	704	0.8− 0.4+	2000 01 04	704	0.8+ 0.3+		
1998 08 17	704	1.3− 0.6+	1999 12 12	704	0.7− 0.4+	2000 01 04	704	0.6+ 0.6−		
1998 08 17	704	0.4+ 0.3−	1999 12 12	704	0.3− 0.0	2000 01 04	704	0.6+ 0.3+		
1998 08 23	699	0.8− 0.0	1999 12 15	704	(2.6− 0.3+)	2000 01 04	704	0.5+ 0.2+		
1998 08 23	704	1.0− 0.8−	1999 12 15	704	1.0− 0.0	2000 01 04	704	0.8− 0.2−		

1998 OT₁₄ = 2000 CB₅₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	143.38101		(2000.0)		P		Q				
<i>n</i>	0.29644714	ω	35.26748		+0.99843168		−0.02648826				
<i>a</i>	2.2276034	Ω	326.14798		+0.00060061		+0.88600376				
<i>e</i>	0.1944320	<i>i</i>	5.07960		+0.05598057		+0.46292084				
<i>P</i>	3.32	<i>H</i>	15.3	<i>G</i>	0.15	<i>U</i>	4				
Residuals in seconds of arc											
1998 07 04	699	0.2−	0.7+	1998 08 23	699	0.4+	0.0	1998 12 09	704	1.8+	1.1−
1998 07 04	699	0.2−	1.3+	1998 08 23	704	0.3−	0.6+	1998 12 09	704	0.7−	0.8+
1998 07 04	699	0.3−	0.1+	1998 08 23	704	0.7−	1.0+	2000 02 02	704	0.9+	1.0+
1998 07 26	809	(4.7+ 1.1+)		1998 08 23	699	0.4+	0.3+	2000 02 02	704	0.1+	0.9+
1998 07 26	809	(3.2+ 0.5+)		1998 08 23	704	0.1−	0.2−	2000 02 02	704	0.7−	1.2+
1998 07 26	809	(3.4+ 0.9+)		1998 09 14	704	0.6−	0.2+	2000 02 02	704	0.1−	1.3+
1998 07 27	809	0.5+	1.3−	1998 09 14	704	1.6+	0.6+	2000 02 02	704	0.1−	0.9+
1998 07 27	809	0.8−	0.8−	1998 09 14	704	1.0+	0.6+	2000 02 06	704	1.5+	0.2+
1998 07 27	809	1.1−	0.8−	1998 09 14	704	0.2−	0.4+	2000 02 06	704	0.6+	0.8−
1998 08 17	704	0.3+	0.2−	1998 09 14	704	0.5−	0.6+	2000 02 06	704	0.5−	0.2+
1998 08 17	704	0.9+	0.0	1998 09 18	704	0.4+	0.1+	2000 02 08	704	0.0	0.2−
1998 08 17	704	0.4+	1.4+	1998 09 18	704	0.1+	1.1−	2000 02 08	704	0.2−	0.4+
1998 08 17	704	0.1−	0.2+	1998 09 18	704	0.1−	0.2−	2000 02 08	704	0.4+	0.7+
1998 08 17	704	1.5+	0.7+	1998 09 18	704	1.9−	1.5+	2000 02 08	704	0.4+	0.3+
1998 08 21	566	(0.9− 2.7−)		1998 09 18	704	1.1−	0.2+	2000 02 08	704	0.8+	0.1−
1998 08 21	566	(0.2+ 2.8−)		1998 10 12	699	0.3+	0.4−	2000 02 14	691	0.2−	0.3−
1998 08 21	566	0.9−	1.8−	1998 10 12	699	0.0	0.7−	2000 02 14	691	0.2−	0.4−
1998 08 23	699	0.2−	0.1+	1998 10 12	699	0.1−	0.2−	2000 02 14	691	0.2−	0.4−
1998 08 23	704	0.7−	0.3+	1998 12 09	704	1.2−	0.7−				
1998 08 23	704	0.1+	0.1+	1998 12 09	704	0.0	1.1+				

1998 PU

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 128.65361		(2000.0)		P		Q	
<i>n</i>	0.26590640	ω	31.30524	+0.99666255	−0.06485914		
<i>a</i>	2.3950625	Ω	332.28358	+0.03299904	+0.87550838		
<i>e</i>	0.2047178	<i>i</i>	6.11805	+0.07466474	+0.47883021		
<i>P</i>	3.71	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 08 01	699	0.3−

2000 FEB. 22

M.P.C. 38473

1998 08 01	699	0.0	0.2−	1998 09 13	684	0.5−	0.3+	1998 11 15	699	0.9−	0.1−
1998 08 15	684	0.1−	0.4−	1998 09 13	684	0.5−	0.2+	1998 12 09	704	0.1+	0.3−
1998 08 15	684	0.3+	1.1−	1998 09 14	704	0.3−	1.0−	1998 12 09	704	0.3−	0.4−
1998 08 16	684	0.1+	0.4−	1998 09 14	704	0.8−	0.9−	1998 12 09	704	1.1−	1.1+
1998 08 16	684	0.1−	0.5−	1998 09 14	704	1.3−	0.6−	1998 12 09	704	(2.5+	0.2+)
1998 08 17	704	0.2−	0.2−	1998 09 14	704	0.1+	1.0−	2000 02 01	684	0.1−	0.1−
1998 08 17	704	0.1−	0.0	1998 09 14	704	(0.8+	2.1+)	2000 02 01	684	0.1−	0.1−
1998 08 17	704	0.0	0.0	1998 09 14	699	0.2+	0.3+	2000 02 02	684	0.4−	0.2+
1998 08 17	704	0.1+	0.8−	1998 09 14	699	0.1−	0.6+	2000 02 02	684	0.4−	0.2−
1998 08 17	704	0.4+	1.2−	1998 09 14	699	0.6+	0.4+	2000 02 04	704	0.9+	0.5−
1998 08 21	684	0.2−	0.1+	1998 09 18	704	0.2−	0.3+	2000 02 04	704	0.2+	0.5−
1998 08 21	684	0.2−	0.1+	1998 09 18	704	0.1+	0.5−	2000 02 04	704	0.5+	0.8+
1998 08 22	684	0.0	0.1+	1998 09 18	704	1.1+	0.9+	2000 02 04	704	0.7−	0.3+
1998 08 22	684	0.3−	0.1+	1998 09 18	704	0.8+	0.2−	2000 02 04	704	1.2+	0.9+
1998 08 23	704	0.3+	0.7+	1998 09 18	704	0.5−	0.7+	2000 02 11	704	0.3+	0.2−
1998 08 23	704	0.1−	0.4+	1998 10 09	684	0.5+	0.2+	2000 02 11	704	0.1−	0.2+
1998 08 23	704	0.5+	0.0	1998 10 09	684	0.6+	0.0	2000 02 11	704	0.4−	0.1+
1998 08 23	704	0.3+	1.0+	1998 10 10	684	0.1−	0.1−	2000 02 11	704	0.8−	0.9−
1998 08 23	704	0.1−	1.5+	1998 10 10	684	0.0	0.1−	2000 02 11	704	0.1−	0.9−
1998 08 26	699	0.3−	0.1−	1998 10 20	699	1.2+	0.7−	2000 02 14	691	0.1−	0.1+
1998 08 26	699	0.3+	0.5+	1998 10 20	699	1.0+	0.4−	2000 02 14	691	0.1−	0.1+
1998 08 26	699	0.0	0.5+	1998 10 20	699	1.4+	1.3+	2000 02 14	691	0.0	0.2+

1998 PG₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	172.43785	(2000.0)	P	Q
<i>n</i>	0.28845435	ω 273.50776	+0.43829912	+0.89743035
<i>a</i>	2.2685655	Ω 22.69589	−0.76445239	+0.40152536
<i>e</i>	0.2298718	<i>i</i> 7.46467	−0.47276466	+0.18274611
<i>P</i>	3.42	<i>H</i> 14.9	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 08 15	426	0.2+	0.2+	1998 08 28	426	0.4−	0.3−	1998 11 15	426	0.3+	0.1+
1998 08 15	426	0.1−	0.5+	1998 08 28	426	0.6−	0.5−	1998 11 15	426	1.0+	1.2−
1998 08 15	426	0.3+	0.5+	1998 09 16	426	0.2−	0.9+	1998 11 21	426	0.9+	0.2−
1998 08 16	426	0.1+	0.2+	1998 09 16	426	0.3−	1.2+	1998 11 21	426	0.4−	1.0−
1998 08 16	426	0.3+	0.2+	1998 09 16	426	0.1−	0.6+	2000 01 12	858	0.3−	0.7−
1998 08 16	426	0.2+	0.0	1998 09 26	426	0.6+	0.0	2000 01 12	858	0.3−	0.9+
1998 08 17	426	0.1−	0.1+	1998 09 26	426	0.8+	0.3−	2000 02 03	858	0.1−	0.9+
1998 08 17	426	0.1−	0.1+	1998 09 26	426	0.5+	0.6+	2000 02 03	858	0.5−	0.9+
1998 08 17	426	0.1−	0.2+	1998 10 09	426	0.2−	0.2−	2000 02 03	858	0.7−	0.8+
1998 08 27	426	0.5−	0.1+	1998 10 09	426	0.9+	0.3−	2000 02 06	858	0.8+	0.0
1998 08 27	426	0.6−	0.2−	1998 10 13	426	0.3−	0.5−	2000 02 06	858	1.1+	0.2+
1998 08 27	426	0.7−	0.1−	1998 10 13	426	0.1+	0.3−				

1998 QC = 1990 AM = 2000 AU₂₃₇

Id. G. V. Williams, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	52.71846	(2000.0)	P	Q
<i>n</i>	0.30673241	ω 161.74851	−0.31885056	−0.94570889
<i>a</i>	2.1775239	Ω 306.79793	+0.85949877	−0.26048754
<i>e</i>	0.0680633	<i>i</i> 4.51247	+0.39949490	−0.19437316
<i>P</i>	3.21	<i>H</i> 14.3	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1990 01 04	403	0.1+	1.2−	1998 08 29	120	0.0	0.2+	1998 12 09	704	0.7+	0.2+
1990 01 04	403	0.3−	0.0	1998 08 29	120	0.1+	0.4−	1998 12 09	704	1.7−	0.3−
1998 08 17	120	0.4+	0.2+	1998 08 29	120	0.3−	0.0	1998 12 09	704	(1.2−	2.2+)
1998 08 17	120	0.5−	0.3+	1998 08 30	699	0.5+	0.7−	1998 12 09	704	(3.4−	0.4−)
1998 08 17	120	0.4+	0.8+	1998 08 30	699	0.2+	0.1−	2000 01 05	704	0.6−	1.1−
1998 08 17	704	0.3−	0.1+	1998 08 30	699	0.4−	0.4+	2000 01 05	704	0.1−	0.6−
1998 08 17	704	0.5−	0.6−	1998 09 14	704	0.2−	0.3+	2000 01 05	704	0.5−	0.7−
1998 08 17	704	0.8−	0.3−	1998 09 14	704	0.9−	0.3+	2000 01 06	699	0.8+	1.2+
1998 08 17	704	1.0−	0.3+	1998 09 14	704	0.0	0.5+	2000 01 06	699	0.6−	0.3+
1998 08 17	704	0.3+	0.4+	1998 09 14	704	0.7−	0.3+	2000 01 06	699	0.5−	0.7+
1998 08 18	120	0.2+	0.1+	1998 09 17	120	1.1+	0.3−	2000 02 02	704	1.7+	0.7+

1998 08 18	120	0.1+	0.5−	1998 09 17	120	0.1−	0.0	2000 02 02	704	0.4−	0.1+
1998 08 18	120	0.2−	0.5−	1998 09 17	120	0.2−	0.2+	2000 02 02	704	(1.4+	3.9−)
1998 08 18	120	0.3−	0.0	1998 09 18	704	0.5−	0.3−	2000 02 02	704	(0.9+	5.9−)
1998 08 18	120	0.2−	0.2−	1998 09 18	704	0.3−	0.7+	2000 02 08	704	0.6+	1.0+
1998 08 23	704	0.1+	0.3+	1998 09 18	704	1.3−	0.8+	2000 02 08	704	0.6+	0.7+
1998 08 23	704	0.8+	0.1+	1998 09 18	704	0.1−	0.9+	2000 02 08	704	0.4+	1.3+
1998 08 23	704	1.5+	1.6−	1998 09 18	704	0.1−	0.8+	2000 02 08	704	0.4+	0.7+
1998 08 23	704	1.6+	0.1+	1998 10 11	699	0.5−	0.5+	2000 02 08	704	0.2+	0.6+
1998 08 23	704	0.1+	0.4−	1998 10 11	699	1.0+	0.1−				
1998 08 29	120	0.1−	0.6+	1998 10 11	699	0.2−	0.9+				

1998 QD = 2000 CQ₆₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	136.54036	(2000.0)	P	Q
<i>n</i>	0.25999839	ω 195.85688	+0.97708602	+0.21134697
<i>a</i>	2.4312089	Ω 151.90375	−0.18900266	+0.91599186
<i>e</i>	0.2087160	<i>i</i> 3.06805	−0.09788206	+0.34101520
<i>P</i>	3.79	<i>H</i> 16.4	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 08 17	684	0.6−	0.2+	1998 08 24	684	0.1+	0.3−	1998 09 18	704	0.1−	0.9−
1998 08 17	684	0.2−	0.5+	1998 09 01	327	0.2−	0.3−	1998 09 18	704	0.4+	1.1−
1998 08 17	704	(2.3+	0.4−)	1998 09 01	327	0.7+	0.4−	1998 09 18	699	0.6−	0.0
1998 08 17	704	0.6−	0.7+	1998 09 01	327	0.6+	0.3−	1998 09 18	691	0.1−	0.0
1998 08 17	704	0.1+	0.0	1998 09 12	691	0.2+	0.3+	1998 09 18	704	0.8+	0.9−
1998 08 17	704	0.9+	0.1+	1998 09 12	691	0.2+	0.3+	1998 09 18	699	0.3−	0.8+
1998 08 17	704	0.6−	1.6−	1998 09 12	691	0.2+	0.1+	1998 09 18	691	0.3−	0.0
1998 08 18	684	0.1+	0.2−	1998 09 14	704	0.3−	0.5+	1998 09 18	704	0.1−	0.6−
1998 08 18	684	0.1+	0.1+	1998 09 14	704	0.6+	0.8−	1998 09 18	699	0.8−	0.6+
1998 08 23	684	0.3−	0.8−	1998 09 14	704	0.0	0.7−	2000 02 01	691	0.3+	0.1+
1998 08 23	684	0.2−	0.3−	1998 09 14	704	0.1−	1.1+	2000 02 01	691	0.4+	0.4+
1998 08 23	704	0.8+	1.4+	1998 09 14	704	0.0	1.2+	2000 02 01	691	0.1+	0.1+
1998 08 23	704	0.6−	1.1+	1998 09 14	699	0.5+	0.3−	2000 02 07	691	0.5−	0.1−
1998 08 23	704	0.9−	0.8+	1998 09 14	699	0.7−	1.2+	2000 02 07	691	0.0	0.4−
1998 08 23	704	1.4+	1.1−	1998 09 14	699	1.5−	1.5+	2000 02 07	691	0.3−	0.0
1998 08 23	704	(2.5−	0.6+)	1998 09 18	704	1.3+	1.7−				
1998 08 24	684	0.2+	0.5−	1998 09 18	691	0.2−	0.4+				

1998 QL₁ = 2000 CL₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	88.92528	(2000.0)	P	Q
<i>n</i>	0.22478213	ω 170.94342	+0.95000391	−0.31076603
<i>a</i>	2.6789310	Ω 207.22173	+0.28216805	+0.89599405
<i>e</i>	0.1220737	<i>i</i> 3.79582	+0.13369277	+0.31720521
<i>P</i>	4.38	<i>H</i> 14.1	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1998 08 17	704	0.5−	0.5+	1998 08 26	120	0.3+	0.5+	1998 09 23	120	0.2+	0.1+
1998 08 17	704	0.6−	0.2+	1998 08 26	120	0.4−	0.2−	1998 09 23	120	0.1−	0.5−
1998 08 17	704	0.4+	1.0+	1998 08 26	120	0.3+	0.3+	1998 09 23	120	0.1−	0.4−
1998 08 17	704	0.2−	1.7+	1998 09 14	704	0.9+	0.1+	1998 09 23	120	0.9+	0.5−
1998 08 17	704	0.2−	0.9−	1998 09 14	704	0.1+	0.9+	1998 09 23	120	0.0	0.2+
1998 08 17	120	0.3−	0.1−	1998 09 14	704	0.2−	0.8+	1998 12 15	910	0.1−	0.1−
1998 08 17	120	(3.0−	0.5−)	1998 09 14	704	0.5−	0.4+	1998 12 15	910	0.1−	0.2−
1998 08 17	120	0.5−	0.6−	1998 09 14	704	0.7−	1.1+	1998 12 15	910	0.2−	0.1+
1998 08 20	120	(0.8+	2.3−)	1998 09 17	120	0.1−	0.3−	2000 02 02	704	0.1−	0.3−
1998 08 20	120	1.4−	1.7+	1998 09 17	120	0.6−	0.5−	2000 02 02	704	0.0	0.8+
1998 08 20	120	1.5−	1.0−	1998 09 17	120	0.5−	0.5−	2000 02 02	704	0.4+	0.2+
1998 08 23	704	0.1+	0.4−	1998 09 17	120	1.1+	0.3−	2000 02 02	704	0.3+	0.0
1998 08 23	704	0.5+	1.2−	1998 09 18	704	1.5+	0.2−	2000 02 02	704	0.5+	0.4−
1998 08 23	704	0.5+	0.1+	1998 09 18	704	0.4+	0.4−	2000 02 03	704	0.1−	0.2+
1998 08 23	704	0.3+	0.6+	1998 09 18	704	0.4−	0.5−	2000 02 03	704	1.8−	0.2−
1998 08 26	699	1.1+	0.3+	1998 09 18	704	0.3+	0.7−	2000 02 03	704	0.7+	0.4+
1998 08 26	699	0.4+	0.4+	1998 09 18	704	1.9−	0.8−	2000 02 03	704	0.1+	0.3+
1998 08 26	699	0.7+	0.8+	1998 09 23	120	0.4+	0.9−				

1998 QX₁ = 2000 CU₆₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	84.14125	(2000.0)	P			Q		
<i>n</i>	0.20360431	ω	76.83634	+0.90141092	−0.42498799			
<i>a</i>	2.8616163	Ω	308.25059	+0.34512718	+0.82066954			
<i>e</i>	0.3372168	<i>i</i>	6.04684	+0.26142988	+0.38195119			
<i>P</i>	4.84	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	5	

Residuals in seconds of arc

1998 07 15	691	0.0	0.0	1998 08 19	566	0.1+	0.8−	1998 08 30	699	0.0	0.3+
1998 07 15	691	0.2+	0.1−	1998 08 19	566	0.0	0.8−	1998 09 15	699	0.6+	0.1−
1998 07 15	691	0.1+	0.1+	1998 08 19	566	0.4+	0.7−	1998 09 15	699	0.5+	0.2+
1998 07 26	699	0.2−	0.2+	1998 08 21	566	0.1+	1.0−	1998 09 15	699	0.0	0.2+
1998 07 26	699	0.0	0.6−	1998 08 21	566	0.4−	1.0−	2000 02 04	704	1.0−	1.3−
1998 07 26	699	0.5+	0.5−	1998 08 21	566	1.2−	1.1−	2000 02 04	704	0.6−	0.4−
1998 08 17	704	0.0	0.4+	1998 08 23	699	0.1+	0.6+	2000 02 04	704	0.8+	0.5−
1998 08 17	704	0.1−	0.6+	1998 08 23	699	0.1+	0.2+	2000 02 08	704	0.1−	0.5−
1998 08 17	704	0.1+	0.3−	1998 08 23	699	0.1−	1.1+	2000 02 08	704	0.1+	0.3+
1998 08 17	704	0.6+	0.3−	1998 08 30	699	0.3−	0.4+	2000 02 08	704	0.5−	0.3+
1998 08 17	704	0.5+	0.2−	1998 08 30	699	0.3−	0.6+	2000 02 08	704	0.1−	0.9−

1998 QH₃

Id. T. Kobayashi (2000 observations)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	84.60961	(2000.0)	P			Q		
<i>n</i>	0.23135558	ω	63.01736	+0.75977475	−0.62845698			
<i>a</i>	2.6279437	Ω	334.79246	+0.36471365	+0.62417750			
<i>e</i>	0.2195806	<i>i</i>	23.04006	+0.53826228	+0.46415975			
<i>P</i>	4.26	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	4	

Residuals in seconds of arc

1998 08 17	704	0.5−	0.1−	1998 09 14	704	0.2−	0.3−	2000 02 06	703	0.3+	0.5+
1998 08 17	704	0.2+	0.5+	1998 09 14	704	1.6−	0.1+	2000 02 06	703	0.3+	0.4+
1998 08 17	704	0.4−	0.1−	1998 09 14	704	1.0−	0.3+	2000 02 06	703	0.2−	1.0+
1998 08 17	704	0.1+	0.0	1998 09 18	704	0.1−	0.5−	2000 02 06	703	0.2+	0.4+
1998 08 17	704	0.3+	0.6−	1998 09 18	704	0.6+	0.7−	2000 02 11	704	0.9+	0.7+
1998 08 23	704	0.7+	0.0	1998 09 18	704	0.1+	0.2−	2000 02 11	704	0.6−	0.2−
1998 08 23	704	0.1+	0.4−	1998 09 18	704	0.5+	0.4+	2000 02 11	704	0.1+	0.3−
1998 08 23	704	0.5+	0.9+	2000 01 27	411	(0.1−	2.9−)	2000 02 11	704	0.5+	0.2−
1998 08 23	704	1.0+	1.3+	2000 01 27	411	(0.1−	2.9−)	2000 02 11	704	0.2+	0.1+
1998 09 14	704	0.1+	0.1−	2000 01 28	411	0.2−	1.6−				
1998 09 14	704	0.4−	0.2−	2000 01 28	411	1.3−	0.5−				

1998 QQ₃ = 2000 CL₈₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	76.37888	(2000.0)	P			Q		
<i>n</i>	0.21723678	ω	70.59995	+0.68623577	−0.68940016			
<i>a</i>	2.7406094	Ω	331.42587	+0.33690031	+0.58388440			
<i>e</i>	0.2787385	<i>i</i>	29.01138	+0.64465390	+0.42872651			
<i>P</i>	4.54	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	5	

Residuals in seconds of arc

1998 08 17	704	0.2+	0.3−	1998 08 23	699	0.0	0.8−	1998 09 15	699	0.1+	1.1+
1998 08 17	704	0.1−	0.0	1998 08 24	422	0.3−	0.3−	2000 02 04	704	0.2+	0.0
1998 08 17	704	0.6−	0.9−	1998 08 24	422	0.1+	0.3−	2000 02 04	704	0.8+	0.1−
1998 08 17	704	0.5+	0.2+	1998 08 24	422	0.0	0.2−	2000 02 04	704	0.7−	0.8−
1998 08 17	704	0.2+	1.0+	1998 08 24	422	0.0	0.4−	2000 02 04	704	0.1−	1.1+
1998 08 23	704	0.5−	1.9+	1998 09 14	704	0.6−	0.5−	2000 02 04	704	0.3−	0.1+
1998 08 23	699	0.9−	0.0	1998 09 14	704	0.5+	1.1+	2000 02 11	704	0.4−	1.0−
1998 08 23	704	0.2−	0.6−	1998 09 14	704	1.4+	0.9+	2000 02 11	704	0.2+	0.8+
1998 08 23	704	0.4−	0.7+	1998 09 14	704	0.1+	0.7−	2000 02 11	704	0.3+	0.6+
1998 08 23	699	0.1−	0.3−	1998 09 14	704	1.6+	1.5−	2000 02 11	704	0.8+	0.1−
1998 08 23	704	0.1−	0.2−	1998 09 15	699	0.6−	0.8+				
1998 08 23	704	(1.9−	2.1+)	1998 09 15	699	1.0−	0.2−				

1998 QL₄ = 1999 VJ₁₅₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	183.39840	(2000.0)	P			Q		
<i>n</i>	0.19485576	ω	252.62711	−0.44904957	+0.89349837			
<i>a</i>	2.9466409	Ω	350.68730	−0.81037344	−0.40910052			
<i>e</i>	0.0351673	<i>i</i>	1.37844	−0.37636336	−0.18519566			
<i>P</i>	5.06	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	4	

Residuals in seconds of arc

1998 08 17	704	0.2+	0.2−	1999 10 06	704	0.2+	0.1−	1999 11 15	704	0.3+	0.1−
1998 08 17	704	1.4−	0.4−	1999 10 06	704	0.1+	0.8−	1999 11 15	704	0.1+	0.1+
1998 08 17	704	0.3+	0.3+	1999 10 06	704	0.1−	0.8−	1999 11 16	704	0.3+	0.2−
1998 08 17	704	1.0+	0.1+	1999 10 06	704	0.3+	1.2−	1999 11 16	704	0.3+	0.1+
1998 08 17	704	0.7−	0.8+	1999 11 01	703	0.9−	0.7+	1999 11 16	704	0.0	0.4−
1998 08 17	426	0.2+	0.0	1999 11 01	703	1.4−	0.8+	1999 11 16	704	0.5+	0.6+
1998 08 17	426	0.2+	0.2−	1999 11 01	703	0.5−	1.2+	1999 11 16	704	0.4−	0.3−
1998 08 17	426	0.3+	0.3+	1999 11 01	703	1.1+	0.2+	1999 12 04	703	0.4−	0.2+
1998 08 22	426	0.8−	0.2+	1999 11 04	704	0.1+	0.2+	1999 12 04	703	0.1−	0.9−
1998 08 22	426	0.4+	0.4−	1999 11 04	704	0.1+	0.2+	1999 12 04	703	0.8−	1.6+
1998 08 22	426	0.2−	0.2−	1999 11 04	704	0.5−	0.1−	1999 12 04	703	0.6−	0.7+
1998 08 29	426	0.0	0.4−	1999 11 04	704	0.3−	0.7−	1999 12 04	703	0.2−	0.5−
1998 08 29	426	0.6−	0.2−	1999 11 04	704	0.4−	0.7+	1999 12 04	703	1.4+	0.4−
1998 08 29	426	0.4−	0.2+	1999 11 14	704	0.9+	0.1+	1999 12 04	703	1.3−	1.1−
1998 09 12	426	0.8+	0.4+	1999 11 14	704	0.3+	0.5+	1999 12 04	703	0.8−	0.0
1998 09 12	426	0.2−	0.3+	1999 11 14	704	0.5+	0.0	1999 12 07	704	0.0	0.1+
1998 09 12	426	0.6+	0.4+	1999 11 14	704	1.2+	0.3−	1999 12 07	704	0.0	0.2+
1998 09 28	426	0.2−	0.4−	1999 11 14	704	0.1−	0.7−	1999 12 07	704	0.1−	1.0+
1998 09 28	426	0.0	0.3−	1999 11 15	704	0.1+	0.1+	1999 12 07	704	0.6+	0.1+
1998 09 28	426	0.5+	0.1−	1999 11 15	704	0.1−	0.7−	1999 12 07	704	0.1+	0.0
1999 10 06	704	0.6+	0.5−	1999 11 15	704	0.1−	0.1+				

1998 QX₄ = 2000 CT₄₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	107.78349	(2000.0)	P			Q		
<i>n</i>	0.26915550	ω	144.89718	+0.89796511	−0.43169565			
<i>a</i>	2.3757489	Ω	240.89577	+0.37808062	+0.85614366			
<i>e</i>	0.1366577	<i>i</i>	5.61079	+0.22519703	+0.28400159			
<i>P</i>	3.66	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	4	

Residuals in seconds of arc

1998 08 22	327	0.2+	0.1−	1998 08 27	704	0.9+	1.1−	1998 09 18	704	0.8+	1.4−
1998 08 22	327	0.1+	0.0	1998 08 27	704	0.8+	0.1−	1998 09 18	704	1.2−	0.9−
1998 08 22	327	0.1−	0.1+	1998 08 27	704	0.1+	0.9+	1998 09 18	704	0.2−	0.4−
1998 08 22	327	0.0	0.2−	1998 08 27	704	0.5−	1.4+	1998 09 18	704	0.4−	0.0
1998 08 23	327	0.1+	0.1+	1998 08 27	327	0.1+	0.1−	1998 09 18	704	(2.7−	0.5+)
1998 08 23	327	0.1−	0.0	1998 08 27	327	0.0	0.1−	2000 02 02	704	1.0−	1.3+
1998 08 23	327	0.0	0.2−	1998 08 27	327	0.0	0.0	2000 02 02	704	0.5+	1.3−
1998 08 24	704	0.2−	0.1+	1998 08 31	327	0.1−	0.3−	2000 02 02	704	0.5−	0.9−
1998 08 24	704	0.1+	0.4−	1998 08 31	327	0.1+	0.2−	2000 02 02	704	0.2+	0.5−
1998 08 24	704	1.0−	0.1−	1998 08 31	327	0.3−	0.0	2000 02 06	704	0.6−	0.3+
1998 08 24	704	(3.8−	0.7−)	1998 09 14	704	0.6−	0.1+	2000 02 06	704	0.4+	0.3−
1998 08 25	327	0.1−	0.2+	1998 09 14	704	0.9+	0.9+	2000 02 06	704	0.2−	0.4+
1998 08 25	327	0.3−	0.2+	1998 09 14	704	0.8−	0.9+	2000 02 06	704	0.7+	0.5+
1998 08 25	327	0.1−	0.0	1998 09 14	704	0.2+	0.7+	2000 02 06	704	0.4+	0.6+
1998 08 27	704	0.5+	0.6−	1998 09 14	704	1.0+	0.6+				

1998 QT₇ = 1983 SL = 2000 BL₂₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	124.76557		(2000.0)	P	Q
n	0.25975270	ω	33.42985	+0.97374797	+0.22133444
a	2.4327417	Ω	313.68677	−0.22162315	+0.86854995
e	0.2226283	i	4.21583	−0.05194299	+0.44343213
P	3.79	H	15.1	G 0.15	U 4

2000 FEB. 22

M.P.C. 38475

Residuals in seconds of arc

1983 09 28	071	2.1−	1.1−	1998 08 23	704	1.0−	0.5−	2000 02 03	704	0.3+	0.8+
1983 09 28	071	2.4+	0.1+	1998 08 23	704	0.6+	0.3−	2000 02 03	704	0.6+	0.1−
1983 09 29	071	0.1−	2.0+	1998 08 23	704	1.1−	0.0	2000 02 03	704	0.7+	0.2−
1983 09 29	071	0.4−	1.3−	1998 08 23	704	0.1−	0.4−	2000 02 12	691	0.1+	0.3+
1983 09 29	071	0.4+	0.0	1998 08 27	699	0.3−	0.2−	2000 02 12	691	0.3−	0.3+
1998 08 17	704	0.5+	0.3+	1998 08 27	699	0.8+	0.0	2000 02 12	691	0.2−	0.3+
1998 08 17	704	0.2+	0.5+	1998 08 27	699	0.3+	0.3+	2000 02 14	691	0.1−	0.6−
1998 08 17	704	0.2+	0.1+	2000 01 30	704	0.6−	0.5+	2000 02 14	691	0.2−	0.1+
1998 08 17	704	0.1+	1.0+	2000 01 30	704	0.5+	0.4+	2000 02 14	691	0.0	0.0
1998 08 17	704	0.9−	1.1+	2000 01 30	704	0.2+	0.3−				
1998 08 23	704	0.1+	0.0	2000 02 03	704	0.3−	0.5+				

1998 QL₁₁ = 2000 AP₂₃₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	141.58430		(2000.0)	P	Q
<i>n</i>	0.26003323	ω	161.65318	+0.82220963	+0.56918291
<i>a</i>	2.4309917	Ω	163.65331	−0.52286428	+0.75630909
<i>e</i>	0.1543886	<i>i</i>	0.29726	−0.22490946	+0.32253276
<i>P</i>	3.79	<i>H</i>	15.2	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 07 20	566	0.3−	0.1−	1998 08 23	704	0.6−	0.7+	2000 01 04	704	0.2+	0.8+
1998 07 20	566	0.2+	0.2−	1998 08 23	704	0.1+	1.3+	2000 01 04	704	0.3+	0.2+
1998 07 20	566	0.2+	0.3+	1998 08 23	704	1.0+	0.3−	2000 01 04	704	1.2−	0.9−
1998 08 17	704	0.3−	0.4−	1998 08 27	699	0.1+	0.5−	2000 01 04	704	0.0	0.5+
1998 08 17	704	0.2−	0.0	1998 08 27	699	0.2−	0.0	2000 01 08	691	0.2+	0.1+
1998 08 17	704	0.6+	0.2+	1998 08 27	699	0.2+	0.0	2000 01 08	691	0.4+	0.1−
1998 08 17	704	0.1+	0.4+	1998 09 14	699	0.1+	0.7−	2000 01 08	691	0.2+	0.0
1998 08 17	704	1.2−	0.5+	1998 09 14	699	0.6+	0.1−				
1998 08 23	704	0.4−	0.3+	1998 09 14	699	0.2−	1.1−				

1998 QW₁₃ = 1999 YP₁₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	154.97638		(2000.0)	P	Q
<i>n</i>	0.27267582	ω	13.74488	+0.74327675	+0.66844007
<i>a</i>	2.3552570	Ω	304.27537	−0.61682465	+0.66915930
<i>e</i>	0.2324570	<i>i</i>	1.87057	−0.25897302	+0.32467478
<i>P</i>	3.61	<i>H</i>	15.9	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1998 08 17	704	0.6+	0.1−	1998 08 23	704	0.8−	0.7−	1999 12 27	691	0.4−	0.0
1998 08 17	704	0.5+	0.2−	1998 08 23	704	1.2−	0.5−	1999 12 27	691	0.2−	0.1+
1998 08 17	704	0.2+	0.1+	1998 08 23	704	1.3−	0.6−	1999 12 27	691	0.4−	0.4−
1998 08 17	704	0.4+	0.3−	1998 08 28	699	0.3+	0.8+	2000 01 02	691	0.4+	0.0
1998 08 17	704	0.7+	0.2+	1998 08 28	699	0.5+	0.9+	2000 01 02	691	0.1+	0.1−
1998 08 23	704	0.6−	0.6−	1998 08 28	699	0.7+	0.8+	2000 01 02	691	0.4+	0.0

1998 QK₁₄ = 2000 BY₇

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	115.60156		(2000.0)	P	Q
<i>n</i>	0.23423864	ω	31.61034	+0.96350778	+0.20376114
<i>a</i>	2.6063357	Ω	315.54127	−0.26640583	+0.79314812
<i>e</i>	0.1801430	<i>i</i>	14.35023	+0.02608993	+0.57393158
<i>P</i>	4.21	<i>H</i>	14.7	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 07 27	809	(3.2+ 0.1−)	1998 08 23	704	0.5+	0.5+	2000 01 02	704	0.5+	0.4+	
1998 07 27	809	(3.5+ 0.2−)	1998 08 23	704	0.4−	0.8−	2000 01 02	704	0.8+	0.4−	
1998 07 27	809	(3.9+ 0.6−)	1998 08 28	699	0.4−	0.5+	2000 01 02	704	0.2−	0.8−	
1998 08 17	704	0.8+	0.1−	1998 08 28	699	0.1+	0.8+	2000 01 29	704	0.6+	0.2+
1998 08 17	704	0.1−	1.0+	1998 08 28	699	0.2+	0.0	2000 01 29	704	0.6−	0.2+
1998 08 17	704	1.1−	0.2−	1998 08 30	699	0.1+	0.0	2000 01 29	704	0.0	1.3−

1998 08 17	704	0.2−	0.0	1998 08 30	699	0.3+	0.6−	2000 01 29	704	0.7−	0.1−
1998 08 17	704	0.1+	0.5+	1998 08 30	699	0.3+	0.4−	2000 01 29	704	0.6+	1.2−
1998 08 22	566	0.1+	0.1+	1999 12 15	704	0.2+	0.0	2000 01 30	704	0.1−	1.1+
1998 08 22	566	0.0	0.0	1999 12 15	704	0.3+	0.3+	2000 01 30	704	1.2−	0.8+
1998 08 22	566	0.2−	0.2−	1999 12 15	704	0.2−	0.0	2000 01 30	704	0.8+	1.4+
1998 08 23	704	0.2+	0.4−	1999 12 15	704	0.0	0.3−				
1998 08 23	704	0.4−	0.3−	1999 12 15	704	0.8−	0.2+				

1998 QR₁₆ = 2000 CT₂₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	132.36833		(2000.0)	P	Q
<i>n</i>	0.27177386	ω	52.74199	+0.99297413	+0.10439742
<i>a</i>	2.3604652	Ω	301.20222	−0.11821516	+0.89606654
<i>e</i>	0.1831007	<i>i</i>	3.73438	+0.00524884	+0.43146951
<i>P</i>	3.63	<i>H</i>	15.3	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 08 17	704	0.9+	0.3−	1998 08 23	699	0.6−	0.4+	2000 02 03	704	0.2−	0.2+
1998 08 17	704	0.5+	0.6+	1998 08 23	704	(0.9+ 2.3−)		2000 02 03	704	0.2+	0.1−
1998 08 17	704	0.1−	0.4+	1998 08 30	699	0.1−	0.3+	2000 02 03	704	0.1+	0.3+
1998 08 17	704	0.1−	0.6−	1998 08 30	699	0.3−	0.4+	2000 02 07	691	0.2−	0.5−
1998 08 17	704	0.6−	0.3−	1998 08 30	699	0.2−	0.4−	2000 02 07	691	0.1−	0.5−
1998 08 23	699	0.2−	0.3−	2000 02 02	704	0.5−	0.2+	2000 02 07	691	0.2+	0.2−
1998 08 23	704	0.2+	0.3−	2000 02 02	704	0.6+	0.5−	2000 02 11	704	0.8−	0.2+
1998 08 23	704	1.0+	0.7+	2000 02 02	704	0.4+	0.0	2000 02 11	704	0.9+	0.6+
1998 08 23	699	0.1−	0.4−	2000 02 02	704	0.6−	0.4−	2000 02 11	704	0.1−	0.2+
1998 08 23	704	1.1−	0.4−	2000 02 03	704	0.3−	0.6−	2000 02 11	704	0.1−	0.8+
1998 08 23	704	0.7+	0.1−	2000 02 03	704	0.4−	0.2−	2000 02 11	704	0.9+	0.6+

1998 QO₁₉ = 2000 CM₇₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	112.84928		(2000.0)	P	Q
<i>n</i>	0.27674221	ω	249.47269	+0.91069565	−0.40831611
<i>a</i>	2.3321284	Ω	134.56589	+0.40411151	+0.84928284
<i>e</i>	0.1768840	<i>i</i>	5.03613	+0.08559980	+0.33465893
<i>P</i>	3.56	<i>H</i>	15.4	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1998 08 17	704	0.5−	0.2−	1998 08 27	699	0.2+	0.2−	2000 02 10	120	1.7+	0.2−
1998 08 17	704	0.5−	0.8−	1998 08 27	699	0.3+	0.0	2000 02 10	120	1.0−	0.2+
1998 08 17	704	0.2+	0.4+	1998 08 27	699	0.8−	0.0	2000 02 10	120	0.2+	0.5−
1998 08 17	704	0.7−	1.2+	1998 09 01	327	0.8−	1.1−	2000 02 10	120	0.2−	1.4+
1998 08 17	704	0.7+	1.0+	1998 09 01	327	0.4−	0.4+	2000 02 11	704	0.1+	0.4+
1998 08 23	704	1.2+	0.1+	1998 09 01	327	0.9−	0.5−	2000 02 11	704	0.1+	0.5+
1998 08 23	704	1.6−	0.7+	1998 09 24	699	0.8+	0.5−	2000 02 11	704	0.1+	0.8+
1998 08 23	704	0.2+	0.5−	1998 09 24	699	0.3+	0.8+	2000 02 11	704	0.2+	0.9+
1998 08 23	704	1.0+	1.3+	1998 09 24	699	0.7+	1.3+				

1998 QK₂₀ = 2000 BS₂₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	113.64446		(2000.0)	P	Q
<i>n</i>	0.25159104	ω	122.79562	+0.99892866	+0.00114905
<i>a</i>	2.4850737	Ω	237.17809	−0.01819461	+0.92893439
<i>e</i>	0.0598300	<i>i</i>	3.15577	+0.04254988	+0.37024260
<i>P</i>	3.92	<i>H</i>	14.5	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1998 08 17	704	0.4−	0.8−	1998 08 23	704	1.3+	0.9−	2000 01 28	704	0.6−	0.3+
1998 08 17	704	0.2+	0.2−	1998 08 23	704	1.7−	0.2+	2000 01 28	704	0.5+	0.3−
1998 08 17	704	1.1+	0.3−	1998 08 26	699	0.7−	0.9+	2000 01 28	704	0.4+	1.2−
1998 08 17	704	0.3−	0.6−	1998 08 26	699	0.7−	0.2−	2000 02 03	704	0.1+	0.2+
1998 08 17	704	0.9+	0.0	1998 08 26	699	0.4+	0.4+	2000 02 03	704	0.2−	0.3−
1998 08 23	704	1.3−	1.3+	1998 09 01	327	0.8+	0.5+	2000 02 03	704	0.3−	1.2+
1998 08 23	704	0.5−	0.5+	1998 09 01	327	0.1−	0.7−				
1998 08 23	704	0.7+	0.2−	1998 09 01	327	0.3+	0.0				

1998 QS₂₀ = 1998 MF₁₆ = 2000 BD₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	150.49307		(2000.0)	P	Q
<i>n</i>	0.30944386	ω	111.14087	+0.99986342	+0.00278755
<i>a</i>	2.1647852	Ω	248.70236	-0.00894955	+0.91996857
<i>e</i>	0.1742077	<i>i</i>	1.00181	+0.01389383	+0.39198223
<i>P</i>	3.19	<i>H</i>	16.2	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 06 23	691	0.1-	0.0	1998 08 23	704	0.4+	0.6+	1998 09 18	704	0.9+	0.6-
1998 06 23	691	0.3-	0.1+	1998 08 23	704	0.8-	0.2-	1998 09 18	704	(2.2+	0.6-)
1998 06 23	691	0.1-	0.1-	1998 09 14	704	0.1+	0.0	1998 09 18	704	1.2-	0.2-
1998 08 17	704	0.4-	0.8-	1998 09 14	704	0.9-	0.1-	1998 09 18	704	0.3-	0.4-
1998 08 17	704	0.6+	0.5-	1998 09 14	704	0.0	1.0+	2000 01 27	691	0.2+	0.2-
1998 08 17	704	0.7+	0.4-	1998 09 14	704	0.7+	0.1-	2000 01 27	691	0.4+	0.4-
1998 08 17	704	0.3-	0.4+	1998 09 14	704	(0.4-	2.3+)	2000 01 27	691	0.1-	0.1-
1998 08 17	704	0.1+	0.8+	1998 09 15	699	0.1-	0.0	2000 01 28	691	0.4-	0.1-
1998 08 23	704	0.1-	0.5-	1998 09 15	699	0.3+	0.3+	2000 01 28	691	0.5-	0.3-
1998 08 23	704	0.9+	1.2-	1998 09 15	699	0.0	1.0+	2000 01 28	691	0.2-	0.5-
1998 08 23	704	0.3+	0.6+	1998 09 18	704	0.3-	0.9-				

1998 QO₂₁ = 2000 BT₁₇

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	159.88056		(2000.0)	P	Q
<i>n</i>	0.27832384	ω	333.20482	+0.77640898	+0.62996464
<i>a</i>	2.3232848	Ω	347.69600	-0.56176580	+0.67863724
<i>e</i>	0.1702677	<i>i</i>	4.91720	-0.28567164	+0.37761891
<i>P</i>	3.54	<i>H</i>	15.3	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 07 31	699	0.2+	0.0	1998 08 27	699	0.6+	0.5+	1998 09 21	699	1.4-	0.1-
1998 07 31	699	0.4+	0.4+	1998 08 27	699	0.2+	1.1+	1998 09 21	699	0.7+	0.7+
1998 07 31	699	0.5-	0.5+	1998 08 27	699	0.5+	0.7+	2000 01 04	704	0.6-	0.8-
1998 08 17	704	0.0	0.2+	1998 09 14	704	0.2+	0.7-	2000 01 04	704	0.2+	0.6-
1998 08 17	704	0.3-	0.6-	1998 09 14	704	0.1+	0.5+	2000 01 04	704	0.4+	0.1+
1998 08 17	704	0.5+	0.2-	1998 09 14	704	0.4-	0.5+	2000 01 30	704	0.6+	0.7+
1998 08 17	704	0.1+	0.6-	1998 09 14	704	0.4+	0.5+	2000 01 30	704	0.4-	0.6+
1998 08 17	704	0.4+	0.4-	1998 09 14	704	0.5+	0.1+	2000 01 30	704	1.3-	0.1-
1998 08 23	704	0.4+	0.5-	1998 09 18	704	0.3+	0.8-	2000 01 31	704	0.5+	0.7+
1998 08 23	704	1.0-	0.3+	1998 09 18	704	0.1+	1.0-	2000 01 31	704	0.4+	0.9-
1998 08 23	704	0.2-	0.6+	1998 09 18	704	0.6+	1.2-	2000 01 31	704	0.2+	0.8+
1998 08 23	704	1.4-	0.1-	1998 09 18	704	0.0	0.3+				
1998 08 23	704	0.2-	1.5-	1998 09 21	699	0.5-	1.2+				

1998 QW₂₃ = 2000 CP₄₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	47.43382		(2000.0)	P	Q
<i>n</i>	0.28226555	ω	286.22983	-0.09133550	-0.99541618
<i>a</i>	2.3016050	Ω	168.89463	+0.96063113	-0.09557683
<i>e</i>	0.1325114	<i>i</i>	8.46772	+0.26238457	+0.00341957
<i>P</i>	3.49	<i>H</i>	14.6	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1998 08 17	704	0.3+	0.9+	1998 09 23	120	0.5-	1.2-	2000 01 05	704	0.9-	0.1+
1998 08 17	704	0.8+	0.8+	1998 09 23	120	0.6-	0.9-	2000 01 05	704	0.1-	0.6+
1998 08 17	704	1.0+	0.6+	1998 11 12	910	0.8-	0.1-	2000 01 05	704	1.1-	0.4-
1998 08 17	704	0.5+	0.4+	1998 11 12	910	0.6-	0.5-	2000 01 05	704	0.3-	0.3-
1998 08 17	704	1.8+	0.9+	1998 11 12	910	0.3-	0.4-	2000 02 02	704	0.1+	0.3+
1998 08 23	691	0.3-	0.6+	1998 11 17	910	0.5-	0.4-	2000 02 02	704	0.0	0.0
1998 08 23	691	0.4-	0.4+	1998 11 17	910	0.3-	0.6-	2000 02 02	704	0.6+	0.1+
1998 08 23	691	0.5-	0.5+	1998 11 17	910	0.5-	0.8-	2000 02 02	704	0.0	0.2-
1998 08 23	704	0.0	0.1+	1999 12 05	703	0.7+	0.4-	2000 02 02	704	0.1+	0.2-
1998 08 23	704	0.9+	0.5+	1999 12 05	703	0.6-	0.3+	2000 02 06	704	0.2-	0.4+

1998 08 23	704	0.3+	0.6+	1999 12 05	703	1.3+	0.4+	2000 02 06	704	0.3+	0.1+
1998 09 15	699	0.0	0.7+	1999 12 05	703	0.1-	0.7+	2000 02 06	704	0.1+	0.1+
1998 09 15	699	0.9-	0.2+	1999 12 14	704	0.4+	0.7+	2000 02 06	704	0.1-	0.8+
1998 09 15	699	1.3-	0.2-	1999 12 14	704	(1.0+	3.6+)	2000 02 06	704	0.7+	0.5+
1998 09 23	120	(2.2-	0.3-)	1999 12 14	704	(0.3+	2.4+)				

1998 QM₂₄ = 2000 CZ₁₃

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	88.79138		(2000.0)	P	Q
<i>n</i>	0.21001677	ω	206.50592	+0.95444887	-0.29753686
<i>a</i>	2.8030665	Ω	170.72030	+0.29240648	+0.91783091
<i>e</i>	0.2405656	<i>i</i>	7.96401	+0.05937844	+0.26278933
<i>P</i>	4.69	<i>H</i>	15.2	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 08 17	704	1.1-	0.5+	1998 09 14	704	1.6+	0.0	1998 11 22	693	0.0	1.3+
1998 08 17	704	1.0+	1.3+	1998 09 14	704	1.6+	1.8-	1998 11 22	693	0.1+	1.5+
1998 08 17	704	0.9-	0.9+	1998 09 14	704	(2.2+	3.5-)	2000 02 02	704	0.3-	0.5-
1998 08 17	704	0.9-	1.5+	1998 09 18	704	0.7+	0.2+	2000 02 02	704	0.5+	0.7+
1998 08 17	704	0.8-	0.9-	1998 09 18	704	0.2-	0.0	2000 02 02	704	0.5-	0.2+
1998 08 23	704	0.4-	0.3-	1998 09 18	704	0.8-	0.3+	2000 02 02	704	0.5+	0.0
1998 08 23	704	1.3+	0.0	1998 09 18	704	0.5+	0.6-	2000 02 02	704	0.9+	0.1-
1998 08 23	691	0.5-	0.8+	1998 11 09	910	0.5-	1.1-	2000 02 04	704	0.1+	0.4+
1998 08 23	704	0.3-	0.7-	1998 11 09	910	0.8-	0.6-	2000 02 04	704	0.4-	0.1-
1998 08 23	691	0.4-	0.6+	1998 11 09	910	0.6-	0.6-	2000 02 04	704	0.7-	0.2+
1998 08 23	704	(2.3+	1.0+)	1998 11 11	910	0.0	0.6-	2000 02 04	704	0.9+	0.2-
1998 08 23	691	0.6-	0.8+	1998 11 11	910	0.5-	0.3-	2000 02 06	704	0.2-	0.3+
1998 09 14	704	0.6+	0.6-	1998 11 11	910	0.4-	0.7-	2000 02 06	704	0.4-	0.0
1998 09 14	704	0.9+	1.4-	1998 11 22	693	0.5+	1.3+	2000 02 06	704	0.1-	0.3+

1998 QV₂₄ = 2000 CQ₅₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	110.06965		(2000.0)	P	Q
<i>n</i>	0.27983864	ω	223.50980	+0.83569886	-0.54904818
<i>a</i>	2.3148930	Ω	169.77042	+0.52104531	+0.78554316
<i>e</i>	0.1639874	<i>i</i>	4.00051	+0.17354882	+0.28542608
<i>P</i>	3.52	<i>H</i>	15.5	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 08 17	704	0.1-	0.1+	1998 09 14	704	0.2+	1.4-	1998 11 09	910	0.1+	0.1-
1998 08 17	704	0.3+	0.2-	1998 09 14	704	0.2+	0.1+	1998 11 09	910	0.1+	0.2-
1998 08 17	704	0.3+	0.1+	1998 09 14	704	0.8-	0.1-	1998 11 09	910	0.1-	0.1-
1998 08 17	704	0.1+	0.2+	1998 09 15	699	0.4+	0.2+	1998 11 10	910	0.4+	0.2+
1998 08 17	704	1.4-	1.0-	1998 09 15	699	0.2-	0.6+	1998 11 10	910	0.8+	0.1+
1998 08 23	704	0.1+	0.4-	1998 09 15	699	0.3+	0.1+	1998 11 10	910	0.5+	0.2+
1998 08 23	704	0.2+	0.7-	1998 09 18	704	0.4-	0.1+	2000 02 02	704	0.2+	0.2-
1998 08 23	704	1.0+	0.8-	1998 09 18	704	0.6-	0.8+	2000 02 02	704	0.7-	0.4-
1998 08 23	704	0.7-	0.8-	1998 09 18	704	1.0-	1.5+	2000 02 02	704	0.4+	0.8-
1998 08 26	699	0.2-	0.4+	1998 09 18	704	0.4+	0.3-	2000 02 06	704	0.2+	0.1-
1998 08 26	699	0.7+	0.5+	1998 09 18	704	(2.3-	1.5-)	2000 02 06	704	0.3+	0.1+
1998 08 26	699	0.8+	0.7+	1998 10 26	910	0.6-	0.1-	2000 02 06	704	0.8-	0.2+
1998 09 14	704	0.3+	0.0	1998 10 26	910	0.7-	0.5-				
1998 09 14	704	0.6+	0.4+	1998 10 26	910	0.5-	0.7-				

1998 QS₂₆ = 2000 CL₁₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	134.49260		(2000.0)	P	Q
<i>n</i>	0.26169602	ω	128.39819	+0.98716415	+0.15496019
<i>a</i>	2.4206833	Ω	222.72702	-0.15844790	+0.91989389
<i>e</i>	0.0725740	<i>i</i>	3.26603	-0.02003003	+0.36025348
<i>P</i>	3.77	<i>H</i>	15.1	<i>G</i> 0.15	<i>U</i> 4

2000 FEB. 22

M.P.C. 38477

Residuals in seconds of arc

1998 08 17	704	0.2−	0.3−	1998 08 26	620	(2.5+	5.1+)	1998 09 18	704	0.3+	0.0
1998 08 17	704	0.8+	0.1−	1998 08 27	620	(2.1+	4.1+)	1998 09 18	704	0.3+	0.3−
1998 08 17	704	(3.7−	0.7+)	1998 09 14	704	0.0	0.4−	1998 09 24	620	0.6−	0.1−
1998 08 17	704	0.0	0.2+	1998 09 14	704	0.0	0.1+	1998 09 24	620	0.5+	0.2+
1998 08 22	620	0.3+	0.5−	1998 09 14	704	0.3+	1.5−	2000 02 02	704	0.8−	1.0−
1998 08 22	620	0.4+	0.5+	1998 09 14	704	0.0	0.3+	2000 02 02	704	0.1+	0.7+
1998 08 22	620	0.3−	0.3+	1998 09 14	620	0.9−	0.1−	2000 02 02	704	0.5+	1.0−
1998 08 23	704	0.8−	0.9+	1998 09 14	620	0.1+	0.7−	2000 02 02	704	0.2−	0.0
1998 08 23	704	0.9+	0.8+	1998 09 14	620	0.2−	0.5−	2000 02 03	704	0.3+	0.4+
1998 08 23	704	1.3−	0.0	1998 09 15	699	0.9+	0.8+	2000 02 03	704	0.2+	0.1+
1998 08 23	704	1.1−	0.6−	1998 09 15	699	0.4+	0.2+	2000 02 03	704	0.3+	0.9+
1998 08 23	704	1.2−	0.5+	1998 09 15	699	0.4+	0.1−	2000 02 03	704	1.0−	0.2+
1998 08 26	699	0.5+	0.5−	1998 09 18	704	0.4+	0.2−	2000 02 03	704	0.6+	0.2−
1998 08 26	699	1.9+	0.7−	1998 09 18	704	0.2−	0.6+				
1998 08 26	699	0.2+	0.2−	1998 09 18	704	1.8−	1.2+				

1998 QU₂₈ = 2000 CC₂₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	98.33051		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.27401084	ω	153.77109	+0.81980565	−0.56846306
<i>a</i>	2.3476007	Ω	241.04270	+0.51053882	+0.78018118
<i>e</i>	0.0961924	<i>i</i>	4.52652	+0.25936230	+0.26108824
<i>P</i>	3.60	<i>H</i>	15.6	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 08 17	704	1.1+	1.3−	1998 08 26	327	0.0	0.3+	2000 02 02	704	0.7+	0.5+
1998 08 17	704	0.3+	0.6−	1998 08 26	327	0.1−	0.3+	2000 02 02	704	0.3+	0.0
1998 08 17	704	0.6−	0.0	1998 08 26	327	(0.7−	2.5+)	2000 02 04	704	0.1+	0.3−
1998 08 17	704	1.5−	0.7+	1998 08 30	327	0.1+	0.3−	2000 02 04	704	0.4−	0.1+
1998 08 17	704	0.7+	1.2+	1998 08 30	327	0.1−	0.0	2000 02 04	704	0.3−	0.3+
1998 08 22	327	0.0	0.1−	1998 08 30	327	0.0	0.1−	2000 02 04	704	0.7+	0.2+
1998 08 22	327	0.1+	0.0	2000 02 02	704	0.2−	0.3−				
1998 08 22	327	0.1−	0.1−	2000 02 02	704	0.9−	0.4−				

1998 QK₂₉ = 2000 CX₈₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	71.12711		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.25479297	ω	135.14755	+0.53725790	−0.83756774
<i>a</i>	2.4642102	Ω	282.11338	+0.74257800	+0.52549259
<i>e</i>	0.1199871	<i>i</i>	5.82130	+0.39991483	+0.14945844
<i>P</i>	3.87	<i>H</i>	15.7	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 08 22	327	0.7+	0.0	1998 08 30	327	(2.6−	0.7+)	2000 02 11	858	0.2+	0.3+
1998 08 22	327	0.6+	0.6−	1998 08 30	327	(0.8−	2.2−)	2000 02 11	858	0.1+	0.0
1998 08 22	327	0.7+	0.1−	2000 02 02	704	0.7−	0.5−	2000 02 11	858	0.2+	0.1−
1998 08 27	327	0.3−	0.3−	2000 02 02	704	0.7−	0.0	2000 02 12	858	0.1+	0.1+
1998 08 27	327	0.3+	0.1+	2000 02 02	704	0.1+	0.1−	2000 02 12	858	0.8+	0.0
1998 08 27	327	0.1+	0.2+	2000 02 02	704	0.1+	0.1−				
1998 08 30	327	2.0−	0.7+	2000 02 02	704	0.1−	0.4+				

1998 QU₂₉ = 2000 CV₆₆

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	70.08938		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.29329269	ω	186.57202	+0.37476291	−0.92199010
<i>a</i>	2.2435472	Ω	241.45662	+0.85558478	+0.38439897
<i>e</i>	0.0214743	<i>i</i>	6.36592	+0.35710985	+0.04660131
<i>P</i>	3.36	<i>H</i>	15.7	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 08 23	327	0.1+	0.3+	1998 08 30	327	0.2−	0.3+	2000 02 08	704	0.0	0.1+
1998 08 23	327	0.2+	0.2+	2000 01 08	704	0.3+	0.4+	2000 02 08	704	0.3−	0.4+
1998 08 23	327	0.1+	0.2+	2000 01 08	704	0.3+	0.6+	2000 02 10	704	0.2+	0.2+

1998 08 25	327	(4.0−	1.4−)	2000 01 08	704	0.4−	0.6−	2000 02 10	704	0.2−	0.0
1998 08 25	327	0.2+	0.1+	2000 02 06	704	0.2−	0.8−	2000 02 10	704	0.2−	0.3+
1998 08 25	327	0.0	0.4−	2000 02 06	704	0.4−	1.5−	2000 02 11	704	0.3+	0.5+
1998 08 27	327	0.5−	0.4−	2000 02 06	704	0.8−	0.4−	2000 02 11	704	0.1+	0.3+
1998 08 27	327	0.1+	0.2−	2000 02 06	704	0.6−	0.7−	2000 02 11	704	0.1+	0.2+
1998 08 27	327	0.0	0.2−	2000 02 06	704	0.1−	0.0	2000 02 11	704	0.8+	1.2+
1998 08 30	327	0.0	0.4+	2000 02 08	704	0.4+	0.0	2000 02 11	704	0.0	0.4+
1998 08 30	327	0.0	0.2−	2000 02 08	704	0.7+	0.6−				

1998 QT₃₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	118.96775		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.25583116	ω	278.11378	+0.99407202	−0.09216782
<i>a</i>	2.4575390	Ω	87.18809	+0.10759028	+0.91030454
<i>e</i>	0.1962569	<i>i</i>	3.31011	−0.01565731	+0.40354769
<i>P</i>	3.85	<i>H</i>	14.8	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 08 17	704	0.2+	0.0	1998 09 14	704	1.2+	0.6−	1998 10 17	699	0.1−	0.6+
1998 08 17	704	0.3−	0.2+	1998 09 14	704	0.2−	1.0−	1998 10 17	699	0.5+	0.6−
1998 08 17	704	0.2−	0.6+	1998 09 17	699	0.3+	1.2+	1998 10 17	699	1.2−	0.1+
1998 08 17	704	0.7−	0.4−	1998 09 17	699	0.3+	0.3+	2000 01 26	120	0.9−	0.2+
1998 08 17	704	0.1−	1.0−	1998 09 17	699	0.2+	0.3−	2000 01 26	120	0.1−	0.5−
1998 08 23	704	0.4−	0.2−	1998 09 18	704	0.4−	0.2+	2000 01 26	120	1.7+	1.3−
1998 08 23	704	0.6−	0.3−	1998 09 18	704	0.6+	0.9−	2000 01 27	120	0.2−	0.8−
1998 08 23	704	0.1+	1.2+	1998 09 18	704	0.3+	0.1+	2000 01 27	120	0.4+	0.4−
1998 08 23	704	0.4−	1.1+	1998 09 18	704	1.4−	0.3−	2000 02 11	704	0.4−	1.1+
1998 09 14	704	0.9+	0.8−	1998 09 24	699	0.1−	1.0+	2000 02 11	704	0.3+	1.4+
1998 09 14	704	0.8+	0.8−	1998 09 24	699	0.2−	1.3+	2000 02 11	704	0.7−	0.8+
1998 09 14	704	0.8+	1.1−	1998 09 24	699	0.2−	0.6+	2000 02 11	704	0.1−	0.0

1998 QC₃₃ = 2000 BE₁₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	84.47911		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.23026501	ω	67.44624	+0.86146224	−0.48308535
<i>a</i>	2.6362348	Ω	320.94604	+0.32434637	+0.76063803
<i>e</i>	0.1248313	<i>i</i>	14.38812	+0.39074575	+0.43365693
<i>P</i>	4.28	<i>H</i>	14.5	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1998 08 17	704	1.1−	0.6+	1998 09 15	699	0.1−	0.7−	2000 01 30	704	0.6−	0.8−
1998 08 17	704	0.2−	0.7+	1998 09 17	699	0.7−	0.2−	2000 01 30	704	0.5−	0.4+
1998 08 17	704	0.3−	0.1−	1998 09 17	699	0.2−	0.4+	2000 01 31	704	0.6+	0.2+
1998 08 17	704	(2.4−	0.3+)	1998 09 17	699	1.3−	1.0+	2000 01 31	704	0.2−	0.1+
1998 08 17	704	(2.5−	0.6−)	1998 09 25	327	1.4+	0.3+	2000 01 31	704	0.5−	0.1+
1998 08 23	704	0.5−	0.4−	1998 09 25	327	1.6+	0.2+	2000 02 07	703	0.1+	0.1−
1998 08 23	704	0.4−	1.4−	1998 09 25	327	0.7+	0.3+	2000 02 07	703	1.2−	0.1+
1998 08 23	704	0.3−	1.0+	2000 01 03	704	0.3+	0.6+	2000 02 07	703	0.1−	0.0
1998 08 23	704	0.2−	0.3−	2000 01 03	704	0.3+	0.1−	2000 02 07	703	0.6−	0.0
1998 08 26	699	0.4+	0.0	2000 01 03	704	0.8+	0.1+	2000 02 11	704	0.0	0.5+
1998 08 26	699	1.1+	0.2+	2000 01 03	704	0.1−	0.0	2000 02 11	704	0.9+	0.1−
1998 08 26	699	0.6+	0.9−	2000 01 03	704	0.5+	0.4−	2000 02 11	704	0.2+	0.5+
1998 09 15	699	0.4−	0.1+	2000 01 30	704	0.3+	0.5−	2000 02 11	704	0.3−	0.2−
1998 09 15	699	0.2−	0.8−	2000 01 30	704	0.1+	0.4−				

1998 QV₃₃ = 2000 CA₁₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	141.76353		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.25812400	ω	135.39868	+0.90992197	+0.41462431
<i>a</i>	2.4429643	Ω	200.11405	−0.38917238	+0.84396642
<i>e</i>	0.2095995	<i>i</i>	1.89035	−0.14348124	+0.34030479
<i>P</i>	3.82	<i>H</i>	15.1	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 08 17	704	0.8−	0.8+	1998 09 14	704	0.5+	0.0	2000 02 02	704	0.2+	0.1+
1998 08 17	704	0.7−	1.2+	1998 09 14	704	1.2+	0.5−	2000 02 02	704	0.5+	0.0
1998 08 17	704	0.2−	1.0+	1998 09 14	704	0.3+	1.1−	2000 02 02	704	1.4−	0.1+
1998 08 17	704	0.1−	1.2+	1998 09 14	704	0.2+	0.3−	2000 02 02	704	0.2+	0.3−
1998 08 17	704	0.3+	1.0+	1998 09 14	704	0.1+	0.5−	2000 02 03	704	0.2+	0.0
1998 08 23	704	0.5−	0.1+	1998 09 18	704	1.4+	0.0	2000 02 03	704	0.1+	0.2+
1998 08 23	704	0.1−	0.4+	1998 09 18	704	0.0	0.2−	2000 02 03	704	0.3−	0.6+
1998 08 23	704	0.2−	1.5−	1998 09 18	704	0.2−	0.5−	2000 02 03	704	0.1−	0.3+
1998 08 23	691	0.9−	0.7+	1998 09 18	704	0.2+	0.5−	2000 02 03	704	0.9−	1.1+
1998 08 23	704	0.3+	0.2+	1998 09 18	704	0.4−	0.8+	2000 02 08	704	1.6+	1.1+
1998 08 23	704	0.9+	0.3+	1998 10 28	691	0.2−	0.9−	2000 02 08	704	(0.4+	2.6+)
1998 08 23	691	0.9−	0.8+	1998 10 28	691	0.2−	0.7−	2000 02 08	704	0.2+	0.6+
1998 08 23	691	0.8−	0.5+	1998 10 28	691	0.4−	0.6−	2000 02 08	704	0.6+	0.2+

1998 QX₃₄ = 1998 PQ₁ = 1987 VK₁ = 1991 YJ₁

Id. M. E. Sansaturio, G. V. Williams (d)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams							
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26334079	ω	117.44046	+0.77325317		−0.62662657	
<i>a</i>	2.4105934	Ω	281.52464	+0.54118998		+0.73194032	
<i>e</i>	0.2210201	<i>i</i>	5.68428	+0.33044355		+0.26758645	
<i>P</i>	3.74	<i>H</i>	15.5	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1987 11 12	327	1.3+	0.5−	1998 08 17	704	0.6+	0.1+	1998 09 01	327	0.1−	0.5−
1987 11 12	327	1.2−	0.3+	1998 08 17	704	0.7+	0.0	1998 09 01	327	0.0	0.5−
1991 12 28	033	0.2+	0.5+	1998 08 17	704	0.7−	1.6−	1998 09 02	327	0.3+	0.2−
1992 01 02	033	0.2+	0.4−	1998 08 23	704	0.3−	0.4+	1998 09 02	327	0.1−	0.1+
1992 01 03	033	0.3−	0.0	1998 08 23	704	0.2+	0.1+	1998 09 02	327	0.2−	0.1−
1992 01 07	033	0.1−	0.3+	1998 08 23	704	0.2+	0.6+	1998 09 02	327	0.0	0.1−
1998 08 17	704	0.4+	0.1−	1998 08 23	704	0.9−	1.6+				
1998 08 17	704	0.2−	0.5+	1998 09 01	327	0.1+	0.1−				

1998 QS₃₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams							
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.27525787	ω	64.56877	+0.48535549		−0.87429123	
<i>a</i>	2.3405049	Ω	356.37440	+0.75929305		+0.42528957	
<i>e</i>	0.0933273	<i>i</i>	6.08166	+0.43347908		+0.23397356	
<i>P</i>	3.58	<i>H</i>	15.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 17	704	0.0	0.4−	1998 09 14	704	0.1+	0.2−	2000 01 30	704	1.9−	0.5−
1998 08 17	704	0.7−	1.0−	1998 09 18	704	1.1+	0.8−	2000 01 30	704	0.2+	0.2+
1998 08 17	704	0.9+	0.2+	1998 09 18	704	0.8−	0.3−	2000 02 03	704	0.3+	0.8−
1998 08 17	704	0.7+	0.2+	1998 09 18	704	0.2−	0.5+	2000 02 03	704	0.2+	0.0
1998 08 17	704	0.7+	0.8−	1998 09 18	704	0.3+	1.4+	2000 02 03	704	0.3+	0.3−
1998 08 23	704	0.8−	1.4−	1998 10 26	910	0.3+	0.3−	2000 02 03	704	0.5+	0.1+
1998 08 23	704	(2.1−	1.0+)	1998 10 26	910	0.3−	0.7−	2000 02 03	704	1.2+	0.7−
1998 08 23	704	1.2−	1.8+	1998 10 26	910	0.4−	0.2−	2000 02 11	704	0.3+	0.5+
1998 08 23	704	(1.0+	4.4+)	1998 11 06	910	0.3+	0.2−	2000 02 11	704	0.4−	0.3+
1998 09 14	704	1.4+	0.9+	1998 11 06	910	0.2+	0.1−	2000 02 11	704	0.2−	0.3+
1998 09 14	704	1.0−	0.8−	1998 11 06	910	0.0	0.3+	2000 02 11	704	1.1−	0.3−
1998 09 14	704	0.4+	0.7+	2000 01 30	704	0.5+	0.3+	2000 02 11	704	0.2−	0.1+
1998 09 14	704	0.8−	0.9+	2000 01 30	704	0.1+	0.7+				

1998 QW₃₆ = 2000 CA₂₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams							
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.27611779	ω	77.55992	+0.99506444		−0.03825060	
<i>a</i>	2.3356430	Ω	284.57860	−0.00352475		+0.90851307	
<i>e</i>	0.1355189	<i>i</i>	5.42878	+0.09916822		+0.41610202	
<i>P</i>	3.57	<i>H</i>	15.5	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 03	699	0.4+	1.7+	1998 09 14	704	0.2−	0.3−	1998 09 23	704	0.5−	0.9−
1998 08 03	699	0.0	1.5+	1998 09 14	704	1.0−	0.5+	1998 09 23	704	0.3−	1.2−
1998 08 03	699	0.1−	0.6+	1998 09 14	704	1.3−	0.3−	1998 09 23	704	(0.6−	2.6−)
1998 08 17	704	1.2+	0.8−	1998 09 14	704	0.6−	1.1+	1998 09 27	704	0.5+	0.1+
1998 08 17	704	1.4−	0.4+	1998 09 15	699	0.5+	0.1−	1998 09 27	704	0.5−	0.0
1998 08 17	704	0.3−	0.8+	1998 09 15	699	0.6+	0.5+	1998 09 27	704	0.3+	0.2+
1998 08 17	704	0.8−	0.7−	1998 09 15	699	0.1−	1.1−	1998 09 27	704	0.4+	1.3+
1998 08 17	704	0.2+	0.1+	1998 09 18	699	0.2+	0.7+	1998 09 27	704	0.7+	0.6+
1998 08 23	704	0.7−	1.0−	1998 09 18	704	0.9+	0.6+	2000 02 02	704	0.1+	0.4+
1998 08 23	704	1.6−	0.5−	1998 09 18	699	0.4+	0.2+	2000 02 02	704	0.4−	0.5−
1998 08 23	704	0.1−	0.6+	1998 09 18	704	0.3−	0.3−	2000 02 02	704	0.8+	0.6+
1998 08 23	704	0.6+	0.1+	1998 09 18	699	0.7+	0.6+	2000 02 02	704	0.2+	0.6+
1998 08 30	699	(2.1+	0.7−)	1998 09 18	704	0.9+	1.3−	2000 02 02	704	0.3−	0.2−
1998 08 30	699	1.0+	0.0	1998 09 18	704	0.6+	0.2−	2000 02 04	704	1.2+	0.6+
1998 08 30	699	2.0+	1.6−	1998 09 18	704	1.7−	1.0+	2000 02 04	704	0.4−	0.8+
1998 09 14	704	0.4−	0.5−	1998 09 23	704	0.5−	0.7−	2000 02 04	704	0.5−	0.7−

1998 QP₃₈ = 2000 CO₆₃

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams							
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22710732	ω	252.22912	+0.38189637		−0.92413739	
<i>a</i>	2.6606145	Ω	175.27459	+0.89105172		+0.36495571	
<i>e</i>	0.2767347	<i>i</i>	7.80749	+0.24532017		+0.11303720	
<i>P</i>	4.34	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1994 11 07	808	0.1−	0.5+	1998 08 26	699	0.1+	0.4+	2000 01 05	704	0.2+	0.5−
1994 11 07	808	(0.3+	4.3+)	1998 09 14	699	0.5+	0.4+	2000 01 05	704	0.1−	1.5−
1998 08 17	704	0.5+	0.9−	1998 09 14	699	0.1+	0.7+	2000 01 05	704	0.8−	0.5−
1998 08 17	704	0.9−	0.6+	1998 09 14	699	0.5−	0.6+	2000 01 05	704	0.6+	0.4−
1998 08 17	704	0.1−	1.0+	1998 09 18	699	0.4−	0.9+	2000 02 02	704	0.1+	0.8+
1998 08 17	704	0.1+	0.7+	1998 09 18	699	0.3−	0.3+	2000 02 02	704	0.8+	0.9+
1998 08 17	704	0.2+	1.3+	1998 09 18	699	0.7−	1.2+	2000 02 02	704	0.1−	0.4+
1998 08 21	566	0.6−	0.8−	1998 10 14	699	0.7+	0.2+	2000 02 02	704	0.1+	0.7+
1998 08 21	566	1.6−	0.5−	1998 10 14	699	1.2+	0.3−	2000 02 02	704	(0.5+	2.2+)
1998 08 21	566	1.1−	0.5−	1998 10 14	699	1.3+	0.4−	2000 02 08	704	0.7+	0.0
1998 08 23	704	0.6−	0.5−	1998 12 09	699	0.4−	1.0−	2000 02 08	704	0.3−	0.9−
1998 08 23	704	0.6+	0.3−	1998 12 09	699	0.1−	1.0−	2000 02 08	704	0.7−	0.5−
1998 08 23	704	1.6+	1.4−	1998 12 09	699	0.7−	0.6−	2000 02 08	704	0.3−	0.4−
1998 08 23	704	0.4+	1.7−	1999 12 09	703	1.3+	0.6+	2000 02 08	704	0.8−	1.1−
1998 08 23	704	0.5+	0.2+	1999 12 09	703	(2.7+	1.1+)	2000 02 11	732	0.6−	0.0
1998 08 26	699	0.3+	0.5+	1999 12 09	703	0.0	0.7−	2000 02 11	732	0.2+	0.8+
1998 08 26	699	0.3−	0.6−	1999 12 09	703	0.6+	1.7+	2000 02 11	732	0.1+	0.9+

1998 QT₃₈ = 2000 CC₅₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	111.38896		(2000.0)	P	Q
n	0.27513497	ω	107.62556	+0.85141987	-0.52020218
a	2.3412018	Ω	283.76710	+0.45131553	+0.79163019
e	0.1430312	i	3.94883	+0.26720497	+0.32048609
P	3.58	H	15.3	G 0.15	U 3

2000 FEB. 22

M.P.C. 38479

1998 08 23 704 0.5+ 0.8+ 1998 09 18 704 0.3- 1.2-
 1998 08 23 704 1.5- 0.4+ 1998 09 18 704 0.3+ 1.1-

1998 QJ₃₉ = 2000 AQ₁₉₀

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	30.87793		(2000.0)	P	Q
<i>n</i>	0.17755152	ω	282.87579	+0.37831015	-0.90899259
<i>a</i>	3.1351124	Ω	143.30563	+0.92145055	+0.35174816
<i>e</i>	0.1936273	<i>i</i>	17.02634	+0.08837593	+0.22361956
<i>P</i>	5.55	<i>H</i>	14.3	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 08 17	704	0.1+	0.0	1998 08 23	704	1.0-	1.1+	2000 01 08	704	0.5+	0.9+
1998 08 17	704	0.2+	0.3-	1998 08 28	699	0.3+	0.1+	2000 01 08	704	0.3-	0.3-
1998 08 17	704	1.8+	1.2+	1998 08 28	699	0.0	1.1+	2000 01 08	704	0.2+	0.1-
1998 08 17	704	0.8-	1.4-	1998 08 28	699	1.6+	1.3+	2000 01 08	704	0.7+	0.7-
1998 08 23	704	2.1+	1.4-	1998 09 16	699	0.1+	0.8-	2000 01 11	704	0.1-	0.0
1998 08 23	704	0.0	0.7+	1998 09 16	699	0.3+	0.0	2000 01 11	704	0.7-	0.4-
1998 08 23	704	1.4-	0.2-	1998 09 16	699	0.4-	0.1+	2000 01 11	704	0.1-	0.5+
1998 08 23	704	3.0-	1.5-	2000 01 08	704	0.2+	0.3+	2000 01 11	704	0.4-	0.1-

1998 QX₃₉ = 1988 RP₈ = 2000 CX₂₉

Id. G. V. Williams, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	155.33341		(2000.0)	P	Q
<i>n</i>	0.29272507	ω	198.83236	+0.97063866	+0.23558495
<i>a</i>	2.2464466	Ω	147.41896	-0.20748513	+0.92217648
<i>e</i>	0.1977339	<i>i</i>	5.17631	-0.12169846	+0.30674138
<i>P</i>	3.37	<i>H</i>	14.8	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1988 09 12	071	0.5+	0.8-	1998 09 16	699	0.2+	0.0	2000 02 04	704	0.2-	0.3-
1988 09 12	071	0.2-	0.2-	1998 09 16	699	0.5+	0.3+	2000 02 04	704	1.4+	0.2-
1998 08 17	704	0.5+	0.8+	1998 09 18	704	0.3+	0.2+	2000 02 04	704	0.6+	0.5-
1998 08 17	704	0.1-	0.9+	1998 09 18	704	0.0	0.7-	2000 02 04	704	0.4+	0.0
1998 08 17	704	0.1-	0.3+	1998 09 18	704	0.0	0.2+	2000 02 04	704	1.0+	0.0
1998 08 17	704	0.2-	0.4+	1998 09 18	704	0.3-	0.2+	2000 02 06	704	0.6+	0.0
1998 08 17	704	0.8-	0.0	1998 09 18	704	0.1+	0.5-	2000 02 06	704	0.1+	0.1+
1998 08 23	704	0.2+	0.6+	1998 11 23	699	0.2+	0.3+	2000 02 06	704	0.7-	0.1-
1998 08 23	704	0.4-	0.1+	1998 11 23	699	0.4+	0.2+	2000 02 06	704	0.2+	0.2-
1998 08 23	704	0.6-	0.8-	1998 11 23	699	1.0+	0.1-	2000 02 06	704	0.2-	0.3-
1998 08 23	704	0.9-	0.2-	1998 12 08	704	1.0+	1.3-	2000 02 11	691	0.5-	0.1+
1998 08 23	704	1.3-	0.4-	1998 12 08	704	1.4-	0.3-	2000 02 11	691	0.6-	0.2+
1998 08 30	699	0.6+	0.0	1998 12 08	704	0.8-	0.4+	2000 02 11	691	0.6-	0.1+
1998 08 30	699	0.7+	0.3-	1998 12 08	704	0.9-	1.2+	2000 02 11	704	0.7-	0.2-
1998 08 30	699	0.6+	0.2+	1998 12 08	704	(1.7-	3.1-)	2000 02 11	704	0.4-	0.9+
1998 09 14	704	0.4-	0.0	2000 02 02	704	0.1+	0.4+	2000 02 11	704	0.3-	0.1+
1998 09 14	704	0.0	1.1+	2000 02 02	704	0.2+	0.2-	2000 02 11	704	0.3+	0.9+
1998 09 14	704	0.7+	0.1-	2000 02 02	704	0.4+	0.1+	2000 02 11	704	0.3+	0.1+
1998 09 14	704	0.0	0.3+	2000 02 02	704	0.9-	0.7+				
1998 09 16	699	0.0	0.5-	2000 02 02	704	0.1+	0.6+				

1998 QE₄₀ = 2000 CO₅₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	75.11100		(2000.0)	P	Q
<i>n</i>	0.25311351	ω	224.08276	+0.45733519	-0.88912354
<i>a</i>	2.4750986	Ω	198.72318	+0.83020302	+0.43389045
<i>e</i>	0.1727712	<i>i</i>	3.11299	+0.31875926	+0.14559675
<i>P</i>	3.89	<i>H</i>	14.6	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 08 17	704	0.5+	0.5+	1998 08 26	699	0.2+	1.0+	1998 09 18	699	0.8+	0.4-
1998 08 17	704	0.1+	0.8+	1998 09 14	704	0.4-	0.8-	1998 09 18	704	1.1-	0.2+
1998 08 17	704	0.2+	0.9-	1998 09 14	704	0.5-	0.5+	1998 09 18	704	0.7-	0.3-

1998 08 17	704	0.8+	0.5+	1998 09 14	704	0.5-	0.1-	1998 09 18	699	0.2-	0.1-
1998 08 17	704	0.5-	0.8+	1998 09 14	704	0.1+	0.1+	2000 02 02	704	0.3+	0.0
1998 08 23	704	0.3-	1.1-	1998 09 14	699	0.6+	1.2+	2000 02 02	704	0.0	0.3+
1998 08 23	704	0.1+	1.7-	1998 09 14	699	0.5+	0.7+	2000 02 02	704	0.6-	0.0
1998 08 23	704	0.2-	0.3-	1998 09 14	699	0.1+	1.4+	2000 02 02	704	0.4-	0.7-
1998 08 23	704	0.5-	2.0-	1998 09 18	704	1.3+	0.9+	2000 02 02	704	0.0	0.2+
1998 08 23	704	1.6-	0.6+	1998 09 18	704	0.4+	0.3-	2000 02 06	704	0.3+	0.7-
1998 08 26	699	0.9+	0.5+	1998 09 18	699	0.5-	0.3-	2000 02 06	704	0.1+	0.0
1998 08 26	699	0.4+	0.8+	1998 09 18	704	0.1+	1.8-	2000 02 06	704	0.3+	1.0+

1998 QM₄₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	133.04022		(2000.0)	P	Q
<i>n</i>	0.22766228	ω	16.56217	+0.86053838	+0.48926104
<i>a</i>	2.6562891	Ω	313.26463	-0.48664488	+0.70741408
<i>e</i>	0.1884887	<i>i</i>	11.22602	-0.15050068	+0.51008720
<i>P</i>	4.33	<i>H</i>	13.9	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1998 08 17	704	0.6+	0.4+	1998 09 16	699	0.4+	0.5-	1998 11 16	566	0.4+	0.5-
1998 08 17	704	0.5+	0.3+	1998 09 16	699	0.4+	1.0-	1998 11 16	566	0.2+	0.3-
1998 08 17	704	0.0	0.0	1998 09 16	699	0.1-	0.4-	1998 12 09	704	0.4-	1.4+
1998 08 17	704	0.2+	0.0	1998 09 18	699	0.3-	0.1+	1998 12 09	704	0.3+	0.9+
1998 08 17	704	0.1-	0.2+	1998 09 18	699	0.0	0.2-	1998 12 09	704	0.9+	0.4-
1998 08 23	704	0.3+	0.3+	1998 09 18	699	0.0	0.1-	1998 12 09	704	0.5-	0.0
1998 08 23	704	1.4-	0.4+	1998 09 21	699	0.2-	0.3+	1998 12 09	704	1.3-	1.0+
1998 08 23	704	0.9-	1.0+	1998 09 21	699	0.3-	0.1+	2000 01 30	704	0.0	0.3+
1998 08 23	704	0.1+	0.1-	1998 09 21	699	0.1+	0.2-	2000 01 30	704	0.4+	0.2-
1998 08 23	704	(2.2-	0.2-)	1998 10 11	699	0.1-	0.9-	2000 01 30	704	0.1+	0.2+
1998 08 30	699	0.3+	0.0	1998 10 11	699	0.1-	0.5-	2000 01 31	704	0.1+	0.3+
1998 08 30	699	0.1+	0.1+	1998 10 11	699	(2.6+	0.5-)	2000 01 31	704	0.5+	0.8-
1998 08 30	699	0.1+	0.3-	1998 11 16	566	0.6+	0.4-	2000 01 31	704	1.0-	0.2+

1998 QQ₄₀ = 1999 YO₃

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	136.82338		(2000.0)	P	Q
<i>n</i>	0.23849652	ω	158.20921	+0.90170336	+0.43200269
<i>a</i>	2.5752220	Ω	176.06290	-0.42465380	+0.89250613
<i>e</i>	0.0999282	<i>i</i>	14.72874	-0.08124167	+0.12963981
<i>P</i>	4.13	<i>H</i>	14.1	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1998 08 17	704	0.0	0.2+	1998 08 26	699	0.2+	0.1-	2000 01 08	704	0.6-	0.1-
1998 08 17	704	0.3-	1.0+	1998 08 26	699	0.3-	0.8+	2000 01 08	704	0.4+	0.3-
1998 08 17	704	0.3+	0.4+	1998 10 10	699	0.1-	0.9-	2000 01 08	704	0.2-	0.1+
1998 08 17	704	0.6-	0.6+	1998 10 10	699	1.2-	0.5-	2000 01 08	704	0.0	0.9+
1998 08 17	704	0.3+	0.0	1998 10 10	699	0.4-	0.5+	2000 01 08	704	0.1-	0.8+
1998 08 18	566	0.7-	0.4-	1999 12 19	704	0.3-	1.2-	2000 02 05	704	0.6+	1.2+
1998 08 18	566	0.6-	0.1-	1999 12 19	704	0.1+	1.0-	2000 02 05	704	0.1-	0.4+
1998 08 18	566	0.4-	0.3-	1999 12 19	704	0.4-	1.3-	2000 02 05	704	0.5+	0.1+
1998 08 23	704	1.2+	0.9+	1999 12 19	704	1.0-	0.6-	2000 02 05	704	0.2+	0.9+
1998 08 23	704	1.2+	0.6-	1999 12 20	704	0.8+	0.1-	2000 02 06	704	0.9+	0.7+
1998 08 23	704	0.3+	0.1-	1999 12 20	704	0.5-	1.2-	2000 02 06	704	0.9+	0.5+
1998 08 23	704	1.2+	0.5-	1999 12 20	704	0.3-	0.1+	2000 02 06	704	0.8+	0.7+
1998 08 26	699	0.4-	0.5+	1999 12 20	704	0.8-	1.0-	2000 02 06	704	0.5-	1.8+

1998 QC₄₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	181.47228		(2000.0)	P	Q
<i>n</i>	0.26212230	ω	270.30600	+0.20646136	+0.97816451
<i>a</i>	2.4180581	Ω	11.69141	-0.84442937	+0.19043154
<i>e</i>	0.2015362	<i>i</i>	6.75361	-0.49428002	+0.08324672
<i>P</i>	3.76	<i>H</i>	15.4	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1983 09 12	413	0.3−	0.3+	1998 08 23	704	0.9+	0.5+	1998 09 16	699	1.7+	0.9+
1983 09 12	413	0.8+	0.0	1998 08 23	704	1.8+	0.3−	1998 09 18	704	0.9+	0.5+
1983 10 01	413	1.3−	0.6−	1998 08 23	704	(0.1−	2.1−)	1998 09 18	704	0.6−	0.4+
1983 10 01	413	1.0+	0.3−	1998 08 23	704	0.5+	1.2−	1998 09 18	704	0.4−	0.5+
1998 07 31	699	1.2+	0.2−	1998 08 23	704	0.7−	0.5−	1998 09 18	704	0.6−	0.3−
1998 07 31	699	0.7−	0.7−	1998 09 14	704	0.1−	0.9−	1998 09 18	704	(2.4−	1.1−)
1998 07 31	699	1.6−	0.4−	1998 09 14	704	0.1+	0.2−	1998 10 26	910	0.3+	0.8−
1998 08 17	704	0.3+	0.0	1998 09 14	704	1.7−	0.7−	1998 10 26	910	0.5+	0.4−
1998 08 17	704	0.4+	0.1+	1998 09 14	704	1.1−	0.4+	1998 10 26	910	0.2+	1.4−
1998 08 17	704	0.2−	0.0	1998 09 14	704	0.4−	0.4+	1999 01 05	910	0.3−	0.4+
1998 08 17	704	0.1−	0.5+	1998 09 16	699	0.5+	1.4+	1999 01 05	910	0.1+	0.3+
1998 08 17	704	0.5−	0.2+	1998 09 16	699	0.4−	1.8+	1999 01 05	910	0.2−	0.1−

1998 QY₄₂ = 1998 RT₂₆ = 2000 AJ₁₈₉Id. A. Doppler (d, *MPC* 33785), M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	279.69698		(2000.0)	P	Q	
<i>n</i>	0.26710359	ω	38.08528	−0.94505449	+0.32086539	
<i>a</i>	2.3879005	Ω	160.35043	−0.32650032	−0.91678659	
<i>e</i>	0.1352278	<i>i</i>	10.72701	−0.01641798	−0.23779771	
<i>P</i>	3.69	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i> 4

Residuals in seconds of arc

1998 08 17	704	0.4−	0.6−	1998 09 14	704	0.1+	0.6+	1999 11 05	704	0.1+	0.5+
1998 08 17	704	0.5−	0.6+	1998 09 16	132	(2.1+	0.4−)	1999 11 05	704	1.1+	1.0+
1998 08 17	704	0.2+	0.2+	1998 09 16	132	0.5+	0.4+	1999 12 05	704	0.1+	0.3−
1998 08 17	704	0.0	0.1+	1998 09 16	132	0.3+	0.1+	1999 12 05	704	0.7−	0.2−
1998 08 23	704	0.3+	0.5−	1998 09 18	132	1.4−	0.6−	1999 12 05	704	0.1−	0.5−
1998 08 23	704	0.2−	0.7+	1998 09 18	132	(4.6−	1.4−)	1999 12 05	704	0.4−	0.0
1998 08 23	704	0.2−	1.1−	1998 09 18	704	0.8+	0.5+	2000 01 08	704	0.0	0.0
1998 08 23	704	(0.1−	2.9−)	1998 09 18	704	0.4−	1.2−	2000 01 08	704	0.0	0.0
1998 08 23	704	0.9−	0.5−	1998 09 18	704	0.1+	0.7+	2000 01 08	704	0.1−	0.4−
1998 08 30	699	0.1+	0.5−	1998 09 18	699	0.5+	0.1−	2000 01 08	704	0.0	0.3−
1998 08 30	699	0.0	0.4+	1998 09 18	704	0.0	1.2−	2000 01 08	704	0.3+	0.3+
1998 08 30	699	0.2−	0.3+	1998 09 18	699	0.6+	0.6+	2000 01 11	704	0.0	0.0
1998 09 14	704	0.6+	0.4−	1998 09 18	704	0.8+	0.9+	2000 01 11	704	0.3−	0.1−
1998 09 14	704	0.4−	0.1−	1998 09 18	699	0.6+	0.4+	2000 01 11	704	0.2+	0.1−
1998 09 14	704	0.1+	0.0	1999 11 05	704	0.6+	0.4+	2000 01 11	704	0.2−	0.2−
1998 09 14	704	0.9−	0.2−	1999 11 05	704	0.1−	0.5+	2000 01 11	704	0.1−	0.5−

1998 QE₄₃ = 2000 AU₂₃₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	60.72114		(2000.0)	P	Q	
<i>n</i>	0.20371429	ω	281.09465	+0.60960240	−0.79162610	
<i>a</i>	2.8605863	Ω	131.26366	+0.74709610	+0.55628794	
<i>e</i>	0.2031434	<i>i</i>	3.15638	+0.26501384	+0.25272878	
<i>P</i>	4.84	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i> 3

Residuals in seconds of arc

1998 08 01	699	0.7−	0.6+	1998 09 18	704	1.1+	0.7−	2000 02 03	704	0.4+	1.0+
1998 08 01	699	0.9−	0.9+	1998 09 18	704	1.2−	1.0−	2000 02 03	704	0.5+	0.8+
1998 08 01	699	0.8−	0.6+	1998 10 14	699	0.0	0.1+	2000 02 06	704	0.1+	0.1+
1998 08 17	704	0.8+	0.1+	1998 10 14	699	0.2−	0.6+	2000 02 06	704	0.1+	0.1−
1998 08 17	704	1.2+	0.5+	1998 10 14	699	0.1−	0.1+	2000 02 06	704	0.0	0.3+
1998 08 17	704	(2.5−	3.0+)	2000 01 06	704	0.6−	0.2−	2000 02 06	704	0.5+	0.1+
1998 08 17	704	1.8−	0.8+	2000 01 06	704	0.2−	0.3−	2000 02 06	704	0.1+	0.3+
1998 08 17	704	0.3−	0.3+	2000 01 06	704	0.8−	0.7−	2000 02 08	691	0.4+	1.2−
1998 08 23	704	0.9+	0.4+	2000 01 06	704	0.8−	0.1+	2000 02 08	691	0.3+	1.2−
1998 08 23	704	0.5+	1.1+	2000 01 12	691	0.3+	0.3−	2000 02 08	691	0.4+	1.1−
1998 08 23	704	0.3−	1.2−	2000 01 12	691	0.2+	0.3−	2000 02 08	704	0.0	0.2+
1998 08 23	704	(0.2−	2.1−)	2000 01 12	691	0.2+	0.3−	2000 02 08	704	0.1−	0.2+
1998 08 23	704	1.6+	0.5+	2000 01 30	703	0.2−	0.5+	2000 02 08	704	0.1+	0.3+
1998 08 30	699	0.2+	0.1−	2000 01 30	703	0.2−	0.2+	2000 02 08	704	0.0	0.3+
1998 08 30	699	0.1−	0.8−	2000 01 30	703	0.1+	0.5+	2000 02 08	704	0.1+	0.4+
1998 08 30	699	0.4+	0.6−	2000 01 30	703	0.1−	0.4+	2000 02 10	691	0.5+	0.0

1998 09 14	704	0.1+	0.4−	2000 01 30	704	0.2−	0.2+	2000 02 10	691	0.5+	0.0
1998 09 14	704	1.2−	0.3−	2000 01 30	704	1.1−	0.5−	2000 02 10	691	0.7+	0.3−
1998 09 14	704	0.6+	0.1−	2000 01 30	704	0.0	0.3−	2000 02 11	704	0.6−	0.2+
1998 09 14	704	0.5+	0.2+	2000 01 30	704	0.0	0.1−	2000 02 11	704	0.3+	0.1+
1998 09 18	704	0.6−	0.0	2000 02 03	704	0.0	0.3+	2000 02 11	704	0.1+	0.3+
1998 09 18	704	0.3−	0.3+	2000 02 03	704	0.2−	0.6+	2000 02 11	704	0.1−	0.1+
1998 09 18	704	0.2−	0.5−	2000 02 03	704	0.1−	0.4+	2000 02 11	704	0.5−	0.1+

1998 QJ₄₃ = 2000 BG₂₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	112.68922		(2000.0)	P	Q	
<i>n</i>	0.30228816	ω	266.53895	+0.84246563	−0.52933202	
<i>a</i>	2.1988146	Ω	125.39614	+0.53013134	+0.78133009	
<i>e</i>	0.0077268	<i>i</i>	7.06743	+0.09598140	+0.33065224	
<i>P</i>	3.26	<i>H</i>	15.3	<i>G</i>	0.15	<i>U</i> 4

Residuals in seconds of arc

1998 08 17	704	0.3+	0.1+	1998 09 14	704	0.0	0.2−	2000 02 03	704	0.3+	0.0
1998 08 17	704	0.5+	0.5−	1998 09 14	704	(0.8−	2.4−)	2000 02 03	704	0.4−	0.2+
1998 08 17	704	0.3−	0.6+	1998 09 18	704	(2.5+	0.5−)	2000 02 03	704	0.6−	0.9−
1998 08 17	704	0.7−	0.4+	1998 09 18	704	(2.6+	0.5−)	2000 02 03	704	0.2+	0.2−
1998 08 23	704	0.5−	0.9+	1998 09 18	704	1.2−	0.9−	2000 02 03	704	0.6+	0.6−
1998 08 23	704	0.7−	0.1+	1998 09 18	704	0.7−	0.7−	2000 02 11	704	0.4−	1.3+
1998 08 23	704	0.5+	0.8+	1998 09 18	704	0.7−	1.5+	2000 02 11	704	0.0	0.0
1998 08 23	704	0.5+	1.0−	2000 01 30	704	0.4+	0.3+	2000 02 11	704	0.4+	0.2−
1998 09 14	704	0.8+	0.0	2000 01 30	704	0.3−	1.0+	2000 02 11	704	0.4+	0.8−
1998 09 14	704	1.5+	0.9−	2000 01 30	704	0.7−	0.4+	2000 02 11	704	0.6+	0.2−
1998 09 14	704	0.6+	0.1+	2000 01 30	704	0.4−	0.2+				

1998 QC₄₅ = 1990 UX₁₀ = 2000 CY₁₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	103.06275		(2000.0)	P	Q	
<i>n</i>	0.23621342	ω	143.92550	+0.94128135	−0.32868661	
<i>a</i>	2.5917892	Ω	235.44134	+0.28365231	+0.89384021	
<i>e</i>	0.1559419	<i>i</i>	5.37645	+0.18311413	+0.30498326	
<i>P</i>	4.17	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i> 3

Residuals in seconds of arc

1990 10 26	898	(0.6−	3.3−)	1998 08 27	704	1.0−	0.5−	1998 10 11	699	0.3−	0.6−
1990 10 26	898	0.0	0.2+	1998 08 30	699	0.5+	1.0+	1998 10 11	699	0.5−	0.7−
1990 10 26	898	(4.5−	1.1−)	1998 08 30	699	1.7+	0.6+	1998 10 11	699	0.3−	0.1−
1998 08 17	704	0.1−	0.1+	1998 08 30	699	0.8+	0.7+	1998 11 15	699	0.2−	0.3+
1998 08 17	704	0.3+	0.5−	1998 09 14	704	0.1+	0.0	1998 11 15	699	0.8+	0.8+
1998 08 17	704	0.2+	0.2−	1998 09 14	704	0.0	0.3+	1998 11 15	699	0.1−	0.4−
1998 08 17	704	0.1−	0.1+	1998 09 14	704	0.2−	0.2+	2000 02 02	704	0.0	0.1+
1998 08 17	704	0.1−	1.3+	1998 09 14	704	0.3−	0.5+	2000 02 02	704	0.2+	0.4+
1998 08 23	704	0.9+	1.0−	1998 09 14	704	0.3+	0.5+	2000 02 02	704	0.2+	0.1+
1998 08 23	704	0.4−	0.3+	1998 09 16	699	0.3+	0.1−	2000 02 02	704	0.1+	0.5+
1998 08 23	704	0.1−	0.6−	1998 09 16	699	0.2+	0.2−	2000 02 02	704	0.2−	0.2+
1998 08 23	704	0.6+	0.1−	1998 09 16	699	0.0	0.2−	2000 02 04	704	0.1+	0.2−
1998 08 23	704	0.4−	0.3+	1998 09 18	704	0.2+	0.6−	2000 02 04	704	0.3+	0.0
1998 08 27	704	0.4+	0.6−	1998 09 18	704	(2.1−	0.1−)	2000 02 04	704	0.4−	1.3−
1998 08 27	704	0.5+	0.8+	1998 09 18	704	0.3−	0.5−	2000 02 04	704	0.2−	0.2+
1998 08 27	704	1.2−	0.8+	1998 09 18	704	0.7−	1.1−				
1998 08 27	704	0.3−	0.2−	1998 09 18	704	0.9−	0.3−				

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Residuals in seconds of arc

1998 08 17	704	0.2+	0.2+	1998 09 14	704	0.0	0.1+	1999 12 14	704	0.5-	0.3+
1998 08 17	704	0.7-	1.1-	1998 09 15	699	0.3+	0.1-	1999 12 14	704	1.2-	0.7-
1998 08 17	704	0.7-	0.8-	1998 09 15	699	0.3+	0.0	1999 12 14	704	0.3+	0.1-
1998 08 17	704	0.5+	0.6+	1998 09 15	699	0.1+	0.1-	2000 01 07	699	0.7+	0.5+
1998 08 17	704	0.3-	0.2+	1998 09 18	704	0.5+	0.0	2000 01 07	699	1.1+	0.3-
1998 08 23	704	0.4+	0.5+	1998 09 18	704	0.4+	0.6+	2000 01 07	699	1.2+	0.3+
1998 08 23	704	0.9+	1.5+	1998 09 18	704	0.9+	0.0	2000 01 11	704	1.3+	0.1+
1998 08 23	704	0.4-	0.5-	1998 09 18	704	0.5-	0.9+	2000 01 11	704	0.6-	0.1-
1998 08 23	704	0.7+	0.3+	1998 09 18	704	0.3+	0.0	2000 01 11	704	0.1+	1.0-
1998 08 23	704	1.3-	0.2-	1998 10 20	699	0.1+	0.1-	2000 01 11	704	0.1-	0.1+
1998 08 30	699	0.1-	0.8+	1998 10 20	699	0.0	0.1-	2000 01 11	704	0.3+	0.2+
1998 08 30	699	0.8-	0.6+	1998 10 20	699	0.0	0.4-	2000 02 06	704	0.1-	0.6+
1998 08 30	699	0.6-	1.4+	1998 12 21	910	0.2+	1.0-	2000 02 06	704	0.1+	1.2+
1998 09 14	704	0.5+	0.1-	1998 12 21	910	0.6-	0.5-	2000 02 06	704	0.2-	0.9+
1998 09 14	704	0.2-	0.3-	1998 12 21	910	0.8-	0.4-	2000 02 06	704	0.5-	0.7+
1998 09 14	704	0.2-	1.0-	1999 12 14	704	1.5-	0.5-	2000 02 06	704	0.3-	0.4-

1998 QU₄₆ = 2000 CD₅₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Williams		
<i>M</i>	101.32788	(2000.0)	<i>P</i>	<i>Q</i>	
<i>n</i>	0.26829489	ω 105.82586	+0.73736693	-0.66926672	
<i>a</i>	2.3808267	Ω 296.28315	+0.57411667	+0.69230148	
<i>e</i>	0.1257683	<i>i</i> 5.85718	+0.35592143	+0.26981609	
<i>P</i>	3.67	<i>H</i> 14.4	<i>G</i> 0.15	<i>U</i> 4	

Residuals in seconds of arc

1998 08 17	704	0.3-	0.3+	1998 09 14	704	0.2+	0.2-	1998 12 09	704	0.3-	0.7-
1998 08 17	704	0.3-	0.5+	1998 09 16	699	0.3+	0.0	1998 12 09	704	(2.4+	2.5-)
1998 08 17	704	0.7+	0.4+	1998 09 16	699	0.4+	0.3+	1998 12 09	704	0.1+	0.8-
1998 08 17	704	0.2-	0.8+	1998 09 16	699	0.3+	0.2+	1998 12 09	704	(4.2-	1.2-)
1998 08 17	704	0.0	1.0+	1998 09 18	704	0.2-	0.5-	2000 02 02	704	0.4+	0.7+
1998 08 23	704	0.5-	1.3+	1998 09 18	704	0.4-	0.1-	2000 02 02	704	0.7+	0.6+
1998 08 23	704	0.5-	1.2+	1998 09 18	704	0.2+	0.1-	2000 02 02	704	0.6+	0.1+
1998 08 23	704	1.4-	1.2+	1998 09 18	704	0.9-	0.1-	2000 02 02	704	0.2+	0.2+
1998 08 23	704	1.5-	0.3+	1998 09 18	704	1.8+	0.0	2000 02 02	704	0.8+	0.5+
1998 08 23	704	0.9-	0.7+	1998 11 15	699	0.8-	0.6+	2000 02 06	704	0.0	0.6+
1998 09 14	704	1.2+	0.6-	1998 11 15	699	0.6-	0.4-	2000 02 06	704	0.2+	1.4+
1998 09 14	704	0.1+	0.4+	1998 11 15	699	0.2-	0.9-	2000 02 06	704	0.3-	1.2+
1998 09 14	704	0.1+	0.6-	1998 12 09	704	1.1+	0.2-	2000 02 06	704	(0.9+	2.0+)

1998 QZ₄₈ = 2000 CQ₅₅

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Spahr		
<i>M</i>	164.89783	(2000.0)	<i>P</i>	<i>Q</i>	
<i>n</i>	0.28774163	ω 176.51457	+0.88090338	+0.47280137	
<i>a</i>	2.2723100	Ω 155.23284	-0.43548006	+0.82757721	
<i>e</i>	0.1657369	<i>i</i> 2.96033	-0.18538162	+0.30261332	
<i>P</i>	3.43	<i>H</i> 15.0	<i>G</i> 0.15	<i>U</i> 4	

Residuals in seconds of arc

1998 08 17	704	0.1-	0.1+	1998 09 18	699	0.7+	0.4+	2000 02 04	704	0.1-	0.1-
1998 08 17	704	0.3-	0.1+	1998 09 18	699	0.2+	0.6+	2000 02 04	704	0.0	0.4-
1998 08 17	704	0.2-	0.3-	1998 09 18	704	0.4+	0.0	2000 02 04	704	0.6+	0.0
1998 08 17	704	0.0	0.8-	1998 09 18	699	0.6+	0.4+	2000 02 06	704	0.2+	0.4+
1998 08 17	704	0.6-	0.1+	1998 09 18	704	0.6-	0.0	2000 02 06	704	0.8+	0.2-
1998 08 23	704	0.5+	0.6+	1998 09 18	704	0.7-	0.7+	2000 02 06	704	0.5-	0.4-
1998 08 23	704	0.9+	0.1+	1998 09 18	704	0.1+	0.2-	2000 02 06	704	0.1-	0.6-
1998 08 23	704	0.1-	0.3+	1998 09 18	704	1.0-	0.1-	2000 02 06	704	0.2-	0.5+
1998 08 23	704	0.2-	0.8-	2000 01 05	704	0.3+	0.8-	2000 02 08	704	0.3-	0.4+
1998 08 23	704	0.3+	0.3-	2000 01 05	704	0.5-	0.2-	2000 02 08	704	0.2-	0.1+
1998 09 14	704	0.3+	0.0	2000 01 05	704	0.2+	0.5+	2000 02 08	704	1.0-	0.2+
1998 09 14	704	0.5-	0.1-	2000 01 05	704	0.2+	0.2-	2000 02 08	704	0.7-	0.1-
1998 09 14	704	0.4+	0.8-	2000 02 04	704	1.1+	0.1-				
1998 09 14	704	0.1-	0.1-	2000 02 04	704	0.1+	0.3+				

1998 QN₅₁ = 2000 CO₅₀

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Spahr		
<i>M</i>	297.89725	(2000.0)	<i>P</i>	<i>Q</i>	
<i>n</i>	0.30977488	ω 276.94741	-0.79704634	+0.60222341	
<i>a</i>	2.1632427	Ω 300.09215	-0.53140346	-0.73494250	
<i>e</i>	0.0072065	<i>i</i> 2.99533	-0.28692767	-0.31174748	
<i>P</i>	3.18	<i>H</i> 14.9	<i>G</i> 0.15	<i>U</i> 4	

Residuals in seconds of arc

1998 08 17	704	0.2+	0.4+	1998 09 14	704	1.2-	0.7-	1999 12 05	703	0.5+	0.2+
1998 08 17	704	0.1-	0.1+	1998 09 14	704	0.5-	0.3-	1999 12 05	703	0.9+	1.6+
1998 08 17	704	0.1+	0.2+	1998 09 14	704	1.1-	0.5+	2000 01 05	704	0.5-	0.1-
1998 08 17	704	0.8+	1.4-	1998 09 15	120	0.2+	0.1-	2000 01 05	704	1.0-	0.0
1998 08 17	704	0.1+	1.0+	1998 09 15	120	0.0	0.5-	2000 01 05	704	0.8+	0.2-
1998 08 23	704	0.4-	0.1+	1998 09 15	120	0.2-	0.1+	2000 01 05	704	0.1-	1.2-
1998 08 23	704	0.8-	0.8+	1998 09 18	704	0.4+	1.1-	2000 02 02	704	0.2+	0.0
1998 08 23	704	0.5-	0.4-	1998 09 18	704	0.1+	0.3-	2000 02 02	704	0.4+	0.0
1998 08 23	704	0.5-	0.7+	1998 09 18	704	0.5-	0.4+	2000 02 02	704	0.8+	0.2+
1998 08 23	704	1.2-	1.2-	1998 09 18	704	0.9-	1.6+	2000 02 02	704	0.5-	0.7+
1998 08 30	699	1.1+	0.1-	1998 09 18	704	0.1-	1.9+	2000 02 06	704	0.0	0.1-
1998 08 30	699	0.6+	0.1+	1998 09 25	699	1.1+	0.0	2000 02 06	704	0.1+	0.0
1998 08 30	699	1.5+	0.4-	1998 09 25	699	0.3+	0.8-	2000 02 06	704	0.4-	0.0
1998 09 10	120	0.3+	0.6-	1998 09 25	699	0.1+	0.6-	2000 02 06	704	0.0	0.1+
1998 09 10	120	1.0+	0.4+	1999 12 05	703	0.5-	0.3-	2000 02 06	704	0.1-	0.2-
1998 09 14	704	0.4+	0.2+	1999 12 05	703	0.5-	0.6-				

1998 QY₅₂ = 2000 CH₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Williams		
<i>M</i>	224.88723	(2000.0)	<i>P</i>	<i>Q</i>	
<i>n</i>	0.28190895	ω 346.26941	-0.06155331	+0.99004495	
<i>a</i>	2.3035456	Ω 280.09027	-0.90317552	-0.10922900	
<i>e</i>	0.1427019	<i>i</i> 7.38681	-0.42483546	+0.08876946	
<i>P</i>	3.50	<i>H</i> 14.7	<i>G</i> 0.15	<i>U</i> 4	

Residuals in seconds of arc

1998 08 20	699	0.2-	1.3+	1998 09 18	699	0.3-	0.0	2000 02 02	704	0.4+	0.8-
1998 08 20	699	0.4-	0.4-	1998 09 18	699	0.3-	0.3+	2000 02 02	704	0.5-	0.3+
1998 08 20	699	0.0	0.3-	1998 09 19	704	1.0+	0.6-	2000 02 03	704	0.8-	0.3+
1998 08 27	704	0.2+	0.7-	1998 09 19	704	0.2+	0.7+	2000 02 03	704	0.0	0.1-
1998 08 27	699	0.4+	0.2+	1998 09 19	704	0.8+	0.3-	2000 02 03	704	0.1-	0.4+
1998 08 27	704	0.5-	0.0	1998 09 23	704	0.6+	0.4-	2000 02 03	704	0.2-	0.4+
1998 08 27	704	0.4+	0.3-	1998 09 23	704	0.2+	0.1+	2000 02 03	704	0.6-	0.4-
1998 08 27	699	0.1+	0.7-	1998 09 23	704	0.8-	0.4-	2000 02 03	704	0.4+	0.3-
1998 08 27	704	0.1+	0.6+	1998 10 15	699	0.2+	0.0	2000 02 03	704	0.2-	0.6-
1998 08 27	699	0.4+	0.7+	1998 10 15	699	0.8-	0.4-	2000 02 03	704	0.3+	0.2+
1998 08 27	704	1.8-	0.7+	1998 10 15	699	0.2-	0.2-	2000 02 03	704	1.1+	1.7+
1998 09 18	699	0.3+	0.5+	2000 02 02	704	0.2+	0.8-				

1998 QJ₅₄ = 1980 XJ₂ = 1987 SK₂₅ = 2000 AG₂₃₇

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Spahr		
<i>M</i>	79.45087	(2000.0)	<i>P</i>	<i>Q</i>	
<i>n</i>	0.26781808	ω 211.79959	+0.26020101	-0.96290508	
<i>a</i>	2.3836516	Ω 223.23532	+0.90631374	+0.26909771	
<i>e</i>	0.0884299	<i>i</i> 5.98968	+0.33300276	+0.02000561	
<i>P</i>	3.68	<i>H</i> 13.7	<i>G</i> 0.15	<i>U</i> 2	

Residuals in seconds of arc

1980 12 10	095	0.5-	0.8-	1998 09 27	704	0.2-	0.9-	1999 01 08	704	(2.5-	1.1+)
1987 09 23	095	0.3+	2.2+	1998 09 27	704	0.4+	1.2-	2000 01 05	704	1.0-	0.6-
1998 08 27	699	0.2-	0.0	1998 09 27	704	0.2+	0.1+	2000 01 05	704	0.7-	0.6-
1998 08 27	699	0.6-	0.3+	1998 09 27	704	0.7-	0.3-	2000 01 05	704	1.1-	0.1-
1998 08 27	699	0.7-	0.1+	1998 10 13	589	0.5-	0.2-	2000 01 05	704	0.5-	0.2+
1998 08 28	699	0.4-	0.0	1998 10 13	589	0.2-	0.6-	2000 01 11	699	0.5+	0.4-

1998 08 28	699	0.6−	0.2−	1998 10 13	589	0.7−	0.2−	2000 01 11	699	1.0+	0.0
1998 08 28	699	0.5+	0.1−	1998 10 14	699	0.0	0.7+	2000 01 11	699	0.9+	0.1−
1998 09 14	704	0.9−	0.1+	1998 10 14	699	0.1−	0.0	2000 02 02	704	1.0+	0.4+
1998 09 14	704	0.5−	0.8+	1998 10 14	699	0.3+	0.2+	2000 02 02	704	0.1−	0.4+
1998 09 14	704	0.7+	1.2+	1998 10 14	589	0.5−	0.2−	2000 02 02	704	1.4+	0.4+
1998 09 15	699	0.5−	0.6+	1998 10 14	589	0.0	0.5−	2000 02 02	704	0.3+	0.7+
1998 09 15	699	0.0	0.3+	1998 10 14	589	0.1−	0.0	2000 02 02	704	0.4−	0.9+
1998 09 15	699	0.3−	0.9+	1998 12 08	699	0.7+	0.3+	2000 02 04	106	0.2−	0.1−
1998 09 18	704	0.1+	0.2+	1998 12 08	699	0.3−	0.2−	2000 02 04	106	(2.1+ 0.4+)	
1998 09 18	704	0.2+	0.3+	1998 12 08	699	0.7+	0.0	2000 02 07	704	1.3−	0.3−
1998 09 18	704	0.4+	0.1−	1998 12 09	704	0.8−	0.2+	2000 02 07	704	(2.2− 1.1−)	
1998 09 18	704	1.5+	0.5−	1998 12 09	704	(2.0+ 0.8−)		2000 02 07	704	1.8−	1.1−
1998 09 18	704	0.8+	0.3−	1998 12 09	704	1.3+	0.3−	2000 02 07	704	(2.7− 2.2−)	
1998 09 26	704	0.0	0.2+	1998 12 09	704	0.3−	0.5−	2000 02 08	704	0.6+	0.3+
1998 09 26	704	0.2−	0.1−	1998 12 09	704	0.6+	0.2+	2000 02 08	704	0.4+	0.1+
1998 09 26	704	0.3−	0.6−	1999 01 08	704	1.3−	0.3+	2000 02 08	704	0.6+	0.5+
1998 09 26	704	0.5+	1.0−	1999 01 08	704	0.3+	0.9+	2000 02 08	704	0.4+	0.3+
1998 09 26	704	1.3+	0.0	1999 01 08	704	0.3+	1.2+	2000 02 08	704	0.4+	0.1−
1998 09 27	704	0.4−	0.9−	1999 01 08	704	0.7+	0.5+				

1998 QM₅₄ = 1968 QV = 1985 VQ₅

Id. A. Gnädig, G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
				P		Q	
<i>M</i>	156.62060		(2000.0)				
<i>n</i>	0.29598228	ω	57.84937	+0.99823247		+0.00547037	
<i>a</i>	2.2299352	Ω	301.77432	−0.03046135		+0.90210378	
<i>e</i>	0.1729461	<i>i</i>	3.99161	+0.05102987		+0.43148447	
<i>P</i>	3.33	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1968 08 27	095	0.7+	0.5+	1998 09 14	704	0.7+	0.3−	1999 01 08	704	0.4+	1.0−
1985 11 12	095	0.8−	1.1+	1998 09 14	704	1.4+	1.2+	1999 01 08	704	0.8+	0.1+
1991 09 03	413	1.4−	0.5−	1998 09 18	704	0.2+	0.8+	1999 01 08	704	1.4−	0.5−
1991 09 03	413	1.4−	0.5+	1998 09 18	704	0.4−	0.3+	1999 01 08	704	0.7+	0.4+
1992 12 31	675	1.6−	0.0	1998 09 18	704	0.4+	0.0	1999 02 04	699	0.3−	1.4+
1992 12 31	675	0.3−	0.2−	1998 09 18	704	0.2+	1.7+	1999 02 04	699	0.8−	0.1−
1998 06 29	704	1.4+	0.9−	1998 10 15	699	1.3+	0.9+	1999 02 04	699	0.2−	0.7+
1998 06 29	704	0.1−	0.3−	1998 10 15	699	1.0+	0.2−	2000 02 05	704	1.5+	0.4+
1998 06 29	704	0.3−	0.4−	1998 10 15	699	0.6+	0.3+	2000 02 05	704	0.3+	0.0
1998 06 29	704	(0.2+ 3.3−)		1998 11 14	699	0.4−	0.3−	2000 02 05	704	1.0+	0.0
1998 06 29	704	0.2+	0.9−	1998 11 14	699	0.5−	0.1−	2000 02 06	704	1.0+	0.5−
1998 08 02	699	0.3−	0.4−	1998 11 14	699	0.3−	0.3+	2000 02 06	704	0.4−	0.6+
1998 08 02	699	0.9−	0.1−	1998 12 09	704	0.3+	1.3−	2000 02 06	704	0.9+	0.8+
1998 08 02	699	0.4+	0.4−	1998 12 09	704	0.4+	1.1−	2000 02 06	704	1.3+	0.7+
1998 08 27	699	0.5−	0.2+	1998 12 09	704	(0.5− 2.0−)		2000 02 07	704	0.5−	0.4+
1998 08 27	699	0.7−	0.3+	1998 12 09	704	0.0	1.2−	2000 02 07	704	0.1+	0.2−
1998 08 27	699	0.7−	0.3+	1998 12 09	704	0.3−	0.9−	2000 02 07	704	0.9−	1.0−
1998 08 28	699	0.6−	0.0	1998 12 24	699	1.1−	0.3−	2000 02 07	704	0.3−	0.4−
1998 08 28	699	0.6−	0.3+	1998 12 24	699	1.1−	0.5−	2000 02 07	704	0.5−	0.5−
1998 08 28	699	0.6−	0.0	1998 12 24	699	1.1−	0.5−				
1998 09 14	704	1.1+	0.6+	1999 01 08	704	0.1+	0.7−				

1998 QT₅₄ = 2000 CE₅₀

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
				P		Q	
<i>M</i>	79.29201		(2000.0)				
<i>n</i>	0.26504420	ω	225.90443	+0.34690022		−0.93707305	
<i>a</i>	2.4002539	Ω	203.88213	+0.88593186		+0.34118684	
<i>e</i>	0.0648473	<i>i</i>	5.58834	+0.30787169		+0.07406514	
<i>P</i>	3.72	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 08 27	699	0.1−	0.1+	1998 09 26	704	0.1−	0.3−	1999 12 14	704	0.0	0.1−
1998 08 27	699	0.2+	0.1−	1998 09 26	704	0.6−	0.3−	2000 01 05	704	0.1+	0.2+
1998 08 27	699	0.2+	0.3−	1998 09 26	704	0.4−	0.4+	2000 01 05	704	0.4−	0.3+
1998 08 28	699	0.5+	0.1−	1998 09 26	704	0.5−	0.4−	2000 01 05	704	1.5−	1.0−

1998 08 28	699	0.2−	0.1−	1998 09 27	704	0.7+	0.6+	2000 01 05	704	0.1+	1.8−
1998 08 28	699	0.2−	0.4−	1998 09 27	704	0.1+	1.0+	2000 02 02	704	0.1+	0.3+
1998 09 14	704	0.6+	0.2+	1998 09 27	704	0.4+	0.3+	2000 02 02	704	0.4+	0.3+
1998 09 14	704	0.1+	0.1+	1998 09 27	704	1.2−	1.1−	2000 02 02	704	0.1+	0.2+
1998 09 14	704	0.7−	0.1−	1998 09 27	704	0.2−	0.1+	2000 02 02	704	0.0	0.2+
1998 09 18	704	0.3+	0.0	1998 11 10	699	0.1+	0.3−	2000 02 02	704	0.1+	0.1+
1998 09 18	704	0.0	0.9+	1998 11 10	699	0.3+	0.0	2000 02 06	704	0.5+	0.8+
1998 09 18	704	0.4+	0.0	1998 11 10	699	0.0	0.2−	2000 02 06	704	0.5+	0.9+
1998 09 18	704	0.3−	0.3+	1999 12 14	704	1.0−	0.1−	2000 02 06	704	0.7+	1.2+
1998 09 18	704	0.3+	1.3+	1999 12 14	704	0.1−	1.4−	2000 02 06	704	0.4+	0.9+
1998 09 26	704	0.1+	0.0	1999 12 14	704	0.2−	0.6−				

1998 QS₅₆ = 1998 QC₅₉ = 2000 CA₄Id. G. V. Williams (d, *MPC* 32787; unpublished)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
				P		Q	
<i>M</i>	57.64607		(2000.0)				
<i>n</i>	0.17148591	ω	233.72600	+0.75511457		−0.65557186	
<i>a</i>	3.2086112	Ω	167.23423	+0.60885307		+0.69828925	
<i>e</i>	0.1800924	<i>i</i>	1.36065	+0.24310477		+0.28743290	
<i>P</i>	5.75	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 26	691	0.5+	0.5+	1998 08 31	691	0.2−	0.2+	2000 02 02	704	0.2−	0.4+
1998 08 26	691	0.1−	0.3+	1998 09 20	691	0.4+	0.2−	2000 02 02	704	0.3+	0.5−
1998 08 26	691	0.5+	0.1+	1998 09 20	691	0.4+	0.3−	2000 02 02	704	0.4+	0.0
1998 08 30	691	0.3−	0.4−	1998 09 20	691	0.1+	0.2−	2000 02 03	704	0.8−	0.1+
1998 08 30	691	0.2−	0.3−	1998 09 23	691	0.0	0.2−	2000 02 03	704	0.5+	0.1−
1998 08 30	691	0.4−	0.3−	1998 09 23	691	0.4−	0.6+	2000 02 03	704	0.4−	0.0
1998 08 31	691	0.1+	0.1−	1998 09 23	691	0.1−	0.2+				
1998 08 31	691	0.2−	0.1+	2000 02 02	704	0.2+	0.1+				

1998 QY₅₉ = 2000 AS₁₀

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
				P		Q	
<i>M</i>	153.19106		(2000.0)				
<i>n</i>	0.19623989	ω	276.23919	+0.05189690		+0.99863499	
<i>a</i>	2.9327690	Ω	356.71821	−0.87062317		+0.04234671	
<i>e</i>	0.3069288	<i>i</i>	5.91968	−0.48920548		+0.03057619	
<i>P</i>	5.02	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1998 08 26	691	0.1+	0.1+	1998 08 30	691	0.1−	0.1−	2000 01 04	704	1.1+	0.2−
1998 08 26	691	0.2+	0.2+	2000 01 03	704	1.0−	0.2−	2000 01 04	704	0.8+	0.4−
1998 08 26	691	0.1+	0.2+	2000 01 03	704	1.1−	0.0	2000 01 04	704	1.2+	0.1−
1998 08 30	691	0.2−	0.1−	2000 01 03	704	1.9−	0.7+	2000 01 04	704	1.3+	0.3−
1998 08 30	691	0.1−	0.4−	2000 01 03	704	1.3−	0.3−	2000 01 04	704	0.9+	0.7+

1998 QF₆₀ = 2000 AK₇₁

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	172.24389		(2000.0)	P	Q
n	0.19818933	ω	133.89485	+0.24369794	+0.96960133
a	2.9135057	Ω	150.18929	-0.90203187	+0.23493684
e	0.0474169	i	2.53788	-0.35630018	+0.06839551
P	4.97	H	14.4	G 0.15	U 5

2000 FEB. 22

M.P.C. 38483

1998 09 26	704	0.4−	0.4+	1998 09 27	704	0.2−	0.0	2000 01 06	704	0.3−	0.2+
1998 09 26	704	(2.0−	2.3−)	1999 12 07	704	0.6+	0.6+	2000 01 06	704	0.0	0.1+

1998 QN₆₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	133.29905		(2000.0)		P		Q
n	0.24200914	ω	6.69318		+0.89956525		−0.43091883
a	2.5502428	Ω	19.32460		+0.39008316		+0.71909045
e	0.1641493	i	12.45201		+0.19651331		+0.54517693
P	4.07	H	14.1	G	0.15	U	3

Residuals in seconds of arc

1998 08 28	557	0.1−	0.0	1998 09 27	557	0.2−	0.3+	1998 11 16	704	1.1−	1.1−
1998 08 28	557	0.2+	0.2−	1998 09 27	557	0.4−	0.2+	1998 11 16	704	1.9−	0.3+
1998 08 28	557	0.8+	0.2−	1998 09 29	704	0.2+	1.6−	1998 11 16	704	0.2−	0.3−
1998 08 28	704	0.1+	1.9−	1998 09 29	704	0.7−	0.3−	1998 11 16	704	0.2+	0.8+
1998 08 28	704	1.0−	0.3+	1998 09 29	704	(1.0−	2.7−)	1998 11 16	704	0.3+	0.1−
1998 08 28	704	0.1+	1.1−	1998 09 29	704	1.2−	0.6−	1998 11 20	557	0.5+	0.4+
1998 08 28	704	1.0+	1.8+	1998 09 29	704	0.9+	0.3+	1998 11 21	557	0.6+	0.5+
1998 08 31	704	0.5−	1.7+	1998 10 03	699	0.5+	0.8−	1999 01 14	699	0.2−	0.5+
1998 08 31	704	1.1+	0.1+	1998 10 03	699	0.5+	1.4−	1999 01 14	699	0.6−	0.0
1998 08 31	704	(1.6−	3.0+)	1998 10 03	699	0.7−	0.5−	1999 01 14	699	0.6+	1.0+
1998 08 31	704	0.4+	0.7−	1998 10 21	557	0.1+	0.3+	2000 01 12	557	0.7−	0.3−
1998 08 31	557	0.0	0.5+	1998 10 21	557	0.1−	0.0	2000 01 12	557	0.4−	0.4−
1998 08 31	557	0.2−	0.5+	1998 10 21	557	0.3−	0.1−	2000 01 12	557	0.1+	0.1+
1998 09 14	557	0.1+	0.3+	1998 10 21	557	0.5+	0.4−	2000 01 12	557	0.4−	0.1+
1998 09 14	557	0.1−	0.5+	1998 10 30	557	0.4+	0.2+	2000 02 04	557	0.3−	0.0
1998 09 21	557	0.2+	0.1+	1998 10 30	557	0.2+	0.0	2000 02 04	557	0.2+	0.2−
1998 09 21	557	0.1−	0.5+	1998 10 30	557	0.5+	0.1+	2000 02 04	557	0.5+	0.4−

1998 QT₆₂ = 2000 AJ₂₄₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	140.97712		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.21665197	ω	140.74799	+0.78830691	+0.61527070
a	2.7455390	Ω	181.29817	−0.59804413	+0.76476791
e	0.2667554	i	9.57065	−0.14462173	+0.19123809
P	4.55	H	13.4	G 0.15	U 3

Residuals in seconds of arc

1998 08 27	327	0.3−	0.1+	1998 09 26	704	0.3+	0.3+	1998 10 28	704	0.5−	0.2−
1998 08 27	327	0.2−	0.1+	1998 09 26	704	0.6−	0.6−	1998 10 29	704	0.6+	0.0
1998 08 27	327	0.2−	0.0	1998 09 26	704	1.2−	1.1+	1998 10 29	704	0.6−	0.1−
1998 08 30	327	0.4−	0.1+	1998 09 26	704	0.1+	0.9−	1998 10 29	704	1.1+	0.4+
1998 08 30	327	0.6−	0.2+	1998 09 26	704	1.1−	0.8−	1998 10 29	704	0.2+	0.2+
1998 08 30	327	0.4−	0.1+	1998 09 27	704	1.0−	0.1−	1998 10 29	704	0.3−	0.3+
1998 08 31	704	1.0+	0.6+	1998 09 27	704	1.1−	0.7+	1998 11 04	327	0.4+	0.8+
1998 08 31	704	(2.3+	0.3−)	1998 09 27	704	0.2+	0.8−	1998 11 04	327	0.4+	0.1−
1998 08 31	704	0.6−	1.0−	1998 09 27	704	0.7+	0.5−	1998 11 04	327	0.1−	0.6+
1998 08 31	704	(0.4+	2.9−)	1998 09 29	327	1.1−	0.2−	1998 12 08	704	0.8−	0.7−
1998 09 04	327	0.2−	0.4+	1998 09 29	327	1.2−	0.2−	1998 12 08	704	0.2−	1.4+
1998 09 04	327	0.1+	0.2+	1998 09 29	327	1.1−	0.1−	1998 12 08	704	1.0−	0.1−
1998 09 04	327	0.1−	0.3+	1998 09 30	327	0.3−	0.2−	1998 12 08	704	(2.8+	2.2−)
1998 09 14	704	0.2−	0.4−	1998 09 30	327	0.4−	0.1−	1998 12 08	704	(2.2−	0.4+)
1998 09 14	704	0.2+	0.3−	1998 09 30	327	0.1−	0.1−	1999 12 14	704	1.2+	1.4−
1998 09 14	704	0.0	0.3−	1998 10 10	699	1.2+	0.6+	1999 12 14	704	0.0	1.1−
1998 09 15	699	0.8+	0.7+	1998 10 10	699	0.9+	0.2+	1999 12 14	704	0.0	0.6−
1998 09 15	699	0.7+	0.8+	1998 10 10	699	0.4+	0.7+	1999 12 14	704	0.0	0.7−
1998 09 15	699	0.7+	0.5+	1998 10 14	327	0.1−	0.1−	1999 12 14	704	0.9−	0.9−
1998 09 18	120	0.5+	0.0	1998 10 14	327	0.0	0.2−	2000 01 07	704	0.5−	1.0+
1998 09 18	120	0.5+	0.3+	1998 10 14	327	0.0	0.1−	2000 01 07	704	1.9−	0.1−
1998 09 18	120	0.2+	0.3−	1998 10 14	327	0.2−	0.2+	2000 01 07	704	0.1+	0.5−
1998 09 18	704	0.6+	0.1+	1998 10 14	327	0.3−	0.1+	2000 01 07	704	1.2+	0.1−
1998 09 18	704	0.4+	0.7+	1998 10 14	327	0.1−	0.0	2000 01 07	704	0.9+	0.1+
1998 09 18	704	0.1+	0.4+	1998 10 19	327	0.2−	0.0	2000 01 11	704	0.1+	0.7+
1998 09 18	704	0.6+	0.3−	1998 10 19	327	0.3−	0.1+	2000 01 11	704	0.1−	0.8+
1998 09 18	704	0.4−	0.3−	1998 10 19	327	0.1−	0.0	2000 01 11	704	0.3−	1.2+

1998 09 23	327	0.6+	0.2−	1998 10 28	704	1.0+	0.7−	2000 01 11	704	0.2−	0.9+
1998 09 23	327	0.3+	0.4−	1998 10 28	704	0.7+	0.4−	2000 01 11	704	0.4+	0.5+
1998 09 23	327	0.4+	0.0	1998 10 28	704	0.0	0.4−				
1998 09 23	327	0.6+	0.1−	1998 10 28	704	0.8+	1.0−				

1998 QW₆₂ = 2000 CQ₇₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	7.74087		(2000.0)		P		Q
n	0.24211352	ω	296.71495		−0.29138394		−0.95410535
a	2.5495098	Ω	169.49870		+0.95554623		−0.29370094
e	0.1154933	i	22.28882		+0.04501998		+0.05850423
P	4.07	H	13.8	G	0.15	U	3

Residuals in seconds of arc

1994 09 05	809	0.3+	0.3+	1998 08 31	327	0.1−	0.1−	1999 12 18	704	0.0	0.1+
1994 09 05	809	0.0	0.1+	1998 09 14	704	0.4−	0.2+	1999 12 18	704	0.3+	0.4−
1994 09 05	809	0.3−	0.8+	1998 09 14	704	1.7+	0.4−	1999 12 18	704	0.1+	0.5+
1998 08 24	704	0.3+	0.4+	1998 09 14	704	0.4+	0.3+	1999 12 18	704	0.7−	0.6+
1998 08 24	704	0.4+	0.6−	1998 09 14	704	0.8+	0.7+	1999 12 18	704	0.0	0.4+
1998 08 24	704	(2.6+	1.1+)	1998 09 14	704	1.2+	1.0−	2000 01 10	704	0.4−	0.3−
1998 08 24	704	0.7+	0.9−	1998 09 18	704	0.3+	0.2−	2000 01 10	704	0.3−	0.2+
1998 08 24	704	0.3+	0.0	1998 09 18	704	0.0	0.3−	2000 01 10	704	0.5−	0.2+
1998 08 27	704	0.1+	0.7−	1998 09 18	704	0.1+	0.5−	2000 01 10	704	0.7−	0.8−
1998 08 27	704	0.5+	1.6+	1998 09 18	704	(1.1−	3.2−)	2000 01 10	704	0.8−	0.0
1998 08 27	704	1.0−	1.4+	1998 09 18	704	0.1−	0.3+	2000 02 08	413	(2.3+	0.2+)
1998 08 27	704	1.2−	0.2+	1998 10 20	589	0.1+	0.5−	2000 02 08	413	(0.3+	3.8−)
1998 08 27	704	(3.0−	0.6+)	1998 10 20	589	0.8−	0.0	2000 02 10	413	0.5+	0.1−
1998 08 30	327	1.2−	0.4−	1998 10 20	589	0.7−	0.2+	2000 02 10	413	0.6+	0.2−
1998 08 30	327	0.9−	0.4+	1998 10 21	589	0.0	1.0−	2000 02 10	413	0.5+	0.1−
1998 08 30	327	0.0	0.0	1998 10 21	589	1.1+	0.0	2000 02 10	413	0.6+	0.0
1998 08 31	327	0.2−	0.1−	1998 10 21	589	0.0	0.0	2000 02 10	413	0.6+	0.1−
1998 08 31	327	0.3−	0.4−	1998 10 21	589	1.2−	0.3−	2000 02 10	413	0.5+	0.1−

1998 QL₆₃

Id. W. Bickel (2000 observations)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	221.60735		(2000.0)		P		Q
n	0.23827481	ω	342.99428		−0.22534571		+0.97200281
a	2.5768193	Ω	273.94428		−0.88594269		−0.23285890
e	0.0710727	i	3.82533		−0.40537003		−0.03142072
P	4.14	H	15.7	G	0.15	U	5

Residuals in seconds of arc

1998 08 31	621	0.2−	0.8−	1998 09 14	704	0.5+	0.7+	1998 10 20	621	0.2−	0.0
1998 08 31	621	0.4−	0.7−	1998 09 18	704	0.3+	1.9+	2000 01 08	691	0.1−	0.3−
1998 08 31	621	0.4−	1.9−	1998 09 18	704	1.5+	1.3+	2000 01 08	691	0.4−	0.3−
1998 08 31	621	0.3−	1.3−	1998 09 18	704	1.8−	1.0+	2000 01 08	691	0.2−	0.3−
1998 08 31	621	0.6−	0.6−	1998 09 18	704	0.1+	0.4+	2000 01 25	621	0.4+	0.5+
1998 09 01	621	0.0	0.2−	1998 10 18	621	0.1−	0.2−	2000 01 25	621	0.3+	0.2−
1998 09 01	621	0.3+	0.5−	1998 10 18	621	0.0	0.4−	2000 01 27	621	0.6+	0.3+
1998 09 01	621	0.5+	0.1−	1998 10 18	621	0.3+	0.4+	2000 01 27	621	0.7−	0.0
1998 09 14	704	1.8+	0.2+	1998 10 20	621	0.3−	0.6−				
1998 09 14	704	0.3+	1.9+	1998 10 20	621	1.5−	0.7−				

1998 QN₇₁

Residuals in seconds of arc

1998 08 24	704	0.2+	0.0	1998 08 27	704	0.4−	1.2−	1999 12 27	691	0.0	0.1−
1998 08 24	704	0.9−	0.2+	1998 08 27	704	0.1+	0.5−	1999 12 27	691	0.2−	0.2−
1998 08 24	704	1.9+	0.4+	1999 12 08	704	0.3+	0.8+	2000 01 02	691	0.1+	0.0
1998 08 24	704	1.1−	0.6+	1999 12 08	704	0.2−	0.1+	2000 01 02	691	0.1+	0.1+
1998 08 24	704	0.4−	0.8+	1999 12 08	704	0.1−	0.6−	2000 01 02	691	0.1+	0.1+
1998 08 27	704	0.7+	0.1−	1999 12 27	691	0.0	0.2−				

1998 QP₇₄ = 2000 AY₁₉₀

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	335.56475		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.24295383	<i>ω</i>	287.51024	−0.81874193	−0.55839167
<i>a</i>	2.5436277	<i>Ω</i>	218.84391	+0.57351849	−0.78434776
<i>e</i>	0.0971823	<i>i</i>	12.30280	+0.02716977	−0.27018019
<i>P</i>	4.06	<i>H</i>	14.2	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 08 19	704	1.2−	1.0+	1998 08 27	704	0.1+	1.0+	2000 01 08	704	0.5−	0.1+
1998 08 19	704	(2.4−	0.1+)	1998 09 19	704	0.5+	0.0	2000 01 08	704	0.0	0.6+
1998 08 19	704	(0.3+	2.4+)	1998 09 19	704	0.0	0.3−	2000 01 08	704	0.0	0.1−
1998 08 19	704	1.1−	1.0+	1998 09 19	704	0.8+	1.4−	2000 01 08	704	0.3−	0.6−
1998 08 19	704	1.4+	1.0−	1998 09 23	704	0.8+	0.2−	2000 01 08	704	0.4−	0.2+
1998 08 24	704	0.1−	1.4+	1998 09 23	704	1.3−	0.0	2000 01 11	704	0.1−	0.2+
1998 08 24	704	0.4−	1.5+	1998 09 23	704	0.3−	0.2−	2000 01 11	704	0.3−	0.1+
1998 08 24	704	1.1+	0.7−	1998 09 23	704	0.7−	0.7−	2000 01 11	704	0.6+	0.2+
1998 08 24	704	(2.2−	1.7+)	1998 09 23	704	1.4−	0.5−	2000 02 06	704	0.5+	0.0
1998 08 27	704	1.3+	0.3+	1999 10 20	704	1.2−	0.6−	2000 02 06	704	0.1+	0.0
1998 08 27	704	0.2+	0.6−	1999 10 20	704	0.3−	0.2−	2000 02 06	704	0.3+	0.4−
1998 08 27	704	1.5+	0.5+	1999 10 20	704	0.2−	0.0	2000 02 06	704	1.2+	0.4+
1998 08 27	704	1.3−	0.6−	1999 10 20	704	0.5+	0.3+				

1998 QV₇₇ = 2000 CJ₇₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	101.72710		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.22352980	<i>ω</i>	55.52308	+0.91934802	−0.37272814
<i>a</i>	2.6889275	<i>Ω</i>	325.86107	+0.24493837	+0.79279695
<i>e</i>	0.1649469	<i>i</i>	12.97328	+0.30790324	+0.48223100
<i>P</i>	4.41	<i>H</i>	14.8	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 08 24	704	0.6+	1.0−	1998 08 27	699	0.0	0.2−	1998 09 23	704	0.8−	0.7+
1998 08 24	704	0.1−	0.5+	1998 08 27	704	0.3+	0.2−	1998 09 23	704	0.5+	0.4+
1998 08 24	704	0.3+	0.0	1998 08 27	704	0.3+	0.5−	1998 09 23	704	0.6−	0.6+
1998 08 24	704	0.2−	0.8−	1998 08 27	699	0.5−	1.0+	2000 02 09	120	0.6−	0.1+
1998 08 24	704	0.8+	1.7−	1998 08 27	704	0.8−	0.5+	2000 02 09	120	0.6+	0.1−
1998 08 27	704	0.5+	0.1−	1998 08 27	704	0.2+	1.2+	2000 02 10	120	0.5+	1.0−
1998 08 27	704	0.5−	0.3+	1998 09 18	699	0.3−	0.0	2000 02 10	120	0.3+	0.4−
1998 08 27	699	0.4−	0.2−	1998 09 18	699	0.2−	0.5−	2000 02 10	120	1.2−	0.1+
1998 08 27	704	0.8+	0.1−	1998 09 18	699	0.3+	0.1−	2000 02 10	120	0.2+	0.7+
1998 08 27	704	0.4−	0.3+	1998 09 19	704	0.3+	0.6−	2000 02 11	120	0.7−	1.0+
1998 08 27	704	0.5−	1.9+	1998 09 19	704	1.0+	0.1−	2000 02 11	120	0.8+	0.4−
1998 08 27	704	0.7−	0.1−	1998 09 19	704	0.1+	1.0−				

1998 QY₇₇ = 2000 AP₂₃₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	33.32991		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.28398866	<i>ω</i>	219.37222	−0.49609614	−0.86146836
<i>a</i>	2.2922856	<i>Ω</i>	260.62040	+0.82178276	−0.42553976
<i>e</i>	0.0567379	<i>i</i>	6.31054	+0.28028865	−0.27710679
<i>P</i>	3.47	<i>H</i>	14.5	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1995 11 17	327	0.4−	0.1+	1998 08 27	699	0.1+	0.9+	2000 01 05	704	0.2−	0.8−
1995 11 17	327	0.2+	0.1−	1998 08 27	704	1.5−	0.2−	2000 01 05	704	0.1−	0.5−
1995 11 17	327	0.4+	0.1+	1998 08 27	704	0.3−	0.1+	2000 01 05	704	0.6+	0.5−
1995 11 30	327	0.6−	0.7−	1998 08 27	699	0.1+	0.1+	2000 01 05	704	0.2+	0.4−
1995 11 30	327	0.0	0.2−	1998 08 27	704	1.1−	0.1+	2000 01 06	699	0.4+	1.1+
1995 11 30	327	0.3+	0.2−	1998 08 27	704	0.9−	0.1+	2000 01 06	699	1.1−	1.0+
1998 08 24	704	0.6−	0.8+	1998 09 19	704	0.2+	0.4+	2000 01 06	699	0.6+	0.8+
1998 08 24	704	0.4−	1.6+	1998 09 19	704	(0.7+	2.4+)	2000 02 07	703	0.7−	0.2+
1998 08 24	704	0.8+	1.8−	1998 09 19	704	0.7−	0.2−	2000 02 07	703	0.2+	0.1+
1998 08 24	704	0.6−	0.7−	1998 09 23	704	0.3+	0.5−	2000 02 07	703	0.1−	0.8+
1998 08 24	704	0.4+	0.4−	1998 09 23	704	0.3−	0.1+	2000 02 07	703	0.0	0.1+
1998 08 27	704	0.1+	0.3−	1998 09 23	704	0.6+	0.3+	2000 02 08	704	0.2+	0.5+
1998 08 27	704	0.4−	0.2−	1998 10 15	699	0.8−	1.3−	2000 02 08	704	0.5+	0.1+
1998 08 27	699	1.0+	0.1+	1998 10 15	699	0.9+	0.4+	2000 02 08	704	0.1+	0.5−
1998 08 27	704	0.4+	1.2+	1998 10 15	699	0.3+	0.6+	2000 02 08	704	1.0+	0.1+
1998 08 27	704	0.8+	0.1+	1999 12 14	704	(0.0	2.2−)	2000 02 08	704	0.5+	0.4−
1998 08 27	704	0.2+	0.2−	1999 12 14	704	(1.7−	2.1−)				
1998 08 27	704	0.4+	1.3+	1999 12 14	704	1.6−	1.1+				

1998 QZ₈₄ = 2000 CM₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	203.91663		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.29034443	<i>ω</i>	14.05493	+0.27327674	+0.95716855
<i>a</i>	2.2587095	<i>Ω</i>	271.87078	−0.89154536	+0.21468863
<i>e</i>	0.0945311	<i>i</i>	5.49145	−0.36120175	+0.19426054
<i>P</i>	3.39	<i>H</i>	15.5	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 08 17	704	0.2−	0.9+	1998 09 14	704	(2.0+	0.2+)	1998 09 27	704	0.3−	0.2−
1998 08 17	704	0.3+	0.2+	1998 09 14	704	1.1+	0.2−	1998 09 27	704	1.3−	0.7+
1998 08 17	704	1.2−	1.0+	1998 09 14	704	0.7+	0.6−	1998 09 27	704	(1.8−	2.2+)
1998 08 17	704	1.1−	0.8+	1998 09 15	699	0.3−	0.9+	1998 11 24	561	0.6−	0.2−
1998 08 17	704	0.5−	0.2+	1998 09 15	699	0.2+	0.4−	1998 11 24	561	0.2+	0.9+
1998 08 24	704	1.1+	0.3−	1998 09 15	699	0.3−	1.2+	1998 11 24	561	0.1+	0.9+
1998 08 24	704	0.3+	0.8+	1998 09 18	699	0.8+	1.5+	2000 02 02	704	0.3+	0.2−
1998 08 24	704	0.6−	0.6−	1998 09 18	699	0.1+	0.3−	2000 02 02	704	0.2−	0.8+
1998 08 24	704	0.5−	1.6−	1998 09 18	704	(1.8−	2.4−)	2000 02 02	704	0.3−	0.6−
1998 08 24	704	0.1−	1.7+	1998 09 18	699	0.3+	0.0	2000 02 02	704	0.3−	0.4−
1998 08 27	704	0.8−	0.6+	1998 09 18	704	1.1−	1.2−	2000 02 02	704	0.0	0.2−
1998 08 27	704	0.2−	0.1+	1998 09 18	704	0.3−	0.0	2000 02 03	704	0.3−	0.6+
1998 08 27	704	1.8+	0.3+	1998 09 23	704	0.2+	0.0	2000 02 03	704	0.2+	0.3+
1998 08 27	704	0.3+	0.5−	1998 09 23	704	0.5+	0.9−	2000 02 03	704	0.6+	0.4+
1998 09 14	704	0.1+	0.7−	1998 09 23	704	0.9+	1.5−	2000 02 03	704	0.1+	0.1−
1998 09 14	704	0.7+	1.5−	1998 09 27	704	0.6−	1.3−				

1998 QV₈₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	152.79779		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.26757779	<i>ω</i>	72.89862	+0.89984229	+0.41700738
<i>a</i>	2.3850785	<i>Ω</i>	262.30156	−0.43296674	+0.81806290
<i>e</i>	0.2778809	<i>i</i>	7.42237	−0.05313810	+0.39607820
<i>P</i>	3.68	<i>H</i>	14.6	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1954 11 23	675	1.0−	1.0−	1998 08 19	704	(0.8+	3.0+)	1998 12 09	704	0.0	0.7+
1954 11 23	675	1.3+	0.1+	1998 08 24	704	1.5−	0.5−	1998 12 09	704	0.8+	1.0+
1987 08 25	675	0.3−	0.8−	1998 08 24	704	(0.7−	2.8−)	1998 12 09	704	0.6+	0.5+
1987 08 25	675	0.2−	0.6+	1998 08 24	704	(2.7−	0.1−)	1998 12 09	704	(0.8−	2.2+)
1992 02 01	675	0.1+	0.1+	1998 08 27	704	0.7+	0.1−	1998 12 09	704	0.0	0.1+
1992 02 01	675	0.8−	0.1+	1998 08 27	704	0.2+	0.5+	1998 12 09	704	0.9−	0.7+
1995 11 30	675	1.1−	0.1+	1998 08 27	704	0.1+	1.7+	1998 12 09	704	0.5+	0.2+
1995 11 30	675	0.8+	0.1−	1998 08 27	704	0.8+	0.7+	1998 12 09	704	0.7+	0.8+
1995 12 28	675	0.0	0.0	1998 08 27	704	1.2−	0.4−	1998 12 09	704	0.5+	0.3−
1995 12 28	675	0.6+	0.4+	1998 09 19	704	(3.2+	2.1−)	1998 12 09	704	0.3−	0.9+
1998 06 30	704	0.1−	1.1+	1998 09 19	704	0.1+	1.3−	1998 12 24	699	0.6−	0.5+

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M.P.C. 38485

1998 06 30	704	0.7+	0.3+	1998 09 19	704	1.0+	0.9-	1998 12 24	699	(2.6-	1.2+)
1998 06 30	704	0.1-	1.3+	1998 09 20	699	0.0	0.1-	1998 12 24	699	0.2-	0.0
1998 06 30	704	0.7+	0.3+	1998 09 20	699	0.0	0.4-	1999 01 08	704	0.6-	0.2-
1998 06 30	704	1.5-	0.3+	1998 09 20	699	0.2-	0.0	1999 01 08	704	0.0	0.6+
1998 08 19	704	1.8+	1.7-	1998 09 23	704	1.7-	1.8-	1999 01 08	704	1.5+	0.4+
1998 08 19	704	(0.9+	2.6+)	1998 09 23	704	0.7-	0.7-				
1998 08 19	704	0.2+	1.5+	1998 09 23	704	0.1-	0.4-				

1998 QM₉₀ = 2000 AY₂₄₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	67.59863		(2000.0)		P		Q
<i>n</i>	0.26619795	ω	168.78139	+0.25123563	-0.94124993		
<i>a</i>	2.3933134	Ω	266.37006	+0.86963711	+0.32187271		
<i>e</i>	0.0317803	<i>i</i>	13.06926	+0.42498464	+0.10220825		
<i>P</i>	3.70	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 24	704	0.5+	0.5-	1998 09 23	704	1.2+	0.6-	2000 01 11	704	0.6-	0.1-
1998 08 24	704	0.9+	1.2-	1998 09 23	704	(4.5-	2.7+)	2000 01 11	704	0.3-	0.4-
1998 08 24	704	1.7-	0.8-	1998 09 23	704	0.3-	1.0-	2000 01 11	704	0.3-	0.0
1998 08 24	704	0.0	1.2+	1998 09 23	704	0.7-	1.0-	2000 01 11	704	0.6-	1.2-
1998 08 27	704	0.9+	0.1+	1998 10 10	699	1.3-	1.4+	2000 02 05	703	0.5+	0.2-
1998 08 27	704	0.8+	1.4+	1998 10 10	699	0.3+	0.3+	2000 02 05	703	0.2-	0.3+
1998 08 27	704	0.4+	0.6+	1998 10 10	699	0.7-	0.3+	2000 02 05	703	0.2+	0.3+
1998 08 27	704	(0.0	2.6+)	1999 12 14	704	0.6-	0.7-	2000 02 05	703	0.2-	0.3+
1998 08 27	704	0.0	0.5+	1999 12 14	704	0.3-	0.5+	2000 02 08	704	0.3+	0.4+
1998 09 19	704	0.7-	0.0	1999 12 14	704	1.1-	1.7-	2000 02 08	704	0.3+	0.2+
1998 09 19	704	0.9+	0.7-	1999 12 14	704	0.4+	0.2+	2000 02 08	704	0.2+	0.1+
1998 09 19	704	0.8+	0.9-	2000 01 07	699	0.4-	0.7+	2000 02 08	704	0.1+	0.4-
1998 09 20	699	0.3-	0.4+	2000 01 07	699	1.0+	1.0+	2000 02 08	704	0.1+	0.5-
1998 09 20	699	0.3-	0.2-	2000 01 07	699	1.0+	1.7+				
1998 09 20	699	0.9-	1.0+	2000 01 11	704	0.1+	0.5-				

1998 QZ₉₀ = 2000 AE₂₃₇

Id. G. V. Williams, A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	59.05763		(2000.0)		P		Q
<i>n</i>	0.23866315	ω	274.47525	+0.03004085	-0.99918175		
<i>a</i>	2.5740233	Ω	173.61205	+0.98615736	+0.02520750		
<i>e</i>	0.1556200	<i>i</i>	14.08735	+0.16306812	+0.03162914		
<i>P</i>	4.13	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1990 09 18	675	0.2-	0.5+	1998 09 18	704	0.9+	0.4+	2000 01 05	704	0.7-	1.1-
1990 09 18	675	0.6-	1.3+	1998 09 18	704	0.8+	0.9+	2000 01 05	704	1.1-	0.5+
1990 09 28	675	0.3+	1.0-	1998 09 18	704	1.7+	0.5+	2000 01 05	704	0.5+	1.5+
1990 09 28	675	0.3+	0.8+	1998 09 25	699	0.0	0.1+	2000 01 11	699	0.1+	0.8+
1990 10 15	675	0.0	0.8-	1998 09 25	699	0.0	0.4+	2000 01 11	699	0.5-	0.2+
1990 10 15	675	0.6+	1.3+	1998 09 25	699	0.1+	0.0	2000 01 11	699	0.5+	0.0
1996 04 21	675	1.3-	0.1-	1998 09 26	704	0.3+	0.4+	2000 02 02	704	0.6+	0.4+
1996 04 21	675	0.7-	1.3+	1998 09 26	704	0.5-	0.1-	2000 02 02	704	0.8+	0.2+
1998 08 28	704	(2.1+	1.9-)	1998 09 26	704	0.1-	0.1-	2000 02 02	704	1.1+	0.2+
1998 08 28	704	0.8+	0.7-	1998 09 26	704	0.6-	0.2-	2000 02 02	704	0.9+	0.6+
1998 08 28	704	1.4+	1.7-	1998 09 26	704	0.4-	0.6-	2000 02 02	704	0.8+	0.6+
1998 08 28	704	1.3-	1.5-	1998 09 27	704	0.8-	0.2-	2000 02 07	704	0.3-	1.4-
1998 08 28	704	(0.4+	2.2-)	1998 09 27	704	0.8-	0.5+	2000 02 07	704	0.8-	1.4-
1998 08 31	704	0.9-	0.2-	1998 09 27	704	0.9-	0.1-	2000 02 07	704	0.4-	1.2-
1998 08 31	704	1.4+	0.1+	1998 09 27	704	0.9-	0.6+	2000 02 07	704	0.9-	1.4-
1998 08 31	704	0.5-	0.4+	1998 09 27	704	0.4-	0.3-	2000 02 07	704	0.8-	1.1-
1998 08 31	704	1.2+	0.2+	1998 10 17	699	0.5+	0.5-	2000 02 08	704	0.8+	0.4+
1998 08 31	704	0.2-	1.1+	1998 10 17	699	0.0	0.3+	2000 02 08	704	0.4+	0.6+
1998 09 14	704	0.1+	0.2-	1998 10 17	699	0.8+	0.2+	2000 02 08	704	0.3+	0.4+
1998 09 14	704	0.2-	0.1-	1999 01 20	910	1.3-	1.5-	2000 02 08	704	0.7+	0.7+
1998 09 14	704	0.4-	0.6+	1999 01 20	910	1.9-	1.4-	2000 02 08	704	0.3+	0.7+

1998 09 18	704	1.2+	0.5+	1999 01 20	910	1.8-	1.7-
1998 09 18	704	0.3+	0.3+	2000 01 05	704	0.6-	0.4-

1998 QR₉₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	151.44833		(2000.0)		P		Q
<i>n</i>	0.30457577	ω	284.09787	+0.89571895	-0.44450823		
<i>a</i>	2.1877909	Ω	102.29481	+0.41177823	+0.82086249		
<i>e</i>	0.1952062	<i>i</i>	0.58640	+0.16770881	+0.35860454		
<i>P</i>	3.24	<i>H</i>	15.3	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1984 03 05	413	0.9+	0.1+	1998 09 20	910	0.4-	0.2-	1998 11 10	704	0.9-	0.1+
1984 05 31	413	0.9-	0.5+	1998 09 20	910	0.7-	0.1-	1998 11 10	704	1.0-	0.6-
1984 05 31	413	0.3-	1.8-	1998 10 28	704	0.4-	0.2+	1998 11 11	704	0.2+	0.5-
1995 10 27	675	0.4+	0.0	1998 10 28	704	0.4-	0.3-	1998 11 11	704	1.8+	1.0-
1995 10 27	675	0.9-	0.2-	1998 10 28	704	0.0	0.3-	1998 11 11	704	1.6+	0.8-
1998 08 28	704	0.5-	1.3-	1998 10 28	704	0.2+	1.3+	1998 11 11	704	0.4+	0.9-
1998 08 28	704	1.5+	0.3-	1998 10 29	704	0.0	0.5+	1998 11 11	704	0.4-	0.2-
1998 08 28	704	0.9-	0.7-	1998 10 29	704	0.7+	0.7+	1998 11 14	699	0.6+	0.6+
1998 08 28	704	0.4-	1.0-	1998 10 29	704	0.0	0.0	1998 11 14	699	1.7+	0.5-
1998 08 28	704	0.6-	0.2-	1998 10 29	704	0.6-	1.3+	1998 11 14	699	0.4+	0.7+
1998 08 31	704	0.3-	0.3+	1998 10 29	704	1.1+	1.3+	1999 01 06	699	0.1+	0.8+
1998 08 31	704	0.6-	0.2-	1998 10 30	327	0.1+	0.2+	1999 01 06	699	1.2-	0.6-
1998 08 31	704	(1.3-	2.6+)	1998 10 30	327	0.1+	0.3+	1999 01 06	699	0.3-	0.4-
1998 08 31	704	1.8-	0.8+	1998 10 30	327	0.0	0.2+	1999 03 09	691	0.0	0.4-
1998 08 31	704	0.9-	0.9-	1998 11 10	704	0.5+	0.1+	1999 03 09	691	0.4-	0.4-
1998 09 20	910	0.2+	0.2-	1998 11 10	704	0.3+	0.4+	1999 03 09	691	0.6-	0.8-

1998 QS₉₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	175.36704		(2000.0)		P		Q
<i>n</i>	0.28780678	ω	251.88643	+0.95438676	+0.27596575		
<i>a</i>	2.2719671	Ω	91.97313	-0.21213619	+0.89535657		
<i>e</i>	0.2216467	<i>i</i>	6.54803	-0.21010510	+0.34954185		
<i>P</i>	3.42	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1991 09 06	413	0.1-	0.2+	1998 11 10	704	0.1+	0.3-	1999 01 11	704	1.3-	0.6+
1995 11 30	675	0.1-	0.4-	1998 11 10	704	0.1-	0.8-	1999 01 11	704	0.0	1.0+
1995 11 30	675	0.1+	0.7-	1998 11 10	704	0.4-	0.4-	1999 01 11	704	0.6-	0.2-
1998 08 28	704	1.4-	1.1+	1998 11 11	704	0.4+	0.3-	1999 01 11	704	0.0	0.3+
1998 08 28	704	0.3-	0.7+	1998 11 11	704	0.6+	0.2+	1999 02 04	704	0.1-	0.2-
1998 08 28	704	1.1+	1.1-	1998 11 11	704	0.6+	0.1+	1999 02 04	704	0.5+	1.1-
1998 08 28	704	0.2+	1.4-	1998 11 11	704	0.3+	0.3-	1999 02 04	704	0.5+	0.4+
1998 08 28	704	0.6+	0.9+	1998 11 11	704	0.1-	0.4+	1999 02 04	704	0.2-	0.5-
1998 08 31	704	1.4-	0.1-	1998 11 19	699	0.2+	0.1+	2000 02 04	704	0.1+	0.5+
1998 08 31	704	0.8-	0.7+	1998 11 19	699	0.4+	0.1+	2000 02 04	704	0.2+	0.5+
1998 08 31	704	0.1-	0.5+	1998 11 19	699	0.1+	0.4+	2000 02 04	704	0.2-	0.3+
1998 08 31	704	0.9-	0.1+	1998 12 11	699	0.3-	0.1+	2000 02 04	704	0.2-	0.9+
1998 08 31	704	0.1+	0.0	1998 12 11	699	0.2-	0.6+	2000 02 04	704	0.8+	0.1+
1998 11 10	704	0.2+	0.4+	1998 12 11	699	0.3+	0.2+				
1998 11 10	704	0.6+	0.6-	1999 01 11	704	0.0	0.3-				

1998 QX₉₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	95.71541		(2000.0)		P		Q
n	0.21351553	ω	218.01557	+0.62558846	-0.77931433		
a	2.7723607	Ω	193.38750	+0.74858310	+0.61268298		
e	0.1475658	i	8.98739	+0.21968709	+0.13148669		
P	4.62	H	13.4	G	0.15	U	1

1992 06 23	413	1.2−	0.2−	1998 10 19	809	(2.9+	1.4+)	1999 01 11	704	0.4+	0.9+
1992 06 23	413	1.6+	0.0	1998 10 20	120	0.4−	0.0	1999 02 04	704	0.4−	1.1+
1993 08 22	675	0.8−	1.1+	1998 10 20	120	0.1+	0.0	1999 02 04	704	0.2−	0.6−
1993 08 22	675	0.6+	0.9−	1998 10 21	120	0.4−	0.0	1999 02 04	704	0.7+	1.6−
1998 08 28	704	1.2−	0.1+	1998 10 21	120	1.1−	0.4−	1999 02 04	704	0.3+	1.6−
1998 08 28	704	0.5−	0.1+	1998 10 21	120	0.9−	0.5+	1999 02 04	704	0.9−	0.5−
1998 08 28	704	(1.9−	2.1−)	1998 11 10	704	0.7+	0.5+	2000 02 07	704	0.3+	1.0−
1998 08 31	910	1.9−	0.6−	1998 11 10	704	1.2+	0.0	2000 02 07	704	0.4−	0.7−
1998 08 31	910	(2.1−	0.5−)	1998 11 10	704	0.2+	0.3−	2000 02 07	704	0.6−	1.0−
1998 08 31	910	1.8−	0.6−	1998 11 10	704	0.2+	0.3−	2000 02 07	704	0.8+	1.0−
1998 08 31	704	1.9−	0.5+	1998 11 10	704	1.1+	0.5−	2000 02 07	704	(0.0	2.4−)
1998 08 31	704	(2.7−	3.0−)	1998 11 11	704	0.9+	0.8−	2000 02 08	704	0.0	1.1+
1998 08 31	704	(3.2−	1.7−)	1998 11 11	704	0.9+	0.0	2000 02 08	704	0.0	0.7+
1998 08 31	704	0.2−	1.8−	1998 11 11	704	(5.6+	0.5−)	2000 02 08	704	0.0	0.8+
1998 08 31	704	0.9−	1.0−	1998 11 11	704	0.6+	0.3−	2000 02 08	704	0.3−	0.8+
1998 10 18	809	1.3+	1.1+	1998 12 11	699	0.3−	0.5+	2000 02 08	704	0.1−	0.6+
1998 10 18	809	1.6+	1.3+	1998 12 11	699	0.2−	0.1+				
1998 10 18	809	1.6+	1.6+	1998 12 11	699	0.1+	0.2+				

1998 QN₉₃ = 1972 TE₇

Id. A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	108.08136		(2000.0)	P	Q
<i>n</i>	0.22864304	ω	209.63147	+0.60741185	−0.78823621
<i>a</i>	2.6486875	Ω	203.40847	+0.76891868	+0.61458281
<i>e</i>	0.1704787	<i>i</i>	14.37964	+0.19953672	+0.03117128
<i>P</i>	4.31	<i>H</i>	13.1	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1955 12 16	675	0.9−	0.4−	1998 08 31	704	0.2−	0.8−	1998 11 13	704	0.2+	0.2−
1955 12 16	675	0.0	0.7−	1998 08 31	704	0.4−	1.2−	1998 11 13	704	0.2−	1.0−
1972 10 06	095	1.5+	0.8−	1998 08 31	704	1.0+	0.1+	1998 11 14	699	0.0	0.8+
1983 05 11	413	0.1+	0.5−	1998 08 31	704	0.8−	0.7−	1998 11 14	699	0.2+	0.8+
1983 05 11	413	0.0	1.0−	1998 08 31	704	0.7−	0.6−	1998 11 14	699	0.2+	0.8+
1984 08 01	413	0.3−	0.1−	1998 10 19	699	0.3−	0.3+	1998 11 18	399	1.7−	2.0+
1984 08 01	413	0.3−	0.5−	1998 10 19	699	0.2−	0.6+	1998 11 18	399	0.2−	0.7+
1991 03 18	413	0.6+	0.3+	1998 10 19	699	0.3−	0.6+	1999 02 04	704	0.5+	0.6−
1991 03 18	413	0.3−	0.8−	1998 11 12	399	(2.5−	0.4−)	1999 02 04	704	1.0+	0.5−
1998 08 28	704	0.8+	1.3−	1998 11 12	399	1.5−	1.0−	1999 02 04	704	1.3+	0.8−
1998 08 28	704	0.4−	0.6+	1998 11 13	704	0.8+	0.3−	1999 02 04	704	0.1−	0.1+
1998 08 28	704	(2.1−	0.0)	1998 11 13	704	0.1−	0.4+				
1998 08 28	704	(2.5−	2.0+)	1998 11 13	704	1.1+	0.4−				

1998 QD₉₈ = 1971 QM₂ = 2000 CJ₈₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	167.50767		(2000.0)	P	Q
<i>n</i>	0.29388999	ω	204.91952	+0.93963260	+0.33595282
<i>a</i>	2.2405064	Ω	135.28386	−0.29642431	+0.89406186
<i>e</i>	0.1926277	<i>i</i>	5.30150	−0.17094794	+0.29629224
<i>P</i>	3.35	<i>H</i>	15.3	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1971 08 19	808	0.4−	2.0+	1998 09 17	699	0.5−	0.7+	1998 09 26	704	0.9−	0.1−
1998 08 28	704	0.1−	1.6+	1998 09 17	699	0.3+	0.7+	1998 09 27	704	0.6+	0.5+
1998 08 28	704	(3.1−	3.9+)	1998 09 18	704	0.0	0.3+	1998 09 27	704	0.4+	0.0
1998 08 28	704	0.4+	1.3+	1998 09 18	704	0.3+	0.3+	1998 09 27	704	0.6+	0.4−
1998 08 28	704	0.9−	0.9−	1998 09 18	704	0.1+	0.1+	1998 09 27	704	0.3−	1.0−
1998 08 31	704	0.1−	0.6−	1998 09 18	704	0.3−	0.0	1998 09 27	704	0.5+	0.8−
1998 08 31	704	0.0	0.8−	1998 09 18	704	0.1−	0.5+	2000 02 04	704	0.1+	1.2+
1998 08 31	704	1.0+	0.8−	1998 09 24	699	0.1+	0.4+	2000 02 04	704	0.1−	0.7+
1998 08 31	704	1.2−	0.7−	1998 09 24	699	0.2−	0.4+	2000 02 04	704	0.0	0.5+
1998 08 31	704	0.9−	0.8−	1998 09 24	699	0.1+	0.6+	2000 02 04	704	0.1+	0.4+
1998 09 14	704	0.0	0.0	1998 09 26	704	0.6−	0.4−	2000 02 04	704	0.0	0.9+
1998 09 14	704	0.0	0.3−	1998 09 26	704	0.1−	0.8−	2000 02 11	704	0.0	0.4+
1998 09 14	704	1.2+	0.5+	1998 09 26	704	0.1+	0.4−	2000 02 11	704	0.0	0.7−
1998 09 17	699	0.6+	1.1+	1998 09 26	704	0.7−	0.4−	2000 02 11	704	0.7+	0.2−

1998 QK₉₈ = 2000 AE₂₃₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	75.17092		(2000.0)	P	Q
<i>n</i>	0.21197865	ω	340.83185	+0.64092027	−0.76220160
<i>a</i>	2.7857446	Ω	69.19893	+0.71636153	+0.55135842
<i>e</i>	0.1697023	<i>i</i>	5.58256	+0.27576689	+0.33919408
<i>P</i>	4.65	<i>H</i>	14.1	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 08 26	809	1.8+	1.4+	1998 09 18	704	0.2−	0.3+	2000 01 06	699	0.9−	0.5−
1998 08 26	809	1.7+	1.4+	1998 09 18	704	0.0	0.4−	2000 01 06	699	0.1+	0.8+
1998 08 26	809	1.4+	1.6+	1998 09 18	704	0.1+	0.5−	2000 01 30	704	0.3+	0.5+
1998 08 28	704	(2.1−	0.9−)	1998 09 18	704	0.3+	0.2−	2000 01 30	704	0.0	0.9+
1998 08 28	704	(1.0+	3.0−)	1998 09 18	704	(2.1+	0.9+)	2000 01 30	704	0.2+	0.4+
1998 08 28	704	(2.4−	0.6−)	1998 09 24	699	0.0	0.6−	2000 01 30	704	0.2−	0.7+
1998 08 29	704	0.1+	0.7+	1998 09 24	699	0.1+	0.1−	2000 02 03	704	0.1−	0.6+
1998 08 29	704	0.4−	1.0−	1998 09 24	699	0.1+	0.4−	2000 02 03	704	0.2−	0.7+
1998 08 29	704	(0.6−	2.7−)	1998 11 15	699	0.9+	0.1+	2000 02 03	704	0.4+	0.0
1998 08 29	704	1.3−	0.1+	1998 11 15	699	0.1−	1.0+	2000 02 03	704	0.6+	0.1+
1998 08 29	704	1.8−	0.2−	1998 11 15	699	0.4+	0.5+	2000 02 03	704	0.6+	0.2+
1998 09 14	704	0.6−	0.8−	2000 01 04	704	0.6−	0.2+	2000 02 11	704	0.1+	0.4−
1998 09 14	704	0.6−	0.1+	2000 01 04	704	0.1−	0.5−	2000 02 11	704	0.7+	0.5−
1998 09 14	704	0.4−	1.3−	2000 01 04	704	0.5−	0.2−	2000 02 11	704	0.6+	0.6−
1998 09 17	699	0.3−	0.0	2000 01 04	704	0.3−	0.2−	2000 02 11	704	0.0	0.0
1998 09 17	699	0.4−	0.0	2000 01 04	704	1.3−	0.1−	2000 02 11	704	0.1−	0.8−
1998 09 17	699	0.6−	0.5−	2000 01 06	699	0.6+	0.9−				

1998 QP₁₀₁ = 1999 XJ₁₇₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	17.96436		(2000.0)	P	Q
<i>n</i>	0.22653531	ω	56.99899	−0.16946919	−0.98452246
<i>a</i>	2.6650914	Ω	42.82962	+0.88087413	−0.17164467
<i>e</i>	0.0536936	<i>i</i>	3.76784	+0.44197394	−0.03540678
<i>P</i>	4.35	<i>H</i>	14.1	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 08 26	809	0.4+	0.9+	1999 12 15	704	0.7−	0.6+	2000 01 07	704	0.6+	0.2−
1998 08 26	809	0.0	0.9+	1999 12 15	704	0.2−	0.1+	2000 01 07	704	0.8−	0.5−
1998 08 26	809	0.4−	1.2+	1999 12 15	704	0.1−	0.0	2000 01 07	704	0.1+	0.4−
1998 08 27	809	0.1−	0.2+	1999 12 15	704	0.0	0.0	2000 01 07	704	0.2−	0.5−
1998 08 27	809	0.3+	0.2+	1999 12 15	704	0.1+	0.1−	2000 01 07	704	0.2+	0.2−
1998 08 27	809	0.9+	0.9+	2000 01 03	704	0.6−	0.2+	2000 01 07	704	0.1+	0.0
1998 09 26	704	0.4+	1.2−	2000 01 03	704	0.5−	0.1−	2000 01 07	704	0.3+	0.1−
1998 09 26	704	0.5−	0.2+	2000 01 03	704	0.6−	0.4+	2000 01 07	704	0.3+	0.4−
1998 09 26	704	1.5−	0.2−	2000 01 03	704	0.5−	0.7+	2000 01 07	704	0.1−	0.2−
1998 09 26	704	0.1+	0.0	2000 01 03	704	0.8−	1.2+	2000 01 07	704	0.5+	0.3+
1998 09 26	704	1.7−	0.2−	2000 01 04	704	1.0−	0.6+	2000 01 07	704	0.2+	0.0
1998 09 27	704	0.1−	0.6+	2000 01 04	704	0.2−	0.2+	2000 01 30	704	0.4+	0.0
1998 09 27	704	0.9−	0.9−	2000 01 04	704	0.1−	0.2+	2000 01 30	704	0.1+	0.0
1998 09 27	704	1.8+	0.1−	2000 01 04	704	0.2−	0.1+	2000 01 30	704	0.6+	0.4−
1998 09 27	704	1.0+	1.2−	2000 01 04	704	0.3+	0.5−	2000 01 30	704	0.4+	0.1−
1998 09 27	699	0.1+	0.2−	2000 01 07	704	0.1+	0.1+	2000 01 31	704	0.6+	0.2+
1998 09 27	704	0.1−	1.9−	2000 01 07	704	0.5+	0.2+	2000 01 31	704	0.0	0.4−
1998 09 27	699	0.9+	0.3+	2000 01 07	704	0.1−	0.1+	2000 01 31	704	0.4+	0.2−
1998 09 27	699	0.4−	0.0	2000 01 07	704	0.1+	0.3−	2000 02 11	704	1.0−	0.5+
1999 12 10	704	0.4−	0.1+	2000 01 07	704	0.8+	0.3+	2000 02 11	704	0.1+	0.0
1999 12 10	704	0.8+	0.4+	2000 01 07	704	0.4+	0.1−	2000 02 11	704	0.5−	1.1−
1999 12 10	704	0.1−	0.2+	2000 01 07	704	0.0	0.2−	2000 02 11	704	0.1+	0.3−
1999 12 10	704	0.3+	0.4+	2000 01 07	704	0.4+	0.0	2000 02 11	704	0.2+	1.3−
1999 12 10	704	0.2+	0.7+	2000 01 07	704	0.1−	0.0				

2000 FEB. 22

M.P.C. 38487

1998 QF₁₀₂ = 2000 BJ

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	154.96276	(2000.0)	P		Q	
<i>n</i>	0.22485438	ω	304.47108	+0.64196584	+0.76650423	
<i>a</i>	2.6783571	Ω	5.57986	-0.62499726	+0.53729447	
<i>e</i>	0.0784217	<i>i</i>	11.11143	-0.44413769	+0.35183224	
<i>P</i>	4.38	<i>H</i>	13.6	<i>G</i> 0.15	<i>U</i> 3	

Residuals in seconds of arc

1998 08 26	809	1.5+	0.8+	1998 10 10	699	1.3-	0.8-	1999 12 30	704	0.1+	0.4-
1998 08 26	809	1.3+	0.9+	1998 12 09	704	1.9+	1.2-	1999 12 30	704	1.1+	0.4+
1998 08 26	809	1.6+	1.0+	1998 12 09	704	1.8+	0.7+	2000 01 21	704	0.4-	0.1+
1998 08 27	809	0.1+	1.0+	1998 12 09	704	0.1-	0.5-	2000 01 21	704	0.1+	0.2+
1998 08 27	809	0.6+	1.4+	1998 12 09	704	(3.3+	0.3-)	2000 01 21	704	0.0	0.5-
1998 08 27	809	0.9+	1.3+	1999 11 01	704	0.6-	0.4-	2000 01 21	704	0.1-	0.5-
1998 09 14	704	0.4-	1.2-	1999 11 01	704	0.2+	0.4+	2000 01 25	704	0.3+	0.1+
1998 09 14	704	1.1-	1.1-	1999 11 01	704	0.1-	0.9+	2000 01 25	704	0.1+	0.8+
1998 09 14	704	1.3-	0.4-	1999 11 01	704	0.9-	0.1-	2000 01 25	704	1.1+	0.1-
1998 09 14	704	0.6-	0.3-	1999 11 01	704	0.7-	0.5+	2000 01 25	704	0.6+	0.6+
1998 09 18	704	0.6-	1.3-	1999 12 13	704	0.8-	0.2-	2000 01 25	704	1.0+	0.3+
1998 09 18	704	0.1-	0.5-	1999 12 13	704	0.4-	0.4+	2000 01 27	704	0.8+	0.1-
1998 09 18	704	1.1-	0.7-	1999 12 13	704	0.1-	0.3-	2000 01 27	704	0.2+	0.3-
1998 09 18	704	0.6+	0.2+	1999 12 13	704	1.3-	0.2-	2000 01 27	704	0.3+	0.4+
1998 09 18	704	0.3-	0.3+	1999 12 13	704	0.5-	0.4-	2000 01 27	704	0.3-	0.2-
1998 10 10	699	1.7-	0.8+	1999 12 30	704	0.1-	0.1+				
1998 10 10	699	0.5-	0.2-	1999 12 30	704	0.4+	0.2+				

1998 QN₁₀₂ = 2000 CS₉₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	56.94657	(2000.0)	P		Q	
<i>n</i>	0.26065153	ω	67.02927	-0.02196733	-0.99944730	
<i>a</i>	2.4271458	Ω	24.26946	+0.89359480	-0.03082016	
<i>e</i>	0.1498971	<i>i</i>	3.48015	+0.44833668	+0.01245838	
<i>P</i>	3.78	<i>H</i>	14.8	<i>G</i> 0.15	<i>U</i> 4	

Residuals in seconds of arc

1998 08 26	809	(3.2+	2.6+)	1998 09 18	704	1.7-	0.0	2000 02 06	704	0.5-	0.5-
1998 08 26	809	(2.6+	1.8+)	1999 12 06	704	0.5-	1.0-	2000 02 06	704	0.9-	0.2+
1998 08 26	809	2.0+	2.0+	1999 12 06	704	(0.3-	2.4-)	2000 02 11	704	0.3+	0.1-
1998 08 27	809	0.9-	0.3+	1999 12 06	704	0.2+	0.1+	2000 02 11	704	0.1-	0.3-
1998 08 27	809	0.1-	1.2+	2000 01 08	704	0.0	0.5-	2000 02 11	704	0.0	0.7+
1998 08 27	809	0.4-	0.9+	2000 01 08	704	0.0	0.8-	2000 02 11	704	0.0	1.0+
1998 09 14	704	0.6-	0.7-	2000 01 08	704	0.8+	0.9-	2000 02 11	704	1.0+	0.4+
1998 09 14	704	0.9-	1.0-	2000 02 01	703	0.8+	0.1-	2000 02 16	703	0.2-	0.8+
1998 09 14	704	0.4+	1.1-	2000 02 01	703	0.4-	0.3-	2000 02 16	703	0.1-	0.6+
1998 09 14	704	0.8+	0.9+	2000 02 01	703	0.7+	0.9+	2000 02 16	703	0.0	0.3+
1998 09 18	704	(2.7-	0.1-)	2000 02 01	703	0.4+	0.0	2000 02 16	703	0.3-	0.2+
1998 09 18	704	(2.6-	1.4+)	2000 02 06	704	0.5+	0.1+				
1998 09 18	704	0.1+	0.6+	2000 02 06	704	0.1-	1.1+				

1998 QR₁₀₂ = 2000 BF₃₀

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	80.79935	(2000.0)	P		Q	
<i>n</i>	0.26575015	ω	358.90100	+0.52349293	-0.84972151	
<i>a</i>	2.3960012	Ω	59.52921	+0.78227603	+0.45018228	
<i>e</i>	0.0623620	<i>i</i>	4.17031	+0.33763792	+0.27442532	
<i>P</i>	3.71	<i>H</i>	14.8	<i>G</i> 0.15	<i>U</i> 4	

Residuals in seconds of arc

1998 08 26	809	(1.7+	2.4-)	1998 09 26	704	(2.2-	1.5+)	2000 01 06	704	0.6+	0.5-
1998 08 26	809	(1.3+	2.3-)	1998 09 26	704	(2.4-	1.3+)	2000 01 06	704	0.3+	0.3-
1998 08 26	809	1.3+	1.5-	1998 09 26	704	(2.1-	1.6+)	2000 01 06	704	0.1-	0.8+
1998 08 27	809	1.2-	1.2-	1998 09 27	704	0.3-	0.0	2000 01 30	704	0.3+	0.1-
1998 08 27	809	0.9-	1.7-	1998 09 27	704	0.5+	0.4+	2000 01 30	704	0.2+	0.6+

1998 08 27	809	0.8-	1.0-	1998 09 27	704	0.2+	0.1-	2000 01 30	704	0.4-	0.0
1998 09 14	704	0.4+	0.4+	1998 09 27	704	0.2-	0.5-	2000 01 30	704	0.1+	0.7+
1998 09 14	704	0.9-	0.1+	1998 09 27	699	0.2-	0.0	2000 02 03	704	0.1+	0.1-
1998 09 14	704	0.3-	0.1-	1998 09 27	704	0.3-	1.0-	2000 02 03	704	0.1-	0.2+
1998 09 14	704	0.2+	0.1-	1998 09 27	699	0.6+	0.1-	2000 02 03	704	0.3-	0.7+
1998 09 18	704	1.2+	1.0-	1998 09 27	699	0.4+	1.0+	2000 02 03	704	0.3+	0.8+
1998 09 18	704	0.0	0.2+	1998 10 12	699	0.6-	0.2+	2000 02 03	704	0.5+	0.7+
1998 09 18	704	0.7+	1.0+	1998 10 12	699	1.3-	1.0+	2000 02 11	704	1.2-	0.2-
1998 09 18	704	0.5+	1.6+	1998 10 12	699	0.6-	0.6+	2000 02 11	704	0.6-	0.7-
1998 09 18	704	0.7+	1.1+	1999 12 04	703	0.4-	0.1+	2000 02 11	704	0.3-	0.9-
1998 09 24	699	0.6+	0.0	1999 12 04	703	0.5-	0.4+	2000 02 11	704	0.2+	0.6-
1998 09 24	699	0.4+	0.1-	1999 12 04	703	0.2-	0.7-	2000 02 11	704	0.2+	0.7-
1998 09 24	699	0.2+	0.0	1999 12 04	703	0.7-	0.2-				
1998 09 26	704	(1.4-	2.1+)	2000 01 06	704	1.2+	1.5-				

1998 QW₁₀₂ = 2000 AA₁₀₇

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	123.56322	(2000.0)	P		Q	
<i>n</i>	0.19181243	ω	176.16557	+0.82710288	+0.55741748	
<i>a</i>	2.9777271	Ω	149.60161	-0.51938331	+0.80698499	
<i>e</i>	0.1764772	<i>i</i>	8.18242	-0.21480641	+0.19509223	
<i>P</i>	5.14	<i>H</i>	14.1	<i>G</i> 0.15	<i>U</i> 4	

Residuals in seconds of arc

1998 08 26	809	1.0-	0.2-	1998 09 26	704	0.7-	0.1+	1998 09 27	704	0.1+	2.0-
1998 08 26	809	1.1-	0.8-	1998 09 26	704	1.4+	0.6-	1998 09 27	704	0.3-	0.2-
1998 08 26	809	1.3-	0.1-	1998 09 26	704	0.6+	0.5-	2000 01 05	704	0.0	0.5+
1998 08 27	809	0.8+	0.1-	1998 09 27	704	0.2+	0.6-	2000 01 05	704	0.5-	0.0
1998 08 27	809	1.1+	0.6+	1998 09 27	704	0.2+	0.7+	2000 01 05	704	0.7+	1.0-
1998 08 27	809	1.4+	0.3+	1998 09 27	704	0.7-	0.5+	2000 01 05	704	0.5+	0.4-
1998 09 24	699	0.3+	1.3+	1998 09 27	704	0.3-	0.5+	2000 01 07	704	0.2-	0.0
1998 09 24	699	0.3+	0.6+	1998 09 27	704	0.9-	0.5-	2000 01 07	704	0.7-	0.5+
1998 09 24	699	0.0	1.3+	1998 09 27	704	0.4-	0.8+	2000 01 07	704	0.1-	0.6+
1998 09 26	704	0.2-	0.1+	1998 09 27	704	0.2+	0.9-	2000 01 07	704	0.1+	0.6+
1998 09 26	704	0.6+	0.7-	1998 09 27	704	0.3-	0.3+	2000 01 07	704	0.1+	0.8-

1998 QF₁₀₃ = 1999 XA₁₉₀

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	106.44999	(2000.0)	P		Q	
<i>n</i>	0.17601277	ω	325.28564	+0.94568917	+0.32133512	
<i>a</i>	3.1533578	Ω	16.18772	-0.24372894	+0.80094389	
<i>e</i>	0.0878113	<i>i</i>	10.15439	-0.21510045	+0.50520553	
<i>P</i>	5.60	<i>H</i>	13.8	<i>G</i> 0.15	<i>U</i> 4	

Residuals in seconds of arc

1998 08 26	809	(4.3- 1.8-)	1998 09 25	699	0.1- 0.9+	1998 09 27	704	0.2+ 0.3-
1998 08 26	809	(4.6- 0.8-)	1998 09 25	699	0.5- 0.2+	1998 09 27	704	0.5- 0.2-
1998 08 26	809	(5.3- 1.7-)	1998 09 26	704	0.5- 0.2+	1998 09 27	704	1.0+ 0.0
1998 08 27	809	(0.9- 3.1+)	1998 09 26	704	0.7+ 0.2+	1998 09 29	704	0.1+ 0.1-
1998 08 27	809	(1.4- 3.4+)	1998 09 26	704	0.1- 0.8-	1998 09 29	704	1.3- 1.2+
1998 08 27	809	(1.5- 3.2+)	1998 09 26	704	0.0 0.5-	1998 09 29	704	0.2+ 0.1-
1998 09 14	704	1.0- 0.7-	1998 09 26	704	0.1+ 0.5+	1998 09 29	704	1.2- 0.4-
1998 09 14	704	0.2- 0.4-	1998 09 26	704	1.4+ 0.1-	1998 09 29	704	1.5- 1.0+
1998 09 14	704	0.3- 0.5+	1998 09 26	704	0.9- 0.4+	1999 12 12	704	0.1+ 0.4+
1998 09 17	699	0.4+ 0.9+	1998 09 26	704	1.7+ 1.2-	1999 12 12	704	0.1- 0.2+
1998 09 17	699	0.3+ 0.2-	1998 09 26	704	0.1+ 0.2+	1999 12 12	704	0.1- 0.2-
1998 09 17	699	0.1- 0.5+	1998 09 27	704	0.1+ 0.5-	1999 12 12	704	0.7- 0.0
1998 09 18	704	0.1- 0.1+	1998 09 27	704	0.4+ 0.5+	1999 12 12	704	0.1- 0.6-
1998 09 18	704	0.8- 1.0-	1998 09 27	704	0.6+ 0.6-	1999 12 15	704	0.2+ 0.8+
1998 09 18	704	0.1+ 0.1+	1998 09 27	704	0.2- 0.2+	1999 12 15	704	0.1+ 0.3+
1998 09 18	704	1.1+ 0.4+	1998 09 27	704	0.4- 0.1+	1999 12 15	704	0.2+ 0.0
1998 09 18	704	0.4+ 0.4+	1998 09 27	704	0.3- 0.1-	1999 12 15	704	0.5+ 0.9-
1998 09 25	699	1.3+ 0.7-	1998 09 27	704	0.3- 0.4-			

1998 QD₁₀₄ = 1999 VG₇₇

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	51.68071		(2000.0)	P		Q	
<i>n</i>	0.24276897	ω	324.26559	−0.20399335		−0.97415414	
<i>a</i>	2.5449188	Ω	137.26686	+0.92812762		−0.22396583	
<i>e</i>	0.2279449	<i>i</i>	8.21890	+0.31139338		+0.02937732	
<i>P</i>	4.06	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 26	809	(2.2+ 2.0+)	1998 12 08	704	0.9− 0.0	2000 01 08	704	0.2− 0.2−
1998 08 26	809	1.6+ 1.1+	1998 12 08	704	0.1− 1.9−	2000 01 08	704	0.1− 0.8−
1998 08 26	809	1.8+ 1.1+	1998 12 08	704	0.7− 1.0+	2000 01 08	704	0.1− 0.3+
1998 08 27	809	(2.9+ 1.9+)	1999 11 05	703	0.8− 0.9+	2000 02 06	704	0.3− 0.4+
1998 08 27	809	(3.0+ 1.3+)	1999 11 05	703	0.1− 0.6−	2000 02 06	704	1.0− 0.6−
1998 08 27	809	(3.2+ 1.3+)	1999 11 05	703	0.5+ 0.5−	2000 02 06	704	0.3− 0.7−
1998 09 17	699	0.5+ 0.9−	1999 11 05	703	0.3+ 0.6−	2000 02 06	704	0.2− 0.8−
1998 09 17	699	0.5+ 1.2−	1999 11 10	703	0.1+ 1.2+	2000 02 06	704	0.1+ 0.2−
1998 09 17	699	0.0 1.0−	1999 11 10	703	0.7+ 0.4+	2000 02 11	704	0.1+ 0.1−
1998 09 24	699	0.3− 0.1−	1999 11 10	703	0.2− 0.7+	2000 02 11	704	0.6+ 1.0−
1998 09 24	699	0.3− 0.1−	1999 11 10	703	1.0+ 0.8−	2000 02 11	704	0.1+ 0.9+
1998 09 24	699	0.6− 0.7−	2000 01 08	704	0.8− 0.1+	2000 02 11	704	0.3+ 0.6+
1998 12 08	704	1.6− 1.1+	2000 01 08	704	0.1− 0.7−			

1998 QS₁₀₄ = 2000 CK₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	198.08378		(2000.0)	P		Q	
<i>n</i>	0.26553822	ω	145.55863	+0.31042499		+0.94755822	
<i>a</i>	2.3972759	Ω	142.36462	−0.89774924		+0.31850145	
<i>e</i>	0.1281356	<i>i</i>	7.14573	−0.31254221		+0.02627267	
<i>P</i>	3.71	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 26	809	0.7+ 0.9+	1998 09 18	704	0.8− 1.1+	1998 09 27	704	0.3+ 0.1+
1998 08 26	809	0.3+ 0.8−	1998 09 18	704	0.9− 0.2+	1998 09 27	704	1.0− 1.5−
1998 08 26	809	0.3+ 0.1−	1998 09 24	699	0.1− 0.1−	1998 09 27	704	0.8− 0.2−
1998 08 27	809	0.5− 0.7−	1998 09 24	699	0.0 0.0	2000 02 02	704	0.3+ 0.6+
1998 08 27	809	0.3+ 0.3−	1998 09 24	699	1.0+ 0.5−	2000 02 02	704	0.0 1.2+
1998 08 27	809	0.3− 1.2−	1998 09 26	704	0.3+ 0.0	2000 02 02	704	0.0 1.0−
1998 09 14	704	0.1+ 0.7+	1998 09 26	704	0.0 2.0−	2000 02 02	704	0.1+ 0.2+
1998 09 14	704	0.9+ 1.4+	1998 09 26	704	1.1+ 0.8−	2000 02 02	704	0.4+ 0.3−
1998 09 14	704	1.6− 1.8+	1998 09 26	704	0.7+ 0.7−	2000 02 03	704	0.3+ 0.6−
1998 09 18	704	0.8− 1.6+	1998 09 26	704	1.0+ 1.4−	2000 02 03	704	0.0 0.0
1998 09 18	704	0.3+ 0.6+	1998 09 27	704	0.8+ 0.6+	2000 02 03	704	0.4− 0.5+
1998 09 18	704	0.5− 0.7+	1998 09 27	704	0.7− 0.4+	2000 02 03	704	0.6− 0.4−

1998 QP₁₀₅ = 2000 AA₂₄₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	58.40643		(2000.0)	P		Q	
<i>n</i>	0.28331445	ω	24.04794	−0.12491611		−0.98938750	
<i>a</i>	2.2959208	Ω	73.19578	+0.89726709		−0.14457715	
<i>e</i>	0.1159656	<i>i</i>	4.44654	+0.42344745		+0.01448558	
<i>P</i>	3.48	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 25	809	1.9− 1.1−	1998 09 24	699	0.1+ 0.4+	2000 01 08	704	0.3+ 0.6−
1998 08 25	809	(2.9− 1.2−)	1998 09 26	704	0.7+ 0.5−	2000 01 08	704	0.1+ 0.3−
1998 08 25	809	(3.0− 1.9−)	1998 09 26	704	0.4− 0.2−	2000 01 08	704	0.4+ 0.3−
1998 08 26	809	1.6+ 1.6+	1998 09 26	704	0.2+ 0.6−	2000 01 08	704	1.0+ 0.3−
1998 08 26	809	(2.3+ 1.8+)	1998 09 26	704	1.3− 1.3−	2000 01 10	699	0.8− 0.4−
1998 08 26	809	(2.6+ 1.7+)	1998 09 27	704	0.1+ 0.4−	2000 01 10	699	0.6− 0.6−
1998 09 14	704	0.1− 0.3+	1998 09 27	704	0.4+ 0.3+	2000 01 10	699	0.9− 1.0+
1998 09 14	704	1.1− 0.3+	1998 09 27	704	0.5− 0.8−	2000 02 06	704	0.8+ 0.8−
1998 09 14	704	0.3+ 0.0	1998 09 27	704	0.2+ 0.6−	2000 02 06	704	0.4− 0.2−
1998 09 14	704	1.2− 0.7+	1998 09 27	704	0.2+ 0.1+	2000 02 06	704	0.6+ 0.9+

1998 09 18	704	0.6− 0.5+	1998 10 12	699	1.0+ 0.4+	2000 02 11	704	0.5+ 0.2+
1998 09 18	704	0.2+ 0.6+	1998 10 12	699	0.3− 0.6+	2000 02 11	704	0.5+ 1.2+
1998 09 18	704	0.1− 0.1−	1998 10 12	699	0.2+ 0.4+	2000 02 11	704	0.1− 0.8+
1998 09 18	704	1.5+ 0.1−	1998 11 07	910	0.1+ 0.5+	2000 02 11	704	0.1− 0.9+
1998 09 18	704	0.8− 0.7+	1998 11 07	910	0.2+ 0.6+	2000 02 11	704	0.2− 0.7+
1998 09 24	699	0.4+ 0.3−	1998 11 07	910	0.1+ 0.4+			
1998 09 24	699	0.3+ 0.5−	2000 01 08	704	0.1− 1.1−			

1998 QU₁₀₆ = 2000 AU₂₂₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	77.06286		(2000.0)	P		Q	
<i>n</i>	0.20203949	ω	325.08971	+0.82861012		−0.55496800	
<i>a</i>	2.8763730	Ω	68.78328	+0.52992611		+0.73516182	
<i>e</i>	0.1706958	<i>i</i>	4.52781	+0.18050924		+0.38929118	
<i>P</i>	4.88	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 08 25	809	(1.7+ 3.8+)	1998 11 12	118	0.1+ 0.4−	1999 12 15	704	0.3− 0.3−
1998 08 25	809	(1.4+ 3.7+)	1998 11 12	118	0.1+ 0.1−	1999 12 15	703	0.3− 0.6+
1998 08 25	809	(1.0+ 2.9+)	1998 11 12	118	0.2− 0.0	1999 12 15	704	0.0 0.2−
1998 08 26	809	(2.8+ 4.1+)	1998 11 13	118	0.1+ 0.2+	1999 12 15	703	0.5− 0.1−
1998 08 26	809	(2.5+ 4.4+)	1998 11 13	118	0.1− 0.3+	1999 12 15	704	0.3+ 0.2+
1998 08 26	809	(2.3+ 4.3+)	1998 11 13	118	0.0 0.1+	1999 12 15	704	0.5− 0.5−
1998 09 24	699	0.2+ 0.4+	1998 11 23	699	0.0 0.0	1999 12 15	704	1.2− 0.1−
1998 09 24	699	0.2+ 0.4+	1998 11 23	699	0.2+ 0.9−	2000 01 03	704	0.4− 0.1−
1998 09 24	699	0.5+ 0.2+	1998 11 23	699	0.2− 0.4+	2000 01 03	704	0.0 0.6−
1998 09 26	704	0.1− 0.2−	1998 12 08	704	0.3− 0.3+	2000 01 03	704	0.4− 0.3−
1998 09 26	704	1.0− 0.6−	1998 12 08	704	0.8+ 0.3+	2000 01 03	704	0.1+ 0.2−
1998 09 26	704	0.5− 0.3−	1998 12 08	704	1.3+ 0.3+	2000 01 03	704	0.0 0.6−
1998 09 26	704	0.7− 0.0	1998 12 16	699	0.9− 0.0	2000 01 05	699	0.1− 1.1+
1998 09 26	704	0.2− 0.8−	1998 12 16	699	0.4− 0.0	2000 01 05	699	1.1+ 0.1+
1998 09 27	704	0.1+ 0.1+	1998 12 16	699	0.4− 1.0−	2000 01 05	699	0.6+ 1.0+
1998 09 27	704	0.7+ 0.8+	1999 01 13	699	1.6+ 0.7−	2000 01 31	704	0.4− 0.8+
1998 09 27	704	0.4− 0.5−	1999 01 13	699	0.2+ 1.1−	2000 01 31	704	1.0+ 0.9+
1998 09 27	704	0.9− 0.3+	1999 01 13	699	0.8+ 0.0	2000 01 31	704	0.2+ 0.5+
1998 09 27	699	0.6+ 0.1−	1999 11 16	704	0.3+ 0.8−	2000 02 11	704	0.8+ 0.7+
1998 09 27	704	0.2− 0.4+	1999 11 16	704	0.0 0.1+	2000 02 11	704	0.1− 0.5+
1998 09 27	699	0.4+ 0.7+	1999 11 16	704	0.7− 0.1−	2000 02 11	704	0.2+ 0.2+
1998 09 27	699	0.4− 0.1−	1999 11 16	704	0.9− 1.6−	2000 02 11	704	0.0 0.0
1998 10 12	699	0.2− 0.7+	1999 11 16	704	0.2− 1.4−	2000 02 11	704	0.2+ 0.8+
1998 10 12	699	0.2− 0.8+	1999 12 15	703	0.6+ 0.3+			
1998 10 12	699	0.0 0.9+	1999 12 15	703	0.0 0.3+			

1998 RO = 2000 AR₁₁₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	46.67724		(2000.0)	P		Q	
<i>n</i>	0.26377976	ω	212.48646	+0.36616300		−0.92921779	
<i>a</i>	2.4079182	Ω	216.10404	+0.87079978		+0.36102439	
<i>e</i>	0.0983309	<i>i</i>	4.84700	+0.32807379		+0.07883961	
<i>P</i>	3.74	<i>H</i>	16.1	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 09	910	0.0 0.2−	1998 09 17	910	0.4− 0.0	2000 01 07	704	0.6+ 0.5−
1998 09 09	910	0.0 0.0	2000 01 05	704	0.1− 0.4+	2000 01 07	704	0.6+ 1.5−
1998 09 09	910	0.3+ 0.1−	2000 01 05	704	0.6− 0.3−	2000 02 02	704	0.8− 0.2+
1998 09 10	910	0.5+ 0.3+	2000 01 05	704	0.6− 0.3+	2000 02 02	704	0.0 0.4+
1998 09 10	910	0.4+ 0.1+	2000 01 05	704	0.2− 0.4+	2000 02 02	704	0.2+ 0.8+
1998 09 10	910	0.8+ 0.0	2000 01 05	704	0.7+ 0.4+	2000 02 02	704	0.2+ 0.3−
1998 09 17	910	1.0− 0.4+	2000 01 07	704	0.2− 0.5−	2000 02 02	704	0.1+ 0.3+
1998 09 17	910	0.8− 0.1−	2000 01 07	704	0.3+ 0.2+			

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1998 RW = 2000 BU₁₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.25760173	ω	39.74551	+0.96443252	+0.25091299		
<i>a</i>	2.4462652	Ω	305.52907	-0.26097870	+0.85395634		
<i>e</i>	0.1413071	<i>i</i>	5.86371	-0.04195270	+0.45585220		
<i>P</i>	3.83	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 08 27	699	0.3+	1.0+	1998 09 18	704	0.5+	0.3-	2000 02 01	691	0.3+	0.1-
1998 08 27	699	0.0	0.3+	1998 09 18	704	1.0+	0.8+	2000 02 02	704	0.2-	0.1-
1998 08 27	699	0.5+	0.5+	1998 09 18	699	0.6+	0.4+	2000 02 02	704	0.0	0.5+
1998 09 12	411	0.0	0.5-	1998 09 18	704	0.2+	0.3+	2000 02 02	704	0.1+	0.5-
1998 09 12	411	0.6+	1.8-	1998 09 18	704	1.0+	0.4+	2000 02 02	704	1.0+	0.5-
1998 09 13	411	0.4-	0.4-	1998 09 18	699	0.2+	0.3+	2000 02 03	704	0.4+	0.2+
1998 09 13	411	0.6-	0.3-	1998 09 18	704	0.4+	0.9+	2000 02 03	704	0.2+	0.6+
1998 09 13	411	0.5-	1.0-	1998 09 18	699	0.3-	0.1+	2000 02 03	704	0.7+	0.3+
1998 09 14	704	0.5-	1.1-	1998 09 19	411	0.4-	0.1-	2000 02 03	704	0.7+	1.0+
1998 09 14	704	0.2+	0.5-	1998 09 19	411	0.2+	0.3-	2000 02 03	704	0.0	1.2+
1998 09 14	704	0.3-	1.1+	1998 10 10	411	0.8+	0.3-	2000 02 05	704	1.5-	0.4-
1998 09 14	704	0.9-	0.0	1998 10 10	411	0.3-	0.4+	2000 02 05	704	0.2+	0.6+
1998 09 14	704	0.2-	1.2+	2000 01 26	691	0.2-	0.6-	2000 02 05	704	1.5-	0.4+
1998 09 14	411	0.3-	0.6-	2000 01 26	691	0.3-	0.6-	2000 02 05	704	0.3+	0.5+
1998 09 14	411	0.8-	0.1-	2000 01 26	691	0.4-	0.7-	2000 02 05	704	0.3-	0.0
1998 09 16	411	0.8-	0.5+	2000 02 01	691	0.3+	0.3-	2000 02 05	704	0.4+	0.1+
1998 09 16	411	0.0	0.6-	2000 02 01	691	0.2+	0.3-	2000 02 05	704	0.5-	1.3-

1998 RA₂ = 2000 AX₁₉₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22649328	ω	279.78376	-0.88170528	-0.44841823		
<i>a</i>	2.6654211	Ω	233.72050	+0.47171339	-0.83187607		
<i>e</i>	0.1374135	<i>i</i>	10.48402	+0.00907035	-0.32696070		
<i>P</i>	4.35	<i>H</i>	12.9	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 08 23	699	0.3+	0.1-	1999 10 20	704	0.7-	0.8+	2000 01 08	704	0.5-	0.2+
1998 08 23	699	0.9+	0.9-	1999 10 20	704	0.0	0.2-	2000 01 08	704	0.2+	0.7+
1998 08 23	699	0.4+	0.1-	1999 10 20	704	0.0	0.3-	2000 01 11	704	0.3-	0.2-
1998 09 14	703	0.6-	0.9+	1999 12 05	704	0.1-	0.7+	2000 01 11	704	0.5-	0.1-
1998 09 14	703	1.2-	0.4+	1999 12 05	704	0.2+	0.0	2000 01 11	704	0.3+	0.7-
1998 09 14	703	1.5-	0.5+	1999 12 05	704	0.2+	0.3+	2000 01 11	704	0.0	0.4-
1998 09 15	703	0.1-	0.0	1999 12 05	704	0.2-	0.3+	2000 01 11	704	0.4-	0.5-
1998 09 15	703	0.3-	0.1+	1999 12 05	704	0.0	0.2+	2000 02 05	704	0.1+	0.1+
1998 09 19	699	0.3+	0.7+	1999 12 14	704	0.6+	0.6-	2000 02 05	704	0.5-	0.6+
1998 09 19	699	0.3+	0.2-	1999 12 14	704	0.4+	0.7-	2000 02 05	704	0.4+	0.1-
1998 09 19	699	0.7+	0.4-	1999 12 14	704	0.5+	0.3-	2000 02 05	704	0.5+	1.5+
1998 10 18	699	0.4+	0.0	1999 12 14	704	0.7+	0.5-	2000 02 06	704	0.0	0.1+
1998 10 18	699	0.4+	0.4-	1999 12 14	704	0.3+	0.8-	2000 02 06	704	0.0	0.2+
1998 10 18	699	0.0	0.0	2000 01 08	704	0.1-	0.1+	2000 02 06	704	0.1+	0.4+
1999 10 20	704	1.1-	0.6-	2000 01 08	704	0.2+	0.5-	2000 02 06	704	0.0	0.4+
1999 10 20	704	0.2+	0.1-	2000 01 08	704	0.8-	0.5-	2000 02 06	704	0.1-	0.4+

1998 RH₂ = 2000 CZ₁₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22980726	ω	236.85971	+0.91080062	+0.40564286		
<i>a</i>	2.6397343	Ω	99.10636	-0.34813630	+0.85461115		
<i>e</i>	0.2033721	<i>i</i>	4.46018	-0.22190843	+0.32418150		
<i>P</i>	4.29	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 04	699	(0.4-	3.2+)	1998 09 18	704	0.5-	0.2+	1998 09 27	704	0.4-	0.2+
1998 08 04	699	0.1+	1.9+	1998 09 18	704	1.4-	0.4+	1998 09 27	704	0.3-	0.8+

1998 08 04	699	1.0-	1.7+	1998 09 18	704	0.5-	0.0	1998 09 27	704	0.2+	0.8+
1998 09 14	704	0.2-	0.6-	1998 09 18	704	1.2-	0.8+	2000 02 02	704	0.1-	0.4+
1998 09 14	704	0.6-	0.8-	1998 09 18	704	1.0-	0.5-	2000 02 02	704	0.3+	0.1+
1998 09 14	704	0.9-	1.9-	1998 09 24	699	0.3+	0.3+	2000 02 02	704	0.4-	0.4+
1998 09 15	910	0.5+	0.3-	1998 09 24	699	0.3+	0.9+	2000 02 02	704	0.9-	0.8+
1998 09 15	910	0.5+	0.1-	1998 09 24	699	0.5+	0.5+	2000 02 03	704	0.8+	0.6-
1998 09 15	910	0.3+	0.0	1998 09 26	704	0.4+	0.4-	2000 02 03	704	0.2-	0.1-
1998 09 16	910	0.3+	0.3-	1998 09 26	704	0.2+	0.2-	2000 02 03	704	0.5+	0.7+
1998 09 16	910	0.3+	0.2-	1998 09 26	704	0.2+	0.7-	2000 02 03	704	0.1-	0.4+
1998 09 16	910	0.5+	0.1-	1998 09 26	704	0.4+	1.0-	2000 02 06	704	0.2-	0.4-
1998 09 17	910	0.6+	0.1+	1998 09 26	704	0.5+	0.3-	2000 02 06	704	0.4+	0.4-
1998 09 18	910	0.7+	0.1+	1998 09 27	704	0.7+	0.0	2000 02 06	704	0.1+	0.2-
1998 09 18	910	0.8+	0.0	1998 09 27	704	0.6-	0.1-				

1998 RK₂ = 2000 BM₁₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.21507004	ω	288.86758	+0.82302124	-0.56062943		
<i>a</i>	2.7589857	Ω	105.32867	+0.55024424	+0.74704355		
<i>e</i>	0.0717782	<i>i</i>	5.43056	+0.14095143	+0.35724023		
<i>P</i>	4.58	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 15	910	0.8+	0.1+	1998 09 26	704	1.7-	0.4+	2000 01 04	704	0.0	0.2-
1998 09 15	910	0.6+	0.1-	1998 09 26	704	0.1+	0.5-	2000 01 04	704	0.4-	0.6+
1998 09 15	910	0.2+	0.1-	1998 09 26	704	0.6+	1.0+	2000 01 04	704	0.7-	0.3-
1998 09 16	910	1.6+	0.1-	1998 09 27	704	0.2-	1.7+	2000 01 30	704	0.9-	0.0
1998 09 16	910	0.6+	0.2+	1998 09 27	704	1.6-	0.2+	2000 01 30	704	0.3-	0.2+
1998 09 16	910	0.8+	0.0	1998 09 27	704	0.3+	1.6-	2000 01 30	704	1.0+	0.1+
1998 09 24	699	0.3-	1.1-	1998 09 27	704	0.4-	0.0	2000 01 31	704	0.9+	0.5-
1998 09 24	699	0.7-	0.8+	1998 09 27	704	0.2-	0.6-	2000 01 31	704	0.4+	0.4-
1998 09 24	699	0.4-	1.5-	2000 01 04	704	0.5-	0.4+	2000 01 31	704	0.3+	0.2-
1998 09 26	704	0.1+	0.9+	2000 01 04	704	0.1+	0.2+				

1998 RT₂ = 2000 AB₂₃₅

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26023885	ω	321.94899	-0.95599424	-0.29335640		
<i>a</i>	2.4297111	Ω	200.99313	+0.27192225	-0.88068576		
<i>e</i>	0.1334764	<i>i</i>	0.66026	+0.11015131	-0.37193362		
<i>P</i>	3.79	<i>H</i>	16.4	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1998 09 13	691	0.1+	0.5-	1998 09 23	691	0.2+	0.1-	2000 01 07	691	0.1+	0.2+
1998 09 13	691	0.2-	0.2-	1998 09 27	691	0.0	0.3+	2000 01 07	691	0.0	0.1+
1998 09 13	691	0.3+	0.4-	1998 09 27	691	0.3-	0.4+	2000 01 07	691	0.2-	0.3+
1998 09 16	691	0.2+	0.1-	1998 09 27	691	0.0	0.3+	2000 02 02	704	0.0	0.2+
1998 09 16	691	0.1+	0.0	2000 01 05	704	0.6+	1.1-	2000 02 02	704	0.8-	0.1+
1998 09 16	691	0.4+	0.0	2000 01 05	704	0.2+	0.3-	2000 02 02	704	0.1-	0.7+
1998 09 23	691	0.5-	0.2+	2000 01 05	704	0.5-	0.7-	2000 02 02	704	0.2+	0.2-
1998 09 23	691	0.5-	0.5+	2000 01 05	704	0.4-	0.2+	2000 02 02	704	0.9+	0.5+

1998 RU₂ = 2000 CM₉₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26721254	ω	141.08794	-0.43944256	-0.89824262		
<i>a</i>	2.3872514	Ω	334.97799	+0.81989587	-0.39785899		
<i>e</i>	0.1368642	<i>i</i>	0.96193	+0.36696183	-0.18673086		
<i>P</i>	3.69	<i>H</i>	16.8	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998

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1998 09 13	691	0.2−	0.0	1998 09 23	691	0.4−	0.1−	2000 02 12	691	0.1+	0.1+
1998 09 16	691	0.1−	0.1−	1998 09 23	691	0.3+	0.0	2000 02 12	691	0.0	0.2−
1998 09 16	691	0.3+	0.1+	2000 02 11	691	0.1−	0.2+	2000 02 12	691	0.1−	0.2−

1998 RU₅ = 2000 CQ₄₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	95.76363		(2000.0)	P	Q						
<i>n</i>	0.23873663	ω	228.77003	+0.70194424	−0.71215956						
<i>a</i>	2.5734951	Ω	176.59389	+0.69385030	+0.68054155						
<i>e</i>	0.0873635	<i>i</i>	9.83768	+0.16076708	+0.17231355						
<i>P</i>	4.13	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	3				

Residuals in seconds of arc

1998 09 15	699	0.1+	1.1+	1998 09 26	704	0.4+	1.2−	1998 10 29	704	0.8+	0.2−
1998 09 15	699	0.1−	0.4−	1998 09 26	704	0.5+	0.8−	1998 10 29	704	1.7−	0.9−
1998 09 15	699	0.2+	0.8+	1998 09 27	704	0.0	0.7−	1998 10 29	704	0.2+	1.7−
1998 09 17	699	0.0	0.7+	1998 09 27	704	1.4−	0.3+	1998 10 29	704	(1.1+ 2.6−)	
1998 09 17	699	0.4−	1.0+	1998 09 27	704	0.8−	0.6+	2000 02 02	704	0.3+	0.2+
1998 09 17	699	0.0	0.0	1998 09 27	704	0.4+	0.0	2000 02 02	704	0.2+	0.0
1998 09 22	699	0.1−	0.2+	1998 09 27	704	1.0−	0.1−	2000 02 02	704	0.1+	0.3−
1998 09 22	699	0.1+	0.7−	1998 10 17	699	1.2+	0.8+	2000 02 02	704	0.4−	0.2−
1998 09 22	699	0.3+	0.6+	1998 10 17	699	0.9+	0.8+	2000 02 02	704	0.6+	0.5−
1998 09 25	691	0.5−	0.3−	1998 10 17	699	0.7+	0.7+	2000 02 06	704	0.5−	0.0
1998 09 25	691	0.1−	0.3−	1998 10 28	704	0.1−	0.4−	2000 02 06	704	0.1−	0.4−
1998 09 25	691	0.1−	0.2+	1998 10 28	704	0.4+	0.5−	2000 02 06	704	0.1+	0.5+
1998 09 26	704	0.3+	0.6−	1998 10 28	704	0.5−	1.6+	2000 02 06	704	0.0	0.4+
1998 09 26	704	0.9+	1.4−	1998 10 28	704	0.7−	1.6+	2000 02 06	704	0.2−	0.3+
1998 09 26	704	0.2+	0.6−	1998 10 29	704	(0.3+ 2.8−)					

1998 RV₅ = 1996 HT₇ = 2000 BM₈

Id. G. V. Williams, A. Doppler, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	49.38776		(2000.0)	P	Q						
<i>n</i>	0.18938021	ω	30.29340	+0.41793370	−0.90165894						
<i>a</i>	3.0031682	Ω	35.34450	+0.79022543	+0.30047420						
<i>e</i>	0.1263185	<i>i</i>	11.07223	+0.44819102	+0.31100870						
<i>P</i>	5.20	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	2				

Residuals in seconds of arc

1996 04 17	809	0.8−	0.5−	1999 12 15	704	0.3+	1.2+	2000 02 03	704	0.2−	0.5+
1996 04 17	809	1.3−	1.4−	2000 01 02	704	0.6−	0.6−	2000 02 03	704	0.4+	0.1+
1996 04 17	809	(1.0− 2.7−)		2000 01 02	704	0.9−	0.3+	2000 02 03	704	0.9+	0.5+
1996 04 18	809	(2.4+ 0.3+)		2000 01 02	704	0.6−	0.5−	2000 02 03	704	0.5−	1.4−
1996 04 18	809	1.3+	1.1+	2000 01 02	704	1.2−	0.9−	2000 02 03	704	0.5+	0.1−
1996 04 18	809	0.4+	0.1+	2000 01 29	704	0.4−	0.3−	2000 02 03	704	0.5+	0.2−
1998 09 15	910	0.7+	0.3+	2000 01 29	704	0.5−	0.1−	2000 02 03	704	0.1+	0.0
1998 09 15	910	0.5+	0.4+	2000 01 29	704	0.4+	0.9−	2000 02 05	704	0.4−	0.6+
1998 09 16	910	0.5+	0.3+	2000 01 30	704	0.8−	0.3+	2000 02 05	704	0.0	0.4+
1998 09 19	910	0.7+	0.1+	2000 01 30	704	0.1−	0.3+	2000 02 05	704	0.1−	0.1−
1998 09 19	910	0.8+	0.1+	2000 01 30	704	0.2+	0.9+	2000 02 05	704	0.5−	0.1−
1998 09 20	910	0.7+	0.1+	2000 01 30	704	0.1−	0.4+	2000 02 05	704	0.2+	0.8−
1998 09 22	910	0.5+	0.1+	2000 01 31	704	0.1−	0.1−	2000 02 06	704	0.7−	0.2+
1998 09 23	910	0.5+	0.3+	2000 01 31	704	0.1−	0.4−	2000 02 06	704	0.1−	0.0
1998 09 23	910	0.6+	0.3+	2000 01 31	704	0.6+	0.3+	2000 02 06	704	0.0	0.1+
1998 09 26	704	0.3−	0.2+	2000 01 31	704	0.4+	0.4−	2000 02 06	704	0.1−	0.3+
1998 09 26	704	0.7−	1.3−	2000 01 31	704	0.9+	0.7−	2000 02 08	704	0.4−	0.3+
1998 09 26	704	1.0−	0.7−	2000 02 02	704	0.3+	0.0	2000 02 08	704	0.1−	0.4−
1998 09 26	704	0.6+	0.4−	2000 02 02	704	0.5−	0.2+	2000 02 08	704	0.2+	0.4+
1998 09 26	704	0.9−	0.8+	2000 02 02	704	0.5+	0.1+	2000 02 08	704	0.3+	0.7+
1998 09 27	704	0.1−	0.3−	2000 02 02	704	0.4−	0.2+	2000 02 08	704	0.9+	0.4−
1998 09 27	704	1.1−	0.2+	2000 02 02	704	0.4−	0.4+	2000 02 10	704	0.3−	0.2+
1998 09 27	704	0.0	0.3−	2000 02 02	704	0.3−	0.1−	2000 02 10	704	0.4−	0.6+
1998 09 27	704	1.3−	0.4−	2000 02 02	704	0.4+	0.4+	2000 02 10	704	0.7−	0.1+
1998 09 27	704	0.5−	0.6−	2000 02 02	704	0.9+	0.7−	2000 02 10	704	0.5+	1.1+
1999 12 15	704	0.1+	1.1−	2000 02 02	704	0.4+	0.3+				
1999 12 15	704	0.3+	0.9−	2000 02 02	704	0.6+	0.1+				

1998 RE₁₁ = 1997 EW₂₈

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	212.53144		(2000.0)	P	Q						
<i>n</i>	0.28425527	ω	109.16968	+0.31521857	+0.94901909						
<i>a</i>	2.2908520	Ω	179.20431	−0.87322970	+0.29008373						
<i>e</i>	0.1289027	<i>i</i>	0.38756	−0.37162768	+0.12334579						
<i>P</i>	3.47	<i>H</i>	16.1	<i>G</i>	0.15	<i>U</i>	6				

Residuals in seconds of arc

1997 03 10	691	0.2−	0.3+	1998 09 13	691	0.1−	0.4−	1998 09 26	704	1.2+	0.8−
1997 03 10	691	0.1−	0.2+	1998 09 18	691	0.3−	0.2−	1998 09 26	704	0.0	2.1−
1997 03 10	691	0.1−	0.3+	1998 09 18	691	0.1−	0.5−	1998 09 26	704	0.8−	0.4−
1997 03 13	691	0.1+	0.3−	1998 09 18	691	0.3−	0.2−	1998 09 26	704	0.4+	1.2−
1997 03 13	691	0.0	0.4−	1998 09 25	704	3.0+	2.5+	1998 09 27	704	2.1−	0.1−
1997 03 13	691	0.1+	0.4−	1998 09 25	704	1.0+	1.8+	1998 09 27	704	0.8−	0.6−
1998 09 13	691	0.1+	0.2−	1998 09 25	704	0.6−	2.1+	1998 09 27	704	1.8−	0.2+
1998 09 13	691	0.0	0.1−	1998 09 26	704	0.3+	0.9−	1998 09 27	704	0.8+	0.6+

1998 RU₁₁ = 2000 AP₂₄₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	53.19346		(2000.0)	P	Q						
<i>n</i>	0.18485473	ω	239.56174	+0.46204550	−0.88681548						
<i>a</i>	3.0519846	Ω	182.95833	+0.85966060	+0.45021152						
<i>e</i>	0.1020328	<i>i</i>	9.47964	+0.21793946	+0.10424916						
<i>P</i>	5.33	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	4				

Residuals in seconds of arc

1998 09 13	691	0.2−	0.0	1998 09 26	704	0.1−	0.7−	2000 01 08	704	0.0	0.1−
1998 09 13	691	0.2+	0.1+	1998 09 26	704	1.2−	0.1−	2000 01 08	704	0.7−	0.5+
1998 09 13	691	0.3+	0.4+	1998 09 27	704	0.3+	0.5−	2000 01 11	704	0.3+	0.6+
1998 09 18	691	0.1−	0.0	1998 09 27	704	0.2−	0.0	2000 01 11	704	0.1−	0.0
1998 09 18	691	0.1−	0.2−	1998 09 27	704	0.5+	1.4+	2000 01 11	704	1.3+	0.2+
1998 09 18	691	0.2−	0.2−	1998 09 27	704	0.5−	0.0	2000 01 11	704	(2.4− 0.8−)	
1998 09 26	704	0.1+	0.3+	2000 01 08	704	0.1−	0.1+	2000 01 11	704	1.0−	0.4+
1998 09 26	704	0.4+	1.2−	2000 01 08	704	0.2+	0.9−				
1998 09 26	704	0.8+	0.6+	2000 01 08	704	0.1+	0.8−				

1998 RL₁₅ = 2000 AK₁₄₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	31.95922		(2000.0)	P	Q						
<i>n</i>	0.26696892	ω	289.96187	−0.46078786	−0.88750876						
<i>a</i>	2.3887035	Ω	187.47672	+0.81896013	−0.42447720						
<i>e</i>	0.1370131	<i>i</i>	0.72937	+0.34202171	−0.17929669						
<i>P</i>	3.69	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	4				

Residuals in seconds of arc

1998 09 15	691	0.1−	0.1+	2000 01 05	704	0.7−	0.0	2000 02 06	704	0.1−	0.8+
1998 09 15	691	0.3+	0.1−	2000 01 05	704	0.0	0.3+	2000 02 06	704	0.1−	0.3−
1998 09 15	691	0.1+	0.2+	2000 01 05	704	0.4+	0.4+	2000 02 06	704	0.0	0.4−
1998 09 20	691	0.2+	0.1+	2000 01 08	704	0.3−	0.6−	2000 02 06	704	0.4+	0.2+
1998 09 20	691	0.3+	0.1−	2000 01 08	704	0.3−	1.3−	2000 02 11	691	0.2−	0.1−
1998 09 23	691	0.6−	0.0	2000 01 08	704	0.3+	0.1−	2000 02 11	691	0.3−	0.1−
1998 09 23	691	0.5−	0.1−	2000 01 08	704	0.4+	0.3−	2000 02 11	691	0.3−	0.1−
1998 09 23	691	0.5−	0.1+	2000 02 02	704	0.3−	0.7+	2000 02 11	888	0.0	0.2−
1998 09 26	691	0.3+	0.1+	2000 02 02	704	0.1−	0.9+	2000 02 11	888	0.3+	0.6−
1998 09 26	691	0.1+	0.2−	2000 02 02	704	0.1−	0.0	2000 02 11	888	0.4+	0.9−
1998 09 26	691	0.3+	0.0	2000 02 02	704	0.3+	0.9+				
2000 01 05	704	0.2−	0.0	2000 02 02	704	0.7+	0.8+				

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	66.40015		(2000.0)	P	Q
n	0.23942022	ω	252.03429	+0.41977169	-0.90760087
a	2.5685942	Ω	173.13236	+0.85396241	+0.39223659
e	0.1912268	i	3.47064	+0.30747347	+0.14970346
P	4.12	H	14.7	G 0.15	U 4

Residuals in seconds of arc

1998 08 17	704	1.6-	0.8-	1998 09 14	704	1.3-	1.1+	1998 09 26	691	0.5-	0.4-
1998 08 17	704	0.2+	1.0-	1998 09 14	704	1.4-	0.6+	2000 02 02	704	0.1-	0.2-
1998 08 17	704	1.0+	0.8+	1998 09 14	699	0.3+	0.4-	2000 02 02	704	0.7-	0.5+
1998 08 17	704	0.6-	0.5-	1998 09 14	699	0.3-	0.6+	2000 02 02	704	0.1+	0.4+
1998 08 17	704	1.4+	0.3+	1998 09 14	699	0.5+	1.4+	2000 02 02	704	0.3+	0.1-
1998 08 24	910	0.1-	0.3+	1998 09 18	704	1.1+	0.0	2000 02 02	704	0.4+	1.1+
1998 08 24	910	0.1-	0.2+	1998 09 18	704	1.1+	1.2-	2000 02 06	704	0.2-	0.2-
1998 08 24	910	0.1-	0.4+	1998 09 18	704	(1.1+	3.2-)	2000 02 06	704	0.3+	0.6-
1998 09 14	704	0.2-	0.2+	1998 09 18	704	1.1+	0.5-	2000 02 06	704	0.2-	0.1+
1998 09 14	704	0.5+	0.4-	1998 09 26	691	0.5-	0.5-	2000 02 06	704	0.3-	0.3-
1998 09 14	704	0.0	0.1-	1998 09 26	691	0.4-	0.3-	2000 02 06	704	0.5+	0.6-

1998 RW₃₂ = 1994 JZ₇

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	131.15664		(2000.0)	P	Q
n	0.30813145	ω	236.68110	+0.85203550	-0.52348013
a	2.1709277	Ω	154.88471	+0.48185322	+0.78276432
e	0.1377772	i	0.27233	+0.20458002	+0.33652426
P	3.20	H	16.3	G 0.15	U 5

Residuals in seconds of arc

1994 05 11	691	0.2+	0.2-	1995 12 19	566	0.0	0.1+	1998 09 18	699	0.1+	0.7-
1994 05 11	691	0.2+	0.2-	1995 12 19	566	0.0	0.1-	1998 09 18	704	0.2+	0.5-
1994 05 11	691	0.3+	0.0	1998 09 14	704	0.0	0.3+	1998 09 18	699	0.1-	0.6-
1994 05 17	691	0.3-	0.1+	1998 09 14	704	0.6+	0.8+	1998 09 18	704	0.0	0.4-
1994 05 17	691	0.3-	0.2+	1998 09 14	704	0.6+	0.7+	1998 09 18	704	0.9-	0.1-
1994 05 17	691	0.1-	0.1+	1998 09 14	704	0.6+	0.7-	1998 09 18	704	0.9-	0.2+
1995 12 19	566	0.0	0.0	1998 09 18	699	1.2+	0.6+	1998 09 18	704	1.3-	0.5+

1998 RV₃₉ = 2000 CZ₁₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	130.20010		(2000.0)	P	Q
n	0.24212336	ω	209.09112	+0.97545614	+0.20598147
a	2.5494408	Ω	138.78582	-0.17218724	+0.93385705
e	0.1494588	i	6.78362	-0.13724750	+0.29237416
P	4.07	H	15.5	G 0.15	U 4

Residuals in seconds of arc

1998 08 30	699	0.4-	0.0	1998 09 18	704	0.8+	0.8+	2000 02 02	704	0.3+	0.4+
1998 08 30	699	0.1-	0.1+	1998 09 18	704	0.8+	1.5-	2000 02 02	704	0.3-	0.2-
1998 08 30	699	0.2+	0.4+	1998 09 18	704	0.1+	0.5+	2000 02 02	704	0.0	0.3-
1998 09 14	704	0.5-	0.5+	1998 09 18	704	0.3-	0.7-	2000 02 03	704	0.7-	0.6-
1998 09 14	704	0.3+	0.9-	1998 09 27	699	0.7-	1.5+	2000 02 03	704	0.1+	0.6-
1998 09 14	704	0.1+	0.3+	1998 09 27	699	0.2-	0.0	2000 02 03	704	0.3+	0.9+
1998 09 14	704	0.9-	0.3-	1998 09 27	699	0.3-	0.2+				
1998 09 18	704	1.0+	0.8-	2000 02 02	704	0.3+	0.4+				

1998 RP₄₂ = 2000 CS₄₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	64.80632		(2000.0)	P	Q
n	0.24195751	ω	165.80621	+0.31740305	-0.94509249
a	2.5506056	Ω	265.64279	+0.86225061	+0.32178551
e	0.1203998	i	4.47606	+0.39468871	+0.05704619
P	4.07	H	14.2	G 0.15	U 3

Residuals in seconds of arc

1998 08 23	704	0.8+	0.7+	1998 09 18	704	0.2-	1.3+	1999 12 05	703	0.8+	1.2-
1998 08 23	704	(2.6+	0.4-)	1998 09 18	704	0.4-	0.3+	1999 12 05	704	0.1-	0.6+
1998 08 23	704	0.2+	0.6+	1998 09 18	704	0.1+	1.0+	2000 02 02	704	0.6-	0.3+
1998 08 23	704	1.3+	0.4+	1998 09 27	699	0.5+	0.2+	2000 02 02	704	0.5-	0.2+
1998 08 23	704	0.9-	1.6-	1998 09 27	699	0.3+	1.0+	2000 02 02	704	0.2-	0.3-
1998 09 02	327	0.3-	0.1-	1998 09 27	699	0.7+	0.5-	2000 02 02	704	0.1-	0.2-
1998 09 02	327	0.4-	0.3-	1998 10 11	699	0.1-	0.3-	2000 02 02	704	0.2+	0.2-
1998 09 02	327	0.2+	0.2+	1998 10 11	699	0.9-	0.4+	2000 02 06	704	0.3+	0.2+
1998 09 14	704	0.3+	0.6-	1998 10 11	699	0.5+	0.3-	2000 02 06	704	0.5+	0.3+
1998 09 14	704	0.3+	0.7-	1998 12 19	327	0.2-	1.3-	2000 02 06	704	0.4+	0.2+
1998 09 14	704	0.4-	0.5-	1998 12 19	327	0.1-	1.0-	2000 02 06	704	0.0	0.7+
1998 09 14	704	1.1-	0.1-	1998 12 19	327	0.0	1.1-	2000 02 06	704	0.6+	0.5+
1998 09 16	699	0.4-	0.3+	1999 12 05	703	1.4+	0.5-	2000 02 13	106	1.3-	0.5-
1998 09 16	699	0.3-	0.6+	1999 12 05	703	0.4-	0.9+	2000 02 13	106	0.2-	0.3-
1998 09 16	699	0.2-	0.2+	1999 12 05	704	1.1+	0.5-	2000 02 13	106	0.0	0.2+
1998 09 18	704	0.0	0.5+	1999 12 05	703	0.3-	0.4+				
1998 09 18	704	0.3+	0.2+	1999 12 05	704	0.9-	0.5+				

1998 RA₄₅ = 2000 AC₂₃₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	43.16759		(2000.0)	P	Q
n	0.22393993	ω	293.18310	-0.13515914	-0.98911743
a	2.6856435	Ω	164.25014	+0.96924449	-0.14416469
e	0.2402025	i	12.36527	+0.20566264	+0.02938098
P	4.40	H	14.0	G 0.15	U 3

Residuals in seconds of arc

1998 08 23	704	(2.7+	0.9+)	1998 09 27	704	0.6-	0.3+	2000 01 06	699	0.6-	0.1+
1998 08 23	704	0.4-	0.7-	1998 09 27	704	0.5+	0.2-	2000 01 06	699	0.5-	0.7+
1998 08 23	704	0.2-	0.2+	1998 09 27	704	0.0	0.0	2000 02 02	704	0.4+	0.5+
1998 08 23	704	0.5+	1.7+	1998 10 10	699	0.0	0.1-	2000 02 02	704	0.4+	0.1-
1998 08 23	704	0.7+	1.4-	1998 10 10	699	0.2-	1.3-	2000 02 02	704	0.1+	0.5-
1998 09 14	704	0.2-	0.4-	1998 10 10	699	0.2-	0.1-	2000 02 02	704	0.4-	0.2-
1998 09 14	704	0.0	0.5-	1998 10 12	699	0.3+	0.4-	2000 02 02	704	0.5-	0.2+
1998 09 14	704	0.7+	0.6-	1998 10 12	699	0.2-	0.4-	2000 02 05	704	0.0	0.5+
1998 09 14	704	0.8-	0.7-	1998 10 12	699	0.1-	0.6+	2000 02 05	704	0.3+	0.1+
1998 09 18	704	0.5-	0.1-	1998 11 07	910	0.5+	0.3+	2000 02 05	704	0.4+	0.1+
1998 09 18	704	0.9-	0.1-	1998 11 07	910	0.7+	0.4+	2000 02 06	704	0.2+	0.4+
1998 09 18	704	0.8-	0.8+	1998 11 07	910	0.3+	0.2-	2000 02 06	704	0.0	0.3-
1998 09 18	704	0.3-	1.1+	1998 11 08	910	0.3+	0.5-	2000 02 06	704	0.2+	0.2+
1998 09 18	704	0.0	0.0	1998 11 08	910	0.5+	0.0	2000 02 06	704	0.4-	0.5-
1998 09 24	699	0.4-	0.8+	1998 11 08	910	0.3+	0.7-	2000 02 06	704	0.4+	0.2+
1998 09 24	699	0.1+	0.6+	1999 12 16	704	0.5+	0.4-	2000 02 07	704	0.4+	0.6+
1998 09 24	699	0.7-	0.5+	1999 12 16	704	1.3+	0.7+	2000 02 07	704	0.1-	0.2+
1998 09 26	704	0.4-	0.3-	1999 12 16	704	0.5-	0.0	2000 02 07	704	0.2+	0.3+
1998 09 26	704	1.1+	0.8-	1999 12 16	704	0.1-	0.4-	2000 02 07	704	0.3-	0.1+
1998 09 26	704	0.7-	0.5+	2000 01 05	704	0.3-	1.0-	2000 02 07	704	0.1+	0.5+
1998 09 26	704	1.4+	1.0+	2000 01 05	704	0.8-	0.6-	2000 02 16	703	1.5+	0.1+
1998 09 26	704	0.0	0.2+	2000 01 05	704	0.7-	1.5-	2000 02 16	703	0.1-	0.4+
1998 09 27	704	0.5+	1.7+	2000 01 05	704	(0.7-	2.5-)	2000 02 16	703	0.3-	0.1+
1998 09 27	704	0.8-	0.5+	2000 01 06	699	0.6-	0.7+	2000 02 16	703	0.0	0.5+

1998 RU₄₅ = 2000 AH₂₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	28.03600		(2000.0)	P	Q		
n	0.21422148	ω	120.89963	+0.09384681	-0.99496429		
a	2.7662667	Ω	323.66374	+0.89195986	+0.09973095		
e	0.0348488	i	3.40550	+0.44226732	+0.00998993		
P	4.60	H	14.2	G	0.15	U	5

Residuals in seconds of arc

1998 09 14	704	0.6-	0.6+	1998 09 27	704	0.8+	0.7-	2000 01 04	704	0.5+	1.0-
1998 09 14	704	0.9-	0.6-	1998 09 27	704	1.4-	0.4-	2000 01 04	704	0.1+	0.5+
1998 09 14	704	0.8+	0.0	1998 09 27	704	0.2-	0.2-	2000 01 25	704	0.5-	1.0+
1998 09 14	704	0.0	1.0+	1998 09 27	704	1.1+	0.4-	2000 01 25	704	0.1-	0.6+

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1998 09 18	704	1.3+	0.2-	1998 09 27	704	0.7-	0.1+	2000 01 25	704	0.2+	1.2+
1998 09 18	704	(1.8-	2.4+)	2000 01 03	704	0.3+	0.0	2000 01 25	704	(0.5+	2.2+)
1998 09 18	704	0.6+	1.4+	2000 01 03	704	0.3+	0.8-	2000 01 30	704	0.3+	0.0
1998 09 18	704	0.6-	0.4+	2000 01 03	704	0.1-	0.1-	2000 01 30	704	0.7-	1.7-
1998 09 18	704	1.1-	1.3+	2000 01 03	704	0.1+	0.1-	2000 01 30	704	0.0	0.4+
1998 09 26	704	1.9+	0.6-	2000 01 03	704	0.3+	0.2-	2000 01 30	704	0.6+	0.7+
1998 09 26	704	0.4-	0.7-	2000 01 04	704	1.5-	0.2-	2000 01 30	704	0.5+	0.4-
1998 09 26	704	0.6-	0.6-	2000 01 04	704	0.2-	0.2+				

1998 RS₄₇ = 2000 CV₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	336.90325		(2000.0)	P	Q		
<i>n</i>	0.22986910	ω	222.54276	-0.83686302	-0.54156748		
<i>a</i>	2.6392609	Ω	284.50133	+0.52179598	-0.74512294		
<i>e</i>	0.0685479	<i>i</i>	4.72688	+0.16549698	-0.38922548		
<i>P</i>	4.29	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	7

Residuals in seconds of arc

1998 09 14	704	0.8+	0.2-	1998 09 18	704	0.9-	1.8+	2000 02 02	704	0.7+	0.9-
1998 09 14	704	0.4+	0.8+	1998 09 27	699	1.0-	1.3+	2000 02 03	704	0.2-	0.4+
1998 09 14	704	0.6-	1.1-	1998 09 27	699	0.8+	0.4-	2000 02 03	704	0.8-	0.0
1998 09 14	704	1.0+	0.3-	1998 09 27	699	0.6+	0.1-	2000 02 03	704	0.6+	0.1-
1998 09 18	704	0.0	0.3+	2000 02 02	704	1.4+	0.5+	2000 02 03	704	0.0	0.2+
1998 09 18	704	0.2+	0.1-	2000 02 02	704	0.0	0.8+	2000 02 03	704	1.1-	0.8-
1998 09 18	704	1.4-	0.7-	2000 02 02	704	0.1-	0.2+				
1998 09 18	704	0.1+	1.3-	2000 02 02	704	0.4-	0.3-				

1998 RV₅₀ = 2000 CZ₅₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	94.79374		(2000.0)	P	Q		
<i>n</i>	0.23237456	ω	168.43296	+0.85589350	-0.51632445		
<i>a</i>	2.6202556	Ω	222.69444	+0.47097128	+0.80157650		
<i>e</i>	0.1020881	<i>i</i>	2.47202	+0.21361736	+0.30147001		
<i>P</i>	4.24	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 14	704	1.1-	0.3-	1998 09 18	704	0.7+	1.0+	2000 02 05	704	0.5+	0.8-
1998 09 14	704	0.1+	1.6-	1998 09 18	704	0.6+	0.3-	2000 02 05	704	0.5+	0.2+
1998 09 14	704	0.1-	0.8+	1998 09 19	703	0.7+	0.4-	2000 02 05	704	0.1+	0.2-
1998 09 14	704	0.4+	1.3+	1998 09 19	703	0.9-	0.5-	2000 02 05	704	0.7-	1.3+
1998 09 16	699	0.4+	0.0	1998 09 19	703	1.7-	0.0	2000 02 06	704	0.9-	0.3-
1998 09 16	699	0.1-	0.3-	1998 09 19	703	(2.2-	0.0)	2000 02 06	704	0.2-	0.4-
1998 09 16	699	0.9+	0.6-	1998 09 29	120	0.1+	0.3-	2000 02 06	704	0.3+	0.1-
1998 09 18	704	0.5-	0.6+	1998 09 29	120	0.9+	0.0	2000 02 06	704	0.3+	0.4+
1998 09 18	704	0.4+	1.0+	1998 10 13	120	0.6-	0.8-				
1998 09 18	704	0.4-	0.2-	1998 10 13	120	0.2+	0.7+				

1998 RK₅₁ = 1998 SS₁₆₄ = 2000 CM₉Id. A. Doppler (d, *MPC* 33785), G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	201.69709		(2000.0)	P	Q		
<i>n</i>	0.28590361	ω	5.73070	+0.35181321	+0.93262797		
<i>a</i>	2.2820385	Ω	284.88794	-0.86209024	+0.28943247		
<i>e</i>	0.1611545	<i>i</i>	4.76040	-0.36472987	+0.21548530		
<i>P</i>	3.45	<i>H</i>	15.4	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1998 09 14	704	0.2-	0.2-	1998 09 18	704	1.1+	0.8+	2000 02 02	704	0.0	0.4-
1998 09 14	704	0.5-	0.4-	1998 09 18	699	0.8+	0.4-	2000 02 02	704	0.8-	0.9+
1998 09 14	704	0.1-	0.5-	1998 09 18	704	0.0	0.5+	2000 02 02	704	0.8+	0.4+
1998 09 14	704	0.6-	0.2+	1998 09 18	699	1.5+	0.2-	2000 02 03	704	0.2-	0.7-
1998 09 14	704	1.6-	0.2+	1998 09 27	699	0.3-	0.2-	2000 02 03	704	0.5-	0.0
1998 09 18	704	0.2+	0.1-	1998 09 27	699	0.0	0.0	2000 02 03	704	0.4+	0.1+
1998 09 18	704	0.3-	0.7+	1998 09 27	699	0.9-	1.0-	2000 02 03	704	0.0	0.1+

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1998 09 18	699	0.7+	0.5-	2000 02 02	704	0.1-	0.0	2000 02 03	704	0.5+	0.1+
1998 09 18	704	0.4+	1.0+	2000 02 02	704	0.0	0.4-				

1998 RT₅₃ = 1987 KC₅ = 2000 AZ₁₄₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	338.35738		(2000.0)	P	Q		
<i>n</i>	0.29147403	ω	287.65139	-0.99201870	-0.10007146		
<i>a</i>	2.2528700	Ω	246.66138	+0.12137824	-0.92265768		
<i>e</i>	0.0457904	<i>i</i>	4.79248	-0.03415009	-0.37240905		
<i>P</i>	3.38	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1987 05 30	413	1.4+	0.1-	1998 09 27	699	0.2+	0.1+	2000 01 08	704	1.2-	1.0+
1987 05 30	413	1.3-	0.7+	1998 09 27	704	0.6+	0.0	2000 01 08	704	0.8-	1.1-
1998 09 14	704	0.1+	0.4+	1998 09 27	699	0.2+	0.3+	2000 02 02	704	0.0	0.0
1998 09 14	704	0.6+	0.4-	1998 09 27	704	0.3-	0.9+	2000 02 02	704	0.3+	0.0
1998 09 14	704	0.4+	1.2+	1998 09 27	704	0.7-	0.1+	2000 02 02	704	0.3+	0.1-
1998 09 14	704	0.7+	1.5+	1998 09 27	704	0.5-	0.7-	2000 02 02	704	0.6+	0.4-
1998 09 14	704	1.4+	0.9+	1998 09 27	704	0.5-	0.4-	2000 02 02	704	0.6+	0.6-
1998 09 18	704	0.2-	0.7-	1999 12 05	704	0.3+	0.4+	2000 02 06	704	0.3-	0.7+
1998 09 18	704	1.3-	0.2-	1999 12 05	704	0.6+	1.2+	2000 02 06	704	0.1+	0.7+
1998 09 18	704	1.0-	0.6+	1999 12 05	704	0.4-	0.1+	2000 02 06	704	0.1-	0.6+
1998 09 18	704	1.4-	1.1+	1999 12 05	704	0.5-	0.9-	2000 02 06	704	0.2+	0.2+
1998 09 18	704	(0.4-	2.7+)	2000 01 05	704	0.8-	0.1-	2000 02 06	704	0.3+	0.2+
1998 09 26	704	1.0+	0.6-	2000 01 05	704	0.7-	0.7+	2000 02 12	704	(4.2+	0.6-)
1998 09 26	704	0.6-	0.6-	2000 01 05	704	0.6+	0.8-	2000 02 12	704	1.4+	0.9+
1998 09 26	704	0.5+	1.1-	2000 01 05	704	0.6+	0.4-	2000 02 12	704	(2.2+	0.3+)
1998 09 26	704	1.1-	1.9-	2000 01 05	704	0.5-	1.6-	2000 02 12	704	(3.7-	1.5+)
1998 09 26	704	0.5+	0.4-	2000 01 08	704	0.5-	0.5+				
1998 09 27	699	0.7+	1.5+	2000 01 08	704	0.2-	0.5+				

1998 RM₅₄ = 2000 CE₄₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	9.94752		(2000.0)	P	Q		
<i>n</i>	0.27854025	ω	216.00242	-0.76965160	-0.63511952		
<i>a</i>	2.3220812	Ω	284.43648	+0.60040874	-0.68522107		
<i>e</i>	0.0399941	<i>i</i>	3.86430	+0.21713075	-0.35650425		
<i>P</i>	3.54	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 14	704	0.6+	0.8-	1998 09 26	704	1.0-	1.3+	1999 12 05	704	1.0-	0.3-
1998 09 14	704	0.3+	0.3+	1998 09 26	704	0.2-	0.9+	1999 12 05	704	0.9+	0.7-
1998 09 14	704	0.9+	0.0	1998 09 26	704	(0.9+	2.6+)	1999 12 05	704	0.4+	0.7+
1998 09 14	704	0.6+	1.2-	1998 09 26	704	1.2+	0.4-	1999 12 05	704	1.0-	0.7-
1998 09 14	704	0.4-	0.4+	1998 09 26	704	0.8-	1.8+	1999 12 05	704	0.2+	0.2+
1998 09 18	704	0.4-	0.4-	1998 09 27	699	0.2+	0.0	2000 02 02	704	0.3-	0.0
1998 09 18	704	0.8+	0.9-	1998 09 27	699	0.4+	0.3+	2000 02 02	704	0.1+	0.1+
1998 09 18	704	0.0	1.3-	1998 09 27	704	0.2-	1.1-	2000 02 02	704	0.4-	0.1+
1998 09 18	704	1.2+	0.4-	1998 09 27	699	0.7+	0.4+	2000 02 02	704	0.1-	0.6+
1998 09 18	704	1.4-	0.1+	1998 09 27	704	1.0+	0.6+	2000 02 02	704	0.0	0.2-
1998 09 26	704	0.5-	0.0	1998 09 27	704	1.5-	0.3+	2000 02 06	704	0.7+	0.2-
1998 09 26	704	0.4-	0.1-	1998 09 27	704	0.2+	0.9+	2000 02 06	704	0.5-	0.2+
1998 09 26	704	0.2+	1.2-	1998 10 27	327	0.1-	0.2+	2000 02 06	704	0.7+	0.2-
1998 09 26	704	(0.5-	2.4+)	1998 10 27	327	0.6-	0.3+				
1998 09 26	704	0.7-	0.4-	1998 10 27	327	0.0	0.3+				

1998 RV₅₄ = 2000 CH₅₂

Id. G. V. Williams

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M.P.C. 38493

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5	Spahr										
M	72.82113		(2000.0)	P			Q				
n	0.26074066	ω	118.00854	+0.24888432	-0.96568157						
a	2.4265926	Ω	317.36655	+0.84565323	+0.25404918						
e	0.0836191	i	6.29525	+0.47215168	+0.05401970						
P	3.78	H	14.9	G	0.15	U			1		
Residuals in seconds of arc											
1994 08 11	809	1.2-	1.5+	1998 09 18	704	0.3+	0.2-	1998 09 27	704	0.4-	0.7+
1994 08 11	809	1.0-	1.8+	1998 09 18	704	(0.5-	2.1+)	1998 09 27	704	0.1-	0.1+
1994 08 11	809	0.0	0.9+	1998 09 18	704	(2.3-	0.2+)	1998 09 27	704	0.1-	0.1-
1996 02 15	566	0.3-	0.3+	1998 09 26	704	0.7+	0.5+	1998 09 27	704	0.0	0.1-
1996 02 15	566	0.4-	0.1+	1998 09 26	704	0.5+	0.7+	1998 09 27	704	0.3-	0.7+
1996 02 15	566	0.8+	0.3+	1998 09 26	704	1.4+	0.1+	1998 09 27	704	0.6+	0.7+
1998 08 28	704	(0.1+	3.3-)	1998 09 26	704	1.0-	1.3-	2000 02 02	704	0.5+	0.6+
1998 08 28	704	(0.1-	2.1-)	1998 09 26	704	0.7+	0.4-	2000 02 02	704	0.9+	0.1+
1998 08 28	704	0.1-	0.4-	1998 09 26	704	0.5+	0.2+	2000 02 02	704	0.5+	0.4+
1998 08 28	704	(5.7-	2.7-)	1998 09 26	704	0.4+	1.0-	2000 02 02	704	0.8+	1.0+
1998 09 14	704	1.8-	1.1+	1998 09 26	704	1.0+	1.6-	2000 02 02	704	0.0	0.2+
1998 09 14	704	(2.2-	0.6-)	1998 09 27	704	0.0	0.3-	2000 02 06	704	0.4-	0.8+
1998 09 14	704	1.8-	0.5+	1998 09 27	704	0.7+	0.5+	2000 02 06	704	0.5-	0.4-
1998 09 14	704	(2.4-	1.1+)	1998 09 27	704	0.9-	0.6-	2000 02 06	704	0.3+	1.1+
1998 09 18	704	1.1-	0.3-	1998 09 27	704	0.9+	0.3+				

1998 RB₅₅ = 1985 YA₁ = 2000 AY₂₃₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5						Williams					
<i>M</i>	356.29617		(2000.0)		P		Q				
<i>n</i>	0.29191303		ω		278.98098		-0.95944584		-0.26928547		
<i>a</i>	2.2506108		Ω		245.43282		+0.28094279		-0.88918469		
<i>e</i>	0.0944718		<i>i</i>		5.25901		+0.02312648		-0.36991340		
<i>P</i>	3.38		<i>H</i>		14.3		<i>G</i>		0.15		
									<i>U</i>		
									3		
Residuals in seconds of arc											
1985 12 17	010	0.1+	1.9-	1998 09 27	704	0.5-	0.6+	2000 01 05	704	0.9-	0.3-
1985 12 17	010	(5.1+	0.7-)	1998 09 27	704	1.1-	1.3+	2000 01 05	704	0.3-	1.0+
1998 09 14	704	1.2+	1.1-	1998 09 27	704	0.6-	0.5+	2000 01 05	704	1.0-	0.6-
1998 09 14	704	0.5-	1.3+	1998 09 27	704	0.7-	0.5-	2000 01 11	699	0.5+	0.9+
1998 09 14	704	0.3-	0.7-	1998 09 29	704	1.6+	0.8-	2000 01 11	699	0.1+	0.5+
1998 09 14	704	1.0+	0.6+	1998 09 29	704	0.7-	0.4-	2000 01 11	699	0.4-	0.9+
1998 09 14	704	(2.0+	0.2-)	1998 09 29	704	1.1-	0.6-	2000 02 02	704	0.2+	0.3+
1998 09 18	704	0.7+	0.0	1998 09 29	704	0.9+	0.4-	2000 02 02	704	0.1+	0.2+
1998 09 18	704	0.4+	0.2+	1998 09 29	704	0.9-	0.6-	2000 02 02	704	0.3+	0.0
1998 09 18	699	0.2-	0.5-	1998 09 29	704	0.9-	0.9-	2000 02 02	704	0.1-	0.3+
1998 09 18	704	1.0+	0.4+	1998 09 29	704	0.3+	0.2-	2000 02 02	704	0.0	0.5+
1998 09 18	704	0.2-	0.8+	1998 09 29	704	0.3+	0.7+	2000 02 07	704	(2.3-	1.3-
1998 09 18	699	0.5+	1.0+	1998 09 29	704	0.7+	0.6+	2000 02 07	704	(2.3-	2.3-
1998 09 18	704	1.3+	1.0+	1998 09 29	704	0.6+	0.0	2000 02 07	704	(2.2-	2.2-
1998 09 18	699	0.8+	0.7+	1998 09 29	704	0.4-	0.7+	2000 02 07	704	(3.1-	2.5-
1998 09 26	704	1.5-	0.7+	1998 09 29	704	1.1-	0.9+	2000 02 08	704	0.4+	0.3+
1998 09 26	704	0.7-	1.0-	1998 09 29	704	(0.7+	2.1-)	2000 02 08	704	0.8+	0.1+
1998 09 26	704	0.6+	0.8-	1998 09 29	704	1.0-	0.1+	2000 02 08	704	0.5+	0.3-
1998 09 26	704	0.1-	0.1-	1998 09 29	704	0.4-	0.1-	2000 02 08	704	0.2+	0.2-
1998 09 26	704	0.3-	0.2-	2000 01 05	704	0.5-	0.6-	2000 02 08	704	0.5+	0.0

1998 RL₅₅ = 2000 AN₅₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5						Williams						
<i>M</i>	251.42514			(2000.0)			P			Q		
<i>n</i>	0.30348237			ω	297.21027		-0.23233269			+0.97126485		
<i>a</i>	2.1930426			Ω	319.24811		-0.86205776			-0.23021268		
<i>e</i>	0.1254753			<i>i</i>	4.53676		-0.45041975			-0.06038800		
<i>P</i>	3.25			<i>H</i>	15.4		<i>G</i>	0.15		<i>U</i>	4	
Residuals in seconds of arc												
1998 09 14	704	0.1+	0.5+	2000 01 04	704	0.7-	0.5-	2000 02 03	704	0.3+	0.4+	
1998 09 14	704	1.1+	0.8+	2000 01 04	704	1.6+	0.5-	2000 02 03	704	0.7-	0.8+	

1998 09 14	704	(0.6-	2.8-)	2000 01 04	704	0.7-	0.1-	2000 02 03	704	0.1-	0.1-
1998 09 18	704	0.5+	0.3-	2000 01 04	704	0.4-	0.4+	2000 02 05	704	0.5+	0.0
1998 09 18	704	0.5-	0.9+	2000 01 04	704	0.3+	0.2-	2000 02 05	704	0.2+	0.8+
1998 09 18	704	(2.6+	1.2+)	2000 01 06	704	0.3-	0.5+	2000 02 05	704	0.0	0.7+
1998 09 18	704	0.8-	0.9+	2000 01 06	704	0.4-	0.7+	2000 02 05	704	0.1+	0.1-
1998 09 18	704	0.2+	0.4-	2000 01 06	704	0.3-	0.4-	2000 02 05	704	0.1+	0.2-
1998 09 26	704	0.2+	1.2-	2000 01 28	691	0.0	0.1-	2000 02 07	703	0.7-	0.3+
1998 09 26	704	1.4-	0.5-	2000 01 28	691	1.2+	0.2+	2000 02 07	703	0.4+	0.5-
1998 09 26	704	0.1-	0.3+	2000 01 28	691	0.6+	0.2+	2000 02 07	703	(2.2-	0.1-)
1998 09 26	704	1.3-	0.2+	2000 01 29	691	0.2-	0.4-	2000 02 07	703	0.2+	0.6-
1998 09 27	704	0.5+	0.2-	2000 01 29	691	0.3-	0.4-	2000 02 11	704	0.0	0.2+
1998 09 27	704	0.6-	0.8+	2000 01 29	691	0.2-	0.4-	2000 02 11	704	0.2-	0.2-
1998 09 27	704	0.8+	0.1-	2000 01 30	691	0.2-	0.3-	2000 02 11	704	0.0	0.3+
1998 09 27	704	1.2+	0.9-	2000 01 30	691	0.1-	0.2-	2000 02 11	704	0.2+	0.2+
1998 09 27	704	0.2+	0.6-	2000 01 30	691	0.1-	0.2-				

1998 RV₅₅ = 2000 AW₂₄₂

Id. G. V. Williams											
Epoch 2000 Feb. 26.0 TT = JDT 2451600.5											
<i>M</i>		100.60846		(2000.0)		P		Q			
<i>n</i>	0.23046894		ω	182.43947		+0.86757027		−0.49383855			
<i>a</i>	2.6346794		Ω	207.40145		+0.45840943		+0.83987391			
<i>e</i>	0.1636338		<i>i</i>	7.32746		+0.19282796		+0.22524496			
<i>P</i>	4.28		<i>H</i>	14.3		<i>G</i>	0.15		<i>U</i>	3	
Residuals in seconds of arc											
1997 06 01	566	0.2−	0.1+	1998 09 26	704	0.8−	0.5+	1998 11 10	699	0.3−	0.2−
1997 06 01	566	0.5+	0.9+	1998 09 26	704	0.5−	1.1+	2000 01 07	699	1.9+	0.4−
1997 06 01	566	0.3−	0.3+	1998 09 26	704	0.3+	0.5−	2000 01 07	699	0.4−	0.2+
1998 09 14	704	0.4−	0.2−	1998 09 27	704	0.2−	0.2−	2000 01 07	699	0.3+	0.6−
1998 09 14	704	0.7−	0.8+	1998 09 27	704	1.6+	0.6+	2000 01 08	704	0.5−	1.3+
1998 09 14	704	1.1−	1.1+	1998 09 27	704	0.9+	0.6+	2000 01 08	704	0.9−	0.6−
1998 09 18	704	0.5+	0.8−	1998 09 27	704	1.0+	0.2−	2000 01 08	704	0.3−	0.5−
1998 09 18	704	0.6−	0.4−	1998 09 27	704	1.0+	0.0	2000 02 06	704	0.4−	0.6+
1998 09 18	704	0.2+	0.4−	1998 10 14	699	0.5−	0.3+	2000 02 06	704	0.0	0.1+
1998 09 18	704	0.2+	0.0	1998 10 14	699	0.2−	0.2+	2000 02 06	704	0.6+	0.2+
1998 09 18	704	0.3+	0.1+	1998 10 14	699	0.3−	0.3−	2000 02 06	704	0.2+	1.0+
1998 09 26	704	0.5+	0.4−	1998 11 10	699	0.5−	0.4−	2000 02 06	704	0.1+	0.6+
1998 09 26	704	0.8−	0.7+	1998 11 10	699	0.7−	0.4−				

1998 RF₅₆ = 2000 CZ₅₂

Id. G. V. Williams											
Epoch 2000 Feb. 26.0 TT = JDT 2451600.5											
<i>M</i>		139.62976		(2000.0)		P		Q			
<i>n</i>	0.28975582	ω	115.69682			+0.96376540		-0.26399172			
<i>a</i>	2.2617674	Ω	259.62942			+0.22867129		+0.89150945			
<i>e</i>	0.0698729	<i>i</i>	2.22971			+0.13735241		+0.36812942			
<i>P</i>	3.40	<i>H</i>	15.1		<i>G</i>	0.15		<i>U</i>	4		
Residuals in seconds of arc											
1998 08 28	704	0.2+	0.2+	1998 09 18	704	0.7-	0.1-	1998 10 14	699	0.8-	0.4-
1998 08 28	704	0.6-	1.1+	1998 09 26	704	0.9+	0.8+	1998 10 14	699	0.9-	0.3-
1998 08 28	704	0.3+	1.0-	1998 09 26	704	1.2-	0.7-	2000 02 02	704	0.0	0.5+
1998 08 28	704	1.0-	0.2+	1998 09 26	704	0.7-	0.3+	2000 02 02	704	1.0-	0.4-
1998 08 28	704	(3.0-	0.5-)	1998 09 26	704	0.5-	0.4+	2000 02 02	704	1.6-	0.1-
1998 09 14	704	0.6+	0.1+	1998 09 26	704	0.7-	0.7+	2000 02 02	704	0.5+	0.3+
1998 09 14	704	0.9-	0.2-	1998 09 27	704	0.8+	0.2-	2000 02 02	704	0.8+	0.3+
1998 09 14	704	0.8+	0.5+	1998 09 27	704	1.6+	0.4+	2000 02 06	704	0.1+	0.3+
1998 09 18	704	0.7-	0.3-	1998 09 27	704	0.8+	0.5-	2000 02 06	704	0.2+	0.2+
1998 09 18	704	0.1+	0.2+	1998 09 27	704	0.8+	0.7-	2000 02 06	704	0.9+	0.2-
1998 09 18	704	1.1+	0.6-	1998 09 27	704	1.0+	1.1-				
1998 09 18	704	0.2-	1.0+	1998 10 14	699	0.2-	0.5+				

1998 RJ₅₆ = 2000 CF₈₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	109.80070	(2000.0)	P		Q	
<i>n</i>	0.26721409	ω	63.52693	+0.80155765	-0.59622111	
<i>a</i>	2.3872422	Ω	333.00167	+0.50719984	+0.71787592	
<i>e</i>	0.0958284	<i>i</i>	5.68990	+0.31662858	+0.35940861	
<i>P</i>	3.69	<i>H</i>	14.8	<i>G</i> 0.15	<i>U</i> 4	

Residuals in seconds of arc

1998 09 14	704	0.1-	0.2+	1998 09 27	704	0.2-	0.3-	1998 12 09	704	(2.9+	2.5-)
1998 09 14	704	0.4-	0.2+	1998 09 27	704	0.6+	0.2-	1998 12 09	704	(3.9-	0.2+)
1998 09 14	704	0.8+	0.1+	1998 09 27	704	0.2-	0.4-	2000 02 01	703	1.7-	0.8+
1998 09 18	704	1.3-	1.1-	1998 10 14	699	0.1+	0.2-	2000 02 01	703	1.0-	0.1+
1998 09 18	704	0.7-	0.5+	1998 10 14	699	0.2-	0.0	2000 02 01	703	0.8-	0.0
1998 09 18	704	0.1+	0.3-	1998 10 14	699	0.9-	1.2+	2000 02 01	703	0.3-	0.3-
1998 09 18	704	0.5-	0.2+	1998 10 14	327	0.0	0.5-	2000 02 04	704	0.3+	0.8+
1998 09 26	704	0.5-	0.0	1998 10 14	327	0.2+	0.4-	2000 02 04	704	1.3+	0.3+
1998 09 26	704	0.8-	0.5+	1998 10 14	327	0.1-	0.1-	2000 02 04	704	1.1+	0.7+
1998 09 26	704	0.3+	0.7+	1998 10 18	327	0.3-	0.7+	2000 02 04	704	0.1+	0.6+
1998 09 26	704	0.4+	0.0	1998 10 18	327	0.7-	0.3+	2000 02 04	704	0.8+	0.5+
1998 09 26	704	0.4-	0.1+	1998 10 18	327	0.4-	0.4+	2000 02 11	704	0.6-	0.9-
1998 09 27	699	0.1+	0.3+	1998 10 20	327	0.3+	0.1-	2000 02 11	704	0.1+	0.1-
1998 09 27	699	1.1+	0.4-	1998 10 20	327	0.6+	0.1+	2000 02 11	704	0.4+	0.9-
1998 09 27	704	0.2-	0.3+	1998 10 20	327	0.4+	1.3+	2000 02 11	704	0.8+	0.5-
1998 09 27	699	0.6+	0.3-	1998 12 09	704	0.2+	1.5-				
1998 09 27	704	0.8+	0.8-	1998 12 09	704	1.0+	1.1-				

1998 RN₅₆ = 2000 AS₂₄₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	17.44791	(2000.0)	P		Q	
<i>n</i>	0.26484149	ω	145.83632	-0.72164098	-0.69098461	
<i>a</i>	2.4014785	Ω	350.11051	+0.56765586	-0.55581559	
<i>e</i>	0.1530480	<i>i</i>	14.19812	+0.39623367	-0.46217886	
<i>P</i>	3.72	<i>H</i>	13.9	<i>G</i> 0.15	<i>U</i> 3	

Residuals in seconds of arc

1998 08 28	704	0.5-	1.0-	1998 09 26	704	0.1+	0.1-	2000 01 07	704	0.2-	0.5-
1998 08 28	704	1.7+	0.6+	1998 09 26	704	0.5+	0.1-	2000 01 07	704	0.5-	1.0-
1998 08 28	704	(1.2+	2.2+)	1998 09 26	704	0.3+	0.2+	2000 01 10	699	0.1-	0.2-
1998 08 28	704	1.5-	1.5+	1998 09 26	704	0.9+	0.1+	2000 01 10	699	0.1-	0.3-
1998 08 28	704	0.0	1.1+	1998 09 26	704	0.3+	0.7-	2000 01 10	699	0.1+	0.4-
1998 09 14	704	0.3+	0.1+	1998 09 27	704	0.1-	0.1+	2000 02 04	704	0.2+	0.2+
1998 09 14	704	0.3-	0.7+	1998 09 27	704	0.5-	0.8-	2000 02 04	704	0.3+	1.3+
1998 09 14	704	0.3+	0.5+	1998 09 27	704	1.0-	0.1-	2000 02 04	704	0.2+	0.5+
1998 09 16	699	0.2-	0.6+	1998 09 27	704	0.5-	0.3+	2000 02 04	704	0.6+	0.6+
1998 09 16	699	0.0	0.3+	1998 09 27	704	1.1-	0.7-	2000 02 04	704	0.4+	0.3+
1998 09 16	699	0.4+	0.2-	1999 12 17	699	0.3+	0.9+	2000 02 11	704	0.3-	0.5+
1998 09 18	704	0.2+	0.7-	1999 12 17	699	0.3+	0.6+	2000 02 11	704	0.1-	0.2+
1998 09 18	704	0.5+	0.5-	1999 12 17	699	0.4+	0.9+	2000 02 11	704	0.0	0.1-
1998 09 18	704	0.1-	0.5-	2000 01 07	704	0.5-	0.8-	2000 02 11	704	0.2+	0.0
1998 09 18	704	0.1-	0.3+	2000 01 07	704	0.7-	1.3-	2000 02 11	704	0.0	0.2+
1998 09 18	704	(0.7-	2.3+)	2000 01 07	704	0.3-	1.0-				

1998 RR₅₆

Id. W. Bickel (2000 observations)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	198.77326	(2000.0)	P		Q	
<i>n</i>	0.26094078	ω	24.26971	+0.16144840	+0.98646521	
<i>a</i>	2.4253518	Ω	255.03140	-0.91022542	+0.13762736	
<i>e</i>	0.1707500	<i>i</i>	1.69941	-0.38134512	+0.08913528	
<i>P</i>	3.78	<i>H</i>	15.3	<i>G</i> 0.15	<i>U</i> 5	

Residuals in seconds of arc

1998 09 14	704	0.6+	0.1+	1998 09 26	704	0.3-	0.6-	1998 10 18	327	0.1-	0.0
1998 09 14	704	0.8-	1.1+	1998 09 26	704	1.1+	1.3+	1998 10 27	327	0.4+	0.4-

1998 09 14	704	0.4+	0.2-	1998 09 26	704	0.1+	0.9-	1998 10 27	327	0.0	0.3+
1998 09 18	704	(2.1-	1.2+)	1998 09 27	699	0.6+	0.8+	1998 10 27	327	0.6-	0.3-
1998 09 18	704	0.0	0.4+	1998 09 27	699	0.9+	0.6+	2000 01 05	704	0.2-	0.1+
1998 09 18	704	0.5-	0.3-	1998 09 27	704	0.8+	0.8+	2000 01 05	704	0.5-	0.2+
1998 09 18	704	0.1+	0.4+	1998 09 27	699	0.1-	0.4+	2000 01 05	704	0.6-	0.2-
1998 09 18	704	(2.5-	1.9+)	1998 09 27	704	0.7-	0.7-	2000 01 25	621	0.7+	0.2+
1998 09 25	699	0.7+	0.0	1998 09 27	704	1.2-	0.6-	2000 01 25	621	0.1+	0.2+
1998 09 25	699	0.5+	0.1-	1998 09 27	704	1.8-	0.4+	2000 01 27	621	0.4+	0.0
1998 09 25	699	0.5+	0.9-	1998 09 27	704	0.2-	0.6-	2000 01 27	621	0.2+	0.1-
1998 09 26	704	0.3-	0.0	1998 10 18	327	0.1-	0.7-	2000 01 27	621	0.0	0.2-
1998 09 26	704	(1.9+	2.2-)	1998 10 18	327	0.1+	0.4-				

1998 RT₅₇ = 2000 AE₁₃₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	40.36107	(2000.0)	P		Q	
<i>n</i>	0.26000781	ω	341.78151	-0.35076502	-0.93549465	
<i>a</i>	2.4311502	Ω	128.73036	+0.86583490	-0.34130067	
<i>e</i>	0.1425785	<i>i</i>	3.12944	+0.35678260	-0.09145279	
<i>P</i>	3.79	<i>H</i>	15.1	<i>G</i> 0.15	<i>U</i> 4	

Residuals in seconds of arc

1998 09 14	704	0.9+	0.8-	1998 09 26	704	0.9+	0.4+	2000 01 04	704	0.3-	0.2+
1998 09 14	704	0.1+	0.8-	1998 09 27	704	0.3+	0.0	2000 01 04	704	1.2+	0.8-
1998 09 14	704	0.5-	0.7-	1998 09 27	704	0.4-	0.0	2000 01 08	704	0.5+	0.2-
1998 09 18	704	0.4+	0.6+	1998 09 27	704	0.4-	0.3+	2000 01 08	704	0.4-	0.4-
1998 09 18	704	(2.3-	1.6+)	1998 09 27	704	0.0	0.3+	2000 01 08	704	0.6-	0.4+
1998 09 18	704	0.3-	1.7-	1998 09 27	704	1.0-	1.0+	2000 01 08	704	0.0	0.2+
1998 09 18	704	0.7+	0.8-	1998 09 27	704	0.3-	0.7+	2000 02 06	704	0.4+	0.3+
1998 09 18	704	0.4+	0.2+	1998 09 27	704	(0.2-	2.8+)	2000 02 06	704	0.2-	0.8+
1998 09 25	699	0.7+	0.7-	1998 09 27	704	1.6-	1.2-	2000 02 06	704	0.3+	0.8+
1998 09 25	699	0.7+	0.1+	1998 09 27	704	1.0+	1.0+	2000 02 06	704	1.0+	0.7-
1998 09 25	699	0.2+	0.5+	1998 09 27	704	1.5-	0.2+	2000 02 11	704	0.6-	0.1-
1998 09 26	704	0.8+	0.0	1998 09 29	704	0.1-	1.4+	2000 02 11	704	0.2-	0.3-
1998 09 26	704	0.1+	1.2-	1998 09 29	704	1.4-	0.6+	2000 02 11	704	0.0	0.5+
1998 09 26	704	(1.0+	2.1-)	1998 09 29	704	0.0	1.1-	2000 02 11	704	0.3+	0.0
1998 09 26	704	0.7+	0.5+	1998 09 29	704	(2.2-	0.1-)	2000 02 11	704	0.6-	0.4-
1998 09 26	704	0.1-	0.1+	1998 09 29	704	0.1-	0.9+				
1998 09 26	704	(0.8+	2.5+)	2000 01 04	704	0.8-	0.6-				

1998 RZ₅₈ = 1999 XU₉₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Doppler

<i>M</i>	56.88038	(2000.0)	P		Q	
<i>n</i>	0.18283023	ω	118.50896	+0.68021636	-0.73265805	
<i>a</i>	3.0744732	Ω	288.61171	+0.66385255	+0.62890595	
<i>e</i>	0.0778186	<i>i</i>	1.37597	+0.31081424	+0.26017204	
<i>P</i>	5.39	<i>H</i>	14.7	<i>G</i> 0.15	<i>U</i> 5	

Residuals in seconds of arc

1998 09 14	704	1.0-	1.5+	1998 09 18	704	1.2-	0.4-	1998 09 27	704	1.1-	2.0-
1998 09 14	704	0.3-	1.5-	1998 09 26	704	0.0	0.1-	1999 12 07	704	0.3+	0.2-
1998 09 14	704	0.2+	0.7-	1998 09 26	704	0.0	1.0+	1999 12 07	704	0.5+	1.0-
1998 09 16	699	0.7-	1.1+	1998 09 26	704	0.3+	0.8-	1999 12 07	704	0.1+	0.9+
1998 09 16	699	1.7+	1.0+	1998 09 26	704	0.3+	0.5-	1999 12 08	704	0.8-	0.1+
1998 09 16	699	1.4+	0.9-	1998 09 26	704	0.6-	0.1-	1999 12 08	704	0.8-	0.4+
1998 09 18	704	0.1-	0.3+	1998 09 27	704	0.6+	0.2-	1999 12 08	704	0.3-	0.0
1998 09 18	704	0.4-	1.5+	1998 09 27	704	1.3+	0.4+	1999 12 08	704	1.4+	0.8-
1998 09 18	704	0.7-	0.6+	1998 09 27	704	0.5+	0.2-	1999 12 08	704	0.5-	0.7+

1998 RS₅₉ = 2000 BB₂₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

2000 FEB. 22

M.P.C. 38495

Residuals in seconds of arc

1998 09 14	704	1.0-	0.8+	1998 09 27	704	0.9-	0.4+	2000 02 06	704	0.4+	0.1-
1998 09 14	704	0.2-	0.5-	1998 09 27	704	1.4+	0.9+	2000 02 07	703	1.6-	0.3-
1998 09 14	704	0.4+	0.7+	1998 09 27	704	0.6-	1.6-	2000 02 07	703	0.3-	0.2-
1998 09 18	704	0.7-	0.4+	1998 09 27	704	0.6+	0.4-	2000 02 07	703	0.5-	0.1+
1998 09 18	704	0.1-	0.3-	2000 01 30	704	0.4+	0.6-	2000 02 07	703	1.5-	0.8-
1998 09 18	704	0.0	0.9-	2000 01 30	704	0.4-	0.3-	2000 02 11	704	0.3+	0.1+
1998 09 18	704	0.1-	0.0	2000 01 30	704	1.5+	0.7+	2000 02 11	704	0.4-	1.4+
1998 09 18	704	0.6+	0.3-	2000 02 03	704	0.1-	0.5-	2000 02 11	704	0.3+	0.3-
1998 09 26	704	1.3+	0.5-	2000 02 03	704	0.3-	0.7+	2000 02 11	704	1.6+	0.0
1998 09 26	704	1.2-	0.2+	2000 02 03	704	0.6+	1.0+	2000 02 11	704	0.7-	0.2-
1998 09 26	704	0.5-	1.7+	2000 02 06	704	0.1+	0.9-	2000 02 12	691	0.0	0.4+
1998 09 26	704	0.9+	0.5-	2000 02 06	704	0.1-	0.4+	2000 02 12	691	0.1+	0.4+
1998 09 27	704	(1.2+	2.1+)	2000 02 06	704	0.2+	1.5-	2000 02 12	691	0.2+	0.4+

1998 RJ₆₀ = 2000 CF₉₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	127.66533		(2000.0)	P	Q	
<i>n</i>	0.23182290	ω	8.38588	+0.99278510	+0.11072331	
<i>a</i>	2.6244109	Ω	345.02147	-0.11773163	+0.82732798	
<i>e</i>	0.2291782	<i>i</i>	10.25722	-0.02273800	+0.55069842	
<i>P</i>	4.25	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i> 3

Residuals in seconds of arc

1998 08 02	699	0.0	0.2+	1998 09 27	704	0.4-	0.7+	1998 09 29	704	0.4+	0.1-
1998 08 02	699	0.3+	1.2-	1998 09 27	704	0.6+	0.6+	1998 09 29	704	0.6-	0.2+
1998 08 02	699	0.7+	0.8+	1998 09 27	704	0.5+	0.2+	1998 09 29	704	0.8+	0.6-
1998 09 14	704	0.1+	0.1-	1998 09 27	704	1.1+	0.6+	1998 09 29	704	0.4-	0.1-
1998 09 14	704	0.1-	0.2+	1998 09 27	704	1.3+	0.9-	1998 09 29	704	0.9+	0.6-
1998 09 14	704	0.8-	0.1-	1998 09 29	704	0.4+	0.4-	1998 09 29	704	0.2+	0.8+
1998 09 15	699	0.3-	0.1-	1998 09 29	704	0.7-	0.2-	1998 09 29	704	0.5-	1.1+
1998 09 15	699	0.1-	0.1+	1998 09 29	704	0.0	0.6-	1998 09 29	704	1.0-	0.4-
1998 09 15	699	0.3+	0.1-	1998 09 29	704	0.3-	0.2+	1998 09 29	704	0.7-	0.1+
1998 09 18	704	0.6-	0.2-	1998 09 29	704	0.3+	0.1+	1998 09 29	704	0.3-	0.7-
1998 09 18	704	0.3-	0.5-	1998 09 29	704	0.3-	0.6+	1998 09 29	704	0.1+	1.0+
1998 09 18	704	1.0-	0.2-	1998 09 29	704	0.0	0.6-	2000 02 06	704	0.0	0.3+
1998 09 18	704	1.1-	0.5+	1998 09 29	704	0.2-	0.3-	2000 02 06	704	0.2+	1.2+
1998 09 18	704	0.0	0.1-	1998 09 29	704	0.4+	0.4+	2000 02 06	704	0.2+	1.5-
1998 09 26	704	0.3+	0.5+	1998 09 29	704	0.4-	0.6+	2000 02 06	704	0.2+	0.0
1998 09 26	704	0.3-	0.5-	1998 09 29	704	0.3-	0.3+	2000 02 06	704	0.2-	0.5-
1998 09 26	704	0.0	0.5-	1998 09 29	704	0.4-	0.0	2000 02 11	704	0.2-	0.0
1998 09 26	704	1.2+	0.7-	1998 09 29	704	0.7+	0.4-	2000 02 11	704	0.2-	0.6+
1998 09 26	704	0.8+	0.3-	1998 09 29	704	0.0	0.6+	2000 02 11	704	0.1-	0.4-

1998 RL₆₀ = 2000 AL₁₇₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	165.32810		(2000.0)	P	Q	
<i>n</i>	0.18612645	ω	85.31935	+0.33123684	+0.94107577	
<i>a</i>	3.0380668	Ω	204.36890	-0.91795089	+0.30467192	
<i>e</i>	0.0701328	<i>i</i>	9.52158	-0.21828494	+0.14680399	
<i>P</i>	5.30	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 14	704	0.6-	0.7-	1998 09 26	704	0.1+	0.6-	1999 12 14	704	0.7-	0.4-
1998 09 14	704	1.2-	1.0-	1998 09 27	704	0.4-	0.3+	1999 12 14	704	0.5+	0.3-
1998 09 14	704	(2.3-	2.1-)	1998 09 27	704	0.5+	0.4-	1999 12 14	704	0.3+	0.0
1998 09 18	704	1.4+	0.7+	1998 09 27	704	0.0	1.4+	2000 01 07	704	0.4+	0.1+
1998 09 18	704	0.2+	1.2+	1998 09 27	704	0.6+	0.5+	2000 01 07	704	0.5-	0.3+
1998 09 18	704	0.8-	0.7-	1998 09 27	704	0.1+	0.5+	2000 01 07	704	0.5-	0.4+
1998 09 18	704	0.5-	0.2+	1998 10 14	699	1.0+	0.4+	2000 01 07	704	0.5-	0.9-
1998 09 18	704	1.4+	1.0+	1998 10 14	699	0.1+	0.1+	2000 01 11	704	0.1+	0.4-
1998 09 26	704	0.7-	0.2+	1998 10 14	699	1.8-	0.7-	2000 01 11	704	0.2-	0.4-
1998 09 26	704	0.1-	0.8-	1999 12 14	704	0.7-	0.3-	2000 01 11	704	1.0+	1.3+
1998 09 26	704	0.4+	1.6-	1999 12 14	704	0.5+	0.9+	2000 01 11	704	0.2+	0.3-

1998 RQ₆₁ = 2000 CM₅₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	69.94901		(2000.0)	P	Q	
<i>n</i>	0.23538897	ω	103.13215	+0.29417333	-0.95511341	
<i>a</i>	2.5978375	Ω	329.68919	+0.84788754	+0.27766769	
<i>e</i>	0.1534018	<i>i</i>	3.96919	+0.44107684	+0.10324260	
<i>P</i>	4.19	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i> 2

Residuals in seconds of arc

1996 03 21	566	0.2+	0.1-	1998 09 27	704	0.6+	0.2-	2000 01 04	704	0.0	0.7+
1996 03 21	566	0.1-	0.0	1998 09 27	704	0.2-	0.4-	2000 02 02	704	0.0	0.3+
1996 03 21	566	0.3-	0.2-	1998 09 27	704	0.3+	0.1-	2000 02 02	704	0.2+	0.5+
1998 09 14	704	0.2+	0.0	1998 09 27	704	0.6+	0.4-	2000 02 02	704	0.2+	1.3+
1998 09 14	704	0.0	0.8-	1998 09 27	704	0.1+	0.7-	2000 02 02	704	0.0	0.6-
1998 09 14	704	0.7-	0.1-	1998 10 14	699	0.3+	0.1+	2000 02 02	704	0.2+	1.0+
1998 09 15	699	0.1+	0.5+	1998 10 14	699	1.5+	0.4-	2000 02 06	704	0.2+	0.9-
1998 09 15	699	0.2-	1.1+	1998 10 14	699	1.0+	0.5-	2000 02 06	704	0.5-	0.3+
1998 09 15	699	1.2+	0.0	1998 12 09	704	0.4+	1.0-	2000 02 06	704	1.8+	0.7+
1998 09 18	704	0.5-	0.1+	1998 12 09	704	(0.0	2.6+)	2000 02 06	704	1.3+	0.7-
1998 09 18	704	0.0	0.0	1998 12 09	704	0.3-	1.7+	2000 02 08	691	0.4-	0.0
1998 09 18	704	0.2-	0.1+	1998 12 09	704	(1.3+	3.7+)	2000 02 08	691	0.4-	0.1-
1998 09 18	704	0.6-	0.7+	1999 12 05	704	0.1+	0.9-	2000 02 08	691	0.5-	0.1-
1998 09 18	704	0.3+	1.3+	1999 12 05	704	0.1-	0.6-	2000 02 11	704	1.1-	0.7+
1998 09 26	704	0.3-	0.2-	1999 12 05	704	0.4-	0.1+	2000 02 11	704	0.7-	0.3+
1998 09 26	704	1.3-	0.4+	1999 12 05	704	0.3-	0.7+	2000 02 11	704	0.7-	0.8+
1998 09 26	704	1.4-	0.5-	2000 01 04	704	0.1+	0.0	2000 02 11	704	1.5+	1.6-
1998 09 26	704	0.3-	0.2+	2000 01 04	704	0.3-	0.5-				
1998 09 26	704	0.3-	0.4-	2000 01 04	704	0.0	1.1-				

1998 RB₆₃ = 2000 CO₃₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	81.77771		(2000.0)	P	Q	
<i>n</i>	0.22472557	ω	252.30942	+0.65768171	-0.74880992	
<i>a</i>	2.6793805	Ω	155.95895	+0.74467750	+0.62984867	
<i>e</i>	0.1822646	<i>i</i>	11.62452	+0.11362296	+0.20633554	
<i>P</i>	4.39	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 14	704	0.1-	0.7+	1998 09 26	704	0.3+	0.9-	1998 10 12	699	1.0+	1.2+
1998 09 14	704	0.1+	0.0	1998 09 26	704	0.9-	0.5-	1998 10 12	699	0.1+	0.6+
1998 09 14	704	0.2-	0.1+	1998 09 26	704	0.1+	1.5-	2000 02 02	704	0.2-	0.2-
1998 09 17	699	0.9+	0.6+	1998 09 26	704	0.1+	1.9-	2000 02 02	704	0.2+	0.5+
1998 09 17	699	0.2-	0.7+	1998 09 27	704	0.2+	0.4-	2000 02 02	704	0.6+	0.5+
1998 09 17	699	0.2+	0.4+	1998 09 27	704	0.4-	0.2+	2000 02 02	704	0.0	0.8+
1998 09 18	704	0.2+	1.1-	1998 09 27	704	0.1-	1.0-	2000 02 02	704	0.1-	0.8+
1998 09 18	704	0.4-	0.5+	1998 09 27	699	0.3-	0.1+	2000 02 04	704	0.2-	0.5-
1998 09 18	704	0.5+	0.1-	1998 09 27	704	1.3-	1.9-	2000 02 04	704	0.3-	0.2-
1998 09 18	704	0.2+	0.5+	1998 09 27	699	0.8+	0.8+	2000 02 04	704	0.9+	0.7-
1998 09 18	704	0.2-	0.1-	1998 09 27	699	0.4+	0.9+	2000 02 04	704	0.4-	0.8-
1998 09 26	704	0.7-	0.9+	1998 10 12	699	0.1-	1.2+	2000 02 04	704	0.5-	0.4-

1998 RA₆₄ = 1966 BY = 2000 CW₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	12.48001		(2000.0)	P	Q	
<i>n</i>	0.26109159	ω	14.08271	-0.70751084	-0.70493517	
<i>a</i>	2.4244178	Ω	120.97877	+0.64261770	-0.67115295	
<i>e</i>	0.1152043	<i>i</i>	3.33985	+0.29405936	-0.22939078	
<i>P</i>	3.77	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i> 2

Residuals in seconds of arc

1966 01 30	330	0.3-	1.2-	1998 09 27	704	0.9+	0.3-	2000 01 30	704	0.2+	0.1-

1998 09 14	704	0.1−	0.2−	1998 10 17	699	1.1−	0.8−	2000 02 04	652	0.1−	0.9−
1998 09 14	704	0.1−	0.2−	1998 10 17	699	0.6+	0.5−	2000 02 04	704	0.5+	0.6+
1998 09 17	699	0.6+	0.2+	1998 10 17	699	0.5+	0.1+	2000 02 04	704	0.8+	0.6+
1998 09 17	699	0.5+	0.0	1999 12 04	703	0.6+	1.4+	2000 02 05	652	1.2−	1.9−
1998 09 17	699	0.1+	0.3−	1999 12 04	703	0.1+	1.6+	2000 02 05	652	1.0−	1.3−
1998 09 18	704	1.1−	1.1+	1999 12 04	703	0.5+	0.4−	2000 02 05	652	1.0−	1.1−
1998 09 18	704	0.2−	0.3−	1999 12 04	703	1.5+	0.6+	2000 02 11	704	0.4−	0.3+
1998 09 18	704	(0.0	2.3+)	2000 01 29	703	0.0	0.7+	2000 02 11	704	0.4+	0.4+
1998 09 18	704	1.2−	0.3+	2000 01 29	703	0.1−	0.0	2000 02 11	704	0.5+	0.0
1998 09 18	704	0.3+	1.2+	2000 01 29	703	0.3+	0.6+	2000 02 11	704	0.5+	0.0
1998 09 26	704	1.4+	0.3−	2000 01 29	703	0.3−	0.1+	2000 02 17	652	0.1+	0.9+
1998 09 26	704	0.3+	0.1+	2000 01 30	704	0.5+	0.9+	2000 02 17	652	0.6+	1.0+
1998 09 26	704	0.8−	0.4+	2000 01 30	704	0.1+	0.1−	2000 02 17	652	0.6−	0.9+
1998 09 26	704	0.2−	1.0+	2000 01 30	704	0.0	0.7+				
1998 09 26	704	0.7−	1.5+	2000 01 30	704	0.3+	0.3+				

1998 RJ₆₄ = 2000 CK₇₄

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	163.64824		(2000.0)	P	Q
<i>n</i>	0.26515752	ω	179.33725	+0.79287789	+0.60871613
<i>a</i>	2.3995700	Ω	143.11729	−0.55931359	+0.74547276
<i>e</i>	0.2137966	<i>i</i>	2.71686	−0.24189453	+0.27154196
<i>P</i>	3.72	<i>H</i>	15.4	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 08 02	699	0.0	0.1−	1998 09 18	704	0.1+	0.4+	1998 09 27	704	1.0−	0.3−
1998 08 02	699	0.5−	1.0−	1998 09 18	704	0.4−	0.7+	1998 09 27	704	0.9−	0.1+
1998 08 02	699	0.6+	0.1−	1998 09 18	704	1.0+	0.6+	1998 10 17	699	0.4+	0.4−
1998 09 14	704	0.1+	0.1+	1998 09 26	704	0.7+	0.2+	1998 10 17	699	0.0	0.1+
1998 09 14	704	0.3−	0.1−	1998 09 26	704	0.4+	0.4−	1998 10 17	699	0.0	0.5+
1998 09 14	704	0.0	0.6−	1998 09 26	704	0.2+	0.8−	2000 02 08	691	0.0	0.8−
1998 09 16	699	0.1+	0.2−	1998 09 26	704	0.6+	0.1−	2000 02 08	691	0.0	0.8−
1998 09 16	699	0.2+	0.7+	1998 09 26	704	0.4+	0.4−	2000 02 08	691	0.0	0.8−
1998 09 16	699	0.4−	0.5+	1998 09 27	704	0.0	0.2−	2000 02 10	691	0.1−	0.5+
1998 09 18	704	0.3+	0.1+	1998 09 27	704	1.2−	0.8−	2000 02 10	691	0.0	0.7+
1998 09 18	704	0.5+	0.6+	1998 09 27	704	0.7−	0.5+	2000 02 10	691	0.1−	0.8+

1998 RB₆₆ = 2000 AB₂₃₇

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	16.95938		(2000.0)	P	Q
<i>n</i>	0.29086742	ω	313.64971	−0.81356504	−0.58099048
<i>a</i>	2.2560012	Ω	190.90249	+0.56303800	−0.77693098
<i>e</i>	0.0598673	<i>i</i>	7.20028	+0.14525886	−0.24254548
<i>P</i>	3.39	<i>H</i>	14.8	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1998 08 27	699	0.9+	0.4−	1998 09 26	704	0.4+	0.3−	2000 01 05	704	(0.2−	2.4−)
1998 08 27	699	0.5+	0.7−	1998 09 26	704	0.2+	1.3−	2000 01 05	704	(1.8−	2.1−)
1998 08 27	699	0.8+	0.1−	1998 09 27	704	0.4+	0.3−	2000 01 11	699	0.5+	0.7+
1998 09 14	704	0.1−	0.2+	1998 09 27	704	0.3−	0.8+	2000 01 11	699	0.3+	0.8+
1998 09 14	704	0.8−	0.8−	1998 09 27	704	0.6+	1.1+	2000 01 11	699	0.3+	0.7+
1998 09 14	704	0.6−	0.0	1998 09 27	704	0.6−	0.5+	2000 02 02	704	0.6+	0.1+
1998 09 15	699	0.2−	0.9+	1998 09 27	704	0.1−	0.1−	2000 02 02	704	0.8+	0.1−
1998 09 15	699	0.3−	0.6+	1998 10 14	699	0.8+	0.1+	2000 02 02	704	(2.0+	0.2−)
1998 09 15	699	0.2−	0.4+	1998 10 14	699	0.7+	0.5+	2000 02 02	704	0.1−	0.1+
1998 09 18	704	0.2+	0.6+	1998 10 14	699	0.7+	0.4+	2000 02 07	704	0.0	0.7−
1998 09 18	704	0.3−	0.4+	1998 10 24	691	0.3−	0.4−	2000 02 07	704	0.8−	0.0
1998 09 18	704	0.4+	0.7+	1998 10 24	691	0.2−	0.5−	2000 02 07	704	0.7−	0.8−
1998 09 18	704	0.7−	0.2+	1998 10 24	691	0.0	0.6−	2000 02 07	704	0.6−	0.8−
1998 09 18	704	0.1−	0.1+	1998 10 28	691	0.2+	0.3+	2000 02 07	704	0.5−	0.6−
1998 09 26	704	0.6−	0.3+	1998 10 28	691	0.2−	0.0	2000 02 08	704	1.0+	0.3+
1998 09 26	704	0.6−	1.5−	1998 10 28	691	0.1+	0.0	2000 02 08	704	0.3−	1.2+
1998 09 26	704	0.3−	1.0−	2000 01 05	704	0.8−	1.2−	2000 02 08	704	0.4+	0.2+

1998 RJ₆₇ = 2000 AW₁₉₁

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	17.98460		(2000.0)	P	Q
<i>n</i>	0.20331194	ω	252.34043	−0.16394163	−0.98245225
<i>a</i>	2.8643591	Ω	207.57304	+0.96217332	−0.13936498
<i>e</i>	0.0265403	<i>i</i>	11.07829	+0.21759056	−0.12395554
<i>P</i>	4.85	<i>H</i>	13.7	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1998 09 14	704	0.0	0.1−	1998 09 26	704	1.3−	0.8+	1998 10 29	704	0.9+	1.7−
1998 09 14	704	0.6+	0.3−	1998 09 27	704	0.1+	0.6−	1998 10 29	704	0.5+	0.4−
1998 09 14	704	1.0−	1.5−	1998 09 27	704	0.1−	0.4−	1999 10 20	704	0.5−	0.8+
1998 09 18	704	0.7−	1.7+	1998 09 27	704	0.5+	1.6+	1999 10 20	704	0.5−	1.2+
1998 09 18	704	(2.0+	0.4+)	1998 09 27	704	0.1+	1.1+	1999 10 20	704	0.2+	0.1−
1998 09 18	704	0.5+	0.7−	1998 09 27	704	1.4−	1.6+	2000 01 08	704	0.2−	0.1−
1998 09 18	704	0.2−	0.4+	1998 10 28	704	1.5+	0.2+	2000 01 08	704	0.0	0.1−
1998 09 18	704	0.6+	0.8+	1998 10 28	704	0.6−	1.4−	2000 01 08	704	0.2−	0.6−
1998 09 26	704	0.3+	0.9+	1998 10 28	704	1.2−	0.3−	2000 01 11	704	0.4+	0.2−
1998 09 26	704	0.2+	0.1+	1998 10 28	704	0.2−	1.0−	2000 01 11	704	0.7+	0.1+
1998 09 26	704	0.9+	1.1−	1998 10 29	704	0.7+	0.4−	2000 01 11	704	0.2−	0.0
1998 09 26	704	1.8−	0.5−	1998 10 29	704	1.4+	0.6+	2000 01 11	704	0.1+	0.2+

1998 RS₆₇ = 2000 CR₁₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	136.94001		(2000.0)	P	Q
<i>n</i>	0.22844892	ω	97.91112	+0.96536419	+0.25769927
<i>a</i>	2.6501878	Ω	247.16266	−0.25340893	+0.88889926
<i>e</i>	0.1012884	<i>i</i>	2.53614	−0.06209591	+0.37874687
<i>P</i>	4.31	<i>H</i>	14.6	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1998 08 28	699	0.4−	0.6+	1998 09 26	704	1.0−	0.5−	1998 10 14	699	0.5+	0.9+
1998 08 28	699	0.5−	0.2+	1998 09 26	704	0.4+	0.1−	2000 02 02	704	0.7−	0.4−
1998 08 28	699	0.9−	0.7+	1998 09 26	704	1.5−	0.8−	2000 02 02	704	0.0	0.1−
1998 09 14	704	0.8+	0.2−	1998 09 26	704	1.2−	1.7−	2000 02 02	704	0.1−	0.1−
1998 09 14	704	1.0+	0.4−	1998 09 26	704	0.6−	0.2−	2000 02 02	704	0.3+	0.3+
1998 09 14	704	1.2+	0.4−	1998 09 27	704	0.4−	0.6+	2000 02 02	704	0.4−	0.2−
1998 09 18	704	0.7+	0.7+	1998 09 27	704	0.2+	1.1+	2000 02 03	704	0.5+	0.2−
1998 09 18	704	0.3+	0.0	1998 09 27	704	0.1+	0.4+	2000 02 03	704	0.4−	0.6+
1998 09 18	704	0.2+	0.6−	1998 09 27	704	0.7+	1.2−	2000 02 03	704	0.2−	0.1+
1998 09 18	704	(2.6−	0.2−)	1998 10 14	699	0.1−	0.2+	2000 02 03	704	0.7+	0.6−
1998 09 18	704	0.8+	0.4−	1998 10 14	699	0.5−	1.1+	2000 02 03	704	0.4+	0.6+

1998 RL₆₉ = 1999 XB₂₀₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	64.01136		(2000.0)	P	Q
<i>n</i>	0.18315725	ω	33.48576	+0.75687926	−0.65313562
<i>a</i>	3.0708125	Ω	7.42760	+0.55285203	+0.62074863
<i>e</i>	0.0714397	<i>i</i>	10.42961	+0.34855190	+0.43368767
<i>P</i>	5.38	<i>H</i>	14.2	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 14	704	1.2−	0.0	1998 09 26	704	1.7−	0.6−	1999 12 12	704	0.3−	1.2+
1998 09 14	704	0.5+	1.0−	1998 09 26	704	0.6−	1.4−	1999 12 12	704	0.1+	0.9+
1998 09 14	704	1.0+	1.3−	1998 09 26	704	0.8+	0.6−	1999 12 12	704	0.8+	0.5−
1998 09 18	704	0.8−	0.6−	1998 09 27	704	2.1+	1.1+	1999 12 12	704	0.2+	0.4+
1998 09 18	704	0.0	0.7+	1998 09 27	704	1.7+	1.0+	1999 12 12	704	0.8−	0.4−
1998 09 18	704	1.0+	2.2+	1998 09 27	704	2.0+	0.4+	1999 12 15	704	0.3−	1.4−
1998 09 18	704	1.0−	0.8−	1998 09 27	704	1.3+	0.7+	1999 12 15	704	0.1+	0.1+
1998 09 18	704	1.0−	0.7+	1998 10 14	699	0.5−	0.0	1999 12 15	704	0.1+	0.4−
1998 09 26	704	1.4−	0.1+	1998 10 14	699	0.3−	0.2+				
1998 09 26	704	1.5−	0.1+	1998 10 14	699	0.5−	0.9−				

2000 FEB. 22

M.P.C. 38497

1998 RQ₇₀ = 2000 AN₁₉₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	358.68334		(2000.0)		P		Q
n	0.22746565	ω	336.15295		-0.68134639		-0.72741189
a	2.6578196	Ω	156.52997		+0.70016117		-0.68014957
e	0.1204045	i	11.80527		+0.21340440		-0.09093133
P	4.33	H	14.4	G	0.15	U	4

Residuals in seconds of arc

1998 09 14	704	0.5+	0.3+	1998 09 27	704	0.1+	0.2-	2000 01 08	704	0.4-	0.4-
1998 09 14	704	0.4+	1.1+	1998 09 27	704	0.4-	0.5+	2000 01 08	704	0.0	0.5-
1998 09 14	704	1.2-	0.3-	1998 09 27	704	0.7-	1.3-	2000 01 11	704	0.1+	0.3+
1998 09 18	704	0.3-	1.0+	1998 09 27	704	0.1+	1.2-	2000 01 11	704	0.0	0.5-
1998 09 18	704	0.7-	0.2+	1999 12 16	699	0.5-	0.6+	2000 01 11	704	0.8+	0.2+
1998 09 18	704	0.6-	1.8+	1999 12 16	699	0.1-	0.1+	2000 01 11	704	0.2+	0.4+
1998 09 18	704	0.7-	0.2+	1999 12 16	699	0.2+	0.2+	2000 01 11	704	0.2-	1.0-
1998 09 18	704	0.8-	1.2+	2000 01 04	699	0.1-	0.2-	2000 02 04	704	0.3+	0.1-
1998 09 26	704	0.5+	0.1+	2000 01 04	699	0.0	0.1+	2000 02 04	704	0.1+	0.1+
1998 09 26	704	0.5+	2.0-	2000 01 04	699	0.1-	0.4+	2000 02 04	704	0.6-	0.0
1998 09 26	704	0.5+	0.7-	2000 01 08	704	0.5-	0.4-	2000 02 04	704	0.1+	0.5+
1998 09 26	704	1.0+	1.4-	2000 01 08	704	0.0	0.1-	2000 02 04	704	0.4+	0.9+
1998 09 26	704	1.7+	0.8+	2000 01 08	704	0.0	0.3-				

1998 RV₇₁ = 1978 WT₂ = 2000 AX₅₄Id. G. V. Williams (*MPC* 33007, unpublished)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	340.30615		(2000.0)		P		Q
n	0.23976575	ω	43.25002		-0.89064351		-0.45394834
a	2.5661259	Ω	109.73564		+0.40923604		-0.82534742
e	0.0755063	i	1.59341		+0.19819184		-0.33575668
P	4.11	H	14.7	G	0.15	U	4

Residuals in seconds of arc

1978 11 29	675	0.0	0.6-	2000 01 04	704	1.1+	1.2-	2000 02 03	704	0.3-	0.6-
1978 11 30	675	0.3+	0.4-	2000 01 04	704	(0.6+	2.1-)	2000 02 03	704	0.0	0.2+
1998 09 14	704	(2.1-	2.2-)	2000 01 06	704	0.7+	0.5-	2000 02 03	704	0.0	0.4-
1998 09 14	704	0.1+	0.5+	2000 01 06	704	1.1+	0.7-	2000 02 03	704	0.1+	0.2-
1998 09 14	704	(2.6-	1.2-)	2000 01 06	704	0.8+	1.2-	2000 02 06	704	0.3-	0.5+
1998 09 18	704	0.5-	0.8+	2000 01 16	691	0.2-	0.2-	2000 02 06	704	0.1-	0.4+
1998 09 18	704	0.0	0.8+	2000 01 16	691	0.2-	0.2-	2000 02 06	704	0.5+	0.5-
1998 09 18	704	1.2+	0.9+	2000 01 16	691	0.1-	0.1-	2000 02 07	691	0.2-	0.2-
1998 09 18	704	(2.4-	1.1+)	2000 01 24	120	0.5-	1.1+	2000 02 07	691	0.2-	0.2-
1998 09 18	704	1.6-	1.2+	2000 01 24	120	0.7-	0.7+	2000 02 07	691	0.4-	0.5-
1998 09 26	704	1.0+	0.8-	2000 01 24	120	1.2-	1.0+	2000 02 07	703	0.5-	0.7+
1998 09 26	704	0.7+	1.0-	2000 01 27	691	0.2-	0.6+	2000 02 07	703	0.1-	0.5+
1998 09 26	704	0.3+	0.9-	2000 01 27	691	0.1-	0.4+	2000 02 07	703	0.5+	0.6+
1998 09 26	704	0.1-	0.2+	2000 01 27	691	0.0	0.5+	2000 02 07	703	0.5-	0.6+
1998 09 26	704	0.4-	0.5+	2000 01 28	691	0.4-	0.4+	2000 02 11	704	0.2+	0.0
1998 09 27	704	1.6+	0.5+	2000 01 28	691	0.4-	0.4+	2000 02 11	704	0.7+	0.5+
1998 09 27	704	0.8-	0.6+	2000 01 28	691	0.6-	0.3+	2000 02 11	704	0.1-	0.3-
1998 09 27	704	1.3-	0.4-	2000 01 30	704	0.2-	0.3+	2000 02 11	704	0.2-	0.7+
1998 09 27	704	0.8-	1.4-	2000 01 30	704	0.1-	0.2+	2000 02 11	704	0.3-	0.4-
2000 01 04	704	0.6+	0.9-	2000 01 30	704	0.4-	0.8+	2000 02 14	691	0.0	0.7-
2000 01 04	704	1.2+	0.5-	2000 01 30	704	0.8+	0.8+	2000 02 14	691	0.1-	0.6-
2000 01 04	704	0.0	0.8-	2000 02 03	704	0.6+	0.3+	2000 02 14	691	0.0	0.6-

1998 RY₇₁ = 2000 CM₈₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	149.13752		(2000.0)		P		Q
n	0.29212678	ω	350.07916		+0.99042846		-0.13345644
a	2.2495128	Ω	17.70679		+0.13324424		+0.85784932
e	0.1262257	i	6.65080		+0.03601985		+0.49627001
P	3.37	H	15.0	G	0.15	U	3

Residuals in seconds of arc

1998 09 14	704	0.2+	0.2-	1998 10 14	699	1.1+	0.3+	1998 11 10	699	0.2-	0.2-
1998 09 14	704	0.6-	0.8-	1998 10 14	699	0.4+	0.8+	1998 12 09	704	(3.1+	0.6+)
1998 09 14	704	0.8-	1.1-	1998 10 14	699	0.2+	0.1-	1998 12 09	704	0.0	0.0
1998 09 17	699	(3.1-	0.1-)	1998 10 15	691	0.4+	0.3+	1998 12 09	704	0.1+	0.1+
1998 09 17	699	0.0	0.2+	1998 10 15	691	0.4+	0.3-	1998 12 09	704	(0.1-	3.0+)
1998 09 17	699	0.4+	0.2+	1998 10 15	691	0.4+	0.0	2000 02 04	704	0.4+	1.7-
1998 09 18	704	0.4+	0.3+	1998 10 24	691	0.7-	0.6-	2000 02 04	704	0.6-	1.7-
1998 09 18	704	0.2+	0.1+	1998 10 24	691	0.6-	0.4-	2000 02 04	704	1.2-	0.4-
1998 09 18	704	0.3-	0.1+	1998 10 24	691	0.9-	0.3-	2000 02 04	704	0.3+	0.3+
1998 09 18	704	0.2+	0.1-	1998 10 28	691	0.5-	0.1-	2000 02 11	704	1.0+	1.1+
1998 09 18	704	0.2+	0.6+	1998 10 28	691	0.2-	0.5+	2000 02 11	704	0.2+	0.6+
1998 09 25	699	0.4-	0.3+	1998 10 28	691	0.4-	0.0	2000 02 11	704	0.1+	0.1+
1998 09 25	699	0.0	0.6+	1998 11 10	699	1.1+	0.2+	2000 02 11	704	0.1-	1.6+
1998 09 25	699	0.1+	0.1-	1998 11 10	699	0.3-	0.4-				

1998 RY₇₂ = 2000 CF₂₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	63.84443		(2000.0)		P		Q
n	0.22851028	ω	257.05925		+0.27408826		-0.96170195
a	2.6497133	Ω	177.03027		+0.89821439		+0.25516301
e	0.1105081	i	2.47038		+0.34363720		+0.10010594
P	4.31	H	14.3	G	0.15	U	4

Residuals in seconds of arc

1998 09 14	704	0.8-	0.5-	1998 09 26	704	0.0	0.3+	1998 10 29	704	(2.2-	0.3+)
1998 09 14	704	0.8-	0.6+	1998 09 27	704	0.2+	0.1+	1998 10 29	704	1.6-	0.9+
1998 09 14	704	(2.5-	1.1-)	1998 09 27	704	0.4+	0.5+	1998 10 29	704	0.8-	0.7-
1998 09 15	699	0.4-	0.2-	1998 09 27	704	1.0+	0.0	2000 02 02	704	0.2-	0.1+
1998 09 15	699	0.4+	0.1-	1998 09 27	704	0.5+	1.1+	2000 02 02	704	0.5-	0.3+
1998 09 15	699	0.2+	0.1-	1998 09 27	704	0.4-	0.0	2000 02 02	704	0.5-	0.6-
1998 09 18	704	0.6-	0.3-	1998 10 14	699	0.6+	1.0+	2000 02 02	704	0.1-	0.1-
1998 09 18	704	(1.2-	2.2+)	1998 10 14	699	0.3+	0.1-	2000 02 02	704	0.2-	0.4-
1998 09 18	704	(0.2+	2.4+)	1998 10 14	699	0.8+	0.0	2000 02 04	704	0.4+	0.7+
1998 09 18	704	(0.3+	2.5+)	1998 10 28	704	0.4-	1.3-	2000 02 04	704	0.1+	0.4+
1998 09 18	704	(2.2-	1.5+)	1998 10 28	704	0.8+	0.5+	2000 02 04	704	0.4-	0.0
1998 09 26	704	0.5+	0.1-	1998 10 28	704	(2.2+	2.1-)	2000 02 04	704	0.6+	0.4-
1998 09 26	704	0.2-	0.2+	1998 10 28	704	0.8+	1.2-	2000 02 04	704	0.9+	0.4+
1998 09 26	704	0.0	0.2-	1998 10 29	704	0.6+	0.7-				
1998 09 26	704	0.5-	0.8+	1998 10 29	704	0.8-	0.2-				

1998 RW₇₃ = 1981 JV₁ = 1999 YG₁₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	9.50963		(2000.0)		P		Q
n	0.25566407	ω	202.40920		-0.77778299		-0.62539341
a	2.4586097	Ω	298.72700		+0.58697419		-0.68703165
e	0.0826350	i	4.10299		+0.22475526		-0.36996026
P	3.86	H	14.4	G	0.15	U	3

Residuals in seconds of arc

1981 05 03	474	0.8+	1.6+	1998 09 27	704	(0.4-	2.2+)	2000 01 05	704	0.1-	1.8-
1981 05 03	474	0.7+	1.5+	1998 10 14	699	0.4+	1.5+	2000 01 05	691	0.5-	0.7-
1998 09 14	704	0.2-	0.3+	1998 10 14	699	0.3+	0.1-	2000 01 05	691	0.4-	0.8-
1998 09 14	704	0.1-	0.8-	1998 10 14	699	1.8+	0.6-	2000 01 05	691	0.4-	0.8-
1998 09 14	704	0.7+	0.5-	1999 11 16	704	0.3-	0.6+	2000 02 02	704	0.4+	0.4+
1998 09 18	704	0.9-	0.7-	1999 11 16	704	0.4+	0.6+	2000 02 02	704	0.9+	0.2+
1998 09 18	704	0.6-	0.2+	1999 11 16	704	0.1-	0.2+	2000 02 02	703	0.1-	0.1+
1998 09 18	704	0.1-	0.1+	1999 11 16	704	0.5-	0.2-	2000 02 02	704	0.6+	0.0
1998 09 18	704	0.7+	1.3+	1999 12 05	704	0.4-	0.7-	2000 02 02	703	0.2+	0.4+
1998 09 18	704	0.2-	0.5-	1999 12 05	704	0.7+	0.5+	2000 02 02	704	0.7+	0.5+
1998 09 25	699	0.3-	0.3+	1999 12 05	704	0.9-	0.7-	2000 02 02	703	0.2-	0.2-
1998 09 25	699	1.0+	0.2+	1999 12 05	703	0.3-	0.3+	2000 02 02	703	0.1-	0.3-
1998 09 25	699	0.7+	0.3-	1999 12 05	704	0.5-	0.5+	2000 02 02	704	0.1-	0.3+
1998 09 26	704	0.9-	0.8+	1999 12 05	703	(2.5+	0.8+)	2000 02 05	704	0.1+	0.2+
1998 09 26	704	0.5-	0.5+	1999 12 05	704	0.7-	0.7-	2000 02 05	704	0.7-	0.5-

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1998 09 26	704	1.2−	0.4−	1999 12 05	703	0.3+	0.7+	2000 02 05	704	0.2+	0.6+
1998 09 26	704	0.5−	0.3+	1999 12 05	703	0.6+	0.4+	2000 02 06	704	0.2+	0.3+
1998 09 26	704	1.3−	0.2+	1999 12 31	691	0.0	0.3−	2000 02 06	704	0.1−	0.0
1998 09 27	704	0.1−	0.0	1999 12 31	691	0.1−	0.3−	2000 02 06	704	0.5+	1.0+
1998 09 27	704	1.1−	0.6+	1999 12 31	691	0.1−	0.4−	2000 02 06	704	0.0	0.7+
1998 09 27	704	1.0+	1.7+	2000 01 05	704	0.0	0.0	2000 02 06	704	0.4+	0.9+
1998 09 27	704	0.7−	0.3+	2000 01 05	704	0.4+	0.1+				

1998 RY₇₃ = 2000 CG₉₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.27830332	<i>ω</i>	31.21892	+0.99274632	+0.10367369		
<i>a</i>	2.3233989	<i>Ω</i>	322.67933	−0.12013822	+0.87497032		
<i>e</i>	0.1315525	<i>i</i>	5.76326	+0.00464260	+0.47294683		
<i>P</i>	3.54	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 08 20	699	0.1−	0.2+	1998 09 26	704	0.7+	0.9−	1998 10 29	704	(1.0+	2.7+)
1998 08 20	699	0.0	0.3−	1998 09 26	704	0.2−	0.4−	1998 10 29	704	1.7+	0.1+
1998 08 20	699	0.1−	0.3−	1998 09 27	704	0.1−	0.4−	1998 12 09	704	0.4+	0.4−
1998 09 14	704	0.5+	0.4−	1998 09 27	704	0.7+	0.2−	1998 12 09	704	1.7−	0.2−
1998 09 14	704	0.7+	0.1−	1998 09 27	704	0.5−	0.7+	1998 12 09	704	0.4+	1.0+
1998 09 14	704	1.0+	0.2+	1998 09 27	704	0.8−	0.1−	1998 12 09	704	0.1+	1.6+
1998 09 18	704	0.6+	0.0	1998 09 27	704	0.6−	0.5−	1998 12 09	704	(1.0−	2.1+)
1998 09 18	704	1.3−	0.3+	1998 10 18	699	0.1−	0.6+	2000 02 02	704	0.6+	0.1−
1998 09 18	704	0.1+	0.3+	1998 10 18	699	0.9−	0.4+	2000 02 02	704	0.1−	0.9+
1998 09 18	704	0.8−	1.0+	1998 10 18	699	0.2+	0.3−	2000 02 02	704	0.9+	0.4+
1998 09 18	704	0.6−	0.8+	1998 10 28	704	0.1+	0.8−	2000 02 02	704	0.5+	0.3−
1998 09 25	699	0.7+	0.3−	1998 10 28	704	1.1−	0.7−	2000 02 07	691	0.5−	0.2−
1998 09 25	699	0.4−	0.4+	1998 10 28	704	0.1+	0.2−	2000 02 07	691	0.3−	0.2−
1998 09 25	699	0.1+	0.0	1998 10 28	704	1.2+	0.2+	2000 02 07	691	0.4−	0.2−
1998 09 26	704	0.3−	0.2−	1998 10 28	704	0.6−	0.3−	2000 02 14	691	0.3−	0.3−
1998 09 26	704	0.0	0.2+	1998 10 29	704	0.2+	1.2−	2000 02 14	691	0.2−	0.3−
1998 09 26	704	0.7+	0.3+	1998 10 29	704	0.3+	0.1+	2000 02 14	691	0.3−	0.2−

1998 RB₇₄ = 2000 BY₂₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.23190753	<i>ω</i>	162.08195	−0.57162394	−0.81702793		
<i>a</i>	2.6237723	<i>Ω</i>	322.68007	+0.73673058	−0.47052488		
<i>e</i>	0.1081665	<i>i</i>	7.16084	+0.36121203	−0.33327421		
<i>P</i>	4.25	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 14	704	0.4+	0.8−	1998 09 27	704	0.9−	1.3+	2000 02 04	704	0.1−	0.4+
1998 09 14	704	0.5+	1.9−	1998 09 27	704	0.9−	0.7+	2000 02 04	704	0.1+	0.1+
1998 09 14	704	0.7−	1.0−	1998 10 12	699	(2.8+	0.9−)	2000 02 04	704	0.2−	0.2+
1998 09 18	704	0.5+	0.8+	1998 10 12	699	1.8−	1.0+	2000 02 04	704	0.1+	0.2+
1998 09 18	704	0.8−	0.6−	1998 10 12	699	0.4−	0.7+	2000 02 06	704	0.2−	0.0
1998 09 18	704	0.8−	1.7−	1998 10 18	699	0.8+	0.5−	2000 02 06	704	0.0	0.4−
1998 09 18	704	1.8+	0.7−	1998 10 18	699	0.7+	0.6−	2000 02 06	704	0.2+	0.2−
1998 09 18	704	0.6+	0.3+	1998 10 18	699	0.6+	0.3−	2000 02 06	704	0.2+	0.4−
1998 09 25	699	0.1+	0.3+	1999 11 16	704	0.8+	1.1−	2000 02 06	704	0.1+	0.5−
1998 09 25	699	0.5+	0.4+	1999 11 16	704	0.5−	0.4−	2000 02 08	691	0.0	0.3−
1998 09 25	699	0.1−	0.2+	1999 11 16	704	0.1+	0.6+	2000 02 08	691	0.1+	0.3−
1998 09 26	704	0.8+	0.1−	1999 11 16	704	0.8−	0.5+	2000 02 08	691	0.2−	0.6−
1998 09 26	704	0.3+	0.6−	1999 11 16	704	0.5+	0.5+	2000 02 11	704	0.2−	0.3−
1998 09 26	704	0.5+	0.4+	2000 01 30	704	0.3−	0.1+	2000 02 11	704	0.2−	0.1+
1998 09 26	704	0.3−	0.4+	2000 01 30	704	0.9+	0.3+	2000 02 11	704	0.2−	0.4+
1998 09 27	704	1.0−	1.4+	2000 01 30	704	0.5−	0.4+	2000 02 11	704	0.2−	0.2+
1998 09 27	704	0.2−	0.6+	2000 02 04	704	0.1+	0.0	2000 02 11	704	0.0	0.2+

1998 RW₇₄ = 2000 CD₇₃

Id. T. B. Spahr

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.24713384	<i>ω</i>	28.60596	+0.97728396	+0.21122537		
<i>a</i>	2.5148644	<i>Ω</i>	319.18806	−0.19914334	+0.88727401		
<i>e</i>	0.1968520	<i>i</i>	1.51833	−0.07251200	+0.41003497		
<i>P</i>	3.99	<i>H</i>	15.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 14	704	0.5−	0.8−	1998 09 27	704	0.2+	0.5+	1998 12 13	704	0.1+	0.6+
1998 09 14	704	0.9−	1.1−	1998 10 14	699	0.5−	0.4+	1998 12 13	704	0.3+	1.3−
1998 09 14	704	0.8−	0.4+	1998 10 14	699	0.0	1.3+	1998 12 13	704	0.2+	1.3+
1998 09 18	704	0.1+	0.3+	1998 10 14	699	0.5−	0.3+	1998 12 13	704	0.4−	0.7−
1998 09 18	704	0.2+	1.3−	1998 10 14	699	0.0	0.7+	1998 12 13	704	(0.8−	2.5−)
1998 09 18	704	0.3+	0.8+	1998 10 14	699	0.3−	0.1+	1998 12 13	704	0.3−	0.1+
1998 09 18	704	1.1+	1.2−	1998 10 14	699	0.5+	1.1+	1998 12 13	704	0.0	1.2+
1998 09 18	704	0.3−	0.7+	1998 10 28	704	0.6−	1.1+	1998 12 13	704	(3.7−	0.1−)
1998 09 26	704	0.6+	0.7+	1998 10 28	704	1.1+	0.2−	2000 02 07	691	0.4−	0.2+
1998 09 26	704	0.1−	0.2−	1998 10 28	704	0.5+	1.4−	2000 02 07	691	0.2+	0.2−
1998 09 26	704	0.3+	0.4−	1998 10 28	704	0.9−	1.1−	2000 02 07	691	0.4−	0.1+
1998 09 26	704	0.2+	0.0	1998 10 28	704	(3.0−	0.7+)	2000 02 10	691	0.3+	0.5−
1998 09 26	704	0.6−	0.7−	1998 10 29	704	0.2−	1.7+	2000 02 10	691	0.0	0.6−
1998 09 27	704	0.7+	0.6−	1998 10 29	704	0.5−	1.0−	2000 02 10	691	0.2−	0.4−
1998 09 27	704	1.1+	0.2−	1998 10 29	704	0.0	0.1+				
1998 09 27	704	1.2+	1.5−	1998 10 29	704	1.5−	0.0				

1998 RA₇₅ = 2000 CK₈₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22877492	<i>ω</i>	80.71639	+0.08904873	−0.99592074		
<i>a</i>	2.6476695	<i>Ω</i>	4.25667	+0.81934846	+0.06492927		
<i>e</i>	0.1460127	<i>i</i>	11.31818	+0.56633772	+0.06265834		
<i>P</i>	4.31	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 14	704	0.4+	0.2−	1998 09 27	704	0.2+	0.5+	1998 10 29	704	0.4+	1.9+
1998 09 14	704	0.2+	0.2+	1998 09 27	704	0.1−	0.7+	1998 10 29	704	(0.6+	3.0+)
1998 09 14	704	0.2−	0.8+	1998 09 27	704	0.2−	0.5−	1998 10 29	704	0.7+	0.5+
1998 09 18	704	0.4−	0.3+	1998 09 29	595	0.5+	0.3−	2000 01 04	704	0.7−	0.2−
1998 09 18	704	0.4−	0.1−	1998 09 29	595	0.3−	0.5−	2000 01 04	704	0.6−	0.9−
1998 09 18	704	0.4+	0.2+	1998 10 11	120	1.0−	0.3−	2000 01 04	704	0.0	0.1+
1998 09 18	704	1.9−	0.2+	1998 10 11	120	1.9+	0.3−	2000 01 04	704	0.4+	0.7−
1998 09 18	704	0.5−	1.4+	1998 10 11	120	0.6−	0.3−	2000 02 04	704	0.5−	0.3−
1998 09 24	120	0.3−	1.4+	1998 10 13	120	1.3−	0.4+	2000 02 04	704	0.0	0.8+
1998 09 24	120	1.5+	0.1+	1998 10 13	120	1.3−	0.4−	2000 02 04	704	0.4−	0.5−
1998 09 24	120	0.5+	0.8+	1998 10 15	120	1.1−	0.4+	2000 02 04	704	0.7+	0.6+
1998 09 26	704	0.7+	0.0	1998 10 15	120	0.3−	0.5+	2000 02 11	704	0.4−	0.3+
1998 09 26	704	0.2+	1.3−	1998 10 28	704	0.8+	1.8−	2000 02 11	704	0.0	0.4+
1998 09 26	704	0.1+	1.6−	1998 10 28	704	0.2+	1.1−	2000 02 11	704	0.4+	0.2−
1998 09 26	704	0.4+	1.1−	1998 10 28	704	0.3+	0.5−	2000 02 11	704	0.6+	0.2+
1998 09 26	704	0.3+	1.5−	1998 10 28	704	0.1−	0.1+	2000 02 11	704	0.5+	0.6+
1998 09 27	704	0.3+	0.3+	1998 10 28	704	0.2−	0.6−				

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1998 09 15	699	0.8−	0.3−	1998 10 14	699	0.1−	1.3−	1999 12 05	704	0.5−	0.0
1998 09 15	699	0.6−	0.7+	1998 10 14	699	1.0+	0.4−	1999 12 05	704	0.0	0.8+
1998 09 15	699	0.6+	0.3−	1998 10 19	699	0.3−	0.7+	1999 12 14	704	0.5−	0.3+
1998 09 18	704	0.7−	0.2+	1998 10 19	699	0.0	0.0	1999 12 14	704	0.2−	0.8−
1998 09 18	704	0.2−	0.7+	1998 10 19	699	0.2+	0.6−	1999 12 14	704	0.4−	0.3+
1998 09 18	704	0.3−	0.9+	1998 10 28	704	0.2+	0.2−	2000 01 07	704	0.0	0.5−
1998 09 18	704	(2.3−	2.3+)	1998 10 28	704	0.8−	0.2+	2000 01 07	704	0.4−	0.2−
1998 09 18	704	(0.5−	2.7+)	1998 10 28	704	1.3+	0.7+	2000 01 07	704	0.5−	0.6−
1998 09 26	704	0.2+	0.6−	1998 10 28	704	0.5−	1.0−	2000 01 07	704	0.3−	0.2−
1998 09 26	704	0.3+	0.5+	1998 10 29	704	0.1−	0.9+	2000 01 07	704	0.2+	0.7+
1998 09 26	704	0.8+	0.3+	1998 10 29	704	(0.2−	2.5+)	2000 01 11	704	0.5+	0.4+
1998 09 26	704	0.6+	0.7−	1998 10 29	704	0.2−	0.4+	2000 01 11	704	0.3+	0.1+
1998 09 26	704	0.4−	1.3−	1998 10 29	704	0.2−	1.6+	2000 01 11	704	0.1+	0.9+
1998 09 27	704	0.7+	0.2+	1999 11 05	704	0.5+	0.5−	2000 01 11	704	0.2−	0.1−
1998 09 27	704	0.8−	0.1+	1999 11 05	704	0.5+	0.3−				
1998 09 27	704	0.3−	0.0	1999 11 05	704	0.2+	0.1−				

1998 RM₇₅ = 1999 XL₁₉₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	108.33852		(2000.0)	P	Q
<i>n</i>	0.17145007	ω	324.22074	+0.97138082	+0.23260215
<i>a</i>	3.2090582	Ω	22.47423	−0.17792649	+0.84676193
<i>e</i>	0.0681283	<i>i</i>	7.23161	−0.15735777	+0.47842500
<i>P</i>	5.75	<i>H</i>	13.5	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 09 14	704	0.0	0.2−	1998 09 26	704	0.3+	0.9−	1998 10 19	699	0.9−	0.6−
1998 09 14	704	0.1−	0.2−	1998 09 26	704	0.7+	0.5−	1998 10 19	699	0.2−	0.2+
1998 09 14	704	0.8−	0.6+	1998 09 26	704	0.1+	0.2+	1998 10 19	699	0.3−	0.2+
1998 09 18	704	0.0	1.1−	1998 09 26	704	0.8+	1.3−	1999 12 12	704	0.7+	0.0
1998 09 18	704	0.5−	0.2+	1998 09 27	704	0.0	0.8+	1999 12 12	704	0.0	0.3−
1998 09 18	704	0.4−	0.4−	1998 09 27	704	0.4+	0.1+	1999 12 12	704	0.2+	0.2+
1998 09 18	704	0.0	0.2−	1998 09 27	704	0.7+	0.6+	1999 12 12	704	0.2−	0.1+
1998 09 18	704	1.3−	0.4+	1998 09 27	704	0.3+	0.1−	1999 12 12	704	1.0−	0.0
1998 09 25	699	0.3+	0.4−	1998 09 27	704	0.4−	1.1+	1999 12 15	704	0.2−	0.6+
1998 09 25	699	0.8+	1.0+	1998 10 14	699	0.3−	0.1−	1999 12 15	704	0.1−	0.5+
1998 09 25	699	0.4−	0.3+	1998 10 14	699	0.1−	0.4+	1999 12 15	704	0.4+	1.1−
1998 09 26	704	0.2+	0.2+	1998 10 14	699	0.4+	0.3−	1999 12 15	704	0.1+	0.1−

1998 RZ₇₆ = 2000 CU₄₇

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	65.69369		(2000.0)	P	Q
<i>n</i>	0.22407731	ω	263.98358	+0.33127603	−0.94195623
<i>a</i>	2.6845457	Ω	166.28572	+0.93084641	+0.31682741
<i>e</i>	0.1430571	<i>i</i>	13.30004	+0.15421140	+0.11108044
<i>P</i>	4.40	<i>H</i>	14.3	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 09 14	704	0.2−	0.2+	1998 09 26	704	0.2−	0.9−	1999 12 14	704	0.2−	0.3−
1998 09 14	704	1.0−	0.3+	1998 09 26	704	0.4+	1.0−	1999 12 14	704	0.3−	0.8−
1998 09 14	704	0.2−	1.0+	1998 09 26	704	0.6+	0.6−	1999 12 14	704	1.1−	0.9−
1998 09 17	699	0.4−	1.6+	1998 09 26	704	0.8+	0.6−	1999 12 14	704	(0.6−	3.1−)
1998 09 17	699	0.6+	0.5+	1998 09 27	704	0.0	0.3−	2000 02 02	704	0.2+	0.7+
1998 09 17	699	0.5+	0.4+	1998 09 27	704	1.3−	0.8−	2000 02 02	704	0.5−	0.1+
1998 09 18	704	0.8−	0.4+	1998 09 27	704	0.8+	0.4−	2000 02 02	704	0.0	0.0
1998 09 18	704	0.2−	1.2+	1998 09 27	704	0.7−	1.5−	2000 02 02	704	0.1−	0.2−
1998 09 18	704	1.0−	1.0+	1998 09 27	704	0.5+	1.3−	2000 02 02	704	0.7−	0.4+
1998 09 18	704	0.7−	0.8+	1998 10 17	699	0.7+	0.2+	2000 02 06	704	1.1+	1.0+
1998 09 18	704	0.2−	0.3−	1998 10 17	699	0.4+	0.5+	2000 02 06	704	0.5+	0.0
1998 09 26	704	1.1+	0.6+	1998 10 17	699	0.2+	0.1−	2000 02 06	704	0.7+	0.4+

1998 RD₇₇ = 2000 CE₉₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	53.16235		(2000.0)	P	Q
<i>n</i>	0.29454886	ω	345.52003	−0.50263712	−0.86197776
<i>a</i>	2.2371640	Ω	134.60387	+0.80209007	−0.49345468
<i>e</i>	0.1383033	<i>i</i>	5.31541	+0.32250185	−0.11617582
<i>P</i>	3.35	<i>H</i>	14.8	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 09 14	704	1.4+	0.5−	1998 09 26	704	1.2−	0.6−	1998 10 17	699	0.7+	0.5−
1998 09 14	704	0.1−	0.3−	1998 09 26	704	1.2−	0.4+	1998 10 17	699	0.3−	0.7+
1998 09 14	704	0.6−	0.6+	1998 09 26	704	0.7−	0.1+	1998 10 17	699	0.5−	0.1−
1998 09 17	699	0.3+	0.2−	1998 09 27	704	0.5+	0.4+	2000 02 08	704	0.2+	0.6+
1998 09 17	699	0.8+	0.7+	1998 09 27	704	0.1+	0.2+	2000 02 08	704	0.3+	0.3+
1998 09 17	699	0.4+	0.3−	1998 09 27	704	0.6+	0.6+	2000 02 08	704	0.5−	0.7−
1998 09 18	704	0.7−	0.3+	1998 09 27	704	0.5+	0.4−	2000 02 11	704	0.1+	0.4−
1998 09 18	704	0.1+	0.2−	1998 09 27	704	0.0	1.1−	2000 02 11	704	0.1−	0.4−
1998 09 18	704	1.2−	0.3+	1998 09 29	910	0.6+	0.0	2000 02 11	704	0.1+	0.6+
1998 09 18	704	1.6−	0.4−	1998 09 29	910	0.6+	0.0				
1998 09 18	704	1.0+	0.1+	1998 09 29	910	0.6+	0.0				

1998 RP₇₈ = 2000 CS₈₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	124.59952		(2000.0)	P	Q
<i>n</i>	0.27897803	ω	241.02686	+0.84762387	−0.52683928
<i>a</i>	2.3196514	Ω	150.63253	+0.52048753	+0.80250103
<i>e</i>	0.1184366	<i>i</i>	7.38567	+0.10308496	+0.28005799
<i>P</i>	3.53	<i>H</i>	14.7	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 08 31	704	1.9+	0.9+	1998 09 27	704	0.4+	0.6−	2000 02 10	557	0.6−	0.5+
1998 08 31	704	(0.2+	2.3+)	1998 09 27	704	0.3−	0.9+	2000 02 10	557	0.5−	0.2+
1998 08 31	704	(1.2−	2.2+)	1998 09 27	704	0.2−	1.0+	2000 02 10	557	0.5−	0.1−
1998 08 31	704	(2.1+	2.5−)	1998 09 27	704	0.1−	0.8+	2000 02 10	557	0.6−	0.4−
1998 08 31	704	1.0−	1.3−	1998 09 27	704	1.9+	0.9+	2000 02 10	557	0.3−	0.3−
1998 09 14	704	0.2+	0.2+	1998 10 17	699	0.4−	0.8−	2000 02 11	704	0.0	0.0
1998 09 14	704	0.1+	0.6+	1998 10 17	699	0.3−	1.1−	2000 02 11	704	0.2+	1.0−
1998 09 14	704	0.4−	0.2−	1998 10 17	699	0.2−	0.5−	2000 02 11	704	0.7−	1.2−
1998 09 18	704	0.3−	0.4−	1998 12 08	704	(1.4+	2.8−)	2000 02 11	704	0.9+	0.6−
1998 09 18	704	(1.7−	3.1+)	1998 12 08	704	0.1−	0.3−	2000 02 11	704	1.0−	0.3+
1998 09 18	704	0.2+	1.6−	1998 12 08	704	1.1+	0.9−	2000 02 12	557	0.6−	0.0
1998 09 18	704	0.7−	1.0+	1998 12 08	704	1.2−	0.1+	2000 02 12	557	0.2−	0.1+
1998 09 18	704	0.7−	0.6+	1998 12 08	704	0.2+	0.8+	2000 02 16	703	0.6−	1.0−
1998 09 26	704	0.9+	0.3+	2000 02 06	704	1.3+	0.5+	2000 02 16	703	1.1+	0.3+
1998 09 26	704	0.3−	0.5−	2000 02 06	704	0.7+	0.1+	2000 02 16	703	0.6−	0.5−
1998 09 26	704	0.8−	0.2+	2000 02 06	704	0.7+	0.9+	2000 02 16	703	0.8−	0.0
1998 09 26	704	0.3+	0.0	2000 02 06	704	1.2+	1.8+				
1998 09 26	704	0.2−	0.1−	2000 02 06	704	1.3+	1.1+				

1998 SA = 2000 CU₁₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	162.00465		(2000.0)	P	Q
<i>n</i>	0.24565340	ω	129.72711	+0.83629399	+0.54784153
<i>a</i>	2.5249582	Ω	197.08978	−0.52312425	+0.78529154
<i>e</i>	0.2463676	<i>i</i>	4.28457	−0.16417486	+0.28842132
<i>P</i>	4.01	<i>H</i>	14.0	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 09 14	699	0.4+	0.2−	1998 09 21	809	0.0	0.6−	1998 11 07	133	0.1+	0.6−
1998 09 14	699	0.7−	0.1−	1998 09 25	691	0.1−	0.4−	1998 11 07	133	0.5−	0.6−
1998 09 14	699	0.4+	0.2−	1998 09 25	691	0.1−	0.3−	1998 11 08	133	0.4−	1.4+
1998 09 16	910	0.1−	0.1+	1998 09 25	691	0.0	0.4−	1998 11 08	133	0.4+	0.5+
1998 09 16	910	0.1−	0.1+	1998 09 29	704	0.9+	0.2+	2000 02 02	704	0.4−	0.4−
1998 09 16	910	0.0	0.3+	1998 09 29	704	0.4+	0.8+	2000 02 02	704	0.5+	0.1−
1998 09 17	910	0.2−	0.1+	1998 09 29	704	1.2−	0.7+	2000 02 02	704	0.5+	0.4−

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1998 09 17	910	0.1+	0.2+	1998 09 29	704	1.1-	1.1+	2000 02 02	704	0.3+	0.2-
1998 09 17	910	0.3+	0.2+	1998 10 14	699	0.4-	0.1+	2000 02 02	704	0.3+	0.0
1998 09 20	809	(1.5-	3.0-)	1998 10 14	699	0.2+	0.1-	2000 02 04	704	0.6-	0.2+
1998 09 20	809	(1.7-	3.6-)	1998 10 14	699	0.1+	0.5+	2000 02 04	704	0.3-	0.4+
1998 09 20	809	(1.0-	3.8-)	1998 11 06	132	0.4+	1.4-	2000 02 04	704	0.2-	0.5+
1998 09 21	809	0.6+	0.5-	1998 11 06	132	0.5-	0.1-				
1998 09 21	809	0.2+	1.0-	1998 11 06	132	0.6+	0.1-				

1998 SK₈ = 2000 AE₂₄₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	19.46021		(2000.0)	P	Q
<i>n</i>	0.21704842	ω	290.14013	-0.49807830	-0.86626526
<i>a</i>	2.7421948	Ω	190.00486	+0.85533926	-0.48346623
<i>e</i>	0.1532351	<i>i</i>	12.89206	+0.14252283	-0.12587654
<i>P</i>	4.54	<i>H</i>	14.4	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 20	691	0.1-	0.3+	1998 09 26	691	0.2+	0.1-	2000 01 07	699	0.7+	0.3-
1998 09 20	691	0.4-	0.0	1998 09 27	704	0.1-	0.6-	2000 01 11	704	0.5+	0.4-
1998 09 20	691	0.1-	0.0	1998 09 27	704	1.3-	0.2+	2000 01 11	704	0.2-	0.2-
1998 09 21	691	0.1-	0.2+	1998 09 27	704	1.2+	0.9+	2000 01 11	704	0.7-	1.0-
1998 09 21	691	0.6-	0.2+	1998 09 27	704	0.5-	0.4+	2000 01 11	704	0.2-	0.7-
1998 09 21	691	0.5-	0.2+	1998 09 27	704	0.2+	0.4+	2000 01 11	704	1.0-	0.4+
1998 09 26	704	1.4+	1.3-	1999 12 16	704	0.3+	0.5+	2000 02 08	704	0.1-	0.5+
1998 09 26	704	0.6-	0.5-	1999 12 16	704	0.5-	0.4+	2000 02 08	704	0.0	0.3+
1998 09 26	704	1.1+	1.8-	1999 12 16	704	0.4+	0.2-	2000 02 08	704	0.1+	0.3+
1998 09 26	704	0.4-	0.5+	1999 12 16	704	0.2-	0.5-	2000 02 08	704	0.2-	0.2-
1998 09 26	704	0.2+	1.1+	1999 12 16	704	0.3-	0.0	2000 02 08	704	0.1+	0.1-
1998 09 26	691	0.1+	0.4+	2000 01 07	699	0.6+	0.3+				
1998 09 26	691	0.2+	0.3-	2000 01 07	699	0.7+	1.1+				

1998 SH₉ = 2000 CM₂₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	75.16083		(2000.0)	P	Q
<i>n</i>	0.22228002	ω	232.98770	+0.50700891	-0.86188738
<i>a</i>	2.6989972	Ω	186.56891	+0.81506985	+0.48303051
<i>e</i>	0.0909302	<i>i</i>	4.81234	+0.28036246	+0.15437510
<i>P</i>	4.43	<i>H</i>	14.9	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 17	327	1.4+	0.2+	1998 09 26	704	0.2-	0.6+	1998 10 15	327	0.0	0.7-
1998 09 17	327	1.4+	0.1-	1998 09 26	704	1.8-	0.8-	1998 10 15	327	0.1+	0.7+
1998 09 17	327	0.5+	0.8-	1998 09 26	704	0.8-	0.9-	2000 02 02	704	0.1-	0.2+
1998 09 20	327	0.0	0.1-	1998 09 27	704	1.1-	1.1-	2000 02 02	704	0.8-	0.2-
1998 09 20	327	0.4-	0.1+	1998 09 27	704	0.5+	1.6+	2000 02 02	704	0.0	0.6-
1998 09 20	327	1.3-	0.7+	1998 09 27	704	1.6-	0.3-	2000 02 02	704	0.1+	0.2-
1998 09 20	327	0.2-	0.5+	1998 09 27	704	0.0	1.6-	2000 02 02	704	0.7-	0.0
1998 09 25	327	0.9+	0.3+	1998 09 27	704	1.8-	0.5+	2000 02 04	704	1.0+	0.4+
1998 09 25	327	1.5+	0.3+	1998 10 15	327	0.4+	0.5-	2000 02 04	704	0.4+	0.2+
1998 09 25	327	1.0+	1.4+	1998 10 15	327	0.5+	0.6+	2000 02 04	704	0.0	1.1+
1998 09 26	704	0.4-	0.8-	1998 10 15	327	0.2+	0.5-	2000 02 04	704	0.7+	0.4-
1998 09 26	704	1.1+	0.5+	1998 10 15	327	0.1+	0.1+	2000 02 04	704	0.5-	0.4-

1998 SX₁₁ = 2000 BC₁₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	292.28158		(2000.0)	P	Q
<i>n</i>	0.26175627	ω	154.17030	-0.89434682	+0.43562509
<i>a</i>	2.4203118	Ω	52.03395	-0.42958696	-0.77267339
<i>e</i>	0.0571002	<i>i</i>	7.42318	-0.12489523	-0.46174302
<i>P</i>	3.77	<i>H</i>	15.3	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 19	910	0.3+	1.2+	1998 09 27	704	0.3+	0.3-	2000 01 31	704	0.2+	0.2-
1998 09 19	910	0.5+	0.8+	1998 09 27	704	(2.2-	0.3-)	2000 01 31	704	0.2+	0.4-

1998 09 20	910	0.2+	1.0+	2000 01 03	704	0.6-	0.3+	2000 02 02	704	0.4-	0.1+
1998 09 22	910	0.1-	0.7+	2000 01 03	704	0.1-	0.2-	2000 02 02	704	0.2-	0.5-
1998 09 23	910	0.2+	1.0+	2000 01 03	704	0.4+	1.1+	2000 02 02	704	0.1-	0.3-
1998 09 23	910	0.0	0.8+	2000 01 03	704	0.0	0.1-	2000 02 02	704	0.5-	0.2-
1998 09 26	704	0.8+	0.9-	2000 01 29	704	0.2+	0.4-	2000 02 02	704	0.4-	0.0
1998 09 26	704	1.3-	1.0-	2000 01 29	704	0.4-	0.6-	2000 02 03	704	0.2+	0.1-
1998 09 26	704	1.2+	0.4+	2000 01 29	704	0.5+	0.0	2000 02 03	704	0.1+	0.0
1998 09 26	704	1.5-	1.3-	2000 01 29	704	0.3+	0.8+	2000 02 03	704	0.3-	0.0
1998 09 26	704	0.3-	1.5-	2000 01 29	704	0.3+	0.2-	2000 02 03	704	0.4-	0.1+
1998 09 27	704	1.0-	0.5-	2000 01 31	704	1.0+	0.4+	2000 02 03	704	0.1+	0.4+
1998 09 27	704	0.6+	0.4-	2000 01 31	704	0.1+	0.0				

1998 SB₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	203.61381		(2000.0)	P	Q
<i>n</i>	0.29470187	ω	150.15574	+0.47389128	+0.87856452
<i>a</i>	2.2363896	Ω	148.02259	-0.82855948	+0.46778872
<i>e</i>	0.2144934	<i>i</i>	6.46115	-0.29818827	+0.09642661
<i>P</i>	3.34	<i>H</i>	15.8	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 22	557	0.3-	0.0	1998 09 26	704	0.3+	1.6+	1998 12 11	557	1.2+	0.4+
1998 09 22	557	0.2-	0.1-	1998 09 27	704	0.5-	0.2-	2000 01 12	557	1.2+	0.8+
1998 09 23	557	0.3-	0.1-	1998 09 27	704	0.5+	0.3-	2000 01 12	557	0.2-	0.3+
1998 09 23	557	0.5-	0.1-	1998 09 27	704	0.0	0.7+	2000 01 12	557	1.4-	0.2+
1998 09 24	557	0.5-	0.3-	1998 09 27	704	0.0	0.4+	2000 01 12	557	0.3-	0.5+
1998 09 24	557	0.5-	0.2+	1998 09 27	704	0.1+	0.3-	2000 02 03	557	0.3+	0.0
1998 09 24	557	0.8-	0.0	1998 10 12	557	1.2+	0.1+	2000 02 03	557	0.1-	0.2-
1998 09 24	699	0.0	1.2+	1998 10 12	557	0.4+	0.3-	2000 02 03	557	0.9+	0.3-
1998 09 24	699	1.4+	0.1-	1998 10 17	699	0.3-	0.6-	2000 02 04	557	0.2+	0.2-
1998 09 24	699	0.1+	0.7+	1998 10 17	699	0.2+	1.4-	2000 02 05	557	0.8-	0.2-
1998 09 25	557	0.3-	0.3-	1998 10 17	699	0.2-	1.3-	2000 02 05	557	0.7-	0.0
1998 09 26	704	0.2-	0.4-	1998 11 12	557	0.5-	0.1-	2000 02 05	557	0.1-	0.2+
1998 09 26	704	0.5-	0.7+	1998 11 24	557	0.0	0.4+	2000 02 05	557	0.5+	0.2-
1998 09 26	704	0.6+	0.4+	1998 11 24	557	1.0-	0.6-	2000 02 05	557	0.2-	0.0
1998 09 26	704	0.7+	1.0+	1998 12 11	557	0.4-	1.4-	2000 02 05	557	0.8+	0.1+

1998 SG₁₃

Id. F. B. Zoltowski (2000 observations)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	122.55689		(2000.0)	P	Q
<i>n</i>	0.23226558	ω	285.66159	+0.99624968	-0.03165402
<i>a</i>	2.6210752	Ω	76.20411	+0.06235455	+0.90788828
<i>e</i>	0.1310550	<i>i</i>	4.75638	-0.05998738	+0.41801542
<i>P</i>	4.24	<i>H</i>	15.1	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 14	704	0.0	0.5+	1998 09 23	910	0.7+	0.0	2000 01 30	858	0.0	0.3-
1998 09 14	704	0.6-	1.3-	1998 09 23	910	0.5+	0.0	2000 01 30	858	0.2+	0.0
1998 09 14	704	0.2-	0.8+	1998 09 26	704	1.0-	0.0	2000 01 30	858	0.2-	0.4+
1998 09 17	699	0.0	0.0	1998 09 26	704	0.4-	0.3+	2000 02 02	858	0.2+	0.3-
1998 09 17	699	0.4+	0.1-	1998 09 26	704	0.2-	1.4-	2000 02 02	858	0.3+	0.1+
1998 09 17	699	0.5+	0.1+	1998 09 26	704	0.5+	0.8-	2000 02 02	858	0.2+	0.2-
1998 09 18	704	0.8-	0.7-	1998 09 26	704	0.1-	1.0-	2000 02 03	858	0.1-	0.8-
1998 09 18	704	0.7-	0.1+	1998 09 27	704	0.0	0.0	2000 02 03	858	0.7+	0.7-
1998 09 18	704	0.1+	0.2+	1998 09 27	704	0.1-	0.4+	2000 02 03	858	0.3-	0.2-
1998 09 18	704	1.9-	0.8+	1998 09 27	704	0.7-	0.6+	2000 02 11	704	0.5-	0.6-
1998 09 18	704	0.9+	1.2+	1998 09 27	704	0.6-	0.1-	2000 02 11	704	1.2-	1.5+
1998 09 21	910	0.9+	0.1-	1998 09 27	704	0.1+	0.3-	2000 02 11	704	0.4+	1.1+
1998 09 21	910	1.0+	0.0	1998 10 17	699	1.0-	0.7-	2000 02 11	704	0.4+	0.3+
1998 09 21	910	0.5+	0.2+	1998 10 17	699	1.0+	0.2+				
1998 09 23	910	0.5+	0.0	1998 10 17	699	0.7+	1.0+				

2000 FEB. 22

M.P.C. 38501

1998 SQ₁₃ = 1999 YO₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.18078787	ω	299.92416	+0.86149875	+0.50771437		
<i>a</i>	3.0975847	Ω	29.56568	-0.46099213	+0.78768084		
<i>e</i>	0.2057340	<i>i</i>	0.78779	-0.21285244	+0.34897710		
<i>P</i>	5.45	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	4
Residuals in seconds of arc							
1998 08 31	910	0.0	0.5+	1998 10 20	699	0.1+	0.4-
1998 08 31	910	0.0	0.3+	1998 10 20	699	0.1-	0.4-
1998 08 31	910	0.1+	0.3+	1998 10 20	699	0.4-	0.4-
1998 09 23	910	0.5-	0.3+	1998 10 23	691	0.1-	0.1-
1998 09 23	910	0.7-	0.3+	1998 10 23	691	0.0	0.0
1998 09 23	910	0.7-	0.3+	1998 10 23	691	0.0	0.1-
1998 09 24	910	0.7+	0.1+	1998 12 16	691	0.8+	0.2+
1998 09 24	910	0.9+	0.2-	1999 12 16	691	0.4+	0.2+
1998 09 24	910	1.0+	0.2-	1999 12 16	691	0.4+	0.3-
1999 12 17	691	0.5-	0.1+	1999 12 17	691	0.5-	0.1+
1999 12 17	691	0.6-	0.1-	1999 12 17	691	0.6-	0.1-
1999 12 17	691	0.4-	0.3-	1999 12 17	691	0.4-	0.3-
2000 01 04	704	0.7-	0.6+	2000 01 04	704	0.7-	0.6+
2000 01 04	704	0.8-	0.1+	2000 01 04	704	0.8-	0.1+
2000 01 04	704	0.3+	0.5-	2000 01 04	704	0.3+	0.5-
2000 02 07	691	0.3+	0.2+	2000 02 07	691	0.3+	0.2+
2000 02 07	691	0.7+	0.0	2000 02 07	691	0.7+	0.0
2000 02 07	691	0.4+	0.2+	2000 02 07	691	0.4+	0.2+

1998 SC₁₇ = 1996 HS₁₆ = 2000 AH₅₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.18244868	ω	299.98564	+0.59737859	-0.80133218		
<i>a</i>	3.0787581	Ω	113.29809	+0.74716689	+0.54176364		
<i>e</i>	0.1257199	<i>i</i>	1.97857	+0.29134250	+0.25369054		
<i>P</i>	5.40	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	3
Residuals in seconds of arc							
1996 04 18	809	0.2+	0.8+	1998 09 24	691	0.2-	0.3-
1996 04 18	809	0.3-	0.3+	1998 09 25	699	0.7+	0.9-
1996 04 18	809	0.8+	1.3+	1998 09 25	699	0.3+	0.4-
1996 04 20	809	(1.8+	4.1+)	1998 09 25	699	0.3+	0.8+
1996 04 20	809	(0.9+	4.4+)	1998 09 26	704	0.9-	0.7-
1996 04 20	809	(2.3+	4.6+)	1998 09 26	704	(2.1-	0.7-)
1998 09 14	704	0.1-	1.0-	1998 09 26	704	1.6-	0.1+
1998 09 14	704	0.2+	0.3+	1998 09 26	704	0.1-	0.8-
1998 09 14	704	1.9-	1.6+	1998 09 26	704	0.6-	0.3-
1998 09 17	699	0.3+	0.2-	1998 09 27	704	0.5-	1.1+
1998 09 17	699	0.2-	0.4+	1998 09 27	704	0.0	1.5+
1998 09 17	699	0.3-	1.0+	1998 09 27	704	0.5-	0.8+
1998 09 17	691	0.1+	0.5-	1998 09 27	704	1.2+	0.6+
1998 09 17	691	0.1-	0.6-	1998 09 27	704	0.2+	0.6+
1998 09 17	691	0.0	0.3-	1998 10 19	699	0.9+	1.7+
1998 09 18	704	0.3+	0.0	1998 10 19	699	(3.3+	1.3+)
1998 09 18	704	0.7-	0.8-	1998 10 19	699	1.3+	0.6+
1998 09 18	704	1.9+	0.6-	2000 01 04	704	0.2+	0.7-
1998 09 18	704	0.7+	1.3-	2000 01 04	704	0.7-	0.8-
1998 09 18	704	0.9-	1.2+	2000 01 04	704	0.0	0.2-
1998 09 24	691	0.6-	0.4-	2000 01 04	704	0.8+	0.7-
1998 09 24	691	0.3-	0.5-	2000 01 04	704	0.2+	0.7-
2000 01 06	704	0.6-	0.4+	2000 01 06	704	0.6-	0.4+
2000 01 06	704	0.8-	0.8-	2000 01 06	704	0.8-	0.8-
2000 01 06	704	0.6-	0.3-	2000 01 06	704	0.6-	0.3-
2000 02 03	704	0.1-	0.2+	2000 02 03	704	0.1-	0.2+
2000 02 03	704	0.2+	0.5+	2000 02 03	704	0.2+	0.5+
2000 02 03	704	0.3+	0.6+	2000 02 03	704	0.3+	0.6+
2000 02 03	704	0.8+	0.4+	2000 02 03	704	0.8+	0.4+
2000 02 06	704	0.1-	0.3+	2000 02 06	704	0.1-	0.3+
2000 02 06	704	1.0-	1.0+	2000 02 06	704	1.0-	1.0+
2000 02 06	704	0.2-	0.8+	2000 02 06	704	0.2-	0.8+
2000 02 06	704	0.4+	0.5+	2000 02 06	704	0.4+	0.5+
2000 02 11	704	0.4-	0.8+	2000 02 11	704	0.4-	0.8+
2000 02 11	704	1.3+	0.3+	2000 02 11	704	1.3+	0.3+
2000 02 11	704	0.5+	0.8+	2000 02 11	704	0.5+	0.8+
2000 02 11	704	0.4+	1.2+	2000 02 11	704	0.4+	1.2+
2000 02 11	704	0.7+	0.3-	2000 02 11	704	0.7+	0.3-
2000 02 14	691	0.2+	0.3-	2000 02 14	691	0.2+	0.3-
2000 02 14	691	0.1-	0.7-	2000 02 14	691	0.1-	0.7-

1998 SS₁₉ = 2000 CH₂₂

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<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22742205	ω	128.05156	+0.74959182	-0.66174839		
<i>a</i>	2.6581593	Ω	273.38654	+0.60274447	+0.69129678		
<i>e</i>	0.1847158	<i>i</i>	0.81410	+0.27351637	+0.29016863		
<i>P</i>	4.33	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	6
Residuals in seconds of arc							
1998 09 14	699	0.2+	0.5+	1998 09 23	691	0.5-	0.1-
1998 09 14	699	0.0	0.0	1998 09 26	691	0.3+	0.1-
1998 09 14	699	0.2+	0.4-	1998 09 26	691	0.3+	0.2+
1998 09 20	691	0.0	0.2-	1998 09 26	691	0.3+	0.0
1998 09 20	691	0.2-	0.0	2000 02 02	704	0.4-	0.7+
2000 02 02	704	0.4-	0.7+	2000 02 03	704	0.4+	0.7-
2000 02 03	704	0.3+	1.1-	2000 02 03	704	0.3+	1.1-
2000 02 03	704	0.2+	1.0-	2000 02 03	704	0.2+	1.0-

1998 09 20	691	0.2+	0.2+	2000 02 02	704	0.4-	0.4+
1998 09 23	691	0.2-	0.0	2000 02 02	704	0.1+	0.7+
1998 09 23	691	0.6-	0.2-	2000 02 02	704	0.3+	0.4+

1998 SQ₂₂ = 1984 SL₇

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.21085847	ω	17.87326	+0.94599474	-0.32417181		
<i>a</i>	2.7956020	Ω	1.05254	+0.27775660	+0.80641241		
<i>e</i>	0.2417754	<i>i</i>	8.03293	+0.16716825	+0.49458230		
<i>P</i>	4.67	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	2
Residuals in seconds of arc							
1984 09 24	071	0.6+	1.0-	1998 09 24	120	0.4+	0.2+
1984 09 24	071	0.9+	0.8-	1998 09 24	120	0.5+	0.1+
1989 12 01	675	1.6-	0.1+	1998 09 26	704	0.3-	0.8-
1989 12 01	675	0.7+	0.6-	1998 09 26	704	0.7-	0.8-
1996 05 07	675	1.3+	1.4+	1998 09 26	704	0.6-	0.1+
1996 05 07	675	0.9+	0.0	1998 09 26	704	0.1+	0.6-
1998 08 02	699	1.6-	0.3+	1998 09 26	704	0.0	1.0-
1998 08 02	699	0.2-	0.5-	1998 09 27	704	0.0	0.4+
1998 08 02	699	0.3-	1.6-	1998 09 27	704	(2.7-	1.6+)
1998 09 14	704	0.3-	0.1+	1998 09 27	704	0.4+	0.5-
1998 09 14	704	(2.1+	0.3-)	1998 09 27	704	0.7-	1.3-
1998 09 14	704	(2.2-	1.6+)	1998 10 11	120	0.3-	0.2+
1998 09 15	699	0.7-	0.4+	1998 10 11	120	0.3-	0.1-
1998 09 15	699	0.3+	0.1+	1998 10 11	120	0.3-	0.1-
1998 09 15	699	0.7-	0.1+	1998 10 13	120	0.8-	0.6-
1998 09 18	704	0.1-	0.8+	1998 10 13	120	0.4+	0.6-
1998 09 18	704	0.2+	0.1-	1998 10 15	120	0.2-	0.1-
1998 09 18	704	0.3-	0.3+	1998 10 15	120	0.2-	0.2-
1998 09 18	704	0.1+	0.1+	1998 10 28	704	0.9+	1.2+
1998 09 18	704	0.1-	0.8+	1998 10 28	704	0.4+	0.4-
1998 09 23	120	0.1-	0.2+	1998 10 28	704	0.9+	1.0+
1998 09 23	120	0.2+	0.4+	1998 10 28	704	0.4-	0.1+
1998 09 23	120	0.2-	0.4+	1998 10 28	704	0.6-	1.1+
1998 09 24	120	0.5+	0.5+	1998 10 29	704	0.6+	0.1+
1998 10 29	704	0.2-	0.3+	1998 10 29	704	0.2-	0.3+
1998 10 29	704	1.7+	1.0+	1998 10 29	704	0.2-	0.6+
1998 10 29	704	0.2-	0.7+	1998 10 29	704	0.2-	0.7+
1998 12 09	704	1.6-	0.8-	1998 12 09	704	1.6-	0.8-
1998 12 09	704	0.7+	0.2+	1998 12 09	704	0.8-	1.3+
1998 12 09	704	(0.6-	2.5+)	1998 12 09	704	(0.6-	2.5+)
1998 12 09	704	0.1-	0.4+	1999 01 05	699	1.1+	1.2+
1999 01 05	699	1.0+	0.0	1999 01 05	699	1.0+	0.0
1999 01 08	704	0.6+	0.5+	1999 01 08	704	0.5+	0.5+
1999 01 08	704	1.6+	1.9-	1999 01 08	704	1.6+	1.9-
1999 01 08	704	(3.9-	1.5+)	1999 01 08	704	(3.9-	1.5+)
2000 02 06	703	(0.9+	2.9+)	2000 02 06	703	(0.9+	2.9+)
2000 02 06	703	0.5+	0.9+	2000 02 06	703	0.5+	0.9+
2000 02 06	703	0.8-	0.4-	2000 02 06	703	0.8-	0.4-
2000 02 06	703	1.7-	0.1+	2000 02 06	703	1.7-	0.1+
2000 02 11	704	0.6+	0.0	2000 02 11	704	0.6+	0.0
2000 02 11	704	0.1-	0.2+	2000 02 11	704	0.1-	0.2+
2000 02 11	704	0.5+	0.1+	2000 02 11	704	0.5+	0.1+
2000 02 11	704	0.4+	0.7-	2000 02 11	704	0.4+	0.7-
2000 02 11	704	0.0	0.1+	2000 02 11	704	0.0	0.1+

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<i>M</i>	99.52589	(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.26346252	ω 270.88922	+0.62119290	-0.77971449
<i>a</i>	2.4098508	Ω 140.35211	+0.75901635	+0.57370555
<i>e</i>	0.0306817	<i>i</i> 7.06828	+0.19497067	+0.25081321
<i>P</i>	3.74	<i>H</i> 14.7	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1998 09 17	699	0.0	0.7-	1998 09 26	704	0.4+	0.2-	2000 02 10	888	0.0	0.3+
1998 09 17	699	0.1-	0.2-	1998 09 27	704	0.7-	0.3+	2000 02 10	120	0.4-	0.1-
1998 09 17	699	0.1-	0.8+	1998 09 27	704	0.6-	1.0+	2000 02 10	120	0.3+	0.2+
1998 09 24	699	0.8-	0.3+	1998 09 27	704	0.2+	0.7+	2000 02 11	704	0.1-	0.1-
1998 09 24	699	0.0	0.6+	1998 09 27	704	0.4-	0.4-	2000 02 11	704	0.8+	0.0
1998 09 24	699	0.3+	0.6+	1998 09 27	704	0.7-	1.3-	2000 02 11	704	0.2-	0.1-
1998 09 26	704	0.1-	0.4+	2000 02 09	888	0.2-	0.6+	2000 02 11	704	0.8-	0.2-
1998 09 26	704	0.8+	0.7-	2000 02 09	888	0.5-	0.0	2000 02 12	120	0.6+	0.3-
1998 09 26	704	0.7+	0.5-	2000 02 10	888	0.3-	0.3-	2000 02 13	120	0.3+	0.3+
1998 09 26	704	0.9+	0.8-	2000 02 10	888	0.4+	0.4-				

1998 SZ₂₄ = 1990 UQ₈ = 2000 CN₁₃

Id. G. V. Williams, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	176.06726	(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.24433881	ω 162.98551	+0.72189478	+0.68968425
<i>a</i>	2.5340066	Ω 153.13947	-0.64858976	+0.70285351
<i>e</i>	0.1562456	<i>i</i> 7.19641	-0.24124522	+0.17416251
<i>P</i>	4.03	<i>H</i> 14.2	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1990 10 24	809	0.0	0.4+	1998 09 21	809	0.2-	0.8+	1998 11 16	566	0.2-	0.2-
1990 10 24	809	0.1+	0.2-	1998 09 24	699	0.3+	1.7+	1998 11 16	566	0.6-	0.3-
1990 10 24	809	0.1-	0.4-	1998 09 24	699	0.0	0.1+	2000 02 02	704	0.1+	0.1-
1998 09 18	699	0.2-	0.0	1998 09 24	699	0.4-	0.1-	2000 02 02	704	0.1-	0.3-
1998 09 18	699	0.1+	0.2+	1998 10 20	699	0.7-	0.3-	2000 02 02	704	0.1+	0.3+
1998 09 18	699	0.3+	0.7+	1998 10 20	699	0.9-	0.1+	2000 02 02	704	0.2+	0.5+
1998 09 20	809	1.9+	0.1+	1998 10 20	699	0.4-	0.7+	2000 02 02	704	0.1+	0.4+
1998 09 20	809	1.0+	0.1+	1998 11 14	699	1.3+	0.1-	2000 02 04	704	0.1+	0.1-
1998 09 20	809	0.1-	0.6-	1998 11 14	699	0.0	0.8-	2000 02 04	704	0.3-	0.3-
1998 09 21	809	0.7+	0.5-	1998 11 14	699	1.0-	0.7-	2000 02 04	704	0.1-	0.0
1998 09 21	809	0.0	0.2-	1998 11 16	566	0.6-	0.3-	2000 02 04	704	0.0	0.1-

1998 SB₂₆ = 2000 BP₁₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	140.66653	(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.22290271	ω 305.07729	+0.88641440	+0.44973654
<i>a</i>	2.6939683	Ω 28.66257	-0.31414900	+0.75833700
<i>e</i>	0.2020491	<i>i</i> 13.20563	-0.33997047	+0.47187078
<i>P</i>	4.42	<i>H</i> 13.6	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1998 09 22	699	0.1-	0.3+	1998 10 20	120	0.0	0.7+	1999 12 12	704	0.6-	0.6-
1998 09 22	699	0.0	0.5+	1998 11 11	699	0.6+	0.5-	1999 12 12	704	0.2-	0.0
1998 09 22	699	0.1+	0.1+	1998 11 11	699	0.2-	0.2-	1999 12 12	704	0.3-	0.1-
1998 09 24	699	0.2+	0.2+	1998 11 11	699	0.3+	0.7-	1999 12 12	704	0.2-	1.0+
1998 09 24	699	0.4-	0.2+	1998 12 09	699	0.1-	0.4-	2000 01 30	704	0.2+	1.1+
1998 09 24	699	0.2-	0.6+	1998 12 09	699	0.8-	0.2+	2000 01 30	704	0.2+	0.4-
1998 09 26	704	0.0	0.6+	1998 12 09	704	1.0-	1.1-	2000 01 30	704	0.6-	0.2-
1998 09 26	704	0.7+	0.1-	1998 12 09	704	(1.7- 2.3+)		2000 01 30	704	0.5+	1.1-
1998 09 26	704	0.1+	0.5-	1998 12 09	699	1.1-	0.2+	2000 01 31	704	0.3+	1.1-
1998 09 26	704	0.2+	1.2-	1998 12 09	704	0.6-	1.9+	2000 01 31	704	0.4+	0.5-
1998 09 26	704	0.1+	0.0	1998 12 09	704	0.6+	0.5-	2000 01 31	704	0.1+	0.2-
1998 09 27	704	0.4+	0.7-	1998 12 09	704	0.3+	1.1+	2000 01 31	704	0.0	0.8-
1998 09 27	704	0.5-	0.4+	1999 12 12	703	0.2+	0.9+	2000 02 02	704	0.3-	0.3-
1998 09 27	704	0.4+	0.1+	1999 12 12	703	0.2+	0.2-	2000 02 02	704	0.1+	0.4+

1998 09 27	704	0.1+	0.8-	1999 12 12	703	0.2-	0.0	2000 02 02	704	0.2+	0.9+
1998 09 27	704	0.6+	0.6-	1999 12 12	703	0.4-	0.2+	2000 02 02	704	0.4+	0.5+
1998 10 20	120	0.3-	0.5+	1999 12 12	704	0.9-	0.6-	2000 02 02	704	0.5+	0.6+

1998 SR₂₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	63.50172	(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.21703023	ω 222.79044	+0.34614548	-0.93571240
<i>a</i>	2.7423480	Ω 207.16900	+0.89599159	+0.35120453
<i>e</i>	0.1516846	<i>i</i> 8.56592	+0.27817690	+0.03313112
<i>P</i>	4.54	<i>H</i> 14.3	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1998 09 14	704	0.6-	0.1+	1998 09 27	704	0.5+	0.4-	1998 10 21	589	0.0	0.3+
1998 09 14	704	1.0-	1.2+	1998 09 27	704	0.1+	0.6-	1998 11 08	589	0.4-	0.2-
1998 09 14	704	1.9+	1.9+	1998 09 27	704	0.4+	0.7-	1998 11 08	589	0.7-	0.1+
1998 09 15	699	0.1+	1.6+	1998 09 27	704	0.6-	0.1+	1998 11 08	589	0.2-	0.3-
1998 09 15	699	0.4+	1.8+	1998 09 28	589	0.1+	0.2-	1998 12 08	589	1.2+	1.2+
1998 09 15	699	0.7+	1.3+	1998 09 28	589	0.8-	0.4-	1998 12 08	589	0.5+	0.3+
1998 09 18	704	0.4-	0.6-	1998 10 11	589	0.1+	0.2+	1998 12 08	589	0.5-	0.6+
1998 09 18	704	0.2+	0.5-	1998 10 11	589	0.3+	0.2-	1998 12 08	589	0.6-	0.4+
1998 09 18	704	1.1-	0.4+	1998 10 11	589	0.0	0.0	1998 12 08	589	0.1+	0.0
1998 09 18	704	2.0-	0.8-	1998 10 11	589	0.2-	0.7-	1998 12 12	589	1.0-	0.3+
1998 09 18	704	0.6+	1.2-	1998 10 11	589	0.7-	0.5-	1998 12 12	589	0.9-	0.9+
1998 09 23	589	0.3-	0.8-	1998 10 12	589	0.0	0.3-	1998 12 12	589	0.5+	0.7+
1998 09 23	589	0.5+	0.6-	1998 10 12	589	0.1-	0.0	1998 12 15	589	0.6+	0.9+
1998 09 23	589	0.2-	0.6-	1998 10 12	589	0.3-	0.3-	1998 12 15	589	0.9+	0.9+
1998 09 23	589	0.4+	0.3-	1998 10 12	589	0.1+	0.6-	1998 12 15	589	0.5+	0.4+
1998 09 24	589	0.1+	0.7-	1998 10 20	589	0.1+	0.7+	2000 01 27	589	0.0	0.5-
1998 09 24	589	0.2-	0.6-	1998 10 20	589	0.4-	0.2-	2000 01 27	589	0.2+	0.4-
1998 09 24	589	0.8-	1.1-	1998 10 20	589	1.1+	0.0	2000 01 27	589	0.4-	0.4+
1998 09 26	704	0.0	0.6+	1998 10 21	589	0.2+	0.1-	2000 02 04	589	0.0	0.8-
1998 09 26	704	1.0+	0.1-	1998 10 21	589	0.3+	0.0	2000 02 04	589	0.2+	0.1+
1998 09 26	704	0.8+	1.0-	1998 10 21	589	0.1+	0.2+	2000 02 04	589	0.4-	0.6-
1998 09 26	704	0.6+	0.8-	1998 10 21	589	0.2-	0.6+				
1998 09 27	704	0.2+	0.6-	1998 10 21	589	0.2+	0.5-				

1998 SS₂₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	95.95673	(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.24480330	ω 64.34884	+0.15631009	-0.98516984
<i>a</i>	2.5308002	Ω 17.10975	+0.79785296	+0.08370693
<i>e</i>	0.1495483	<i>i</i> 13.91768	+0.58223518	+0.14977826
<i>P</i>	4.03	<i>H</i> 13.9	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1998 08 31	704	0.8-	0.1-	1998 09 29	704	0.1+	0.4-	1998 11 23	557	0.3+	0.1+
1998 08 31	704	1.0+	1.3-	1998 09 29	704	0.3+	1.1+	1998 11 23	557	0.2+	0.2+
1998 08 31	704	1.7-	0.7-	1998 10 13	557	0.1+	0.1-	1998 11 23	557	0.2+	0.0
1998 08 31	704	(2.1- 2.1+)		1998 10 13	557	0.1+	0.1-	1999 01 14	699	0.3-	1.2+
1998 08 31	704	(4.3- 1.2-)		1998 10 22	557	0.7+	0.7-	1999 01 14	699	0.5-	0.3+
1998 09 24	557	0.2+	0.7+	1998 10 22	557	0.4+	0.3-	1999 01 14	699	1.1-	0.3+
1998 09 24	557	0.1+	0.8+	1998 10 22	557	0.7+	0.4-	2000 01 12	557	0.7-	1.0-
1998 09 24	557	0.1+	0.7+	1998 11 12	557	0.7-	0.0	2000 01 12	557	1.3+	0.7-
1998 09 25	557	0.1+	0.7+	1998 11 12	557	0.6-	0.1+	2000 01 12	557	0.2+	0.2+
1998 09 25	557	0.1+	0.6+	1998 11 14	704	0.3-	0.4-	2000 02 02	557	0.1-	0.8+
1998 09 25	557	0.1-	0.6+	1998 11 14	704	0.3+	0.5-	2000 02 02	557	0.0	0.1+
1998 09 27	557	0.2+	0.5+	1998 11 14	704	0.1-	0.8-	2000 02 02	557	0.0	0.1-
1998 09 27	557	0.1+	0.3+	1998 11 14	704	0.5+	0.9-	2000 02 02	557	0.2-	0.4+
1998 09 27	557	0.1+	0.3+	1998 11 14	704	0.2+	0.4-	2000 02 02	557	0.2-	0.2-
1998 09 27	557	0.1-	0.3+	1998 11 16	704	0.5-	0.2-	2000 02 06	557	0.3+	0.1+
1998 09 29	704	0.5-	0.2-	1998 11 16	704	0.2+	0.3+	2000 02 06	557	1.0-	0.6-

2000 FEB. 22

M.P.C. 38503

1998 SV₂₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	33.20969		(2000.0)	P	Q
<i>n</i>	0.23061981	ω	294.15255	-0.92324141	+0.32103020
<i>a</i>	2.6335302	Ω	265.13356	-0.22774471	-0.89975404
<i>e</i>	0.1474438	<i>i</i>	12.23183	-0.30944732	-0.29560492
<i>P</i>	4.27	<i>H</i>	13.3	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1951 12 27	675	1.9-	2.0-	1998 11 23	704	0.9-	0.9+	1999 01 20	704	0.3+	0.1+
1951 12 27	675	1.4+	0.2-	1998 11 23	704	0.9+	0.3+	1999 01 20	704	0.5+	0.3+
1954 08 31	675	0.1+	0.1-	1998 11 23	699	0.4+	0.5-	1999 01 20	704	(0.1-	2.0+)
1982 01 23	413	0.8-	0.4-	1998 11 23	704	0.1-	0.9+	1999 01 20	704	0.7-	0.8-
1982 01 23	413	0.2-	0.4+	1998 11 23	704	0.1-	0.5-	1999 02 12	704	0.9-	1.0+
1990 01 01	675	1.5-	0.8-	1998 11 23	704	1.5+	1.0-	1999 02 12	704	0.3+	0.7-
1990 01 01	675	1.0+	0.2-	1998 11 24	557	0.3-	0.1+	1999 02 12	704	0.2-	0.6+
1998 09 24	557	0.1-	0.3-	1998 11 24	557	0.0	0.1+	1999 02 12	704	0.0	0.0
1998 09 24	557	0.1+	0.2-	1998 11 25	704	(1.4-	2.2+)	1999 02 16	704	1.2+	1.9+
1998 09 24	557	0.3-	0.1-	1998 11 25	704	(0.2+	2.2-)	1999 02 16	704	0.1-	0.7+
1998 09 24	557	0.1+	0.5-	1998 11 25	704	(1.9+	2.1-)	1999 02 16	704	0.2-	1.1+
1998 09 25	557	0.3-	0.3-	1998 12 10	557	0.5+	0.3+	1999 02 16	704	0.8-	1.6+
1998 09 25	557	0.2-	0.2+	1998 12 10	557	0.5+	0.1+	1999 02 19	566	0.4-	0.3-
1998 09 25	557	0.3-	0.2-	1998 12 18	699	0.1+	0.0	1999 02 19	566	0.1+	0.7-
1998 10 17	557	0.1-	0.6+	1998 12 18	699	0.0	0.1+	1999 02 19	566	0.2-	0.7-
1998 10 17	557	0.3-	0.4+	1998 12 18	699	0.4-	0.1+	1999 04 07	704	0.8-	1.1-
1998 10 21	557	0.1+	0.2-	1998 12 23	704	0.0	1.6-	1999 04 07	704	0.2-	1.2+
1998 10 21	557	0.5+	0.6-	1998 12 23	704	(0.3+	2.6-)	1999 04 07	704	0.8-	0.5+
1998 11 12	557	0.5-	0.3-	1998 12 23	704	0.4+	0.0	1999 04 07	704	1.2+	0.2+
1998 11 12	557	0.2-	0.1-	1998 12 23	704	0.5+	0.7-	1999 04 07	704	1.2-	1.2-
1998 11 12	557	0.4-	0.1-	1998 12 23	704	0.6-	0.0	1999 05 07	704	0.7+	0.5-
1998 11 17	699	0.2+	0.4+	1999 01 18	704	0.5+	0.2+	1999 05 07	704	0.7-	0.2-
1998 11 17	699	0.2+	0.4-	1999 01 18	704	0.5+	0.1+	1999 05 07	704	0.6-	1.0-
1998 11 17	699	0.6+	0.2+	1999 01 18	704	0.9+	0.6+	1999 05 07	704	1.0+	1.0-
1998 11 23	699	0.6-	1.6+	1999 01 18	704	0.6+	0.5-	1999 05 07	704	0.9-	1.6-
1998 11 23	699	2.0-	0.2+	1999 01 18	704	2.0+	1.6+				

1998 SC₂₇ = 2000 AG₂₃₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	209.78395		(2000.0)	P	Q
<i>n</i>	0.24490913	ω	184.50870	+0.15254363	+0.98816374
<i>a</i>	2.5300712	Ω	94.26627	-0.90623540	+0.14640356
<i>e</i>	0.0894276	<i>i</i>	0.93155	-0.39429411	+0.04580844
<i>P</i>	4.02	<i>H</i>	14.8	<i>G</i> 0.15	<i>U</i> 6

Residuals in seconds of arc

1998 09 20	327	0.2+	0.3+	1998 10 15	327	0.4-	0.6-	2000 01 04	704	0.5-	0.0
1998 09 20	327	0.1-	0.5+	1998 10 15	327	0.1-	0.2-	2000 01 04	704	1.5-	0.7+
1998 09 20	327	0.1+	0.6+	1998 10 15	327	0.5-	0.1+	2000 01 10	691	1.1+	0.5+
1998 09 20	327	1.0+	0.1+	1998 10 19	699	0.4-	0.4-	2000 01 10	691	0.3+	0.2-
1998 09 23	327	0.2-	0.3+	1998 10 19	699	1.4+	0.6-	2000 01 10	691	0.3+	0.2-
1998 09 23	327	0.3-	0.3+	1998 10 19	699	0.5+	0.2-				
1998 09 23	327	1.2-	0.2-	2000 01 04	704	0.3+	0.4+				

1998 SP₂₈ = 2000 BW₂₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	87.55392		(2000.0)	P	Q
<i>n</i>	0.21599777	ω	3.49401	+0.77890557	-0.62190418
<i>a</i>	2.7510799	Ω	35.37710	+0.57195123	+0.65152770
<i>e</i>	0.0306288	<i>i</i>	8.03031	+0.25725066	+0.43445006
<i>P</i>	4.56	<i>H</i>	14.1	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 17	691	0.3+	0.1-	1998 09 27	704	(2.3-	0.3+)	2000 02 02	704	0.1-	0.3-
1998 09 17	691	0.2+	0.0	1998 10 28	704	0.1+	0.2+	2000 02 02	704	0.5-	0.1+
1998 09 17	691	0.5+	0.1-	1998 10 28	704	0.3+	1.2-	2000 02 02	704	0.8+	1.1+

1998 09 25	691	1.0-	0.4-	1998 10 28	704	1.9-	0.1+	2000 02 02	704	0.3+	0.2-
1998 09 25	691	0.8-	0.2-	1998 10 28	704	0.2-	0.3-	2000 02 02	704	0.7+	0.5+
1998 09 25	691	0.7-	0.0	1998 10 29	704	0.3-	1.0+	2000 02 03	704	0.1-	0.5-
1998 09 26	704	0.1+	1.2-	1998 10 29	704	0.9+	0.9-	2000 02 03	704	0.8-	1.1-
1998 09 26	704	0.6+	1.0+	1998 10 29	704	1.2+	0.4+	2000 02 03	704	0.3-	0.1+
1998 09 26	704	0.6-	0.4-	1998 10 29	704	0.6+	0.8+	2000 02 03	704	0.3-	0.4+
1998 09 26	704	(1.2+	2.3-)	2000 01 29	704	0.5-	0.4+	2000 02 03	704	0.0	0.6+
1998 09 26	704	0.3+	0.4+	2000 01 29	704	0.4+	0.2+	2000 02 05	704	0.3+	0.6-
1998 09 27	704	0.4+	0.3+	2000 01 29	704	0.2+	1.1-	2000 02 05	704	0.8-	0.3-
1998 09 27	704	0.3+	0.3+	2000 01 29	704	0.5+	0.8-	2000 02 05	704	0.8-	0.2+
1998 09 27	704	0.0	0.5+	2000 01 29	704	1.3+	0.1+	2000 02 05	704	0.4-	1.1+

1998 SA₂₉ = 1999 XK₉₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	321.18847		(2000.0)	P	Q
<i>n</i>	0.18074404	ω	83.54053	-0.90907619	-0.41466299
<i>a</i>	3.0980855	Ω	71.95528	+0.36346989	-0.83677738
<i>e</i>	0.1496142	<i>i</i>	2.43741	+0.20364214	-0.35757268
<i>P</i>	5.45	<i>H</i>	13.7	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 18	691	0.1+	0.0	1998 09 27	704	1.0-	0.4-	2000 01 03	704	0.4-	0.4-
1998 09 18	691	0.2+	0.3-	1999 11 16	704	0.2+	0.1+	2000 01 03	704	0.4+	0.2+
1998 09 18	691	0.2+	0.1-	1999 11 16	704	0.7-	0.2+	2000 01 03	704	0.2+	0.4-
1998 09 25	691	0.5+	0.0	1999 11 16	704	0.2+	0.0	2000 01 03	704	0.3+	0.1+
1998 09 25	691	0.6+	0.1-	1999 11 16	704	0.1+	1.0+	2000 01 04	704	0.2+	0.1-
1998 09 25	691	0.9+	0.2-	1999 11 16	704	0.4-	0.4+	2000 01 04	704	0.8+	0.7+
1998 09 26	704	1.4+	0.4+	1999 12 07	704	0.1+	0.4-	2000 01 04	704	0.3-	0.0
1998 09 26	704	1.4-	0.4+	1999 12 07	704	0.5-	0.5-	2000 01 04	704	0.4+	0.4-
1998 09 26	704	0.1+	0.4+	1999 12 07	704	0.4-	0.6+	2000 01 04	704	0.2-	0.2+
1998 09 26	704	1.6-	0.4+	1999 12 07	704	0.0	0.6+	2000 01 30	704	0.1+	0.6-
1998 09 26	704	1.2-	0.3+	1999 12 10	704	0.8+	0.5-	2000 01 30	704	0.4-	0.1-
1998 09 27	704	1.0-	0.4-	1999 12 10	704	0.0	0.7-	2000 01 30	704	0.5+	0.8+
1998 09 27	704	1.1+	0.1-	1999 12 10	704	0.2-	0.1-	2000 01 30	704	0.5-	0.1-
1998 09 27	704	1.0+	0.2-	1999 12 10	704	0.4+	0.8-	2000 01 30	704	0.7-	0.4+

1998 SO₃₅ = 1998 UV₄₃ = 2000 CL₂₂

Id. G. V. Williams, M. E. Sansaturio (d)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	227.68411		(2000.0)	P	Q
<i>n</i>	0.22116159	ω	70.72341	+0.11521864	+0.99318287
<i>a</i>	2.7080889	Ω	205.91230	-0.92588626	+0.10093195
<i>e</i>	0.0338947	<i>i</i>	2.31825	-0.35980454	+0.05831409
<i>P</i>	4.46	<i>H</i>	14.5	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 22	910	0.5+	0.0	1998 11 15	691	0.5-	0.1+	2000 02 04	704	0.6-	0.1+
1998 09 22	910	0.3+	0.3+	1998 11 19	691	0.1+	0.3-	2000 02 06	704	0.3+	0.4+
1998 09 22	910	0.5+	0.2-	1998 11 19	691	0.2+	0.1+	2000 02 06	704	2.0+	0.4-
1998 09 29	910	0.6-	0.1+	1998 11 19	691	0.1+	0.1-	2000 02 06	704	0.7-	0.4-
1998 09 29	910	0.6-	0.0	2000 02 02	704	0.2-	0.3-	2000 02 06	704	0.1+	0.4+
1998 09 29	910	0.6-	0.2+	2000 02 02	704	0.2-	0.0	2000 02 06	704	0.4-	0.0
1998 10 18	699	0.3-	0.2+	2000 02 02	704	0.4+	0.6+	2000 02 08	704	0.6+	0.0
1998 10 18	699	0.3-	0.5+	2000 02 02	704	0.2-	0.4+	2000 02 08	704	0.3-	0.2-
1998 10 18	699	0.1+	1.0-	2000 02 02	704	0.0	0.3+	2000 02 08	704	0.4-	0.1-
1998 10 28	120	1.5+	0.1-	2000 02 04	704	0.1-	0.4-	2000 02 08	704	0.4-	0.0
1998 10 28	120	0.4+	0.1+	2000 02 04	704	0.1-	0.4-	2000 02 08	704	0.3+	0.4-
1998 11 15	691	0.5-	0.0	2000 02 04	704	0.1+	0.2+				
1998 11 15	691	0.4-	0.0	2000 02 04	704	0.1-	0.2+				

1998 SQ₃₅ = 2000 BO₁₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	295.96485	(2000.0)	P		Q	
<i>n</i>	0.18344314	ω	160.38259	-0.93198894	+0.31735799	
<i>a</i>	3.0676212	Ω	39.52536	-0.35834385	-0.73378582	
<i>e</i>	0.0904824	<i>i</i>	15.97542	-0.05464695	-0.60070149	
<i>P</i>	5.37	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i> 3

Residuals in seconds of arc

1998 09 22	910	0.5+	0.0	1998 11 11	704	0.1+	0.5+	1999 12 03	699	0.4+	0.1+
1998 09 22	910	0.5+	0.0	1998 11 11	704	0.4+	1.3+	1999 12 13	704	0.3-	0.1+
1998 09 22	910	0.7+	0.1-	1998 11 11	704	(0.6+	2.3-)	1999 12 13	704	0.1+	0.1+
1998 09 29	910	0.7+	0.1+	1998 11 11	704	0.3+	0.4+	1999 12 13	704	0.1+	0.0
1998 09 29	910	0.5+	0.1+	1998 11 11	704	0.4-	0.7-	1999 12 13	704	0.0	0.1+
1998 09 29	910	0.9+	0.1+	1998 11 17	691	0.6+	0.2-	1999 12 13	704	0.2+	0.4+
1998 10 14	691	1.0-	0.1+	1998 11 17	691	0.6+	0.2-	2000 01 30	704	0.1-	0.4-
1998 10 14	691	1.1-	0.2-	1998 11 17	691	0.6+	0.1-	2000 01 30	704	0.2+	0.2+
1998 10 14	691	0.9-	0.1-	1998 11 20	699	0.6+	1.1+	2000 01 30	704	0.4+	0.4+
1998 10 18	699	0.2+	0.2+	1998 11 20	699	0.3+	0.4-	2000 01 30	704	0.1-	0.0
1998 10 18	699	0.8-	0.5+	1998 11 20	699	0.4+	0.7+	2000 01 31	704	0.6+	0.8-
1998 10 18	699	0.7-	0.4+	1998 11 24	691	0.2+	0.4-	2000 01 31	704	0.3-	0.2-
1998 11 10	704	1.0-	1.2+	1998 11 24	691	0.0	0.3-	2000 01 31	704	0.0	0.1-
1998 11 10	704	0.7-	0.4-	1998 11 24	691	0.0	0.5-	2000 01 31	704	0.5-	0.1+
1998 11 10	704	0.9-	1.9-	1999 12 03	699	0.1-	0.7+				
1998 11 10	704	0.5-	1.1-	1999 12 03	699	0.3-	0.5-				

1998 SR₄₁ = 2000 AC₇₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	134.16529	(2000.0)	P		Q	
<i>n</i>	0.18493636	ω	106.32795	+0.33846154	+0.94096357	
<i>a</i>	3.0510864	Ω	183.47038	-0.89479242	+0.32000118	
<i>e</i>	0.3417299	<i>i</i>	5.30739	-0.29118776	+0.11039391	
<i>P</i>	5.33	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i> 6

Residuals in seconds of arc

1998 09 25	691	0.1+	0.1+	1998 09 28	691	0.2-	0.1+	2000 01 06	704	1.2+	0.7+
1998 09 25	691	0.3+	0.1-	2000 01 05	704	0.9-	2.4-	2000 01 06	704	0.3+	0.8+
1998 09 25	691	0.2+	0.1+	2000 01 05	704	0.5-	0.8-	2000 01 06	704	0.1+	0.7+
1998 09 28	691	0.1-	0.2-	2000 01 05	704	1.8-	0.6-				
1998 09 28	691	0.3-	0.0	2000 01 06	704	1.6+	1.5+				

1998 SU₄₂ = 2000 AU₁₉₇

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	1.56356	(2000.0)	P		Q	
<i>n</i>	0.21285811	ω	309.78771	-0.74963545	-0.66153012	
<i>a</i>	2.7780662	Ω	188.86326	+0.64074950	-0.71758466	
<i>e</i>	0.1648441	<i>i</i>	7.68549	+0.16579134	-0.21783055	
<i>P</i>	4.63	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i> 5

Residuals in seconds of arc

1998 09 17	327	0.3+	0.3+	1998 09 27	704	0.7+	1.7-	2000 01 11	704	0.2+	0.1-
1998 09 17	327	0.1+	0.2+	1998 09 27	704	1.4-	0.6-	2000 01 11	704	0.3+	0.8-
1998 09 17	327	0.3-	0.5+	2000 01 05	699	0.0	0.3+	2000 01 11	704	0.2+	0.4-
1998 09 25	327	0.6-	0.5+	2000 01 05	699	0.6-	0.5+	2000 02 02	703	0.2+	0.4+
1998 09 25	327	0.3-	0.3+	2000 01 05	699	0.7-	0.6-	2000 02 02	703	0.1+	0.1+
1998 09 25	327	0.6-	0.4+	2000 01 08	704	0.5+	0.3+	2000 02 02	703	0.3-	0.3+
1998 09 26	704	1.6+	0.1+	2000 01 08	704	0.1-	0.6-	2000 02 02	703	0.2+	0.2-
1998 09 26	704	1.1-	0.2+	2000 01 08	704	0.2-	0.7-	2000 02 06	704	0.1+	0.8+
1998 09 26	704	0.1+	0.2+	2000 01 08	704	0.1-	0.4-	2000 02 06	704	0.1-	0.6+
1998 09 26	704	1.8+	0.9+	2000 01 08	704	0.4-	0.5-	2000 02 06	704	0.1+	0.7+
1998 09 27	704	1.0+	0.7-	2000 01 11	704	0.3+	1.0-	2000 02 06	704	0.5+	1.0+
1998 09 27	704	1.4-	0.1+	2000 01 11	704	0.1-	0.1-	2000 02 06	704	0.1-	0.7+

1998 SD₄₃ = 1990 FZ₄ = 2000 AU₂₄₃

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	344.89286	(2000.0)	P		Q	
<i>n</i>	0.29313024	ω	165.61082	-0.99776460	+0.05461656	
<i>a</i>	2.2443761	Ω	17.65647	-0.06659877	-0.86022152	
<i>e</i>	0.1618091	<i>i</i>	7.29383	+0.00551339	-0.50698715	
<i>P</i>	3.36	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i> 3

Residuals in seconds of arc

1990 03 27	675	0.9-	1.3-	1998 09 29	327	0.7-	0.7+	1998 10 29	704	(0.7+	2.5+)
1990 03 27	675	0.5-	1.1-	1998 09 29	327	0.6-	0.4+	1998 10 29	704	1.1-	1.3+
1998 09 23	327	1.1+	0.2+	1998 10 10	699	0.1+	0.0	1998 10 29	704	(0.8+	4.4+)
1998 09 23	327	1.7+	0.2+	1998 10 10	699	0.3+	0.2-	1998 10 29	704	(1.0+	2.6+)
1998 09 23	327	1.1+	0.1+	1998 10 10	699	0.2-	0.6-	2000 01 07	704	0.1-	0.2-
1998 09 26	704	0.9+	1.0-	1998 10 13	691	1.0-	0.4-	2000 01 07	704	0.3+	0.1-
1998 09 26	704	1.0+	1.3-	1998 10 13	691	1.0-	0.4-	2000 01 07	704	0.2+	0.1-
1998 09 26	704	0.2+	0.8+	1998 10 13	691	1.1-	0.4-	2000 01 07	704	0.4-	0.4+
1998 09 26	704	1.7+	0.4-	1998 10 15	327	0.1-	0.0	2000 01 07	704	0.1+	0.3-
1998 09 26	704	1.8+	0.0	1998 10 15	327	0.2-	0.6-	2000 01 10	699	0.7-	0.3+
1998 09 27	704	0.5+	0.7-	1998 10 15	327	0.4-	0.3-	2000 01 10	699	0.3-	0.4+
1998 09 27	704	0.5+	0.2+	1998 10 28	704	0.5-	1.7+	2000 01 10	699	0.5-	0.0
1998 09 27	704	0.2+	0.4+	1998 10 28	704	1.2+	0.0	2000 02 06	704	1.5+	0.9-
1998 09 27	704	0.1+	0.3-	1998 10 28	704	0.5+	1.1-	2000 02 06	704	0.3+	0.5-
1998 09 27	704	1.5-	1.1-	1998 10 28	704	0.4-	0.8+	2000 02 06	704	0.3+	0.0
1998 09 29	327	0.8-	0.4-	1998 10 28	704	1.5-	0.4-	2000 02 06	704	1.1-	1.1+

1998 SV₄₃ = 2000 AW₂₁₈

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	94.29364	(2000.0)	P		Q	
<i>n</i>	0.17793261	ω	61.29701	+0.97411350	-0.02483835	
<i>a</i>	3.1306344	Ω	299.31581	-0.09340288	+0.86091360	
<i>e</i>	0.2486076	<i>i</i>	14.93318	+0.20586110	+0.50814450	
<i>P</i>	5.54	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i> 4

Residuals in seconds of arc

1998 08 27	704	0.1-	0.7+	1998 09 29	327	1.1-	0.0	2000 01 05	691	0.5-	0.0
1998 08 27	704	0.0	1.6-	1998 09 29	327	0.5-	0.2+	2000 01 08	691	0.3+	0.1-
1998 08 27	704	0.0	0.8+	1998 09 29	327	1.2-	0.3-	2000 01 08	691	0.4+	0.4-
1998 08 27	704	0.1-	1.0-	1998 10 01	327	0.2-	0.4-	2000 01 08	691	0.6+	0.6-
1998 08 27	704	0.3+	1.0+	1998 10 01	327	0.8+	0.1-	2000 01 11	691	0.4+	0.2-
1998 09 26	327	0.5+	0.4+	1998 10 01	327	0.1+	0.2+	2000 01 11	691	0.6-	0.3+
1998 09 26	327	0.5+	0.8-	2000 01 05	691	0.3-	0.8+	2000 01 11	691	0.5+	0.2+
1998 09 26	327	1.1+	0.8+	2000 01 05	691	0.7-	0.0				

1998 SL₄₅ = 1994 SJ₁₂ = 2000 AC₁₃₃Id. A. Doppler (*MPC* 33278), M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	323.33716	(2000.0)	P		Q	
<i>n</i>	0.24820542	ω	157.44665	-0.99514530	-0.09383862	
<i>a</i>	2.5076209	Ω	17.24795	+0.06788314	-0.87273486	
<i>e</i>	0.0565570	<i>i</i>	5.74236	+0.07125801	-0.47909099	
<i>P</i>	3.97	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i> 5

Residuals in seconds of arc

1994 09 29	691	0.1-	0.0	1998 09 27	704	0.8-	1.6+	2000 01 03	704	0.4-	1.2-
1994 09 29	691	0.3-	0.0	1998 09 27	704	0.7+	0.6+	2000 01 08	704	0.3-	0.2-
1994 09 29	691	0.1+	0.1+	1998 09 27	704	(2.3+	0.8+)	2000 01 08	704	0.5+	0.0
1994 09 30	691	0.0	0.2+	1998 09 27	704	0.8-	0.3+	2000 01 08	704	0.0	0.0
1994 09 30	691	0.3-	0.0	1998 09 27	704	0.7+	0.0	2000 01 08	704	0.2+	0.3-
1994 09 30	691	0.1+	0.3+	1998 09 30	691	0.1-	0.6-	2000 01 08	704	0.5-	0.5-
1998 09 25	691	0.2-	0.3-	1998 09 30	691	0.1-	0.2-	2000 02 11	704	0.1-	0.4-
1998 09 25	691	0.7-	0.1-	1998 09 30	691	0.3+	0.5-	2000 02 11	704	0.3+	1.3+

2000 FEB. 22

1998 09 25	691	0.7−	0.3−	2000 01 03	704	0.7+	0.2+	2000 02 11	704	0.8+	0.6+
1998 09 26	704	1.8+	0.5−	2000 01 03	704	0.5+	0.5−	2000 02 11	704	1.2−	0.9+
1998 09 26	704	(0.6−	2.6−)	2000 01 03	704	0.1−	0.2−				
1998 09 26	704	0.0	0.2−	2000 01 03	704	0.6−	0.5+				

1998 SZ₄₅ = 1998 UB₃₇ = 2000 BB₁₇Id. A. Doppler (d, *MPC* 33785), G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	215.59447	(2000.0)		P	Q		
<i>n</i>	0.21187706	ω	258.16913	+0.00536724	+0.99991045		
<i>a</i>	2.7866350	Ω	12.15841	−0.89331812	+0.01030354		
<i>e</i>	0.0702203	<i>i</i>	3.33677	−0.44939284	−0.00853949		
<i>P</i>	4.65	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 25	691	0.3+	0.0	1998 10 28	704	0.1+	1.2−	2000 01 31	704	0.3+	0.5−
1998 09 25	691	0.3+	0.1+	1998 10 29	704	(1.2−	2.4+)	2000 01 31	704	0.3+	0.4−
1998 09 25	691	0.3+	0.1−	1998 10 29	704	0.6+	0.3+	2000 01 31	704	0.0	0.2−
1998 09 30	691	0.5−	0.1+	1998 10 29	704	(3.2−	1.5−)	2000 01 31	704	1.6−	0.4−
1998 09 30	691	0.2−	0.3+	1998 10 29	704	0.4−	0.1+	2000 02 11	704	0.1+	0.3+
1998 09 30	691	0.4−	0.0	2000 01 30	704	0.1+	0.4+	2000 02 11	704	1.1+	0.4−
1998 10 28	704	0.1−	0.8+	2000 01 30	704	0.0	0.2+	2000 02 11	704	0.2−	0.4+
1998 10 28	704	0.5+	0.2+	2000 01 30	704	0.8+	0.4+	2000 02 11	704	0.4−	0.4+
1998 10 28	704	0.6−	0.5−	2000 01 30	704	0.5−	0.2−				

1998 SX₄₇ = 2000 CS₈₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	31.34571	(2000.0)		P	Q		
<i>n</i>	0.22992765	ω	98.71684	−0.46232123	−0.88658016		
<i>a</i>	2.6388128	Ω	18.84338	+0.79375488	−0.42149356		
<i>e</i>	0.0456501	<i>i</i>	2.71874	+0.39523698	−0.19057492		
<i>P</i>	4.29	<i>H</i>	15.4	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 09 26	691	1.0−	0.3+	1998 10 01	691	0.2−	0.2+	2000 02 04	704	0.0	0.2−
1998 09 26	691	0.8−	0.3+	1998 10 12	691	0.2+	0.0	2000 02 04	704	0.1+	0.6+
1998 09 26	691	0.7−	0.4+	1998 10 12	691	0.3−	0.5−	2000 02 04	704	0.1+	0.8−
1998 09 30	691	0.8+	0.0	1998 10 12	691	0.2−	0.3−	2000 02 11	704	1.1−	0.5+
1998 09 30	691	0.9+	0.1−	1998 10 13	691	0.2+	0.0	2000 02 11	704	0.2+	1.0+
1998 09 30	691	1.0+	0.3+	1998 10 13	691	0.2+	0.3−	2000 02 11	704	0.4−	0.2+
1998 10 01	691	0.3−	0.0	1998 10 13	691	0.4+	0.4−				
1998 10 01	691	0.4−	0.3+	2000 02 04	704	1.1+	1.2−				

1998 SS₅₀ = 1994 PN₂₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	174.40220	(2000.0)		P	Q		
<i>n</i>	0.26226499	ω	318.20245	+0.77175065	+0.63592260		
<i>a</i>	2.4171810	Ω	2.31143	−0.57068148	+0.69384590		
<i>e</i>	0.2298722	<i>i</i>	2.61601	−0.28057725	+0.33790578		
<i>P</i>	3.76	<i>H</i>	16.8	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1994 08 12	809	0.9+	0.2−	1994 09 05	809	0.3+	1.9+	1998 09 26	691	1.0−	0.9−
1994 08 12	809	1.2+	0.7−	1994 09 05	809	0.8+	2.1+	1998 09 26	691	1.1−	0.9−
1994 08 12	809	0.7+	0.1+	1994 09 05	809	0.1−	2.4+	1998 09 26	691	0.9−	0.9−
1994 08 13	809	0.6+	1.8−	1994 09 06	809	1.1−	0.3−	1998 10 01	691	1.1+	0.4+
1994 08 13	809	0.9+	1.2−	1994 09 06	809	1.6−	0.1+	1998 10 01	691	1.3+	0.3+
1994 08 13	809	0.6−	1.6−	1994 09 06	809	2.3−	0.3+	1998 10 01	691	1.3+	0.2+

1998 SK₅₃ = 1999 XE₁₂

Id. A. Doppler

M.P.C. 38505

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	165.11568	(2000.0)		P	Q		
<i>n</i>	0.17170796	ω	76.37801	+0.00206471	+0.99796908		
<i>a</i>	3.2058443	Ω	194.20811	−0.98812562	−0.00774538		
<i>e</i>	0.0975110	<i>i</i>	15.03409	−0.15363432	+0.06322758		
<i>P</i>	5.74	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 23	704	0.3+	0.7−	1998 09 25	699	0.5−	1.8+	1999 11 05	704	1.5−	1.1−
1998 08 23	704	1.5+	1.9−	1998 09 25	699	0.3−	0.1−	1999 11 05	704	0.6+	1.0−
1998 08 23	704	1.1−	1.9+	1998 09 25	699	0.3+	1.3+	1999 11 05	704	(3.3+	2.5−)
1998 08 23	704	(5.4−	1.1−)	1998 09 26	704	1.2−	0.1−	1999 11 13	703	0.3+	0.3−
1998 09 14	704	1.6+	0.9+	1998 09 26	704	0.5+	1.0+	1999 11 13	703	0.8+	0.4+
1998 09 14	704	1.1+	1.0−	1998 09 26	704	0.6−	0.1−	1999 11 13	703	0.3−	0.3−
1998 09 14	704	0.5+	0.5−	1998 09 26	704	0.6+	0.7+	1999 11 13	703	0.1+	0.3−
1998 09 14	704	0.3−	1.7−	1998 09 26	704	0.1+	0.7−	1999 12 03	704	0.0	0.3+
1998 09 16	699	0.2−	0.7−	1998 09 27	699	0.0	0.9−	1999 12 03	704	1.3+	0.6−
1998 09 16	699	0.2+	0.2+	1998 09 27	704	0.8+	0.6−	1999 12 03	704	0.3+	0.2+
1998 09 16	699	0.4−	0.2−	1998 09 27	699	1.2−	0.4−	1999 12 03	704	(2.3−	0.6−)
1998 09 18	704	0.7−	1.0+	1998 09 27	704	1.3+	1.3+	1999 12 06	704	0.4−	0.4+
1998 09 18	704	0.2−	1.4−	1998 09 27	699	1.0−	0.6+	1999 12 06	704	0.9−	0.7+
1998 09 18	704	1.2−	0.8+	1998 09 27	704	0.6−	0.2−	1999 12 06	704	1.0+	0.6+
1998 09 18	704	0.1−	0.8+	1998 09 27	704	0.0	0.8−	1999 12 06	704	1.1−	0.3+
1998 09 18	704	0.8+	0.7+	1998 09 27	704	0.0	0.7−	1999 12 06	704	0.2−	0.2+

1998 SZ₅₃ = 2000 CH₈₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	140.20834	(2000.0)		P	Q		
<i>n</i>	0.27685231	ω	44.02093	+0.99426989	−0.09879635		
<i>a</i>	2.3315100	Ω	321.59334	+0.07051277	+0.89316657		
<i>e</i>	0.1224572	<i>i</i>	3.76791	+0.08034507	+0.43873997		
<i>P</i>	3.56	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 09 14	704	0.6+	0.4−	1998 09 26	704	0.2−	0.2+	1998 12 09	704	(2.7−	1.6−)
1998 09 14	704	0.4−	0.2+	1998 09 26	704	0.3+	1.2+	1998 12 09	704	0.0	0.9+
1998 09 14	704	0.2+	0.0	1998 09 27	699	0.1+	0.6−	1998 12 09	704	1.3−	0.4+
1998 09 14	704	0.4+	1.0−	1998 09 27	699	0.4+	0.3+	1998 12 09	704	1.0+	1.4+
1998 09 14	704	0.6+	0.8−	1998 09 27	704	0.2+	0.0	1998 12 09	704	1.0−	0.9+
1998 09 16	699	0.5+	0.2−	1998 09 27	699	0.1+	0.0	2000 02 01	703	0.9+	1.4+
1998 09 16	699	0.5−	0.2−	1998 09 27	704	1.5−	0.1−	2000 02 01	703	0.2−	0.5−
1998 09 16	699	0.3+	0.1−	1998 09 27	704	0.7−	0.4+	2000 02 01	703	0.2−	0.0
1998 09 16	704	0.3−	0.3+	1998 09 27	704	0.1−	0.9+	2000 02 01	703	0.6−	0.2−
1998 09 18	704	0.0	0.5+	1998 09 27	704	0.2−	0.4+	2000 02 04	704	0.3−	0.1−
1998 09 18	704	0.5+	0.4−	1998 10 14	699	0.0	0.5−	2000 02 04	704	0.1−	0.5−
1998 09 18	704	0.7−	0.3+	1998 10 14	699	0.3+	0.5−	2000 02 04	704	0.0	0.2+
1998 09 18	704	0.0	0.1−	1998 10 14	699	0.1−	0.6−	2000 02 04	704	0.1+	0.8+
1998 09 25	699	0.0	0.4+	1998 10 22	327	0.2+	0.2−	2000 02 04	704	0.4+	1.1−
1998 09 25	699	0.3−	0.4+	1998 10 22	327	1.3+	0.3−	2000 02 11	704	0.0	0.4+
1998 09 25	699	0.0	0.7+	1998 10 22	327	0.0	0.8−	2000 02 11	704	0.2−	0.2−
1998 09 26	704	0.5+	0.1+	1998 10 27	327	0.2−	1.3−	2000 02 11	704	0.3−	0.4−
1998 09 26	704	0.3+	0.2−	1998 10 27	327	0.0	0.7−	2000 02 11	704	0.1−	0.1+
1998 09 26	704	0.9−	0.0	1998 10 27	327	0.4+	0.6−	2000 02 11	704	0.2+	0.7−

1998 SW₅₅ = 2000 CK₉₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	79.43285	(2000.0)		P	Q		
<i>n</i>	0.28956736	ω	86.33641	+0.15927659	−0.98716769		

1998 09 14	704	0.1+	0.4+	1998 09 26	704	0.6−	0.3+	2000 01 08	704	0.6−	0.9−
1998 09 14	704	0.8−	0.2+	1998 09 26	704	0.6−	0.2+	2000 01 08	704	0.0	0.4−
1998 09 14	704	0.9−	0.7+	1998 09 26	704	1.1−	0.2−	2000 02 08	704	0.1−	1.0+
1998 09 16	699	1.1+	0.8+	1998 09 26	704	1.2−	0.6+	2000 02 08	704	0.5+	0.5+
1998 09 16	699	0.6+	1.2+	1998 09 27	704	0.1+	0.0	2000 02 08	704	0.8+	0.4+
1998 09 16	699	0.6+	0.8+	1998 09 27	704	0.5+	0.0	2000 02 08	704	0.4+	0.3+
1998 09 18	704	0.2−	0.1−	1998 09 27	704	0.5−	0.9+	2000 02 08	704	0.3+	0.0
1998 09 18	704	0.3−	0.2−	1998 09 27	704	0.6−	0.6+	2000 02 11	704	0.0	0.7+
1998 09 18	704	0.0	0.3+	1998 09 27	704	0.2−	0.2+	2000 02 11	704	0.2+	1.1+
1998 09 18	704	0.9−	0.3−	1998 10 14	699	0.5+	1.2−	2000 02 11	704	0.0	0.4−
1998 09 18	704	0.7+	0.6+	1998 10 14	699	1.7+	1.7−	2000 02 11	704	0.2+	1.9+
1998 09 25	699	(0.3−	2.1+)	1998 10 14	699	0.1+	0.6+	2000 02 11	704	0.0	0.5+
1998 09 25	699	0.2−	0.1−	2000 01 08	704	0.4+	0.9−				

1998 SB₅₆ = 2000 CG₁₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	176.56135		(2000.0)	P	Q
<i>n</i>	0.28818924	ω	140.12983	+0.71973722	+0.69419139
<i>a</i>	2.2699565	Ω	175.87467	−0.66395710	+0.69196512
<i>e</i>	0.2420255	<i>i</i>	6.99021	−0.20282826	+0.19819835
<i>P</i>	3.42	<i>H</i>	15.3	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 14	704	0.9+	1.1−	1998 09 25	699	0.7−	0.1+	1998 10 17	699	0.6+	1.4+
1998 09 14	704	0.2−	0.2+	1998 09 25	699	0.5−	0.0	1998 10 17	699	0.4+	0.6+
1998 09 14	704	0.4−	0.1−	1998 09 25	699	0.3−	0.4+	1998 10 17	699	0.1−	0.8+
1998 09 14	704	0.3+	0.3−	1998 09 26	704	0.7−	0.7−	2000 02 02	704	0.0	0.7+
1998 09 14	704	0.0	0.2+	1998 09 26	704	0.3−	0.6−	2000 02 02	704	0.2+	0.2+
1998 09 16	699	0.7+	1.0+	1998 09 26	704	0.6−	0.8−	2000 02 02	704	0.1−	0.6−
1998 09 16	699	0.2+	0.8+	1998 09 26	704	0.2−	1.4−	2000 02 02	704	0.1−	0.8−
1998 09 16	699	0.8+	0.5+	1998 09 26	704	1.0−	0.3+	2000 02 02	704	0.1−	0.3+
1998 09 18	704	0.1−	0.2+	1998 09 27	704	0.1+	0.1−	2000 02 04	704	0.4−	0.8−
1998 09 18	704	0.7−	0.8+	1998 09 27	704	0.4−	0.2+	2000 02 04	704	0.5+	0.3−
1998 09 18	704	0.2+	0.0	1998 09 27	704	1.8+	1.4−	2000 02 04	704	0.1+	0.8+
1998 09 18	704	0.3+	0.5−	1998 09 27	704	0.1+	0.3−				
1998 09 18	704	0.3−	0.4−	1998 09 27	704	0.4+	0.2+				

1998 SC₅₆ = 2000 CE₂₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	81.65132		(2000.0)	P	Q
<i>n</i>	0.22994613	ω	200.66090	+0.66550366	−0.74586798
<i>a</i>	2.6386714	Ω	207.64107	+0.69300480	+0.63141325
<i>e</i>	0.1434739	<i>i</i>	3.46417	+0.27721692	+0.21212795
<i>P</i>	4.29	<i>H</i>	14.7	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 14	704	0.4+	0.1+	1998 09 25	699	0.1+	1.4+	1998 10 14	699	0.4+	0.6−
1998 09 14	704	0.2+	0.7+	1998 09 25	699	0.3+	1.3+	1998 10 14	699	0.5−	1.5−
1998 09 14	704	0.5−	0.2+	1998 09 25	699	0.1−	0.2+	1998 10 14	699	0.3+	0.7+
1998 09 14	704	1.1−	0.5−	1998 09 26	704	0.1−	0.5−	2000 02 02	704	0.7−	0.5−
1998 09 14	704	0.3+	1.1−	1998 09 26	704	0.4−	0.1+	2000 02 02	704	0.6−	0.5−
1998 09 16	699	0.0	0.1−	1998 09 26	704	0.3−	0.6−	2000 02 02	704	0.4−	0.2−
1998 09 16	699	0.2−	0.6−	1998 09 26	704	0.6−	0.5+	2000 02 02	704	0.1−	0.2+
1998 09 16	699	0.0	0.1−	1998 09 26	704	0.0	0.8+	2000 02 02	704	0.4−	0.7+
1998 09 18	704	0.1+	0.8−	1998 09 27	704	0.5+	1.1−	2000 02 04	704	0.3+	0.2−
1998 09 18	704	0.6−	0.1−	1998 09 27	704	0.3+	1.0+	2000 02 04	704	0.9+	0.1+
1998 09 18	704	0.7+	0.2+	1998 09 27	704	0.8−	0.1+	2000 02 04	704	0.3−	0.3+
1998 09 18	704	0.8+	0.1−	1998 09 27	704	0.4−	0.1+	2000 02 04	704	1.4+	0.2+
1998 09 18	704	1.0+	0.0	1998 09 27	704	0.0	0.1+				

1998 SD₅₆ = 2000 AY₃₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	226.98178		(2000.0)	P	Q
<i>n</i>	0.29983608	ω	289.25521	−0.01833120	+0.99929611
<i>a</i>	2.2107864	Ω	339.61107	−0.87843248	−0.03173113
<i>e</i>	0.1677937	<i>i</i>	5.39068	−0.47751476	+0.02001060
<i>P</i>	3.29	<i>H</i>	14.6	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 14	704	1.9−	0.4−	1998 09 27	699	0.3+	0.2+	2000 01 03	704	0.1−	0.2−
1998 09 14	704	1.0−	1.0−	1998 09 27	704	0.2−	1.0−	2000 01 03	704	0.3−	0.3+
1998 09 14	704	0.6−	1.0−	1998 09 27	704	0.4+	0.0	2000 01 03	704	0.5−	0.7+
1998 09 14	704	0.1+	0.5−	1998 09 27	699	1.0+	0.6+	2000 01 03	704	0.4−	0.2−
1998 09 14	704	0.4+	1.0−	1998 09 27	704	1.0−	0.6+	2000 01 03	704	0.2−	0.4+
1998 09 16	699	0.2+	0.0	1998 09 27	704	0.3+	1.0−	2000 01 04	704	0.5+	0.1+
1998 09 16	699	0.1+	0.7+	1998 09 27	704	0.7−	0.9+	2000 01 04	704	0.3+	0.3−
1998 09 16	699	0.4+	0.4+	1998 11 10	699	0.2+	0.8−	2000 01 04	704	0.3+	0.1−
1998 09 18	704	1.0+	1.0+	1998 11 10	699	1.0−	0.7+	2000 01 04	704	0.0	0.0
1998 09 18	704	(0.5+	2.6−)	1998 11 10	699	0.7−	0.1−	2000 01 30	704	0.3−	0.2+
1998 09 18	704	0.7+	0.1+	1999 11 16	704	0.4−	1.6+	2000 01 30	704	0.2−	0.2+
1998 09 18	704	0.8+	0.3−	1999 11 16	704	0.6+	0.5+	2000 01 30	704	0.1+	0.1+
1998 09 18	704	0.9+	0.2+	1999 11 16	704	1.2+	0.1−	2000 01 30	704	0.2−	0.8−
1998 09 25	699	0.1−	0.4+	1999 12 08	703	0.0	0.1+	2000 01 31	704	0.2−	0.1−
1998 09 25	699	0.0	0.3+	1999 12 08	703	0.3+	0.6−	2000 01 31	704	0.2−	0.0
1998 09 25	699	0.0	0.3+	1999 12 08	703	0.5−	0.7+	2000 01 31	704	0.3+	0.1−
1998 09 26	704	0.0	0.2+	1999 12 08	703	0.2−	0.0	2000 02 11	704	0.1+	0.4+
1998 09 26	704	1.0−	0.1+	1999 12 15	704	0.2−	0.5−	2000 02 11	704	0.1+	0.4+
1998 09 26	704	0.6+	0.9−	1999 12 15	704	0.3+	0.7−	2000 02 11	704	0.4+	0.1+
1998 09 26	704	0.0	0.1+	1999 12 15	704	0.1−	1.1−	2000 02 11	704	0.1−	0.7+
1998 09 26	704	1.1−	1.5+	1999 12 15	704	0.5−	0.9−				
1998 09 27	699	1.3+	0.1−	1999 12 15	704	0.0	1.0−				

1998 SM₅₆ = 2000 AY₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	350.88625		(2000.0)	P	Q
<i>n</i>	0.18488706	ω	114.44946	−0.45663378	−0.88964295
<i>a</i>	3.0516288	Ω	2.73358	+0.77748731	−0.40156030
<i>e</i>	0.0769247	<i>i</i>	5.51471	+0.43243390	−0.21745054
<i>P</i>	5.33	<i>H</i>	14.3	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 16	699	0.6+	0.1−	1998 09 27	704	0.2+	0.8+	1999 12 12	704	0.4+	0.6+
1998 09 16	699	0.1+	0.6+	1998 09 27	704	0.7−	1.0+	1999 12 12	704	0.6+	0.6+
1998 09 16	699	0.4+	1.5−	1998 09 27	704	0.1+	0.3−	1999 12 12	704	(2.7+	1.6+)
1998 09 25	699	0.2−	0.3+	1998 09 27	704	0.5−	0.2−	2000 01 02	704	0.2−	0.7−
1998 09 25	699	0.3+	0.3+	1998 10 24	691	0.6+	0.4+	2000 01 02	704	0.3−	0.4−
1998 09 25	699	0.8−	1.5+	1998 10 24	691	0.2+	0.5−	2000 01 02	704	0.0	0.2−
1998 09 26	704	0.7+	1.2+	1998 10 24	691	0.1+	0.7+	2000 01 04	704	0.0	0.9−
1998 09 26	704	0.8−	0.3+	1998 10 28	691	0.2+	0.4−	2000 01 04	704	0.1+	0.6−
1998 09 26	704	0.8−	0.5−	1998 10 28	691	0.2+	0.5−	2000 01 04	704	0.5+	0.7+
1998 09 26	704	0.6+	1.5−	1998 10 28	691	0.1+	0.4−	2000 01 04	704	0.2−	0.3+
1998 09 27	704	0.4−	1.6−	1999 12 12	704	0.1−	0.7+	2000 01 04	704	0.7−	0.0

1998 SF₅₇

Id. K. Korlević (2000 observations)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	147.31707		(2000.0)	P	Q
<i>n</i>	0.26221525	ω	281.66718	+0.95299857	+0.30205081
<i>a</i>	2.4174866	Ω	60.75589	−0.26634951	+0.87243395
<i>e</i>	0.2153306	<i>i</i>	1.55276	−0.14440105	+0.38421909
<i>P</i>	3.76	<i>H</i>	14.6	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 14	704	1.5−	0.4+	1998 09 26	704	0.9+	0.0	2000 02 03	704	0.3−	0.1−
1998 09 14	704	1.5−	0.2+	1998 09 27	704	0.7+	0.3+	2000 02 03	704	0.0	0.2+

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1998 09 14	704	0.5−	1.4+	1998 09 27	704	0.5+	0.5+	2000 02 03	704	0.0	0.2−
1998 09 17	699	0.4+	0.1−	1998 09 27	704	0.4+	0.3+	2000 02 03	704	0.4+	0.3+
1998 09 17	699	0.4+	0.3−	1998 09 27	704	1.0−	0.4−	2000 02 03	704	0.6+	0.6+
1998 09 17	699	0.6+	0.0	1998 10 02	704	1.7−	1.3+	2000 02 10	120	(3.7+	2.5−)
1998 09 18	704	0.7+	0.6−	1998 10 02	704	0.8−	0.1+	2000 02 10	120	0.9+	0.2+
1998 09 18	704	0.6+	0.2−	1998 10 02	704	1.2−	0.3−	2000 02 10	120	0.2−	1.0−
1998 09 18	704	1.0+	0.7−	1998 10 02	704	1.6−	0.9+	2000 02 10	120	0.9+	0.6−
1998 09 18	704	0.0	1.2−	1998 10 02	704	0.2−	1.1+	2000 02 10	120	0.6−	0.2−
1998 09 18	704	1.0+	1.9−	2000 01 25	120	0.5−	0.7−	2000 02 10	120	0.2+	0.6+
1998 09 25	699	0.2+	0.0	2000 01 25	120	1.4−	0.3+	2000 02 11	704	0.4+	0.6+
1998 09 25	699	0.3+	0.3−	2000 01 25	120	0.2+	0.5−	2000 02 11	704	0.3−	0.1+
1998 09 25	699	0.4+	0.2+	2000 01 26	120	0.1+	0.9+	2000 02 11	704	0.8−	0.3−
1998 09 26	704	0.1+	0.3−	2000 01 26	120	0.3+	0.7+	2000 02 11	704	0.1+	0.1−
1998 09 26	704	1.0+	0.9−	2000 01 26	120	(1.4−	4.5+)	2000 02 11	120	1.1−	0.3+
1998 09 26	704	0.3+	0.1−	2000 01 27	120	0.0	0.4−	2000 02 11	120	1.4+	1.1−
1998 09 26	704	0.6+	0.4+	2000 01 27	120	0.0	0.4−	2000 02 11	120	0.6−	0.0

1998 SO₅₇ = 2000 BD₃₀

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams				Q			
<i>M</i>	47.94782	(2000.0)	<i>P</i>	<i>n</i>	0.23884199	<i>ω</i>	18.38096
<i>a</i>	2.5727382	<i>Ω</i>	70.74005	<i>e</i>	0.1098149	<i>i</i>	2.39481
<i>P</i>	4.13	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 14	704	1.4−	0.5−	1998 09 27	704	0.2−	0.3−	2000 01 07	704	0.2+	0.4−
1998 09 14	704	0.3+	1.3−	1998 09 27	704	0.7−	1.0+	2000 01 07	704	0.0	0.5+
1998 09 14	704	1.3−	0.5+	1998 09 27	704	0.1+	0.2−	2000 01 07	704	0.1+	0.0
1998 09 17	699	1.0+	0.9+	1998 09 27	704	0.8−	0.6+	2000 01 07	704	0.4+	0.3+
1998 09 17	699	0.1−	1.6+	1998 09 27	704	0.8−	0.4−	2000 01 07	704	0.5−	0.3−
1998 09 17	699	0.6+	0.1+	1998 09 27	704	0.1+	0.0	2000 01 30	704	0.5−	0.9+
1998 09 18	704	1.0−	1.3+	1998 09 27	704	0.2+	0.9−	2000 01 30	704	0.4+	0.6−
1998 09 18	704	0.3+	1.2+	1998 09 27	704	1.2+	0.3+	2000 01 30	704	0.1+	0.1+
1998 09 18	704	1.7+	1.1+	1998 09 29	704	0.2−	1.4−	2000 01 30	704	0.7−	0.6−
1998 09 18	704	0.2−	1.1+	1998 09 29	704	0.4−	0.1+	2000 02 03	704	0.0	0.3+
1998 09 18	704	0.9−	0.9+	1998 09 29	704	0.4+	1.6−	2000 02 03	704	0.3−	0.1+
1998 09 25	699	1.0+	0.7+	1998 09 29	704	(2.4+	1.7−)	2000 02 03	704	0.1+	0.2+
1998 09 25	699	0.7−	1.6+	1998 09 29	704	0.1+	1.8−	2000 02 03	704	0.5+	0.8−
1998 09 25	699	0.3−	0.3+	1999 12 04	703	(2.2−	0.8−)	2000 02 03	704	0.6−	0.8+
1998 09 26	704	0.1+	0.3−	1999 12 04	703	(2.5+	1.1+)	2000 02 11	704	0.1+	0.4−
1998 09 26	704	0.4+	1.3−	1999 12 04	703	1.6−	0.4−	2000 02 11	704	0.2−	0.0
1998 09 26	704	0.3+	1.9−	1999 12 04	703	1.3+	0.3−	2000 02 11	704	0.2−	0.1−
1998 09 26	704	(1.5+	2.2−)	1999 12 06	704	0.8+	1.1+	2000 02 11	704	0.0	0.4−
1998 09 26	704	0.7+	1.3−	1999 12 06	704	0.0	0.1+	2000 02 11	704	0.8+	0.6+
1998 09 27	704	0.6+	0.3+	1999 12 06	704	0.1+	0.3+				
1998 09 27	704	0.3−	0.2−	1999 12 06	704	0.4−	0.3−				

1998 ST₅₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams				Q			
<i>M</i>	206.69353	(2000.0)	<i>P</i>	<i>n</i>	0.30885546	<i>ω</i>	128.89599
<i>a</i>	2.1675337	<i>Ω</i>	172.61955	<i>e</i>	0.1828528	<i>i</i>	3.53505
<i>P</i>	3.19	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 02	699	0.5−	0.4+	1998 09 27	704	0.0	1.0−	2000 02 04	704	0.4−	0.7+
1998 08 02	699	0.4+	0.4+	1998 10 14	699	0.3−	0.3+	2000 02 05	704	0.1−	0.3+
1998 08 02	699	0.3+	0.3+	1998 10 14	699	0.3+	0.1−	2000 02 05	704	0.4−	0.6−
1998 09 14	704	0.0	0.5−	1998 10 14	699	0.1−	0.3+	2000 02 05	704	0.1+	0.1−
1998 09 14	704	0.4−	0.3−	1998 10 19	699	0.0	0.1−	2000 02 05	704	0.0	0.1−
1998 09 14	704	0.2−	1.3−	1998 10 19	699	0.4−	0.1−	2000 02 05	704	0.4+	0.3+
1998 09 17	691	0.2−	0.2−	1998 10 19	699	0.0	0.0	2000 02 05	704	0.5+	0.6−
1998 09 17	699	0.4+	0.6+	1998 10 28	704	0.7+	1.7−	2000 02 05	704	1.7+	0.1+

1998 09 17	691	0.2−	0.2−	1998 10 28	704	1.3−	1.3−	2000 02 06	704	0.6+	0.3+
1998 09 17	699	1.1+	1.2+	1998 10 28	704	1.0−	0.5+	2000 02 06	704	(1.0−	2.2+)
1998 09 17	691	0.0	0.5−	1998 10 28	704	0.3−	0.5+	2000 02 06	704	0.1−	0.1+
1998 09 17	699	0.8+	1.0+	1998 10 28	704	0.9+	0.7+	2000 02 06	704	0.1+	0.3+
1998 09 18	704	0.0	0.2−	1998 10 29	704	0.0	2.0+	2000 02 06	704	0.2+	0.5+
1998 09 18	704	0.2−	0.1+	1998 10 29	704	(0.9−	2.1+)	2000 02 06	704	0.4−	0.6+
1998 09 18	704	0.1−	0.5−	1998 10 29	704	(0.5−	2.9+)	2000 02 06	704	0.1−	0.0
1998 09 18	704	0.7−	0.5−	1998 10 29	704	1.7+	0.8+	2000 02 06	704	0.2−	0.3+
1998 09 18	704	1.3−	0.3+	1998 10 29	704	(0.6−	3.8+)	2000 02 06	704	0.2+	0.3+
1998 09 25	699	0.1−	0.4+	2000 01 30	703	0.1−	0.0	2000 02 06	704	0.6−	0.5+
1998 09 25	699	0.1−	0.4+	2000 01 30	703	0.2+	0.4−	2000 02 08	704	0.4−	0.9−
1998 09 25	699	0.1−	0.7+	2000 01 30	703	0.2+	0.2+	2000 02 08	704	0.6+	0.6−
1998 09 26	704	0.3−	0.6−	2000 01 30	703	0.2+	0.2+	2000 02 08	704	0.1−	1.1−
1998 09 26	704	0.5−	0.5−	2000 02 01	703	0.0	0.2+	2000 02 08	704	0.1−	0.7−
1998 09 26	704	0.1+	0.1−	2000 02 01	703	0.4+	0.0	2000 02 08	704	0.1+	0.9−
1998 09 26	704	(0.5+	2.8−)	2000 02 01	703	0.2−	0.3+	2000 02 10	704	0.7−	0.0
1998 09 26	704	0.3+	0.6−	2000 02 01	703	(2.4+	0.4−)	2000 02 10	704	0.0	0.1−
1998 09 27	704	0.3+	0.2−	2000 02 04	704	0.5−	0.3−	2000 02 10	704	0.4−	0.6+
1998 09 27	704	0.4+	0.3+	2000 02 04	704	0.0	0.0	2000 02 10	704	0.1−	0.2−
1998 09 27	704	0.0	0.2−	2000 02 04	704	0.2−	0.3+				
1998 09 27	704	0.7+	0.0	2000 02 04	704	0.4−	0.5+				

1998 SA₅₉ = 2000 CQ₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams				Q			
<i>M</i>	105.45660	(2000.0)	<i>P</i>	<i>n</i>	0.21467751	<i>ω</i>	348.18868
<i>a</i>	2.7623478	<i>Ω</i>	27.41065	<i>e</i>	0.1464282	<i>i</i>	5.60304
<i>P</i>	4.59	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 09 14	704	0.6+	0.0	1998 10 17	699	0.1+	0.1+	2000 02 03	704	0.0	0.4−
1998 09 14	704	0.3+	0.3−	1998 10 17	699	0.2−	1.3+	2000 02 03	704	0.5−	0.5−
1998 09 14	704	0.5+	0.1−	1998 10 17	699	0.1+	0.4−	2000 02 03	704	0.1−	0.5−
1998 09 17	699	0.6−	0.3−	1998 10 19	699	0.4+	0.4+	2000 02 03	704	0.1+	0.1+
1998 09 17	699	0.6−	0.1+	1998 10 19	699	0.4+	0.2+	2000 02 03	704	1.6+	0.4+
1998 09 17	699	0.4−	0.1−	1998 10 19	699	0.2+	0.5+	2000 02 08	704	0.1−	0.3+
1998 09 18	704	0.5+	0.3−	1998 10 28	704	0.5+	0.5−	2000 02 08	704	0.2−	0.1−
1998 09 18	704	0.3−	0.0	1998 10 28	704	0.2−	0.2−	2000 02 08	704	0.4+	0.0
1998 09 18	704	0.1−	0.9+	1998 10 28	704	0.8−	0.1−	2000 02 08	704	0.6−	0.1+
1998 09 18	704	0.3+	0.5−	1998 10 28	704	0.0	0.3+	2000 02 08	704	0.5+	0.0
1998 09 18	704	0.5−	1.4+	1998 10 28	704	1.6+	0.4+	2000 02 10	704	0.6−	0.2−
1998 09 25	699	0.1+	0.2+	1998 10 29	704	0.5−	0.7−	2000 02 10	704	0.9+	0.9−
1998 09 25	699	0.7+	0.2−	1998 10 29	704	1.5−	0.5−	2000 02 10	704	0.4−	1.0+
1998 09 25	699	0.4+	0.2−	1998 10 29	704	0.2−	1.2−	2000 02 10	704	0.2−	0.7−
1998 09 26	704	0.1+	0.3−	1998 10 29	704	1.5−	0.5−	2000 02 11	704	0.5+	0.2−
1998 09 26	704	0.0	0.0	1998 10 29	704	(2.3−	1.4−)	2000 02 11	704	0.5+	0.3−
1998 09 26	704	0.0	0.4−	1998 11 06	699	0.8+	0.7+	2000 02 11	704	0.3+	0.6−
1998 09 26	704	0.4−	0.6−	1998 11 06	699	0.1−	0.6+	2000 02 11	704	0.7+	0.3+
1998 09 26	704	0.6−	0.3−	1998 11 06	699	1.2+	0.1−	2000 02 11	704	0.3−	0.0
1998 09 27	704	0.5+	0.3−	2000 02 02	704	0.1+	0.2+	2000 02 11	704	0.3−	0.2+
1998 09 27	704	0.3−	0.9+	2000 02 02	704	0.1−	0.1+	2000 02 11	704	0.6−	0.2+
1998 09 27	704	0.2+	0.1−	2000 02 02	704	0.1−	0.9+	2000 02 11	704	0.4−	0.1+
1998 09 27	704	0.4−	0.4+	2000 02 02	704	0.4−	0.3+	2000 02 11	704	0.5+	0.0
1998 09 27	704	0.2−	0.2−	2000 02 02	704	0.1−	0.4+	2000 02 11	704	1.2−	0.2−

Residuals in seconds of arc

1998 09 17	699	0.6−	2.4+	1998 09 27	704	0.5+	0.6−	1998 10 29	704	0.9−	0.2+
1998 09 17	699	0.7−	0.5+	1998 09 27	704	0.2+	0.0	1998 10 29	704	0.3−	1.3−
1998 09 17	699	0.7−	0.7+	1998 09 27	704	0.1+	1.1−	1998 10 29	704	0.3−	0.6−
1998 09 25	699	0.3−	0.3+	1998 10 14	699	0.3+	0.3+	2000 02 02	704	0.0	0.2+
1998 09 25	699	1.0+	0.7+	1998 10 14	699	0.8+	0.6−	2000 02 02	704	0.0	0.5−
1998 09 25	699	0.8+	0.0	1998 10 14	699	0.1+	0.1−	2000 02 02	704	0.1−	0.2−
1998 09 26	704	0.1−	0.2+	1998 10 28	704	1.0−	0.2−	2000 02 02	704	0.2−	0.8−
1998 09 26	704	0.5−	0.4−	1998 10 28	704	1.9+	1.1−	2000 02 02	704	0.1−	0.4−
1998 09 26	704	0.1+	0.1−	1998 10 28	704	0.6+	1.1−	2000 02 03	704	0.2+	0.5+
1998 09 26	704	0.8−	0.5+	1998 10 28	704	0.6−	1.5+	2000 02 03	704	0.1+	0.2+
1998 09 26	704	0.9−	0.4+	1998 10 28	704	0.1−	0.0	2000 02 03	704	0.2−	0.5+
1998 09 27	704	1.3+	0.2−	1998 10 29	704	1.4−	1.9+	2000 02 03	704	0.2+	0.1−
1998 09 27	704	0.4−	0.3−	1998 10 29	704	1.2+	0.6+	2000 02 03	704	0.0	0.9+

1998 SO₅₉ = 2000 DC

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	8.91352		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.25887674	ω	117.26642	−0.78243079	−0.61867178
a	2.4382264	Ω	24.71722	+0.49421879	−0.68631054
e	0.0797684	i	9.78231	+0.37887972	−0.38239126
P	3.81	H	13.8	G 0.15	U 3

Residuals in seconds of arc

1998 09 14	704	0.2+	1.0−	1998 09 27	704	0.0	0.3−	1999 11 16	703	0.8−	0.3−
1998 09 14	704	1.2+	0.5−	1998 09 27	704	1.0−	0.3−	1999 11 16	703	0.2−	0.2−
1998 09 14	704	1.5+	1.2−	1998 10 17	699	0.2+	1.0−	1999 11 16	703	0.4+	0.2−
1998 09 17	699	0.4−	0.0	1998 10 17	699	0.6+	0.2+	1999 12 15	704	0.0	0.0
1998 09 17	699	0.2+	0.8−	1998 10 17	699	0.2−	0.8−	1999 12 15	704	0.2+	0.2−
1998 09 17	699	0.1−	0.6−	1998 10 19	699	0.1+	0.5+	1999 12 15	704	0.1+	0.5−
1998 09 18	704	0.4−	1.5+	1998 10 19	699	0.9+	0.4−	1999 12 15	704	0.1+	0.4−
1998 09 18	704	0.1+	0.7−	1998 10 19	699	0.6+	0.6−	2000 01 31	704	0.4−	0.0
1998 09 18	704	0.6+	0.0	1998 10 28	704	0.4−	0.1−	2000 01 31	704	0.2+	0.1−
1998 09 18	704	0.9−	1.3−	1998 10 28	704	2.0+	0.3+	2000 01 31	704	0.1−	0.2+
1998 09 18	704	0.1−	0.0	1998 10 28	704	0.8+	0.7+	2000 01 31	704	0.2+	0.3+
1998 09 25	699	0.3+	0.2+	1998 10 28	704	0.5−	0.4−	2000 01 31	704	0.1−	0.4−
1998 09 25	699	0.4−	0.5+	1998 10 28	704	0.9+	0.2+	2000 02 16	704	1.0+	1.5+
1998 09 25	699	0.1−	0.4−	1998 10 29	704	0.6−	2.0+	2000 02 16	704	0.2+	0.4+
1998 09 26	704	0.4−	0.1+	1998 10 29	704	0.5+	1.7+	2000 02 16	704	0.4+	0.2−
1998 09 26	704	0.5−	0.9−	1998 10 29	704	0.3−	1.6+	2000 02 16	704	0.6+	0.1−
1998 09 26	704	0.7−	0.4+	1998 10 29	704	0.2−	0.8+	2000 02 16	704	0.0	0.5−
1998 09 26	704	0.4−	0.0	1998 10 29	704	0.8−	1.3+	2000 02 17	704	0.5−	0.4+
1998 09 26	704	0.3−	0.0	1999 11 11	699	0.1−	1.0+	2000 02 17	704	0.5−	0.2+
1998 09 27	704	0.6−	0.8−	1999 11 11	699	1.3−	0.0	2000 02 17	704	0.5−	0.7−
1998 09 27	704	0.2+	0.0	1999 11 11	699	0.5−	1.1−				
1998 09 27	704	1.3−	0.3+	1999 11 16	703	0.5+	0.2+				

1998 SS₅₉ = 2000 BN₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

$\dot{M}$	105.55126		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$		
n	0.18010384	ω	299.14982	+0.98962998	+0.09639479		
a	3.1054228	Ω	55.51225	−0.03666691	+0.88634934		
e	0.1431755	i	7.42332	−0.13888142	+0.45287183		
P	5.47	H	14.2	G	0.15	U	4

Residuals in seconds of arc

1998 09 17	699	0.6−	0.1+	1998 09 26	704	0.4−	0.3+	1998 10 19	327	0.1−	0.7+
1998 09 17	699	0.2−	0.2−	1998 09 27	704	1.0+	0.2−	1998 10 19	327	0.9−	1.0+
1998 09 17	699	0.2−	0.3−	1998 09 27	704	0.1+	0.1−	2000 01 29	704	0.6+	0.5+
1998 09 25	699	0.3−	0.3−	1998 09 27	704	0.9−	0.1+	2000 01 29	704	0.3+	0.3+
1998 09 25	699	0.0	1.2+	1998 09 27	704	0.6+	0.0	2000 01 29	704	0.1−	0.2−
1998 09 25	699	0.5+	1.2−	1998 09 27	704	0.1−	0.9−	2000 01 30	704	0.5−	0.6+
1998 09 26	704	0.2−	0.5+	1998 10 15	327	0.5−	0.1−	2000 01 30	704	0.0	0.3−
1998 09 26	704	1.0+	0.1−	1998 10 15	327	0.3−	0.1+	2000 01 30	704	0.3−	0.8−

1998 09 26	704	0.1+	0.1+	1998 10 15	327	0.5−	0.1+
1998 09 26	704	0.0	1.1+	1998 10 19	327	1.7+	2.0−

1998 SC₆₀ = 1999 XV₁₈₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	281.69620		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.17445022	ω	145.84287	-0.99473715	-0.05447630
a	3.1721597	Ω	31.38002	$+0.00108298$	-0.85248523
e	0.0190674	i	9.59320	$+0.10245405$	-0.51990505
P	5.65	H	13.5	G 0.15	U 4

Residuals in seconds of arc

1998 09 14	704	0.4+	0.5+	1998 09 25	699	0.3+	0.5−	1999 12 12	704	0.9+	0.4+
1998 09 14	704	0.5+	0.2−	1998 09 26	704	0.3−	0.7+	1999 12 12	704	0.2+	0.4+
1998 09 14	704	0.5+	0.9−	1998 09 26	704	0.1−	0.9−	1999 12 15	704	0.5−	0.1+
1998 09 17	699	1.0+	0.8+	1998 09 26	704	1.1+	1.2−	1999 12 15	704	0.7−	0.5−
1998 09 17	699	0.4−	1.1+	1998 09 26	704	0.8−	1.0−	1999 12 15	704	0.8−	0.4−
1998 09 17	699	0.2+	0.4−	1998 09 26	704	0.5+	0.9−	1999 12 15	704	0.9−	0.5−
1998 09 18	704	0.6−	1.4+	1998 09 27	704	0.1−	0.7+	2000 01 02	704	0.3+	0.1+
1998 09 18	704	1.3−	0.8−	1998 09 27	704	0.8−	0.7−	2000 01 02	704	0.7+	0.0
1998 09 18	704	0.7−	0.1+	1998 09 27	704	0.9−	0.9+	2000 01 02	704	0.3+	0.5+
1998 09 18	704	1.0−	0.2−	1998 09 27	704	1.0−	0.6+	2000 01 02	704	0.1+	0.1+
1998 09 18	704	1.5+	1.3+	1998 09 27	704	0.9+	0.6−	2000 01 02	704	0.3−	0.0
1998 09 25	699	0.5+	0.0	1999 12 12	704	0.3+	0.1−				
1998 09 25	699	0.4+	0.2+	1999 12 12	704	0.3+	0.0				

1998 SX₆₂ = 2000 BG₂₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	53.07180		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$		
n	0.18070843	ω	56.16625	+0.36097110	−0.93131246		
a	3.0984924	Ω	12.94535	+0.76792527	+0.26729875		
e	0.1534696	i	12.51608	+0.52914142	+0.24740346		
P	5.45	H	13.8	G	0.15	U	4

Residuals in seconds of arc

1998 09 15	699	0.8−	0.2−	1998 09 27	704	0.8+	0.7+	1998 10 19	327	0.6−	0.0
1998 09 15	699	0.6−	0.3+	1998 09 27	704	0.4−	0.8+	1998 10 24	120	(2.5−	0.5+)
1998 09 15	699	1.8−	0.3−	1998 09 27	704	0.7+	0.9−	1998 10 24	120	1.5+	0.1+
1998 09 25	327	1.2+	0.7−	1998 09 27	704	0.1−	0.9−	2000 01 29	704	0.5+	0.1−
1998 09 25	327	1.3+	0.3+	1998 10 01	327	0.7−	0.1−	2000 01 29	704	0.8+	0.3−
1998 09 25	327	1.5+	0.4−	1998 10 01	327	1.0−	0.3−	2000 01 29	704	0.2−	0.6−
1998 09 26	704	1.1+	0.2−	1998 10 01	327	0.8−	0.4−	2000 01 29	704	0.3−	0.1−
1998 09 26	704	0.3−	0.3+	1998 10 17	327	0.2−	0.1−	2000 01 29	704	0.5+	0.4−
1998 09 26	704	0.3−	0.0	1998 10 17	327	0.3−	0.4−	2000 02 03	704	0.7−	0.2−
1998 09 26	704	1.0+	1.1+	1998 10 17	327	0.1−	0.2−	2000 02 03	704	0.1−	0.1+
1998 09 26	704	0.1−	1.0+	1998 10 19	327	0.4−	0.3+	2000 02 03	704	0.3−	0.6+
1998 09 27	704	0.3−	0.1−	1998 10 19	327	0.6−	0.2+	2000 02 03	704	0.3−	1.0+

1998 ST₆₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	85.63489		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$		
n	0.23427587	ω	201.00291	+0.60234832	−0.79769478		
a	2.6060596	Ω	211.97971	+0.74003069	+0.57181935		
e	0.2062208	i	3.17332	+0.29921746	+0.19158723		
P	4.21	H	14.0	G	0.15	U	4

Residuals in seconds of arc

1998 09 14	704	0.8−	0.2+	1998 09 27	704	0.3−	0.7+	1998 11 25	699	0.2−	0.6−
1998 09 14	704	0.6+	0.6−	1998 09 27	699	0.1−	0.4+	1998 11 25	699	1.0−	0.1+
1998 09 14	704	0.0	0.1−	1998 09 27	704	0.2−	0.7−	1998 12 08	699	0.6−	0.3−
1998 09 14	704	0.2+	0.2+	1998 09 27	704	0.0	0.1−	1998 12 08	699	0.3−	1.2−
1998 09 14	704	0.0	0.5+	1998 09 27	704	0.2−	0.7−	1998 12 08	699	0.3−	0.2−
1998 09 18	703	0.3−	0.9−	1998 09 29	120	0.8+	0.4−	1998 12 09	704	0.1+	0.1−
1998 09 18	703	0.5−	0.4−	1998 09 29	120	0.6+	0.2−	1998 12 09	704	0.2+	1.6−

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1998 09 18	703	0.5−	0.4+	1998 10 02	120	1.6−	1.3+	1998 12 09	704	0.3−	0.6−
1998 09 18	703	0.6−	0.4+	1998 10 02	120	0.7+	0.3−	1998 12 09	704	0.5−	0.9+
1998 09 18	704	0.3−	0.2+	1998 10 02	120	0.7−	0.2+	1998 12 09	704	0.3−	0.5+
1998 09 18	704	0.4+	0.1−	1998 10 10	120	0.4−	0.4−	1998 12 18	327	1.3+	0.1−
1998 09 18	704	0.2+	0.1−	1998 10 10	120	0.2−	0.1+	1998 12 18	327	0.6+	0.7−
1998 09 18	704	0.2−	0.3+	1998 10 10	120	0.4−	0.3−	1998 12 18	327	1.2+	0.3−
1998 09 18	704	0.5+	0.2−	1998 10 10	120	0.8−	0.2+	2000 02 02	704	0.8+	0.1+
1998 09 25	699	0.2+	0.1+	1998 10 10	120	0.1+	0.4−	2000 02 02	704	0.7+	0.1+
1998 09 25	699	0.1+	0.3+	1998 10 10	120	0.5+	0.1+	2000 02 02	704	0.5+	1.3+
1998 09 25	699	0.5+	0.4+	1998 10 13	120	0.1−	0.2−	2000 02 02	704	0.4+	0.4+
1998 09 26	704	0.6−	0.6+	1998 10 13	120	0.1−	0.4−	2000 02 02	704	0.2−	1.8+
1998 09 26	704	0.3+	0.7+	1998 10 14	699	0.2−	0.4+	2000 02 07	704	0.1−	0.1+
1998 09 26	704	0.8+	0.6−	1998 10 14	699	0.4−	0.1+	2000 02 07	704	0.0	0.2−
1998 09 26	704	1.1+	0.2+	1998 10 14	699	0.4−	0.3+	2000 02 07	704	0.5−	0.9−
1998 09 26	704	1.4+	0.4−	1998 11 10	699	0.2−	1.5+	2000 02 07	704	0.6−	0.0
1998 09 27	699	0.1+	0.2+	1998 11 10	699	1.1+	0.0	2000 02 07	704	0.5−	1.0−
1998 09 27	699	0.9+	0.6+	1998 11 10	699	0.6−	1.1+				
1998 09 27	704	0.2−	0.3−	1998 11 25	699	0.3−	0.0				

1998 SL₆₄ = 2000 AZ₂₄₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	321.42347		(2000.0)	P	Q
n	0.28489412	ω	97.60496	−0.89531173	+0.43911649
a	2.2874260	Ω	108.46749	−0.43343241	−0.82008700
e	0.0681529	i	4.52253	−0.10272902	−0.36692509
P	3.46	H	14.2	G 0.15	U 4

Residuals in seconds of arc

1998 09 18	699	0.1−	0.7−	1998 11 10	704	0.8−	1.1+	2000 02 04	704	0.1+	0.1+
1998 09 18	699	0.3−	0.3+	1998 11 10	704	1.4+	0.1+	2000 02 04	704	0.6+	0.1+
1998 09 18	699	0.4+	0.2−	1998 11 10	704	(1.2−	2.8+)	2000 02 04	704	0.6+	0.8+
1998 09 20	809	(1.3+	2.7+)	1998 11 11	704	0.7+	0.3+	2000 02 04	704	0.6−	0.2+
1998 09 20	809	(0.6+	2.3+)	1998 11 11	704	0.2+	0.7+	2000 02 11	106	0.1−	0.5+
1998 09 20	809	(0.4+	2.5+)	1998 11 11	704	0.4−	1.4+	2000 02 11	106	0.2+	0.5+
1998 09 21	809	(0.9+	3.0+)	1998 11 11	704	0.6−	0.1+	2000 02 11	106	0.2−	0.3+
1998 09 21	809	(1.4+	3.1+)	1999 12 05	704	0.1−	0.5−	2000 02 11	704	0.1−	0.4+
1998 09 21	809	(1.1+	3.1+)	1999 12 05	704	0.1+	1.7−	2000 02 11	704	0.1+	0.2+
1998 10 28	704	2.0+	1.7−	1999 12 05	704	0.7+	1.5−	2000 02 11	704	0.4−	0.5+
1998 10 28	704	0.8−	0.2−	1999 12 05	704	0.7−	0.8−	2000 02 11	704	0.3+	0.3+
1998 10 28	704	0.7+	0.3+	2000 01 07	704	0.6−	0.2+	2000 02 11	704	0.1−	0.7+
1998 10 28	704	0.2−	1.4+	2000 01 07	704	0.0	1.1−	2000 02 13	106	0.4−	0.4−
1998 10 29	704	1.2+	0.1−	2000 01 07	704	1.9−	0.5−	2000 02 13	106	0.9+	0.8−
1998 10 29	704	0.4−	0.0	2000 01 07	704	0.8−	0.1−	2000 02 13	106	0.8+	0.4−
1998 10 29	704	1.6−	0.8+	2000 01 10	699	0.3+	0.3+	2000 02 13	106	0.3−	0.4+
1998 10 29	704	1.7−	1.7−	2000 01 10	699	0.6+	0.6+	2000 02 14	106	0.0	0.4+
1998 10 29	704	1.0+	1.1−	2000 01 10	699	0.3+	0.2−	2000 02 14	106	0.0	0.2+
1998 11 10	704	1.1−	0.7+	2000 02 04	704	0.5+	0.1−				

1998 SQ₆₅ = 1985 FY = 1989 JO = 2000 BE₃₀

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	320.05735		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.26034724	ω	120.53658	−0.94045976	+0.33455411
a	2.4290366	Ω	79.06568	−0.32904842	−0.85177701
e	0.1399384	i	3.50787	−0.08522073	−0.40317424
P	3.79	H	14.0	G 0.15	U 2

Residuals in seconds of arc

1985 03 21	688	2.1−	1.1−	1998 11 11	704	0.7−	0.7−	2000 01 30	704	0.4+	0.7−
1985 03 21	688	1.3+	0.1+	1999 11 05	703	0.1−	1.3+	2000 01 30	704	0.1+	0.1+
1989 05 09	808	0.7+	0.0	1999 11 05	703	0.4+	0.6−	2000 01 30	704	0.4+	0.3−
1989 05 09	808	0.1+	0.8+	1999 11 05	703	0.1+	0.3+	2000 01 30	704	0.2−	0.4−
1998 09 20	809	(2.2+	2.7+)	1999 11 05	703	0.0	0.2+	2000 01 30	703	0.1−	0.1+
1998 09 20	809	(1.3+	2.3+)	1999 11 16	704	0.4+	1.5+	2000 01 30	703	0.0	0.2−
1998 09 20	809	(1.5+	3.2+)	1999 11 16	704	0.2−	0.5−	2000 01 30	703	0.4+	0.5+
1998 09 21	809	(2.6+	4.7+)	1999 11 16	704	0.8+	0.0	2000 01 30	703	0.0	0.2+

1998 09 21	809	(2.7+	4.6+)	1999 11 16	704	1.6+	1.3−	2000 02 03	704	0.0	0.2+
1998 09 21	809	(2.1+	4.0+)	1999 12 04	703	0.1+	0.4−	2000 02 03	704	0.1+	0.3+
1998 10 10	699	1.7+	0.2+	1999 12 04	703	0.4+	0.3+	2000 02 03	704	0.5+	0.5−
1998 10 10	699	0.5+	1.3+	1999 12 04	703	0.3−	0.2−	2000 02 03	704	0.7+	0.4−
1998 10 10	699	1.1+	1.2−	1999 12 04	703	0.9+	0.4−	2000 02 03	704	0.5+	0.5−
1998 10 28	704	1.5+	0.1+	1999 12 06	704	0.2+	0.2+	2000 02 08	720	1.8−	0.3+
1998 10 28	704	0.2+	0.2−	1999 12 06	704	1.4+	1.0−	2000 02 08	720	0.8−	0.6+
1998 10 28	704	0.4+	0.6−	1999 12 06	704	0.3−	0.3−	2000 02 08	720	(1.0+	2.0+)
1998 10 28	704	(2.4−	0.9−)	1999 12 06	704	0.3+	0.0	2000 02 09	720	0.2−	0.2+
1998 10 29	704	0.4+	0.5−	1999 12 15	704	0.4−	0.4−	2000 02 09	720	1.5+	0.3+
1998 10 29	704	0.0	0.2+	1999 12 15	704	1.0−	0.5−	2000 02 11	704	0.1−	0.4+
1998 10 29	704	0.5+	1.0+	1999 12 15	704	1.0−	0.9−	2000 02 11	704	0.1−	0.5+
1998 10 29	704	0.5−	0.9−	1999 12 15	704	0.1−	0.1+	2000 02 11	704	0.2−	0.6+
1998 10 29	704	0.6−	1.4−	2000 01 06	704	0.3−	0.8−	2000 02 11	704	0.3+	0.7+
1998 11 10	704	1.2−	0.2−	2000 01 06	704	0.5+	0.8+	2000 02 11	628	0.3−	0.1+
1998 11 10	704	1.3−	0.5+	2000 01 06	704	1.3−	1.0+	2000 02 11	628	0.2−	0.0
1998 11 10	704	0.6−	0.4+	2000 01 06	704	0.8−	1.7+	2000 02 11	628	0.1−	0.1+
1998 11 10	704	0.6−	1.0+	2000 01 29	703	1.4−	0.9+	2000 02 11	628	0.1−	0.0
1998 11 11	704	0.4−	1.2+	2000 01 29	703	0.5+	0.0	2000 02 12	642	0.8−	1.6−
1998 11 11	704	0.3−	0.4+	2000 01 29	703	0.4+	0.5+	2000 02 12	642	(2.4+	3.5−)
1998 11 11	704	0.6−	0.0	2000 01 29	703	0.0	0.3+	2000 02 12	642	1.2+	1.4−
1998 11 11	704	0.1−	0.4−	2000 01 30	704	0.0	0.2−				

1998 SU₆₇ = 2000 AO₂₃₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	351.37168		(2000.0)	P	Q
n	0.23340602	ω	88.80239	−0.96879299	−0.21745988
a	2.6125304	Ω	78.62884	+0.15006184	−0.89653183
e	0.1619431	i	6.96952	+0.19728555	−0.38592990
P	4.22	H	13.9	G 0.15	U 3

Residuals in seconds of arc

1998 09 20	809	1.0+	0.4+	1998 11 11	704	2.0+	1.7−	2000 02 03	704	0.2+	0.1+
1998 09 20	809	0.4+	0.4+	1998 11 11	704	0.4+	0.8+	2000 02 03	704	0.1+	0.1−
1998 09 20	809	1.5−	0.3−	1998 11 11	704	0.8+	0.8−	2000 02 03	704	0.2+	0.1−
1998 09 21	809	1.2+	0.2+	1999 12 06	704	0.6+	0.4−	2000 02 03	704	0.3+	0.2−
1998 09 21	809	0.2−	0.0	1999 12 06	704	1.0−	0.6−	2000 02 03	704	0.3−	0.2−
1998 09 21	809	0.1−	0.3+	1999 12 06	704	0.5+	0.7+	2000 02 05	704	0.0	0.1+
1998 10 11	699	1.5−	1.1+	1999 12 06	704	0.8+	0.9+	2000 02 05	704	0.2−	0.2−
1998 10 11	699	0.4−	0.3−	1999 12 06	704	0.2−	1.3+	2000 02 05	704	0.2−	0.2+
1998 10 11	699	0.6+	0.6+	2000 01 06	704	0.2−	1.2−	2000 02 06	703	0.0	0.1−
1998 11 10	704	0.3+	1.4−	2000 01 06	704	0.8+	0.2+	2000 02 06	703	0.0	0.0
1998 11 10	704	1.4−	0.4+	2000 01 06	704	0.7−	0.7−	2000 02 06	703	0.2+	0.5+
1998 11 10	704	0.4−	1.2−	2000 01 10	699	0.1−	0.0	2000 02 06	703	0.1+	0.0
1998 11 10	704	0.1+	1.1+	2000 01 10	699	0.5−	0.2−				
1998 11 11	704	1.0−	0.3+	2000 01 10	699	0.3−	0.5+				

1998 SN₇₁ = 2000 BG₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	37.76582		(2000.0)	P	Q
n	0.20087634	ω	4.33202	+0.02704148	-0.99802476
a	2.8874659	Ω	84.12543	+0.91542529	+0.00193587
e	0.0179794	i	3.26782	+0.40157851	+0.06279200
P	4.91	H	13.9	G 0.15	U 4

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1998 09 26	704	0.5+	1.3+	2000 01 04	704	1.4-	0.4+	2000 02 01	691	0.2+	0.6-
1998 09 26	704	0.5+	0.2-	2000 01 04	704	1.3-	0.9+	2000 02 03	704	0.7+	0.4+
1998 09 26	704	0.8+	0.5+	2000 01 04	704	1.6-	0.5-	2000 02 03	704	1.0+	0.4+
1998 09 26	704	0.0	0.6-	2000 01 27	704	0.0	0.2+	2000 02 03	704	0.6+	0.6+
1998 09 27	704	0.3+	0.1+	2000 01 27	704	0.4-	0.1+	2000 02 03	704	0.7+	0.4+
1998 09 27	704	0.3+	0.2+	2000 01 27	704	0.2+	0.2+	2000 02 07	703	0.3-	0.4+
1998 09 27	704	0.2-	0.5-	2000 01 27	704	0.0	0.6-	2000 02 07	703	0.4+	0.6-
1998 09 27	704	1.2+	0.4-	2000 01 27	704	0.1-	0.8-	2000 02 07	703	0.3+	0.0
1998 10 11	699	0.5-	1.8+	2000 01 29	704	0.3+	0.1-	2000 02 07	703	0.2+	0.7+
1998 10 11	699	0.3+	0.6-	2000 01 29	704	0.2+	0.3-	2000 02 11	704	0.5-	1.7+
1998 10 11	699	0.6-	0.2-	2000 01 29	704	0.2-	0.0	2000 02 11	704	1.0-	0.7-
1998 10 28	704	0.8-	0.7+	2000 01 29	704	0.2+	0.2+	2000 02 11	704	0.6+	0.4-
1998 10 28	704	0.1-	0.7+	2000 01 30	704	0.8+	0.5+	2000 02 12	691	0.2-	0.9-
1998 10 28	704	0.5-	0.2-	2000 01 30	704	0.0	0.1-	2000 02 12	691	0.2-	0.7-
1998 10 28	704	1.0-	0.6+	2000 01 30	704	0.2-	0.1-	2000 02 12	691	0.2-	0.9-
1998 10 29	704	0.2+	1.9-	2000 01 30	704	0.0	0.2+				

1998 SX₇₁ = 2000 CL₈₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	322.50848	(2000.0)	
<i>n</i>	0.27228189	ω	156.80133
<i>a</i>	2.3575281	Ω	41.73619
<i>e</i>	0.0763676	<i>i</i>	4.26835
<i>P</i>	3.62	<i>H</i>	14.9
		<i>G</i>	0.15
		<i>U</i>	4

Residuals in seconds of arc

1998 09 21	809	0.2-	1.5+	1998 10 28	704	0.2+	0.2+	2000 02 04	704	0.4+	0.4+
1998 09 21	809	0.5-	1.4+	1998 10 28	704	1.4+	0.6-	2000 02 04	704	1.2+	1.0+
1998 09 21	809	0.2-	1.8+	1998 10 28	704	0.7-	1.5-	2000 02 04	704	0.3-	0.1-
1998 09 23	809	0.2+	1.4+	1998 10 29	704	(0.2-	2.6-)	2000 02 04	704	0.9+	0.2+
1998 09 23	809	0.1+	1.5+	1998 10 29	704	0.6+	1.1-	2000 02 04	704	0.9+	0.9-
1998 09 23	809	0.1+	1.0+	1998 10 29	704	1.5-	1.6+	2000 02 06	703	0.2+	0.1-
1998 09 26	704	0.8-	0.8+	1998 10 29	704	(0.0	2.8-)	2000 02 06	703	0.3-	0.5+
1998 09 26	704	1.5+	0.8-	1998 10 29	704	(0.9+	2.3-)	2000 02 06	703	0.6+	0.7-
1998 09 26	704	0.8-	1.0+	1998 11 11	704	0.4-	1.9-	2000 02 06	703	0.2-	0.1+
1998 09 26	704	1.6+	0.7+	1998 11 11	704	0.5+	0.4+	2000 02 11	704	0.0	0.3+
1998 09 27	704	0.7-	1.1-	1998 11 11	704	1.1+	0.4-	2000 02 11	704	1.1-	0.3+
1998 09 27	704	1.9-	0.6+	1998 11 11	704	0.9-	1.9-	2000 02 11	704	0.5-	0.3+
1998 09 27	704	1.0-	0.2-	1999 01 15	691	1.1+	0.4-	2000 02 11	704	0.5-	0.3+
1998 09 27	704	0.7-	1.5-	1999 01 15	691	0.7+	0.1-	2000 02 11	704	0.3-	0.4+
1998 10 28	704	0.9+	0.6-	1999 01 15	691	1.0+	0.4-				

1998 SV₇₄ = 2000 AC₄₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	60.67171	(2000.0)	
<i>n</i>	0.18018013	ω	8.89105
<i>a</i>	3.1045461	Ω	54.79354
<i>e</i>	0.1427469	<i>i</i>	6.01303
<i>P</i>	5.47	<i>H</i>	14.0
		<i>G</i>	0.15
		<i>U</i>	3

Residuals in seconds of arc

1998 09 21	809	(2.4+	0.3+)	1998 10 28	704	1.0-	0.2-	2000 01 03	704	0.2-	0.1-
1998 09 21	809	1.8+	0.6+	1998 10 28	704	1.4+	1.9+	2000 01 03	704	0.8-	1.8-
1998 09 21	809	1.1+	0.8+	1998 10 28	704	0.3-	0.4-	2000 01 04	704	0.8-	0.3+
1998 09 23	809	(2.8+	0.4+)	1998 10 28	704	1.0-	1.1+	2000 01 04	704	0.6+	1.4-
1998 09 23	809	1.9+	1.3-	1998 10 29	704	1.1+	0.2-	2000 01 04	704	0.0	1.2-
1998 09 23	809	1.4+	0.8-	1998 10 29	704	1.8-	0.1+	2000 01 06	699	0.5-	0.8+
1998 09 26	704	0.0	0.5+	1998 10 29	704	0.3-	0.6+	2000 01 06	699	0.1-	1.7-
1998 09 26	704	1.1+	1.7-	1998 10 29	704	(3.4-	1.2-)	2000 01 06	699	0.2-	0.4-
1998 09 26	704	0.9-	0.5+	1998 10 29	704	0.4-	1.4+	2000 02 08	704	0.5+	1.0+
1998 09 26	704	0.3+	0.9-	1998 11 11	704	0.2+	0.5-	2000 02 08	704	0.4-	0.4+
1998 09 26	704	0.2-	0.5-	1998 11 11	704	0.3-	0.7+	2000 02 08	704	0.1+	0.6+
1998 09 27	704	1.5-	0.4-	1998 11 11	704	1.9+	1.8+	2000 02 08	704	0.8+	0.7+
1998 09 27	704	1.6-	0.9+	1998 11 11	704	0.6-	1.5-	2000 02 10	704	0.6+	0.3+
1998 09 27	704	1.3-	1.2-	1998 11 11	704	0.7-	0.5-	2000 02 10	704	0.4-	0.6+

1998 09 27	704	(1.2-	3.0-)	1998 11 23	699	0.7+	1.0-	2000 02 10	704	0.2-	0.1-
1998 09 27	704	1.5-	1.1-	1998 11 23	699	0.5+	0.6-	2000 02 10	704	0.6+	1.7+
1998 10 11	699	0.2+	0.5+	1998 11 23	699	0.8+	1.0+	2000 02 10	704	0.6+	0.9+
1998 10 11	699	0.3-	0.5+	2000 01 03	704	0.0	0.2-				
1998 10 11	699	0.4-	0.3+	2000 01 03	704	0.5-	0.7-				

1998 SA₉₆ = 1976 UZ₁₃ = 2000 AC₂₁₈

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	197.37455	(2000.0)	
<i>n</i>	0.26733030	ω	179.21749
<i>a</i>	2.3865503	Ω	104.64879
<i>e</i>	0.1933299	<i>i</i>	3.60059
<i>P</i>	3.69	<i>H</i>	15.3
		<i>G</i>	0.15
		<i>U</i>	5

Residuals in seconds of arc

1976 10 22	381	0.7+	0.2-	1998 09 26	704	0.0	0.6-	1998 10 17	699	0.8+	1.3+
1976 10 22	381	0.0	1.6-	1998 09 26	704	0.4-	0.8-	2000 01 04	704	0.7+	0.5+
1998 09 17	699	0.3-	1.2+	1998 09 26	704	0.5-	0.6-	2000 01 04	704	0.5-	1.1+
1998 09 17	699	0.5-	0.1+	1998 09 27	704	0.1-	0.2-	2000 01 04	704	1.4-	1.4+
1998 09 17	699	0.3+	0.1+	1998 09 27	704	0.1-	0.6+	2000 01 08	691	0.1+	0.3-
1998 09 24	910	0.3+	0.2+	1998 09 27	704	0.1-	0.9+	2000 01 08	691	0.1+	0.4-
1998 09 24	910	0.5+	0.2+	1998 09 27	704	0.1-	0.3+	2000 01 08	691	0.0	0.4-
1998 09 24	910	0.4+	0.2+	1998 09 27	704	0.8-	0.0	2000 01 14	691	0.1+	0.4-
1998 09 26	704	0.4-	0.9-	1998 10 17	699	0.2-	0.2-	2000 01 14	691	0.6+	0.5-
1998 09 26	704	0.1+	0.7-	1998 10 17	699	0.4+	0.4+	2000 01 14	691	0.4+	0.2-

1998 SC₁₀₃ = 2000 CA₉₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	88.18540	(2000.0)	
<i>n</i>	0.28613141	ω	38.80659
<i>a</i>	2.2808271	Ω	34.25126
<i>e</i>	0.0584101	<i>i</i>	3.43855
<i>P</i>	3.44	<i>H</i>	15.3
		<i>G</i>	0.15
		<i>U</i>	4

Residuals in seconds of arc

1998 09 17	699	0.9-	0.4+	1998 09 27	704	0.6-	0.1+	2000 01 08	704	1.1-	0.3-
1998 09 17	699	1.5+	0.8-	1998 09 27	704	0.8-	0.3-	2000 01 08	704	1.6+	0.2-
1998 09 17	699	0.5-	0.4+	1998 09 27	704	1.3-	0.6-	2000 01 08	704	1.2-	0.0
1998 09 26	704	0.4+	0.8-	1998 10 14	699	0.6-	0.4+	2000 02 06	704	0.8-	0.2+
1998 09 26	704	0.3-	0.6-	1998 10 14	699	0.2+	0.1+	2000 02 06	704	1.1-	0.4+
1998 09 26	704	0.8+	0.7+	1998 10 14	699	0.2+	0.2+	2000 02 06	704	0.3-	0.6+
1998 09 26	704	0.4+	0.4-	1998 10 19	699	0.7+	0.1-	2000 02 06	704	0.4+	0.0
1998 09 26	704	0.8+	0.3-	1998 10 19	699	0.1+	0.1+	2000 02 11	704	0.3+	0.7-
1998 09 27	704	1.1+	0.0	1998 10 19	699	0.1-	0.6+	2000 02 11	704	0.4+	0.5-
1998 09 27	704	1.0-	0.3+	2000 01 08	704	0.6+	0.7+	2000 02 11	704	1.1+	0.6-

1998 SV₁₀₄ = 2000 BJ₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	248.79246	(2000.0)	
<i>n</i>	0.26564026	ω	183.54242
<i>a</i>	2.3966620	Ω	63.59906
<i>e</i>	0.0719511	<i>i</i>	6.22546
<i>P</i>	3.71	<i>H</i>	15.3
		<i>G</i>	0.15
		<i>U</i>	5

Residuals in seconds of arc

1998 09 21	910	0.6+	0.7+	1998 09 27	704	1.1+	1.0+	2000 02 02	704	0.2-	0.4+
1998 09 21	910	0.6+	0.6+	1998 09 27	704	0.7-	0.7+	2000 02 02	704	0.1+	0.8+
1998 09 21	910	0.2+	0.8+	2000 01 29	704	0.2+	0.1+	2000 02 03	704	0.4+	0.0
1998 09 26	704	0.4+	0.3-	2000 01 29	704	1.4-	0.2+	2000 02 03	704	0.4+	0.6-
1998 09 26	704	0.5-	0.2+	2000 01 29	704	0.5-	0.3-	2000 02 03	704	1.0+	0.9-
1998 09 26	704	1.8-	1.5-	2000 01 29	704	0.1-	0.0	2000 02 03	704	0.2+	0.0
1998 09 26	704	0.3-	0.4+	2000 01 30	704	0.4+	0.0	2000 02 03	704	0.6+	0.0

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1998 09 27 704 0.5- 1.1- 2000 02 02 704 0.2- 0.3+ 2000 02 11 704 0.2- 0.2-
 1998 09 27 704 0.1+ 0.5- 2000 02 02 704 0.3+ 0.2+

1998 SD₁₀₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	78.68212		(2000.0)	P	Q
<i>n</i>	0.22966069	ω	240.29614	+0.45697764	-0.88941955
<i>a</i>	2.6408573	Ω	182.57734	+0.87422692	+0.45122968
<i>e</i>	0.1445109	<i>i</i>	13.12736	+0.16400833	+0.07297018
<i>P</i>	4.29	<i>H</i>	14.3	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 15	699	0.2+	0.3+	1998 09 27	704	0.2+	0.3-	1998 11 15	699	1.2+	0.8+
1998 09 15	699	0.9+	0.4+	1998 09 27	704	0.7-	0.3+	1998 11 15	699	1.6+	1.1+
1998 09 15	699	0.7+	0.1-	1998 10 28	704	1.3-	0.4-	2000 02 07	704	1.3-	0.1+
1998 09 26	704	0.1+	0.9-	1998 10 28	704	0.5-	1.2-	2000 02 07	704	0.9-	0.6-
1998 09 26	704	1.2-	0.7-	1998 10 28	704	0.3-	0.9-	2000 02 07	704	0.4-	0.3-
1998 09 26	704	0.1-	0.1-	1998 10 28	704	1.9-	0.1+	2000 02 07	704	0.1+	0.6-
1998 09 26	704	0.1-	1.2-	1998 10 29	704	0.2-	0.3-	2000 02 08	704	0.3+	0.0
1998 09 26	704	0.0	0.1+	1998 10 29	704	0.1+	0.7+	2000 02 08	704	0.1+	0.0
1998 09 27	704	0.0	0.3+	1998 10 29	704	1.4-	1.8+	2000 02 08	704	0.9+	0.1-
1998 09 27	704	1.0+	0.7-	1998 10 29	704	1.2+	1.9+	2000 02 08	704	0.3+	0.5+
1998 09 27	704	0.1-	0.8+	1998 11 15	699	1.3+	1.9-	2000 02 08	704	0.9+	0.6+

1998 SA₁₁₀

Id. T. Kobayashi (2000 observations)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	185.32927		(2000.0)	P	Q
<i>n</i>	0.28103556	ω	339.44647	+0.79535621	+0.60513120
<i>a</i>	2.3083157	Ω	343.17205	-0.53787781	+0.67798617
<i>e</i>	0.1341134	<i>i</i>	6.94322	-0.27945654	+0.41731402
<i>P</i>	3.51	<i>H</i>	14.4	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 26	704	0.3-	0.3-	1998 10 12	112	0.3+	0.0	2000 01 28	411	0.8-	0.1-
1998 09 26	704	0.3+	0.5-	1998 10 12	112	0.4+	0.3+	2000 01 28	411	1.8-	1.1+
1998 09 26	704	0.5+	0.7-	1998 10 13	112	1.5-	0.6+	2000 02 06	703	0.1+	0.0
1998 09 26	704	0.5-	0.9-	1998 10 13	112	0.5+	0.3+	2000 02 06	703	0.6+	0.5-
1998 09 26	704	0.1-	0.7-	1998 10 13	112	0.1-	0.3+	2000 02 06	703	1.7-	0.9+
1998 09 27	704	0.1+	0.6-	1998 10 28	704	0.1-	1.2+	2000 02 06	703	0.6-	0.3+
1998 09 27	704	0.0	0.6+	1998 10 28	704	0.2-	0.6+	2000 02 11	704	0.2+	0.5-
1998 09 27	704	0.1-	1.0+	1998 10 28	704	0.4-	0.6+	2000 02 11	704	0.4+	0.5-
1998 09 27	704	0.5+	0.6+	1998 10 28	704	0.5+	1.9-	2000 02 11	704	0.3+	0.3-
1998 09 27	704	0.3-	0.2+	1998 10 28	704	1.8-	0.9-	2000 02 11	704	0.4+	0.8-
1998 10 12	112	1.5+	0.4-	2000 01 27	411	0.0	0.2-	2000 02 11	704	0.9+	0.3-
1998 10 12	112	0.5+	0.5+	2000 01 27	411	1.8+	0.7+				

1998 ST₁₁₀ = 2000 AZ₈₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	253.50466		(2000.0)	P	Q
<i>n</i>	0.22368726	ω	3.10331	-0.61420070	+0.78843972
<i>a</i>	2.6876655	Ω	229.00574	-0.72498243	-0.58050380
<i>e</i>	0.0655231	<i>i</i>	2.54164	-0.31170173	-0.20341617
<i>P</i>	4.41	<i>H</i>	14.0	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 23	120	0.6-	0.3+	1998 10 18	327	0.1+	0.2+	2000 01 06	704	0.1-	0.1+
1998 09 24	120	0.7+	0.2+	1998 10 18	327	0.0	0.3-	2000 01 06	704	0.1-	0.1-
1998 09 24	120	0.5-	0.6-	1998 10 18	327	0.2-	0.1+	2000 01 06	704	0.3+	0.2+
1998 09 26	704	0.3-	1.4-	1998 10 19	327	0.0	0.2-	2000 01 07	704	0.1+	0.0
1998 09 26	704	0.7+	0.6-	1998 10 19	327	0.3+	0.1-	2000 01 07	704	0.1+	0.1+
1998 09 26	704	1.3-	0.6+	1998 10 19	327	0.9+	0.3-	2000 01 07	704	0.4-	0.3+
1998 09 26	704	1.1+	0.1+	1999 12 08	704	1.0+	0.2+	2000 01 07	704	0.0	0.0
1998 09 26	704	1.2-	0.2-	1999 12 08	704	0.3+	0.0	2000 01 07	704	0.3-	0.2-

1998 09 27	704	0.2+	0.1+	1999 12 08	704	0.3-	0.0	2000 02 02	704	0.7-	0.9-
1998 09 27	704	0.4-	1.1+	1999 12 08	704	0.0	0.1+	2000 02 02	704	1.1+	1.1-
1998 09 27	704	0.5+	0.4+	2000 01 05	704	0.2+	0.2+	2000 02 02	704	1.6-	0.6-
1998 09 27	704	0.4-	0.5+	2000 01 05	704	0.2+	0.1+	2000 02 02	704	0.3+	0.6+
1998 10 17	327	0.2+	0.1+	2000 01 05	704	0.4-	0.0	2000 02 03	704	0.2-	0.8+
1998 10 17	327	0.2-	0.1+	2000 01 05	704	0.1-	0.1+	2000 02 03	704	0.6+	0.3+
1998 10 17	327	0.3+	0.2-	2000 01 05	704	0.1-	0.0	2000 02 03	704	(2.4+	1.1-)

1998 SZ₁₁₁ = 2000 BR₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	148.47217		(2000.0)	P	Q
<i>n</i>	0.23616736	ω	301.03875	+0.86279991	+0.50095773
<i>a</i>	2.5921261	Ω	29.06078	-0.40292232	+0.76259893
<i>e</i>	0.2059503	<i>i</i>	8.04191	-0.30533574	+0.40924838
<i>P</i>	4.17	<i>H</i>	14.8	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 17	699	0.6-	0.5-	1998 10 17	699	0.6-	0.9-	2000 01 29	704	0.4-	0.6-
1998 09 17	699	0.5-	0.5-	1998 10 17	699	0.8+	0.3-	2000 01 29	704	1.0-	0.1-
1998 09 17	699	0.1+	0.8-	1998 10 17	699	1.8-	0.7+	2000 01 30	704	0.2+	0.3+
1998 09 26	704	0.1+	0.7+	1998 10 28	704	0.9+	0.5-	2000 01 30	704	0.2+	0.8-
1998 09 26	704	1.1+	0.3-	1998 10 28	704	0.8+	0.3-	2000 01 30	704	0.4+	0.5+
1998 09 26	704	0.3-	0.4+	1998 10 28	704	1.2-	0.7+	2000 01 30	704	0.6+	0.6+
1998 09 26	704	0.3+	0.4+	1998 10 28	704	0.6-	0.1-	2000 01 31	704	0.6-	0.5-
1998 09 27	704	0.3-	0.3+	1998 10 29	704	0.0	0.9+	2000 01 31	704	1.6+	0.7+
1998 09 27	704	0.1+	0.7+	1998 10 29	704	0.4+	0.9-	2000 01 31	704	0.5-	0.2-
1998 09 27	704	0.5+	0.7+	1998 10 29	704	0.5+	0.0	2000 01 31	704	0.0	0.3+
1998 09 27	704	0.6+	0.6-	2000 01 29	704	0.4+	0.8+				
1998 09 27	704	0.3-	0.3+	2000 01 29	704	0.9-	1.0-				

1998 SW₁₁₅ = 2000 AY₂₃₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	257.32992		(2000.0)	P	Q
<i>n</i>	0.26395267	ω	312.13365	-0.45279495	+0.89118951
<i>a</i>	2.4068666	Ω	290.92386	-0.80909987	-0.42366846
<i>e</i>	0.1315189	<i>i</i>	1.68905	-0.37461197	-0.16213047
<i>P</i>	3.73	<i>H</i>	15.0	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 26	704	1.4-	0.9+	1998 10 20	327	0.5+	1.0-	2000 01 27	691	0.2+	0.2-
1998 09 26	704	0.0	1.0+	2000 01 06	704	0.1-	0.1-	2000 01 27	691	0.3+	0.6-
1998 09 26	704	1.3+	0.4+	2000 01 06	704	0.1+	0.7-	2000 01 27	691	0.4+	0.8-
1998 09 26	704	1.0-	1.2+	2000 01 06	704	0.7-	0.4-	2000 02 03	704	0.5-	0.3+
1998 09 27	704	0.3+	0.5-	2000 01 07	691	0.6+	0.5+	2000 02 03	704	0.8+	0.1+
1998 09 27	704	0.2-	0.1-	2000 01 07	691	0.6+	0.6+	2000 02 03	704	1.6-	0.2-
1998 09 27	704	0.4-	0.3+	2000 01 07	691	0.8+	0.6+	2000 02 03	704	0.2+	0.1+
1998 09 27	704	0.0	0.6+	2000 01 07	691	0.9-	1.4+	2000 02 03	704	0.2+	1.2+
1998 10 19	327	0.1-	0.5-	2000 01 07	691	0.6-	0.3+	2000 02 07	703	0.9+	0.3+
1998 10 19	327	0.1-	0.5-	2000 01 07	691	0.4-	0.8-	2000 02 07	703	0.2-	0.7-
1998 10 19	327	0.3+	0.7-	2000 01 16	691	0.2+	0.2-	2000 02 07	703	1.0-	0.4+
1998 10 20	327	0.8+	0.6-	2000 01 16	691	0.2+	0.2-	2000 02 07	703	0.4+	0.4-
1998 10 20	327	0.1+	0.3-	2000 01 16	691	0.2+	0.1-				

1998 SX₁₁₅ = 2000 BP₂₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	1.68855		(2000.0)	P	Q
<i>n</i>	0.24594860	ω	162.45816	-0.82481196	-0.56525043
<i>a</i>	2.5229374	Ω	343.10196	+0.51310602	-0.73841895
<i>e</i>	0.0475552	<i>i</i>	2.62473	+0.23750251	-0.36773551
<i>P</i>	4.01	<i>H</i>	14.6	<i>G</i> 0.15	<i>U</i> 5

M.P.C. 38512

2000 FEB. 22

Residuals in seconds of arc

1998 09 25	327	0.6−	0.4+	1998 10 26	327	0.2+	0.8+	2000 02 06	704	0.0	0.5+
1998 09 25	327	0.5−	0.2+	1998 10 28	704	0.1+	0.2−	2000 02 06	704	0.5+	0.1+
1998 09 25	327	0.5−	0.4+	1998 10 28	704	1.9−	0.8+	2000 02 06	120	0.3+	0.3−
1998 09 26	704	0.7+	0.3−	1998 10 28	704	0.1−	0.5−	2000 02 06	120	0.0	0.2−
1998 09 26	704	0.2+	0.9−	1998 10 28	704	(5.1−	1.0+)	2000 02 06	120	1.3+	0.5−
1998 09 26	704	1.3−	0.4−	1998 10 29	704	0.1+	1.1−	2000 02 06	120	0.4−	0.8−
1998 09 26	704	1.6+	0.1+	1998 10 29	704	0.6+	0.3−	2000 02 06	120	(2.3−	1.2−)
1998 09 26	704	0.0	0.3−	1998 10 29	704	1.2+	0.7+	2000 02 06	120	0.3−	0.4−
1998 09 27	704	0.2−	0.2+	2000 01 30	704	0.8−	0.9+	2000 02 08	704	0.0	0.1+
1998 09 27	704	0.9−	0.6+	2000 01 30	704	0.2+	1.1+	2000 02 08	704	0.3−	0.1−
1998 09 27	704	0.9+	0.2−	2000 01 30	704	0.5+	0.3−	2000 02 08	704	0.7−	0.1+
1998 09 27	704	0.3+	0.7+	2000 01 30	704	0.3+	0.0	2000 02 08	704	0.2−	0.1+
1998 10 19	327	0.5−	0.4−	2000 02 04	704	0.0	0.1+	2000 02 08	704	0.3−	0.4+
1998 10 19	327	0.3+	0.2−	2000 02 04	704	0.2+	0.5−	2000 02 11	704	0.9−	0.1+
1998 10 19	327	0.2−	0.2−	2000 02 04	704	0.6+	0.3−	2000 02 11	704	0.3−	0.8−
1998 10 20	327	0.3+	0.8−	2000 02 04	704	0.6+	0.7−	2000 02 11	704	0.2−	0.2+
1998 10 20	327	0.5−	0.1−	2000 02 04	704	0.8+	0.1+	2000 02 11	704	0.2−	0.4+
1998 10 20	327	0.2+	0.1−	2000 02 06	704	0.2−	0.1−	2000 02 11	704	0.2−	0.2+
1998 10 26	327	0.2+	0.8+	2000 02 06	704	0.0	0.5+				
1998 10 26	327	0.0	0.4+	2000 02 06	704	0.1−	0.1+				

1998 SL₁₁₇ = 2000 AE₁₆₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	287.46477	(2000.0)	
<i>n</i>	0.23621538	ω	354.51301
<i>a</i>	2.5917748	Ω	214.75656
<i>e</i>	0.1030754	<i>i</i>	10.07318
<i>P</i>	4.17	<i>H</i>	13.7
Residuals in seconds of arc			
1998 09 26	704	0.3+	1.5−
1998 09 26	704	0.4+	0.6+
1998 09 26	704	0.7−	0.3+
1998 09 26	704	0.2+	0.4+
1998 09 27	704	0.6+	0.2−
1998 09 27	704	1.2+	0.1−
1998 09 27	704	0.5+	0.5+
1998 09 27	704	1.6−	1.4−
1998 09 27	704	0.3+	0.7−
1998 10 11	699	0.2+	0.7+
1998 10 11	699	1.0+	0.5−
1998 10 11	699	1.0+	0.4−
1998 10 28	704	1.9−	1.6+
1998 10 28	704	0.9−	1.4+
1998 10 28	704	(0.0	3.6+)

1998 SA₁₁₈

Id. T. Kobayashi (2000 observations)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	70.01704	(2000.0)	
<i>n</i>	0.22338272	ω	66.25094
<i>a</i>	2.6901077	Ω	4.86788
<i>e</i>	0.1055747	<i>i</i>	8.66482
<i>P</i>	4.41	<i>H</i>	13.6
Residuals in seconds of arc			
1998 09 26	704	0.1−	0.4+
1998 09 26	704	0.4−	0.6+
1998 09 26	704	0.1+	0.4−
1998 09 26	704	1.5−	1.5−
1998 09 26	704	0.2+	0.6+
1998 09 27	704	0.4+	0.0
1998 09 27	704	0.2−	0.1−
1998 09 27	704	0.2+	0.1−

1998 09 26	704	0.1−	0.4+	1998 10 11	699	0.3+	0.5+	2000 02 06	703	0.0	0.1+
1998 09 26	704	0.4−	0.6+	1998 10 11	699	0.8+	0.2+	2000 02 06	703	0.4−	0.0
1998 09 26	704	0.1+	0.4−	1998 10 28	704	0.1+	0.5+	2000 02 06	703	0.2−	0.5+
1998 09 26	704	1.5−	1.5−	1998 10 28	704	0.1+	0.8−	2000 02 06	703	0.3+	0.1+
1998 09 26	704	0.2+	0.6+	1998 10 28	704	0.1+	0.3−	2000 02 11	704	0.4+	0.0
1998 09 27	704	0.4+	0.0	1998 10 28	704	0.3−	0.3+	2000 02 11	704	0.2−	0.2−
1998 09 27	704	0.2−	0.1−	1998 10 28	704	0.5−	0.6−	2000 02 11	704	0.0	0.1+
1998 09 27	704	0.2+	0.1−	2000 01 28	411	0.0	0.9−	2000 02 11	704	0.0	0.5+

1998 09 27	704	0.1−	0.2+	2000 01 28	411	0.1+	0.4−	2000 02 11	704	0.9−	0.4+
1998 09 27	704	0.3+	0.1+	2000 01 30	411	1.1+	0.1−				
1998 10 11	699	0.3+	0.5+	2000 01 30	411	0.1−	0.2−				

1998 SD₁₁₈ = 2000 CQ₂₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	141.91591	(2000.0)	
<i>n</i>	0.24588683	ω	92.03180
<i>a</i>	2.5233599	Ω	262.33656
<i>e</i>	0.1603385	<i>i</i>	1.60235
<i>P</i>	4.01	<i>H</i>	14.5
Residuals in seconds of arc			
1998 09 14	699	0.3−	0.2+
1998 09 14	699	0.1+	0.4+
1998 09 14	699	0.2+	0.9+
1998 09 26	704	0.6−	0.5−
1998 09 26	704	0.4−	0.4−
1998 09 26	704	0.2−	0.4−
1998 09 26	704	0.3−	0.8−
1998 09 26	704	0.4+	0.3−
1998 09 27	704	0.1−	0.1−
1998 09 27	704	1.3+	1.6+
1998 09 27	704	0.2+	0.9+
1998 09 27	704	0.6−	0.1−
1998 09 27	704	0.2+	0.3−
1998 10 20	327	0.0	0.1+
1998 10 20	327	0.0	0.0
1998 10 20	327	0.0	0.1+
1998 10 22	327	0.1−	0.3−
1998 10 22	327	0.1−	0.2−

1998 10 22	327	0.4−	0.3−	2000 02 02	704	0.6−	0.4−
1998 10 22	327	0.4−	0.3−	2000 02 02	704	0.2−	0.4+
1998 10 22	327	0.4−	0.3−	2000 02 02	704	1.0+	0.3+
1998 10 22	327	0.4−	0.3−	2000 02 02	704	0.5+	0.7+
1998 10 22	327	0.4−	0.3−	2000 02 02	704	0.9+	0.7+
1998 10 22	327	0.4−	0.3−	2000 02 04	704	0.5−	0.2+
1998 10 22	327	0.4−	0.3−	2000 02 04	704	0.6+	0.4−
1998 10 22	327	0.4−	0.3−	2000 02 04	704	0.2+	0.2−
1998 10 22	327	0.4−	0.3−	2000 02 04	704	0.6−	0.3−
1998 10 22	327	0.4−	0.3−	2000 02 06	704	0.5−	0.3−
1998 10 22	327	0.4−	0.3−	2000 02 06	704	0.4−	0.2+
1998 10 22	327	0.4−	0.3−	2000 02 06	704	0.3+	0.3+
1998 10 22	327	0.4−	0.3−	2000 02 06	704	0.2−	1.0+
1998 10 22	327	0.4−	0.3−	2000 02 06	704	0.4+	0.4+
1998 10 22	327	0.4−	0.3−	2000 02 08	691	0.2−	0.8−
1998 10 22	327	0.4−	0.3−	2000 02 08	691	0.2−	0.4−
1998 10 22	327	0.4−	0.3−	2000 02 08	691	0.2−	0.7−

1998 SN₁₁₉ = 2000 AK₁₄₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	180.49496	(2000.0)	
<i>n</i>	0.27010558	ω	159.33090
<i>a</i>	2.3701746	Ω	150.83498
<i>e</i>	0.2256228	<i>i</i>	2.73433
<i>P</i>	3.65	<i>H</i>	14.8
Residuals in seconds of arc			
1998 09 15	699	0.9−	0.7+
1998 09 15	699	0.1−	0.4+
1998 09 15	699	0.0	0.5−
1998 09 26	704	0.4+	1.0−
1998 09 26	704	0.3−	0.2−
1998 09 26	704	0.8−	0.2−
1998 09 26	704	0.7+	0.4−
1998 09 26	704	0.3−	0.4+
1998 09 27	704	0.1−	1.2−
1998 09 27	704	0.4+	0.5+
1998 09 27	704	0.0	0.0
1998 09 27	704	0.4+	0.8+

1998 09 15	699	0.9−	0.7+	1998 09 27	704	0.1+	0.0	2000 01 08	704	0.1+	0.0
1998 09 15	699	0.1−	0.4+	1998 10 19	699	0.7+	0.2+	2000 01 08	704	0.1+	0.2−
1998 09 15	699	0.0	0.5−	1998 10 19	699	0.0	0.5+	2000 01 08	704	0.9−	0.6−
1998 09 26	704	0.4+	1.0−	1998 10 19	699	0.2−	0.1+	2000 01 08	704	0.5+	0.6+
1998 09 26	704	0.3−	0.2−	1998 10 20	120	0.1+	0.0	2000 02 03	704	0.2+	1.1+
1998 09 26	704	0.8−	0.2−	1998 10 20	120	0.0	0.0	2000 02 03	704	0.3−	0.8+
1998 09 26	704	0.7+	0.4−	2000 01 07	704	0.0	0.6+	2000 02 03	704	0.0	0.9+
1998 09 26	704	0.3−	0.4+	2000 01 07	704	0.5+	0.3−	2000 02 03	704	0.6−	0.3−
1998 09 27	704	0.1−	1.2−	2000 01 07	704	0.6+	0.4+	2000 02 03	704	0.2−	0.5−
1998 09 27	704	0.4+	0.5+	2000 01 07	704	0.6+	0.6−	2000 02 08	691	(0.1+	3.2−)
1998 09 27	704	0.0	0.0	2000 01 07	704	0.3+	1.2−	2000 02 08	691	(0.4+	3.1−)
1998 09 27	704	0.4+	0.8+	2000 01 08	704	0.9−	0.7−	2000 02 08	691	(0.2+	3.1−)

1998 SB₁₂₁ = 2000 CB₄₅

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr			
<i>M</i>	38.79848	(2000.0)	
<i>n</i>	0.22276759	ω	284.75901
<i>a</i>	2.6950576	Ω	177.58645
<i>e</i>	0.1070901	<i>i</i>	6.46683
<i>P</i>	4.42	<i>H</i>	14.1
Residuals in seconds of arc			
1998 09 15	699	0.9−	0.7+
1998 09 15	699	0.1−	0.4+
1998 09 15	699	0.0	0.5−
1998 09 26	704	0.4+	1.0−
1998 09 26	704	0.3−	0.2−
1998 09 26	704	0.8−	0.2−
1998 09 26	704	0.7+	0.4−
1998 09 26	704	0.3−	0.4+
1998 09 27	704	0.1−	1.2−
1998 09 27	704	0.4+	0.5+

2000 FEB. 22

M.P.C. 38513

Residuals in seconds of arc

1998 09 15	699	0.0	0.2+	1998 10 10	699	0.5−	0.5+	2000 02 02	704	0.3+	0.3+
1998 09 15	699	1.0+	0.5+	1998 10 10	699	0.1−	0.4+	2000 02 02	704	0.0	0.1−
1998 09 15	699	0.3−	1.3+	1998 10 19	699	0.5+	0.0	2000 02 02	704	0.0	0.5+
1998 09 26	704	1.2−	0.5−	1998 10 19	699	0.3+	1.1−	2000 02 06	704	0.4+	0.2−
1998 09 26	704	0.2+	0.7+	1998 10 19	699	0.8+	0.2−	2000 02 06	704	0.2−	0.5+
1998 09 26	704	0.5−	0.8+	1999 12 14	704	1.0−	0.3−	2000 02 06	704	0.0	0.5−
1998 09 26	704	0.8−	1.2+	1999 12 14	704	0.5−	0.6+	2000 02 06	704	0.0	0.2+
1998 09 27	704	0.0	1.3−	1999 12 14	704	0.4+	0.3+	2000 02 06	704	0.3+	1.8−
1998 09 27	704	0.2−	0.5−	1999 12 14	704	0.6+	0.1+	2000 02 06	704	0.0	0.4+
1998 09 27	704	0.5+	1.7−	1999 12 14	704	0.1+	0.4−	2000 02 06	704	0.1−	0.0
1998 09 27	704	(0.5−	2.7−)	2000 02 02	704	0.1+	0.0	2000 02 06	704	0.1−	0.4+
1998 10 10	699	0.3+	0.1−	2000 02 02	704	0.4−	0.4+				

1998 SF₁₂₁ = 2000 AM₂₃₇

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	358.43672		(2000.0)	P	Q
n	0.27975337	ω	231.66134	−0.97985102	−0.18867183
a	2.3153634	Ω	297.37573	+0.19840934	−0.88181485
e	0.0771957	i	4.23231	+0.02292862	−0.43221004
P	3.52	H	14.1	G 0.15	U 4

Residuals in seconds of arc

1998 09 14	699	0.1−	0.4−	1998 10 28	704	1.0+	0.6−	2000 01 06	699	0.3−	1.3+
1998 09 14	699	0.8−	0.0	1998 10 28	704	0.1−	0.9+	2000 01 06	699	0.4+	0.9+
1998 09 14	699	0.1−	0.3+	1998 10 28	704	0.2+	0.6−	2000 02 07	704	0.1−	0.0
1998 09 26	704	0.3+	0.1+	1998 10 28	704	0.7+	1.2−	2000 02 07	704	0.3−	0.6+
1998 09 26	704	0.4−	0.4−	1998 10 29	704	0.1+	0.1+	2000 02 07	704	0.3+	0.2−
1998 09 26	704	0.0	0.3+	1998 10 29	704	0.7+	0.0	2000 02 07	704	0.3−	0.0
1998 09 26	704	0.9+	0.4+	1998 10 29	704	1.5−	0.6−	2000 02 07	704	0.1+	0.7−
1998 09 26	704	0.6−	1.4+	1998 10 29	704	0.5+	0.7−	2000 02 08	704	0.6+	0.4+
1998 09 27	704	(2.8+	0.2+)	1998 10 29	704	0.3−	0.7+	2000 02 08	704	0.3+	0.2+
1998 09 27	704	(3.3+	0.1+)	2000 01 05	704	0.7−	0.5−	2000 02 08	704	0.7+	0.3+
1998 09 27	704	(3.6+	0.4+)	2000 01 05	704	0.3+	0.4−	2000 02 08	704	0.4+	0.4+
1998 09 27	704	(3.2+	0.2−)	2000 01 05	704	0.2−	0.6−	2000 02 08	704	0.7−	0.2+
1998 09 27	704	(3.1+	0.2−)	2000 01 05	704	0.2+	1.9−				
1998 10 28	704	0.9−	0.9+	2000 01 06	699	0.7−	0.2+				

1998 SS₁₂₁ = 2000 CA₄₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	79.30532		(2000.0)	P	Q
n	0.21943781	ω	174.82594	+0.49862028	−0.86425545
a	2.7222526	Ω	245.25070	+0.79263697	+0.48571469
e	0.1048198	i	4.20788	+0.35086244	+0.13093417
P	4.49	H	15.0	G 0.15	U 4

Residuals in seconds of arc

1998 09 26	704	0.8−	1.0−	1998 10 11	699	1.0+	0.1+	1999 01 13	691	0.2+	0.2−
1998 09 26	704	0.4−	0.2−	1998 10 17	699	0.3−	0.4+	1999 01 13	691	0.2−	0.6−
1998 09 26	704	0.0	0.9−	1998 10 17	699	0.0	0.1+	1999 01 18	691	0.7−	0.2−
1998 09 26	704	0.1+	0.4+	1998 10 17	699	0.2+	0.1+	1999 01 18	691	0.9+	0.2−
1998 09 26	704	0.8+	1.0+	1998 10 28	704	0.6+	1.1+	2000 02 02	704	0.2+	0.7+
1998 09 27	704	1.3−	0.2−	1998 10 28	704	1.3−	0.8+	2000 02 02	704	0.2+	0.2−
1998 09 27	704	0.9−	1.3+	1998 10 28	704	(2.0−	2.2+)	2000 02 02	704	0.9+	0.1−
1998 09 27	704	0.1+	1.1+	1998 10 29	704	0.6−	0.2+	2000 02 02	704	0.6−	0.8−
1998 09 27	704	1.1+	0.1−	1998 10 29	704	0.3+	0.8−	2000 02 02	704	1.1+	1.6−
1998 09 27	704	0.3−	0.5−	1998 10 29	704	0.2+	0.8−	2000 02 06	704	0.5−	0.0
1998 10 11	699	(2.3+	0.2+)	1998 10 29	704	1.3+	1.2−	2000 02 06	704	1.0−	1.3+
1998 10 11	699	0.1+	0.6+	1999 01 13	691	0.4−	0.2−	2000 02 06	704	0.0	1.3+

1998 SL₁₂₄ = 2000 CR₅₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	318.57422		(2000.0)	P	Q
n	0.30050656	ω	33.31050	−0.86888066	+0.49497863
a	2.2074968	Ω	176.33943	−0.47356393	−0.82730789
e	0.1192928	i	5.86358	−0.14416518	−0.26562720
P	3.28	H	15.1	G 0.15	U 4

Residuals in seconds of arc

1997 04 07	809	0.2+	0.9+	1998 09 27	704	0.9−	0.4−	2000 01 05	704	0.6+	1.1−
1997 04 07	809	0.2+	1.3+	1998 10 28	704	0.4−	1.2−	2000 01 05	704	(0.4−	2.5−)
1997 04 07	809	0.3+	0.7+	1998 10 28	704	1.7+	1.9+	2000 02 02	704	0.1+	0.4+
1998 09 26	704	0.2−	0.4−	1998 10 28	704	0.6+	0.3−	2000 02 02	704	0.3+	0.5+
1998 09 26	704	1.5−	0.6+	1998 10 28	704	1.1−	1.7+	2000 02 02	704	0.2+	0.4−
1998 09 26	704	0.3+	0.3+	1998 10 29	704	0.0	0.2+	2000 02 02	704	0.6+	0.8−
1998 09 26	704	1.1−	0.9−	1998 10 29	704	0.6−	0.8−	2000 02 02	704	0.3+	0.4+
1998 09 27	704	0.6+	1.3+	1998 10 29	704	0.6+	1.2+	2000 02 06	704	0.6−	1.1+
1998 09 27	704	0.9+	0.4+	1998 10 29	704	(2.3−	0.5+)	2000 02 06	704	0.5−	0.4+
1998 09 27	704	0.0	0.5+	2000 01 05	704	0.0	0.3−	2000 02 06	704	0.5−	0.5+

1998 SN₁₂₅ = 1999 XW₁₆₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

M	23.53438		(2000.0)	P	Q
n	0.24812463	ω	70.54558	−0.57392196	−0.81345629
a	2.5081652	Ω	54.83978	+0.70138556	−0.54775466
e	0.0615579	i	6.62727	+0.42269596	−0.19558553
P	3.97	H	14.1	G 0.15	U 4

Residuals in seconds of arc

1998 09 26	704	0.4−	0.6−	1998 10 28	704	0.4−	0.3+	1999 12 08	704	0.3+	1.1−
1998 09 26	704	0.6+	1.9−	1998 10 28	704	1.2+	0.1+	1999 12 15	704	0.9−	1.0−
1998 09 26	704	(1.1+	2.4−)	1998 10 28	704	0.0	1.5+	1999 12 15	704	0.9−	1.0−
1998 09 26	704	0.0	0.9−	1998 10 28	704	(2.3+	1.7+)	1999 12 15	704	0.3−	1.1−
1998 09 27	704	0.5+	0.4−	1998 10 29	704	0.7+	1.0+	2000 01 28	411	0.5+	2.0+
1998 09 27	704	1.1−	0.8−	1998 10 29	704	0.3−	1.1+	2000 01 28	411	0.5+	0.7+
1998 09 27	704	0.3+	1.0−	1998 10 29	704	1.4+	2.1+	2000 01 30	411	0.2−	0.4−
1998 09 27	704	0.5−	1.6−	1998 10 29	704	1.5−	0.4+	2000 01 30	411	0.9+	0.1+
1998 09 27	704	0.1−	0.2−	1999 12 08	704	(3.8−	0.7+)				
1998 10 28	704	0.5−	1.4+	1999 12 08	704	0.6−	0.3+				

1998 SU₁₂₇ = 2000 AH₁₉₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	346.04046		(2000.0)	P	Q
n	0.20110731	ω	330.89735	−0.82039503	−0.57124023
a	2.8852546	Ω	174.07472	+0.56043693	−0.81206459
e	0.1059944	i	14.14694	+0.11341267	−0.11931345
P	4.90	H	14.4	G 0.15	U 4

Residuals in seconds of arc

1998 09 26	704	0.7+	1.5−	1998 10 14	428	0.3−	0.6+	2000 01 11	704	0.3−	0.8−
1998 09 26	704	0.6+	0.2+	1998 10 14	428	0.2−	0.5−	2000 01 11	704	0.3−	0.4−
1998 09 26	704	(0.9+	2.4−)	1998 10 15	428	0.2−	0.2−	2000 01 11	704	1.0−	0.4−
1998 09 26	704	0.1−	1.1+	1998 10 17	699	0.6+	1.6−	2000 01 11	704	0.5+	0.7+
1998 09 26	704	1.4+	0.5+	1998 10 17	699	0.9+	0.1−	2000 01 11	704	1.1−	0.0
1998 09 27	704	1.2+	1.2+	1998 10 17	699	0.6+	0.2−	2000 02 06	704	1.2+	0.6+
1998 09 27	704	0.9−	1.1+	2000 01 08	704	0.7−	1.1−	2000 02 06	704	0.4−	0.6+
1998 09 27	704	1.6−	1.0−	2000 01 08	704	0.9−	0.5−	2000 02 06	704	0.2−	0.2+
1998 09 27	704	1.8−	0.8+	2000 01 08	704	0.4−	0.1−	2000 02 06	704	0.5+	1.1+
1998 10 13	428	0.0	0.3−	2000 01 08	704	1.6+	0.2−				
1998 10 13	428	0.9−	0.3+	2000 01 08	704	1.4+	0.4+				

1998 SM₁₂₉ = 2000 CN₁₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	163.25486		(2000.0)	P		Q	
<i>n</i>	0.22427430	ω	149.97515	+0.79953329	+0.60059925		
<i>a</i>	2.6829735	Ω	173.10503	−0.55932480	+0.74768772		
<i>e</i>	0.0767388	<i>i</i>	2.48338	−0.21886590	+0.28327304		
<i>P</i>	4.39	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 26	704	0.6−	0.2+	1998 10 27	691	0.3−	0.1+	1999 01 05	910	0.6+	0.2+
1998 09 26	704	0.7+	0.8−	1998 10 27	691	1.1−	0.5−	2000 02 02	704	0.1+	0.2+
1998 09 26	704	0.3+	1.0−	1998 10 27	691	0.8−	0.0	2000 02 02	704	0.2−	1.1+
1998 09 26	704	0.6−	0.6−	1998 10 28	704	1.7+	1.0−	2000 02 02	704	0.5+	0.1+
1998 09 26	704	0.4−	0.7−	1998 10 28	704	0.1+	0.5−	2000 02 02	704	0.8−	0.4−
1998 09 27	704	0.1−	0.3−	1998 10 28	704	0.6+	0.1−	2000 02 02	704	0.5−	0.9−
1998 09 27	704	0.6+	0.3−	1998 10 28	704	0.5−	0.3+	2000 02 03	704	0.5+	0.5−
1998 09 27	704	0.2+	0.5+	1998 10 28	704	0.6−	0.6+	2000 02 03	704	0.2+	0.5−
1998 09 27	704	1.0+	0.9+	1998 10 29	704	0.1−	1.0+	2000 02 03	704	0.3−	0.1−
1998 09 27	704	0.1−	0.7−	1998 10 29	704	1.2−	0.1+	2000 02 03	704	0.6+	0.7+
1998 10 10	699	0.7−	0.7+	1998 10 29	704	0.9+	1.4+	2000 02 03	704	0.1−	0.1+
1998 10 10	699	0.8+	1.1+	1999 01 05	910	0.1−	0.2−				
1998 10 10	699	0.1+	0.5−	1999 01 05	910	0.3−	0.2−				

1998 ST₁₃₀ = 2000 AT₂₄₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	328.77374		(2000.0)	P		Q	
<i>n</i>	0.22135256	ω	322.03561	−0.96443903	−0.24870601		
<i>a</i>	2.7065310	Ω	204.02694	+0.26215375	−0.94322937		
<i>e</i>	0.0209909	<i>i</i>	12.69188	−0.03365661	−0.22014468		
<i>P</i>	4.45	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 14	699	0.1−	0.1+	1998 10 29	704	0.0	0.8+	1999 12 16	704	0.9−	1.2−
1998 09 14	699	0.6+	0.7+	1998 10 29	704	0.3−	0.6−	1999 12 16	704	1.3−	0.8−
1998 09 14	699	0.9+	0.5+	1998 10 29	704	0.8−	0.2−	2000 01 07	699	0.9+	0.6+
1998 09 26	704	0.2+	0.6−	1998 10 29	704	(1.6−	2.9−)	2000 01 07	699	0.1−	0.4+
1998 09 26	704	0.5+	0.6−	1998 11 10	704	0.5+	1.3−	2000 01 07	699	0.4+	0.4+
1998 09 26	704	0.7+	0.8−	1998 11 10	704	0.2+	1.5+	2000 01 11	704	0.5−	0.7−
1998 09 26	704	0.7+	0.2+	1998 11 10	704	0.0	1.0−	2000 01 11	704	0.3−	1.4−
1998 09 26	704	1.5−	0.1+	1998 11 10	704	0.1−	0.2+	2000 01 11	704	0.4−	1.1−
1998 09 27	704	0.1−	1.2+	1998 11 11	704	1.0+	0.7−	2000 01 11	704	0.4−	0.3−
1998 09 27	704	0.6−	0.5−	1998 11 11	704	0.9+	0.1−	2000 01 11	704	0.4−	0.6−
1998 09 27	704	0.8+	1.2−	1998 11 11	704	1.3+	1.1−	2000 02 06	704	0.0	0.6+
1998 09 27	704	0.6+	0.8−	1998 11 11	704	0.9−	0.1+	2000 02 06	704	0.3+	0.4+
1998 10 10	699	0.4+	0.8+	1998 11 11	704	0.4−	0.8−	2000 02 06	704	0.4+	0.5+
1998 10 10	699	0.9+	0.7+	1999 12 13	703	0.2+	0.5+	2000 02 06	704	0.0	0.9+
1998 10 10	699	0.1+	0.7−	1999 12 13	703	0.7+	0.2+	2000 02 06	704	0.2+	1.0+
1998 10 28	704	1.4−	1.1+	1999 12 13	703	0.2+	0.4+	2000 02 11	704	0.1+	0.3+
1998 10 28	704	0.2+	0.3+	1999 12 13	703	0.8+	1.4+	2000 02 11	704	0.1−	0.2+
1998 10 28	704	1.2−	1.3+	1999 12 16	704	0.3−	0.1−	2000 02 11	704	1.6+	0.6+
1998 10 28	704	1.5−	0.6+	1999 12 16	704	0.4−	1.2−				
1998 10 28	704	1.3−	1.4+	1999 12 16	704	0.7−	1.2−				

1998 SN₁₃₁ = 2000 BX₂₈

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	40.82026		(2000.0)	P		Q	
<i>n</i>	0.21486164	ω	119.32916	−0.17331403	−0.98405075		
<i>a</i>	2.7607693	Ω	340.52877	+0.85676685	−0.13057663		
<i>e</i>	0.0773668	<i>i</i>	6.90589	+0.48570857	−0.12080511		
<i>P</i>	4.59	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 09 26	704	0.4+	0.8−	1998 10 29	704	0.1−	0.5−	2000 01 30	704	0.4+	0.2−
1998 09 26	704	0.3−	0.1+	1998 10 29	704	0.7−	0.2−	2000 01 30	704	0.0	0.1+

1998 09 26	704	0.9+	1.0−	1998 10 29	704	0.0	0.4+	2000 01 30	704	0.4+	0.2−
1998 09 26	704	0.7+	0.6−	1998 10 29	327	0.2−	0.4+	2000 01 30	704	0.6+	0.0
1998 09 26	704	1.1+	0.7−	1998 10 29	327	0.1+	0.1+	2000 01 30	704	0.2−	1.1−
1998 09 27	704	0.0	0.2−	1998 10 29	327	0.1+	0.1−	2000 01 30	703	0.7−	0.0
1998 09 27	704	0.1+	0.0	1998 10 30	327	0.0	0.5−	2000 01 30	703	1.0−	0.2−
1998 09 27	704	0.5−	0.3+	1998 10 30	327	0.8+	0.0	2000 01 30	703	0.0	0.0
1998 09 27	704	0.1−	0.9−	1998 10 30	327	0.2+	0.1−	2000 01 30	703	0.9−	0.4−
1998 09 27	704	0.4−	0.5−	1999 11 16	704	0.1−	0.2−	2000 02 03	704	0.0	0.0
1998 10 19	327	0.0	0.4+	1999 11 16	704	0.1−	1.0+	2000 02 03	704	0.0	0.0
1998 10 19	327	0.2−	0.2+	1999 11 16	704	0.4+	0.1+	2000 02 03	704	0.3+	0.5+
1998 10 19	327	0.3−	0.5+	1999 11 16	704	0.1−	0.9−	2000 02 03	704	0.5−	0.2+
1998 10 20	327	0.2+	0.5+	1999 11 16	704	0.2+	0.1+	2000 02 03	704	0.0	0.8+
1998 10 20	327	0.2+	0.5+	1999 12 04	703	0.1+	0.0	2000 02 06	703	0.1−	0.1+
1998 10 20	327	0.2−	0.4+	1999 12 04	703	1.0−	0.5+	2000 02 06	703	0.2+	0.1−
1998 10 28	704	1.1−	0.4+	1999 12 04	703	0.9+	0.3+	2000 02 06	703	0.2−	0.3−
1998 10 28	704	(2.5−	0.2−)	1999 12 04	703	0.9−	0.0	2000 02 06	703	0.0	0.2−
1998 10 28	704	0.4+	0.9+	1999 12 06	704	0.0	0.3−	2000 02 11	704	0.7+	0.3−
1998 10 28	704	1.0−	1.3+	1999 12 06	704	0.2−	0.3+	2000 02 11	704	0.6+	0.1+
1998 10 28	704	0.4−	1.1+	1999 12 06	704	0.0	0.2+	2000 02 11	704	1.0+	0.2−
1998 10 29	704	0.4+	1.1−	1999 12 06	704	0.3−	0.8−	2000 02 11	704	0.1+	0.7+
1998 10 29	704	0.3−	0.4−	1999 12 06	704	0.2−	0.5−	2000 02 11	704	0.1−	0.5+

1998 SC₁₃₂ = 2000 CA₆₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	218.47073		(2000.0)	P		Q	
<i>n</i>	0.29813968	ω	347.76178	+0.38063074	+0.92290619		
<i>a</i>	2.2191647	Ω	304.58411	−0.84236934	+0.32017165		
<i>e</i>	0.1963379	<i>i</i>	4.04000	−0.38148937	+0.21385573		
<i>P</i>	3.31	<i>H</i>	15.3	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 09 26	704	0.2−	0.3−	1998 10 20	327	0.2+	0.0	1998 10 29	327	0.8−	0.1−
1998 09 26	704	0.1−	0.7−	1998 10 20	327	0.8+	0.5+	1998 10 29	327	0.8−	0.1−
1998 09 26	704	1.0−	1.0−	1998 10 22	327	0.5+	0.2+	1998 10 29	327	0.4−	0.2+
1998 09 26	704	(2.7+	2.4−)	1998 10 22	327	0.5+	0.0	1998 11 10	704	1.6+	0.3−
1998 09 27	704	0.4+	0.2−	1998 10 22	327	0.6+	0.2+	1998 11 10	704	0.3+	0.3−
1998 09 27	704	0.6+	0.7−	1998 10 28	704	0.6−	1.8−	1998 11 10	704	1.6+	0.3−
1998 09 27	704	0.4+	0.7−	1998 10 28	704	0.9−	0.1+	1998 11 10	704	1.5−	0.1−
1998 09 27	704	0.5+	0.0	1998 10 28	704	(1.1−	2.1+)	2000 02 01	691	0.4+	0.0
1998 10 11	699	(0.6−	2.1+)	1998 10 28	704	1.5−	0.3−	2000 02 01	691	0.3+	0.0
1998 10 11	699	0.4−	1.2+	1998 10 28	704	1.8−	1.7+	2000 02 01	691	0.5+	0.1−
1998 10 11	699	0.9+	0.8−	1998 10 29	704	0.4−	0.2+	2000 02 07	691	0.4−	0.1−
1998 10 19	327	0.3+	0.2+	1998 10 29	704	(2.4+	0.9−)	2000 02 07	691	0.6−	0.1−
1998 10 19	327	0.2−	0.5+	1998 10 29	704	0.8+	0.3−	2000 02 07	691	0.5−	0.1−
1998 10 19	327	0.1−	0.3+	1998 10 29	704	0.4−	1.7+				
1998 10 20	327	0.1−	0.1+	1998 10 29	704	1.0+	0.6+				

1998 SU₁₃₂ = 2000 CH₆₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	123.93436		(2000.0)	P		Q	
<i>n</i>	0.25119124	ω	151.17316	+0.89456050	−0.44236985		
<i>a</i>	2.4877098	Ω	235.22100	+0.39372570	+0.84752470		
<i>e</i>	0.1024904	<i>i</i>	4.45500	+0.21152206	+0.29327598		
<i>P</i>	3.92	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 09 26	704	0.0	0.4+	1998 10 20	910	0.8+	0.9+	1999 01 10	327	0.1+	0.7+</

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1998 10 12	910	0.4+	0.3+	1998 10 29	704	0.5+	0.2-	1999 01 18	691	0.6-	0.7-
1998 10 12	910	0.5+	0.0	1998 10 29	704	0.3-	0.4+	2000 02 02	704	0.2-	0.1-
1998 10 12	910	0.5+	0.4+	1998 10 29	704	1.1-	1.2-	2000 02 02	704	0.3+	1.3+
1998 10 14	910	0.1+	0.0	1998 11 10	704	0.0	0.1+	2000 02 02	704	0.2+	0.3+
1998 10 15	910	0.0	0.1+	1998 11 10	704	0.8+	0.1-	2000 02 02	704	0.2+	1.0+
1998 10 15	910	0.0	0.1+	1998 11 10	704	0.2-	0.2-	2000 02 02	704	0.8+	0.9+
1998 10 17	699	0.3-	0.8+	1998 11 10	704	0.1-	1.3-	2000 02 08	704	1.0+	1.0-
1998 10 17	699	0.6-	0.7+	1998 11 11	704	1.2+	1.3+	2000 02 08	704	0.5-	0.4+
1998 10 17	699	0.5-	0.5+	1998 11 11	704	1.2+	0.2-	2000 02 08	704	0.8-	0.8-
1998 10 19	910	0.0	1.5+	1998 11 11	704	0.4-	0.5-	2000 02 08	704	0.2-	0.1+
1998 10 19	910	0.1+	1.2+	1998 11 11	704	1.1-	0.4-				
1998 10 20	910	0.3+	1.2+	1998 11 11	704	0.5+	1.0-				

1998 SE₁₃₃ = 2000 BG₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Marsden

<i>M</i>	184.98051		(2000.0)	P	Q
<i>n</i>	0.27098045	ω	36.25753	+0.71866830	+0.69472130
<i>a</i>	2.3650704	Ω	279.70883	-0.64483816	+0.64990721
<i>e</i>	0.1808190	<i>i</i>	1.72285	-0.26019152	+0.30819302
<i>P</i>	3.64	<i>H</i>	16.1	<i>G</i>	0.15
				<i>U</i>	5

Residuals in seconds of arc

1998 09 26	704	1.5-	0.1-	1998 09 27	704	0.5-	0.3+	1998 10 29	704	0.5+	1.4+
1998 09 26	704	0.2-	0.1-	1998 09 27	704	1.5+	0.2+	1998 10 29	704	1.3-	0.3-
1998 09 26	704	0.9+	2.1-	1998 10 28	704	1.2-	2.4-	2000 01 28	684	0.2+	0.3-
1998 09 26	704	0.7-	0.3+	1998 10 28	704	0.5-	1.3-	2000 01 28	684	0.0	0.0
1998 09 26	704	1.3+	0.4+	1998 10 28	704	0.7+	0.0	2000 01 29	684	0.0	0.2+
1998 09 27	704	0.9-	0.4+	1998 10 28	704	0.5-	1.2+	2000 01 29	684	0.2-	0.0
1998 09 27	704	0.0	0.1-	1998 10 29	704	1.2+	0.5+				
1998 09 27	704	0.2+	0.8+	1998 10 29	704	1.0+	1.0+				

1998 SN₁₃₃ = 2000 CL₄₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	49.64123		(2000.0)	P	Q
<i>n</i>	0.17865502	ω	231.10064	+0.11767336	-0.99213002
<i>a</i>	3.1221893	Ω	212.21873	+0.93414937	+0.12521023
<i>e</i>	0.2145490	<i>i</i>	4.60344	+0.33692422	-0.00064637
<i>P</i>	5.52	<i>H</i>	14.2	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1998 09 26	704	0.6+	0.4+	1998 10 28	704	0.9-	0.1-	1998 11 11	704	0.5-	0.0
1998 09 26	704	0.1-	0.2+	1998 10 28	704	0.4+	0.0	1998 11 11	704	0.6-	0.2+
1998 09 26	704	0.8+	0.0	1998 10 28	704	0.4-	1.5-	1998 11 11	704	0.4+	0.1-
1998 09 26	704	0.3-	0.2-	1998 10 29	704	0.2+	0.0	2000 02 02	704	0.2-	0.7+
1998 09 26	704	0.9-	0.1-	1998 10 29	704	0.2-	0.2+	2000 02 02	704	0.2-	0.6+
1998 09 27	704	0.3+	0.7-	1998 10 29	704	1.0+	0.5-	2000 02 02	704	0.5-	0.2+
1998 09 27	704	0.4-	0.5-	1998 10 29	704	0.9-	0.3-	2000 02 02	704	0.3+	0.1-
1998 09 27	704	1.1-	0.3-	1998 10 29	704	1.5-	0.1+	2000 02 02	704	0.3-	0.1+
1998 09 27	704	0.6+	0.2-	1998 11 10	704	0.1+	0.0	2000 02 06	704	0.5+	0.4+
1998 09 27	704	(2.9-	0.1+)	1998 11 10	704	1.4-	0.9-	2000 02 06	704	0.3+	0.6-
1998 10 17	699	0.3+	2.0+	1998 11 10	704	0.0	0.5+	2000 02 06	704	0.4+	0.2-
1998 10 17	699	0.5+	1.1+	1998 11 10	704	0.9+	0.9+	2000 02 06	704	0.3-	0.8-
1998 10 17	699	0.8+	1.3+	1998 11 10	704	0.2+	0.1-	2000 02 06	704	0.1+	0.2-
1998 10 28	704	1.5+	1.7-	1998 11 11	704	0.6+	0.0				

1998 SS₁₃₃ = 2000 CA₈₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	52.21003		(2000.0)	P	Q
<i>n</i>	0.22792995	ω	79.22718	-0.04127844	-0.99904267
<i>a</i>	2.6542090	Ω	13.16456	+0.89005101	-0.04335507
<i>e</i>	0.0683001	<i>i</i>	3.64676	+0.45398821	-0.00583869
<i>P</i>	4.32	<i>H</i>	14.4	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 09 26	704	1.2-	0.1+	1998 10 28	704	1.1-	1.1-	2000 01 10	699	0.8+	0.9+
1998 09 26	704	0.1-	0.4-	1998 10 29	704	1.5-	0.6-	2000 02 04	704	0.2+	0.4-
1998 09 26	704	0.7+	1.3-	1998 10 29	704	0.4+	0.4-	2000 02 04	704	0.7+	0.2-
1998 09 26	704	0.8-	0.0	1998 10 29	704	0.6-	0.2-	2000 02 04	704	0.3+	0.4-
1998 09 27	704	1.0+	0.6-	1998 10 29	704	(2.3-	0.0)	2000 02 04	704	0.9+	0.8+
1998 09 27	704	0.6+	0.4+	1998 10 29	704	(2.5-	0.3-)	2000 02 04	704	1.0+	0.6+
1998 09 27	704	0.4+	0.1+	1998 11 10	704	1.4-	0.7-	2000 02 06	703	0.9-	0.0
1998 09 27	704	1.2-	1.5+	1998 11 10	704	0.5+	2.0-	2000 02 06	703	0.9-	0.2+
1998 09 27	704	0.7+	0.5+	1998 11 10	704	1.7+	0.6-	2000 02 06	703	0.2-	0.0
1998 10 17	699	0.8-	0.4+	1998 11 11	704	0.6+	1.1+	2000 02 06	703	0.6-	0.5-
1998 10 17	699	0.2+	1.2+	1998 11 11	704	0.3-	0.7+	2000 02 11	704	0.6-	0.0
1998 10 17	699	0.4-	1.0+	1998 11 11	704	1.4+	0.3-	2000 02 11	704	0.4-	0.0
1998 10 28	704	0.5+	0.8+	1998 11 11	704	1.5+	1.3-	2000 02 11	704	0.3-	0.3-
1998 10 28	704	0.3+	1.0+	1998 11 11	704	(0.3+	2.3-)	2000 02 11	704	0.0	0.4-
1998 10 28	704	1.0-	0.7+	2000 01 10	699	0.6+	0.3+	2000 02 11	704	0.3-	0.2-
1998 10 28	704	0.2+	0.4-	2000 01 10	699	0.0	0.2-				

1998 SE₁₃₄ = 2000 CH₇₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	128.73035		(2000.0)	P	Q
<i>n</i>	0.22921853	ω	168.53542	+0.99565412	-0.09078036
<i>a</i>	2.6442524	Ω	196.71546	+0.07870951	+0.93954637
<i>e</i>	0.1173756	<i>i</i>	4.14309	+0.04977635	+0.33016895
<i>P</i>	4.30	<i>H</i>	14.3	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 09 18	809	(2.7+	0.7+)	1998 10 28	704	0.3+	0.4-	1998 11 11	704	0.2+	0.4-
1998 09 18	809	0.8+	1.0-	1998 10 28	704	0.2+	0.6+	1998 11 11	704	1.1+	0.8+
1998 09 18	809	0.3-	1.3-	1998 10 28	704	0.1+	0.1+	1998 11 23	699	0.5+	0.1+
1998 09 26	704	0.8-	0.6+	1998 10 28	704	0.4-	0.1-	1998 11 23	699	0.8-	0.7+
1998 09 26	704	0.8+	0.2-	1998 10 29	704	0.3-	0.3-	1998 11 23	699	0.1-	0.7+
1998 09 26	704	0.2+	0.0	1998 10 29	704	1.0+	0.1+	2000 01 07	704	0.8+	0.4-
1998 09 26	704	0.5+	0.6+	1998 10 29	704	0.1-	0.5-	2000 01 07	704	1.0-	0.4-
1998 09 26	704	0.3-	0.4+	1998 10 29	704	1.1+	0.0	2000 01 07	704	0.2-	0.5-
1998 09 27	704	0.1-	0.2-	1998 10 29	704	0.4-	1.0-	2000 02 04	704	0.4-	0.4-
1998 09 27	704	0.5+	0.0	1998 11 10	704	0.2+	0.2+	2000 02 04	704	0.0	0.9+
1998 09 27	704	0.1+	0.9+	1998 11 10	704	0.0	0.3+	2000 02 04	704	0.1+	0.1-
1998 09 27	704	1.1-	0.6+	1998 11 10	704	0.1+	1.1-	2000 02 04	704	0.4+	1.0+
1998 09 27	704	0.5-	0.4-	1998 11 10	704	0.2-	0.8-	2000 02 04	704	1.4+	0.1+
1998 10 10	699	0.3-	0.1-	1998 11 10	704	0.6-	0.7-	2000 02 10	704	0.1-	0.1+
1998 10 10	699	1.2-	0.3-	1998 11 10	699	0.2+	0.9-	2000 02 10	704	0.4-	0.9-
1998 10 10	699	0.6+	0.1-	1998 11 10	699	0.5+	0.3-	2000 02 10	704	0.6+	0.3+
1998 10 17	699	0.1-	1.4+	1998 11 10	699	1.1-	0.8-	2000 02 10	704	1.0-	0.3+
1998 10 17	699	0.5+	0.9+	1998 11 11	704	0.7+	0.6-	2000 02 10	704	0.1-	0.1-
1998 10 17	699	0.1+	0.7+	1998 11 11	704	0.6-	0.7+				
1998 10 28	704	0.1+	0.6+	1998 11 11	704	1.1-	0.5+				

1998 SW₁₃₄ = 2000 CH₂₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	108.83654		(2000.0)	P	Q
<i>n</i>	0.21671237	ω	199.51133	+0.92763743	-0.37343841
<i>a</i>	2.7450288	Ω	182.43887	+0.35800330	+0.89344057
<i>e</i>	0.0794812	<i>i</i>	7.70495	+0.10640691	+0.24961510
<i>P</i>	4.55	<i>H</i>	14.2	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 09 26	704	0.2-	0.8-	1998 10 28	704	1.0+	0.7-	1998 11 10	704	1.0-	0.5+
1998 09 26	704	0.3-	0.8-	1998 10 28	704	1.1-	0.2+	1998 11 11	704	0.5-	1.7+
1998 09 26	704	0.6-	0.1-	1998 10 28	704	0.3+	0.8-	1998 11 11	704	0.3+	1.0-
1998 09 26	704	1.1-	1.2-	1998 10 28	704	0.6+	0.0	1998 11 11	704	0.7-	0.4+
1998 09 26	704	1.4-	1.1+	1998 10 29	704	0.9+	0.3-	1998 11 11	704	(2.2-	0.4-)

1998 10 20	699	0.1+	0.5+	1998 11 10	704	0.0	0.6−	2000 02 04	704	0.3+	0.2−
1998 10 20	699	0.2−	0.2−	1998 11 10	704	0.5−	1.2−	2000 02 04	704	0.9+	0.2−
1998 10 20	699	0.3+	0.6+	1998 11 10	704	1.4+	0.5−	2000 02 04	704	(2.4+	0.2+)

1998 SB₁₃₅ = 2000 BF₂₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	80.67140		(2000.0)	P	Q
<i>n</i>	0.18307185	ω	258.38755	+0.79065822	−0.61115520
<i>a</i>	3.0717675	Ω	139.27045	+0.58138493	+0.73062945
<i>e</i>	0.1700729	<i>i</i>	3.22677	+0.19196649	+0.30441735
<i>P</i>	5.38	<i>H</i>	14.2	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1998 09 26	704	0.3+	0.6+	1998 10 28	704	0.1−	0.0	1999 01 09	910	0.1−	0.4+
1998 09 26	704	0.6−	1.3+	1998 10 28	704	0.1+	1.2−	2000 01 31	704	0.9+	0.2−
1998 09 26	704	1.0−	0.3+	1998 10 28	704	1.8+	0.5−	2000 01 31	704	0.2+	0.1+
1998 09 26	704	0.7−	0.4+	1998 10 29	704	0.9+	0.3−	2000 01 31	704	0.9+	0.5−
1998 09 27	704	0.3−	0.2−	1998 10 29	704	0.9+	1.3−	2000 02 03	704	0.2−	0.7+
1998 09 27	704	0.2+	0.3+	1998 10 29	704	0.5+	0.8−	2000 02 03	704	0.4+	0.1+
1998 09 27	704	0.1−	0.5+	1998 10 29	704	0.2−	0.1−	2000 02 03	704	0.4+	1.1+
1998 09 27	704	0.3−	0.4−	1998 10 29	704	0.9−	0.9−	2000 02 03	704	0.2+	0.2−
1998 10 11	699	0.1−	0.5+	1998 11 11	704	0.2−	1.6−	2000 02 03	704	0.7+	0.7+
1998 10 11	699	0.0	1.0+	1998 11 11	704	0.3−	1.0+	2000 02 08	691	0.9−	0.1−
1998 10 11	699	0.1−	0.0	1998 11 11	704	0.0	0.6−	2000 02 08	691	0.7−	0.1−
1998 10 20	699	0.1+	0.6+	1998 11 11	704	(1.9+	2.2+)	2000 02 08	691	1.0−	0.1−
1998 10 20	699	0.6+	0.4+	1998 11 11	704	(2.1−	0.7+)	2000 02 10	691	0.3−	0.3−
1998 10 20	699	0.7−	0.8+	1999 01 09	910	0.1−	0.2+	2000 02 10	691	0.2−	0.3−
1998 10 28	704	0.4+	0.1−	1999 01 09	910	0.2−	0.1+	2000 02 10	691	0.3−	0.3−

1998 SJ₁₃₅ = 2000 CK₁₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	174.13643		(2000.0)	P	Q
<i>n</i>	0.24622933	ω	148.55173	+0.67443358	+0.73790856
<i>a</i>	2.5210194	Ω	163.81260	−0.69472614	+0.64574461
<i>e</i>	0.1782433	<i>i</i>	5.16685	−0.24998987	+0.19622655
<i>P</i>	4.00	<i>H</i>	14.2	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 09 26	704	0.2+	0.1−	1998 10 28	704	0.7−	0.8−	2000 02 02	704	0.4−	0.4−
1998 09 26	704	0.9+	0.5−	1998 10 28	704	0.9+	0.9−	2000 02 02	704	0.1+	0.1−
1998 09 26	704	0.1−	0.8−	1998 10 28	704	0.6+	0.3−	2000 02 02	704	0.8−	0.3+
1998 09 26	704	0.0	0.1+	1998 10 28	704	0.3−	0.4+	2000 02 02	704	0.4−	0.5−
1998 09 26	704	0.5+	0.5+	1998 10 29	704	0.9−	0.3+	2000 02 03	704	0.5−	0.2+
1998 09 27	704	0.4−	0.1−	1998 10 29	704	0.1+	0.2+	2000 02 03	704	0.6+	0.4+
1998 09 27	704	0.2+	0.4−	1998 10 29	704	0.2+	0.5+	2000 02 03	704	0.2−	0.9+
1998 09 27	704	0.7−	0.4+	1998 10 29	704	0.4+	1.1+	2000 02 03	704	0.6+	0.4+
1998 09 27	704	0.1−	0.9+	1998 10 29	704	0.2−	0.5−	2000 02 03	704	0.5+	0.9−
1998 09 27	704	0.6−	0.2+	2000 02 02	704	0.7+	0.2−				

1998 SV₁₃₆ = 2000 BL₃

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	122.07711		(2000.0)	P	Q
<i>n</i>	0.22780150	ω	309.98648	+0.97771916	−0.16975007
<i>a</i>	2.6552067	Ω	60.11722	+0.20793326	+0.86385237
<i>e</i>	0.0612762	<i>i</i>	8.18836	−0.02879240	+0.47428262
<i>P</i>	4.33	<i>H</i>	14.1	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 09 24	699	0.2−	1.3+	1998 10 17	699	0.3−	0.9−	2000 01 03	704	0.2+	0.2+
1998 09 24	699	0.5−	0.4+	1998 10 28	704	0.1+	0.7−	2000 01 03	704	1.0+	0.1−
1998 09 24	699	1.5+	1.2+	1998 10 28	704	(2.1+	0.7−)	2000 01 03	704	0.4+	0.5−
1998 09 26	704	0.0	0.3−	1998 10 28	704	0.6+	0.4−	2000 01 03	704	1.2+	0.3+
1998 09 26	704	0.3+	0.3−	1998 10 28	704	0.5−	0.8−	2000 01 03	704	0.6+	0.8+
1998 09 26	704	0.8−	1.7−	1998 10 28	704	0.8+	0.1+	2000 01 27	411	1.7−	0.2+

1998 09 26	704	0.0	0.1+	1998 10 29	704	(2.2−	1.5+)	2000 01 27	411	1.0−	1.0−
1998 09 26	704	0.4−	0.1+	1998 10 29	704	1.9−	1.0+	2000 01 28	411	0.5−	0.1−
1998 09 27	704	0.6−	0.2−	1998 10 29	704	(4.5−	3.2+)	2000 01 28	411	0.1−	0.8+
1998 09 27	704	0.8−	0.6+	1998 10 29	704	(4.4−	2.0+)	2000 02 02	411	0.5−	0.6−
1998 09 27	704	0.4+	0.2−	1998 10 29	704	(3.7−	0.0)	2000 02 02	411	0.2−	0.2−
1998 09 27	704	0.2−	0.8+	1998 11 10	704	0.3+	0.7−	2000 02 11	411	1.3+	0.8+
1998 09 27	704	0.1+	0.2−	1998 11 10	704	0.8+	0.4+	2000 02 11	411	0.3−	0.4−
1998 10 17	699	0.3+	0.8+	1998 11 10	704	0.4−	0.6−				
1998 10 17	699	1.2+	0.5−	1998 11 10	704	0.3+	0.8+				

1998 SK₁₃₉ = 2000 CH₅₇

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	13.82701		(2000.0)	P	Q
<i>n</i>	0.17490346	ω	243.77550	−0.23353075	−0.95836824
<i>a</i>	3.1666771	Ω	220.84092	+0.95746749	−0.19720079
<i>e</i>	0.0347900	<i>i</i>	14.55058	+0.16946798	−0.20649981
<i>P</i>	5.64	<i>H</i>	13.3	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1998 09 26	704	1.0+	0.2+	1998 10 29	704	0.8+	0.5+	2000 01 08	704	1.3−	0.4−
1998 09 26	704	0.8−	0.3−	1998 10 29	704	0.2+	0.3+	2000 01 08	704	0.5−	0.3−
1998 09 26	704	1.1+	0.2−	1998 10 29	704	1.1+	1.3−	2000 01 08	704	0.7−	0.3−
1998 09 26	704	0.2+	1.1−	1998 10 29	704	1.3−	0.5−	2000 01 08	704	0.3−	0.1+
1998 09 26	704	1.5−	1.0−	1998 10 29	704	0.7+	0.4−	2000 01 08	704	0.3−	0.0
1998 09 27	704	0.7+	1.0+	1998 11 10	704	0.2−	0.1−	2000 02 05	704	0.3+	0.3+
1998 09 27	704	0.4+	0.4+	1998 11 10	704	0.6+	0.5−	2000 02 05	704	0.7+	0.9+
1998 09 27	704	0.8−	1.7+	1998 11 10	704	0.3−	0.6−	2000 02 05	704	0.2+	0.6+
1998 09 27	704	1.0+	0.1−	1998 11 10	704	0.5−	0.6−	2000 02 05	704	0.5+	0.1+
1998 10 11	699	0.9−	0.7+	1998 11 11	704	1.5−	1.0+	2000 02 06	704	0.2+	0.4−
1998 10 11	699	0.3+	1.6+	1998 11 11	704	(0.1+	2.3+)	2000 02 06	704	0.1+	0.2−
1998 10 11	699	(0.6−	2.4+)	1998 11 11	704	1.5+	0.5−	2000 02 06	704	0.7+	0.2−
1998 10 28	704	0.0	0.6−	1998 11 11	704	0.2+	0.0	2000 02 06	704	0.5+	0.3+
1998 10 28	704	(2.2+	1.1+)	1999 01 15	691	0.6−	0.3−	2000 02 06	704	0.3+	0.2+
1998 10 28	704	0.3−	0.5+	1999 01 15	691	0.3−	0.3−				
1998 10 28	704	0.7−	0.8+	1999 01 15	691	0.6−	0.2−				

1998 SN₁₄₁ = 1999 XJ₂₀₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	322.43413		(2000.0)	P	Q
<i>n</i>	0.19130078	ω	133.34768	−0.94029078	−0.32986277
<i>a</i>	2.9830341	Ω	27.70973	+0.23592279	−0.80935599
<i>e</i>	0.0261383	<i>i</i>	10.39841	+0.24534400	−0.48593563
<i>P</i>	5.15	<i>H</i>	13.5	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 09 26	704	0.2+	0.9−	1998 10 29	704	1.6−	0.9+	1999 12 12	704	0.5−	0.3+
1998 09 26	704	0.9+	1.6−	1998 10 29	704	1.0−	0.8+	1999 12 12	704	0.2−	0.8+
1998 09 26	704	1.7+	0.7−	1998 10 29	704	0.1+	0.0	1999 12 13	699	0.2+	0.4+
1998 09 26	704	1.0+	0.1+	1998 11 10	704	0.4+	1.5−	1999 12 13	699	0.6+	0.8+
1998 09 26	704	1.3−	1.0+	1998 11 10	704	0.9−	0.0	1999 12 13	699	0.2−	0.3−
1998 09 27	704	0.2+	0.8+	1998 11 10	704	1.0−	0.7−	1999 12 15	704	0.3+	1.0−
1998 09 27	704	1.3−	0.5+	1998 11 10	704	0.7+	1.3−	1999 12 15	704	0.7+	0.3+
1998 09 27	704	0.6−	0.0	1998 11 10	704	0.3−	0.5−	1999 12 15	704	0.8−	0.0
1998 09 27	704	(2.9−	0.3+)	1998 11 11	704	0.5+	0.8+	1999 12 15	704	0.6−	0.3−
1998 10 28	704	0.6+	1.7+	1998 11 11	704	1.0+	2.0−	2000 01 02	704	0.3+	0.2−
1998 10 28	704	0.3+	0.5−	1998 11 11	704	0.4−	0.3−	2000 01 02	704	0.6−	1.4−
1998 10 28	704	0.2+	0.3+	1998 11 11	704	1.5+	0.0	2000 01 02	704	0.2−	0.1+
1998 10 28	704	1.1−	0.7+	1999 12 12	704	0.2+	0.1−	2000 01 02	704	0.1−	0.1−
1998 10 29	704	0.4+	1.1+	1999 12 12	704	0.6+	0.9+	2000 01 02	704	0.4+	0.7−
1998 10 29	704	0.0	1.0+	1999 12 12	704	0.0	0.5+				

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1998 SG₁₄₂ = 2000 BH₂₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	230.79532	(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.27726317	ω	148.27499	+0.03921731	+0.99598994	
<i>a</i>	2.3292061	Ω	123.85492	-0.93583882	+0.06481695	
<i>e</i>	0.1700707	<i>i</i>	5.55660	-0.35023951	-0.06166686	
<i>P</i>	3.55	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 26	704	0.9+	0.9+	1998 10 28	704	0.3-	0.2+	2000 02 03	704	0.4+	0.6+
1998 09 26	704	1.4-	1.4-	1998 10 29	704	1.3-	1.4+	2000 02 03	704	0.9+	0.7-
1998 09 26	704	1.4-	0.6+	1998 10 29	704	0.1+	1.9+	2000 02 12	691	0.5-	0.2+
1998 09 26	704	0.5+	0.2+	1998 10 29	704	0.4+	1.7-	2000 02 12	691	0.3-	0.2+
1998 09 27	704	0.2-	1.1-	1998 10 29	704	0.6+	1.6-	2000 02 12	691	0.4-	0.2+
1998 09 27	704	0.0	0.1-	1998 10 29	704	0.3-	1.2-	2000 02 14	691	0.3+	0.8-
1998 09 27	704	1.3+	0.1+	2000 01 30	704	0.4+	0.1+	2000 02 14	691	0.1-	0.1-
1998 10 28	704	0.5+	0.1-	2000 01 30	704	0.1-	0.5+	2000 02 14	691	0.3-	0.0
1998 10 28	704	1.0+	1.1+	2000 01 30	704	0.8+	0.1+				
1998 10 28	704	0.6-	0.7+	2000 02 03	704	1.1-	0.5-				

1998 SF₁₄₃ = 2000 CH₄₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	82.23100	(2000.0)	Spahr		<i>P</i>	<i>Q</i>
<i>n</i>	0.21219996	ω	213.51094	+0.62257086	-0.78194918	
<i>a</i>	2.7838074	Ω	198.04776	+0.73817133	+0.59994597	
<i>e</i>	0.0585228	<i>i</i>	5.74272	+0.25982420	+0.16917539	
<i>P</i>	4.64	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i> 4

Residuals in seconds of arc

1996 04 08	327	0.1-	0.6+	1998 09 27	704	0.9-	1.0-	2000 02 02	704	0.4+	0.7+
1996 04 08	327	0.4+	0.2-	1998 10 17	699	0.9-	0.4+	2000 02 02	704	0.6-	0.0
1996 04 08	327	0.0	0.5+	1998 10 17	699	1.0-	0.1+	2000 02 02	704	0.3+	0.4-
1998 09 20	809	(2.9-	2.3-)	1998 10 17	699	0.2+	0.1-	2000 02 02	704	0.0	0.4+
1998 09 20	809	(4.1-	2.5-)	1998 10 28	704	0.2-	0.2+	2000 02 02	704	0.9+	0.8+
1998 09 20	809	(3.7-	2.1-)	1998 10 28	704	(1.8-	2.1-)	2000 02 06	704	0.2+	1.3-
1998 09 26	704	0.5-	0.5-	1998 10 28	704	0.2-	0.4-	2000 02 06	704	0.3+	0.0
1998 09 26	704	(1.4-	2.2-)	1998 10 28	704	1.1+	1.3+	2000 02 06	704	0.0	0.3+
1998 09 26	704	0.7+	1.4-	1998 10 29	704	0.5+	1.0-	2000 02 06	704	0.5-	0.2-
1998 09 26	704	0.9-	0.3-	1998 10 29	704	(0.9+	2.5+)	2000 02 08	704	0.4-	0.0
1998 09 27	704	0.1-	1.0+	1998 10 29	704	0.9+	1.3+	2000 02 08	704	0.6-	0.1+
1998 09 27	704	0.5+	1.0+	1998 10 29	704	0.8-	0.6+	2000 02 08	704	0.4-	0.1-
1998 09 27	704	0.3+	0.3-	1998 10 29	704	1.1+	0.4-	2000 02 08	704	0.4+	0.5-

1998 ST₁₄₃ = 2000 CS₁₀₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	116.82074	(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.21048472	ω	127.53224	+0.98107115	-0.19131648	
<i>a</i>	2.7989104	Ω	243.51522	+0.16543389	+0.90845096	
<i>e</i>	0.1089779	<i>i</i>	1.91801	+0.10065303	+0.37163808	
<i>P</i>	4.68	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i> 3

Residuals in seconds of arc

1998 09 18	809	0.9+	0.0	1998 10 29	704	(2.4+	2.3+)	1998 11 11	704	0.4+	1.0+
1998 09 18	809	0.6-	1.1-	1998 10 29	704	0.2+	0.0	1998 11 11	704	0.6+	0.6-
1998 09 18	809	0.4+	0.3-	1998 10 29	704	0.4+	0.3+	1999 01 18	691	0.5+	0.4+
1998 09 20	809	0.1+	1.1+	1998 10 29	704	0.3+	0.2-	1999 01 18	691	0.8-	0.3-
1998 09 20	809	0.5-	1.1+	1998 10 29	704	0.1+	0.3+	2000 02 04	725	0.3-	0.5-
1998 09 20	809	0.8-	1.3+	1998 11 10	704	0.1+	0.7+	2000 02 04	725	0.7-	0.3-
1998 10 28	704	0.4-	0.6+	1998 11 10	704	1.3+	0.8-	2000 02 04	725	0.3+	1.5+
1998 10 28	704	0.5+	0.6-	1998 11 10	704	0.1-	0.1+	2000 02 05	725	1.2+	0.5+
1998 10 28	704	0.2-	0.8-	1998 11 10	704	0.6-	1.3-	2000 02 05	725	0.9-	0.2+
1998 10 28	704	1.5-	0.0	1998 11 11	704	0.3-	0.6-	2000 02 05	725	0.5+	0.9-

1998 SP₁₄₄ = 2000 CC₂₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	111.88089	(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.21761471	ω	177.32382	+0.91604050	-0.39941852	
<i>a</i>	2.7374355	Ω	206.31219	+0.36644135	+0.87046873	
<i>e</i>	0.0934949	<i>i</i>	4.72759	+0.16306608	+0.28766132	
<i>P</i>	4.53	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 20	809	0.1+	0.9-	1998 10 17	327	0.1+	0.3-	1998 11 10	704	0.0	0.1-
1998 09 20	809	0.2-	1.4-	1998 10 18	327	0.2-	0.6-	1998 11 10	704	0.0	0.2-
1998 09 20	809	0.3+	0.3+	1998 10 18	327	0.2-	0.4-	1998 11 11	704	0.3+	0.8+
1998 09 21	809	1.1+	1.5+	1998 10 18	327	0.0	0.5-	1998 11 11	704	1.6+	0.8-
1998 09 21	809	0.8+	0.8+	1998 10 28	704	0.4+	0.8-	1998 11 11	704	0.1+	0.5+
1998 09 21	809	0.7+	0.6+	1998 10 28	704	0.4-	0.1+	1998 11 11	704	0.8-	1.0+
1998 10 13	327	0.5-	0.0	1998 10 28	704	0.3+	0.9-	2000 02 02	704	0.1+	0.1-
1998 10 13	327	0.9-	0.0	1998 10 28	704	0.1-	0.5-	2000 02 02	704	0.1+	0.3-
1998 10 13	327	0.8-	0.3-	1998 10 29	704	0.8-	0.6+	2000 02 02	704	0.0	0.0
1998 10 14	327	1.0-	0.3-	1998 10 29	704	0.1+	0.5+	2000 02 02	704	0.0	0.1+
1998 10 14	327	1.0-	0.7+	1998 10 29	704	0.3+	0.4-	2000 02 02	704	0.2+	0.0
1998 10 14	327	1.2-	0.2-	1998 10 29	704	0.7+	0.5-	2000 02 04	704	0.6-	0.2-
1998 10 15	327	0.0	0.4+	1998 10 29	704	0.3+	0.3-	2000 02 04	704	0.5+	0.6+
1998 10 15	327	0.1-	0.1+	1998 10 29	327	0.1+	0.1+	2000 02 04	704	0.2+	0.3+
1998 10 15	327	0.2+	0.2+	1998 10 29	327	0.6+	0.1-	2000 02 04	704	0.1-	0.8-
1998 10 17	327	0.1+	0.6+	1998 10 29	327	0.1+	0.1-	2000 02 04	704	0.3-	0.4+
1998 10 17	327	0.5-	0.3+	1998 11 10	704	0.6+	0.5+				

1998 SX₁₄₄ = 2000 BN₁₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	131.50970	(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.18061822	ω	212.35849	+0.85399283	+0.51901445	
<i>a</i>	3.0995241	Ω	116.33361	-0.46830528	+0.79722490	
<i>e</i>	0.1905877	<i>i</i>	2.32355	-0.22668571	+0.30831228	
<i>P</i>	5.46	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i> 5

Residuals in seconds of arc

1998 09 18	699	1.6-	0.6+	1998 10 28	704	0.8-	2.0-	1998 11 11	704	1.2+	0.4-
1998 09 18	699	0.3+	0.3-	1998 10 29	704	1.6+	0.4-	1998 11 11	704	0.1+	0.3+
1998 09 18	699	0.4+	0.2+	1998 10 29	704	1.0+	0.2+	1998 11 16	566	1.5-	0.4+
1998 09 20	809	0.5+	1.0+	1998 10 29	704	1.0-	0.1+	1998 11 16	566	1.3-	0.3+
1998 09 20	809	0.8-	0.0	1998 10 29	704	0.3+	0.6-	1998 11 16	566	1.3-	0.4+
1998 09 20	809	0.4-	0.4+	1998 10 29	704	1.1+	1.2-	2000 01 26	691	0.2-	0.1+
1998 09 21	809	1.1+	0.6-	1998 11 10	704	0.6-	1.0-	2000 01 26	691	0.1-	0.1+
1998 09 21	809	0.1+	0.3+	1998 11 10	704	1.1+	0.8+	2000 01 26	691	0.3-	0.2+
1998 09 21	809	0.1-	0.7-	1998 11 10	704	0.6+	0.2+	2000 01 30	691	0.3+	0.1-
1998 10 28	704	0.3+	0.2-	1998 11 10	704	0.1-	2.0+	2000 01 30	691	0.1+	0.3-
1998 10 28	704	0.4-	0.3-	1998 11 11	704	0.5+	1.5+	2000 01 30	691	0.2+	0.2-
1998 10 28	704	0.1-	1.4-	1998 11 11	704	0.6-	0.6+				

1998 SM₁₄₅ = 1998 UH₂₂ = 2000 AA₁₅₃

Id. A. Doppler (d, MPC 33785), M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	19.62829	(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.27575976	ω	121.66493	-0.91713970	-0.39240987	
<i>a</i>	2.3376642	Ω	35.36851	+0.31253710	-0.81671835	
<i>e</i>	0.1284520	<i>i</i>	6.92402	+0.24733647	-0.42306694	
<i>P</i>	3.57	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i> 3

Residuals in seconds of arc

1998 09 18	699	1.5-	0.5+	1998 10 29	704	0.1+	0.3-	2000 01 08	704	0.3-	0.5-
1998 09 18	699	0.1-	0.1+	1998 10 29	704	0.4+	0.1-	2000 01 08	704	0.6-	0.8-
1998 09 18	699	0.5-	1.0+	1998 11 11	704	0.6-	0.0	2000 01 08	704	0.1-	1.0-
1998 09 20	809	1.4+	0.2-	1998 11 11	704	0.6-	1.8-	2000 01 08	704	0.0	0.7-
1998 09 20	809	0.1-	1.0-	1998 11 11	704	0.7+	1.1-	2000 01 08	704	0.4-	0.2-
1998 09 20	809	0.8-	0.1-	1998 11 11	704	0.6+	0.0	2000 01 10	704	0.3+	0.4-

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1998 09 21	809	1.2+	1.2+	1998 11 11	704	0.0	0.5−	2000 01 10	704	0.0	0.6−
1998 09 21	809	0.1+	0.1+	1998 11 16	566	0.4−	0.0	2000 01 10	704	0.1+	0.2−
1998 09 21	809	0.7+	1.2+	1998 11 16	566	0.3−	0.1−	2000 01 10	704	0.0	0.9−
1998 10 28	704	0.3−	0.0	1998 11 16	566	0.3−	0.2−	2000 01 10	704	0.5+	0.2−
1998 10 28	704	0.1−	0.5+	1998 11 23	699	0.5+	0.2+	2000 02 08	704	0.0	0.8+
1998 10 28	704	0.5+	0.9+	1998 11 23	699	0.4+	0.1+	2000 02 08	704	0.3+	1.1+
1998 10 28	704	0.1−	0.6+	1998 11 23	699	0.3−	0.3−	2000 02 08	704	0.6+	0.8+
1998 10 29	704	0.2+	0.5+	1998 12 09	699	0.2+	0.8−	2000 02 11	704	0.7−	1.1+
1998 10 29	704	0.8−	0.6+	1998 12 09	699	0.1+	0.1−	2000 02 11	704	0.7+	1.2+
1998 10 29	704	0.4−	0.5+	1998 12 09	699	1.0−	0.4+	2000 02 11	704	0.6+	1.4+

1998 SZ₁₄₅ = 2000 CV₆₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	158.58381		(2000.0)	P	Q
<i>n</i>	0.27845264	ω	162.49545	+0.99798546	+0.05597010
<i>a</i>	2.3225683	Ω	194.39460	−0.06221550	+0.95557492
<i>e</i>	0.2087575	<i>i</i>	6.90159	+0.01242022	+0.28938541
<i>P</i>	3.54	<i>H</i>	14.5	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 08 28	704	0.5−	0.4+	1998 09 25	120	0.1+	1.1−	1998 11 10	704	0.0	0.5−
1998 08 28	704	(1.2+	3.5−)	1998 09 25	120	0.2−	1.1−	1998 11 10	704	0.2+	0.2−
1998 08 28	704	(0.3−	2.3−)	1998 10 28	704	0.6−	0.4+	1998 11 11	704	0.2−	0.5+
1998 08 28	704	(2.8+	2.1−)	1998 10 28	704	0.1+	0.4+	1998 11 11	704	0.4−	0.7+
1998 09 14	699	0.3−	0.3−	1998 10 28	704	1.1−	1.0+	1998 11 11	704	0.4−	0.9−
1998 09 14	699	0.5+	0.9−	1998 10 28	704	0.5+	1.5+	1998 11 11	704	0.3+	1.0−
1998 09 14	699	0.2−	0.7−	1998 10 29	704	0.8−	0.0	1998 11 11	704	0.4+	1.4−
1998 09 20	809	(1.2+	3.2+)	1998 10 29	704	0.2+	0.2+	2000 02 02	704	0.0	0.1+
1998 09 20	809	(0.7+	2.5+)	1998 10 29	704	0.1+	0.5+	2000 02 02	704	0.0	0.7+
1998 09 20	809	(1.1+	4.0+)	1998 10 29	704	0.2+	0.3+	2000 02 02	704	1.1+	0.5+
1998 09 21	809	0.8+	0.6+	1998 10 29	704	0.1−	0.6+	2000 02 08	704	0.8−	0.8+
1998 09 21	809	0.0	1.9+	1998 11 10	704	0.6+	1.2−	2000 02 08	704	0.3+	0.5−
1998 09 21	809	0.3+	1.0+	1998 11 10	704	0.2+	0.3+	2000 02 08	704	0.3+	1.2−
1998 09 24	120	0.1+	1.0−	1998 11 10	704	0.2+	0.2−	2000 02 08	704	1.0−	0.2−

1998 SK₁₄₆ = 2000 CW₄₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	59.35704		(2000.0)	P	Q
<i>n</i>	0.17967335	ω	244.71624	+0.33703152	−0.94143874
<i>a</i>	3.1103811	Ω	185.61663	+0.89678471	+0.32428828
<i>e</i>	0.1588604	<i>i</i>	5.94771	+0.28668264	+0.09235915
<i>P</i>	5.49	<i>H</i>	12.8	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1998 09 14	699	(2.2−	0.2+)	1998 11 11	704	0.2−	0.4+	2000 01 08	704	(1.3−	3.2+)
1998 09 14	699	1.8−	0.2+	1998 11 11	704	0.8−	0.4+	2000 02 02	704	0.1+	0.1+
1998 09 14	699	0.7−	0.1−	1999 01 11	704	0.3−	0.7−	2000 02 02	704	0.0	0.1−
1998 09 20	809	(2.9+	0.2−)	1999 01 11	704	0.4+	0.9+	2000 02 02	704	0.2+	0.0
1998 09 20	809	1.3+	0.8−	1999 01 11	704	0.5+	0.3+	2000 02 02	704	0.0	0.2−
1998 09 20	809	1.1+	1.0−	1999 01 11	704	(2.1+	1.9−)	2000 02 02	704	0.1+	0.2−
1998 09 21	809	1.7+	0.7−	1999 01 17	699	1.3−	0.1+	2000 02 06	704	0.3+	0.3+
1998 09 21	809	1.5+	0.6−	1999 01 17	699	0.0	0.6−	2000 02 06	704	0.2+	0.0
1998 09 21	809	0.5+	1.1−	1999 01 17	699	0.1+	1.1−	2000 02 06	704	0.5+	0.0
1998 10 28	704	0.1+	0.5−	1999 11 08	703	0.9+	0.4−	2000 02 06	704	1.0+	0.4+
1998 10 28	704	0.4−	0.4−	1999 11 08	703	0.6+	0.2+	2000 02 06	704	0.5+	0.3+
1998 10 28	704	0.3+	0.1−	1999 11 08	703	1.6+	0.7+	2000 02 08	819	0.5−	0.1−
1998 10 28	704	0.6−	0.3+	1999 11 08	703	0.7+	0.3+	2000 02 08	819	0.0	0.2−
1998 10 29	704	0.6−	0.7+	1999 12 05	704	0.4−	0.5−	2000 02 08	819	0.9−	0.3−
1998 10 29	704	0.3−	0.2−	1999 12 05	704	0.6−	0.2−	2000 02 08	819	0.3−	0.2−
1998 10 29	704	0.9−	0.5+	1999 12 05	704	0.2−	0.1−	2000 02 08	819	0.0	0.0
1998 10 29	704	0.5−	0.4−	1999 12 05	704	0.3−	0.1−	2000 02 08	819	0.1−	0.1−
1998 10 29	704	0.8−	0.6−	1999 12 05	704	0.9−	0.1+	2000 02 10	819	0.3−	0.1−
1998 11 10	704	0.2+	0.0	1999 12 14	704	0.8−	0.6−	2000 02 10	819	0.6−	0.7−
1998 11 10	704	0.0	0.4+	1999 12 14	704	0.1+	0.8+	2000 02 10	819	0.5−	0.1−
1998 11 10	704	0.7+	0.4+	1999 12 14	704	0.0	1.0+	2000 02 10	819	0.1−	0.4−
1998 11 10	704	0.0	0.6+	1999 12 14	704	0.6+	0.3+	2000 02 10	819	0.0	0.7−

2000 FEB. 22

1998 11 11	704	1.7+	1.0+	2000 01 08	704	0.3−	0.2+	2000 02 10	819	0.0	0.2+
1998 11 11	704	0.5−	0.9+	2000 01 08	704	(0.5−	2.5+)	2000 02 10	819	0.1+	0.3−
1998 11 11	704	0.3−	0.4+	2000 01 08	704	0.1+	0.3+				

1998 SG₁₅₀ = 1996 HR₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	36.53883		(2000.0)	P	Q
<i>n</i>	0.17730705	ω	228.70428	+0.40180118	−0.91510391
<i>a</i>	3.1379935	Ω	197.69335	+0.86987415	+0.39294670
<i>e</i>	0.0801998	<i>i</i>	6.38018	+0.28613767	+0.09043077
<i>P</i>	5.56	<i>H</i>	14.8	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1996 04 17	809	1.5+	0.5−	1998 09 26	704	0.1+	0.2−	1998 10 24	691	0.6−	0.0
1996 04 17	809	0.5+	0.3+	1998 09 26	704	1.1−	0.8−	1998 10 24	691	0.5−	0.2+
1996 04 17	809	0.1−	0.7+	1998 09 26	704	0.6+	1.3+	1998 10 24	691	0.4−	0.1+
1996 04 18	809	0.8−	0.2+	1998 09 27	704	0.2+	0.1−	1998 10 28	691	0.4+	0.1−
1996 04 18	809	(2.6−	0.7−)	1998 09 27	704	0.2−	0.1+	1998 10 28	691	0.6+	0.1−
1996 04 18	809	1.0−	0.7−	1998 09 27	704	0.5+	0.6−	1998 10 28	691	0.3+	0.0

1998 SC₁₅₂ = 2000 AZ₂₂₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	182.47433		(2000.0)	P	Q
<i>n</i>	0.26523164	ω	262.25114	+0.54870079	+0.83575333
<i>a</i>	2.3991229	Ω	41.04975	−0.75383379	+0.50549891
<i>e</i>	0.1843161	<i>i</i>	1.83832	−0.36147207	+0.21444631
<i>P</i>	3.72	<i>H</i>	16.3	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1998 09 26	704	1.3+	0.2−	1998 09 27	704	0.5+	0.9+	1998 10 28	691	0.4−	0.4+
1998 09 26	704	2.0−	0.5+	1998 09 27	704	0.5+	0.4−	2000 01 08	691	0.1−	0.0
1998 09 26	704	1.0−	0.7−	1998 10 22	691	0.2+	0.2−	2000 01 08	691	0.2−	0.1+
1998 09 26	704	0.2+	1.1+	1998 10 22	691	0.3+	0.2−	2000 01 08	691	0.3−	0.3+
1998 09 26	704	0.3−	1.8−	1998 10 22	691	0.3+	0.2−	2000 01 13	691	0.1+	0.2−
1998 09 27	704	1.0+	0.2+	1998 10 28	691	0.4−	0.1+	2000 01 13	691	0.2+	0.3−
1998 09 27	704	(3.0−	0.0)	1998 10 28	691	0.3−	0.5+	2000 01 13	691	0.3+	0.0

1998 SL₁₅₆ = 1998 TM₂₄ = 2000 AX₁₇₂Id. S. Nakano (d, *MPC* 33590), M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	229.31063		(2000.0)	P	Q
<i>n</i>	0.21504244	ω	43.55586	−0.47221227	+0.88045013
<i>a</i>	2.7592217	Ω	198.39604	−0.84129511	−0.46461303
<i>e</i>	0.1673351	<i>i</i>	7.77594	−0.26313137	−0.09456371
<i>P</i>	4.58	<i>H</i>	14.3	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1998 09 26	704	1.7+	1.5+	1998 09 27	704	0.0	1.0−	2000 01 07	704	1.4−	0.8−
1998 09 26	704	1.3−	0.5−	1998 10 14	691	0.0	0.3+	2000 01 07	704	0.5−	0.8+
1998 09 26	704	1.2−	1.1−	1998 10 14	691	0.0	0.3+	2000 01 07	704	0.1−	0.7+
1998 09 26	704	1.8+	1.0−	1998 10 14	691	0.0	0.4+	2000 01 07	704	0.6−	0.3−
1998 09 26	704	0.1+	0.7−	1998 10 19	691	0.2−	0.2−	2000 01 11	704	0.6+	0.0
1998 09 27	704	0.0	0.2−	1998 10 19	691	0.2−	0.2−	2000 01 11	704	1.1+	0.7−
1998 09 27	704	1.2−	2.2+	1998 10 19	691	0.1−	0.1−	2000 01 11	704	0.4+	0.3+
1998 09 27	704	0.4+	0.3+	2000 01 07	704	0.4+	0.0				

1998 SX₁₆₁ = 2000 CQ₉₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	116.85349		(2000.0)	P	Q
n	0.24600416	ω	243.33183	+0.86469159	-0.50084603
a	2.5225576	Ω	146.68458	+0.48204988	+0.80602391
e	0.1721649	i	3.99149	+0.14119617	+0.31540246
P	4.01	H	14.8	G 0.15	U 4

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M.P.C. 38519

Residuals in seconds of arc

1998 09 18	699	0.5−	0.8+	1998 10 20	699	1.2+	0.3+	1998 11 11	704	1.2−	0.9+
1998 09 18	699	0.6−	0.6+	1998 10 20	699	0.8−	0.4+	1998 11 14	699	0.2+	1.4+
1998 09 18	699	0.3−	0.2+	1998 10 28	704	0.2−	0.1+	1998 11 14	699	0.4−	0.9+
1998 09 26	704	0.2+	0.7−	1998 10 28	704	1.2+	1.8−	1998 11 14	699	0.2+	0.3+
1998 09 26	704	0.6+	0.7−	1998 10 28	704	0.9+	0.4+	2000 02 06	704	0.1−	0.1+
1998 09 26	704	0.1−	1.6−	1998 10 28	704	1.1−	0.0	2000 02 06	704	0.2−	1.2+
1998 09 26	704	0.4+	1.1−	1998 10 29	704	1.1−	1.8+	2000 02 06	704	1.2−	0.3−
1998 09 26	704	1.2+	1.1−	1998 10 29	704	1.1+	1.3−	2000 02 11	704	0.8+	0.4−
1998 09 27	704	0.1+	0.9+	1998 10 29	704	0.7−	1.1+	2000 02 11	704	0.1+	0.2−
1998 09 27	704	0.3−	0.9−	1998 10 29	704	0.0	0.2+	2000 02 11	704	1.2+	0.0
1998 09 27	704	0.2+	0.6−	1998 10 29	704	0.1+	0.4−	2000 02 11	704	0.1+	0.3−
1998 10 11	699	0.0	0.4−	1998 11 11	704	(2.5+	1.0−)	2000 02 11	691	0.5−	0.6−
1998 10 11	699	0.3−	0.3+	1998 11 11	704	0.1−	0.2+	2000 02 11	691	0.5−	0.5−
1998 10 11	699	0.3+	0.0	1998 11 11	704	0.2−	1.0−	2000 02 11	691	0.3−	0.6−
1998 10 20	699	0.1+	0.3+	1998 11 11	704	0.1+	0.1−				

1998 SP₁₆₂ = 2000 AL₁₆₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	198.42046		(2000.0)	P	Q
<i>n</i>	0.21143367	ω	57.15070	+0.29759018	+0.94186650
<i>a</i>	2.7905295	Ω	230.96169	−0.92923554	+0.24828556
<i>e</i>	0.0651889	<i>i</i>	11.58424	−0.21900089	+0.22636646
<i>P</i>	4.66	<i>H</i>	13.3	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1998 09 26	704	0.4−	0.5−	1998 10 28	704	1.4−	1.5+	2000 01 08	704	0.7−	0.0
1998 09 26	704	0.6+	0.4−	1998 10 28	704	0.2+	0.5−	2000 01 08	704	0.3+	0.2+
1998 09 26	704	0.5+	0.3−	1998 10 28	704	0.0	0.0	2000 01 08	704	0.1−	0.0
1998 09 26	704	0.7−	0.1−	1998 10 29	704	1.1+	0.2+	2000 01 10	704	0.3−	0.6−
1998 09 27	704	0.3−	0.3+	1998 10 29	704	0.2+	0.2+	2000 01 10	704	0.0	0.1−
1998 09 27	704	(3.2+	0.4+)	1998 10 29	704	0.3+	0.9−	2000 01 10	704	0.1−	0.3−
1998 09 27	704	(3.3−	0.3+)	1998 10 29	704	(2.5+	0.2−)	2000 01 10	704	0.8−	0.5−
1998 10 15	327	0.2+	0.2+	1998 10 29	704	0.5−	0.7−	2000 01 10	704	0.5−	0.3−
1998 10 15	327	0.2+	0.1−	1998 11 10	704	0.4−	0.7+	2000 01 11	704	0.2−	0.1+
1998 10 15	327	0.3+	0.1+	1998 11 10	704	0.1−	0.4−	2000 01 11	704	0.4+	0.2−
1998 10 17	327	0.2−	0.1−	1998 11 10	704	0.4+	0.1−	2000 01 11	704	0.1−	0.0
1998 10 17	327	0.0	0.3+	1998 11 10	704	0.2+	0.5+	2000 01 11	704	0.1−	0.1−
1998 10 17	327	0.1−	0.1−	1999 12 05	704	0.4+	0.1−	2000 01 11	704	0.1+	0.0
1998 10 20	327	0.3+	0.2+	1999 12 05	704	1.6+	0.4+	2000 02 06	704	0.1+	0.2+
1998 10 20	327	0.1−	0.1−	1999 12 05	704	0.3+	0.1−	2000 02 06	704	0.2+	0.1−
1998 10 20	327	0.2−	0.1−	2000 01 08	704	0.5−	0.9+	2000 02 06	704	0.6+	0.4+
1998 10 28	704	(1.1+	2.1−)	2000 01 08	704	0.2−	0.1−				

1998 SS₁₆₂ = 2000 AP₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	331.01793		(2000.0)	P	Q
<i>n</i>	0.19211909	ω	147.04861	−0.90791776	−0.41835230
<i>a</i>	2.9745575	Ω	8.34331	+0.33566717	−0.76260119
<i>e</i>	0.0247275	<i>i</i>	10.25007	+0.25102369	−0.49337692
<i>P</i>	5.13	<i>H</i>	13.8	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 26	704	0.7−	0.5+	1998 10 28	704	(1.2+	2.2+)	2000 01 02	704	0.2+	0.7+
1998 09 26	704	0.1−	0.2+	1998 10 28	704	0.0	0.1+	2000 01 02	704	0.3+	0.6−
1998 09 26	704	0.6+	0.0	1998 10 28	704	0.2−	1.0−	2000 01 02	704	0.2−	0.8+
1998 09 27	704	1.0−	0.3−	1998 10 28	704	0.7−	0.3+	2000 01 02	704	0.1−	0.2+
1998 09 27	704	0.1+	0.5−	1998 10 29	704	0.0	1.4−	2000 01 03	704	0.1−	0.8−
1998 09 27	704	1.2+	0.7−	1998 10 29	704	0.9+	1.3+	2000 01 03	704	0.3+	0.5−
1998 09 27	704	(3.9−	0.2−)	1998 10 29	704	0.0	0.2−	2000 01 03	704	0.9−	0.7−
1998 10 11	699	0.1+	0.1−	1998 10 29	704	1.4+	0.2+	2000 01 03	704	0.6+	0.2−
1998 10 11	699	1.0−	1.0+	1998 10 29	704	1.3−	0.1−				
1998 10 11	699	0.6+	0.8+	2000 01 02	704	0.1−	0.9+				

1998 SC₁₆₄ = 2000 CX₂₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	226.74715		(2000.0)	P	Q
<i>n</i>	0.27818104	ω	138.90041	+0.31050426	+0.94967455
<i>a</i>	2.3240798	Ω	149.12329	−0.89182277	+0.30607467
<i>e</i>	0.1498386	<i>i</i>	4.61550	−0.32899733	+0.06660731
<i>P</i>	3.54	<i>H</i>	14.5	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 18	809	0.4+	0.3+	1998 11 10	704	0.7+	1.0−	2000 02 02	704	0.1+	0.6+
1998 09 18	809	0.2−	0.3−	1998 11 10	704	0.1−	1.5−	2000 02 04	725	0.3+	0.3−
1998 09 18	809	0.8−	1.3−	1998 11 10	704	0.8+	0.9−	2000 02 04	704	0.2+	0.7+
1998 09 19	809	(2.1+	2.9+)	1998 11 11	704	0.4+	0.5+	2000 02 04	725	0.1−	0.3−
1998 09 19	809	(1.7+	2.7+)	1998 11 11	704	0.0	0.4+	2000 02 04	704	0.3+	1.2+
1998 09 19	809	0.8+	0.8+	1998 11 11	704	0.8+	0.1−	2000 02 04	704	0.0	0.3+
1998 10 14	699	0.4−	0.4+	1998 11 11	704	0.6−	0.5+	2000 02 04	704	0.5+	0.1−
1998 10 14	699	0.2−	1.0+	1998 11 11	704	1.3−	0.6−	2000 02 04	704	0.7+	0.5−
1998 10 14	699	0.2−	0.7+	2000 02 02	704	0.6−	0.2−	2000 02 05	725	0.1+	0.9−
1998 10 20	699	0.2−	0.1+	2000 02 02	704	0.1−	0.0	2000 02 05	725	0.9−	0.0
1998 10 20	699	0.3+	0.5+	2000 02 02	704	0.0	0.2+	2000 02 05	725	0.6−	0.4−
1998 10 20	699	0.4−	0.6+	2000 02 02	704	0.1+	0.0				

1998 TC = 1981 KN

Id. A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	114.09814		(2000.0)	P	Q
<i>n</i>	0.26466657	ω	198.46224	−0.53176208	−0.82302416
<i>a</i>	2.4025365	Ω	284.10849	+0.80063610	−0.41170202
<i>e</i>	0.1235467	<i>i</i>	11.87985	+0.27606325	−0.39132170
<i>P</i>	3.72	<i>H</i>	14.2	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1981 05 28	809	0.1−	0.6+	1998 12 01	699	0.9−	1.8+	1999 02 16	704	1.0−	0.1+
1992 03 13	413	0.2−	0.9−	1998 12 01	699	1.3+	0.3+	1999 02 16	704	0.5+	0.4+
1992 03 13	413	0.7+	0.8+	1998 12 01	699	1.1+	1.1+	1999 02 21	699	0.4+	0.4+
1998 10 02	699	0.9+	0.1−	1998 12 23	704	0.9+	0.4+	1999 02 21	699	0.6+	0.4+
1998 10 02	699	0.9−	0.0	1998 12 23	704	0.0	1.5+	1999 02 21	699	1.7−	0.5+
1998 10 02	699	0.4−	0.7−	1998 12 23	704	0.1+	1.8−	1999 03 10	704	0.1+	0.4+
1998 10 03	699	0.4+	1.1−	1998 12 23	704	1.2+	0.6−	1999 03 10	704	1.4−	0.4−
1998 10 03	699	0.4−	0.5−	1998 12 23	704	0.6+	1.5−	1999 03 10	704	(2.2−	1.1−)
1998 10 03	699	0.2−	0.8−	1998 12 24	699	0.3+	0.4+	1999 03 10	704	(3.2−	1.1−)
1998 10 11	699	0.4+	0.8+	1998 12 24	699	0.1+	0.1−	1999 04 07	704	0.6−	0.6+
1998 10 11	699	0.3−	0.2+	1998 12 24	699	0.6+	0.2+	1999 04 07	704	1.6+	0.9−
1998 10 11	699	0.1−	1.5−	1999 02 12	704	0.4−	0.0	1999 04 07	704	1.5+	0.3−
1998 10 26	910	(2.2−	0.8+)	1999 02 12	704	0.3+	0.3+	1999 04 07	704	0.4+	1.0−
1998 10 26	910	(2.1−	1.0+)	1999 02 12	704	0.0	0.6+	1999 05 07	704	0.2−	0.8−
1998 10 26	910	1.9−	1.0+	1999 02 12	704	0.5−	0.6−	1999 05 07	704	0.1−	0.1−
1998 11 25	704	(1.0+	2.3−)	1999 02 12	704	1.3−	0.3−	1999 05 07	704	0.2−	0.7+
1998 11 25	704	0.2+	0.5+	1999 02 16	704	0.2+	0.3+	1999 05 07	704	0.7−	0.5+
1998 11 25	704	0.6+	0.4+	1999 02 16	704	0.2−	0.0	1999 05 07	704	1.9−	0.2−
1998 11 25	704	0.4+	1.0−	1999 02 16	704	0.2+	0.8−				

1998 TD = 2000 CC₁₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	213.02080		(2000.0)	P	Q
<i>n</i>	0.28499952	ω	300.78325	+0.31775303	+0.94801456
<i>a</i>	2.2868620	Ω	347.70703	−0.83968848	+0.27284548
<i>e</i>	0.1842018	<i>i</i>	4.67727	−0.44040467	+0.16377956
<i>P</i>	3.46	<i>H</i>	14.9	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 14	699	0.9−	1.3+	1998 10 09	411	0.5−	0.6−	2000 02 03	704	0.4−	0.2+
1998 09 14	699	1.2−	1.5+	1998 10 10	411	0.0	0.4−	2000 02 03	704	0.3−	1.4−
1998 09 14	699	0.7−	0.2+	1998 10 10	411	0.3−	0.1−	2000 02 03	704	0.5+	0.4−
1998 09 26	704	0.4+	0.1+	1998 10 18	411	0.1+	0.3−	2000 02 03	704	0.4−	0.5−

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1998 09 26	704	1.2+	0.6−	1998 10 18	411	0.6−	0.5+	2000 02 07	703	0.2−	0.3−
1998 09 26	704	1.2+	0.8−	1998 10 18	411	0.8−	0.4−	2000 02 07	703	0.3−	0.2+
1998 09 26	704	0.5+	0.5−	1998 11 07	411	0.3+	0.6+	2000 02 07	703	1.4+	1.1+
1998 09 27	704	0.5+	0.3+	1998 11 07	411	0.7+	0.4+	2000 02 07	703	0.1−	0.1−
1998 09 27	704	0.4+	1.0−	1998 11 07	411	0.1−	0.0	2000 02 11	704	0.3−	0.5+
1998 09 27	704	0.8+	0.9+	2000 02 02	704	0.4+	0.6+	2000 02 11	704	0.4+	1.4+
1998 09 27	704	0.1+	0.3+	2000 02 02	704	0.3+	0.0	2000 02 11	704	0.2−	0.8+
1998 09 27	704	0.1−	0.3+	2000 02 02	704	0.1+	1.0−				
1998 10 09	411	1.1−	1.2−	2000 02 02	704	0.9−	0.7−				

1998 TM = 2000 AF₁₈₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Kobayashi			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.18059342	<i>ω</i>	115.74704	+0.97960134	+0.15315609		
<i>a</i>	3.0998078	<i>Ω</i>	235.70261	−0.18702086	+0.93169342		
<i>e</i>	0.1363005	<i>i</i>	9.06037	+0.07351468	+0.32937909		
<i>P</i>	5.46	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 10 10	411	0.4−	0.8+	1998 10 28	704	0.2−	0.4−	1998 11 11	704	0.8−	1.0−
1998 10 10	411	0.3+	0.2+	1998 10 28	704	0.1+	1.0−	1998 11 11	704	1.5−	0.3−
1998 10 11	699	0.9−	0.1−	1998 10 29	704	0.9+	1.4−	1998 11 11	704	0.9−	0.1−
1998 10 11	699	0.2+	1.3+	1998 10 29	704	0.7+	0.7−	1998 11 11	704	0.1+	0.5+
1998 10 11	699	0.4−	1.1+	1998 10 29	704	1.2+	0.4−	2000 01 07	704	1.0+	0.8+
1998 10 11	411	0.1+	0.0	1998 10 29	704	0.6+	0.6−	2000 01 07	704	1.1−	0.3+
1998 10 11	411	1.2−	0.1−	1998 10 29	704	0.1+	0.3+	2000 01 07	704	0.4−	0.3−
1998 10 19	699	0.5+	0.4−	1998 11 07	411	0.8−	0.3−	2000 01 07	704	0.8−	0.2−
1998 10 19	699	0.1+	0.6−	1998 11 07	411	0.3−	0.1−	2000 01 11	704	0.9+	0.1+
1998 10 19	699	0.4+	0.3−	1998 11 10	704	0.7+	1.2+	2000 01 11	704	0.0	0.2−
1998 10 24	411	0.4−	0.5−	1998 11 10	704	0.4+	0.6+	2000 01 11	704	0.1+	0.2−
1998 10 24	411	0.2+	0.1−	1998 11 10	704	0.1−	0.1−	2000 01 11	704	0.4+	0.2−
1998 10 28	704	0.4+	0.9−	1998 11 10	704	0.3−	0.4−				
1998 10 28	704	1.0+	1.5+	1998 11 11	704	0.4+	2.5+				

1998 TZ = 1995 VN₁₄

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.31015314	<i>ω</i>	215.87261	−0.18022939	+0.98336745		
<i>a</i>	2.1614835	<i>Ω</i>	43.75676	−0.89470846	−0.15439451		
<i>e</i>	0.1739090	<i>i</i>	1.86358	−0.40867364	−0.09565981		
<i>P</i>	3.18	<i>H</i>	16.4	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1995 11 15	691	0.3−	0.1−	1995 11 19	691	0.5+	0.1+	1998 10 12	691	0.1−	0.3+
1995 11 15	691	0.4−	0.1−	1998 09 22	910	0.0	0.0	1998 10 12	691	0.1+	0.3+
1995 11 15	691	0.4−	0.0	1998 09 22	910	0.0	0.0	1998 10 13	691	0.6−	0.6+
1995 11 19	691	0.1+	0.2+	1998 09 22	910	0.2+	0.4−	1998 10 13	691	0.4−	0.5+
1995 11 19	691	0.5+	0.1−	1998 10 12	691	0.4+	0.2−	1998 10 13	691	0.4+	1.0−

1998 TJ₄ = 2000 AT₂₃₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.18657111	<i>ω</i>	99.66944	−0.04822778	−0.99883332		
<i>a</i>	3.0332378	<i>Ω</i>	353.09344	+0.90818179	−0.04282233		
<i>e</i>	0.0202911	<i>i</i>	1.17555	+0.41578832	−0.02232159		
<i>P</i>	5.28	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 10 12	691	0.1+	0.6−	1998 11 10	704	0.9−	0.1+	2000 01 10	691	0.1−	0.1−
1998 10 12	691	0.1+	0.4−	1998 11 10	704	0.0	0.3−	2000 01 10	691	0.1−	0.1−
1998 10 12	691	0.2+	0.5−	1998 11 10	704	0.9−	0.4−	2000 01 10	691	0.1−	0.1−
1998 10 15	691	0.1−	0.2−	1998 11 11	704	0.1+	0.6+	2000 01 29	691	0.3+	0.1+
1998 10 15	691	0.0	0.2−	1998 11 11	704	0.4+	1.0+	2000 01 29	691	0.2+	0.1+
1998 10 15	691	0.1−	0.3−	1998 11 11	704	0.5−	1.3+	2000 01 29	691	0.4+	0.4−

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1998 10 28	704	0.5−	0.2+	1998 11 11	704	0.2+	1.0+	2000 02 07	703	0.9−	0.5+
1998 10 28	704	0.3+	0.7+	1998 11 16	704	0.0	0.3−	2000 02 07	703	0.8+	1.1+
1998 10 28	704	1.1−	0.6+	1998 11 16	704	0.8−	0.5+	2000 02 07	703	0.0	0.1+
1998 10 28	704	0.1+	0.2+	1998 11 16	704	0.7+	0.2+	2000 02 07	703	0.9−	0.4+
1998 10 29	704	0.5+	0.6−	1998 11 16	704	0.2+	0.4+	2000 02 11	704	0.6−	0.7+
1998 10 29	704	0.2+	0.1−	2000 01 06	704	0.2+	0.8−	2000 02 11	704	0.4+	0.2−
1998 10 29	704	0.6+	0.5+	2000 01 06	704	0.5+	0.1+	2000 02 11	704	0.6+	0.2−
1998 10 29	704	0.3+	1.4−	2000 01 06	704	0.5−	1.0−	2000 02 11	704	0.1+	0.3+
1998 10 29	704	0.7+	1.0−	2000 01 06	704	0.6−	1.2−	2000 02 11	704	0.0	0.0

1998 TO₆ = 2000 CP₂₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.27351985	<i>ω</i>	60.84756	+0.13424002	+0.98996971		
<i>a</i>	2.3504092	<i>Ω</i>	216.94870	−0.93273264	+0.11122023		
<i>e</i>	0.1726442	<i>i</i>	4.20165	−0.33464823	+0.08712078		
<i>P</i>	3.60	<i>H</i>	15.5	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 10 15	557	0.9−	0.6+	1998 10 25	557	0.2+	0.2−	2000 02 02	704	0.1+	0.8−
1998 10 15	557	0.7+	0.4+	1998 11 12	557	0.0	0.3−	2000 02 04	704	0.5−	0.1+
1998 10 15	557	0.2−	0.1+	1998 11 12	557	0.9+	0.4−	2000 02 04	704	0.9+	0.3−
1998 10 16	557	0.0	0.2+	1998 11 12	557	0.5+	0.3−	2000 02 04	704	0.4+	0.5+
1998 10 17	557	1.0−	0.0	1998 11 25	691	0.5−	0.5+	2000 02 04	704	1.1+	0.8−
1998 10 17	557	0.6−	0.3−	1998 11 25	691	0.5−	0.1−	2000 02 10	557	0.4+	0.7+
1998 10 18	691	0.2+	0.3−	1998 11 25	691	0.1−	0.0	2000 02 10	557	0.6−	0.4+
1998 10 18	691	0.2+	0.3−	2000 02 02	704	0.4−	1.0+	2000 02 10	557	0.1−	0.3+
1998 10 20	557	0.3+	0.4−	2000 02 02	704	0.9−	0.4−	2000 02 10	557	0.2−	0.3+
1998 10 20	557	0.1+	0.5+	2000 02 02	704	0.6+	0.5−				
1998 10 25	557	0.5+	0.3+	2000 02 02	704	0.6−	0.4−				

1998 TY₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22362035	<i>ω</i>	223.64758	+0.83777662	+0.52573218		
<i>a</i>	2.6882016	<i>Ω</i>	104.08393	−0.44989032	+0.81765539		
<i>e</i>	0.2345848	<i>i</i>	8.74287	−0.30940109	+0.23461742		
<i>P</i>	4.41	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 10 15	428	0.6−	0.2−	1998 10 29	699	0.7−	0.2+	1998 12 14	699	0.2+	0.8+
1998 10 15	428	0.9−	0.3−	1998 11 13	704	0.6−	0.6+	1998 12 14	699	0.4+	0.8−
1998 10 18	809	1.5+	0.1+	1998 11 13	704	0.5−	0.3−	1998 12 14	699	0.1+	0.2+
1998 10 18	809	1.2+	0.3−	1998 11 13	704	0.3−	0.2−	1998 12 22	428	1.0+	0.3−
1998 10 18	809	0.6+	0.3−	1998 11 13	704	1.7−	0.7+	1999 01 19	428	0.9−	0.2+
1998 10 18	428	1.1−	0.1−	1998 11 13	704	1.1+	0.5+	2000 01 06	704	0.5+	0.4+
1998 10 18	428	1.4−	0.2−	1998 11 14	699	1.6+	0.5+	2000 01 06	704	0.3−	0.8−
1998 10 19	809	1.0+	1.1−	1998 11 14	699	0.6+	1.6+	2000 01 06	704	0.3−	0.2+
1998 10 19	809	0.2+	1.3−	1998 11 14	699	1.3+	0.5+	2000 01 30	858	0.5−	0.5+
1998 10 19	809	0.4+	0.5−	1998 11 14	428	0.1+	0.5+	2000 01 30	858	0.5−	0.5−
1998 10 19	428	0.1−	0.4−	1998 11 14	428	0.1−	0.1+	2000 02 11	858	0.0	0.3−
1998 10 27	428	(1.4−	2.1−)	1998 11 26	428	1.1−	0.3−	2000 02 11	858	0.2+	0.1−
1998 10 27	428	(2.2−	0.1+)	1998 11 26	428	0.9−	0.8+	2000 02 11	858	0.4+	0.2−
1998 10 29	699	0.3+	0.6+	1998 12 07	428	0.4−	1.2−	2000 02 12	858	0.4+	0.3+
1998 10 29	699	0.2+	0.8+	1998 12 07	428	0.6−	1.2−	2000 02 12	858	0.2+	0.2+

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Residuals in seconds of arc

1982 11 09	095	0.2−	0.7+	1998 10 20	699	0.4−	0.5+	1998 11 14	699	0.1+	0.9−
1998 09 22	910	0.3−	0.1+	1998 10 20	699	0.1+	0.6+	2000 02 02	703	0.4+	0.1−
1998 09 22	910	0.4−	0.1+	1998 11 10	704	0.3−	0.0	2000 02 02	703	0.6−	0.9+
1998 09 22	910	0.3−	0.1+	1998 11 10	704	0.6+	0.5−	2000 02 02	703	0.7+	0.8+
1998 10 12	691	0.1+	0.2−	1998 11 10	704	0.8+	0.0	2000 02 02	703	0.5+	0.6−
1998 10 12	691	0.0	0.2−	1998 11 10	704	0.8+	0.0	2000 02 04	704	0.5+	0.5+
1998 10 12	691	0.3+	0.2+	1998 11 10	704	1.7−	0.8−	2000 02 04	704	0.6−	0.0
1998 10 14	699	0.3−	0.9+	1998 11 10	704	0.5−	0.5−	2000 02 04	704	1.3+	0.2−
1998 10 14	699	0.2+	0.4+	1998 11 11	704	0.1−	0.2−	2000 02 04	704	0.1−	0.3+
1998 10 14	699	0.8+	0.3−	1998 11 11	704	0.3+	0.6+	2000 02 11	704	0.3−	1.3−
1998 10 18	691	0.9−	0.1+	1998 11 11	704	1.0+	0.9−	2000 02 11	704	0.4−	0.1+
1998 10 18	691	0.8−	0.2+	1998 11 11	704	0.7+	1.1−	2000 02 11	704	0.2+	0.1−
1998 10 18	691	0.7−	0.1−	1998 11 14	699	0.3−	0.1−	2000 02 11	704	1.4−	0.1+
1998 10 20	699	0.4+	0.5+	1998 11 14	699	1.0+	0.9+				

1998 TH₁₆ = 2000 CJ₉₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
182.71796							
<i>n</i>	0.28006888	ω	255.72742	+0.97953461	+0.18026416		
<i>a</i>	2.3136242	Ω	93.82962	−0.13194578	+0.91102393		
<i>e</i>	0.0490796	<i>i</i>	5.14847	−0.15199427	+0.37086417		
<i>P</i>	3.52	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 10 14	120	0.7+	0.8+	1998 11 10	704	0.6+	0.4−	1998 12 11	699	0.2−	0.2+
1998 10 14	699	0.2+	1.2+	1998 11 10	704	0.2+	0.5−	2000 01 08	704	0.6+	1.3−
1998 10 14	699	0.5+	1.0+	1998 11 10	704	0.1+	1.2−	2000 01 08	704	0.1+	0.7−
1998 10 14	699	0.0	0.6+	1998 11 10	704	0.3−	1.2−	2000 01 08	704	0.2+	0.8−
1998 10 14	120	0.0	1.1+	1998 11 10	704	0.2−	1.5−	2000 01 08	704	0.3+	1.2−
1998 10 15	120	0.1−	0.8+	1998 11 11	704	0.1−	0.1+	2000 02 06	704	0.1+	0.0
1998 10 18	809	0.9−	1.3+	1998 11 11	704	0.6+	0.1−	2000 02 06	704	0.1+	0.5+
1998 10 18	809	0.2+	1.6+	1998 11 11	704	0.7+	1.0−	2000 02 06	704	0.3−	1.1+
1998 10 18	809	(0.8−	2.1+)	1998 11 11	704	0.1+	0.5−	2000 02 06	704	0.4+	0.8+
1998 10 19	809	0.8+	0.9−	1998 11 11	704	0.6+	0.1−	2000 02 11	704	0.0	0.3+
1998 10 19	809	0.7−	0.4−	1998 11 15	120	0.8−	0.0	2000 02 11	704	0.5−	0.4+
1998 10 19	809	0.9−	0.4−	1998 11 15	120	1.2−	0.7−	2000 02 11	704	0.1+	0.3−
1998 10 20	120	0.1−	0.4+	1998 12 11	699	0.4+	0.3+	2000 02 11	704	0.3+	0.4+
1998 10 20	120	0.4−	0.3+	1998 12 11	699	0.1−	0.4+	2000 02 11	704	0.5−	1.3+

1998 TZ₁₇

Id. E. Bowell (1999 observations)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
342.59405							
<i>n</i>	0.22658759	ω	176.93938	−0.93939490	−0.33561442		
<i>a</i>	2.6646814	Ω	342.93535	+0.30926338	−0.74142607		
<i>e</i>	0.0976092	<i>i</i>	13.80071	+0.14796414	−0.58107688		
<i>P</i>	4.35	<i>H</i>	12.5	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 10 12	699	1.0+	0.2+	1999 01 08	704	0.3−	0.7−	2000 01 03	704	0.1−	0.1+
1998 10 12	699	1.1+	0.5+	1999 11 09	703	0.1+	0.0	2000 01 03	704	0.5−	1.0−
1998 10 12	699	1.0+	0.6+	1999 11 09	703	0.5+	0.2+	2000 01 03	704	0.3−	0.3+
1998 10 12	399	0.7−	1.1−	1999 11 09	703	0.5+	0.0	2000 01 03	704	1.2−	0.1+
1998 10 12	399	0.2+	0.5−	1999 11 09	703	0.4+	0.1−	2000 01 31	704	0.5+	0.1+
1998 10 20	399	0.5−	1.0+	1999 11 12	699	0.4+	0.7+	2000 01 31	704	(2.2−	0.2+)
1998 10 20	399	1.4−	1.7+	1999 11 12	699	0.3−	0.5+	2000 01 31	704	0.1+	0.1+
1998 10 25	399	0.2−	1.0+	1999 11 12	699	0.2+	0.7+	2000 01 31	704	0.5+	0.5+
1998 10 25	399	1.0−	0.4+	1999 12 10	704	1.1−	0.2+	2000 02 09	720	0.3+	0.3−
1998 10 28	399	0.0	1.4−	1999 12 10	704	0.5−	0.2+	2000 02 09	720	0.2+	0.3−
1998 10 28	399	1.1−	0.4−	1999 12 10	704	(2.4+	0.4−)	2000 02 09	720	0.0	0.1−
1999 01 08	704	0.2+	0.8−	1999 12 30	106	0.1+	0.3+	2000 02 10	720	0.1+	0.1−
1999 01 08	704	0.8+	0.8+	1999 12 30	106	0.0	0.0	2000 02 10	720	0.0	0.1−
1999 01 08	704	1.7+	0.9−	1999 12 30	106	0.1−	0.1+				
1999 01 08	704	0.3+	1.5−	2000 01 03	704	0.7+	0.7−				

1998 TF₂₀ = 1999 YS₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
207.15523							
<i>n</i>	0.17006826	ω	231.17674	−0.15765917	+0.97946458		
<i>a</i>	3.2264173	Ω	30.46665	−0.81170842	−0.05606487		
<i>e</i>	0.0903820	<i>i</i>	14.35033	−0.56238156	−0.19366432		
<i>P</i>	5.80	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 10 13	691	0.3−	0.1−	1998 10 29	704	0.3−	0.3−	1999 12 30	704	0.2+	0.8+
1998 10 13	691	0.2−	0.1−	1998 10 29	704	(0.4+	3.1−)	1999 12 30	704	0.3−	0.6+
1998 10 13	691	0.1−	0.2−	1998 11 11	704	0.8−	0.7−	1999 12 30	704	0.7−	0.1−
1998 10 19	691	0.4−	0.1+	1998 11 11	704	1.4−	0.8+	1999 12 31	704	0.1−	0.5+
1998 10 19	691	0.6−	0.1−	1998 11 11	704	(2.2−	2.4+)	1999 12 31	704	0.6+	0.5−
1998 10 19	691	0.4−	0.1−	1998 11 11	704	0.2+	0.1+	1999 12 31	704	0.6+	0.0
1998 10 28	704	0.7+	0.1−	1999 12 13	704	0.1−	0.0	1999 12 31	704	0.7+	0.0
1998 10 28	704	1.4+	1.1+	1999 12 13	704	0.4−	0.6−	1999 12 31	704	0.9+	0.4−
1998 10 28	704	0.1+	0.9−	1999 12 13	704	0.7−	0.0	2000 01 21	704	0.2−	0.3−
1998 10 28	704	0.0	0.3+	1999 12 13	704	0.3+	0.2+	2000 01 21	704	0.5−	0.4−
1998 10 29	704	1.7+	0.8−	1999 12 13	704	0.0	0.1−	2000 01 21	704	0.0	0.5+
1998 10 29	704	0.3+	0.8+	1999 12 30	704	0.2−	0.1−				

1998 TR₂₈ = 2000 BG₂₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
156.80067							
<i>n</i>	0.22630928	ω	93.45812	+0.95064562	+0.30922321		
<i>a</i>	2.6668657	Ω	248.53073	−0.29447107	+0.87317377		
<i>e</i>	0.0848551	<i>i</i>	1.57459	−0.09777369	+0.37676063		
<i>P</i>	4.36	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 10 15	691	0.3+	0.2−	1998 11 10	704	(2.3+	0.8−)	2000 01 30	703	0.3+	0.2+
1998 10 15	691	0.4+	0.0	1998 11 10	704	1.5−	0.7−	2000 01 30	703	0.2+	0.3+
1998 10 15	691	0.4+	0.1−	1998 11 11	704	0.7+	0.7+	2000 02 01	703	0.2+	0.1+
1998 10 19	699	0.1+	0.2+	1998 11 11	704	0.0	0.8−	2000 02 01	703	0.3+	0.2+
1998 10 19	699	0.9+	0.7+	1998 11 11	704	0.1+	1.0+	2000 02 01	703	0.1+	0.2+
1998 10 19	699	0.2+	0.1−	1998 11 11	704	0.1−	0.7−	2000 02 01	703	0.1+	0.1−
1998 10 20	691	0.6−	0.2+	1998 11 11	704	0.4−	1.1+	2000 02 04	704	0.0	0.2−
1998 10 20	691	0.8−	0.1+	2000 01 07	704	1.6+	0.7−	2000 02 04	704	0.8+	0.4+
1998 10 20	691	0.5−	0.1+	2000 01 07	704	1.8−	0.0	2000 02 04	704	0.5+	0.6−
1998 11 10	704	0.4+	0.0	2000 01 07	704	1.3−	0.5−	2000 02 04	704	0.0	0.6−
1998 11 10	704	0.4+	0.5−	2000 01 30	703	0.7−	0.4−	2000 02 04	704	0.1−	1.0+
1998 11 10	704	0.1+	1.0−	2000 01 30	703	0.4−	0.7+				

1998 TJ₃₂ = 2000 CV₂₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
82.96710							
<i>n</i>	0.17969316	ω	163.79671	+0.76648362	−0.63897179		
<i>a</i>	3.1101525	Ω	236.10073	+0.58023983	+0.73226797		
<i>e</i>	0.1629845	<i>i</i>	4.48774	+0.27536268	+0.23558156		
<i>P</i>	5.48	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

M.P.C. 38522

1998 10 28	704	0.1+	0.2+	2000 02 02	704	1.0+	0.4+
1998 10 29	704	0.2−	0.0	2000 02 02	704	1.0−	0.2+

1998 TV₃₃ = 2000 AK₁₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	18.19696		(2000.0)		P		Q
<i>n</i>	0.08537511	ω	1.55125	+0.37460450			−0.91361361
<i>a</i>	5.1079721	Ω	66.47184	+0.84880824			+0.26932418
<i>e</i>	0.0437160	<i>i</i>	9.92666	+0.37308984			+0.30458934
<i>P</i>	11.54	<i>H</i>	11.3	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 10 14	699	0.9+	0.2+	1998 11 15	120	0.5−	0.7+	1999 11 16	704	0.8−	0.2+
1998 10 14	699	0.4−	0.0	1998 11 15	120	0.4−	0.0	1999 12 05	703	0.1+	0.5+
1998 10 14	699	0.2−	0.3+	1999 11 03	704	0.1+	0.4+	1999 12 05	703	0.4−	0.6+
1998 10 20	699	0.5−	0.2−	1999 11 03	704	0.9+	1.0−	1999 12 05	703	0.5+	0.4+
1998 10 20	699	0.9−	0.5+	1999 11 03	704	0.1−	0.9−	1999 12 05	703	0.2+	0.5+
1998 10 20	699	0.3+	0.3+	1999 11 03	704	0.4+	0.1+	1999 12 07	704	0.2+	0.7+
1998 11 06	120	0.7−	1.5+	1999 11 03	704	0.5−	0.7−	1999 12 07	704	0.9+	0.8+
1998 11 06	120	(0.2−	2.2+)	1999 11 03	704	0.5+	0.6+	1999 12 07	704	1.0+	0.7+
1998 11 10	704	0.6+	0.5−	1999 11 03	704	0.0	0.5−	1999 12 07	704	0.3−	0.2+
1998 11 10	704	0.1+	0.4+	1999 11 03	704	0.2+	0.0	2000 01 03	704	1.1+	0.9−
1998 11 10	704	0.5+	1.7−	1999 11 03	704	0.1+	0.8−	2000 01 03	704	0.2+	0.0
1998 11 10	704	0.4+	0.6−	1999 11 14	704	0.4+	0.3−	2000 01 03	704	0.7−	0.6−
1998 11 11	704	0.7−	0.2+	1999 11 14	704	0.1−	0.1−	2000 01 03	704	0.0	0.3−
1998 11 11	704	1.1−	0.1+	1999 11 14	704	0.1+	0.8+	2000 01 03	704	0.0	0.3−
1998 11 11	704	0.1+	0.8−	1999 11 14	704	0.4+	0.1−	2000 01 04	704	0.5+	0.3−
1998 11 11	704	1.2+	0.9−	1999 11 14	704	0.1+	0.4+	2000 01 04	704	0.1+	0.1−
1998 11 11	704	0.0	0.1+	1999 11 16	704	1.1−	0.4−	2000 01 04	704	0.3−	0.7−
1998 11 11	699	0.5+	0.4−	1999 11 16	704	1.0−	0.1+	2000 01 04	704	1.2−	0.1−
1998 11 11	699	0.0	0.1+	1999 11 16	704	0.7−	0.1−				
1998 11 11	699	0.6+	0.8+	1999 11 16	704	0.8−	0.6+				

1998 TE₃₄ = 2000 CC₇₄

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	237.52782		(2000.0)		P		Q
<i>n</i>	0.29306504	ω	149.20487	+0.18747304			+0.98106425
<i>a</i>	2.2447089	Ω	131.55321	−0.91393670			+0.19236717
<i>e</i>	0.1848401	<i>i</i>	3.72744	−0.35996328			+0.02253475
<i>P</i>	3.36	<i>H</i>	15.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 10 14	699	0.8−	0.6+	1998 11 10	704	0.0	0.7−	2000 02 10	120	1.0+	0.7−
1998 10 14	699	0.5−	1.0−	1998 11 11	704	0.4−	0.4+	2000 02 10	120	(2.1+	0.5−)
1998 10 14	699	0.6+	0.3−	1998 11 11	704	0.2−	0.2+	2000 02 10	120	0.1−	0.3−
1998 10 20	699	0.3−	0.5+	1998 11 11	704	1.9−	0.6−	2000 02 11	704	0.0	0.5+
1998 10 20	699	1.4+	0.2−	2000 02 07	691	0.1−	0.2+	2000 02 11	704	0.7+	1.6+
1998 10 20	699	0.1−	0.2−	2000 02 07	691	0.3−	0.1−	2000 02 11	704	0.5−	0.7−
1998 10 29	704	0.0	0.6+	2000 02 07	691	0.1−	0.1+	2000 02 11	120	0.2+	0.3+
1998 10 29	704	0.2+	0.6+	2000 02 09	120	0.7−	0.1−	2000 02 11	120	0.1+	0.6+
1998 10 29	704	0.1+	0.1+	2000 02 09	120	0.1−	0.4−	2000 02 14	691	0.3−	0.4−
1998 10 29	704	0.2−	0.1+	2000 02 10	691	0.1+	0.1+	2000 02 14	691	0.1+	0.3−
1998 10 29	704	(3.6−	1.7−)	2000 02 10	691	0.0	0.0	2000 02 14	691	0.1+	0.6−
1998 11 10	704	1.6+	0.0	2000 02 10	691	0.1−	0.0				
1998 11 10	704	0.4+	0.1−	2000 02 10	120	(4.3−	2.1+)				

2000 FEB. 22

1998 UT₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	113.92329		(2000.0)		P		Q
<i>n</i>	0.19506570	ω	351.97912	+0.87193060			−0.48929126
<i>a</i>	2.9445263	Ω	37.33265	+0.45087518			+0.78787220
<i>e</i>	0.1108392	<i>i</i>	1.71937	+0.19091517			+0.37396719
<i>P</i>	5.05	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 10 18	888	0.4+	0.3+	1998 11 23	888	0.4−	0.2−	1998 12 23	691	0.3+	0.2−
1998 10 18	888	0.4+	0.3+	1998 11 23	888	0.3−	0.1+	1998 12 23	691	0.0	0.1+
1998 10 18	888	0.0	0.8+	1998 11 24	704	0.0	0.1−	1998 12 25	888	0.4−	0.3+
1998 10 22	888	0.2+	0.3−	1998 11 24	704	0.9+	0.4+	1998 12 25	888	0.9−	0.6+
1998 10 22	888	0.6−	0.6+	1998 11 24	704	0.3−	1.2−	2000 02 09	888	0.5−	0.2+
1998 10 24	888	0.3−	0.2−	1998 11 24	704	0.3−	1.7−	2000 02 09	888	0.1−	0.4−
1998 10 24	888	0.7+	0.0	1998 11 24	704	1.5−	1.4−	2000 02 09	888	0.5−	0.2−
1998 10 24	888	0.5−	0.3+	1998 11 25	699	0.0	0.1−	2000 02 10	120	1.4+	0.8−
1998 10 31	888	0.2−	0.2−	1998 11 25	699	0.3+	0.4+	2000 02 10	120	0.6−	0.8−
1998 10 31	888	0.3+	0.4+	1998 11 25	699	0.2−	1.1+	2000 02 10	888	0.5−	0.5−
1998 10 31	888	0.9+	0.2−	1998 12 11	699	1.8+	0.5+	2000 02 10	888	0.5+	0.1−
1998 11 08	888	0.5−	0.0	1998 12 11	699	1.6+	0.4+	2000 02 10	888	0.2+	0.4−
1998 11 08	888	0.0	0.1−	1998 12 11	699	1.2+	1.0+	2000 02 10	120	0.6−	0.0
1998 11 15	120	0.6−	0.1+	1998 12 13	888	0.0	0.3+	2000 02 10	120	0.9−	1.1+
1998 11 15	120	0.2+	0.1−	1998 12 13	888	1.4−	0.6+	2000 02 11	704	0.5+	0.1+
1998 11 18	704	0.3+	0.6−	1998 12 14	704	0.4−	1.0+	2000 02 11	704	0.2+	0.3+
1998 11 18	704	0.3+	1.1−	1998 12 14	704	0.0	0.4−	2000 02 11	704	0.7+	0.0
1998 11 18	704	0.8−	1.0−	1998 12 14	704	0.8−	0.1+	2000 02 11	704	0.3−	0.6+
1998 11 18	704	0.2+	0.3+	1998 12 14	704	(2.4−	0.3+)	2000 02 12	120	(2.3+	0.5−)
1998 11 18	704	(5.2−	0.1+)	1998 12 19	888	0.4+	0.0	2000 02 13	120	0.4+	0.4+
1998 11 23	888	0.2−	0.1−	1998 12 23	691	0.0	0.0				

1998 UC₇ = 2000 AA₂₄₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	68.35872		(2000.0)		P		Q
<i>n</i>	0.19616155	ω	213.92379	+0.29328323			−0.94782653
<i>a</i>	2.9335498	Ω	219.43614	+0.91499908			+0.31616327
<i>e</i>	0.0218527	<i>i</i>	11.34331	+0.27705891			−0.04081252
<i>P</i>	5.02	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1997 07 10	599	(0.4+	2.2+)	1998 10 29	120	0.0	0.1−	2000 01 11	704	0.1−	0.8−
1997 07 10	599	0.4−	1.8+	1998 10 29	120	0.3+	0.0	2000 01 11	704	0.7+	0.8−
1998 09 19	910	0.3−	0.7−	1998 10 30	120	(2.2−	1.0−)	2000 01 11	704	0.4+	0.2+
1998 09 19	910	0.4−	0.6−	1998 10 30	120	1.3+	0.2+	2000 01 11	704	0.4+	0.3−
1998 09 19	910	0.4−	0.6−	1998 11 10	704	1.2−	0.3−	2000 01 11	704	0.9+	0.1+
1998 10 18	699	0.0	0.8+	1998 11 10	704	0.7−	0.4−	2000 02 03	704	0.2+	0.3−
1998 10 18	699	0.2−	0.4+	1998 11 10	704	0.6−	1.4+	2000 02 03	704	0.3+	0.6−
1998 10 18	699	0.2−	0.1+	1998 11 10	704	(5.1−	2.6−)	2000 02 03	704	0.4−	0.5+
1998 10 22	120	0.0	0.4−	1998 11 26	120	0.3+	0.1+	2000 02 03	704	0.3−	0.6−
1998 10 22	120	0.1+	0.4−	1998 11 26	120	0.1+	0.1−	2000 02 03	704	0.0	0.6−
1998 10 22	120	0.3+	0.3−	1998 11 27	120	0.5−	0.3+	2000 02 08	704	0.0	0.2−
1998 10 23	120	0.3+	0.7−	1998 11 27	120	1.2+	0.6+	2000 02 08	704	0.0	0.7+
1998 10 23	120	0.6+	0.1+	2000 01 07	699	0.7−	1.7+	2000 02 08	704	0.3−	0.6+
1998 10 29	120	0.5−	0.1+	2000 01 07	699	0.3−	0.1−	2000 02 08	704	0.1+	0.5+
1998 10 29	120	0.3+	0.4+	2000 01 07	699	0.7−	0.6+	2000 02 08	704	0.4+	0.7+

1998 UE₈ = 2000 CF₅₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	48.13308		(2000.0)		P		Q
<i>n</i>	0.17057991	ω	281.06548	−0.02553033			−0.99966083
<i>a</i>	3.2199624	Ω	170.39300	+0.92878726			−0.02562138
<i>e</i>	0.1360931	<i>i</i>	1.76497	+0.36973290			−0.00466516
<i>P</i>	5.78	<i>H</i>	13.3	<i>G</i>	0.15	<i>U</i>	3

2000 FEB. 22

M.P.C. 38523

Residuals in seconds of arc

1992 10 23	010	0.3+	0.6-	1998 11 11	704	0.5-	0.5-	2000 01 10	691	0.1-	0.7-
1992 10 23	010	0.7-	0.6-	1998 11 18	704	0.0	0.2-	2000 01 10	691	0.1-	0.6-
1992 11 03	010	1.0+	0.1+	1998 11 18	704	0.6+	1.2-	2000 02 04	704	0.2+	0.3+
1992 11 03	010	0.2-	0.9-	1998 11 18	704	0.2-	0.2-	2000 02 04	704	0.2+	0.1-
1992 11 03	010	0.5+	0.7-	1998 11 18	704	0.0	0.4+	2000 02 04	704	0.0	0.3-
1998 10 18	699	0.6-	1.3+	1998 11 18	704	0.0	0.4+	2000 02 04	704	0.3+	0.4+
1998 10 18	699	0.6+	0.7+	1998 11 24	699	0.2-	0.2-	2000 02 04	704	0.1+	0.3-
1998 10 18	699	0.0	1.1+	1998 11 24	699	0.0	0.3-	2000 02 06	704	0.4+	0.1-
1998 10 23	120	0.4+	0.4+	1998 11 24	699	0.1+	0.1-	2000 02 06	704	0.5-	0.8-
1998 10 24	120	0.3-	0.6+	1998 11 24	120	0.4-	0.2-	2000 02 06	704	0.6+	0.0
1998 10 24	120	1.0+	0.2-	1998 11 24	120	0.0	0.1-	2000 02 06	704	0.6+	0.0
1998 10 24	120	1.1-	0.1-	1998 11 24	120	0.7-	0.1-	2000 02 06	704	0.8+	0.3-
1998 10 29	120	0.1-	0.2-	1998 11 24	120	0.0	0.1-	2000 02 10	106	0.7-	1.0+
1998 10 29	120	0.4-	0.3-	1998 11 26	120	0.4-	0.5-	2000 02 10	106	0.0	0.6+
1998 11 10	704	0.4+	0.0	1998 11 26	120	0.1-	0.7-	2000 02 10	106	0.5+	0.1-
1998 11 10	704	0.2+	0.7+	1998 11 26	120	0.8-	0.5+	2000 02 10	732	0.7-	0.6+
1998 11 10	704	1.4+	0.6+	1998 12 15	120	0.2+	0.1-	2000 02 10	732	0.7-	0.1+
1998 11 10	704	1.1+	0.4+	1998 12 15	120	0.1-	0.4-	2000 02 10	732	0.7-	0.1+
1998 11 11	704	0.8-	1.2+	2000 01 10	691	0.2-	0.7-				

1998 UF₈ = 2000 CJ₉₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	0.09210		(2000.0)	P	Q
<i>n</i>	0.29018923	ω	141.46062	-0.97375587	+0.20530164
<i>a</i>	2.2595148	Ω	50.67349	-0.22726309	-0.85378845
<i>e</i>	0.0879268	<i>i</i>	7.29610	-0.01228823	-0.47843131
<i>P</i>	3.40	<i>H</i>	13.6	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1998 10 18	699	0.8+	0.5-	1998 11 21	691	0.1+	0.3-	1999 01 19	910	1.0-	0.1-
1998 10 18	699	0.3-	0.4-	1998 11 21	691	0.2+	0.1-	1999 01 19	910	0.6-	0.2-
1998 10 18	699	0.3+	0.3-	1998 11 24	699	0.1+	0.4+	1999 01 19	910	0.4-	0.1-
1998 10 23	120	0.6+	0.2+	1998 11 24	699	0.1+	0.1+	1999 11 16	703	0.2+	0.2-
1998 10 24	120	1.8-	1.4+	1998 11 24	699	0.0	0.4+	1999 11 16	703	0.0	0.2-
1998 10 24	120	0.1+	0.2+	1998 11 26	120	0.2-	0.1+	1999 11 16	703	0.1-	0.2+
1998 10 24	120	0.3+	0.1-	1998 11 26	120	0.0	0.3+	1999 11 16	703	0.1+	0.1-
1998 10 24	120	1.4+	0.3-	1998 11 26	120	0.1+	0.3-	2000 02 08	704	0.1-	0.1-
1998 10 29	120	0.2+	0.2-	1998 11 26	120	0.4-	0.7+	2000 02 08	704	0.0	0.2+
1998 10 29	120	0.1+	0.3-	1998 11 26	120	0.5+	0.1-	2000 02 08	704	0.2-	0.1-
1998 10 30	120	1.0-	0.4-	1998 11 29	120	(2.4+	0.5+)	2000 02 11	704	0.2+	0.4-
1998 10 30	120	0.1+	1.0-	1998 11 29	120	0.9+	0.5+	2000 02 11	704	0.4-	0.4-
1998 10 30	120	0.3+	0.2-	1998 12 08	699	0.1+	0.0	2000 02 11	704	0.1+	0.3+
1998 10 30	120	0.3-	0.8-	1998 12 08	699	0.2-	0.5+				
1998 11 21	691	0.1+	0.2-	1998 12 08	699	0.8-	0.5+				

1998 UO₈ = 1966 XD = 2000 AC₁₂₄

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	144.22308		(2000.0)	P	Q
<i>n</i>	0.21177182	ω	93.35548	+0.95836745	+0.28023827
<i>a</i>	2.7875582	Ω	250.37566	-0.27959250	+0.88206694
<i>e</i>	0.0855377	<i>i</i>	3.33271	-0.05796439	+0.37871418
<i>P</i>	4.65	<i>H</i>	13.6	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1966 12 15	020	0.1-	0.9-	1998 10 28	704	0.8+	0.2-	1999 12 31	699	0.7-	0.4+
1966 12 15	020	(2.5+	5.2-)	1998 10 28	704	0.9-	0.1+	2000 01 05	704	0.0	1.3-
1998 10 11	699	0.2-	0.2+	1998 10 28	704	0.9+	0.3+	2000 01 05	704	0.6-	0.4+
1998 10 11	699	0.5-	0.0	1998 10 28	704	0.1-	1.6-	2000 01 05	704	1.7-	0.9-
1998 10 11	699	0.1-	0.5-	1998 10 29	704	0.4+	0.0	2000 01 05	704	0.3+	0.4-
1998 10 16	327	0.4-	0.1-	1998 10 29	704	0.5-	0.1-	2000 01 07	704	0.5-	0.3-
1998 10 16	327	0.3+	0.8-	1998 10 29	704	0.5-	0.8+	2000 01 07	704	0.5-	0.4+
1998 10 16	327	0.1+	0.1-	1998 10 29	704	1.3-	1.8-	2000 01 07	704	0.6-	0.4+
1998 10 17	327	0.0	0.2+	1998 10 29	704	0.5-	0.3-	2000 01 07	704	0.3-	0.3-
1998 10 17	327	0.2+	0.2+	1998 10 29	327	0.2+	0.0	2000 01 07	704	0.5+	0.4-

1998 10 17	327	0.0	0.0	1998 10 29	327	0.2-	0.0	2000 02 02	704	0.6+	0.6+
1998 10 17	327	0.1+	0.0	1998 10 29	327	0.2-	0.3+	2000 02 02	704	0.6+	0.4+
1998 10 17	327	0.0	0.1-	1998 10 30	327	0.1-	0.2+	2000 02 02	704	0.8+	0.4+
1998 10 17	327	0.3+	0.2+	1998 10 30	327	0.2-	0.4+	2000 02 02	704	0.9+	0.6+
1998 10 18	327	0.5+	0.1-	1998 10 30	327	0.1-	0.0	2000 02 02	704	1.0+	1.1+
1998 10 18	327	0.3+	0.1+	1998 11 14	327	0.0	1.0+	2000 02 04	704	0.1+	0.4-
1998 10 18	327	0.3+	0.3-	1998 11 14	327	0.1+	0.8+	2000 02 04	704	0.9+	0.2-
1998 10 20	327	0.2+	0.5+	1998 11 14	327	0.1+	0.9+	2000 02 04	704	0.7-	0.6-
1998 10 20	327	0.0	0.4+	1999 12 31	699	0.3-	0.7+	2000 02 04	704	1.0+	0.0
1998 10 20	327	0.4+	0.1+	1999 12 31	699	0.6-	0.0				

1998 UB₉ = 2000 CQ₅₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	61.77356		(2000.0)	P	Q
<i>n</i>	0.23009663	ω	233.95792	-0.04793932	-0.99859833
<i>a</i>	2.6375207	Ω	218.80848	+0.92755464	-0.03617388
<i>e</i>	0.0394730	<i>i</i>	2.05120	+0.37059979	-0.03863703
<i>P</i>	4.28	<i>H</i>	15.0	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 10 17	327	0.6-	0.6-	1998 10 30	327	1.3+	0.3+	1998 11 19	691	0.4-	0.3-
1998 10 17	327	0.6+	0.4+	1998 10 30	327	0.0	0.2+	1998 11 19	691	0.4-	0.2-
1998 10 17	327	0.4+	0.1+	1998 11 11	704	1.1-	0.4+	2000 02 02	704	0.5-	0.2-
1998 10 18	327	0.3-	0.3+	1998 11 11	704	0.0	0.1-	2000 02 02	704	0.8-	0.0
1998 10 18	327	0.5-	0.0	1998 11 11	704	1.5+	0.9+	2000 02 02	704	0.3-	0.3-
1998 10 18	327	0.0	1.0+	1998 11 11	704	0.6+	1.4-	2000 02 02	704	0.4-	0.5+
1998 10 22	327	0.7-	0.0	1998 11 15	691	0.0	0.3-	2000 02 02	704	0.1+	1.5+
1998 10 22	327	0.6-	0.1+	1998 11 15	691	0.2+	0.2-	2000 02 06	704	0.3+	0.7-
1998 10 22	327	0.2-	0.4+	1998 11 15	691	0.3+	0.2-	2000 02 06	704	1.7+	0.3-
1998 10 30	327	0.3+	0.6-	1998 11 19	691	0.7-	0.3-	2000 02 06	704	0.1-	0.3-

1998 US₁₃ = 2000 CG₃₃

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	88.64415		(2000.0)	P	Q
<i>n</i>	0.19531624	ω	344.79529	+0.69787149	-0.71470791
<i>a</i>	2.9420078	Ω	60.92219	+0.66255475	+0.61952176
<i>e</i>	0.1087411	<i>i</i>	3.05397	+0.27202315	+0.32463115
<i>P</i>	5.05	<i>H</i>	15.3	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1996 04 20	809	0.7+	1.1+	1998 11 11	704	0.7-	0.1-	2000 02 06	747	0.5+	0.0
1996 04 20	809	0.3+	0.6-	1998 11 11	704	0.1-	0.9-	2000 02 06	703	0.4+	0.6+
1996 04 20	809	1.1-	0.8-	1998 11 11	704	(6.0-	0.4-)	2000 02 06	703	0.4-	0.7+
1998 10 23	691	0.3+	0.0	1998 11 14	699	0.6+	0.3-	2000 02 06	703	(2.9+	0.7-)
1998 10 23	691	0.1+	0.1+	1998 11 14	699	0.5-	0.2+	2000 02 06	703	(0.0	2.6+)
1998 10 23	691	0.0	0.0	1998 11 14	699	0.4-	0.3+	2000 02 11	704	0.5-	0.4-
1998 10 24	691	0.1-	0.0	2000 02 05	747	0.3+	0.5-	2000 02 11	704	0.1-	0.5+
1998 10 24	691	0.1-	0.1-	2000 02 05	747	0.7+	0.5-	2000 02 11	704	1.0-	0.7+
1998 10 24	691	0.2-	0.0	2000 02 05	747	0.5+	0.3-				
1998 11 11	704	1.2+	0.7+	2000 02 06	747	0.4-	0.8-				

1998 UH₁₅ = 1972 TS₂ = 2000 AW₂₄₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	175.21420		(2000.0)	P	Q
n	0.23018642	ω	127.04748	+0.76715763	+0.63925836
a	2.6368348	Ω	193.49016	-0.63668857	+0.74876754
e	0.2141992	i	13.15325	-0.07808222	+0.17520252
P	4.28	H	13.3	G 0.15	U 3

Residuals in seconds of arc

1972 10 05	095	0.0	0.3−	1998 11 13	825	0.4−	0.3+	1998 12 15	825	0.6+	0.3−
1998 08 31	704	0.9+	0.9−	1998 11 13	704	0.3−	0.5−	1998 12 15	825	0.7−	0.4+
1998 08 31	704	0.3−	0.7+	1998 11 13	704	0.6−	0.3−	1998 12 16	825	0.1−	0.1+
1998 08 31	704	2.0−	1.6−	1998 11 13	704	0.4−	0.7−	1998 12 16	825	0.5+	0.5+
1998 08 31	704	0.2−	0.5+	1998 11 13	704	0.1−	0.5−	1998 12 16	825	0.1−	0.3+
1998 08 31	704	(2.4−	0.3+)	1998 11 13	704	1.0−	1.4−	2000 01 07	699	0.8+	0.8+
1998 10 20	825	0.4+	0.4+	1998 11 14	699	0.6+	0.4+	2000 01 07	699	0.3+	1.1+
1998 10 20	825	0.1+	0.1−	1998 11 14	699	0.5+	0.7+	2000 01 07	699	0.1+	0.3+
1998 10 21	825	0.3+	0.3−	1998 11 14	699	0.8+	0.3+	2000 01 11	704	0.3−	0.1+
1998 10 21	825	0.0	0.1−	1998 11 19	825	0.1−	0.2−	2000 01 11	704	0.7−	0.5−
1998 10 22	825	0.1−	0.0	1998 11 19	825	0.3−	0.1−	2000 01 11	704	1.1−	0.7−
1998 10 22	825	0.0	0.4+	1998 11 19	699	0.0	0.5+	2000 01 11	704	0.3−	0.0
1998 10 29	699	0.6+	0.7+	1998 11 19	699	0.1+	0.7+	2000 01 11	704	0.2−	0.3+
1998 10 29	699	0.3−	0.2+	1998 11 19	699	0.3+	0.0	2000 02 06	704	0.6−	1.3−
1998 10 29	699	0.0	0.7+	1998 12 14	699	0.5−	0.4−	2000 02 06	704	0.2+	0.1−
1998 11 12	825	0.6+	0.4−	1998 12 14	699	0.6−	0.6+	2000 02 06	704	0.3+	0.0
1998 11 12	825	0.2+	0.5−	1998 12 14	699	0.4−	0.7+	2000 02 06	704	1.0+	0.3+
1998 11 13	825	0.4−	0.1−	1998 12 14	825	1.8+	0.9−	2000 02 06	704	0.4+	0.7−

1998 UR₁₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Williams		
<i>M</i>	63.18098	(2000.0)	<i>P</i>	<i>Q</i>	
<i>n</i>	0.17457617	ω	64.81054	+0.25203471	−0.96771578
<i>a</i>	3.1706337	Ω	10.59219	+0.88357978	+0.22921041
<i>e</i>	0.1534777	<i>i</i>	0.67344	+0.39467110	+0.10482723
<i>P</i>	5.65	<i>H</i>	13.3	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1989 02 15	413	0.2−	0.4−	1998 11 10	704	(2.9−	1.9−)	1999 01 09	910	1.0−	0.6−
1991 08 02	413	0.1−	0.5−	1998 11 10	699	0.8+	0.7+	1999 01 09	910	0.6−	0.8−
1991 08 06	413	0.3−	0.2−	1998 11 11	704	0.2−	0.0	1999 01 13	910	0.8−	0.2+
1991 08 06	413	0.5+	0.5+	1998 11 11	704	0.5−	0.6−	1999 01 13	910	0.9−	0.1+
1998 09 19	910	0.7−	0.3+	1998 11 11	704	0.3+	0.4−	1999 01 13	910	0.8−	0.3+
1998 09 19	910	0.8−	0.2+	1998 11 11	704	0.5−	0.2+	1999 01 14	910	1.0−	0.1−
1998 09 19	910	0.7−	0.3+	1998 11 11	704	(2.4−	0.5−)	1999 01 14	910	0.8−	0.1−
1998 10 18	699	0.1+	0.2+	1998 11 11	704	1.5−	0.9−	1999 01 14	910	0.9−	0.1+
1998 10 18	699	0.3+	0.5+	1998 11 11	704	0.7+	1.4−	1999 02 20	691	0.7+	0.4+
1998 10 18	699	0.7+	0.5+	1998 11 17	910	0.6+	0.8+	1999 02 20	691	0.8+	0.1+
1998 10 23	120	0.0	0.1+	1998 11 17	910	1.3+	0.7+	1999 03 09	691	0.6+	0.9−
1998 10 23	120	0.2+	0.2−	1998 11 17	910	1.4+	0.6+	1999 03 09	691	1.0+	0.6−
1998 10 23	120	0.3+	0.1+	1998 11 18	704	0.2−	0.7+	1999 03 09	691	0.8+	0.5−
1998 10 26	120	0.8+	0.0	1998 11 18	704	0.7−	0.5+	2000 02 04	704	0.8−	0.3−
1998 10 26	120	0.5+	0.5−	1998 11 18	704	(1.1−	2.5+)	2000 02 04	704	0.8−	0.2+
1998 10 29	120	0.4+	0.0	1998 11 18	704	(0.3+	2.2+)	2000 02 04	704	0.4−	0.0
1998 10 29	120	0.4+	0.1−	1998 11 18	704	(1.0+	2.4+)	2000 02 04	704	0.2+	0.6−
1998 10 30	120	0.6+	0.2−	1998 11 19	910	0.8+	0.8+	2000 02 04	704	0.6−	1.0−
1998 10 30	120	0.2+	0.2−	1998 11 19	910	0.6+	0.6+	2000 02 11	704	0.2+	0.3+
1998 11 10	704	0.9−	0.1−	1998 11 19	910	0.6+	0.8+	2000 02 11	704	0.2−	0.5+
1998 11 10	699	0.2+	0.5+	1999 01 06	699	0.2−	0.4−	2000 02 11	704	0.4+	0.5+
1998 11 10	704	0.4−	1.8−	1999 01 06	699	0.3+	0.7−	2000 02 11	704	0.2+	0.6+
1998 11 10	704	1.3−	1.8−	1999 01 06	699	0.1+	0.5+	2000 02 11	704	0.4+	0.7+
1998 11 10	699	0.0	1.4+	1999 01 09	910	1.0−	0.6−				

1998 UX₁₈ = 1990 CY = 2000 CS₈₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Williams		
<i>M</i>	85.64212	(2000.0)	<i>P</i>	<i>Q</i>	
<i>n</i>	0.20370899	ω	27.87647	+0.45201967	−0.89152061
<i>a</i>	2.8606359	Ω	35.27281	+0.80861269	+0.39558167
<i>e</i>	0.0364664	<i>i</i>	2.92648	+0.37659491	+0.22069469
<i>P</i>	4.84	<i>H</i>	13.3	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1990 02 01	372	(3.0+	2.9−)	1998 11 10	704	1.2+	1.6+	1999 12 06	704	1.6−	0.4+
1990 02 01	372	0.1+	0.5+	1998 11 10	699	0.6+	0.3+	2000 02 04	704	0.4−	0.6−
1998 10 19	699	0.7−	0.5−	1998 11 10	699	0.6+	0.0	2000 02 04	704	0.7−	0.7−

1998 10 19	699	0.2−	0.1+	1998 11 11	704	0.2−	0.6+	2000 02 04	704	0.2+	0.6−
1998 10 19	699	0.3−	0.6−	1998 11 11	704	0.4−	0.3+	2000 02 04	704	0.1−	0.1−
1998 10 26	120	0.6+	0.6−	1998 11 11	704	0.5−	0.1+	2000 02 04	704	0.1+	1.0−
1998 10 27	120	0.3+	0.3−	1998 11 11	704	(2.4−	0.5+)	2000 02 11	704	0.2+	0.5+
1998 10 28	120	0.1+	1.0−	1998 12 16	699	0.5−	0.1+	2000 02 11	704	0.6+	0.1−
1998 10 29	120	0.5+	1.1−	1998 12 16	699	0.4−	0.2−	2000 02 11	704	0.5−	0.3+
1998 11 10	704	0.2−	0.1−	1998 12 16	699	0.2+	0.5−	2000 02 11	704	0.2−	0.6+
1998 11 10	699	0.2+	0.2−	1999 12 06	704	0.8+	0.2+	2000 02 11	704	0.5+	1.2+
1998 11 10	704	0.3−	0.5+	1999 12 06	704	0.1−	1.5−				
1998 11 10	704	0.5−	1.0+	1999 12 06	704	0.7+	0.8+				

1998 UX₁₉ = 2000 CE₈₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Williams		
<i>M</i>	43.97451	(2000.0)	<i>P</i>	<i>Q</i>	
<i>n</i>	0.17662308	ω	0.86803	−0.13525162	−0.99080642
<i>a</i>	3.1460896	Ω	96.90515	+0.90903273	−0.12533448
<i>e</i>	0.1261497	<i>i</i>	0.17921	+0.39416557	−0.05093046
<i>P</i>	5.58	<i>H</i>	13.7	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 10 18	699	0.5+	0.3−	1998 11 11	699	0.5+	0.6+	2000 02 04	704	0.0	0.5−
1998 10 18	699	0.4−	0.0	1998 11 11	699	0.2−	0.8+	2000 02 04	704	0.1+	0.6+
1998 10 18	699	0.0	0.4−	1999 12 05	703	0.9+	0.6+	2000 02 04	704	0.3+	0.5−
1998 10 24	120	0.4−	0.6−	1999 12 05	703	0.5−	1.2+	2000 02 11	704	0.2−	0.2+
1998 10 24	120	1.1+	0.2−	1999 12 05	703	0.4−	0.9−	2000 02 11	704	0.6−	0.2−
1998 10 29	120	0.6−	0.0	1999 12 05	703	0.4+	0.5+	2000 02 11	704	0.2−	0.3−
1998 10 29	120	0.1−	0.1+	2000 02 04	704	0.5−	0.7+	2000 02 11	704	0.3−	0.7−
1998 11 11	699	0.2−	0.5−	2000 02 04	704	0.8+	0.2−	2000 02 11	704	0.3+	0.2−

1998 UU₂₀ = 2000 CS₈₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Williams		
<i>M</i>	204.42570	(2000.0)	<i>P</i>	<i>Q</i>	
<i>n</i>	0.29850919	ω	276.32599	+0.81059400	+0.58048995
<i>a</i>	2.2173329	Ω	48.22010	−0.48795390	+0.74246148
<i>e</i>	0.1844528	<i>i</i>	5.94669	−0.32378751	+0.33433869
<i>P</i>	3.30	<i>H</i>	15.0	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 10 29	120	0.2+	0.8−	1998 11 11	704	0.2−	0.2+	1998 11 26	120	0.6+	0.4−
1998 10 29	120	0.7−	0.3+	1998 11 11	704	0.2−	0.3+	1998 12 09	120	1.0−	0.4+
1998 10 30	120	0.3+	0.1−	1998 11 11	704	0.0	0.5+	1998 12 09	120	1.0−	0.1+
1998 10 30	120	0.8+	0.2+	1998 11 11	704	1.1−	0.3+	1998 12 12	120	0.8−	0.7+
1998 11 10	704	0.0	0.2−	1998 11 18	691	0.1+	0.5−	1998 12 12	120	0.3+	0.2−
1998 11 10	699	(0.4+	4.0−)	1998 11 18	691	0.1+	0.1−	1998 12 12	120	0.2+	0.0
1998 11 10	704	0.1+	0.5−	1998 11 18	691	0.4+	0.6−	1998 12 12	120	0.3−	0.2+
1998 11 10	704	0.2−	1.2−	1998 11 20	699	1.3+	0.2+	1998 12 12	120	0.0	0.3+
1998 11 10	699	0.1−	0.3−	1998 11 20	699	(2.2+	0.4−)	2000 02 04	704	0.2+	0.9−
1998 11 10	699	1.6−	0.8+	1998 11 20	699	1.5+	0.2+	2000 02 04	704	0.3+	0.3−
1998 11 10	704	(3.2−	1.2−)	1998 11 24	699	0.3+	0.2+	2000 02 04	704	0.2−	0.6−
1998 11 10	699	0.1−	0.2−	1998 11 24	699	0.7−	0.3+	2000 02 04	704	0.2−	1.5+
1998 11 10	699	(0.9+	2.3+)	1998 11 24	699	(0.2−	2.6+)	2000 02 11	704	0.5+	0.4−

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Residuals in seconds of arc

1998 10 19	699	0.2+	0.8+	1998 11 13	888	1.1-	0.2-	1998 12 11	888	0.5-	0.2+
1998 10 19	699	0.9-	0.2-	1998 11 13	888	0.9-	0.2-	1998 12 11	888	1.3-	0.5+
1998 10 19	699	0.4+	1.1-	1998 11 13	888	0.9-	0.3-	1999 01 09	888	0.1+	0.5-
1998 10 31	888	0.4+	0.0	1998 11 17	910	0.7+	0.7+	1999 01 09	888	0.3+	0.4-
1998 10 31	888	0.0	0.2-	1998 11 17	910	0.7+	0.7+	2000 01 11	704	(2.2-	1.6-)
1998 10 31	888	0.1-	0.8-	1998 11 17	910	0.2+	0.6+	2000 01 11	704	1.1-	0.9-
1998 11 01	888	0.0	0.4-	1998 11 18	704	0.8-	0.6+	2000 01 11	704	0.8-	0.3-
1998 11 01	888	0.5+	0.1+	1998 11 18	704	0.7+	0.6-	2000 01 11	704	(2.0-	2.9-)
1998 11 01	888	0.0	0.5-	1998 11 18	704	0.1-	0.2+	2000 01 11	704	1.4-	1.4-
1998 11 07	888	0.1-	0.2-	1998 11 18	704	(1.1+	2.9-)	2000 01 28	888	0.4+	0.4-
1998 11 07	888	0.4-	0.7-	1998 11 18	704	0.4+	1.4-	2000 01 28	888	0.2-	0.6-
1998 11 09	910	0.7+	0.7+	1998 11 19	910	0.5+	0.3+	2000 01 28	888	0.4-	1.2-
1998 11 09	910	0.4+	0.7+	1998 11 19	910	0.2+	0.2+	2000 01 29	888	1.2-	1.1-
1998 11 10	910	0.5+	0.9+	1998 11 19	910	0.2+	0.2+	2000 01 29	888	0.1-	0.8-
1998 11 10	910	0.3+	0.3+	1998 11 20	699	0.4-	0.3+	2000 02 05	703	0.5+	0.0
1998 11 10	910	0.3+	0.4+	1998 11 20	699	0.4-	0.2-	2000 02 05	703	0.0	0.3+
1998 11 10	910	0.3+	0.4+	1998 11 20	699	0.1-	0.0	2000 02 05	703	0.7+	0.9+
1998 11 11	704	0.1+	0.8-	1998 11 24	888	0.8-	0.2+	2000 02 05	703	0.4+	1.0+
1998 11 11	704	0.3+	0.5-	1998 11 24	888	0.8-	0.1-	2000 02 08	704	0.4+	1.0+
1998 11 11	704	0.3+	0.4-	1998 11 26	691	0.8-	0.4-	2000 02 08	704	0.5+	1.5+
1998 11 11	704	0.8+	0.2+	1998 11 26	691	0.8-	0.4-	2000 02 08	704	1.1+	1.0+
1998 11 11	704	1.1-	0.6+	1998 11 26	691	0.7-	0.7-	2000 02 08	704	0.4+	0.1+
1998 11 13	910	1.0+	0.6+	1998 12 08	699	0.1+	0.0	2000 02 08	704	0.4+	0.8+
1998 11 13	910	1.0+	0.5+	1998 12 08	699	0.7+	0.2+				
1998 11 13	910	1.0+	0.6+	1998 12 08	699	0.4-	0.6-				

1998 UJ₂₃ = 2000 CX₄₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Spahr			
<i>M</i>	94.31592	(2000.0)	P	Q	
<i>n</i>	0.18101060	ω	90.52892	+0.89143031	-0.38312624
<i>a</i>	3.0950432	Ω	292.01695	+0.23602672	+0.84843016
<i>e</i>	0.2433757	<i>i</i>	15.13188	+0.38683768	+0.36521301
<i>P</i>	5.45	<i>H</i>	13.9	<i>G</i>	0.15 <i>U</i> 3

Residuals in seconds of arc

1998 08 29	704	0.0	0.8+	1998 11 02	683	0.1+	0.4+	2000 02 02	704	0.4+	0.8+
1998 08 29	704	1.7-	0.7-	1998 11 02	683	0.4+	0.2-	2000 02 02	704	0.2+	1.0+
1998 08 29	704	0.6+	0.9+	1998 11 02	683	0.4+	0.2+	2000 02 02	704	1.2+	0.3-
1998 08 29	704	0.7+	0.5-	1998 11 15	683	0.0	0.0	2000 02 02	704	0.6+	1.1+
1998 08 29	704	(4.9-	0.4+)	1998 11 15	683	0.1-	0.2+	2000 02 02	704	0.6+	0.1-
1998 09 28	699	0.2+	0.6+	1998 11 15	683	0.2-	0.0	2000 02 06	704	0.7+	1.2-
1998 09 28	699	0.1-	0.6+	1998 11 16	683	0.4-	0.1+	2000 02 06	704	0.6+	0.0
1998 09 28	699	0.2-	0.7+	1998 11 16	683	0.6-	0.0	2000 02 06	704	0.5+	0.1+
1998 10 30	683	0.2+	2.0-	1998 11 16	683	0.3-	0.1+	2000 02 08	704	1.1-	0.1-
1998 10 30	683	0.3+	1.3-	2000 01 08	704	0.7-	1.0+	2000 02 08	704	1.0-	0.5+
1998 10 30	683	(0.0	2.1-)	2000 01 08	704	0.2-	0.4-	2000 02 08	704	0.8-	1.1-
1998 11 01	683	0.7+	0.5+	2000 01 08	704	0.4-	0.8-	2000 02 08	704	0.0	0.0
1998 11 01	683	0.1-	0.3-	2000 01 08	704	0.6-	0.1-				

1998 US₂₃ = 2000 CA₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	100.08385	(2000.0)	P	Q	
<i>n</i>	0.20889450	ω	333.79988	+0.89433073	-0.42453685
<i>a</i>	2.8130970	Ω	52.04745	+0.43547779	+0.75359412
<i>e</i>	0.1337492	<i>i</i>	10.31650	+0.10262376	+0.50186091
<i>P</i>	4.72	<i>H</i>	14.3	<i>G</i>	0.15 <i>U</i> 4

Residuals in seconds of arc

1998 09 24	699	0.2-	0.6+	1998 10 28	704	0.4-	1.3-	1998 11 11	704	1.1-	0.6+
1998 09 24	699	0.0	1.2+	1998 10 29	704	0.1-	0.3+	1998 11 11	704	0.0	1.3+
1998 09 24	699	0.7-	0.2+	1998 10 29	704	0.0	0.5+	2000 02 02	704	0.2+	0.4+
1998 10 17	699	0.9+	0.2-	1998 10 29	704	0.4-	0.4-	2000 02 02	704	0.9+	0.4+
1998 10 17	699	0.5+	0.9-	1998 10 29	704	1.4-	0.8-	2000 02 02	704	0.4-	0.0
1998 10 17	699	0.1-	0.3-	1998 10 29	704	(0.1-	2.4-)	2000 02 02	704	1.1-	0.0

1998 10 20	699	0.1-	0.7+	1998 11 10	704	1.3+	0.3+	2000 02 02	704	1.0-	0.3+
1998 10 20	699	0.3+	0.0	1998 11 10	704	(1.2+	3.0+)	2000 02 03	704	0.5+	0.3+
1998 10 20	699	0.1+	0.4-	1998 11 10	704	0.6-	0.1+	2000 02 03	704	0.6+	0.1-
1998 10 28	704	1.6+	0.3+	1998 11 10	704	0.0	1.3+	2000 02 03	704	0.1+	0.0
1998 10 28	704	0.8+	0.4-	1998 11 11	704	0.3+	1.3-	2000 02 03	704	0.5+	0.8-
1998 10 28	704	0.1-	1.0-	1998 11 11	704	0.5+	1.6+	2000 02 03	704	0.4-	0.3-
1998 10 28	704	0.4-	1.6-	1998 11 11	704	1.0-	0.2-				

1998 UQ₂₅ = 2000 CA₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	176.64248	(2000.0)	P	Q	
<i>n</i>	0.19129738	ω	176.62102	+0.51580106	+0.85234536
<i>a</i>	2.9830694	Ω	124.41213	-0.78844819	+0.51171284
<i>e</i>	0.1259887	<i>i</i>	6.00814	-0.33511001	+0.10796926
<i>P</i>	5.15	<i>H</i>	13.4	<i>G</i>	0.15 <i>U</i> 4

Residuals in seconds of arc

1998 10 12	699	(4.0-	0.0)	1998 10 19	809	(0.6+	3.2+)	2000 02 02	704	0.3-	0.8+
1998 10 12	699	0.1+	0.1+	1998 11 10	704	0.1-	0.8-	2000 02 02	704	0.5-	0.1+
1998 10 12	699	0.5-	0.1-	1998 11 10	704	0.6+	0.9-	2000 02 02	704	0.3+	0.6-
1998 10 12	699	(2.1+	1.1+)	1998 11 10	704	0.3-	0.7-	2000 02 02	704	0.4-	0.1-
1998 10 12	699	0.5+	0.1-	1998 11 10	704	0.6+	0.6-	2000 02 02	704	0.1+	0.1+
1998 10 12	699	1.2-	1.0+	1998 11 11	704	0.1+	0.1+	2000 02 03	704	0.2-	0.5+
1998 10 18	809	0.8+	0.9+	1998 11 11	704	0.4+	0.7-	2000 02 03	704	0.6-	0.1-
1998 10 18	809	0.3+	0.3-	1998 11 11	704	0.4+	2.0+	2000 02 03	704	1.1+	0.4-
1998 10 18	809	0.6-	0.8-	1998 12 11	699	0.9-	0.5+	2000 02 03	704	0.2-	0.3+
1998 10 19	809	(1.2+	3.5+)	1998 12 11	699	0.1+	0.8+	2000 02 03	704	0.7+	0.6-
1998 10 19	809	(0.6+	2.7+)	1998 12 11	699	0.4-	0.1+				

1998 UQ₂₆ = 2000 AV₁₅₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	354.90466	(2000.0)	P	Q	
<i>n</i>	0.16864980	ω	58.09695	-0.68530623	-0.71412275
<i>a</i>	3.2444829	Ω	75.87272	+0.60853045	-0.66922626
<i>e</i>	0.0535771	<i>i</i>	8.46617	+0.40005756	-0.20534098
<i>P</i>	5.84	<i>H</i>	13.5	<i>G</i>	0.15 <i>U</i> 4

Residuals in seconds of arc

1998 10 14	699	0.3-	0.1-	1998 11 11	704	0.1-	0.8-	1999 12 15	704	0.4-	0.7-
1998 10 14	699	0.3-	0.4-	1998 11 11	704	0.2+	0.5-	1999 12 15	704	0.8-	0.4-
1998 10 14	699	1.2-	0.8+	1998 11 11	704	0.3+	1.6-	1999 12 15	704	0.3-	0.7-
1998 10 18	809	0.0	1.1+	1998 11 11	704	1.5-	0.2-	1999 12 15	704	0.4-	0.2-
1998 10 18	809	0.2+	1.0+	1998 11 11	704	0.2+	0.1-	2000 01 03	704	0.2-	0.2-
1998 10 18	809	0.2+	0.9+	1999 11 11	703	1.1+	1.2+	2000 01 03	704	0.5-	0.4+
1998 10 19	809	1.4+	1.1+	1999 11 11	703	0.1+	0.5+	2000 01 03	704	1.7+	0.0
1998 10 19	809	0.5+	0.9+	1999 11 11	703	0.2+	0.6-	2000 01 03	704	0.1+	0.0
1998 10 19	809	0.0	0.3+	1999 11 11	703	0.2+	1.4+	2000 01 03	704	1.2-	0.9-
1998 11 10	704	1.2+	1.0-	1999 11 16	704	0.7+	0.1+	2000 01 04	704	1.3+	0.5-
1998 11 10	704	1.5+	0.2+	1999 11 16	704	0.0	0.9+	2000 01 04	704	0.1+	0.0
1998 11 10	704	0.5+	0.7-	1999 11 16	704	0.6-	0.6-	2000 01 04	704	0.4-	0.3+
1998 11 10	704	1.4-	0.2-	1999 11 16	704	0.2-	1.1+	2000 01 04	704	0.1+	0.3+
1998 11 10	704	1.3-	1.2-	1999 11 16	704	0.6-	0.0	2000 01 04	704	0.2+	0.3-

1998 UV₂₆ = 1999 XA₁₇₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	272.56257		(2000.0)	P	Q
n	0.17532028	ω	144.64747	-0.81930380	+0.54825479
a	3.1616559	Ω	69.45108	-0.55861878	-0.69735175
e	0.0336261	i	10.32350	-0.12917565	-0.46164621
P	5.62	H	12.9	G 0.15	U 4

Residuals in seconds of arc

1998 10 14	699	1.5−	0.2+	1998 11 10	704	1.6−	1.4−	1999 12 15	704	0.7−	0.4+
1998 10 14	699	1.0−	0.0	1998 11 10	704	1.2−	0.0	1999 12 15	704	0.5−	0.0
1998 10 14	699	1.3−	0.6+	1998 11 11	704	0.0	0.5−	1999 12 15	704	0.1−	0.3+
1998 10 18	809	1.2+	1.3+	1998 11 11	704	0.3+	0.9−	1999 12 15	704	0.3−	0.1−
1998 10 18	809	1.5+	1.0+	1998 11 11	704	0.6+	0.7−	1999 12 15	704	0.3+	0.3−
1998 10 18	809	(0.4+)	2.1+)	1998 11 11	704	0.8−	1.0−	2000 01 02	704	0.9+	0.6−
1998 10 19	809	1.8+	1.2+	1998 11 11	704	0.3+	0.2+	2000 01 02	704	0.4+	1.3−
1998 10 19	809	0.9+	0.3+	1999 12 10	704	0.1−	0.8+	2000 01 02	704	0.8+	1.2−
1998 10 19	809	0.4+	0.9+	1999 12 10	704	0.2+	1.1+	2000 01 02	704	0.2−	1.4−
1998 11 10	704	0.3+	1.5−	1999 12 10	704	0.3−	0.7+	2000 01 02	704	0.1−	0.0
1998 11 10	704	0.4+	0.1−	1999 12 10	704	0.2+	1.1+				
1998 11 10	704	(0.0)	2.2−)	1999 12 10	704	0.4−	1.3+				

1998 UG₂₉ = 2000 CS₅₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	280.18547		(2000.0)	P	Q
<i>n</i>	0.25369381	ω	83.24286	−0.42937696	+0.90227651
<i>a</i>	2.4713228	Ω	161.17883	−0.86912522	−0.40104193
<i>e</i>	0.0799514	<i>i</i>	6.96970	−0.24547256	−0.15831132
<i>P</i>	3.89	<i>H</i>	14.3	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1998 10 18	809	0.4+	1.0+	1998 11 13	704	(2.5+)	1.1−)	2000 02 02	704	0.9−	0.0
1998 10 18	809	0.1−	0.2−	1998 11 13	704	(3.5−)	0.6−)	2000 02 06	704	0.0	0.4+
1998 10 18	809	0.0	1.2+	1998 11 14	699	0.1+	1.1−	2000 02 06	704	0.2+	0.8−
1998 10 19	809	0.4−	1.8+	1998 11 14	699	0.2+	0.3+	2000 02 06	704	0.3−	0.6−
1998 10 19	809	0.0	0.4+	1998 11 14	699	0.2+	0.4−	2000 02 06	704	0.9+	0.8+
1998 10 19	809	0.1−	0.1+	2000 02 02	704	0.5−	0.4−	2000 02 06	704	0.6−	0.9−
1998 11 13	704	0.2−	0.1+	2000 02 02	704	1.1−	0.5+	2000 02 14	691	0.9+	0.4+
1998 11 13	704	0.8−	1.6−	2000 02 02	704	0.5−	0.2+	2000 02 14	691	1.1+	0.5+
1998 11 13	704	0.8+	1.2−	2000 02 02	704	0.4−	0.1−	2000 02 14	691	1.0+	0.4+

1998 UT₂₉ = 2000 CT

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	165.28419		(2000.0)	P	Q
<i>n</i>	0.24019103	ω	188.64752	+0.94679355	+0.31550808
<i>a</i>	2.5630960	Ω	152.69686	−0.28638097	+0.91597692
<i>e</i>	0.1436066	<i>i</i>	7.96166	−0.14686019	+0.24787284
<i>P</i>	4.10	<i>H</i>	14.6	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1998 10 18	809	0.0	0.6+	1998 11 12	557	0.6+	0.0	2000 02 03	684	0.5−	0.2−
1998 10 18	809	0.6−	0.7+	1998 11 12	557	0.6+	0.1−	2000 02 04	704	0.2+	1.2+
1998 10 18	809	0.5−	0.4−	1998 11 13	704	0.2+	0.8+	2000 02 04	704	0.8+	0.0
1998 10 19	809	0.2+	0.3+	1998 11 13	704	0.7−	1.3−	2000 02 04	704	0.0	0.0
1998 10 19	809	0.5+	1.1−	1998 11 13	704	1.3−	1.1+	2000 02 04	684	0.5−	0.5−
1998 10 19	809	0.3+	0.0	1998 11 13	704	0.2−	1.0−	2000 02 04	704	1.8+	0.4−
1998 11 11	557	0.2+	0.6+	1998 11 13	704	(5.1−)	0.8−)	2000 02 04	684	1.0−	0.4+
1998 11 12	557	0.6+	0.1−	2000 02 03	684	0.8−	0.5−				

1998 UT₃₅ = 1996 GJ₁ = 1999 XR₂₀₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	220.28757		(2000.0)	P	Q
<i>n</i>	0.19025912	ω	208.59693	−0.26082378	+0.95681964
<i>a</i>	2.9939122	Ω	46.60830	−0.84870134	−0.16391400
<i>e</i>	0.0242295	<i>i</i>	10.17128	−0.46008368	−0.24005913
<i>P</i>	5.18	<i>H</i>	13.5	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1996 04 15	120	0.4−	0.3−	1998 10 29	704	0.6+	0.7−	1999 12 12	704	0.3+	0.5+
1996 04 15	120	0.8−	0.1−	1998 10 29	704	0.4−	1.2−	1999 12 12	704	0.0	0.3−
1996 04 16	120	0.7+	0.9−	1998 10 29	704	1.6−	0.5+	1999 12 12	704	0.4+	0.5+

1996 04 16	120	0.6+	1.6+	1998 11 10	704	0.2+	0.7−	1999 12 13	699	1.2+	0.6+
1998 10 11	699	0.1+	1.2−	1998 11 10	704	1.5−	0.6−	1999 12 13	699	0.6+	0.3−
1998 10 11	699	0.5−	1.7+	1998 11 10	704	0.5+	0.1−	1999 12 13	699	1.1+	0.4−
1998 10 11	699	0.3+	0.7+	1998 11 10	704	1.7−	0.1−	1999 12 15	704	1.1−	0.8−
1998 10 28	704	1.1+	0.7−	1998 11 11	704	1.4+	0.8+	1999 12 15	704	1.3−	0.1−
1998 10 28	704	0.7−	0.5−	1998 11 11	704	0.5−	0.9+	1999 12 15	704	0.4−	0.2−
1998 10 28	704	0.3+	1.0+	1998 11 11	704	1.2+	0.9+	1999 12 15	704	0.3−	0.2−
1998 10 28	704	0.3+	0.5+	1998 11 11	704	0.9+	0.4+	1999 12 15	704	0.7−	0.6+
1998 10 29	704	0.1−	1.2−	1999 12 12	704	0.2−	0.2+				
1998 10 29	704	0.1+	0.1−	1999 12 12	704	0.2+	0.0				

1998 UC₄₁ = 1998 SM₁₄₆ = 1998 VC₉ = 2000 CE₂₅Id. G. V. Williams (d, *MPC* 34339; unpublished)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	277.17775		(2000.0)	P	Q
<i>n</i>	0.25829769	ω	34.10112	−0.55333569	+0.83258702
<i>a</i>	2.4418691	Ω	202.33413	−0.77807745	−0.52730573
<i>e</i>	0.0753080	<i>i</i>	3.75230	−0.29734678	−0.16955092
<i>P</i>	3.82	<i>H</i>	13.9	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 20	809	0.8+	1.2+	1998 11 10	704	1.6+	0.3−	1998 11 23	699	0.8−	0.8+
1998 09 20	809	0.5+	0.2−	1998 11 10	704	0.9−	0.4+	2000 02 02	704	0.0	0.1+
1998 09 20	809	0.2−	0.1+	1998 11 10	704	0.3−	1.6−	2000 02 02	704	0.1+	0.4+
1998 10 28	704	(1.1−)	2.1−)	1998 11 11	704	0.8+	0.2+	2000 02 02	704	0.6+	0.2+
1998 10 28	704	0.3−	0.5−	1998 11 11	704	0.4+	1.5−	2000 02 02	704	0.3+	0.2−
1998 10 28	704	(0.0)	2.7−)	1998 11 11	704	0.5−	0.8+	2000 02 02	704	0.0	0.9−
1998 10 28	704	0.2−	1.7−	1998 11 11	704	0.3+	0.6−	2000 02 04	704	0.2−	0.2+
1998 10 29	704	1.5−	0.4−	1998 11 14	699	0.1−	1.4+	2000 02 04	704	0.1+	0.1+
1998 10 29	704	1.1−	0.8+	1998 11 14	699	1.5+	1.7+	2000 02 04	704	0.0	0.1+
1998 10 29	704	0.5−	0.5−	1998 11 14	699	1.6+	0.3+	2000 02 04	704	0.4−	0.0
1998 10 29	704	0.3+	0.8−	1998 11 23	699	0.2−	0.1+	2000 02 04	704	0.5−	0.2−
1998 10 29	704	0.9−	1.2−	1998 11 23	699	0.0	1.7+				

1998 UE₄₃ = 2000 CF₂₃

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	110.06161		(2000.0)	P	Q
<i>n</i>	0.21187071	ω	125.98231	+0.88674794	−0.45552381
<i>a</i>	2.7866907	Ω	261.23473	+0.39438512	+0.83422246
<i>e</i>	0.0477723	<i>i</i>	4.56081	+0.24111919	+0.31075867
<i>P</i>	4.65	<i>H</i>	13.6	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1998 10 19	699	0.6−	0.7+	1998 11 10	704	0.1−	0.8+	2000 02 04	704	0.1−	0.3+
1998 10 19	699	0.4+	0.8+	1998 11 10	704	0.6−	0.7−	2000 02 04	704	0.3−	0.3−
1998 10 19	699	0.6+	0.0	1998 11 11	704	0.6+	0.5−	2000 02 04	704	0.1+	0.4−
1998 10 28	704	0.8−	0.5−	1998 11 11	704	0.7−	1.3−	2000 02 04	704	0.4+	0.2−
1998 10 28	704	0.5+	0.8−	1998 11 11	704	0.3+	1.7+	2000 02 06	704	0.1+	0.2+
1998 10 28	704	0.4+	0.3+	1998 11 11	704	0.2−	0.6+	2000 02 06	704	0.0	0.4−
1998 10 28	704	1.3−	0.5+	1998 11 11	704	0.6+	0.1+	2000 02 06	704	0.7+	0.7−
1998 10 29	704	1.2+	1.2−	2000 02 02	704	0.6−	0.3−	2000 02 06	704	0.7+	0.1+
1998 10 29	704	0.0	0.3−	2000 02 02	704	0.5−	0.4−	2000 02 08	704	0.6+	0.1+
1998 10 29	704	0.8−	0.4+	2000 02 02	704	0.0	0.4+	2000 02 08	704	0.0	0.5+
1998 10 29	704	0.6+	1.2−	2000 02 02	704	0.2−	0.2−	2000 02 08	704	(0.7−)	2.2+)
1998 11 10	704	0.7−	0.7+	2000 02 02	704	0.0	0.5+	2000 02 08	704	0.0	0.7+
1998 11 10	704	0.4+	0.3−	2000 02 04	704	0.8−	0.2+	2000 02 08	704	0.2−	0.1−

1998 UJ₄₃ = 2000 AU₂₃₉

Id. G. V. Williams

2000 FEB. 22

M.P.C. 38527

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	329.02022	(2000.0)	P		Q	
<i>n</i>	0.25553078	ω	261.53246	-0.97148430	+0.22444817	
<i>a</i>	2.4594646	Ω	291.41076	-0.17208536	-0.88919624	
<i>e</i>	0.0399644	<i>i</i>	4.70893	-0.16311006	-0.39868919	
<i>P</i>	3.86	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i> 3
Residuals in seconds of arc						
1997 06 29	704	0.7+	0.1+	1998 11 15	699	0.4- 1.3+
1997 06 29	704	0.3+	0.3+	1998 11 15	699	0.8+ 1.0+
1997 06 29	704	0.2-	0.6+	1999 12 05	704	0.4- 0.6-
1997 06 29	704	0.5+	0.6+	1999 12 05	704	0.5+ 0.1-
1997 06 29	704	1.6-	0.3+	1999 12 05	704	0.9- 0.3+
1998 10 28	704	1.0-	1.4-	2000 01 06	699	0.8- 0.1-
1998 10 28	704	0.9+	0.7-	2000 01 06	699	0.4+ 0.0
1998 10 28	704	0.2-	0.0	2000 01 06	699	0.7- 0.9+
1998 10 28	704	1.3-	0.8+	2000 01 08	704	0.3+ 0.2-
1998 10 29	704	0.4+	0.9+	2000 01 08	704	0.1- 0.8-
1998 10 29	704	0.1-	0.9+	2000 01 08	704	1.3- 1.3-
1998 10 29	704	0.0	1.1-	2000 02 02	704	0.6+ 0.1-
1998 10 29	704	0.4+	0.3-	2000 02 02	704	0.8+ 0.6+
1998 11 15	699	0.1-	0.6+	2000 02 02	704	0.3+ 0.9+

1998 VA

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	86.67514	(2000.0)	P		Q	
<i>n</i>	0.23510638	ω	44.47602	+0.08999239	-0.97519031	
<i>a</i>	2.5999187	Ω	41.63070	+0.80771305	-0.04734344	
<i>e</i>	0.1493623	<i>i</i>	17.72473	+0.58266715	+0.21624630	
<i>P</i>	4.19	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i> 2
Residuals in seconds of arc						
1976 06 04	413	0.2+	0.5-	1998 11 08	046	0.0 0.0
1976 06 04	413	0.1-	0.1-	1998 11 08	046	0.5- 0.3+
1993 08 13	413	(3.5- 0.7+)		1998 11 08	046	0.4+ 0.5+
1993 08 13	413	0.1-	1.6+	1998 11 08	046	0.3- 0.1-
1996 03 25	413	0.8-	0.4-	1998 11 08	046	0.1- 0.1-
1998 08 31	704	0.5-	0.2-	1998 11 09	761	0.1- 0.3+
1998 08 31	704	0.1+	0.2+	1998 11 09	761	0.2- 0.0
1998 08 31	704	1.1-	0.1+	1998 11 09	761	0.5- 0.0
1998 08 31	704	0.4-	0.1-	1998 11 10	704	1.7+ 0.1+
1998 11 07	761	0.2-	0.3+	1998 11 10	704	0.4- 0.8-
1998 11 07	761	(2.1+ 1.0-)		1998 11 10	704	0.1+ 1.7-
1998 11 07	761	0.4-	0.6-	1998 11 10	704	0.0 0.4-
1998 11 07	046	0.3-	0.2-	1998 11 10	704	0.2+ 1.4-
1998 11 07	046	0.2-	0.2-	1998 11 11	704	0.2+ 0.0
1998 11 07	046	0.3-	0.4-	1998 11 11	704	0.8+ 1.2-
1998 11 07	046	0.1-	0.1-	1998 11 11	704	0.7+ 1.1-
1998 11 07	046	0.2-	0.0	1998 11 13	761	0.6- 0.1-
1998 11 07	046	0.1-	0.0	1998 11 13	761	0.7+ 0.2+
1998 11 07	046	0.4-	0.1-	1998 11 13	761	0.2- 0.3-
1998 11 07	046	0.0	0.2-	1998 11 13	750	0.2- 0.2-
1998 11 07	046	0.0	0.2-	1998 11 13	750	0.2- 0.3-
1998 11 07	046	0.0	0.1-	1998 11 13	750	0.5+ 0.6-
1998 11 07	046	0.2-	0.1-	1998 11 14	734	0.5+ 0.1+
1998 11 08	761	1.2+	0.3+	1998 11 14	734	0.3+ 0.1+
1998 11 08	761	(3.7+ 1.6-)		1998 11 14	734	0.3+ 0.2+
1998 11 08	761	1.0-	0.6+	1998 11 24	750	1.0- 1.2+

1998 VT₄ = 2000 CQ₂₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	287.99254	(2000.0)	P		Q	
<i>n</i>	0.19970754	ω	324.42748	-0.78970542	+0.61323482	
<i>a</i>	2.8987210	Ω	253.40579	-0.55853732	-0.73051947	
<i>e</i>	0.0576977	<i>i</i>	1.04998	-0.25377435	-0.30047355	
<i>P</i>	4.94	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i> 5
Residuals in seconds of arc						
1998 11 11	910	0.0	0.5-	2000 02 02	704	0.2+ 0.3+
1998 11 11	910	0.4-	0.3-	2000 02 02	704	0.0 0.4-
1998 11 11	910	0.1+	0.1-	2000 02 02	704	0.4- 0.1+
1998 11 19	910	1.1+	0.2+	2000 02 02	704	0.2+ 0.0
1998 11 19	910	0.2+	0.5+	2000 02 02	704	0.1+ 0.1-
1998 11 19	910	0.8+	0.4+	2000 02 03	704	0.1+ 0.1-
1998 11 26	691	0.5-	0.1-	2000 02 03	704	0.1+ 0.1-
1998 11 26	691	0.5-	0.1-	2000 02 03	704	0.6+ 0.7+
1998 11 26	691	0.8-	0.2-	2000 02 03	704	0.5- 1.0+

1998 VN₅ = 2000 BE₁₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	85.46878	(2000.0)	P		Q	
<i>n</i>	0.17515406	ω	25.66083	+0.67341876	-0.73593363	
<i>a</i>	3.1636559	Ω	22.22698	+0.64235059	+0.53559476	
<i>e</i>	0.1417219	<i>i</i>	10.67379	+0.36591378	+0.41417382	
<i>P</i>	5.63	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i> 3
Residuals in seconds of arc						
1997 08 01	566	0.4-	0.0	1998 11 11	704	0.2+ 0.8+
1997 08 01	566	0.7-	0.9+	1998 11 11	704	0.1- 0.1+
1997 08 01	566	0.6+	0.2+	1998 11 11	704	0.0 0.4-
1998 11 08	905	0.9-	1.2-	1998 11 11	704	0.1+ 0.6-
1998 11 08	905	0.2+	0.4+	1998 11 11	704	0.5- 0.9-
1998 11 09	905	0.4-	0.1+	1998 11 11	888	0.0 0.3+
1998 11 09	905	0.9-	0.3+	1998 11 11	888	0.1+ 0.1+
1998 11 10	704	0.0	0.2+	1998 11 11	888	0.1+ 0.0
1998 11 10	704	0.3-	0.3+	1998 11 11	886	0.1- 0.1-
1998 11 10	704	0.5-	0.8+	1998 11 11	886	0.4+ 0.1+
1998 11 10	704	0.5+	1.6+	1998 11 13	385	0.0 0.5+
1998 11 10	704	1.8+	0.3-	1998 11 13	385	0.3- 0.4+
1998 11 11	704	0.3-	0.6-	1998 11 19	888	0.3+ 0.1-
1998 11 11	704	0.3+	0.1-	1998 11 19	888	0.1+ 0.0
1998 11 11	704	0.4+	0.3+	1998 11 19	888	0.1+ 0.0

1998 VT₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	82.73664	(2000.0)	P		Q	
<i>n</i>	0.17901893	ω	186.34975	+0.42010601	-0.81742017	
<i>a</i>	3.1179567	Ω	239.47373	+0.85142535	+0.50531358	
<i>e</i>	0.1487750	<i>i</i>	27.22868	+0.31398378	-0.27655463	
<i>P</i>	5.51	<i>H</i>	12.8	<i>G</i>	0.15	<i>U</i> 2
Residuals in seconds of arc						
1954 11 23	675	1.3-	1.8-	1998 11 15	143	0.7+ 0.9-
1954 11 23	675	1.2+	1.9+	1998 11 15	143	0.1+ 0.6-
1983 01 07	413	0.3+	0.3-	1998 11 18	143	0.2- 0.1+
1985 07 20	413	0.4-	1.3+	1998 11 18	143	0.1+ 0.5+
1985 07 20	413	0.2-	0.1-	1998 11 18	143	0.5+ 0.5+
1998 07 25	691	0.4+	0.1+	1998 11 18	143	0.1- 0.8-
1998 07 25	691	0.1+	0.1+	1998 11 18	143	0.6+ 0.7-
1998 07 25	691	0.1+	0.1+	1998 11 19	143	0.9- 0.1-
1998 11 11	143	0.6+	1.0+	1998 11 19	143	0.4+ 0.1+
1998 11 11	143	0.1+	0.3+	1998 11 20	143	0.4- 0.1-
1998 11 11	143	0.0	0.0	1998 11 20	143	0.6- 1.2-
				1998 11 24	958	0.1- 0.5-
				1998 11 24	704	0.7+ 0.0
				1998 11 24	704	0.3+ 0.6+
				1998 11 24	704	1.2+ 0.9-
				1998 11 24	704	1.3- 0.9-
				1998 12 15	704	(2.4- 0.4+)
				1998 12 15	704	1.0+ 0.0
				1998 12 15	704	(2.2+ 2.3-)
				1998 12 15	704	0.8+ 0.1-
				1998 12 19	143	0.9- 0.4+
				1998 12 19	143	0.1+ 0.5+

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1998 11 13	143	0.7−	0.3−	1998 11 20	143	0.4−	0.1+	1998 12 19	143	0.8−	0.4−
1998 11 13	143	0.7−	1.1−	1998 11 21	958	0.2+	0.8−	1998 12 19	143	0.3+	0.3+
1998 11 13	143	0.9−	0.5+	1998 11 22	958	0.1−	0.4−	1998 12 19	143	0.4−	0.8+
1998 11 13	910	1.0+	1.1+	1998 11 22	958	0.1+	0.7−	1998 12 22	958	0.6−	0.5+
1998 11 13	143	1.1+	0.3+	1998 11 22	143	0.3−	0.1+	1998 12 23	958	0.7+	1.4+
1998 11 13	143	0.4−	0.4−	1998 11 22	143	0.1+	0.1−	1999 01 18	143	0.4+	0.2−
1998 11 13	910	1.2+	1.0+	1998 11 22	143	0.6−	0.1+	1999 01 18	143	1.8+	0.9+
1998 11 13	143	0.7−	0.7−	1998 11 22	627	0.5−	0.5−	1999 01 19	143	0.1−	0.3+
1998 11 13	910	1.3+	0.9+	1998 11 22	627	0.3−	0.2+	1999 01 20	143	0.4+	0.4−
1998 11 14	143	0.8−	1.2+	1998 11 22	627	0.3−	0.3+	1999 01 20	143	0.3−	0.5+
1998 11 15	143	1.7−	0.2−	1998 11 23	958	0.0	0.3−				
1998 11 15	143	0.4−	0.7+	1998 11 23	958	0.1−	0.3−				

1998 VD₆ = 2000 CN₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

<i>M</i>	226.86154		(2000.0)	P	Q
<i>n</i>	0.24387760	ω	243.43745	+0.40264401	+0.90443724
<i>a</i>	2.5372004	Ω	51.02960	−0.76202841	+0.41652118
<i>e</i>	0.0970322	<i>i</i>	10.44619	−0.50713953	+0.09221380
<i>P</i>	4.04	<i>H</i>	14.2	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 11 11	888	0.4+	1.0+	1998 11 18	704	0.7−	1.0−	1998 12 11	699	1.0−	0.2+
1998 11 11	888	0.2−	0.6+	1998 11 18	888	0.1−	0.3+	1998 12 11	699	0.6−	1.3+
1998 11 11	888	0.5+	0.5+	1998 11 18	888	0.2−	0.0	1998 12 13	888	0.7+	0.1−
1998 11 12	888	0.5+	0.2+	1998 11 18	888	0.9−	0.2−	1998 12 13	888	0.2+	0.1+
1998 11 12	888	0.9+	1.0+	1998 11 21	704	0.0	0.1−	1998 12 20	888	0.2+	0.0
1998 11 14	888	1.0−	1.0+	1998 11 21	704	0.4+	0.1−	1998 12 20	888	0.9+	0.3+
1998 11 14	888	0.3−	0.6+	1998 11 21	704	0.8+	0.8−	2000 02 02	888	0.4−	0.2+
1998 11 18	704	0.3+	0.2−	1998 11 23	888	0.6−	0.7−	2000 02 02	888	0.1−	0.2+
1998 11 18	704	0.7+	0.1−	1998 11 23	888	0.1−	0.7−	2000 02 02	888	0.3+	0.8−
1998 11 18	704	0.4−	1.0−	1998 11 29	888	0.2−	0.9−	2000 02 04	888	0.4+	0.4+
1998 11 18	704	0.2+	1.1−	1998 12 11	699	0.0	0.1−	2000 02 04	888	0.2−	0.0

1998 VO₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	73.72574		(2000.0)	P	Q
<i>n</i>	0.21517919	ω	153.23014	+0.11727840	−0.98805436
<i>a</i>	2.7580525	Ω	289.89630	+0.89104259	+0.14914144
<i>e</i>	0.0890658	<i>i</i>	6.10310	+0.43850756	−0.03879965
<i>P</i>	4.58	<i>H</i>	13.6	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1998 10 25	098	1.2−	1.3+	1998 11 11	905	0.2−	0.3−	1999 01 15	699	0.0	0.5−
1998 10 25	098	1.7−	0.5+	1998 11 14	385	0.1−	0.2−	1999 01 15	699	0.1+	0.1−
1998 11 01	699	1.0+	0.2−	1998 11 14	385	0.0	0.4−	1999 01 15	699	0.5+	0.6−
1998 11 01	699	1.7+	0.1−	1998 11 15	886	0.3+	0.7+	1999 02 04	888	0.3−	0.6+
1998 11 01	699	1.3+	0.3+	1998 11 15	886	0.2−	1.1−	1999 02 04	888	0.5−	0.8+
1998 11 10	704	0.1−	0.2−	1998 11 19	905	0.5−	0.3−	2000 02 02	704	1.4+	0.2+
1998 11 10	704	0.8+	0.2−	1998 11 19	905	0.1+	0.4−	2000 02 02	704	1.4+	0.1+
1998 11 10	704	0.0	0.3+	1998 11 19	886	0.2+	0.2+	2000 02 02	704	(2.3+	0.0)
1998 11 10	704	0.2+	0.0	1998 11 19	886	(0.8+	2.2+)	2000 02 02	704	1.4+	0.9−
1998 11 10	704	0.2−	1.0+	1998 12 13	385	0.4+	0.1−	2000 02 02	704	0.8+	0.1+
1998 11 11	704	0.8−	0.6−	1998 12 13	385	0.0	0.3+	2000 02 07	704	0.6−	0.0
1998 11 11	704	0.4−	0.4−	1998 12 16	699	0.1−	0.5+	2000 02 07	704	1.3−	0.1+
1998 11 11	704	0.1−	0.4−	1998 12 16	699	0.5+	0.2+	2000 02 07	704	0.9−	0.0
1998 11 11	704	0.0	0.5+	1998 12 16	699	0.4+	0.4+	2000 02 07	704	0.9−	0.3+
1998 11 11	704	0.3−	0.6+	1999 01 11	888	0.1−	0.7−	2000 02 07	704	1.1−	0.3+
1998 11 11	905	0.4−	0.1−	1999 01 11	888	0.2−	1.0−				

1998 VX₈ = 1987 QY₄ = 2000 CP₄₃

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	236.57154		(2000.0)	P	Q
<i>n</i>	0.27389177	ω	18.15002	+0.16687321	+0.98033360
<i>a</i>	2.3482810	Ω	261.55791	−0.91730253	+0.11518095
<i>e</i>	0.1113681	<i>i</i>	6.11403	−0.36153755	+0.16024790
<i>P</i>	3.60	<i>H</i>	13.9	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1987 08 31	010	1.4+	1.3−	1998 11 10	704	0.6−	0.4−	2000 01 08	704	0.0	0.4+
1987 08 31	010	0.2+	0.4−	1998 11 11	704	0.3+	0.0	2000 01 08	704	0.6−	0.3−
1987 08 31	010	1.0−	0.1+	1998 11 11	704	0.5−	0.1+	2000 01 08	704	0.4−	0.8−
1998 10 28	704	0.9+	0.1−	1998 11 11	704	0.3−	0.8−	2000 02 02	704	0.2−	0.1−
1998 10 28	704	0.1+	0.2+	1998 11 11	704	0.1−	0.3−	2000 02 02	704	0.2−	0.5+
1998 10 28	704	1.2+	0.3+	1998 11 11	704	0.4−	0.1+	2000 02 02	704	0.1+	0.3+
1998 10 28	704	1.3+	0.8+	1998 11 15	699	0.5+	0.5+	2000 02 02	704	0.0	0.1−
1998 10 29	704	0.9−	0.2−	1998 11 15	699	0.7+	0.1−	2000 02 02	704	0.2−	0.0
1998 10 29	704	1.4−	0.3−	1998 11 15	699	1.0+	0.4+	2000 02 06	704	0.2+	0.1−
1998 10 29	704	0.1−	0.2+	2000 01 05	704	0.7−	1.6+	2000 02 06	704	0.5+	0.6+
1998 10 29	704	0.7−	0.5−	2000 01 05	704	0.0	0.3−	2000 02 06	704	0.5+	0.2−
1998 10 29	704	1.0−	0.9+	2000 01 05	704	0.0	1.0−	2000 02 06	704	0.1+	0.4+
1998 11 10	704	0.2+	0.1+	2000 01 05	704	0.4+	1.2−	2000 02 06	704	0.2−	0.6+
1998 11 10	704	0.2−	0.5+	2000 01 05	704	0.9+	1.2−				
1998 11 10	704	0.4−	0.1−	2000 01 08	704	0.7−	0.4−				

1998 VL₉ = 2000 CR₈₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	135.22582		(2000.0)	P	Q
<i>n</i>	0.26582161	ω	321.18552	+0.90479206	−0.41753358
<i>a</i>	2.3955718	Ω	63.68633	+0.41029928	+0.80203535
<i>e</i>	0.0743581	<i>i</i>	5.36217	+0.11404309	+0.42708898
<i>P</i>	3.71	<i>H</i>	14.0	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1998 09 18	699	0.2+	0.8+	1998 11 11	704	0.5+	0.6−	1999 01 14	691	0.6−	0.2+
1998 09 18	699	0.0	1.1+	1998 11 11	704	0.3+	0.1+	2000 01 04	704	0.5−	0.6−
1998 09 18	699	0.2+	0.9+	1998 11 11	704	1.6+	0.3−	2000 01 04	704	0.1+	1.0−
1998 10 11	699	0.3−	0.8+	1998 11 11	704	0.1−	1.0−	2000 01 04	704	0.2−	0.8−
1998 10 11	699	0.7−	0.7+	1998 11 11	704	0.0	0.2−	2000 01 04	704	(2.2+	0.4−)
1998 10 11	699	0.0	0.3+	1998 12 11	699	0.7−	0.4+	2000 01 04	704	0.8+	1.4−
1998 10 28	704	0.4−	0.2−	1998 12 11	699	0.5+	0.1+	2000 02 01	703	0.2−	0.3+
1998 10 28	704	0.0	0.3−	1998 12 11	699	0.7−	1.2+	2000 02 01	703	0.1−	0.2−
1998 10 28	704	0.7−	0.5−	1998 12 17	327	0.5+	0.6+	2000 02 01	703	0.3−	0.4+
1998 10 28	704	0.3−	0.0	1998 12 17	327	0.1−	0.5+	2000 02 01	703	0.1−	0.9+
1998 10 29	704	0.2+	0.1−	1998 12 17	327	0.0	0.5+	2000 02 04	704	0.6+	0.7−
1998 10 29	704	0.6−	0.1−	1998 12 23	327	0.1+	0.1+	2000 02 04	704	0.2+	0.5+
1998 10 29	704	0.5−	0.5−	1998 12 23	327	0.2+	0.2+	2000 02 04	704	0.4+	0.0
1998 10 29	704	0.1+	0.3−	1998 12 23	327	0.1+	0.4+	2000 02 04	704	1.2−	0.4+
1998 10 29	704	0.2−	0.1−	1998 12 23	327	0.2+	0.1+	2000 02 11	704	0.3+	0.1+
1998 11 10	704	0.2+	0.9−	1999 01 13	691	0.0	0.2+	2000 02 11	704	0.2−	0.2+
1998 11 10	704	0.4+	1.2−	1999 01 13	691	0.7+	0.0	2000 02 11	704	0.0	0.7+
1998 11 10	704	0.3+	0.1−	1999 01 13	691	0.4+	0.4−	2000 02 11	704	0.2+	1.1+
1998 11 10	704	0.1+	0.4−	1999 01 14	691	0.7−	0.1−	2000 02 11	704	0.5+	0.0
1998 11 10	704	0.2+	0.2−	1999 01 14	691	0.7−	0.2+				

1998 VO₁₃ = 1993 TQ₄₇ = 1997 NW₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	37.07108		(2000.0)	P	Q
<i>n</i>	0.20416566	ω	169.01809	−0.48371159	−0.87483656
<i>a</i>	2.8563686	Ω	309.90444	+0.80039976	−0.43006880
<i>e</i>	0.1787118	<i>i</i>	1.95390	+0.35409508	−0.22293904
<i>P</i>	4.83	<i>H</i>	14.4	<i>G</i> 0.15	<i>U</i> 1

Residuals in

2000 FEB. 22

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1993 10 12	809	0.3−	1.8+	1998 10 16	691	0.4+	0.3−	1998 11 11	704	0.4−	0.1+
1993 10 22	809	0.1−	0.3+	1998 10 19	699	0.4+	1.7+	2000 01 05	704	0.6−	0.2+
1993 10 22	809	0.6−	0.8−	1998 10 19	699	0.6+	0.1+	2000 01 05	704	0.9−	0.6−
1993 10 22	809	0.9−	0.6−	1998 10 19	699	(0.7+	2.2+)	2000 01 05	704	1.0+	0.2+
1997 07 13	910	0.3−	0.2+	1998 11 10	704	0.3−	1.4−	2000 02 08	704	0.9+	0.1+
1997 07 13	910	0.1−	0.2+	1998 11 10	704	0.6−	0.1−	2000 02 08	704	0.5+	0.7+
1997 07 13	910	0.1−	0.2+	1998 11 10	704	0.5−	1.4−	2000 02 08	704	0.2+	0.3+
1997 07 14	910	0.1−	0.3+	1998 11 10	704	(0.5+	2.2−)	2000 02 08	704	0.2+	1.1+
1997 07 14	910	0.2+	0.0	1998 11 11	704	0.5+	0.2+	2000 02 08	704	0.2−	0.5+
1997 07 14	910	0.1−	0.3+	1998 11 11	704	0.5−	0.7+				

1998 VQ₁₃ = 1991 BB₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	99.58282		(2000.0)		P		Q
<i>n</i>	0.23287698	ω	106.83708	+0.54700961			−0.83676503
<i>a</i>	2.6164856	Ω	309.97496	+0.75531334			+0.50600347
<i>e</i>	0.1822314	<i>i</i>	1.83900	+0.36094631			+0.20924813
<i>P</i>	4.23	<i>H</i>	15.1	<i>G</i>	0.15		<i>U</i> 5

Residuals in seconds of arc

1991 01 18	511	1.3+	1.3+	1998 10 19	699	0.2+	0.0	1998 11 10	704	1.6+	0.4+
1991 01 19	511	1.6−	0.7−	1998 10 19	699	0.6+	0.1−	1998 11 10	704	1.7−	0.1+
1991 01 19	511	(4.2−	0.1−)	1998 10 19	699	0.1+	0.2−	1998 11 11	704	1.4+	0.3−
1991 01 20	511	(4.2+	0.9+)	1998 10 24	691	0.0	0.2+	1998 11 11	704	0.6−	1.1+
1991 01 20	511	0.4+	0.4−	1998 10 24	691	0.1+	0.1−	1998 11 11	704	1.2−	0.9−
1993 07 19	809	0.1−	0.4+	1998 10 24	691	0.2+	0.0	1998 11 11	704	1.3−	0.2+
1993 07 19	809	0.7+	0.4+	1998 11 10	704	0.3+	0.0	1998 11 11	704	1.2+	0.4−
1993 07 19	809	0.6−	0.4−	1998 11 10	704	0.8−	0.0				

1998 VV₁₄ = 2000 CS₅₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	233.99545		(2000.0)		P		Q
<i>n</i>	0.29141111	ω	304.36739	+0.40206920			+0.91558970
<i>a</i>	2.2531943	Ω	349.33520	−0.82907235			+0.36128497
<i>e</i>	0.1065840	<i>i</i>	1.85444	−0.38856068			+0.17654653
<i>P</i>	3.38	<i>H</i>	14.9	<i>G</i>	0.15		<i>U</i> 5

Residuals in seconds of arc

1998 10 19	699	0.2+	1.1+	1998 11 11	704	0.1+	0.5+	2000 02 05	704	0.4−	0.1+
1998 10 19	699	0.0	0.4+	1998 11 11	704	0.8+	0.6−	2000 02 05	704	0.7−	0.5−
1998 10 19	699	0.4−	0.3−	1998 11 11	704	0.3−	0.9+	2000 02 06	704	0.1−	0.1+
1998 10 30	327	0.0	0.2−	1998 11 11	704	1.2−	0.6−	2000 02 06	704	0.2+	0.2+
1998 10 30	327	0.1−	0.1+	1998 11 16	566	0.2−	0.6−	2000 02 06	704	0.2+	0.5+
1998 10 30	327	0.0	0.0	1998 11 16	566	0.2−	0.5−	2000 02 06	704	0.3+	0.2−
1998 11 10	704	0.6−	0.2+	1998 11 16	566	0.2−	0.4−	2000 02 11	704	1.0+	0.1−
1998 11 10	704	1.4+	0.5−	1998 11 20	699	0.1+	0.3+	2000 02 11	704	0.5−	0.3+
1998 11 10	704	0.2−	0.9−	1998 11 20	699	1.3+	0.8+	2000 02 11	704	0.1−	0.7−
1998 11 10	704	0.6+	0.1+	1998 11 20	699	0.7−	0.2+	2000 02 11	704	0.3+	0.0
1998 11 10	704	0.6−	0.2+	2000 02 05	704	0.1+	0.6−	2000 02 11	704	0.5−	0.9+

1998 VA₁₅ = 1991 BG₁ = 1996 HC₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	66.03873		(2000.0)		P		Q
<i>n</i>	0.23249435	ω	214.96936	−0.17760014			−0.98369398
<i>a</i>	2.6193555	Ω	245.27542	+0.90986559			−0.15315361
<i>e</i>	0.1617193	<i>i</i>	1.78924	+0.37497039			−0.09428743
<i>P</i>	4.24	<i>H</i>	14.8	<i>G</i>	0.15		<i>U</i> 4

Residuals in seconds of arc

1991 01 16	675	0.6+	0.6+	1996 04 17	809	0.6−	0.1−	1998 10 19	699	0.5+	1.0+
1991 01 16	675	0.9+	0.7+	1996 04 17	809	1.5−	0.1−	1998 11 10	704	0.1+	0.3+
1991 01 17	675	1.1+	1.8+	1996 04 17	809	1.0−	0.2+	1998 11 10	704	0.5−	1.5−
1991 01 17	675	(1.0−	2.6+)	1996 04 18	809	1.2+	1.4+	1998 11 10	704	0.3−	0.3+
1991 01 18	511	0.9−	0.9−	1996 04 18	809	1.4+	0.2+	1998 11 10	704	1.1−	0.2−
1991 01 18	511	(1.9+	4.1−)	1996 04 18	809	0.9+	0.3+	1998 11 10	704	(3.7−	0.2−)

1991 01 18	511	1.2−	1.5−	1998 10 16	691	0.6+	0.5+	1998 11 11	704	0.6−	0.7−
1991 01 19	511	(3.3−	2.1+)	1998 10 16	691	0.8+	0.5+	1998 11 11	704	1.6−	0.6+
1991 01 19	511	(3.6−	0.6+)	1998 10 16	691	0.8+	0.3+	1998 11 11	704	0.3−	0.2+
1991 01 20	511	1.3−	0.9−	1998 10 19	699	0.6+	1.1+	1998 11 11	704	0.2−	1.1−
1991 01 20	511	0.8+	0.2+	1998 10 19	699	1.0+	0.8+	1998 11 11	704	0.2−	0.4−

1998 VP₁₆ = 1980 WP₃

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	319.77434		(2000.0)		P		Q
<i>n</i>	0.21563648	ω	98.33569	−0.98393605			+0.07229152
<i>a</i>	2.7541519	Ω	85.92192	−0.13339094			−0.90538581
<i>e</i>	0.0703132	<i>i</i>	9.41845	+0.11864527			−0.41839032
<i>P</i>	4.57	<i>H</i>	14.1	<i>G</i>	0.15		<i>U</i> 4

Residuals in seconds of arc

1980 11 29	675	0.3+	0.3−	1998 11 10	704	0.3−	0.7+	1998 11 15	566	0.8−	0.5−
1980 12 01	675	0.3−	0.2+	1998 11 11	704	1.0−	0.1−	1998 11 19	699	1.0+	0.3−
1998 10 12	699	0.6+	0.4−	1998 11 11	704	0.1−	0.4−	1998 11 19	699	0.7−	0.1−
1998 10 12	699	0.2+	0.7+	1998 11 11	704	0.5−	1.4+	1998 11 19	699	0.9+	0.6−
1998 10 12	699	0.9+	0.4−	1998 11 11	704	0.6−	0.1−	1999 12 08	704	1.1−	0.3+
1998 11 10	704	0.7−	0.3+	1998 11 11	704	0.8−	0.4+	1999 12 08	704	0.2−	0.7+
1998 11 10	704	0.7+	0.2+	1998 11 15	566	0.3−	0.2−	1999 12 08	704	0.8+	0.9−
1998 11 10	704	0.9+	0.5+	1998 11 15	566	0.7+	1.0−	1999 12 08	704	0.6+	0.0

1998 VH₁₇ = 2000 AK₂₄₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	205.82002		(2000.0)		P		Q
<i>n</i>	0.21522365	ω	73.47126	+0.22935444			+0.97038810
<i>a</i>	2.7576727	Ω	210.11291	−0.94068936			+0.20098874
<i>e</i>	0.1307998	<i>i</i>	8.68814	−0.25000014			+0.13397934
<i>P</i>	4.58	<i>H</i>	14.0	<i>G</i>	0.15		<i>U</i> 4

Residuals in seconds of arc

1998 10 17	691	0.5−	0.4−	1998 11 10	704	0.2+	0.3−	2000 01 07	704	0.3−	0.1−
1998 10 17	691	0.3−	0.4−	1998 11 11	704	0.3+	0.4−	2000 01 07	704	0.2+	0.0
1998 10 17	691	0.1−	0.6−	1998 11 11	704	0.4−	0.5−	2000 01 07	704	0.2−	0.2−
1998 10 20	699	0.1+	0.7+	1998 11 11	704	0.1+	0.2−	2000 01 11	704	0.8−	0.2−
1998 10 20	699	0.4+	0.7+	1998 11 11	704	0.4+	1.0+	2000 01 11	704	1.3−	0.0
1998 10 20	699	0.1+	0.5+	1998 11 11	704	0.3−	1.1+	2000 01 11	704	1.4+	0.9−
1998 11 10	704	0.3−	0.2−	1998 11 15	120	0.7+	0.2+	2000 01 11	704	0.1−	0.0
1998 11 10	704	0.0	0.9−	1998 11 15	120	1.6−	0.1−				
1998 11 10	704	1.2+	0.4−	2000 01 07	704	1.1+	1.3+				

1998 VH₁₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	180.63248		(2000.0)		P		Q
<i>n</i>	0.31449731	ω	91.05370	+0.99566054			−0.02304059
<i>a</i>	2.1415329	Ω	270.27084	−0.01466840			+0.91789677
<i>e</i>	0.1651549	<i>i</i>	5.17299	+0.09189627			+0.39614978
<i>P</i>	3.13	<i>H</i>	15.1	<i>G</i>	0.15		<i>U</i> 2

Residuals in seconds of arc

1951 12 01	675	0.1−	0.8−	1998 10 28	399	0.2+	1.3+	1998 11 15	699	0.0	1.8+
1951 12 01	675	0.2+	0.3+	1998 11 10	704	1.5+	0.3+	1998 11 15	699	(0.4+	2.1+)
1989 12 07	675	0.0	0.7−	1998 11 10	704	2.0+	0.3−	1998 11 18	399	0.7+	1.8+
1989 12 07	675	0.7+	0.3+	1998 11 10	704	1.5+	0.2−	1998 11 18	399	0.3+	0.8+
1994 03 10	413	0.4−	1.2−	1998 11 10	704	(3.2+	0.9−)	1998 11 19	399	1.4−	0.9−
1994 03 10	413	0.2−	0.0	1998 11 10	704	(3.0+	0.9−)	1998 11 19	399	1.6−	0.5−
1998 08 31	704	0.2+	1.3−	1998 11 11	704	0.0	0.5+	1998 11 22	399	(0.7+	2.3−)
1998 08 31	704	0.5−	0.5−	1998 11 11	704	0.2+	0.8−	1998 11 22	399	0.8−	1.5−
1998 08 31	704	0.9−	0.2−	1998 11 11	704	0.6+	1.2−	1999 01 19	910	1.1−	0.3+
1998 08 31	704	0.5+	0.3+	1998 11 11	704	1.1+	0.6−	1999 01 19	910	1.4−	0.5+
1998 08 31	704	1.5−	0.6+	1998 11 11	704	1.8+	1.2−	1999 01 19	910	1.8−	0.5−
1998 10 20	399	0.9+	0.5−	1998 11 12	399	1.6−	0.4−	1999 02 14	691	0.5−	0.4−

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1998 10 20 399 1.0− 1.4− 1998 11 12 399 1.2− 0.5+ 1999 02 14 691 0.0 0.4−
 1998 10 28 399 0.2+ 1.2+ 1998 11 15 699 0.3+ 1.8+ 1999 02 14 691 0.2− 0.3−

1998 VM₁₈ = 2000 AJ₂₄₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams	
<i>M</i>	272.46367	(2000.0)	P	Q	
<i>n</i>	0.25310928	<i>ω</i>	4.45738	−0.39001098	+0.89785721
<i>a</i>	2.4751261	<i>Ω</i>	242.70252	−0.85177548	−0.43607164
<i>e</i>	0.0852480	<i>i</i>	13.29221	−0.34981418	+0.06077788
<i>P</i>	3.89	<i>H</i>	13.6	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 10 20	399	1.0−	0.2+	1998 11 15	699	0.0	0.3−	2000 01 10	704	0.1+	0.0
1998 10 20	399	0.6+	0.3−	1998 11 15	699	0.4+	0.4−	2000 01 10	704	(1.2+	2.3−)
1998 10 25	399	0.6−	1.3−	1998 11 15	699	0.1+	0.6−	2000 01 10	704	0.1−	0.9−
1998 10 25	399	1.4−	0.8−	1998 12 09	704	0.0	0.4+	2000 02 05	703	0.4−	0.1+
1998 10 28	399	2.0+	0.8+	1998 12 09	704	0.2−	0.5+	2000 02 05	703	0.3+	0.0
1998 10 28	399	0.9+	0.3−	1998 12 09	704	1.7−	0.8+	2000 02 05	703	0.1+	0.2−
1998 11 10	704	1.0+	0.3+	1998 12 09	704	1.0+	1.0+	2000 02 05	703	0.3−	0.3−
1998 11 10	704	1.1+	1.4+	1998 12 09	704	0.3−	0.4−	2000 02 07	106	0.4+	0.1+
1998 11 10	704	0.4−	1.5+	1999 01 06	699	0.0	1.3−	2000 02 07	106	0.2+	0.2+
1998 11 10	704	(1.2−	2.7+)	1999 01 06	699	0.5−	1.0−	2000 02 07	106	0.3+	0.3+
1998 11 11	704	0.1−	0.5−	1999 01 06	699	0.2+	1.2−	2000 02 10	704	0.1+	0.3−
1998 11 11	704	0.9−	0.4−	2000 01 07	699	0.8−	0.9−	2000 02 10	704	0.2+	0.2+
1998 11 11	704	0.3−	0.5+	2000 01 07	699	0.6−	1.7+	2000 02 10	704	0.3+	0.3+
1998 11 11	704	0.1+	0.2+	2000 01 07	699	0.0	0.6+	2000 02 10	704	0.3−	0.3+
1998 11 11	704	0.4−	0.6+	2000 01 10	704	0.4+	0.9−				

1998 VH₂₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams	
<i>M</i>	209.71812	(2000.0)	P	Q	
<i>n</i>	0.21628400	<i>ω</i>	271.66289	+0.41183484	+0.91051675
<i>a</i>	2.7486522	<i>Ω</i>	22.76729	−0.79374338	+0.37824840
<i>e</i>	0.0282765	<i>i</i>	5.45076	−0.44761984	+0.16699517
<i>P</i>	4.56	<i>H</i>	13.9	<i>G</i>	0.15
				<i>U</i>	5

Residuals in seconds of arc

1998 11 10	704	0.8+	0.3−	1998 11 20	699	1.0+	1.3+	2000 02 03	704	0.6−	0.8−
1998 11 10	704	0.9−	1.1−	1998 11 20	699	0.3+	0.2−	2000 02 03	704	0.4+	0.8−
1998 11 10	704	0.1−	0.1+	1999 01 06	725	0.3+	0.7+	2000 02 03	704	0.0	0.4−
1998 11 10	704	1.2+	1.0−	1999 01 06	725	0.3−	0.6−	2000 02 03	704	0.9+	1.8−
1998 11 10	704	(1.2+	2.3−)	1999 01 10	725	0.2−	0.0	2000 02 11	704	0.3+	0.3+
1998 11 11	704	0.1+	0.8+	1999 01 10	725	0.1−	0.0	2000 02 11	704	0.3−	0.4+
1998 11 11	704	0.1−	0.6+	2000 01 30	704	0.2−	0.0	2000 02 11	704	0.4−	1.0+
1998 11 11	704	0.3−	0.2−	2000 01 30	704	0.3−	1.0−	2000 02 11	704	0.3+	0.5+
1998 11 11	704	0.7+	0.7−	2000 01 30	704	0.1−	0.9+	2000 02 11	704	0.0	0.8+
1998 11 11	704	1.4−	0.0	2000 01 30	704	0.5−	1.6+				
1998 11 20	699	1.0−	0.9+	2000 02 03	704	0.3+	0.7−				

1998 VT₂₇ = 2000 BC₂₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams	
<i>M</i>	139.34296	(2000.0)	P	Q	
<i>n</i>	0.19225626	<i>ω</i>	298.91900	+0.97244604	+0.18423543
<i>a</i>	2.9731425	<i>Ω</i>	50.83836	−0.09031670	+0.86262625
<i>e</i>	0.1078610	<i>i</i>	10.61652	−0.21492232	+0.47109792
<i>P</i>	5.13	<i>H</i>	13.3	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 11 10	704	0.1+	1.2+	1998 12 07	120	0.4+	0.0	1998 12 17	120	0.5−	0.9+
1998 11 10	704	0.1−	0.3−	1998 12 07	120	0.4−	0.2+	1998 12 17	120	0.1−	0.2+
1998 11 10	704	0.3+	0.2−	1998 12 07	120	0.1−	0.5−	1998 12 22	120	0.8+	0.4−
1998 11 11	704	0.7−	0.6+	1998 12 09	120	0.3−	0.1+	1998 12 22	120	0.8+	0.3−
1998 11 11	704	0.3−	0.4−	1998 12 09	120	0.1−	0.5+	1998 12 25	120	0.5−	0.7−
1998 11 11	704	1.6+	1.0−	1998 12 12	120	0.1−	0.1+	1998 12 25	120	1.0+	1.0−
1998 11 11	704	0.5+	0.8−	1998 12 12	120	0.4−	0.1+	1998 12 25	120	0.5+	0.2−

1998 11 11	699	0.4−	0.2+	1998 12 12	120	0.9−	0.1−	2000 01 29	704	0.3−	0.2−
1998 11 11	704	0.6−	0.5+	1998 12 12	120	0.1−	0.2+	2000 01 29	704	0.1−	0.4−
1998 11 11	699	0.1−	0.3+	1998 12 12	120	0.2−	0.3+	2000 01 29	704	0.3+	0.2−
1998 11 11	699	0.0	0.3+	1998 12 14	120	0.4−	0.1+	2000 01 29	704	0.1+	0.2+
1998 11 26	120	0.4−	0.1−	1998 12 14	120	(2.1+	0.5−)	2000 01 29	704	0.2+	0.6−
1998 11 26	120	0.1−	0.2−	1998 12 14	120	0.3+	0.0	2000 02 02	704	0.6−	0.1+
1998 11 27	691	0.2−	0.4−	1998 12 15	120	1.5+	0.6+	2000 02 02	704	0.2−	0.2−
1998 11 27	691	0.3−	0.3−	1998 12 15	120	0.5+	0.2−	2000 02 02	704	0.1+	0.5+
1998 11 27	691	0.1−	0.3−	1998 12 15	120	1.1−	0.1−	2000 02 02	704	0.3+	0.4+
1998 11 29	120	1.8+	1.4+	1998 12 15	120	0.5−	0.1−	2000 02 02	704	0.3+	0.4+
1998 11 29	120	1.3−	0.2+	1998 12 17	120	(1.7+	2.9+)				

1998 VG₃₁ = 2000 CT₂

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams	
<i>M</i>	181.09439	(2000.0)	P	Q	
<i>n</i>	0.23293653	<i>ω</i>	321.42120	+0.87047882	+0.49191706
<i>a</i>	2.6160396	<i>Ω</i>	9.15819	−0.42123038	+0.76223853
<i>e</i>	0.0804500	<i>i</i>	6.08047	−0.25462048	+0.42072560
<i>P</i>	4.23	<i>H</i>	14.4	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 10 19	699	0.3−	0.2−	1998 11 23	888	0.3+	0.2−	2000 02 02	888	0.8+	0.1−
1998 10 19	699	0.3−	0.0	1998 11 29	888	0.6+	0.2+	2000 02 04	888	0.2−	0.5−
1998 10 19	699	0.3+	0.3+	1998 11 29	888	0.5−	0.1−	2000 02 04	888	0.7−	0.0
1998 11 12	888	0.3+	0.2−	1998 12 09	888	0.1+	0.3−	2000 02 06	703	0.4+	0.3−
1998 11 12	888	0.3+	0.2−	1998 12 09	888	0.8−	0.2−	2000 02 06	703	0.2+	0.2−
1998 11 12	888	0.7+	0.2−	1998 12 17	888	0.4+	0.0	2000 02 06	703	0.3+	0.2+
1998 11 14	888	0.0	0.1−	1998 12 17	888	0.3+	0.0	2000 02 06	703	0.3−	0.1−
1998 11 14	888	0.3+	0.2+	1999 01 10	888	0.2+	0.4+	2000 02 11	704	0.1+	0.5+
1998 11 18	888	0.4−	0.0	1999 01 10	888	0.3−	0.8+	2000 02 11	704	0.0	0.4−
1998 11 18	888	0.8−	0.4+	1999 01 18	888	0.1−	0.6+	2000 02 11	704	0.3−	0.5+
1998 11 18	888	0.4−	0.4+	1999 01 18	888	0.1−	1.1−	2000 02 11	704	0.4−	0.5+
1998 11 23	888	0.0	0.4−	2000 02 02	888	0.2+	0.2−				

1998 VQ₃₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams	
<i>M</i>	125.26688	(2000.0)	P	Q	
<i>n</i>	0.22730859	<i>ω</i>	154.04690	+0.78364669	−0.58911048
<i>a</i>	2.6590437	<i>Ω</i>	243.46128	+0.52468785	+0.79754764
<i>e</i>	0.1639354	<i>i</i>	12.72719	+0.33256656	+0.12987151
<i>P</i>	4.34	<i>H</i>	13.3	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1983 05 12	413	0.6−	0.0	1998 11 10	704	0.2+	1.0−	1999 01 23	699	0.1−	0.3+
1983 05 12	413	0.4−	1.3−	1998 11 11	704	0.1−	0.3+	1999 01 23	699	0.6−	0.4+
1988 07 12	413	1.0−	0.1+	1998 11 11	704	0.2+	0.2−	1999 01 23	699	0.1−	0.2+
1988 07 12	413	1.1+	0.1−	1998 11 11	704	1.9−	0.7+	1999 02 04	704	1.4−	0.2+
1991 04 09	413	1.2+	0.4+	1998 12 22	704	0.0	0.1+	1999 02 04	704	0.4−	0.1+
1991 04 09	413	0.1+	0.3−	1998 12 22	704	1.1+	0.3−	1999 02 04	704	0.6+	0.0
1998 08 31	704	0.2−	0.0	1998 12 22	704	0.5+	0.8−	1999 02 04	704	0.8−	0.0
1998 08 31	704	1.1+	0.7−	1998 12 22	704	0.0	0.7−	1999 02 04	704	1.9+	0.0
1998 08 31	704	1.0+	1.3−	1998 12 22	704	(0.6+	2.6−)	1999 02 04	699	1.0−	0.4+
1998 08 31	704	0.7−	0.4−	1998 12 25	910	0.8+	0.1+	1999 02 04	699	0.7−	0.3−
1998 08 31	704	0.2+	1.3+	1998 12 25	910	0.9+	0.1+	1999 02 04	699	0.1−	1.0+
1998 11 10	704	0.0	0.0	1998 12 26	910	0.8+	0.1+	1999 02 15	699	0.2−	0.2−</

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1998 VN₃₂ = 2000 CP₈₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	101.72193		(2000.0)	P		Q	
<i>n</i>	0.19846856	ω	320.60540	+0.59567136		−0.80122602	
<i>a</i>	2.9107723	Ω	92.76120	+0.75053174		+0.53006667	
<i>e</i>	0.0720888	<i>i</i>	3.25298	+0.28614286		+0.27760796	
<i>P</i>	4.97	<i>H</i>	13.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 11 15	758	0.6−	0.1+	1998 11 24	704	0.3+	0.3−	1999 01 05	699	0.5+	1.6−
1998 11 15	758	1.0−	0.1+	1998 11 24	704	1.0+	1.1−	1999 01 06	758	0.8−	0.7+
1998 11 15	758	0.7−	0.8+	1998 11 24	704	0.8+	0.5−	1999 01 06	758	0.5−	0.8+
1998 11 16	758	0.4−	0.3−	1998 11 24	704	0.7+	1.3−	2000 02 04	704	0.3−	0.2+
1998 11 16	758	0.1−	0.1+	1998 11 25	758	0.2−	0.9+	2000 02 04	704	0.1+	0.0
1998 11 16	758	0.2−	0.1−	1998 11 25	758	0.1−	0.7+	2000 02 04	704	0.2+	0.6+
1998 11 17	758	0.0	0.5−	1998 11 25	758	0.2+	0.4+	2000 02 04	704	0.4−	0.3+
1998 11 17	758	0.1−	0.2+	1998 12 09	758	0.4+	0.1+	2000 02 04	704	0.2−	0.5+
1998 11 17	758	0.0	0.4−	1998 12 09	758	0.5−	1.0+	2000 02 11	704	0.5+	0.9−
1998 11 18	758	0.4+	0.2−	1998 12 09	758	0.1−	1.2+	2000 02 11	704	0.3−	0.5+
1998 11 18	758	1.6+	0.4−	1998 12 16	758	0.5−	1.0+	2000 02 11	704	0.3+	0.6−
1998 11 18	758	0.3+	0.1−	1998 12 16	758	0.0	1.3+	2000 02 11	704	0.3−	0.7−
1998 11 19	758	0.0	1.3−	1998 12 16	758	0.6−	1.0+	2000 02 11	704	0.2+	0.0
1998 11 19	758	0.5−	0.4−	1999 01 05	699	0.1+	0.4−				
1998 11 19	758	0.0	0.3−	1999 01 05	699	0.6+	1.4−				

1998 VX₃₆ = 1994 RL₁₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	223.44509		(2000.0)	P		Q	
<i>n</i>	0.27228719	ω	306.97481	+0.29496722		+0.95537068	
<i>a</i>	2.3574975	Ω	340.16232	−0.86083139		+0.25836187	
<i>e</i>	0.1530138	<i>i</i>	2.72970	−0.41468502		+0.14323409	
<i>P</i>	3.62	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1994 09 03	809	0.8+	0.5+	1998 10 19	699	(0.5+	2.2−)	1998 11 11	704	1.6−	0.6+
1994 09 03	809	0.4+	0.4+	1998 10 19	699	0.2−	0.1−	2000 02 03	704	0.1−	0.5+
1994 09 03	809	0.7+	0.3+	1998 10 19	699	0.6−	1.9−	2000 02 03	704	0.3+	0.0
1994 09 04	809	0.1+	0.5+	1998 11 10	704	1.0+	0.8+	2000 02 03	704	0.4−	0.4+
1994 09 04	809	1.4−	0.7−	1998 11 10	704	(2.4+	0.7+)	2000 02 03	704	0.3+	0.2−
1994 09 04	809	1.0−	0.2−	1998 11 10	704	0.1+	1.3+	2000 02 11	704	0.1+	1.4−
1998 10 16	691	0.5+	0.9−	1998 11 10	704	0.7+	1.5−	2000 02 11	704	0.3+	0.2−
1998 10 16	691	0.2+	0.6−	1998 11 11	704	0.2+	1.1+	2000 02 11	704	0.3+	0.5+
1998 10 16	691	0.2+	0.8−	1998 11 11	704	0.5−	1.7+	2000 02 11	704	0.6−	0.9+

1998 VZ₃₆ = 1980 RD₈ = 2000 AR₁₉₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	226.27081		(2000.0)	P		Q	
<i>n</i>	0.22284876	ω	41.97823	−0.09093265		+0.98410136	
<i>a</i>	2.6944031	Ω	223.46343	−0.96249403		−0.12617082	
<i>e</i>	0.1310528	<i>i</i>	12.81390	−0.25561006		+0.12500178	
<i>P</i>	4.42	<i>H</i>	12.7	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1980 09 13	675	0.0	0.3+	1998 11 14	699	0.2+	0.6+	2000 01 11	704	0.4+	0.6+
1980 09 14	675	0.2−	0.4+	1998 12 08	699	0.7+	0.4−	2000 01 11	704	0.6+	0.6+
1998 10 19	699	1.1−	0.6−	1998 12 08	699	0.8−	0.5+	2000 01 12	704	0.9−	0.2+
1998 10 19	699	0.7−	0.6−	1998 12 08	699	0.8−	1.2+	2000 01 12	704	0.4+	0.6+
1998 10 19	699	0.2−	1.2−	1999 12 05	704	0.0	1.9−	2000 01 12	704	0.8+	0.9+
1998 11 10	704	0.2−	0.2+	1999 12 05	704	0.5−	0.2−	2000 01 12	704	0.1−	0.3+
1998 11 10	704	0.6+	0.2+	1999 12 05	704	0.5−	0.6−	2000 01 12	704	1.7+	0.5+
1998 11 10	704	0.4+	0.1+	1999 12 05	704	0.7+	1.1−	2000 02 05	704	0.1−	0.3+
1998 11 10	704	0.2+	0.2−	1999 12 05	704	(2.5−	0.7+)	2000 02 05	704	0.3+	1.2−
1998 11 10	704	1.6+	0.6−	2000 01 08	704	0.3−	0.2+	2000 02 05	704	1.0−	0.2+
1998 11 11	704	0.3−	0.4+	2000 01 08	704	0.1−	0.1+	2000 02 05	704	0.4−	0.2−

1998 11 11	704	0.5+	0.2+	2000 01 08	704	0.1−	0.4+	2000 02 05	704	0.6−	0.2−
1998 11 11	704	0.3−	0.1−	2000 01 08	704	0.1+	0.1+	2000 02 06	704	0.3−	0.2+
1998 11 11	704	0.9−	0.5−	2000 01 08	704	0.2+	0.0	2000 02 06	704	0.2−	0.1+
1998 11 11	704	0.5+	0.8−	2000 01 11	704	0.4+	0.3−	2000 02 06	704	0.2−	0.4−
1998 11 14	699	0.4+	0.7+	2000 01 11	704	0.2+	0.5+	2000 02 06	704	0.3+	0.8−
1998 11 14	699	0.0	0.6+	2000 01 11	704	0.4+	0.5+	2000 02 06	704	1.4−	0.0

1998 VO₃₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	59.04852		(2000.0)	P		Q	
<i>n</i>	0.17620579	ω	201.44924	+0.11243474		−0.98673956	
<i>a</i>	3.1510546	Ω	242.25900	+0.92982267		+0.14602384	
<i>e</i>	0.1902619	<i>i</i>	7.60045	+0.35041153		−0.07086657	
<i>P</i>	5.59	<i>H</i>	13.1	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 10 19	699	1.1+	0.1−	1998 12 07	120	0.1+	0.2−	1999 02 02	699	1.0−	1.2−
1998 10 19	699	0.0	0.1+	1998 12 07	120	0.2−	0.2−	1999 02 02	699	1.1−	0.0
1998 10 19	699	0.6+	0.0	1998 12 09	120	0.0	0.1+	1999 02 04	704	0.1+	1.4−
1998 11 10	704	0.5−	0.1+	1998 12 09	120	0.4+	0.2+	1999 02 04	704	0.4+	0.4+
1998 11 10	704	0.1−	1.2−	1998 12 09	120	0.2+	0.1+	1999 02 04	704	0.9+	0.1+
1998 11 10	704	0.8−	0.5+	1998 12 12	120	0.0	0.3+	1999 02 04	704	1.1+	1.3−
1998 11 10	704	0.3−	0.6−	1998 12 12	120	0.1+	0.6+	1999 02 04	704	(3.2−	1.7+)
1998 11 10	704	0.3−	0.4−	1998 12 12	120	0.2−	0.1+	2000 02 07	704	0.6−	0.5−
1998 11 11	704	0.8−	0.5+	1998 12 12	120	0.1−	0.2+	2000 02 07	704	0.6−	0.6−
1998 11 11	704	0.5−	0.0	1998 12 12	120	0.5−	0.3+	2000 02 07	704	0.0	0.5−
1998 11 11	704	0.3−	0.7−	1998 12 14	120	0.3−	0.6+	2000 02 07	704	0.0	0.4−
1998 11 11	704	0.5−	0.0	1998 12 14	120	0.8+	0.3+	2000 02 07	704	0.7+	0.5+
1998 11 11	704	0.2+	0.2+	1998 12 14	120	0.1+	0.4+	2000 02 08	704	0.0	0.3−
1998 11 20	699	1.0+	0.1+	1999 01 06	699	0.1+	0.0	2000 02 08	704	0.0	0.2+
1998 11 20	699	0.8+	0.5+	1999 01 06	699	0.1+	0.2+	2000 02 08	704	0.0	0.0
1998 11 20	699	0.3+	0.4+	1999 01 06	699	1.3−	0.9+	2000 02 08	704	0.1+	0.7+
1998 12 07	120	0.3+	0.2−	1999 02 02	699	0.3+	0.3−	2000 02 08	704	0.5+	1.3+

1998 WE = 2000 CX₅₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	38.78520		(2000.0)	P		Q	
<i>n</i>	0.17079742	ω	352.11674	−0.35743578		−0.93314400	
<i>a</i>	3.2172280	Ω	118.81894	+0.85925038		−0.34472362	
<i>e</i>	0.1391295	<i>i</i>	2.51826	+0.36596235		−0.10201909	
<i>P</i>	5.77	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 11 11	699	0.2−	0.5−	1998 11 21	704	1.7+	1.0−	1998 12 20	691	0.7−	0.5−
1998 11 11	699	0.2+	0.9+	1998 11 21	704	0.0	1.8−	1998 12 20	691	0.8−	0.5−
1998 11 11	699	0.8−	0.9+	1998 11 23	727	0.9−	0.4+	1998 12 21	910	0.5+	0.5+
1998 11 16	727	0.3+	0.7−	1998 11 23	727	0.3−	0.1+	1998 12 21	910	0.7+	0.5+
1998 11 16	727	0.2+	0.1+	1998 11 23	727	0.3−	0.4+	1998 12 21	910	0.5+	0.5+
1998 11 16	727	0.1−	0.3+	1998 11 24	727	0.3−	0.3+	2000 02 05	704	0.5−	0.2+
1998 11 17	727	0.8−	0.1−	1998 11 24	727	0.4−	0.2+	2000 02 05	704	0.3−	0.4−
1998 11 17	727	0.4−	0.1−	1998 11 24	727	0.7−	0.0	2000 02 05	704	1.3+	0.7+
1998 11 17	727	0.5−	0.0	1998 11 24	704	0.1+	0.1+	2000 02 06	704	0.2+	0.0
1998 11 18	704	0.3−	1.0+	1998 11 24	704	0.8+	0.2+	2000 02 06	704	0.4−	0.1+
1998 11 18	704	0.7+	0.9−	1998 11 24	704	0.9−	0.3+	2000 02 06	704	0.2−	0.4−
1998 11 18	704	0.2+	0.4+	1998 11 24	704	0.7+	0.5+	2000 02 06	704	1.2+	0.7+
1998 11 18	704	(0.0	2.2+)	1998 11 24	704	(0.4+	2.4+)	2000 02 11	704	0.5−	0.0
1998 11 18	704	0.8+	0.3+	1998 12 08	691	0.4+	0.4−	2000 02 11	704	0.1−	0.3−
1998 11 21	704	0.2−	0.5+	1998 12 08	691	0.3+	0.7−	2000 02 11	704	0.3−	0.1−
1998 11 21	704	0.2+	0.7−	1998 12 08	691	0.4+	0.0	2000 02 11	704	0.1+	0.1+
1998 11 21	704	0.7+	0.1−	1998 12 20	691	0.9−	0.3−	2000 02 11	704	0.5−	0.5−

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	175.22772		(2000.0)	P		Q	
<i>n</i>	0.24653941	ω	350.14004	+0.83465223	+0.54059037		
<i>a</i>	2.5189052	Ω	336.19079	-0.48586825	+0.63250853		
<i>e</i>	0.1441105	<i>i</i>	15.14070	-0.25939872	+0.55470263		
<i>P</i>	4.00	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1974 10 11	033	2.3-	0.6+	1998 11 19	159	1.3+	1.3-	1998 12 17	159	0.7+	1.4-
1974 10 11	033	2.0+	0.0	1998 11 19	159	0.3+	0.3+	1998 12 17	159	0.3-	1.0+
1998 09 26	699	0.1-	0.3+	1998 11 19	159	0.8+	0.4-	1998 12 17	159	0.6+	0.5+
1998 09 26	699	0.3+	0.2+	1998 11 23	159	(5.0-	1.1+)	1998 12 17	159	(2.4-	0.1-)
1998 09 26	699	(2.1+	1.7+)	1998 11 23	159	(3.4-	0.9+)	1998 12 24	159	0.0	0.6-
1998 11 14	704	0.8-	1.1+	1998 11 28	159	0.3+	0.2-	1998 12 24	159	(3.1+	2.0+)
1998 11 14	704	1.0-	0.4+	1998 11 28	159	0.0	0.7-	1998 12 26	159	0.9-	0.3-
1998 11 14	704	0.0	1.1+	1998 11 28	159	0.7+	1.4-	1998 12 26	159	(2.7-	0.6-)
1998 11 14	704	(0.5+	2.3+)	1998 11 28	159	0.3+	0.3-	1999 01 05	159	0.4+	0.2-
1998 11 14	704	0.3+	0.6+	1998 11 28	159	0.3-	0.0	1999 01 05	159	(2.1+	0.1+)
1998 11 16	159	0.3+	0.3+	1998 11 28	159	0.5-	0.3+	1999 01 15	159	(2.5-	0.5+)
1998 11 16	159	0.4+	0.3+	1998 12 05	159	1.7-	0.3+	1999 01 15	159	0.8+	1.5-
1998 11 16	159	0.1-	1.0+	1998 12 05	159	0.3-	0.2-	1999 01 15	159	0.4+	1.3-
1998 11 18	159	0.9+	0.2-	1998 12 05	159	0.2+	0.1-	1999 01 15	159	0.8+	0.7-
1998 11 18	159	(2.2-	1.0+)	1998 12 05	159	0.0	0.2-	2000 01 30	704	0.3-	0.6+
1998 11 18	159	0.3+	0.3+	1998 12 05	159	0.4-	0.4-	2000 01 30	704	1.0+	0.3+
1998 11 18	159	0.9-	0.1-	1998 12 08	159	0.7-	0.4-	2000 01 30	704	0.7+	1.1+
1998 11 18	159	1.2-	1.2+	1998 12 08	159	0.0	0.3-	2000 02 03	704	0.2+	0.4+
1998 11 19	159	0.2+	0.6+	1998 12 08	159	0.1+	0.5-	2000 02 03	704	0.1-	0.6-
1998 11 19	159	0.8+	0.6-	1998 12 08	159	0.5-	0.8+	2000 02 03	704	0.0	0.5+
1998 11 19	159	0.0	0.9+	1998 12 08	159	0.3+	0.2+	2000 02 03	704	0.2-	0.2-
1998 11 19	159	0.6-	0.2-	1998 12 08	159	0.3-	0.5+	2000 02 03	704	0.5-	1.1-
1998 11 19	159	0.1-	0.0	1998 12 17	159	0.0	0.9-				
1998 11 19	159	0.9+	0.4+	1998 12 17	159	0.6-	0.2-				

1998 WM₁ = 1985 OQ = 2000 CZ₆₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	215.14757		(2000.0)	P		Q	
<i>n</i>	0.24409657	ω	58.51460	+0.69693429	+0.71270802		
<i>a</i>	2.5356828	Ω	255.89010	-0.68264792	+0.62533304		
<i>e</i>	0.1930979	<i>i</i>	4.70558	-0.21971439	+0.31781422		
<i>P</i>	4.04	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1985 07 19	033	0.1-	0.3+	1998 12 15	704	0.7-	0.8+	1998 12 22	704	0.5+	0.1+
1998 11 18	411	0.3-	1.0-	1998 12 15	704	0.3-	0.5-	2000 02 02	704	0.0	0.1+
1998 11 18	411	0.2-	0.7+	1998 12 15	704	0.5-	0.4-	2000 02 02	704	0.3+	0.4+
1998 11 19	411	0.2+	1.7+	1998 12 16	704	0.8+	1.2-	2000 02 02	704	0.7+	0.5-
1998 11 19	411	0.9-	0.6+	1998 12 16	704	0.2-	0.3-	2000 02 02	704	0.1+	0.6-
1998 11 25	411	0.3+	0.8-	1998 12 16	704	0.4+	0.3+	2000 02 02	704	1.0+	0.6+
1998 11 25	411	0.3-	0.4-	1998 12 16	704	0.4-	0.7+	2000 02 07	704	0.3-	0.6-
1998 11 25	411	0.6+	0.5-	1998 12 21	411	0.4+	0.3-	2000 02 07	704	0.8-	0.2-
1998 12 13	411	0.3-	0.2+	1998 12 21	411	0.2+	0.0	2000 02 07	704	0.2-	0.6+
1998 12 13	411	0.5-	0.2+	1998 12 22	704	0.5+	0.7-	2000 02 07	704	0.3-	0.4-
1998 12 15	704	0.7-	1.3+	1998 12 22	704	0.5+	0.2+	2000 02 07	704	0.4-	0.9+
1998 12 15	704	0.5+	0.8-	1998 12 22	704	0.4+	0.5+				

1998 WU₁ = 2000 CF₉₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	233.69493		(2000.0)	P		Q	
<i>n</i>	0.26952593	ω	236.45924	+0.74143170	+0.64028795		
<i>a</i>	2.3735717	Ω	82.87629	-0.52881217	+0.74171606		
<i>e</i>	0.0779077	<i>i</i>	11.67362	-0.41308199	+0.19972138		
<i>P</i>	3.66	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 11 18	411	0.3-	0.5+	1998 12 14	704	0.7-	0.1+	1998 12 17	704	0.4-	1.6-
1998 11 18	411	0.2-	0.0	1998 12 14	704	0.0	0.8+	1998 12 17	704	1.1-	0.8-
1998 11 19	411	0.8-	0.2+	1998 12 16	704	0.7+	0.6+	1998 12 21	411	0.3-	1.5+
1998 11 19	411	0.4+	0.2+	1998 12 16	704	0.4+	0.2-	1998 12 21	411	0.3+	0.4+
1998 11 25	411	0.5+	1.6-	1998 12 16	704	0.8+	0.8-	2000 02 11	120	0.4-	0.2-
1998 11 25	411	0.5+	0.0	1998 12 16	704	0.3-	0.8-	2000 02 11	120	0.2-	0.1-
1998 12 13	411	0.7-	0.8+	1998 12 16	704	0.6+	0.6-	2000 02 11	120	1.9-	0.7+
1998 12 13	411	0.5-	1.0+	1998 12 17	704	0.4+	0.2+	2000 02 13	120	1.4+	0.5-
1998 12 14	704	0.0	0.6+	1998 12 17	704	1.0-	0.2-	2000 02 13	120	1.0+	0.0
1998 12 14	704	1.4+	0.2+	1998 12 17	704	0.4+	0.5-				

1998 WH₅ = 2000 CC₆₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	36.44445		(2000.0)	P		Q	
<i>n</i>	0.17466026	ω	320.10462	-0.71695967	-0.69630791		
<i>a</i>	3.1696160	Ω	175.32071	+0.69695636	-0.71699223		
<i>e</i>	0.1392532	<i>i</i>	24.26707	+0.01485485	+0.03282427		
<i>P</i>	5.64	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 11 18	703	0.9-	0.5+	1998 12 19	703	0.6+	0.7+	2000 02 06	704	0.1-	1.0-
1998 11 18	703	0.9-	1.0-	1998 12 19	703	0.9-	0.8-	2000 02 06	704	0.2+	0.2-
1998 11 18	703	0.0	0.2+	1998 12 19	704	0.5-	0.1+	2000 02 08	704	1.4+	0.6+
1998 11 23	703	0.5+	0.4+	1998 12 19	704	0.4-	0.9+	2000 02 08	704	0.8-	0.0
1998 11 23	703	1.6+	0.3-	1998 12 19	704	(0.3-	2.5-)	2000 02 08	704	0.7-	0.1+
1998 12 19	703	1.0+	0.9-	2000 02 06	704	0.1-	0.1+	2000 02 08	704	0.0	0.6-
1998 12 19	704	0.0	0.1+	2000 02 06	704	0.4+	0.1+	2000 02 08	704	0.2-	0.8+

1998 WL₅

Id. T. Kagawa (2000 observations)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	42.83675		(2000.0)	P		Q	
<i>n</i>	0.19698857	ω	72.94908	-0.36508732	-0.93063814		
<i>a</i>	2.9253334	Ω	38.49338	+0.83816437	-0.34025116		
<i>e</i>	0.0596579	<i>i</i>	2.29992	+0.40520580	-0.13469152		
<i>P</i>	5.00	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 11 18	704	0.1+	0.4-	1998 11 24	888	0.1+	0.8-	1998 12 26	888	0.3-	0.0
1998 11 18	704	1.1+	0.0	1998 11 24	888	0.5+	1.0-	2000 02 09	888	0.1-	0.3-
1998 11 18	704	0.4+	0.2-	1998 11 29	888	0.2-	0.6+	2000 02 09	888	0.8-	0.3-
1998 11 18	704	1.7-	0.5-	1998 11 29	888	0.3-	0.3+	2000 02 09	888	0.8-	0.9+
1998 11 20	888	0.1+	0.3+	1998 12 11	691	0.4+	0.1-	2000 02 10	888	0.7+	0.6-
1998 11 20	888	0.0	0.1+	1998 12 11	691	0.2+	0.1+	2000 02 10	888	0.3-	0.2-
1998 11 20	888	0.0	0.0	1998 12 11	691	0.4+	0.1-	2000 02 10	888	0.1-	0.5+
1998 11 21	704	1.1-	1.3+	1998 12 11	888	0.2-	0.1+	2000 02 11	704	0.6+	0.3+
1998 11 21	704	0.1+	0.7+	1998 12 11	888	0.8-	0.1+	2000 02 11	704	1.4+	0.1-
1998 11 21	704	(3.1-	0.3-)	1998 12 17	888	0.0	0.0	2000 02 11	704	0.6-	0.1+
1998 11 22	888	0.7+	0.1-	1998 12 17	888	0.2-	0.1+	2000 02 11	704	0.1-	0.3-
1998 11 22	888	0.3+	0.5-	1998 12 26	888	0.2+	0.1+	2000 02 11	704	(2.2+	0.1-)

1998 WW₅ = 1987 SY₄

Id. S. Nakano, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	222.09465		(2000.0)	P		Q	
<i>n</i>	0.27540600	ω	305.01748	+0.55020547	+0.83502466		
<i>a</i>	2.3396656	Ω	358.35601	-0.73100205	+0.48004579		
<i>e</i>	0.1406915	<i>i</i>	5.57336	-0.40362104	+0.26886774		
<i>P</i>	3.58	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1987 09 30	054	0.1+	0.6-	1998 11 23	888	0.0	0.1+	2000 02 10	888	0.2-	0.1+
1987 09 30	054	0.6+	0.8-	1998 11 23	888	0.1+	0.3+	2000 02 10	888	0.1-	0.4-
1998 11 11	704	0.8+	0.2-	1998 11 26	888	0.9+	0.1-	2000 02 11	704	0.5-	0.3-

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1998 11 11	704	0.8−	0.4−	1998 11 26	888	0.2+	0.1+	2000 02 11	704	0.3−	0.3+
1998 11 11	704	0.3−	1.1+	1998 12 09	888	0.2−	0.3+	2000 02 11	704	0.9+	0.4+
1998 11 11	704	0.9+	1.0+	1998 12 09	888	0.6+	0.3+	2000 02 11	704	0.9−	0.5−
1998 11 19	905	0.3+	0.6−	1998 12 19	385	0.8−	0.2−	2000 02 11	704	0.1+	1.3−
1998 11 19	905	0.8−	1.5−	1998 12 22	888	0.6+	0.3+	2000 02 11	888	0.3+	0.0
1998 11 23	385	0.3−	0.1−	1998 12 22	888	0.1−	0.1−	2000 02 11	888	0.4+	0.2−
1998 11 23	385	0.1−	0.0	1999 01 18	888	0.2−	0.8+	2000 02 11	888	0.1+	0.2+
1998 11 23	385	0.1−	0.2−	1999 01 18	888	0.8−	0.2+				
1998 11 23	888	0.6−	0.2+	2000 02 10	888	0.5−	0.5+				

1998 WB₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	61.53608		(2000.0)	P	Q
<i>n</i>	0.28804758	ω	251.49467	−0.70687517	−0.70121277
<i>a</i>	2.2707007	Ω	243.85790	+0.68172658	−0.64036278
<i>e</i>	0.0883394	<i>i</i>	5.93918	+0.18861700	−0.31342648
<i>P</i>	3.42	<i>H</i>	13.7	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1991 10 12	675	0.4−	0.3+	1998 11 10	704	0.0	0.0	1998 11 18	399	0.0	1.6−
1991 10 12	675	(2.6+	0.7+)	1998 11 10	704	0.2−	1.0+	1998 11 19	399	0.4+	1.0−
1991 10 14	675	0.8−	0.3+	1998 11 10	704	(5.8−	0.8+)	1998 11 19	399	(1.1−	2.1−)
1991 10 14	675	0.9+	0.4+	1998 11 11	704	0.4+	0.1+	1998 11 22	399	0.7−	0.4+
1998 08 31	704	0.8−	0.3+	1998 11 11	704	1.0+	0.7+	1998 11 22	399	0.3+	0.4−
1998 08 31	704	(1.3+	2.8+)	1998 11 11	704	0.2+	0.8−	1999 01 06	699	1.2−	1.3+
1998 08 31	704	0.9−	1.2+	1998 11 12	399	0.8+	0.9+	1999 01 06	699	0.7−	0.9+
1998 08 31	704	1.2+	0.6−	1998 11 12	399	0.8−	0.1+	1999 01 06	699	0.3−	1.4+
1998 08 31	704	0.2−	0.3−	1998 11 18	704	0.3+	0.7−	1999 02 04	704	0.9+	1.5−
1998 10 19	699	0.1+	0.2−	1998 11 18	704	0.4+	0.7+	1999 02 04	704	0.3+	1.2+
1998 10 19	699	0.0	0.1−	1998 11 18	704	0.6−	0.5+	1999 02 04	704	0.5−	0.5−
1998 10 19	699	0.2+	0.5−	1998 11 18	704	0.1−	0.3−	1999 02 04	704	(1.5−	2.3−)
1998 11 10	704	0.3+	0.1−	1998 11 18	704	0.8−	0.4−				
1998 11 10	704	0.0	0.1−	1998 11 18	399	0.4+	1.8−				

1998 WX₆ = 1998 XK₇₃ = 1932 BF = 1962 XA₁ = 1975 VU₂Id. G. V. Williams (d, *MPC* 33786), A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	85.52631		(2000.0)	P	Q
<i>n</i>	0.22031788	ω	37.12643	−0.33692014	−0.92982892
<i>a</i>	2.7149983	Ω	72.98668	+0.82241909	−0.36716306
<i>e</i>	0.1579267	<i>i</i>	8.90345	+0.45837939	−0.02468736
<i>P</i>	4.47	<i>H</i>	13.6	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1932 01 28	024	(6.2+	3.0−)	1998 11 20	561	0.0	0.8+	1999 01 16	704	0.5−	1.0−
1949 11 25	675	0.2+	0.6−	1998 11 20	561	0.0	1.0+	1999 01 16	704	0.5+	0.9+
1949 11 25	675	0.8−	0.1+	1998 11 20	561	0.3+	1.1+	1999 01 16	704	1.7+	1.7−
1962 12 03	760	1.5−	0.9+	1998 11 20	561	0.1−	0.9+	1999 01 16	704	1.3+	1.3+
1962 12 03	760	1.9+	0.2−	1998 11 22	561	0.1−	0.3+	1999 01 19	704	0.0	0.2+
1975 11 02	095	(0.3−	9.7−)	1998 11 22	561	0.1+	0.2+	1999 01 19	704	0.5−	0.3+
1978 07 30	413	0.7+	0.6−	1998 11 22	561	0.0	0.3+	1999 01 19	704	0.4−	0.1+
1984 08 07	413	0.3+	0.2+	1998 12 14	704	0.2+	0.7−	1999 01 19	704	0.4+	0.4+
1984 08 07	413	2.4−	0.3+	1998 12 14	704	0.6+	1.0−	1999 01 19	704	0.6−	1.7−
1986 03 04	675	0.5−	0.5+	1998 12 14	704	0.1+	0.7−	1999 04 06	704	0.5−	0.7+
1986 03 04	675	0.4+	0.2−	1998 12 14	704	1.8−	0.8−	1999 04 06	704	1.0−	0.0
1986 03 04	675	0.9+	0.7+	1998 12 14	704	(0.3−	2.3−)	1999 04 06	704	0.1+	1.9+
1991 03 19	413	1.3−	0.1+	1998 12 17	704	0.2−	0.2+	1999 05 15	703	1.0+	0.6+
1991 03 19	413	0.1−	0.3+	1998 12 17	704	0.5−	0.9−	1999 05 15	703	0.2+	0.1+
1992 06 04	413	0.1−	0.1+	1998 12 17	704	(2.3+	0.9−)	1999 05 15	703	0.7−	0.3+
1992 06 04	413	0.8+	0.3+	1998 12 17	704	0.3+	1.2−	1999 05 15	703	0.8+	0.1−

1998 WY₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	345.91124		(2000.0)	P	Q
<i>n</i>	0.26437583	ω	219.84202	−0.92330842	+0.38278490
<i>a</i>	2.4042976	Ω	342.58633	−0.32035559	−0.81250016
<i>e</i>	0.0362095	<i>i</i>	5.99601	−0.21183449	−0.43968080
<i>P</i>	3.73	<i>H</i>	14.4	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 11 22	561	0.4−	0.3+	1998 11 24	561	0.3+	0.2+	1999 01 21	561	0.3−	0.1+
1998 11 22	561	0.0	0.2+	1998 12 11	561	0.2+	0.4+	1999 01 21	561	0.5−	0.4+
1998 11 22	561	0.8+	0.0	1998 12 11	561	0.6+	0.5+	1999 01 21	561	0.5−	0.2+
1998 11 24	561	0.1−	0.0	1998 12 11	561	0.4+	0.5+	2000 01 01	461	0.2−	0.0
1998 11 24	561	0.3+	0.2+	1998 12 17	704	0.0	0.2+	2000 01 01	461	0.2+	0.5+
1998 11 24	561	0.0	0.2−	1998 12 17	704	0.0	1.2−	2000 01 01	461	1.1+	0.3−
1998 11 24	561	0.1+	0.3−	1998 12 17	704	0.7+	0.5+	2000 02 01	461	0.2−	0.1−
1998 11 24	561	0.0	0.3−	1998 12 17	704	1.7−	1.2−	2000 02 01	461	0.2−	0.3−
1998 11 24	561	0.2+	0.2−	1998 12 17	704	0.4−	0.3−	2000 02 01	461	0.6−	0.1−

1998 WE₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

<i>M</i>	304.69821		(2000.0)	P	Q
<i>n</i>	0.24417730	ω	167.19420	−0.57885845	+0.77785112
<i>a</i>	2.5351239	Ω	66.91777	−0.76963308	−0.42202810
<i>e</i>	0.1338314	<i>i</i>	15.42507	−0.26942126	−0.46566074
<i>P</i>	4.04	<i>H</i>	13.8	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 11 20	699	0.2+	0.4+	1998 12 11	699	0.8−	0.1+	1998 12 25	327	0.5+	0.2−
1998 11 20	699	0.4+	0.6+	1998 12 11	699	0.2+	0.3+	1998 12 25	327	0.0	0.4+
1998 11 20	699	0.8−	1.2+	1998 12 11	699	0.6+	0.2−	1998 12 25	327	0.8+	0.0
1998 11 23	385	0.5−	0.2−	1998 12 11	385	1.2−	0.1−	1999 01 11	385	0.4+	0.7−
1998 11 23	385	0.2−	0.3−	1998 12 11	385	0.6−	0.3−	1999 01 11	888	0.5+	0.6+
1998 11 24	704	0.9+	0.6−	1998 12 14	704	0.4+	0.4−	1999 01 11	888	1.5−	0.3+
1998 11 24	704	0.9+	0.7−	1998 12 14	704	1.6−	0.3+	1999 02 06	385	0.4+	0.1+
1998 11 24	704	0.2+	0.6−	1998 12 14	704	0.3+	1.4+	1999 02 06	385	0.7−	0.5+
1998 11 24	704	0.1−	0.0	1998 12 17	704	0.5+	0.8−	2000 02 04	888	0.5−	0.1−
1998 11 24	888	0.1+	0.2−	1998 12 17	704	2.1−	0.1+	2000 02 04	888	0.1+	0.3−
1998 11 24	888	0.1+	0.1+	1998 12 17	704	0.5+	0.8−	2000 02 04	888	0.2+	0.3+
1998 11 26	888	0.4−	0.0	1998 12 17	704	2.0+	0.7−	2000 02 05	888	0.3+	0.1−
1998 11 26	888	0.1−	0.1+	1998 12 17	888	0.0	0.1−	2000 02 05	888	0.1−	0.4+
1998 12 08	699	0.5−	0.3+	1998 12 17	888	0.2+	0.1−	2000 02 05	888	0.0	0.2−
1998 12 08	699	0.3+	0.1+	1998 12 24	888	0.5+	0.0				
1998 12 08	699	0.3−	0.6+	1998 12 24	888	0.2+	0.1−				

1998 WF₇ = 2000 BC₁₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	236.58330		(2000.0)	P	Q
<i>n</i>	0.26180844	ω	218.97966	+0.31307886	+0.94060604
<i>a</i>	2.4199903	Ω	69.61632	−0.83254827	+0.33834329
<i>e</i>	0.2105493	<i>i</i>	8.05248	−0.45699563	+0.02800191
<i>P</i>	3.76	<i>H</i>	14.4	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 11 23	385	0.3−	0.3−	1998 12 11	385	1.7+	1.1+	1999 01 13	385	0.1−	0.5−
1998 11 23	385	0.4−	0.4−	1998 12 11	385	0.4−	0.2−	1999 01 13	385	0.6−	0.4+
1998 11 24	704	0.1−	0.9+	1998 12 14	704	0.7−	0.3−	2000 01 28	888	0.3−	0.1+
1998 11 24	704	1.1+	1.1−	1998 12 14	704	(1.1−	2.3−)	2000 01 28	888	0.1+	0.6+
1998 11 24	704	0.3+	1.4−	1998 12 14	704	0.1+	0.3+	2000 01 28	888	0.4−	0.7+
1998 11 24	704	0.5+	0.3+	1998 12 14	704	(5.1−	1.3−)	2000 01 29	888	0.1+	0.6−
1998 11 24	888	0.7−	0.2+	1998 12 17	888	0.9−	0.5−	2000 01 29	888	0.2+	0.3−
1998 11 24	888	0.2−	0.0	1998 12 25	888	0.1−	0.1−	2000 01 29	888	0.4+	0.6−
1998 11 26	888	0.1+	0.1−	1998 12 25	888	1.0+	0.7+				
1998 11 26	888	0.2+	1.0+	1999 01 11	385	(0.4−	3.0−)				

1998 WM₇ = 1973 YF₃ = 1974 DL₂

Id. A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	80.01465		(2000.0)	P		Q	
<i>n</i>	0.23949045	ω	66.14973	−0.93294623	−0.32381491		
<i>a</i>	2.5680920	Ω	94.65018	+0.24515342	−0.89146072		
<i>e</i>	0.2186480	<i>i</i>	9.08256	+0.26364963	−0.31692537		
<i>P</i>	4.12	<i>H</i>	13.3	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1973 12 25	095	1.2+	0.3−	1999 02 10	704	0.2−	0.1−	1999 03 13	106	0.4−	0.3−
1974 02 16	033	1.6−	0.5+	1999 02 10	704	0.8+	0.4+	1999 03 13	106	0.9−	1.0+
1979 06 24	413	0.3−	0.2−	1999 02 10	704	1.2−	1.4+	1999 03 15	704	0.8+	0.7−
1979 08 15	413	0.5+	0.2−	1999 02 10	704	0.0	0.3+	1999 03 15	704	1.4−	0.3−
1979 08 15	413	0.7−	1.6−	1999 02 10	704	0.3−	0.6+	1999 03 15	704	0.0	1.5+
1998 10 03	699	0.6−	0.1+	1999 02 13	699	0.1−	0.3+	1999 03 15	704	1.4−	1.4+
1998 10 03	699	1.2−	0.5+	1999 02 13	699	0.1−	0.2+	1999 03 20	106	0.1+	0.1−
1998 10 03	699	0.6−	0.9−	1999 02 13	699	0.1−	0.2+	1999 03 20	106	0.7+	0.0
1998 11 24	704	0.6−	0.8−	1999 02 13	704	0.3−	0.4−	1999 05 08	704	0.1+	0.2−
1998 11 24	704	0.8+	0.1−	1999 02 13	704	0.1+	0.6−	1999 05 08	704	0.6−	0.8+
1998 11 24	704	1.3−	0.3−	1999 02 13	704	0.2+	0.0	1999 05 08	704	0.9−	0.4+
1998 11 24	704	0.3+	0.1−	1999 02 13	704	0.1+	0.2−	1999 05 08	704	1.5−	0.5+
1998 11 24	704	0.5−	0.1−	1999 02 13	704	0.6−	0.6+	1999 05 08	704	0.7−	0.7+
1998 11 25	704	0.3+	0.2−	1999 02 19	566	0.1+	0.0	1999 05 17	704	0.2+	1.7−
1998 11 25	704	0.3+	0.1−	1999 02 19	566	0.2+	0.2+	1999 05 17	704	0.6−	0.2+
1998 11 25	704	0.6+	0.6−	1999 02 19	566	0.1+	0.2+	1999 05 17	704	0.5+	0.2+
1998 11 25	704	0.5−	0.6−	1999 02 20	699	0.3+	0.6+	1999 05 17	704	1.3−	0.4−
1998 11 25	704	1.4+	0.5−	1999 02 20	699	0.5+	0.5+	1999 06 07	704	0.5+	0.3−
1998 12 21	704	0.3+	1.3−	1999 02 20	699	0.6+	0.5+	1999 06 07	704	0.0	0.5−
1998 12 21	704	0.5−	0.2+	1999 02 23	566	0.7+	1.1−	1999 06 07	704	0.4+	0.2+
1998 12 21	704	1.1+	1.9−	1999 02 23	566	0.4+	1.3−	1999 06 07	704	0.6+	0.6−
1998 12 21	704	0.1−	0.1+	1999 02 23	566	0.9+	1.3−	1999 06 07	704	0.2−	1.0−
1998 12 21	704	1.7+	0.2−	1999 03 13	106	0.4+	0.4+				

1998 WS₈ = 2000 AE₄₅

Id. K. Sárneczky

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	180.18570		(2000.0)	P		Q	
<i>n</i>	0.20109633	ω	55.57421	+0.86803591	+0.45088267		
<i>a</i>	2.8853596	Ω	276.82396	−0.49578237	+0.76461268		
<i>e</i>	0.0308920	<i>i</i>	12.08565	−0.02671121	+0.46051304		
<i>P</i>	4.90	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 11 24	561	0.1−	0.0	1998 12 17	704	0.7+	0.5+	2000 01 01	461	0.6+	1.1+
1998 11 24	561	0.1−	0.5+	1998 12 17	704	0.3+	0.1+	2000 01 01	461	0.6+	1.1+
1998 11 24	561	0.4−	0.3+	1998 12 17	704	0.3+	0.8+	2000 01 02	461	0.6+	0.4+
1998 11 24	561	0.1−	0.3−	1998 12 17	704	0.6−	1.9−	2000 01 28	461	0.4−	0.2−
1998 11 24	561	0.2−	0.4−	1999 01 21	561	0.2+	0.2−	2000 01 28	461	1.2−	0.5−
1998 11 24	561	0.1−	0.0	1999 01 21	561	0.4+	0.0	2000 01 28	461	0.7−	0.5−
1998 11 24	561	0.2−	0.2−	1999 01 21	561	0.3+	0.1−	2000 02 01	461	0.2−	0.7−
1998 12 11	561	0.7−	0.4+	1999 01 22	561	0.3+	0.0	2000 02 01	461	0.2+	0.4−
1998 12 11	561	0.4−	0.1+	1999 01 22	561	0.2−	0.0	2000 02 01	461	0.2+	0.4−
1998 12 11	561	0.0	0.4+	1999 01 22	561	0.0	0.3−				
1998 12 17	704	1.1+	0.1−	2000 01 01	461	0.6+	0.7+				

1998 WY₈ = 2000 CX₁₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	55.63620		(2000.0)	P		Q	
<i>n</i>	0.08445634	ω	145.19924	+0.49163428	−0.86781939		
<i>a</i>	5.1449506	Ω	275.25477	+0.78163077	+0.47623087		
<i>e</i>	0.0911145	<i>i</i>	4.14682	+0.38386075	+0.14175209		
<i>P</i>	11.67	<i>H</i>	11.3	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 11 18	369	0.1−	0.1+	1998 12 14	704	0.4−	2.0−	1998 12 27	369	0.6+	0.8+
1998 11 18	369	0.1−	0.0	1998 12 14	704	0.5+	0.6−	2000 02 02	704	0.3+	0.3+
1998 11 18	369	0.3+	0.9+	1998 12 14	704	1.7−	0.1−	2000 02 02	704	0.1−	0.3−
1998 11 28	369	0.5+	0.6−	1998 12 14	704	0.7+	0.1+	2000 02 02	704	0.3+	0.2+
1998 11 28	369	0.3−	0.4+	1998 12 17	704	0.3+	1.4+	2000 02 02	704	0.3+	0.2+
1998 12 09	411	0.7−	0.8−	1998 12 17	704	1.0+	0.3−	2000 02 03	704	0.3−	0.2−
1998 12 09	411	0.4−	0.2+	1998 12 17	704	0.1+	0.6+	2000 02 03	704	0.4−	0.2+
1998 12 09	369	0.3−	1.0−	1998 12 17	704	1.5−	0.1+	2000 02 03	704	0.1−	0.1−
1998 12 09	369	1.0+	0.1−	1998 12 17	704	0.8+	0.9+	2000 02 03	704	0.0	0.2−
1998 12 14	704	0.2+	0.6+	1998 12 27	369	0.4−	0.5−				

1998 WL₁₀ = 2000 CM₅₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	66.77465		(2000.0)	P		Q	
<i>n</i>	0.18024397	ω	248.71389	+0.22842532	−0.97350188		
<i>a</i>	3.1038130	Ω	188.10432	+0.91914642	+0.21929090		
<i>e</i>	0.1346570	<i>i</i>	4.38082	+0.32092326	+0.06485048		
<i>P</i>	5.47	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 10 20	699	0.5−	1.5+	1998 11 21	704	1.9−	0.3+	2000 02 02	704	0.5−	0.4−
1998 10 20	699	0.2−	0.2−	1998 11 24	704	0.4−	0.3−	2000 02 02	704	0.5−	0.0
1998 10 20	699	0.5+	0.5−	1998 11 24	704	0.8−	0.0	2000 02 02	704	0.0	0.3−
1998 11 11	699	0.5+	0.6−	1998 11 24	704	0.8−	0.3+	2000 02 06	704	0.1+	0.1+
1998 11 11	699	0.7+	0.2−	1998 11 24	699	1.5+	0.1−	2000 02 06	704	0.5+	0.6−
1998 11 11	699	0.7−	0.6−	1998 11 24	704	1.2−	0.6+	2000 02 06	704	0.3+	0.1+
1998 11 21	704	0.4+	0.5−	1998 11 24	699	0.8+	0.2−	2000 02 06	704	0.8+	1.0+
1998 11 21	704	0.8+	0.3−	1998 11 24	699	1.2+	0.8+				
1998 11 21	704	(3.4+	0.0)	2000 02 02	704	0.8−	0.0				

1998 WM₁₀ = 2000 CU₈₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	48.24729		(2000.0)	P		Q	
<i>n</i>	0.18994801	ω	332.76277	−0.16529225	−0.98492579		
<i>a</i>	2.9971804	Ω	126.70829	+0.91604599	−0.17247722		
<i>e</i>	0.0608102	<i>i</i>	3.64643	+0.36542880	−0.01314493		
<i>P</i>	5.19	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 10 20	699	0.1+	0.8−	1998 11 21	704	0.7−	0.5−	2000 02 02	703	0.0	0.7−
1998 10 20	699	0.4+	0.0	1998 11 24	704	0.9+	1.2−	2000 02 04	704	0.2−	0.1+
1998 10 20	699	0.4−	0.2−	1998 11 24	704	0.0	0.7+	2000 02 04	704	0.1+	0.5+
1998 11 18	704	0.8+	0.1−	1998 11 24	704	0.4−	0.5−	2000 02 04	704	0.6−	0.2−
1998 11 18	704	0.4−	0.6+	1998 11 24	704	0.7−	0.3−	2000 02 04	704	0.0	0.1−
1998 11 18	704	(2.2−	0.6+)	1998 12 11	699	0.3−	0.2+	2000 02 04	704	0.5−	0.5−
1998 11 18	704	0.1+	0.9+	1998 12 11	699	0.3+	1.2+	2000 02 11	704	0.7+	0.9+
1998 11 18	704	(1.0−	2.3+)	1998 12 11	699	0.7−	0.6+	2000 02 11	704	0.4−	0.2+
1998 11 21	704	0.6+	0.4+	2000 02 02	703	0.7−	0.5−	2000 02 11	704	1.0+	0.0
1998 11 21	704	0.6+	0.6−	2000 02 02	703	0.0	0.2−	2000 02 11	704	0.5+	0.0
1998 11 21	704	0.1−	0.4−	2000 02 02	703	0.2−	0.3−	2000 02 11	704	0.2+	0.6+

1998 WE₁₂ = 2000 CW₄₀

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	319.40173		(2000.0)	P		Q	
<i>n</i>	0.19966255	ω	98.52034	−0.96896434	+0.24054453		
<i>a</i>	2.8991564	Ω	95.41261	−0.24329144	−0.88713606		
<i>e</i>	0.0361487	<i>i</i>	3.28099	−0.04378799	−0.39386284		
<i>P</i>	4.94	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1996 06 22	566	0.5−	1.1−	1998 12 07	910	1.2+	0.3+	1999 11 16	704	0.5−	0.9−
1996 06 22	566	0.3−	0.8−	1998 12 08	691	0.6−	0.0	1999 12 06	704	0.5+	0.5−

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1996 06 22	566	0.0	0.8−	1998 12 08	691	0.5−	0.2−	1999 12 06	704	0.5+	0.4−
1998 10 20	699	0.6−	0.1−	1998 12 08	691	0.3−	0.5−	1999 12 06	704	0.3−	0.9−
1998 10 20	699	0.5−	0.6+	1998 12 08	699	0.5+	0.6+	1999 12 06	704	0.2+	0.3−
1998 10 20	699	0.3+	0.0	1998 12 08	699	0.1+	0.8+	2000 01 07	704	0.6+	1.3−
1998 11 18	704	0.6+	0.7+	1998 12 08	699	0.7−	1.1+	2000 01 07	704	0.2−	0.3−
1998 11 18	704	0.3−	0.6−	1998 12 08	910	0.6+	0.8+	2000 01 07	704	0.9−	1.8+
1998 11 18	704	0.3+	0.8−	1998 12 08	910	0.5+	0.6+	2000 02 02	703	0.4−	0.2+
1998 11 18	704	1.5+	1.0−	1998 12 08	910	0.5+	0.8+	2000 02 02	703	0.7−	0.2+
1998 11 18	704	0.5−	0.2+	1998 12 15	910	0.2+	0.2+	2000 02 02	703	0.5−	0.1+
1998 11 21	704	1.6+	1.4+	1998 12 15	910	0.1+	0.2+	2000 02 02	703	0.0	0.3+
1998 11 21	704	0.0	0.6−	1998 12 15	910	0.2+	0.3+	2000 02 06	703	0.1+	0.1+
1998 11 21	704	0.0	1.1−	1998 12 20	691	0.7−	0.5−	2000 02 06	703	0.4+	0.1+
1998 11 21	704	(2.9+	0.6−)	1998 12 20	691	1.2−	0.2−	2000 02 06	703	0.6−	0.0
1998 11 21	704	(1.3+	2.3−)	1998 12 20	691	1.0−	0.2−	2000 02 06	703	0.1−	0.1+
1998 11 24	704	0.7−	0.6−	1999 01 06	699	0.7−	0.9−	2000 02 11	704	0.4+	0.5+
1998 11 24	704	0.9−	0.8−	1999 01 06	699	1.2−	1.1−	2000 02 11	704	0.4+	0.2−
1998 11 24	704	0.1−	0.7−	1999 01 06	699	0.2−	1.0−	2000 02 11	704	0.4+	0.4+
1998 11 24	704	0.3+	1.2−	1999 11 16	704	0.5−	0.2+	2000 02 11	704	0.1+	0.3+
1998 11 24	704	0.1−	0.0	1999 11 16	704	0.5+	0.1−	2000 02 11	704	0.4+	0.7+
1998 12 07	910	1.3+	0.5+	1999 11 16	704	0.5+	0.9−				
1998 12 07	910	1.0+	0.6+	1999 11 16	704	0.4−	0.8−				

1998 WY₁₃ = 2000 CP₉₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	194.95954		(2000.0)	P	Q		
<i>n</i>	0.28071815	ω	305.83226	+0.87658152	+0.48093828		
<i>a</i>	2.3100554	Ω	25.43455	−0.42743506	+0.79467036		
<i>e</i>	0.2032617	<i>i</i>	2.32365	−0.22114273	+0.37040166		
<i>P</i>	3.51	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 09 30	327	0.1−	0.0	1998 11 21	704	0.4−	0.4−	1998 12 14	704	0.4−	0.3+
1998 09 30	327	0.1−	0.3+	1998 11 21	704	0.3−	0.3−	1998 12 14	704	(3.0−	0.6+)
1998 09 30	327	0.0	0.4+	1998 11 21	704	0.3+	1.7+	1998 12 14	704	0.6−	0.8+
1998 11 18	704	0.8+	0.3−	1998 11 21	704	0.1+	0.7−	1998 12 14	704	0.7+	1.1+
1998 11 18	704	0.4+	0.7−	1998 11 24	704	0.0	0.0	2000 02 06	704	0.5−	0.5−
1998 11 18	704	0.9+	1.9−	1998 11 24	704	0.7−	0.8−	2000 02 06	704	0.2−	0.0
1998 11 18	704	(0.5+	2.2−)	1998 11 24	704	0.8−	1.3−	2000 02 06	704	0.3−	0.6+
1998 11 18	704	(2.2−	0.6−)	1998 11 24	704	(2.1+	0.5−)	2000 02 06	704	0.8−	0.4+
1998 11 20	699	0.2−	0.8+	1998 12 11	699	0.3−	0.1+	2000 02 11	704	0.1+	0.4+
1998 11 20	699	0.0	0.3−	1998 12 11	699	0.2−	0.3+	2000 02 11	704	0.7+	0.2−
1998 11 20	699	0.1+	0.7+	1998 12 11	699	0.3+	0.5+	2000 02 11	704	0.8+	1.0−
1998 11 21	704	0.5+	0.3+	1998 12 14	704	0.2−	0.1−				

1998 WH₁₄ = 2000 CQ₇₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	123.28914		(2000.0)	P	Q		
<i>n</i>	0.21033856	ω	155.43466	+0.89930929	−0.43146087		
<i>a</i>	2.8002069	Ω	230.31702	+0.38434579	+0.85759012		
<i>e</i>	0.1161807	<i>i</i>	5.31623	+0.20861716	+0.27996553		
<i>P</i>	4.69	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1996 03 26	809	0.1−	0.4−	1998 11 21	704	0.8−	0.1−	1998 12 16	910	0.2+	0.7+
1996 03 26	809	(1.9+	6.2−)	1998 11 21	704	0.3−	1.3−	1998 12 16	910	0.3+	0.7+
1996 03 26	809	(4.6+	9.8−)	1998 11 24	704	0.1+	0.2+	1998 12 16	910	0.3+	0.6+
1998 11 10	704	0.2−	0.6−	1998 11 24	704	0.1−	0.5−	1998 12 20	691	0.3+	0.4−
1998 11 10	704	0.5+	0.9−	1998 11 24	704	0.8−	0.2+	1998 12 20	691	0.3+	0.1−
1998 11 10	704	(1.2−	3.9−)	1998 11 24	704	0.5−	1.3+	1998 12 20	691	0.3+	0.1−
1998 11 10	704	2.6−	1.8−	1998 12 08	699	0.3+	0.2−	2000 02 07	704	0.6−	1.2−
1998 11 15	120	0.0	0.0	1998 12 08	699	1.5+	1.3+	2000 02 07	704	1.2−	2.0−
1998 11 15	120	0.0	0.1+	1998 12 08	699	0.4+	0.6−	2000 02 07	704	1.3+	0.5+
1998 11 20	699	0.3+	0.1+	1998 12 13	691	0.1−	0.3−	2000 02 07	704	0.4+	1.4+
1998 11 20	699	0.4+	0.6+	1998 12 13	691	0.1−	0.1+	2000 02 08	704	0.0	0.6−
1998 11 20	699	0.6−	0.5+	1998 12 13	691	0.2−	0.1−	2000 02 08	704	0.3−	0.3+
1998 11 21	704	0.1−	0.6−	1998 12 15	910	0.1+	1.0+	2000 02 08	704	0.3+	1.1+

1998 11 21	704	0.5+	1.1−	1998 12 15	910	0.1+	1.0+
1998 11 21	704	0.2+	0.7−	1998 12 15	910	0.0	1.0+

1998 WC₁₆ = 2000 AM₂₃₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	188.56916		(2000.0)	P	Q		
<i>n</i>	0.19176168	ω	233.53728	+0.60657678	+0.77162428		
<i>a</i>	2.9782524	Ω	74.92486	−0.65115928	+0.62036383		
<i>e</i>	0.0981068	<i>i</i>	11.43720	−0.45613178	+0.14051577		
<i>P</i>	5.14	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 11 11	704	0.2−	0.1+	1998 11 24	704	0.3+	1.7+	1999 02 14	691	0.6−	0.2−
1998 11 11	704	0.0	0.2−	1998 12 08	699	0.5−	1.0−	1999 02 14	691	0.5−	0.2−
1998 11 11	704	0.9−	0.1−	1998 12 08	699	0.4−	0.3−	1999 12 10	704	0.5+	1.9−
1998 11 11	699	0.8−	0.1−	1998 12 08	699	0.1−	0.5−	1999 12 10	704	1.1−	0.6−
1998 11 11	704	0.9+	1.0−	1998 12 12	691	0.0	0.1−	1999 12 10	704	1.5+	0.7−
1998 11 11	699	0.3−	0.8−	1998 12 12	691	0.3+	0.1−	1999 12 10	704	1.1+	1.2−
1998 11 11	704	0.8−	0.6+	1998 12 12	691	0.2+	0.3−	2000 01 03	704	0.3+	0.0
1998 11 11	699	0.2+	0.6−	1998 12 20	691	0.5−	0.4+	2000 01 03	704	0.4−	0.0
1998 11 21	704	0.2+	0.0	1998 12 20	691	0.6−	0.1−	2000 01 03	704	0.5−	0.3−
1998 11 21	704	0.2+	0.9−	1998 12 20	691	0.4−	0.2−	2000 01 03	704	0.6−	0.2−
1998 11 21	704	0.7+	1.1−	1998 12 21	910	0.8+	0.6+	2000 01 03	704	0.0	0.2−
1998 11 21	704	0.3−	0.4−	1998 12 21	910	0.7+	0.2+	2000 01 06	699	0.1−	0.2+
1998 11 21	704	1.5−	1.8+	1998 12 21	910	0.7+	0.7+	2000 01 06	699	0.1+	0.6+
1998 11 23	699	0.2+	0.5+	1999 02 09	691	0.2−	0.3−	2000 01 06	699	0.6−	0.2+
1998 11 23	699	0.3+	0.4+	1999 02 09	691	0.1−	0.2−	2000 01 29	704	0.4−	0.7+
1998 11 23	699	0.3+	0.0	1999 02 09	691	0.3+	0.2−	2000 01 29	704	0.0	0.4+
1998 11 24	704	0.4+	0.3+	1999 02 13	691	1.4+	0.5+	2000 01 29	704	0.3+	0.8+
1998 11 24	704	0.4−	0.1−	1999 02 13	691	0.8+	0.3−	2000 01 29	704	0.2−	0.8+
1998 11 24	704	0.2+	0.5+	1999 02 13	691	0.9+	0.1+	2000 01 29	704	0.1+	0.7+
1998 11 24	704	0.2+	1.4+	1999 02 14	691	0.5−	0.2−				

1998 WN₁₆ = 1987 UT₈

Id. A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	114.41620		(2000.0)	P	Q		
<i>n</i>	0.26901050	ω	243.89278	+0.26873675	−0.96319606		
<i>a</i>	2.3766026	Ω	190.52307	+0.89472904	+0.25186368		
<i>e</i>	0.1827616	<i>i</i>	1.82705	+0.35670786	+0.09390439		
<i>P</i>	3.66	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1987 10 23	095	0.4+	2.1−	1998 11 21	704	0.6+	1.1−	1999 02 02	699	0.1+	0.3−
1996 04 16	675	0.5−	0.2−	1998 11 21	704	(0.6+	2.3−)	1999 02 02	699	1.3−	0.5+
1996 04 16	675	0.2+	0.1−	1998 11 24	704	0.2+	0.2−	1999 02 04	704	1.4+	0.6−
1996 04 21	566	0.0	0.2−	1998 11 24	704	0.4+	0.2+	1999 02 04	704	0.0	0.1−
1996 04 21	566	0.3−	0.0	1998 11 24	704	0.3+	0.3+	1999 02 04	704	0.2−	0.1+
1996 04 21	566	0.3+	0.5−	1998 11 24	704	0.5−	0.4−	1999 02 04	704	1.3−	1.1−
1998 08 31	704	0.3−	1.2−	1998 11 24	704	0.4−	0.0	1999 02 06	327	0.3+	0.1−
1998 08 31	704	1.6−	1.4+	1998 12 13	691	0.5+	0.1−	1999 02 06	327	0.7−	0.2+
1998 08 31	704	0.5−	0.5−	1998 12 13	691	0.6+	0.1−	1999 02 06	327	0.7−	0.3−
1998 08 31	704	(0.6+	2.4−)	1998 12 13	691	0.6+	0.0	1999 02 06	327	0.6−	0.1+
1998 08 31	704	0.9−	0.1+	1998 12 15	704	0.0	0.5+	1999 02 10	327	0.3−	0.1−
1998 11 18	704	0.1+	1.4+	1998 12 15	704	0.4−	0.5+	1999 02 10	327	0.7−	0.1−
1998 11 18	704	0.5−	0.2−	1998 12 15	704	0.5+	0.5−	1999 02 10	327	0.8−	0.2+
1998 11 18	704	0.0	1.3+	1998 12 15	704	0.3−	0.1−	1999 02 17	327	0.1+	0.1−
1998 11 18	704	0.6+	0.3+	1998 12 15	704	(2.6−	0.6−)	1999 02 17	327	0.0	0.1−
1998 11 18	704	1.4+	1.3+	1999 01 07	699	0.1+	0.2+	1999 02 17	327	0.3+	0.2+
1998 11 21	704	0.1+	0.5−	1999 01 07	699	0.8+	0.8+	1999 02 19	327	0.1+	0.0
1998 11 21	704	0.4−	0.7−	1999 01 07	699	0.7+	0.7+	1999 02 19	327	0.1+	0.2+
1998 11 21	704	0.3−	1.3−	1999 02 02	699	0.3−	0.2+	1999 02 19	327	0.2+	0.2+

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	138.79335		(2000.0)	P	Q
<i>n</i>	0.21981375	ω	297.08022	+0.95588158	-0.28903031
<i>a</i>	2.7191478	Ω	79.75782	+0.28485108	+0.86838846
<i>e</i>	0.0841941	<i>i</i>	3.05577	+0.07176539	+0.40294288
<i>P</i>	4.48	<i>H</i>	14.5	<i>G</i>	0.15
				<i>U</i>	5

Residuals in seconds of arc

1982 02 20	033	0.7+	0.2-	1998 11 18	704	0.1-	1.5-	1998 11 24	704	0.4-	0.0
1982 02 20	033	1.0+	0.6-	1998 11 18	704	(1.5+	2.3-)	1998 11 24	704	1.2-	0.1+
1982 02 21	033	1.9-	0.3+	1998 11 18	704	(0.0	4.2-)	1998 11 24	704	0.2-	0.8+
1982 02 21	033	0.0	0.1-	1998 11 18	704	(0.9-	3.6-)	1998 11 24	704	(1.0-	3.3-)
1998 10 20	699	0.2+	0.5+	1998 11 21	704	0.5-	0.3-	1998 11 25	699	0.6-	0.3-
1998 10 20	699	0.0	0.5-	1998 11 21	704	0.5+	0.1-	1998 11 25	699	0.1+	0.3+
1998 10 20	699	0.6+	0.2-	1998 11 21	704	0.4-	0.9+	1998 11 25	699	0.3+	0.5-
1998 10 27	910	0.8+	0.1+	1998 11 21	704	0.0	0.5+	2000 02 11	704	0.5+	1.1+
1998 10 27	910	1.0+	0.6+	1998 11 21	704	0.6-	0.2+	2000 02 11	704	0.3+	0.6-
1998 10 27	910	0.8+	0.2+	1998 11 24	704	0.0	0.7-	2000 02 11	704	0.6-	0.0

1998 WA₁₇ = 2000 CU₅₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	18.86524		(2000.0)	P	Q
<i>n</i>	0.17633532	ω	292.35263	-0.68473721	-0.72871961
<i>a</i>	3.1495113	Ω	200.87280	+0.67867908	-0.63252691
<i>e</i>	0.0914897	<i>i</i>	1.62974	+0.26557419	-0.26244511
<i>P</i>	5.59	<i>H</i>	13.9	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1992 10 23	010	0.1+	1.0+	1998 11 24	704	0.7-	0.2-	1999 02 07	691	0.2-	0.2+
1992 10 23	010	0.7-	0.9+	1998 11 24	704	0.9+	0.2+	1999 02 12	691	0.8+	0.3+
1998 11 19	910	1.1+	0.6+	1998 11 24	704	0.3+	0.1-	1999 02 12	691	0.4+	0.4-
1998 11 19	910	0.8+	0.4+	1998 11 25	699	0.7+	0.7-	1999 02 12	691	0.1+	0.3+
1998 11 19	910	0.9+	0.5+	1998 11 25	699	1.2-	0.3+	2000 02 02	704	0.4+	0.6+
1998 11 20	699	0.1-	1.1+	1998 11 25	699	0.6+	0.2-	2000 02 02	704	1.2-	0.0
1998 11 20	699	0.3+	1.3+	1998 12 08	699	0.8-	1.1-	2000 02 02	704	1.1-	0.3-
1998 11 20	699	0.3+	0.2+	1998 12 08	699	0.6+	0.0	2000 02 02	704	0.2-	0.4+
1998 11 21	704	0.7-	0.4+	1998 12 08	699	0.4+	0.8-	2000 02 02	704	0.1+	0.5+
1998 11 21	704	0.1-	0.8-	1998 12 14	691	1.0-	0.0	2000 02 06	704	0.3+	0.3+
1998 11 21	704	0.2-	1.0-	1998 12 14	691	1.1-	0.2-	2000 02 06	704	0.2+	0.3+
1998 11 21	704	0.2+	0.6-	1998 12 14	691	1.2-	0.2-	2000 02 06	704	0.4+	0.3+
1998 11 21	704	(0.6+	2.7-)	1999 02 07	691	0.7-	0.1-	2000 02 06	704	1.0+	0.3+
1998 11 24	704	0.3+	0.8-	1999 02 07	691	0.4-	0.1-	2000 02 06	704	0.5+	1.3-

1998 WZ₁₇ = 2000 AK₂₃₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	26.80276		(2000.0)	P	Q
<i>n</i>	0.18386930	ω	206.43967	-0.66881751	-0.73873589
<i>a</i>	3.0628794	Ω	285.66044	+0.69649979	-0.58342972
<i>e</i>	0.1162247	<i>i</i>	4.96780	+0.25994457	-0.33745969
<i>P</i>	5.36	<i>H</i>	13.4	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 11 18	704	0.2+	1.8+	1998 12 14	704	0.1+	0.0	2000 02 02	704	1.0+	1.2+
1998 11 18	704	0.4-	0.1+	1998 12 14	704	(2.0-	2.6-)	2000 02 02	704	0.5+	0.6+
1998 11 18	704	0.5+	0.7+	1998 12 17	704	0.7-	1.5-	2000 02 02	704	1.3+	0.5-
1998 11 18	704	0.7+	1.3+	1998 12 17	704	1.2+	0.1+	2000 02 02	704	1.5+	1.0-
1998 11 18	704	0.8-	0.2+	1998 12 17	704	0.2+	0.2+	2000 02 02	704	0.7-	0.5-
1998 11 21	704	0.6+	0.7+	1998 12 17	704	1.8+	0.9-	2000 02 07	704	1.4-	0.8-
1998 11 21	704	0.6-	0.3+	1998 12 17	704	0.5+	0.6+	2000 02 07	704	0.8-	0.5-
1998 11 21	704	1.1-	1.2+	1999 01 05	699	0.7-	0.0	2000 02 07	704	1.5-	0.6-
1998 11 21	704	(0.7-	2.7+)	1999 01 05	699	0.1+	0.3+	2000 02 07	704	0.7-	0.9-
1998 11 21	704	(0.8+	2.4+)	1999 01 05	699	0.3+	0.9+	2000 02 07	704	1.5-	0.8-
1998 11 24	704	0.4+	0.2-	2000 01 05	704	0.3-	0.1+	2000 02 08	704	0.5+	0.8+
1998 11 24	704	0.1+	0.5-	2000 01 05	704	0.3-	0.3-	2000 02 08	704	0.6+	0.3+

1998 11 24	704	0.5+	1.1-	2000 01 05	704	0.5-	0.7+	2000 02 08	704	0.6+	0.4+
1998 11 24	704	0.9-	1.6-	2000 01 05	704	0.2+	0.6-	2000 02 08	704	0.5+	0.6+
1998 11 24	704	0.6-	0.6-	2000 01 11	699	0.9-	0.6+	2000 02 08	704	0.1-	0.1+
1998 12 14	704	0.9-	0.7-	2000 01 11	699	1.0+	1.1+				
1998 12 14	704	0.2-	1.3-	2000 01 11	699	1.2+	0.4+				

1998 WV₁₉ = 1964 YE

Id. A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	124.12168		(2000.0)	P	Q
<i>n</i>	0.23484723	ω	201.68625	-0.37714178	-0.89647377
<i>a</i>	2.6018311	Ω	271.09899	+0.88025737	-0.26888504
<i>e</i>	0.1317936	<i>i</i>	13.45222	+0.28794278	-0.35218690
<i>P</i>	4.20	<i>H</i>	12.9	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1964 12 31	330	(16.0+	0.0)	1998 12 23	704	0.7+	0.3+	1999 02 19	704	0.9+	1.0-
1989 11 24	675	1.2-	0.8+	1998 12 23	704	0.4-	0.6-	1999 04 17	699	1.2+	0.1+
1989 11 24	675	1.3+	0.7+	1998 12 23	704	0.2-	0.2-	1999 04 17	699	0.9+	0.5-
1993 09 16	675	0.0	0.8-	1998 12 23	704	1.3+	0.7-	1999 04 17	699	0.0	0.5+
1993 09 16	675	0.1+	0.4-	1998 12 23	704	0.6-	0.2-	1999 05 07	704	1.2+	1.5-
1998 11 25	704	0.3-	0.6+	1999 02 17	704	0.2-	0.1+	1999 05 07	704	0.5-	0.9-
1998 11 25	704	0.3-	0.0	1999 02 17	704	0.3+	0.4+	1999 05 07	704	1.3-	1.6+
1998 11 25	704	0.6-	0.4-	1999 02 17	704	0.1+	0.0	1999 05 07	704	(2.3+	1.3-)
1998 11 25	704	0.5-	0.5-	1999 02 17	704	1.0-	1.3+	1999 05 14	704	0.7+	1.3-
1998 11 25	704	0.2-	0.4-	1999 02 17	704	0.3-	0.3+	1999 05 14	704	0.4-	0.6-
1998 12 01	704	0.7-	0.1-	1999 02 19	704	0.1-	0.3+	1999 05 14	704	0.4-	0.4+
1998 12 01	704	0.1-	0.3-	1999 02 19	704	0.6+	0.2+	1999 05 14	704	0.1-	1.1+
1998 12 01	704	1.0+	0.7-	1999 02 19	704	0.2+	0.1+	1999 05 14	704	1.3-	1.2+
1998 12 01	704	0.9-	1.0+	1999 02 19	704	0.0	0.8-				

1998 WG₂₀ = 1999 YY₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	42.22356		(2000.0)	P	Q
<i>n</i>	0.08213812	ω	4.23926	+0.64990243	-0.71563718
<i>a</i>	5.2413064	Ω	45.49068	+0.68632590	+0.40797757
<i>e</i>	0.1457174	<i>i</i>	21.02973	+0.32647142	+0.56693714
<i>P</i>	12.00	<i>H</i>	10.9	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1998 10 19	699	0.5-	0.1+	1998 11 21	704	0.5+	1.2-	1999 12 30	704	0.4+	0.2+
1998 10 19	699	0.2-	0.2-	1998 11 21	704	(0.8-	2.6-)	1999 12 30	704	0.6+	1.0+
1998 10 19	699	0.9-	0.3+	1998 11 21	704	1.7-	0.7-	1999 12 31	704	0.0	0.1+
1998 11 10	699	0.0	0.2-	1999 11 01	704	0.5-	0.6-	1999 12 31	704	0.1-	0.3-
1998 11 10	704	0.2+	0.1+	1999 11 01	704	0.3+	0.1+	1999 12 31	704	1.3+	0.0
1998 11 10	704	(2.2+	0.2-)	1999 11 01	704	0.4+	0.2+	1999 12 31	704	0.6-	0.8-
1998 11 10	704	1.1+	1.2-	1999 11 01	704	0.6+	0.3+	2000 01 21	704	0.2+	0.4+
1998 11 10	699	0.9+	0.5-	1999 11 01	704	0.3+	0.7+	2000 01 21	704	0.0	0.5-
1998 11 10	704	1.8+	2.0+	1999 12 13	704	0.2-	0.3-	2000 01 21	704	0.5+	0.0
1998 11 10	699	(0.3-	2.2+)	1999 12 13	704	0.7-	0.4-	2000 01 21	704	0.1-	0.4-
1998 11 18	704	0.8+	0.2-	1999 12 13	704	0.2-	0.4-	2000 01 27	704	0.0	0.3+
1998 11 18	704	0.7-	0.3+	1999 12 13	704	0.3-	0.6-	2000 01 27	704	0.3+	0.2+
1998 11 18	704	1.1-	1.8+	1999 12 13	704	0.2-	0.7-	2000 01 27	704	0.4-	0.1-
1998 11 18	704	0.9-	1.7+	1999 12 30	704	0.1-	0.1+	2000 01 27	704	0.3-	0.7+
1998 11 21	704	0.5+	1.5-	1999 12 30	704	0.5-	0.8+				
1998 11 21	704	0.2+	0.7-	1999 12 30	704	0.8-	0.2+				

1998 WX₂₀ = 1994 RW₂₆ = 1996 EJ₇

Id. M. E. Sansaturio

2000 FEB. 22

M.P.C. 38537

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	114.31607		(2000.0)	P	Q
<i>n</i>	0.27505737	ω	30.60633	+0.26902937	-0.96311066
<i>a</i>	2.3416422	Ω	43.78805	+0.88177035	+0.24362103
<i>e</i>	0.1788171	<i>i</i>	0.53057	+0.38743290	+0.11430947
<i>P</i>	3.58	<i>H</i>	15.9	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1994 09 03	809	0.1+	0.1-	1996 03 18	691	0.4+	0.4-	1998 11 18	704	0.4+	0.5-
1994 09 03	809	0.4-	0.6+	1998 10 18	699	0.1+	0.7+	1998 11 18	704	0.4+	1.5-
1994 09 03	809	0.7-	0.2+	1998 10 18	699	0.4+	0.7-	1998 11 18	704	0.4+	1.3-
1994 09 04	809	0.5+	1.4-	1998 10 18	699	0.3-	0.2-	1998 11 18	704	0.4-	1.2-
1994 09 04	809	0.7+	0.5-	1998 11 10	704	1.2-	0.6+	1998 11 19	699	0.4+	0.2+
1994 09 04	809	0.4+	0.1-	1998 11 10	704	1.2+	0.3-	1998 11 19	699	0.1-	0.2-
1996 03 11	691	0.7-	0.2-	1998 11 10	699	0.7-	1.6+	1998 11 19	699	0.2+	0.6+
1996 03 11	691	0.5-	0.2-	1998 11 10	704	0.3-	1.1-	1998 11 21	704	0.7-	0.2-
1996 03 11	691	0.6-	0.1-	1998 11 10	699	0.8+	1.2+	1998 11 21	704	0.3+	0.5+
1996 03 18	691	0.5+	0.3-	1998 11 10	704	(3.7-	0.3-)	1998 11 21	704	0.8-	1.1-
1996 03 18	691	0.4+	0.2-	1998 11 10	699	0.1+	1.2+	1998 11 21	704	0.1-	1.4+

1998 WO₂₂ = 1981 SC₂

Id. A. Gnädig, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	180.09582		(2000.0)	P	Q
<i>n</i>	0.23708591	ω	245.43976	+0.67963742	+0.72755517
<i>a</i>	2.5854267	Ω	67.71349	-0.63111763	+0.64497572
<i>e</i>	0.2989222	<i>i</i>	5.80427	-0.37387633	+0.23381575
<i>P</i>	4.16	<i>H</i>	14.0	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1981 09 26	688	2.1+	0.5-	1998 11 21	704	1.5-	0.4+	1998 12 23	691	0.9-	0.5-
1981 09 26	688	0.9-	1.6-	1998 11 21	704	0.9-	1.8+	1998 12 23	691	1.0+	0.2-
1990 10 30	675	0.4-	0.8-	1998 11 22	691	0.4-	0.3+	1999 01 23	691	0.1+	0.3-
1996 04 08	675	0.6-	0.2+	1998 11 22	691	0.2-	0.2+	1999 01 23	691	0.1-	0.4-
1998 08 31	704	(0.0	2.3-)	1998 11 22	691	0.3-	0.2+	1999 01 23	691	0.1-	0.3-
1998 08 31	704	0.7-	0.4+	1998 11 24	704	0.9-	0.4-	1999 02 11	691	0.6-	0.4-
1998 08 31	704	0.9+	1.4-	1998 11 24	704	0.5+	0.5-	1999 02 11	691	0.5+	0.2-
1998 08 31	704	1.7-	1.4+	1998 11 24	704	1.1+	1.1+	1999 02 11	691	0.9-	0.2+
1998 10 20	699	0.5+	0.7+	1998 11 24	704	1.8+	1.2+	1999 02 18	691	0.6+	0.3-
1998 10 20	699	0.3+	0.3+	1998 11 24	704	(2.2+	2.2+)	1999 02 18	691	0.4+	0.0
1998 10 20	699	0.5+	0.4-	1998 11 27	691	0.5-	0.2+	1999 02 18	691	0.1+	0.3-
1998 11 15	120	0.1+	0.6+	1998 11 27	691	0.5-	0.5+	2000 01 04	704	1.2-	0.3-
1998 11 15	120	0.3+	0.3+	1998 11 27	691	0.6-	0.3+	2000 01 04	704	0.2+	0.5+
1998 11 18	704	1.2+	0.8-	1998 12 10	691	0.0	0.1+	2000 01 04	704	0.8+	0.6-
1998 11 18	704	0.1-	0.7-	1998 12 10	691	0.2+	0.3+	2000 01 04	704	0.2-	0.2-
1998 11 18	704	0.4-	1.8-	1998 12 10	691	0.4+	0.5+	2000 02 11	704	0.5-	0.1+
1998 11 18	704	(0.1-	2.3-)	1998 12 15	691	0.0	0.2+	2000 02 11	704	0.1-	1.6-
1998 11 21	704	0.4+	0.1-	1998 12 15	691	0.0	0.5+	2000 02 11	704	1.3+	0.3+
1998 11 21	704	0.3+	0.3-	1998 12 15	691	0.1+	0.3+	2000 02 11	704	0.1-	0.6-
1998 11 21	704	0.8-	0.0	1998 12 23	691	0.3-	0.8-				

1998 WL₂₃ = 2000 CW₃₂

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Williams

<i>M</i>	62.21811		(2000.0)	P	Q
<i>n</i>	0.19954794	ω	201.69803	+0.03786891	-0.99919548
<i>a</i>	2.9002664	Ω	246.13374	+0.91893429	+0.04001218
<i>e</i>	0.0274673	<i>i</i>	0.82730	+0.39258848	+0.00272520
<i>P</i>	4.94	<i>H</i>	14.0	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 11 10	699	0.7-	0.0	1998 11 21	704	(0.2-	2.9+)	2000 02 02	704	0.3+	0.1-
1998 11 10	699	0.0	0.7-	1998 11 24	691	0.9-	0.0	2000 02 02	704	0.1+	0.6-
1998 11 10	699	(2.9-	1.7+)	1998 11 24	691	1.0-	0.1+	2000 02 02	704	0.9-	0.8-
1998 11 18	704	0.4+	0.6-	1998 11 24	691	0.7-	0.1+	2000 02 02	704	0.1-	0.6-
1998 11 18	704	1.2+	1.0-	1999 02 07	691	0.5+	0.1-	2000 02 04	704	0.8+	0.7-

1998 11 18	704	1.6+	1.0-	1999 02 07	691	0.4+	0.1-	2000 02 04	704	0.3-	0.5+
1998 11 18	704	0.2+	0.3-	1999 02 07	691	0.7+	0.2-	2000 02 04	704	0.6-	0.0
1998 11 21	704	0.2+	0.6+	1999 02 13	691	0.7-	0.1+	2000 02 04	704	0.2+	1.4+
1998 11 21	704	1.4-	1.0+	1999 02 13	691	0.5-	0.1-	2000 02 04	704	0.9+	1.1+
1998 11 21	704	0.5+	0.4+	1999 02 13	691	0.1-	0.3-				
1998 11 21	704	0.6+	1.9+	2000 02 02	704	0.3-	0.0				

1998 WW₂₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	48.48346		(2000.0)	P	Q
<i>n</i>	0.19816810	ω	105.20227	-0.92335368	+0.28022878
<i>a</i>	2.9137137	Ω	91.62133	-0.36545522	-0.85106443
<i>e</i>	0.2583119	<i>i</i>	15.22284	+0.11773046	-0.44402834
<i>P</i>	4.97	<i>H</i>	12.6	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1991 09 05	413	0.5-	0.9-	1999 02 11	704	0.6+	0.5+	1999 05 08	704	0.1-	0.2-
1991 09 05	413	0.5+	1.0+	1999 02 11	704	1.0-	0.1+	1999 05 08	704	0.2-	0.4-
1994 01 16	675	0.1+	0.4+	1999 02 11	704	0.0	1.9+	1999 05 09	611	0.2-	0.2-
1994 01 16	675	0.2-	0.4-	1999 02 11	704	(1.8-	2.1+)	1999 05 09	611	1.2+	1.4+
1998 11 25	704	0.6-	0.5-	1999 02 18	704	0.9+	0.0	1999 05 18	704	0.0	0.9-
1998 11 25	704	1.6-	1.6+	1999 02 18	704	1.1+	0.1+	1999 05 18	704	0.7+	0.4-
1998 11 25	704	1.1-	0.7-	1999 02 18	704	0.9+	0.3+	1999 05 18	704	0.8+	0.8-
1998 11 25	704	0.3+	0.2-	1999 02 18	704	0.5+	0.5-	1999 05 18	704	0.1-	0.3+
1998 11 25	704	(3.7-	0.9+)	1999 02 18	704	0.6+	0.1-	1999 05 18	704	0.5-	0.8-
1998 12 01	704	0.5-	0.1+	1999 04 09	704	0.3+	0.1+	1999 06 07	704	0.3-	0.1+
1998 12 01	704	0.4-	0.9-	1999 04 09	704	0.4+	0.5+	1999 06 07	704	0.0	0.7+
1998 12 01	704	(0.3+	2.5+)	1999 04 09	704	0.3+	0.7+	1999 06 07	704	0.5-	0.3+
1998 12 01	704	0.3+	0.3-	1999 04 09	704	0.1+	1.1-	1999 06 07	704	0.1-	0.1-
1998 12 01	704	0.5+	0.2-	1999 04 19	704	0.8-	1.0-	1999 06 07	704	0.3+	0.9+
1998 12 21	704	0.7-	0.7+	1999 04 19	704	0.4-	0.6-	1999 06 08	704	0.0	0.7+
1998 12 21	704	0.0	0.5-	1999 04 19	704	0.6-	0.2-	1999 06 08	704	0.1-	0.1+
1998 12 21	704	0.0	0.1-	1999 04 19	704	0.6-	0.4+	1999 06 08	704	0.1+	0.3+
1998 12 21	704	0.2+	0.0	1999 05 08	704	0.4-	0.1-	1999 06 08	704	0.3-	0.0
1998 12 21	704	1.1+	0.6-	1999 05 08	704	0.8-	0.5-	1999 06 08	704	0.5-	0.2+
1999 02 11	704	0.1+	0.5-	1999 05 08	704	0.5-	0.4-				

1998 WG₂₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Marsden

<i>M</i>	326.64467		(2000.0)	P	Q
<i>n</i>	0.00316851	ω	31.98151	-0.50445802	-0.86256348
<i>a</i>	45.9091771	Ω	88.34037	+0.78378222	-0.47631508
<i>e</i>	0.1295606	<i>i</i>	2.22523	+0.36222580	-0.17061119
<i>P</i>	311	<i>H</i>	6.8	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1998 11 18	695	0.0	0.0	1999 11 30	695	0.0	0.1+	1999 12 29	695	0.3-	0.2+
1998 11 18	695	0.0	0.1+	1999 11 30	695	0.1+	0.2+	1999 12 29	695	0.1+	0.2+
1998 11 19	695	0.0	0.1-	1999 12 28	695	0.1-	0.1-	2000 01 05	697	0.1+	0.2+
1998 11 19	695	0.0	0.0	1999 12 28	695	0.5+	0.1-	2000 01 05	697	0.3+	0.1-
1999 01 22	568	0.1+	0.1+	1999 12 28	695	0.5-	0.7-	2000 01 05	697	0.1+	0.1+
1999 01 22	568	0.1+	0.0	1999 12 29	695	0.2-	0.0				
1999 01 23	568	0.1-	0.1-	1999 12 29	695	0.1-	0.0				

1998 WT₂₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	224.00653		(2000.0)	P	Q
<i>n</i>	1.61992256	ω	167.36275	-0.34894003	+0.92846276
<i>a</i>	0.7180255	Ω	82.10490	-0.87060856	-0.27090335
<i>e</i>	0.4184183	<i>i</i>	7.38225	-0.34681638	-0.25410289
<i>P</i>	0.61	<i>H</i>	17.7	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 11 24	699	1.6-	1.1+	1998 12 01	704	0.5+	0.6+	1998 12 16	360	0.3+	0.8+
1998 11 24	699	0.7-	1.2+	1998 12 01	704	0.4+	0.3-	1998 12 17	046	0.3-	0.3+

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1998 11 24	699	1.0−	0.1+	1998 12 01	704	0.7−	0.4+	1998 12 17	046	0.4−	0.3+
1998 11 25	704	1.0−	0.5−	1998 12 02	327	0.4+	0.1−	1998 12 17	046	0.1−	0.1−
1998 11 25	704	(2.5−	1.4+)	1998 12 02	327	1.2+	0.1+	1998 12 18	402	1.0−	0.6−
1998 11 25	704	0.2+	0.8−	1998 12 02	327	0.6+	0.3−	1998 12 18	402	0.4+	0.8−
1998 11 25	704	0.9+	1.1−	1998 12 04	046	1.0+	0.1−	1998 12 18	402	0.7−	0.6−
1998 11 25	704	1.5+	0.6−	1998 12 04	046	0.1+	0.1+	1998 12 27	402	0.3−	0.1−
1998 11 26	734	0.6−	1.2−	1998 12 04	046	0.3−	0.0	1998 12 27	402	0.2+	0.0
1998 11 26	734	1.0+	1.0−	1998 12 04	046	0.3−	0.1+	1999 11 04	413	0.4−	0.2−
1998 11 26	734	(2.5+ 0.9−)		1998 12 04	046	0.6−	0.3+	1999 11 04	413	0.6−	0.2+
1998 12 01	704	0.9−	0.8+	1998 12 04	046	0.3−	0.5+	1999 11 04	413	1.3+	0.9+
1998 12 01	704	1.0−	0.6−	1998 12 06	104	1.5+	0.4+	2000 02 07	413	0.8−	0.3+
1998 12 01	704	1.6−	0.1+	1998 12 06	104	(2.6+ 0.2−)		2000 02 07	413	0.3+	0.0
1998 12 01	704	0.4−	0.1−	1998 12 06	104	1.6+	0.1+	2000 02 07	413	0.2−	0.0
1998 12 01	704	0.1+	0.0	1998 12 16	360	0.6+	0.5+	2000 02 08	413	0.3+	0.2+
1998 12 01	704	0.2+	0.4+	1998 12 16	360	0.3+	0.5+	2000 02 08	413	0.4+	0.2+

1998 WX₃₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Marsden

M	332.04377		(2000.0)	P	Q
n	0.00314556	ω	69.36038	−0.28772312	−0.95719794
a	46.1321423	Ω	37.40686	+0.85830535	−0.27227633
e	0.1423836	i	2.96526	+0.42488508	−0.09817183
P	313	H	6.6	G 0.15	U 7

Residuals in seconds of arc

1998 11 18	695	0.0	0.1−	1999 12 28	695	0.1−	0.6−	2000 01 05	697	0.7+	0.4+
1998 11 18	695	0.0	0.2−	1999 12 28	695	0.0	0.1−	2000 01 05	697	1.6−	0.0
1999 01 15	695	0.0	0.1+	1999 12 31	695	0.2+	0.3−	2000 01 05	697	0.5+	0.4+
1999 01 15	695	0.0	0.2+	1999 12 31	695	0.3+	0.0				

1998 WZ₃₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Marsden

M	10.48280		(2000.0)	P	Q
n	0.00391454	ω	353.80452	+0.71247385	−0.67428328
a	39.8733032	Ω	50.53970	+0.65411317	+0.53801559
e	0.1745989	i	14.57012	+0.25400190	+0.50584709
P	252	H	8.2	G 0.15	U 6

Residuals in seconds of arc

1998 11 19	695	0.1+	0.4+	1999 01 14	695	0.0	0.4+	1999 12 31	695	0.1−	0.5+
1998 11 19	695	0.1−	0.5+	1999 01 15	695	0.0	0.7+	1999 12 31	695	1.2−	0.5−
1998 12 18	950	0.2+	0.1−	1999 11 30	695	0.0	0.2+	2000 01 03	697	0.7+	0.1−
1998 12 18	950	0.3−	0.1+	1999 11 30	695	0.2−	0.2+	2000 01 03	697	0.6+	0.2−
1998 12 18	950	0.1+	0.3−	1999 11 30	695	0.3+	0.3+	2000 01 05	697	0.0	0.8−
1998 12 19	950	0.4+	0.4−	1999 11 30	695	0.2−	0.3+	2000 01 05	697	0.3+	0.2+
1998 12 19	950	0.1+	0.3−	1999 12 31	695	0.3−	0.1−				
1998 12 19	950	0.6−	1.2−	1999 12 31	695	0.1−	0.1−				

1998 XK₉ = 2000 CJ₈₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

$\dot{M}$	144.13247		(2000.0)	P	Q
n	0.21386990	ω	285.20813	+0.96526290	−0.23267918
a	2.7692975	Ω	88.35636	+0.26100925	+0.87943342
e	0.0754671	i	6.82920	−0.01190445	+0.41527973
P	4.61	H	13.8	G 0.15	U 4

Residuals in seconds of arc

1998 11 24	704	1.1−	0.6−	1998 12 16	120	1.4+	0.2+	1999 01 05	120	0.9+	1.1−
1998 11 24	704	0.3−	0.5−	1998 12 17	120	0.1+	0.6−	1999 01 06	120	0.3−	0.0
1998 11 24	704	0.7+	0.4−	1998 12 17	120	0.4+	0.4+	1999 01 06	120	0.3−	0.7+
1998 11 24	704	1.1−	1.0−	1998 12 23	120	0.8−	0.7+	1999 01 06	120	1.7−	0.6+
1998 12 08	699	0.4+	0.0	1998 12 23	120	0.4+	0.2−	2000 02 04	704	0.1+	0.4+
1998 12 08	699	0.9+	0.7+	1998 12 25	120	1.0+	1.2−	2000 02 04	704	0.4−	0.3+
1998 12 08	699	0.2+	0.3+	1998 12 25	120	0.2−	0.6−	2000 02 04	704	0.4−	0.9+
1998 12 09	120	0.2+	0.1−	1998 12 25	120	(2.1+ 1.3−)		2000 02 04	704	0.2+	0.4−

1998 12 09	120	(2.3+ 0.1−)	1999 01 05	699	0.3+	0.6+	2000 02 11	704	0.4−	1.1−
1998 12 09	120	0.6− 0.2−	1999 01 05	699	0.4−	0.4+	2000 02 11	704	0.6+	0.4−
1998 12 15	120	0.2+ 0.2+	1999 01 05	699	1.2−	0.6−	2000 02 11	704	0.5+	0.3−
1998 12 15	120	1.2+ 0.5+	1999 01 05	120	1.2−	1.4+	2000 02 11	704	0.3−	0.4+
1998 12 16	120	0.5+ 0.8+	1999 01 05	120	(2.2− 0.8+)					

1998 XW₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	116.71454		(2000.0)	P	Q
n	0.20522157	ω	264.83779	+0.17595466	−0.98439239
a	2.8465624	Ω	175.02411	+0.91800360	+0.16283759
e	0.0524120	i	2.24925	+0.35540027	+0.06674989
P	4.80	H	13.6	G 0.15	U 2

Residuals in seconds of arc

1977 07 20	413	0.3−	0.2+	1998 12 16	426	0.4+	0.4+	1999 01 26	426	0.5+	0.2+
1977 07 20	413	0.4+	0.5−	1998 12 18	426	0.4−	0.1+	1999 01 26	426	0.1−	0.4+
1987 10 14	413	0.3−	0.1−	1998 12 18	426	0.7+	0.5−	1999 01 26	426	0.2−	0.4−
1987 10 14	413	0.1−	0.6+	1998 12 18	426	0.7+	0.0	1999 02 05	327	0.9−	0.4−
1987 10 18	413	0.2+	0.4+	1999 01 09	426	0.3+	0.2+	1999 02 05	327	0.9−	0.5−
1998 11 03	327	0.5+	0.1−	1999 01 09	426	0.4−	0.4+	1999 02 05	327	0.9−	0.4−
1998 11 03	327	0.1+	0.4−	1999 01 09	426	0.5−	0.2+	1999 02 06	327	0.1+	0.9−
1998 11 03	327	0.4+	0.6+	1999 01 12	426	0.0	0.2+	1999 02 06	327	0.1−	1.8−
1998 11 23	699	0.1+	1.0+	1999 01 12	426	0.4−	0.1+	1999 02 06	327	0.3+	0.5−
1998 11 23	699	0.3−	0.8−	1999 01 12	426	0.4+	0.1+	1999 02 06	120	0.3+	0.5−
1998 11 23	699	0.9+	0.1+	1999 01 13	426	0.2−	0.3+	1999 02 06	120	0.0	1.3+
1998 12 11	426	0.5−	0.5−	1999 01 13	426	0.3−	0.1+	1999 02 10	426	0.0	0.8+
1998 12 11	426	0.5−	0.7−	1999 01 13	426	0.3−	0.1+	1999 02 10	426	0.0	0.9+
1998 12 11	426	0.5+	0.9−	1999 01 18	704	0.0	0.4+	1999 02 10	426	0.1+	0.4+
1998 12 15	426	0.1+	0.0	1999 01 18	704	1.1+	0.1−	1999 02 12	426	0.2−	0.6+
1998 12 15	426	0.3−	0.2−	1999 01 18	704	0.7+	0.9−	1999 02 12	426	0.5+	0.4+
1998 12 15	426	0.6−	0.0	1999 01 18	704	1.7−	0.1+	1999 04 07	704	1.7+	0.4−
1998 12 16	699	0.4+	0.7−	1999 01 18	704	0.5+	0.3+	1999 04 07	704	0.5−	0.2+
1998 12 16	699	0.2+	0.2+	1999 01 21	426	0.2+	0.0	1999 04 07	704	1.4+	0.7+
1998 12 16	699	0.2−	0.3−	1999 01 21	426	0.2+	0.3+	1999 04 07	704	1.2−	1.0+
1998 12 16	426	0.7−	0.3+	1999 01 21	426	0.4−	0.1+				

1998 XE₁₇ = 1978 GM₁ = 2000 CV₃₂

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Williams

M	78.38252		(2000.0)	P	Q
n	0.17459118	ω	258.69124	+0.34113263	−0.93996262
a	3.1704520	Ω	171.34323	+0.88615627	+0.31804146
e	0.0404183	i	3.78639	+0.31361695	+0.12377358
P	5.65	H	12.7	G 0.15	U 4

Residuals in seconds of arc

1978 04 07	095	0.2−	0.6−	1998 12 22	910	0.0	0.4+	2000 02 02	704	0.4−	0.0
1998 12 08	910	0.7−	0.6−	1998 12 22	910	0.5−	0.2+	2000 02 02	704	0.3−	0.1+
1998 12 09	910	0.5−	0.5−	1998 12 25	910	0.5−	0.1+	2000 02 04	704	0.3−	0.2+
1998 12 09	910	0.8−	0.9−	1998 12 26	910	0.3−	0.1+	2000 02 04	704	0.0	0.1−
1998 12 17	910	0.9+	0.5+	1998 12 26	910	0.4−	0.2+	2000 02 04	704	0.5+	0.4+
1998 12 17	910	1.0+	0.4+	1999 01 07	699	0.3−	0.2+	2000 02 04	704	0.2−	0.1−
1998 12 17	910	0.2+	0.3+	1999 01 07	699	0.1+	0.4−	2000 02 04	704	0.3−	0.2−
1998 12 21	910	1.8+	0.2−	1999 01 07	699	1.2−	0.1+	2000 02 15	704	0.1+	0.3−
1998 12 21	910	1.6+	0.4−	2000 02 02	704	0.3+	0.1+	2000 02 15	704	0.2−	0.3+
1998 12 21	910	0.1−	0.1−	2000 02 02	704	0.0	0.3+	2000 02 15	704	0.8+	0.7−
1998 12 22	910	0.3−	0.3+	2000 02 02	704	0.0	0.3+				

1998 XH₂₅ = 1996 LH₅

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M.P.C. 38539

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	315.64692		(2000.0)	P		Q	
<i>n</i>	0.22301824	ω	126.93659	−0.83440819	+0.53887346		
<i>a</i>	2.6930379	Ω	85.94584	−0.53533346	−0.74250853		
<i>e</i>	0.0861961	<i>i</i>	6.65871	−0.13107659	−0.39786489		
<i>P</i>	4.42	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	4
Residuals in seconds of arc							
1996 06 08	809	0.7−	0.2+	1996 06 10	809	1.2+	0.3−
1996 06 08	809	0.7−	0.0	1998 11 20	557	0.8+	0.4−
1996 06 08	809	0.5−	0.1−	1998 11 20	557	0.7−	0.1+
1996 06 10	809	0.2+	1.0+	1998 11 20	557	0.2−	0.0
1996 06 10	809	0.5+	0.9−	1998 12 13	691	0.4−	0.1−

1998 XS₃₃ = 1992 DY₁₁ = 1994 WB₁₁

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	197.90492		(2000.0)	P		Q	
<i>n</i>	0.24682339	ω	314.33029	+0.85089583	+0.52521509		
<i>a</i>	2.5169727	Ω	13.99919	−0.46785482	+0.76731766		
<i>e</i>	0.1769609	<i>i</i>	2.65324	−0.23893130	+0.36793032		
<i>P</i>	3.99	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1992 02 23	691	0.1−	0.6+	1994 11 28	010	0.5−	0.5−
1992 02 23	691	0.0	0.2−	1994 11 28	010	0.1+	0.2−
1992 02 23	691	0.4−	0.1−	1994 11 28	010	0.6+	0.2+
1992 03 06	691	0.2+	0.0	1994 11 29	010	0.2−	1.0−
1992 03 06	691	0.3+	0.1−	1998 12 14	704	0.0	0.7+
1994 11 27	010	1.3+	1.1+	1998 12 14	704	0.8−	0.8+
1994 11 27	010	1.5−	1.8+	1998 12 14	704	0.8+	1.3−

1998 XC₅₁ = 1971 BC₃ = 2000 AS₂₀₃

Id. M. E. Sansaturio, G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	330.73873		(2000.0)	P		Q	
<i>n</i>	0.17332989	ω	267.01090	−0.85544516	+0.48823657		
<i>a</i>	3.1858140	Ω	302.15289	−0.35579101	−0.79640538		
<i>e</i>	0.0334111	<i>i</i>	11.77276	−0.37633274	−0.35688027		
<i>P</i>	5.69	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1971 01 27	805	0.0	0.0	1999 01 16	704	0.7+	1.6+
1998 12 14	704	0.4+	0.9+	1999 01 16	704	1.8−	0.3+
1998 12 14	704	0.2−	0.4+	1999 01 16	704	0.7+	0.5−
1998 12 14	704	0.0	0.5+	1999 01 16	704	0.2+	0.2−
1998 12 14	704	0.9+	0.8−	1999 01 19	704	0.2+	0.1+
1998 12 14	704	0.3+	0.1−	1999 01 19	704	0.4−	0.7+
1998 12 17	704	0.4+	0.1−	1999 01 19	704	1.5−	0.8−
1998 12 17	704	(2.8−	1.9−)	1999 01 19	704	0.2+	0.5−
1998 12 17	704	0.6−	1.6−	2000 01 10	704	0.7−	0.2+
1999 01 16	704	0.5+	0.1−	2000 01 10	704	0.4+	0.2−

1998 XF₉₃ = 2000 CV₇₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	159.10352		(2000.0)	P		Q	
<i>n</i>	0.18479797	ω	89.66289	+0.98628375	−0.08402971		
<i>a</i>	3.0526095	Ω	275.15390	+0.01945807	+0.91390299		
<i>e</i>	0.1082284	<i>i</i>	8.20092	+0.16390773	+0.39714019		
<i>P</i>	5.33	<i>H</i>	12.5	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1997 12 27	566	0.0	0.3+	1998 12 22	704	0.1−	1.3+
1997 12 27	566	0.2+	0.2−	1999 01 18	704	1.0−	0.9−

1997 12 27	566	0.3−	0.1+	1999 01 18	704	0.5−	1.3+
1998 12 15	704	0.1−	0.4−	1999 01 18	704	0.1+	0.9−
1998 12 15	704	0.3−	0.6+	1999 01 18	704	0.9+	0.8−
1998 12 15	704	0.5+	0.1−	1999 01 20	704	0.3−	1.1+
1998 12 15	704	0.4−	0.1−	1999 01 20	704	0.5−	0.4−
1998 12 15	704	0.7+	0.7+	1999 01 20	704	0.0	0.3−
1998 12 22	704	0.0	0.4−	1999 01 20	704	0.6+	0.5−
1998 12 22	704	0.2−	0.6−	2000 01 11	699	0.1−	0.7+
1998 12 22	704	0.2−	0.3−	2000 01 11	699	0.1+	0.4+
1998 12 22	704	0.5+	0.4+	2000 01 11	704	1.6+	0.3+

1998 YD₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	99.61841		(2000.0)	P		Q	
<i>n</i>	0.17077761	ω	328.24643	−0.05086213	−0.96041436		
<i>a</i>	3.2174769	Ω	123.27674	+0.97111842	−0.11157475		
<i>e</i>	0.1277498	<i>i</i>	19.12385	+0.23311383	+0.25525544		
<i>P</i>	5.77	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1991 09 06	413	0.0	1.1−	1998 12 22	910	0.3−	0.4−
1991 09 06	413	0.5+	0.3−	1998 12 22	910	0.4−	0.2−
1994 01 16	675	0.1−	0.9−	1999 01 10	699	0.7+	0.3−
1994 01 16	675	0.6−	1.4−	1999 01 10	699	1.0+	0.0
1998 11 16	699	0.5+	0.7+	1999 01 10	699	0.0	0.4−
1998 11 16	699	0.3−	0.6+	1999 01 19	704	1.2+	0.3−
1998 11 16	699	0.6−	1.5+	1999 01 19	704	0.0	0.3−
1998 11 23	699	0.1−	0.3−	1999 01 19	704	0.6+	0.3+
1998 11 23	699	0.1+	0.2−	1999 01 19	704	0.6+	0.7+
1998 11 23	699	0.3+	0.5−	1999 01 19	704	0.6−	0.8+
1998 12 18	910	0.7−	0.0	1999 02 10	704	0.2+	0.0
1998 12 18	910	0.8−	0.0	1999 02 10	704	0.1−	0.7−
1998 12 18	910	0.8−	0.1−	1999 02 10	704	0.3−	0.6−
1998 12 21	910	0.4−	0.3−	1999 02 10	704	0.2+	0.1+

1998 YM₇ = 2000 CM₆₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	166.54107		(2000.0)	P		Q	
<i>n</i>	0.24458898	ω	27.23242	+0.99328634	+0.01377330		
<i>a</i>	2.5322784	Ω	331.26890	−0.07815238	+0.81193720		
<i>e</i>	0.2224918	<i>i</i>	13.82405	+0.08529045	+0.58358228		
<i>P</i>	4.03	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 11 16	704	0.7+	0.7+	1998 12 23	726	0.8+	0.7−
1998 11 16	704	0.8−	0.6+	1998 12 24	726	0.5−	0.7−
1998 11 16	704	0.7+	0.2+	1998 12 24	726	0.7−	0.5−
1998 11 16	704	1.6−	0.3+	1998 12 24	726	0.6−	0.6−
1998 11 16	704	0.4+	0.2+	1998 12 24	726	0.2−	0.9−
1998 12 12	704	1.5+	0.3+	1998 12 26	726	0.1−	0.3+
1998 12 12	704	(2.8+	1.1−)	1998 12 26	726	0.0	0.1+
1998 12 12	704	1.0+	0.2−	1998 12 30	726	0.5−	0.2−
1998 12 12	704	0.4+	0.4+	1998 12 30	726	0.8−	1.2−
1998 12 12	704	0.0	0.3+	1999 01 09	726	0.5−	0.1+
1998 12 23	726	0.7+	0.3−	1999 01 09	726	0.2−	0.3−
1998 12 23	726	(0.6+	2.9−)	1999 01 12	726	0.1−	0.1+

1998 YT₈ = 2000 CV₈₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	131.68652		(2000.0)	P		Q	
<i>n</i>	0.19865168	ω	267.98162	+0.96976985	−0.23745949		
<i>a</i>	2.9089833	Ω	105.75161	+0.24060339	+0.89205592		
<i>e</i>	0.0987839	<i>i</i>	3.34808	+0.04069937	+0.38451166		
<i>P</i>	4.96	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1996 05 19	809	0.2−	0.5+	1998 12 17	327	0.3−	0.0	1999 01 04	327	0.3+	0.2−
1996 05 19	809	0.5+	0.8+	1998 12 17	327	0.1+	0.3−	1999 01 04	327	0.0	0.2−
1996 05 19	809	0.1+	0.5+	1998 12 22	691	0.3−	0.2+	1999 01 04	327	0.2+	0.3+
1996 05 22	809	(2.1+	3.0−)	1998 12 22	691	0.3−	0.2−	1999 01 22	699	0.2+	1.0−
1996 05 22	809	(0.8+	2.4−)	1998 12 22	691	0.3−	0.1+	1999 01 22	699	1.2+	0.1+
1996 05 22	809	(0.9+	2.4−)	1998 12 22	910	0.4+	0.1−	1999 01 22	699	0.4+	0.5+
1997 08 03	566	0.9−	1.1+	1998 12 22	910	0.2+	0.1−	2000 02 02	703	0.6−	0.4+
1997 08 03	566	0.4+	1.6+	1998 12 22	910	0.2+	0.0	2000 02 02	703	0.4−	0.4+
1997 08 03	566	0.1−	1.2+	1998 12 23	327	0.2−	1.7−	2000 02 02	703	0.7−	1.0+
1998 08 31	704	0.9−	0.7−	1998 12 23	327	1.1+	1.1−	2000 02 02	703	0.1−	0.4+
1998 08 31	704	1.5−	1.5+	1998 12 23	327	1.4+	0.5+	2000 02 04	704	0.3+	0.5−
1998 08 31	704	1.6−	0.8+	1998 12 24	327	0.0	0.4+	2000 02 04	704	0.4+	0.3−
1998 08 31	704	(2.5−	0.2−)	1998 12 24	327	0.2−	0.3+	2000 02 04	704	0.5+	0.2+
1998 12 08	699	0.6−	0.2+	1998 12 24	327	0.0	0.4+	2000 02 04	704	0.1+	0.6+
1998 12 08	699	0.3−	0.1−	1998 12 26	327	0.1−	0.1+	2000 02 04	704	0.2−	0.3+
1998 12 08	699	0.3−	0.7+	1998 12 26	327	0.1−	0.2+	2000 02 11	704	(2.3+	2.3+)
1998 12 15	704	0.1−	0.5+	1998 12 26	327	0.1−	0.3+	2000 02 11	704	0.5+	0.8+
1998 12 15	704	0.1−	1.8+	1998 12 26	327	0.2−	0.1−	2000 02 11	704	0.8+	0.2−
1998 12 15	704	0.6+	0.2+	1999 01 04	327	0.1+	0.1+	2000 02 11	704	0.3+	0.1+
1998 12 15	704	(6.0−	1.3−)	1999 01 04	327	0.0	0.0	2000 02 11	704	0.3+	0.7+
1998 12 17	327	0.1−	0.3−	1999 01 04	327	0.4−	0.2+				

1998 YW₁₁ = 2000 CK₇₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	313.65648	(2000.0)	<i>P</i>	Spahr	<i>Q</i>
<i>n</i>	0.17042893	ω	273.67376	−0.70644996	+0.69919192
<i>a</i>	3.2218638	Ω	310.72954	−0.57813605	−0.65957729
<i>e</i>	0.0845547	<i>i</i>	8.33218	−0.40827339	−0.27584136
<i>P</i>	5.78	<i>H</i>	13.4	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1996 08 19	566	0.2−	0.1−	1999 01 04	411	0.5+	0.2−	1999 01 19	704	(2.2−	0.9+)
1996 08 19	566	0.3+	0.4−	1999 01 05	411	0.1+	0.5+	2000 02 07	704	1.6−	0.2−
1996 08 19	566	0.3+	0.2−	1999 01 05	411	0.1−	0.2−	2000 02 07	704	0.4−	0.3−
1998 12 26	411	0.1−	0.7+	1999 01 17	411	0.2−	0.1+	2000 02 07	704	1.5−	0.7+
1998 12 26	411	0.2−	0.9+	1999 01 17	411	1.3+	0.6+	2000 02 07	704	0.7−	0.1+
1998 12 27	411	0.0	0.6−	1999 01 19	704	(2.6+	1.0+)	2000 02 08	704	1.5+	0.1−
1998 12 27	411	0.1−	1.1−	1999 01 19	704	2.0−	0.7−	2000 02 08	704	1.4+	0.2+
1999 01 04	411	0.5+	0.6−	1999 01 19	704	0.1+	0.3+	2000 02 08	704	0.8+	1.1−

1998 YC₁₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	9.30879	(2000.0)	<i>P</i>	Williams	<i>Q</i>
<i>n</i>	0.28259589	ω	290.03724	−0.42544774	+0.90046379
<i>a</i>	2.2998110	Ω	314.44204	−0.77583369	−0.41429759
<i>e</i>	0.1705184	<i>i</i>	7.26839	−0.46591447	−0.13237249
<i>P</i>	3.49	<i>H</i>	14.4	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1982 04 20	413	0.7−	0.2−	1998 12 29	411	0.4−	0.7−	1999 02 10	704	1.1−	0.6+
1982 04 20	413	0.5+	0.1−	1998 12 29	411	0.5+	0.5+	1999 02 10	704	0.8−	0.5+
1990 09 19	675	0.3−	0.5+	1999 01 10	699	(2.6+	0.8+)	1999 02 10	704	(2.7−	0.4+)
1990 09 19	675	0.2+	0.1−	1999 01 10	699	0.9+	0.6−	1999 02 13	704	0.3−	0.1+
1998 12 14	699	0.5−	0.3+	1999 01 10	699	0.1−	0.8+	1999 02 13	704	0.6+	0.1+
1998 12 14	699	0.9+	0.1+	1999 01 10	411	0.1+	0.2+	1999 02 13	704	0.1+	0.3+
1998 12 14	699	0.3+	1.1−	1999 01 10	411	0.7+	0.1+	1999 02 13	704	0.4+	0.2−
1998 12 21	704	0.1+	0.2−	1999 01 19	691	0.4+	0.0	1999 02 13	704	0.1+	0.7−
1998 12 21	704	0.2−	1.8+	1999 01 19	691	0.4+	0.0	1999 02 23	699	0.1+	0.7+
1998 12 21	704	0.5−	1.9−	1999 01 19	691	0.3+	0.0	1999 02 23	699	0.4+	0.4+
1998 12 21	704	(0.8−	3.1−)	1999 01 21	411	0.9+	0.1−	1999 02 23	699	0.7+	0.8+
1998 12 21	704	(5.5−	1.2−)	1999 01 21	411	0.9−	0.2−	1999 05 08	704	0.6−	1.4−
1998 12 27	411	0.2+	0.5+	1999 01 23	691	0.9−	0.4−	1999 05 08	704	(0.8−	2.4+)
1998 12 27	411	0.3−	0.4−	1999 01 23	691	1.0−	0.3−	1999 05 08	704	1.4+	1.6+
1998 12 28	411	0.2−	0.7−	1999 01 23	691	1.1−	0.3−				
1998 12 28	411	0.4+	0.1−	1999 02 10	704	0.1+	0.9+				

1999 AA = 1987 SC₂₇ = 2000 BM₁₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	172.76550	(2000.0)	<i>P</i>	Williams	<i>Q</i>
<i>n</i>	0.19029482	ω	348.49122	+0.93464837	+0.35438587
<i>a</i>	2.9935377	Ω	350.59674	−0.31050174	+0.77365722
<i>e</i>	0.0939349	<i>i</i>	10.23686	−0.17326599	+0.52522867
<i>P</i>	5.18	<i>H</i>	12.6	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1987 09 26	095	0.2+	0.3−	1999 01 04	411	1.2+	0.5+	2000 02 02	703	0.0	0.2−
1997 08 30	566	0.5−	0.9+	1999 01 04	411	0.6+	0.0	2000 02 02	703	0.6+	0.2+
1997 08 30	566	0.7−	0.8+	1999 01 05	411	0.4+	0.2−	2000 02 02	703	0.4+	0.1+
1997 08 30	566	0.6−	1.1+	1999 01 05	411	0.7+	0.1+	2000 02 02	703	0.5−	0.4+
1998 11 16	704	0.8−	0.1−	1999 01 09	411	0.5+	0.3+	2000 02 04	704	0.5+	0.1−
1998 11 16	704	0.7−	0.7−	1999 01 09	411	0.5+	0.1−	2000 02 04	704	0.7−	0.4+
1998 11 16	704	0.7−	0.2−	1999 01 09	411	0.2−	0.2+	2000 02 04	704	0.3−	0.7−
1998 11 16	704	0.7−	0.1+	1999 01 15	411	0.0	0.1+	2000 02 04	704	0.4−	0.1+
1998 11 16	704	1.0−	0.4+	1999 01 15	411	0.3−	0.9+	2000 02 04	704	0.5−	0.1−
1998 12 17	704	0.1−	0.0	2000 01 10	699	0.0	0.7+	2000 02 06	106	0.5−	0.2−
1998 12 17	704	0.2+	0.4−	2000 01 10	699	0.5+	0.2+	2000 02 06	106	0.1+	0.5+
1998 12 17	704	0.6+	0.3−	2000 01 10	699	0.2−	0.4+	2000 02 11	704	0.3−	0.9+
1998 12 17	704	(4.2−	0.3−)	2000 01 28	411	0.6+	1.2−	2000 02 11	704	0.5−	0.9+
1998 12 17	704	0.4−	0.5+	2000 01 28	411	2.0+	1.4−	2000 02 11	704	0.4+	1.0+
1999 01 03	411	0.1−	1.0−	2000 01 30	411	0.1+	0.0	2000 02 11	704	0.0	0.3+
1999 01 03	411	0.4+	0.2+	2000 01 30	411	0.6+	0.7+				

1999 AX

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	14.57923	(2000.0)	<i>P</i>	Williams	<i>Q</i>
<i>n</i>	0.22360626	ω	106.19703	−0.86110760	+0.45326471
<i>a</i>	2.6883145	Ω	101.24912	−0.50777585	−0.78955487
<i>e</i>	0.1175527	<i>i</i>	13.58136	+0.02563936	−0.41370789
<i>P</i>	4.41	<i>H</i>	13.6	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1989 11 04	675	0.4−	0.7+	1999 01 19	704	0.5+	0.9+	1999 02 10	704	0.3−	0.3−
1989 11 04	675	0.4+	0.7−	1999 01 19	704	0.0	0.2+	1999 02 10	704	0.0	0.6+
1995 04 23	675	0.2−	0.8−	1999 01 19	704	0.7−	0.7+	1999 02 10	704	1.3−	1.3−
1995 04 23	675	0.3+	1.3+	1999 01 19	704	(2.3−	1.1+)	1999 02 13	704	0.2+	0.3+
1998 10 24	691	1.0−	0.1−	1999 01 22	699	0.5+	0.4+	1999 02 13	704	0.7+	0.6−
1998 10 24	691	0.5−	0.1−	1999 01 22	699	0.3+	0.0	1999 02 13	704	0.8+	1.2−
1998 10 24	691	0.6−	0.0	1999 01 22	699	0.3+	0.3+	1999 02 13	704	0.5+	0.8−
1998 12 09	327	0.2−	0.1+	1999 01 22	411	0.1−	0.4+	1999 02 13	704	0.9−	0.8−
1998 12 09	327	0.0	0.4+	1999 01 22	411	0.3−	0.4+	1999 04 06	704	1.7−	1.2−
1998 12 09	327	0.1+	0.4+	1999 02 04	411	0.1+	0.4+	1999 04 06	704	0.3+	1.5−
1999 01 07	411	0.6−	0.1+	1999 02 04	411	0.3+	0.6+	1999 04 06	704	(0.0	2.0+)
1999 01 07	411	0.4−	0.2+	1999 02 07	716	0.9+	0.3+	1999 04 06	704	(3.1−	1.8−)
1999 01 08	411	0.1−	0.2+	1999 02 07	716	0.0	0.4+	1999 05 15	703	0.2+	1.7+
1999 01 08	411	0.5+	0.0	1999 02 08	716	0.1−	0.2+	1999 05 15	703	0.3+	0.7+
1999 01 13	411	0.3−	0.4−	1999 02 08	716	0.3+	0.4+	1999 05 15	703	0.4+	1.1−
1999 01 13	411	0.4+	1.0−	1999 02 10	704	1.4+	0.5−	1999 05 15	703	0.6−	0.5+

1999 AS₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

2000 FEB. 22

M.P.C. 38541

1998 11 18	699	0.3−	0.1+	1999 02 07	411	0.7−	0.0	1999 06 07	704	1.9+	0.7+
1998 11 18	699	0.8+	1.4+	1999 02 10	704	0.1−	0.2−	1999 06 08	704	0.5−	0.1+
1998 11 18	699	0.8−	1.2+	1999 02 10	704	0.6+	0.5−	1999 06 08	703	0.8−	0.6+
1999 01 10	411	0.1−	0.2+	1999 02 10	704	0.6−	0.7−	1999 06 08	703	1.0+	1.3+
1999 01 10	411	0.1−	0.2+	1999 02 10	704	0.0	0.0	1999 06 08	704	0.5+	0.4−
1999 01 11	411	0.4+	0.2+	1999 02 10	704	(2.2−	0.2−)	1999 06 08	703	0.6−	1.5+
1999 01 11	411	0.3−	0.3+	1999 02 13	704	0.3−	0.0	1999 06 08	704	0.0	0.5−
1999 01 17	411	0.0	0.0	1999 02 13	704	0.1+	0.6+	1999 06 08	703	1.0+	1.1+
1999 01 17	411	0.0	0.0	1999 02 13	704	0.4+	0.5+	1999 06 08	704	1.6−	0.7+
1999 01 19	704	0.0	0.6−	1999 02 13	704	0.6+	0.0	1999 06 10	704	0.3−	0.5−
1999 01 19	704	0.0	0.6−	1999 02 13	704	0.4+	0.1+	1999 06 10	704	0.4+	0.6−
1999 01 19	704	0.4+	0.1+	1999 02 19	566	0.1+	1.7−	1999 06 10	704	0.2+	0.5−
1999 01 19	704	0.2+	0.6+	1999 02 19	566	0.0	1.5−	1999 06 10	704	0.7+	0.9+
1999 01 19	704	0.3+	0.5+	1999 02 19	566	0.0	1.7−	1999 06 10	704	0.9−	0.8−
1999 01 22	699	0.2−	0.4−	1999 02 20	699	0.3+	0.7+				
1999 01 22	699	0.4+	0.0	1999 02 20	699	0.1−	0.4+				

1999 AE₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	64.82518		(2000.0)	P	Q
n	0.21676473	ω	226.76738	−0.30305412	−0.72841273
a	2.7445868	Ω	251.14795	+0.94717520	−0.30125190
e	0.2730660	i	40.48890	−0.10496351	−0.61535533
P	4.55	H	15.2	G 0.15	U 4

Residuals in seconds of arc

1998 11 14	704	1.1+	0.4−	1999 01 06	046	0.1+	0.5+	1999 01 08	557	0.2−	0.0
1998 11 14	704	0.6−	0.0	1999 01 06	611	0.5−	0.1+	1999 01 09	426	0.5−	0.4+
1998 11 14	704	1.0−	0.9+	1999 01 06	587	0.1+	0.6−	1999 01 09	426	0.2+	0.2+
1998 11 14	704	0.9+	0.7−	1999 01 06	611	0.5−	0.3−	1999 01 09	426	0.5+	0.5+
1998 12 14	704	0.1−	0.2+	1999 01 06	587	0.1−	0.1−	1999 01 10	422	0.8−	0.0
1998 12 14	704	0.4−	0.1+	1999 01 06	587	0.2+	0.4−	1999 01 10	422	0.1−	0.7−
1998 12 14	704	1.0+	0.2−	1999 01 06	611	0.9−	0.4−	1999 01 10	422	0.8+	0.3−
1998 12 14	704	0.6−	1.0+	1999 01 07	422	0.1+	0.4+	1999 01 10	422	0.1−	0.3−
1998 12 14	704	0.2−	1.0−	1999 01 07	422	0.5+	0.0	1999 01 12	426	0.1−	0.1+
1999 01 06	699	1.4−	0.0	1999 01 07	422	0.4+	0.3+	1999 01 12	422	0.0	0.7−
1999 01 06	699	0.4−	0.9+	1999 01 07	422	0.3−	0.2+	1999 01 12	422	0.5+	0.6−
1999 01 06	699	0.7+	0.1−	1999 01 07	422	0.6+	0.3+	1999 01 12	422	0.6−	0.8+
1999 01 06	557	0.1+	0.4−	1999 01 08	658	0.2+	0.3−	1999 01 12	426	0.0	0.2+
1999 01 06	557	0.0	0.6−	1999 01 08	658	0.5+	0.2−	1999 01 12	426	0.5+	0.1+
1999 01 06	557	0.3+	0.4−	1999 01 08	658	0.1+	0.1−	2000 02 09	413	0.1−	0.2−
1999 01 06	046	0.1−	0.5+	1999 01 08	557	0.3+	0.3−	2000 02 10	413	0.2−	0.3+
1999 01 06	046	0.1−	0.7+	1999 01 08	557	0.0	0.0	2000 02 10	413	0.4+	0.3+
1999 01 06	046	0.2−	0.7+	1999 01 08	557	0.1+	0.1−	2000 02 10	413	0.1−	0.3−

1999 AN₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	33.98020		(2000.0)	P	Q
n	0.27536359	ω	276.09729	−0.55857358	+0.78721143
a	2.3399058	Ω	316.33825	−0.52843625	−0.58058479
e	0.2379527	i	22.24209	−0.63933612	−0.20789293
P	3.58	H	14.0	G 0.15	U 2

Residuals in seconds of arc

1982 08 16	413	0.6−	0.4+	1999 01 19	704	0.6+	0.6+	1999 02 23	699	0.1−	1.1+
1982 08 16	413	1.0+	0.9−	1999 01 19	704	0.8−	0.1−	1999 02 23	699	0.1+	0.7+
1993 08 23	675	0.2−	0.3+	1999 01 19	704	0.4−	0.7+	1999 02 23	699	0.3+	0.8+
1998 12 14	699	0.3+	0.5−	1999 01 19	704	0.8−	0.2+	1999 05 07	704	0.1+	0.9+
1998 12 14	699	0.2+	0.7+	1999 01 28	411	0.3+	0.4−	1999 05 07	704	1.3+	1.1+
1998 12 14	699	0.4+	0.6−	1999 01 28	411	0.8−	0.4+	1999 05 07	704	0.3+	0.9+
1999 01 11	411	0.4−	0.9−	1999 02 06	411	0.5−	0.8−	1999 05 07	704	0.1+	1.5−
1999 01 11	411	1.1+	0.2−	1999 02 06	411	0.8−	0.5−	1999 05 07	704	0.8−	0.8−
1999 01 12	411	0.2+	0.0	1999 02 10	704	0.0	0.5−	1999 05 08	704	0.1−	0.5+
1999 01 12	411	0.1+	0.3−	1999 02 10	704	0.9+	0.3−	1999 05 08	704	0.6−	1.3−
1999 01 18	411	0.3−	0.6+	1999 02 10	704	0.9−	0.4+	1999 05 08	704	1.7+	0.4−

1999 01 18	411	1.0−	0.1−	1999 02 10	704	0.6+	0.2−	1999 05 08	704	1.7−	0.1−
1999 01 19	704	1.3+	0.3−	1999 02 10	704	0.1+	0.2−				

1999 AL₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	116.95708		(2000.0)	P	Q
n	0.28095763	ω	313.38153	+0.12595362	−0.98942793
a	2.3087425	Ω	129.24226	+0.93490364	+0.09415041
e	0.2274994	i	5.32602	+0.33179945	+0.11030901
P	3.51	H	14.8	G 0.15	U 2

Residuals in seconds of arc

1989 02 11	675	0.4+	2.0+	1998 11 13	704	0.9−	0.5−	1999 01 07	704	0.0	0.4+
1989 02 11	675	0.1+	1.2−	1998 11 16	699	0.4+	0.0	1999 01 07	704	0.9+	0.5+
1991 10 16	675	0.6+	0.5−	1998 11 16	699	0.9+	0.1+	1999 01 07	699	0.2−	0.6+
1991 10 16	675	0.6−	0.0	1998 11 16	699	0.4+	0.1+	1999 01 07	704	(2.3−	0.8+)
1996 04 21	675	0.6+	1.1−	1998 11 16	566	0.5+	0.4−	1999 01 10	699	0.4−	0.0
1996 04 21	675	0.8−	1.0+	1998 11 16	566	0.4+	0.4−	1999 01 10	699	0.1−	0.1−
1998 08 31	704	0.2−	1.5+	1998 11 16	566	0.5+	0.4−	1999 01 10	699	0.1−	0.1+
1998 08 31	704	0.5+	0.9−	1998 12 15	704	0.8−	1.5+	1999 01 23	699	0.4−	0.6−
1998 08 31	704	0.4−	1.5−	1998 12 15	704	0.2+	1.4−	1999 01 23	699	0.2−	1.0−
1998 10 19	699	0.0	0.5+	1998 12 15	704	0.8−	0.3+	1999 01 23	699	0.8−	0.9−
1998 10 19	699	0.6−	0.1+	1998 12 15	704	0.1+	0.1+	1999 02 04	704	0.6+	0.7+
1998 10 19	699	0.6+	0.0	1998 12 15	704	0.4−	0.5+	1999 02 04	704	0.6+	0.2+
1998 11 13	704	0.8−	1.1+	1999 01 07	699	0.0	0.4+	1999 02 04	704	0.7+	0.6−
1998 11 13	704	0.9−	0.3+	1999 01 07	704	0.7+	0.3−	1999 02 04	704	0.5−	1.3−
1998 11 13	704	1.0−	2.0+	1999 01 07	704	0.8+	0.2+				
1998 11 13	704	0.9+	1.0−	1999 01 07	699	0.0	0.4−				

1999 AH₁₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	69.16661		(2000.0)	P	Q		
n	0.22753288	ω	34.63531	−0.94083551	−0.28059822		
a	2.6572960	Ω	127.92492	+0.22995720	−0.94047483		
e	0.1840350	i	13.93638	+0.24889403	−0.19175958		
P	4.33	H	13.7	G	0.15	U	2

Residuals in seconds of arc

1984 08 07	413	1.3+	0.1−	1999 01 19	704	0.0	0.7+	1999 05 08	704	1.1+	0.4+
1984 08 07	413	1.6−	1.5+	1999 01 19	704	1.1+	0.9+	1999 05 08	704	1.8+	1.0−
1989 11 05	675	0.1−	0.1−	1999 01 19	704	0.5+	1.1+	1999 05 08	704	1.3+	1.2+
1998 11 25	704	1.2+	0.8−	1999 02 10	704	0.2+	0.6+	1999 05 08	704	1.4−	0.8+
1998 11 25	704	0.9+	0.5−	1999 02 10	704	1.4−	0.2+	1999 06 07	704	0.3−	0.4−
1998 11 25	704	0.5−	0.4−	1999 02 10	704	0.4+	1.2−	1999 06 07	704	0.3−	0.4−
1998 11 25	704	0.2−	0.3−	1999 02 10	704	0.4−	1.5+	1999 06 07	704	0.7−	0.6+
1999 01 11	691	0.4−	0.1−	1999 02 10	704	0.1+	0.7−	1999 06 07	704	0.5+	0.2+
1999 01 11	691	0.3−	0.1+	1999 02 13	704	0.7+	0.2+	1999 06 07	704	0.1−	0.6+
1999 01 11	691	0.4−	0.1+	1999 02 13	704	0.1−	1.2+	1999 06 08	704	0.7−	0.3+
1999 01 13	691	1.6−	0.3+	1999 02 13	704	0.2+	1.1+	1999 06 08	704	0.1+	1.0+
1999 01 13	691	1.0−	0.4−	1999 02 13	704	0.7+	0.7+	1999 06 08	704	0.0	0.4−
1999 01 13	691	1.4−	0.0	1999 02 13	704	0.1+	0.4+	1999 06 08	704	0.7−	0.1−
1999 01 14	699	0.0	0.2+	1999 02 19	566	0.3+	1.1−	1999 06 08	704	0.9−	0.0
1999 01 14	699	0.1−	0.1+	1999 02 19	566	0.1+	1.0−	1999 06 10	704	0.1+	0.1−
1999 01 14	699	0.0	0.0	1999 02 19	566	0.1+	1.5−	1999 06 10	704	1.2+	0.4−
1999 01 18	691	0.2+	0.5−	1999 04 06	704	0.7−	0.7−	1999 06 10	704	0.1−	

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	147.58169		(2000.0)	P		Q	
<i>n</i>	0.24195240	ω	310.62791	+0.11553298	−0.97741291		
<i>a</i>	2.5506415	Ω	131.80389	+0.96788965	+0.07073396		
<i>e</i>	0.1438917	<i>i</i>	13.73301	+0.22325266	+0.19914996		
<i>P</i>	4.07	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	2
Residuals in seconds of arc							
1984 08 21	413	0.6−	1.6−	1998 12 21	704	1.3−	1.7−
1984 08 21	413	0.1−	0.5+	1999 01 14	699	0.4+	0.6+
1989 09 21	413	0.1−	1.1−	1999 01 14	699	0.5−	0.1+
1989 09 21	413	0.1+	2.2+	1999 01 14	699	0.5−	0.4+
1995 03 26	675	0.9−	1.4+	1999 01 15	699	0.4−	0.9+
1995 03 26	675	1.6+	0.1−	1999 01 15	699	0.2−	0.0
1998 11 24	699	1.7−	0.8+	1999 01 15	699	0.4+	0.3+
1998 11 24	699	0.9−	0.4+	1999 02 10	704	0.1−	0.2−
1998 11 24	699	0.4−	0.8+	1999 02 10	704	0.3+	0.5−
1998 11 25	704	1.1+	0.1+	1999 02 10	704	0.1−	0.4+
1998 11 25	704	1.8+	0.3−	1999 02 10	704	0.8−	0.2−
1998 11 25	704	0.8+	1.7−	1999 02 10	704	0.2+	0.1−
1998 11 25	704	(3.5+ 1.0−)		1999 02 13	699	0.0	0.7+
1998 11 25	704	(3.7− 0.9+)		1999 02 13	699	0.2+	1.4+
1998 12 17	699	1.1−	0.2−	1999 02 13	704	0.4+	0.0
1998 12 17	699	0.9−	0.7−	1999 02 13	699	0.3+	0.6+
1998 12 17	699	1.4−	0.5−	1999 02 13	704	0.5+	0.4−
1998 12 21	704	1.5−	0.7−	1999 02 13	704	0.2+	0.4−
1998 12 21	704	0.5+	1.8−	1999 02 13	704	0.5−	0.3+
1998 12 21	704	1.5+	0.4−	1999 02 13	704	0.1+	0.3−
1998 12 21	704	0.9+	0.3−	1999 02 18	699	0.2+	0.3+

1999 BB₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	107.54378		(2000.0)	P		Q	
<i>n</i>	0.22836072	ω	116.82170	−0.03955644	−0.99523918		
<i>a</i>	2.6508701	Ω	334.96031	+0.82571603	+0.01764269		
<i>e</i>	0.2689467	<i>i</i>	12.14905	+0.56269736	−0.09585255		
<i>P</i>	4.32	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	2
Residuals in seconds of arc							
1974 06 20	413	0.8−	0.4+	1999 01 20	106	0.4−	0.2+
1974 06 20	413	0.1+	1.7−	1999 01 20	106	0.4−	0.1+
1982 05 15	413	0.5+	0.8−	1999 01 20	106	0.3−	0.2+
1982 05 15	413	1.0−	0.0	1999 01 20	106	0.3−	0.2+
1998 10 17	699	0.5−	0.6−	1999 01 22	106	0.0	0.8+
1998 10 17	699	0.0	1.0−	1999 01 22	106	0.1+	0.8+
1998 10 17	699	0.5−	0.5−	1999 01 22	106	0.0	0.7+
1998 11 25	704	0.1−	0.4−	1999 01 22	106	0.0	0.8+
1998 11 25	704	0.7−	1.7−	1999 02 06	106	0.3−	0.5−
1998 11 25	704	1.9+	0.3−	1999 02 06	106	0.1−	0.9−
1998 11 25	704	1.3+	1.1+	1999 02 06	106	0.5−	0.8−
1998 11 25	704	(4.3+ 0.2+)		1999 02 08	127	0.3−	0.9−
1999 01 16	704	0.2−	0.0	1999 02 08	127	0.2−	0.7−
1999 01 16	704	0.3+	0.1+	1999 02 08	127	0.3−	0.6−
1999 01 16	704	0.6+	0.6+	1999 02 10	704	0.2−	0.8−
1999 01 19	106	0.2−	0.8+	1999 02 10	704	0.2−	0.1−
1999 01 19	106	0.5−	0.1+	1999 02 10	704	0.8−	0.0
1999 01 19	106	0.0	0.3+	1999 02 10	704	1.0+	0.5−
1999 01 19	106	0.4−	0.1−	1999 02 10	704	(0.5− 2.7−)	
1999 01 20	106	0.3−	0.0	1999 02 12	699	0.2+	0.7+
1999 01 20	106	0.5−	0.0	1999 02 12	699	0.3+	0.6+
1999 01 20	106	0.4−	0.0	1999 02 12	699	0.1+	0.6+
1999 01 20	106	0.3−	0.0	1999 02 12	127	0.4−	0.6−

1999 BE₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	98.08163		(2000.0)	P		Q	
<i>n</i>	0.26977560	ω	246.35840	−0.82023494	−0.43675553		
<i>a</i>	2.3721070	Ω	265.91861	+0.55750694	−0.75494850		
<i>e</i>	0.2780750	<i>i</i>	21.73678	−0.12806502	−0.48918029		
<i>P</i>	3.65	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	2
Residuals in seconds of arc							
1987 11 30	675	1.1+	0.0	1999 01 19	703	0.1+	0.2−
1987 11 30	675	0.5+	1.2+	1999 01 20	703	0.5−	0.4−
1988 03 12	413	1.1+	2.1+	1999 01 20	703	0.2+	0.6−
1998 11 23	704	0.4+	0.5−	1999 01 23	704	0.3−	0.0
1998 11 23	704	0.6−	0.4−	1999 01 23	704	0.8−	0.6+
1998 11 23	704	0.5+	0.2−	1999 01 23	704	0.0	0.2+
1998 11 23	704	0.8+	0.3−	1999 01 23	704	0.1+	0.3−
1999 01 18	703	0.1−	0.1−	1999 01 23	704	(2.4− 4.1−)	
1999 01 18	703	0.1−	0.2+	1999 02 14	423	0.3−	0.5+
1999 01 18	703	0.1−	0.1−	1999 02 14	423	0.6+	0.1+
1999 01 19	703	0.2+	0.1+	1999 02 20	423	1.6−	0.7−

1999 BE₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	30.89810		(2000.0)	P		Q	
<i>n</i>	0.23710359	ω	78.03901	−0.95173585	+0.23291009		
<i>a</i>	2.5852981	Ω	115.15677	−0.28595496	−0.90946549		
<i>e</i>	0.0776689	<i>i</i>	12.75750	+0.11148378	−0.34442041		
<i>P</i>	4.16	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	3
Residuals in seconds of arc							
1976 11 16	413	0.1−	0.2+	1999 01 19	704	0.9+	0.1+
1980 10 10	413	0.2−	0.4−	1999 01 19	704	1.4+	0.9+
1980 10 10	413	0.9+	0.9−	1999 01 19	704	0.8+	0.3+
1989 12 21	675	1.5−	1.1+	1999 01 21	757	0.1−	0.4+
1989 12 21	675	1.0+	1.8−	1999 01 21	757	(0.4− 2.9+)	
1998 11 17	699	0.4−	0.2−	1999 01 26	757	0.2−	0.6+
1998 11 17	699	0.6−	0.0	1999 01 26	757	0.8−	0.2−
1998 11 17	699	0.8−	0.1+	1999 02 05	757	0.3−	0.9+
1998 12 11	303	0.0	0.7+	1999 02 05	757	0.3−	0.4+
1998 12 13	303	0.4−	0.5+	1999 02 10	704	0.8+	1.7−
1998 12 14	303	0.2+	1.1+	1999 02 10	704	0.3−	0.1−
1998 12 22	704	(2.1+ 1.5−)		1999 02 10	704	0.0	0.0
1998 12 22	704	0.9−	0.6−	1999 02 10	704	0.8+	0.7−
1998 12 22	704	0.2−	0.9−	1999 02 10	704	0.2−	0.2−
1998 12 22	704	0.2−	0.6−	1999 02 13	704	0.7+	1.5+
1999 01 19	757	1.1−	0.5+	1999 02 13	704	0.1+	0.6−
1999 01 19	757	0.0	0.1−	1999 02 13	704	1.3+	0.2−
1999 01 19	704	0.4+	0.0	1999 02 13	704	0.3+	0.5−

1999 BN₅ = 1998 QT₉₂

Id. G. V. Williams (d, MPC 34339)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	133.83593		(2000.0)	P		Q	
<i>n</i>	0.22658788	ω	210.20365	+0.98704831	+0.14654562		
<i>a</i>	2.6646792	Ω	141.19890	−0.11826858	+0.93961882		
<i>e</i>	0.3415584	<i>i</i>	5.97879	−0.10838898	+0.30925855		
<i>P</i>	4.35	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	3
Residuals in seconds of arc							
1998 08 28	704	0.5−	0.3−	1998 11 19	699	0.5+	0.2−
1998 08 28	704	0.3+	0.3+	1998 11 19	699	0.7+	0.4−
1998 08 28	704	0.5−	0.3+	1998 11 19	699	0.7+	0.1+
1998 08 28	704	1.1+	0.1+	1999 01 30	651	0.1−	0.8+
1998 08 28	704	0.9+	0.9+	1999 01 30	651	0.5−	0.4+
1998 08 31	704	0.3+	0.5+	1999 01 19	651	0.4+	0.2−
				1999 02 07	651	0.6+	1.9−

2000 FEB. 22

M.P.C. 38543

1998 08 31	704	0.3−	0.6+	1999 01 19	651	0.2−	0.4+	1999 02 07	651	0.2−	0.5−
1998 08 31	704	0.7−	1.4−	1999 01 19	651	0.0	0.5−	1999 02 20	651	0.3−	0.5−
1998 08 31	704	(2.3−	0.5+)	1999 01 20	651	0.3−	0.4+	1999 02 20	651	1.0−	0.1+
1998 08 31	704	1.4−	0.0	1999 01 20	651	0.4−	0.5−	2000 01 09	651	1.3+	0.8+
1998 10 12	699	0.2+	0.2+	1999 01 20	651	0.6−	1.4+	2000 01 09	651	1.1−	0.5−
1998 10 12	699	0.1+ 0.0	0.0	1999 01 20	651	0.2+	0.3−	2000 01 09	651	0.3−	0.0
1998 10 12	699	0.1+ 0.2+	0.2+	1999 01 20	651	0.6+	0.2+	2000 02 04	651	0.8+	0.7−
1998 11 13	704	0.2+ 0.2−	0.2−	1999 01 20	651	0.1−	0.5+	2000 02 04	651	0.4−	0.0
1998 11 13	704	0.5+ 0.2+	0.2+	1999 01 20	651	0.0	0.5+	2000 02 04	651	0.0	0.4+
1998 11 13	704	0.0 0.5−	0.5−	1999 01 20	651	0.3−	0.1−	2000 02 14	691	0.3−	0.2+
1998 11 13	704	0.3− 0.6−	0.6−	1999 01 20	651	0.3−	0.1+	2000 02 14	691	0.1+	0.0
1998 11 13	704	1.2− 0.4−	0.4−	1999 01 20	651	0.0	0.2−	2000 02 14	691	0.2−	0.0

1999 BW₇ = 1996 GH₈

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	113.19901		(2000.0)		P		Q	
n	0.27753822	ω	334.52146		-0.53994957		-0.83956388	
a	2.3276670	Ω	148.05921		+0.79031975		-0.53018505	
e	0.1437950	i	6.50020		+0.28956718		-0.11847487	
P	3.55	H	16.5		G	0.15	U	5

Residuals in seconds of arc

1996 04 12	691	0.2−	0.5−	1996 04 23	691	0.2−	0.1+	1999 01 21	120	0.1+	1.6+
1996 04 12	691	0.2+	0.1−	1999 01 19	120	0.5−	0.7+	1999 01 21	120	0.8−	0.1+
1996 04 12	691	0.3+	0.3+	1999 01 19	120	0.9+	0.4−	1999 01 22	120	0.2+	0.1−
1996 04 23	691	0.2−	0.1−	1999 01 19	120	0.9+	0.4−	1999 01 22	120	0.6−	0.2−
1996 04 23	691	0.0	0.3+	1999 01 21	120	0.2−	1.4−				

1999 BN₁₂ = 1975 FS

Id. A. Gnädig, G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	123.70645		(2000.0)	P	Q
n	0.24504455	ω	49.50194	+0.08579898	-0.99427048
a	2.5291389	Ω	35.72873	+0.87789474	+0.04518813
e	0.1804339	i	6.26804	+0.47110440	+0.09687231
P	4.02	H	13.0	G 0.15	U 2

Residuals in seconds of arc

1953 08 14	675	0.1+	0.3+	1999 01 19	704	0.9+	0.0	1999 02 13	704	1.2−	0.8−
1953 08 14	675	0.8−	0.7−	1999 01 19	704	0.4−	0.3+	1999 02 18	699	0.5−	0.4+
1975 03 30	095	1.6+	2.0+	1999 01 19	704	0.8−	0.5+	1999 02 18	699	0.7+	0.0
1976 05 30	413	1.4−	0.0	1999 01 19	704	0.2−	0.3+	1999 02 18	699	0.0	0.1−
1976 05 30	413	0.1+	1.3−	1999 01 19	704	0.3−	0.2+	1999 03 13	106	0.2−	0.4−
1977 08 19	413	0.1−	0.2+	1999 01 24	106	0.6−	0.1−	1999 03 13	106	0.2−	0.3−
1977 08 19	413	1.5+	0.4+	1999 01 24	106	0.6−	0.0	1999 03 13	106	0.3−	0.2−
1998 10 15	699	1.0−	0.7−	1999 01 24	106	0.5−	0.0	1999 04 06	704	0.7+	0.4+
1998 10 15	699	0.4−	0.2+	1999 01 25	106	0.5−	0.0	1999 04 06	704	0.9−	0.5+
1998 10 15	699	0.1−	1.2+	1999 01 25	106	0.5−	0.0	1999 04 06	704	0.6−	0.2+
1998 10 30	704	0.2−	0.1+	1999 01 25	106	0.5−	0.1−	1999 04 06	704	1.1−	0.0
1998 10 30	704	0.1+ 0.2+	0.2+	1999 02 06	106	0.2−	0.5−	1999 04 06	704	0.5−	0.4−
1998 10 30	704	0.1+ 0.3−	0.3−	1999 02 06	106	0.5+	0.6+	1999 05 08	704	0.7+	0.2−
1998 10 30	704	0.4+ 0.1−	0.1−	1999 02 06	106	0.1+ 0.5−	0.5−	1999 05 08	704	0.4−	0.9−
1998 10 30	704	0.6− 0.2+	0.2+	1999 02 10	704	0.2+	0.6−	1999 05 08	704	0.1−	0.4+
1998 11 25	704	0.4− 0.3−	0.3−	1999 02 10	704	1.2+	0.2−	1999 05 08	704	0.0	0.9−
1998 11 25	704	1.6− 0.4+	0.4+	1999 02 10	704	0.4−	1.1−	1999 05 08	704	0.6+	0.6+
1998 11 25	704	1.2+ 0.7+	0.7+	1999 02 10	704	0.5+	0.5−	1999 06 08	703	0.7+	0.3−
1998 11 25	704	0.0 1.1+	1.1+	1999 02 10	704	0.1−	0.7−	1999 06 08	703	0.2+	0.1+
1998 11 25	704	1.1+ 0.6+	0.6+	1999 02 13	704	1.2+	0.0	1999 06 08	703	1.5+	1.7+
1999 01 13	699	0.2+ 0.6−	0.6−	1999 02 13	704	0.9+	0.0	1999 06 08	703	0.6+	1.9+
1999 01 13	699	0.2+ 0.8−	0.8−	1999 02 13	704	0.6+	0.9−				
1999 01 13	699	0.7+ 0.6−	0.6−	1999 02 13	704	(0.3+ 2.0−)					

1999 BL₂₈ = 1997 QJ₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	267.92264		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.29008642	ω	196.64220	+0.79291006	+0.59865304
a	2.2600486	Ω	126.03263	−0.54183205	+0.77800353
e	0.2245100	i	8.07637	−0.27876813	+0.19059130
P	3.40	H	15.7	G 0.15	U 5

Residuals in seconds of arc

1997 08 30	566	0.2−	0.5−	1997 09 02	566	0.5+	0.5−	1999 01 17	691	0.5−	0.3−
1997 08 30	566	0.6−	0.1−	1997 09 02	566	0.6+	0.3−	1999 01 17	691	0.2−	0.3−
1997 08 30	566	0.2−	0.3−	1997 09 02	566	0.5+	0.5−	1999 01 17	691	0.4−	0.2−
1997 09 01	566	0.1+ 0.1+	0.1+	1997 09 04	625	0.7−	0.4+	1999 01 22	691	0.6+	0.0
1997 09 01	566	0.3+ 0.1−	0.1−	1997 09 04	625	0.1−	0.3+	1999 01 22	691	0.4+	0.3+
1997 09 01	566	0.1+ 0.2−	0.2−	1997 09 04	625	0.3−	1.5+	1999 01 22	691	0.1+	0.3+

1999 CD₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	105.42970		(2000.0)		P		Q
n	0.27067759	ω	136.68486		+0.23991902		-0.95571718
a	2.3668342	Ω	298.75525		+0.82919536		+0.29303499
e	0.1564346	i	11.20931		+0.50485039		-0.02711402
P	3.64	H	14.0	G	0.15	U	2

Residuals in seconds of arc

1978 02 08	413	0.6−	1.3−	1998 11 16	704	0.0	0.4−	1999 02 02	402	0.4−	0.0
1978 02 08	413	0.6+	1.4+	1998 11 16	704	0.2−	0.4−	1999 02 02	402	0.5−	0.5−
1978 02 18	413	1.7−	0.6−	1998 11 16	704	0.5−	0.4−	1999 02 02	402	0.5−	0.1−
1978 02 18	413	1.3+	0.2+	1998 11 21	699	0.0	0.2+	1999 02 02	402	0.6−	0.5+
1983 07 16	413	0.1+	0.3−	1998 11 21	699	0.0	0.0	1999 02 06	402	0.7+	0.9−
1983 07 16	413	0.7+	0.6−	1998 11 21	699	0.1+	0.3+	1999 02 06	402	0.3−	0.3−
1998 08 29	704	1.1+	1.4+	1998 12 09	704	0.6+	0.2+	1999 02 06	402	0.3−	0.2+
1998 08 29	704	0.6−	0.2−	1998 12 09	704	0.2−	0.6−	1999 02 06	402	0.1+	0.1+
1998 08 29	704	0.6−	0.2+	1998 12 09	704	0.3−	1.1+	1999 02 08	402	0.4−	0.0
1998 08 29	704	0.3+	0.8−	1998 12 09	704	0.3−	1.6−	1999 02 08	402	0.6+	0.8−
1998 08 29	704	1.0+	0.2+	1998 12 09	704	0.3−	0.3+	1999 02 08	402	0.7+	0.0
1998 11 14	704	0.1+	0.1+	1998 12 24	699	0.1+	1.3+	1999 02 16	402	0.3+	1.1−
1998 11 14	704	(0.9+ 2.1−)		1998 12 24	699	0.4−	0.1+	1999 02 16	402	0.3+	0.2−
1998 11 14	704	0.8−	0.9+	1998 12 24	699	0.3−	0.3+	1999 02 16	402	0.1−	0.5+
1998 11 14	704	0.3+	0.6+	1999 01 08	704	0.5+	1.0−	1999 02 19	402	0.7+	0.0
1998 11 14	704	0.4+	0.7−	1999 01 08	704	0.0	1.8+	1999 02 19	402	0.0	0.3−
1998 11 16	704	0.4−	0.4−	1999 01 08	704	1.0+	0.4+	1999 02 19	402	0.7+	0.5+
1998 11 16	704	0.0	0.2−	1999 01 08	704	0.6−	0.9−				

1999 CR₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	20.14329		(2000.0)		P		Q
n	0.23562438	ω	279.56599		-0.81070495		+0.56848497
a	2.5961068	Ω	295.20476		-0.45793324		-0.76466199
e	0.0487690	i	8.89719		-0.36476655		-0.30350764
P	4.18	H	13.6	G	0.15	U	2

Residuals in seconds of arc

1988 10 03	413	0.6−	0.3+	1999 01 22	699	0.3+	0.1−	1999 02 16	704	0.1+	0.3+
1988 10 03	413	0.2−	1.3+	1999 01 22	699	0.2−	0.3+	1999 02 16	704	0.6+	0.1−
1989 11 24	675	1.4−	0.4−	1999 01 22	699	0.1+	0.3+	1999 02 16	704	0.4+	0.1−
1989 11 24	675	1.3+	0.7−	1999 02 08	120	0.6+	0.5−	1999 02 16	704	0.3+	0.2+
1991 02 10	413	0.2+	0.1−	1999 02 08	120	0.3−	0.3−	1999 02 16	704	0.1+	0.1+
1991 02 10	413	0.3−	0.4−	1999 02 12	704	0.6−	0.0	1999 05 06	699	0.9−	0.2−
1991 04 13	413	0.5−	0.6−	1999 02 12	704	1.5+	0.1+	1999 05 06	699	(2.2−	0.9−)
1991 04 13	413	0.3+	0.2+	1999 02 12	704	0.0	0.2−	1999 05 06	699	0.8+	0.7+
1998 11 16	699	0.5−	0.3+	1999 02 12	704	0.2+	0.2+	1999 05 07	704	1.4−	0.9−
1998 11 16	699	0.9−	0.1+	1999 02 12	704	0.8+	0.4−	1999 05 07	704	0.3−	1.2+
1998 11 16	699	0.4−	0.9+	1999 02 12	120	0.3−	0.1−	1999 05 07	704	(0.7+	2.1+)
1998 12 24	699	0.2+	0.4−	1999 02 12	120	0.3−	0.1+	1999 05 07	704	0.5−	0.8+

1998 12 24 699 0.3− 0.8+ 1999 02 15 120 0.2+ 0.1+
 1998 12 24 699 0.2+ 0.3− 1999 02 15 120 0.1+ 0.2+

1999 CC₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	299.83495		(2000.0)		P		Q		Spahr
<i>n</i>	0.23775236	ω	180.25686		+0.32945551		+0.90756514		
<i>a</i>	2.5805928	Ω	108.98881		−0.86576831		+0.40040297		
<i>e</i>	0.1735529	<i>i</i>	15.98216		−0.37670187		−0.12650287		
<i>P</i>	4.15	<i>H</i>	12.6		<i>G</i>	0.15	<i>U</i>	2	

Residuals in seconds of arc

1950 04 18	675	0.1+	0.4−	1999 02 10	704	0.4+	0.3−	1999 02 17	888	0.5+	0.2−
1950 04 18	675	0.0	0.7+	1999 02 10	704	0.2−	0.4−	1999 02 17	888	0.3−	0.1+
1989 11 07	675	1.8−	0.5+	1999 02 10	704	0.1+	0.6−	1999 02 19	385	0.7−	1.1+
1989 11 07	675	1.5+	0.3−	1999 02 10	704	0.3−	1.1−	1999 02 19	385	0.3+	0.2+
1990 01 24	675	0.4−	0.1−	1999 02 12	385	0.7−	1.7−	1999 02 19	385	0.4+	0.1−
1990 01 24	675	0.5+	0.2−	1999 02 13	704	0.7+	0.4−	1999 02 21	385	0.0	0.1+
1993 11 08	675	1.2−	0.2+	1999 02 13	704	0.1−	0.6−	1999 02 21	385	0.4+	0.1−
1993 11 08	675	1.3+	0.2−	1999 02 13	704	0.4−	0.2+	1999 02 21	385	0.3−	0.2+
1998 11 18	699	0.4+	0.8−	1999 02 13	704	0.3+	0.0	1999 02 23	888	0.3−	0.1−
1998 11 18	699	0.6+	0.4+	1999 02 13	704	0.4−	0.4−	1999 02 23	888	0.4+	0.1+
1998 11 18	699	0.6+	0.4−	1999 02 13	385	0.1+	0.3+	1999 04 07	385	0.8−	0.1+
1999 01 10	699	0.3+	0.5+	1999 02 13	385	0.6−	0.3+	1999 04 07	385	1.0+	0.6+
1999 01 10	699	0.8+	1.2+	1999 02 13	886	0.3−	0.4+	1999 05 08	704	0.6−	1.5−
1999 01 10	699	1.3+	0.0	1999 02 13	886	1.6−	1.1−	1999 05 08	704	0.7+	0.6+
1999 01 19	704	1.3+	0.4−	1999 02 15	888	0.3−	0.3+	1999 05 08	704	(1.3+ 2.2+)	
1999 01 19	704	0.5−	0.8+	1999 02 15	888	0.1+	0.0	1999 05 08	704	0.0	0.3−
1999 01 19	704	1.0−	0.3+	1999 02 16	385	0.2−	0.3+	1999 05 08	704	(3.1− 0.6+)	
1999 01 19	704	(0.7+ 2.2+)		1999 02 16	385	0.2−	0.6+				
1999 01 19	704	0.0	1.1+	1999 02 17	888	0.0	0.0				

1999 CH₅ = 1988 SM₄

Id. A. Gnädig, S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	120.61252		(2000.0)		P		Q		Spahr
<i>n</i>	0.21065504	ω	99.97181		+0.30976126		−0.94837828		
<i>a</i>	2.7974016	Ω	331.69208		+0.80647870		+0.29995776		
<i>e</i>	0.2028354	<i>i</i>	8.24676		+0.50362691		+0.10297565		
<i>P</i>	4.68	<i>H</i>	13.3		<i>G</i>	0.15	<i>U</i>	2	

Residuals in seconds of arc

1983 09 12	413	1.1−	0.8+	1999 01 19	704	0.9+	0.5+	1999 02 16	888	0.3−	0.4−
1983 09 12	413	0.4+	1.4+	1999 02 10	704	0.5−	0.1+	1999 02 20	888	0.2−	0.1−
1988 09 16	095	(6.2+ 3.8+)		1999 02 10	704	1.0+	0.4−	1999 02 20	888	0.1−	0.3−
1988 09 16	095	0.0	1.7−	1999 02 10	704	0.0	1.2+	1999 02 22	888	0.0	0.3−
1991 04 13	413	0.6+	0.6+	1999 02 10	704	0.1−	0.7+	1999 02 22	888	0.1−	0.1+
1991 04 13	413	0.7−	0.7−	1999 02 12	888	0.2−	0.4−	1999 03 06	888	0.4−	0.0
1993 10 23	675	0.1+	0.2−	1999 02 12	888	0.1−	0.3−	1999 03 06	888	0.4−	0.1+
1993 10 23	675	0.3+	0.0	1999 02 13	704	0.0	0.8+	1999 03 22	888	0.5−	0.5−
1998 10 02	699	0.1−	0.1−	1999 02 13	704	0.7+	0.5+	1999 03 22	888	0.3−	0.1+
1998 10 02	699	0.5+	0.6−	1999 02 13	704	1.2+	0.6−	1999 04 07	888	0.4+	1.1+
1998 10 02	699	1.5+	0.3+	1999 02 13	704	0.4−	0.7+	1999 04 07	888	0.7+	0.3−
1998 10 15	699	0.5−	0.9+	1999 02 13	704	0.3−	0.9−	1999 04 15	888	0.3+	1.1−
1998 10 15	699	0.2+	0.2+	1999 02 13	886	0.3+	0.4+	1999 04 15	888	0.3−	0.2−
1998 10 15	699	0.6−	0.6−	1999 02 13	886	1.3+	1.1+	1999 05 08	704	0.9+	0.4+
1999 01 19	704	0.5−	0.4−	1999 02 13	888	0.2−	0.1−	1999 05 08	704	0.0	0.1−
1999 01 19	704	0.5−	0.2−	1999 02 13	888	0.2−	0.2−	1999 05 08	704	0.9−	0.4−
1999 01 19	704	0.5−	0.0	1999 02 13	888	0.3−	0.2−				
1999 01 19	704	0.1+	0.5+	1999 02 16	888	0.4−	0.2−				

1999 CU₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	91.52189		(2000.0)		P		Q		Spahr
<i>n</i>	0.24174019	ω	16.71846		−0.93565452		−0.31473963		
<i>a</i>	2.5521340	Ω	143.66470		+0.28505548		−0.94070149		
<i>e</i>	0.1369783	<i>i</i>	15.63183		+0.20807209		−0.12656882		
<i>P</i>	4.08	<i>H</i>	13.7		<i>G</i>	0.15	<i>U</i>	2	

Residuals in seconds of arc

1950 03 21	675	1.1−	0.1−	1999 01 23	699	0.9−	0.1+	1999 03 16	411	0.2−	1.0−
1950 03 21	675	1.0+	1.4−	1999 02 12	411	0.3+	0.1−	1999 03 16	411	0.4−	0.7−
1979 07 18	413	0.2−	0.9−	1999 02 12	411	0.2+	0.2−	1999 04 07	699	0.2+	0.8+
1979 07 18	413	0.5−	0.7−	1999 02 13	411	1.0−	0.0	1999 04 07	699	0.8+	1.1+
1993 11 07	413	0.6−	0.7−	1999 02 13	411	0.1−	0.3+	1999 04 07	699	0.8+	0.6+
1993 11 07	413	0.9+	0.1−	1999 02 18	699	0.3+	0.1−	1999 04 08	411	0.3−	0.5+
1998 12 21	704	1.0+	0.7+	1999 02 18	699	0.4+	0.3−	1999 04 08	411	0.2+	0.2+
1998 12 21	704	0.1+	0.6+	1999 02 18	699	0.0	0.3+	1999 05 17	704	1.1+	1.5−
1998 12 21	704	0.5+	0.2+	1999 02 20	411	0.0	0.3−	1999 05 17	704	1.1−	0.4+
1998 12 21	704	1.3−	0.2+	1999 02 20	411	0.7−	0.0	1999 05 17	704	1.2+	1.9+
1999 01 23	699	0.0	0.5−	1999 02 22	411	0.0	0.0				
1999 01 23	699	1.0−	0.9−	1999 02 22	411	0.3+	0.1−				

1999 CT₂₉ = 1979 QM₈

Id. A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	286.51805		(2000.0)		P		Q		Spahr
<i>n</i>	0.22704582	ω	343.12222		+0.63564269		+0.76184907		
<i>a</i>	2.6610950	Ω	326.04245		−0.68000386		+0.47610391		
<i>e</i>	0.1835700	<i>i</i>	12.89730		−0.36544921		+0.43921642		
<i>P</i>	4.34	<i>H</i>	12.9		<i>G</i>	0.15	<i>U</i>	2	

Residuals in seconds of arc

1974 06 18	413	1.1−	0.2−	1999 01 13	699	0.3−	1.2−	1999 06 05	703	(2.2+ 0.4+)	
1974 06 18	413	0.4−	0.3+	1999 01 13	699	0.4+	0.7−	1999 06 05	703	0.4+	0.9+
1979 08 20	095	(10.2− 4.3+)		1999 01 19	691	0.6−	0.9−	1999 06 05	703	0.1+	0.9−
1979 08 28	095	0.1+	2.2+	1999 01 19	691	0.5−	0.6−	1999 06 05	703	(0.7− 2.2+)	
1982 05 15	413	0.0	0.3−	1999 01 19	691	0.5−	0.8−	1999 06 06	703	0.5+	0.3+
1982 05 15	413	0.3−	0.7−	1999 02 10	704	0.1+	0.3+	1999 06 06	703	0.4−	0.6−
1997 12 06	704	1.4+	0.7−	1999 02 10	704	0.1+	0.1+	1999 06 06	703	0.9+	1.0−
1997 12 06	704	0.8−	0.0	1999 02 10	704	0.4+	0.1+	1999 06 06	703	0.3−	0.6−
1997 12 06	704	0.0	0.1+	1999 02 10	704	0.0	0.1+	1999 06 06	422	0.6+	0.3+
1997 12 06	704	1.6−	0.5−	1999 02 10	704	0.1−	0.4−	1999 06 06	422	0.1+	0.7+
1997 12 06	704	1.0−	0.7−	1999 02 13	704	0.9+	0.1+	1999 06 06	426	0.1+	0.3−
1998 11 25	699	0.8+	0.3+	1999 02 13	704	0.5+	0.2+	1999 06 06	422	0.0	0.0
1998 11 25	699	0.5+	0.9+	1999 02 13	704	0.4+	0.5+	1999 06 06	426	0.1+	0.1−
1998 11 25	699	0.2+	0.0	1999 02 13	704	0.7+	0.3+	1999 06 06	426	0.3−	0.0
1998 11 30	910	0.5−	0.7+	1999 02 13	704	0.7+	0.8+	1999 06 07	426	0.2+	0.0
1998 11 30	910	0.5−	0.9+	1999 05 18	699	0.8−	0.7+	1999 06 07	426	0.1−	0.1+
1998 11 30	910	0.7−	0.8+	1999 05 18	699	0.4+	0.4+	1999 06 07	426	0.0	0.3+
1999 01 13	699	0.4+	0.5−	1999 05 18	699	0.4−	1.4+				

1999 CH₃₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	116.38985		(2000.0)		P		Q		Spahr
<i>n</i>	0.21727397	ω	324.98239		−0.17030434		−0.96895777		
<i>a</i>	2.7402966	Ω	134.06631		+0.95142247		−0.20903217		
<i>e</i>	0.1680338	<i>i</i>	14.44285		+0.25649895		+0.13200910		
<i>P</i>	4.54	<i>H</i>	14.3		<i>G</i>	0.15	<i>U</i>	3	

Residuals in seconds of arc

1983 07 13	413	0.1−	0.6−	1999 02 10	704

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1998 11 25	704	0.5+	1.0+	1999 02 13	699	0.2+	0.1-	1999 05 08	704	0.7+	0.8-
1998 11 25	704	0.0	0.3+	1999 02 13	699	0.1+	0.1-	1999 05 08	704	0.2+	1.0+
1998 11 25	704	0.7-	0.7+	1999 02 13	704	0.4+	0.5-	1999 05 08	704	0.1+	0.7+
1999 01 13	699	0.1+	0.1-	1999 02 13	699	0.1+	0.3-	1999 05 08	704	0.2+	0.1+
1999 01 13	699	0.2-	0.2-	1999 02 13	704	0.5-	0.2-				
1999 01 13	699	0.2+	0.4-	1999 02 13	704	0.2-	0.2-				

1999 CP₃₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	125.97807		(2000.0)	P	Q
n	0.22836830	ω	63.58661	-0.02154452	-0.99917822
a	2.6508115	Ω	27.71303	+0.88896016	-0.03485896
e	0.1725810	i	4.23378	+0.45747751	+0.02068170
P	4.32	H	13.8	G 0.15	U 2

Residuals in seconds of arc

1954 09 06	675	0.5+	1.3-	1999 02 13	699	0.3+	0.2+	1999 06 07	704	0.4-	0.7+
1954 09 06	675	0.4+	0.1-	1999 02 13	704	0.5-	0.7-	1999 06 08	704	0.9-	0.8-
1989 11 08	675	0.5-	0.1+	1999 02 13	699	0.5+	0.3+	1999 06 08	704	0.9+	1.0-
1992 06 05	413	0.1-	0.0	1999 02 13	704	0.3-	0.7-	1999 06 08	704	0.2-	1.1-
1992 06 05	413	0.5+	0.8-	1999 02 13	704	0.7-	0.3+	1999 06 08	704	0.5-	0.7-
1998 12 17	699	0.5+	0.4-	1999 02 13	704	0.8-	0.6+	1999 06 10	704	0.0	0.3-
1998 12 17	699	0.2+	0.3+	1999 02 13	704	1.3-	0.3-	1999 06 10	704	0.4-	0.5+
1998 12 17	699	0.1+	0.4+	1999 05 08	704	(2.0-	0.1+)	1999 06 10	704	0.8-	0.4+
1999 02 10	704	0.0	0.1-	1999 05 08	704	0.1-	0.6-	1999 06 10	704	0.3-	0.0
1999 02 10	704	0.0	0.7-	1999 05 08	704	0.5-	1.2-	1999 06 10	704	0.1+	0.5+
1999 02 10	704	0.9+	0.2-	1999 05 08	704	(0.9+	2.1+)	1999 06 10	704	0.8+	1.1+
1999 02 10	704	0.7+	0.0	1999 06 07	704	0.9+	1.2+	1999 06 10	704	1.0+	0.6+
1999 02 10	704	0.2+	0.1-	1999 06 07	704	(3.0+	0.9+)	1999 06 10	704	1.7-	0.1-
1999 02 13	699	1.1+	0.2-	1999 06 07	704	0.1+	0.7+	1999 06 10	704	0.2-	0.0

1999 CY₅₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	21.17561		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.21011831	ω	208.87993	-0.77815163	+0.62744770
a	2.8021634	Ω	10.12785	-0.54118607	-0.64712563
e	0.0814613	i	9.19419	-0.31874390	-0.43305635
P	4.69	H	13.2	G 0.15	U 1

Residuals in seconds of arc

1950 12 09	675	0.9-	1.3-	1999 02 10	704	0.4+	0.4-	1999 03 19	704	0.3+	0.5-
1950 12 09	675	1.5+	0.1-	1999 02 10	704	0.9+	0.1-	1999 03 19	704	0.9+	0.1-
1977 07 21	413	0.8-	0.1-	1999 02 10	704	0.6+	0.5-	1999 03 19	704	1.4-	1.2-
1977 07 21	413	0.9+	0.1+	1999 02 10	704	0.9+	0.4-	1999 03 20	704	0.5-	0.6+
1987 08 24	675	0.2-	0.0	1999 02 10	704	1.4+	0.2+	1999 03 20	704	0.8-	0.6+
1987 08 24	675	0.9-	0.7+	1999 02 13	699	0.1+	0.3+	1999 03 20	704	0.7-	0.5+
1987 08 26	675	0.4+	0.4+	1999 02 13	699	0.1-	1.1+	1999 03 20	704	0.3-	0.3+
1987 08 26	675	0.0	0.4+	1999 02 13	704	0.3-	0.2-	1999 03 20	704	0.5-	0.4-
1992 10 02	675	1.1-	0.6+	1999 02 13	704	0.2+	0.2+	1999 06 06	703	0.1+	0.5+
1992 10 02	675	0.6+	0.2-	1999 02 13	699	0.0	0.8+	1999 06 06	703	0.8-	0.2+
1998 12 01	704	1.2+	0.2-	1999 02 13	704	0.6-	0.1+	1999 06 06	703	0.2-	0.1+
1998 12 01	704	0.1-	0.9-	1999 02 13	704	0.6-	0.6+	1999 06 06	703	0.6+	0.4-
1998 12 01	704	0.7+	0.6+	1999 02 13	704	0.2-	0.0				
1998 12 01	704	0.5+	1.1-	1999 03 19	704	0.5-	0.3+				

1999 CV₈₁ = 1983 GH₂

Id. A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	57.90777		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.30390325	ω	254.96741	-0.69849663	+0.71517284
a	2.1910173	Ω	330.67626	-0.63529617	-0.63586713
e	0.1178878	i	2.93840	-0.32939527	-0.29017376
P	3.24	H	14.3	G	0.15
				U	2

Residuals in seconds of arc

1977 07 20	413	0.6-	0.2-	1999 02 12	704	0.0	0.9+	1999 03 23	699	0.0	0.9+
1977 07 20	413	0.5+	0.2+	1999 02 12	704	0.2+	1.2+	1999 03 23	699	0.3+	0.9+
1983 04 10	095	0.1+	0.8-	1999 02 12	704	(1.2-	2.9+)	1999 04 06	699	0.2+	1.1+
1983 05 10	413	0.4-	1.0+	1999 02 16	704	0.0	1.1-	1999 04 06	699	0.1+	1.5+
1983 05 10	413	0.3+	0.3-	1999 02 16	704	0.2-	0.2-	1999 04 06	699	0.7+	1.4+
1989 01 10	675	0.9-	0.7+	1999 02 16	704	0.0	0.2-	1999 05 07	704	0.0	0.1-
1989 01 10	675	1.2+	0.9-	1999 02 16	704	0.2-	0.8-	1999 05 07	704	0.4+	1.5+
1990 09 23	413	0.1-	0.3-	1999 02 16	704	0.0	0.7-	1999 05 07	704	0.0	0.2+
1997 10 30	704	1.3+	0.4+	1999 02 18	699	0.3+	0.4+	1999 05 07	704	1.1+	0.4+
1997 10 30	704	(1.2+	2.2+)	1999 02 18	699	1.0+	0.2+	1999 05 07	704	0.8-	1.6-
1997 10 30	704	1.1-	0.2-	1999 02 18	699	0.2+	0.2+	1999 06 08	704	0.5-	0.3+
1997 10 30	704	(4.9-	0.4+)	1999 03 19	704	0.2-	0.9-	1999 06 08	704	0.9-	0.3-
1998 11 25	704	0.2+	1.3+	1999 03 19	704	0.9-	0.5-	1999 06 08	704	0.5-	0.2-
1998 11 25	704	1.6+	0.8-	1999 03 19	704	0.8-	1.5-	1999 06 08	704	0.1+	1.2-
1998 11 25	704	1.3-	0.1-	1999 03 19	704	0.2-	0.8-	1999 06 08	704	0.6-	0.6+
1998 11 25	704	0.1+	0.3-	1999 03 20	704	0.3-	0.1-	1999 06 10	704	1.2+	0.3-
1998 11 25	704	(5.1-	3.2-)	1999 03 20	704	0.1+	0.1-	1999 06 10	704	0.5+	0.4-
1998 12 16	699	0.9-	0.2-	1999 03 20	704	1.0-	0.5+	1999 06 10	704	1.3+	0.8-
1998 12 16	699	0.6+	0.5-	1999 03 20	704	0.0	0.1+	1999 06 10	704	0.6+	0.1-
1998 12 16	699	1.5-	0.8+	1999 03 20	704	1.3-	0.3-	1999 06 10	704	0.1+	0.3-
1999 02 12	704	0.3+	0.5+	1999 03 23	699	1.0+	1.0-				

1999 CK₈₂ = 1990 OU₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	208.36429		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.27472105	ω	265.08449	+0.99041748	-0.06473402
a	2.3435529	Ω	98.58992	+0.10665197	+0.91971157
e	0.1428859	i	7.08714	-0.08774146	+0.38722104
P	3.59	H	14.9	G	0.15
				U	2

Residuals in seconds of arc

1990 07 29	675	0.7+	0.9-	1998 10 24	691	0.2+	0.4+	1999 02 10	704	0.0	0.9-
1990 07 29	675	0.6-	0.1+	1998 10 24	691	0.4+	0.3+	1999 02 10	704	0.7-	0.0
1990 07 30	675	0.5+	0.3+	1998 10 27	691	0.2+	0.3+	1999 02 10	704	0.1+	0.3-
1990 07 30	675	0.4-	0.2-	1998 10 27	691	0.0	0.3-	1999 02 10	704	0.5-	1.7+
1997 08 01	566	0.7+	0.7+	1998 10 27	691	0.1+	0.2+	1999 02 13	704	0.5-	0.4+
1997 08 01	566	0.5+	0.8+	1999 01 10	699	0.2+	1.1-	1999 02 13	704	0.2+	0.5+
1997 08 01	566	1.2-	1.5+	1999 01 10	699	0.2-	0.6+	1999 02 13	704	1.2+	0.7+
1998 10 24	691	0.3+	0.3+	1999 01 10	699	0.5-	0.2+				

1999 CO₉₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	24.46822		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.22235902	ω	250.51396	-0.63832042	+0.76572443
a	2.6983579	Ω	339.19505	-0.59644799	-0.55672759
e	0.1513806	i	12.82187	-0.48661776	-0.32205665
P	4.43	H	13.2	G 0.15	U 2

Residuals in seconds of arc

1949 11 25	675	0.6-	0.5-	1999 02 10	704	0.1-	0.3+	1999 03 20	704	0.8-	0.1+
1949 11 25	675	0.4-	1.3-	1999 02 12	699	0.6+	0.2+	1999 03 20	704	0.8-	0.1+
1987 10 14	413	0.6-	0.4+	1999 02 12	699	0.4+	0.2+	1999 04 14	699	0.3+	0.5+
1987 10 14	413	0.3+	0.3-	1999 02 12	699	0.2+	0.2+	1999 04 14	699	0.1-	0.2+
1988 09 19	675	0.7-	0.1-	1999 02 13	704	0.3+	0.1-	1999 04 14	699	0.2+	0.1+
1988 09 19	675	0.5+	1.2-	1999 02 13	704	0.6+	0.7+	1999 05 15	704	1.5+	1.1+
1988 10 08	675	1.0+	0.6-	1999 02 13	704	1.0+	0.1-	1999 05 15	704	1.0-	1.2+
1994 01 10	675	1.0-	0.5-	1999 02 13	704	1.2+	0.6-	1999 05 15	704	0.7-	1.3+
1998 12 01	704	1.5+	0.5-	1999 02 13	704	0.1-	1.1-	1999 05 15	704	1.9-	0.8-
1998 12 01	704	1.0+	0.0	1999 03 19	704	0.1-	0.3-	1999 06 08	704	0.4-	0.0
1998 12 01	704	0.9+	0.2+	1999 03 19	699	0.4+	0.1+	1999 06 08	704	0.2-	0.6-
1998 12 01	704	0.8+	0.5-	1999 03 19	704	0.2-	0.1-	1999 06 08	704	0.3-	0.7-
1998 12 01	704	0.3+	0.7+	1999 03 19	704	0.1+	0.6+	1999 06 08	704	0.6-	1.2-
1999 01 14	699	0.7+	0.5+	1999 03 19	699	0.8+	0.4-	1999 06 08	704	0.1-	0.3-
1999 01 14	699	0.7+	0.2+	1999 03 19	704	0.9-	0.3+	1999 06 10	704	0.0	0.2-
1999 01 14	699	0.0	0.2+	1999 03 19	699	0.6+	0.2+	1999 06 10	704	0.9-	0.8-

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1999 02 10	704	0.2−	0.4−	1999 03 19	704	0.1+	0.1+	1999 06 10	704	0.5−	1.3−
1999 02 10	704	0.1−	0.4+	1999 03 20	704	0.0	0.3+	1999 06 10	704	1.1−	1.9−
1999 02 10	704	0.3−	0.2+	1999 03 20	704	1.7−	0.2+				
1999 02 10	704	0.4+	0.1−	1999 03 20	704	1.3−	0.2+				

1999 CJ₁₁₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Marsden

<i>M</i>	346.28511		(2000.0)	P	Q						
<i>n</i>	0.00321902	ω	189.72625	−0.79924750	−0.59962936						
<i>a</i>	45.4276632	Ω	313.35032	+0.55509235	−0.71061508						
<i>e</i>	0.0693443	<i>i</i>	3.20036	+0.23038211	−0.36806363						
<i>P</i>	306	<i>H</i>	7.4	<i>G</i>	0.15						

Residuals in seconds of arc

1999 02 11	568	0.1−	0.4+	1999 04 09	568	0.2−	0.4−	2000 01 02	697	0.0	0.1−
1999 02 11	568	0.0	0.0	1999 04 11	568	0.0	0.2−	2000 01 03	697	0.5+	0.6−
1999 02 17	568	0.0	0.1−	2000 01 02	697	0.1+	0.3+	2000 01 03	697	0.1−	0.3+
1999 02 17	568	0.3+	0.1+	2000 01 02	697	0.4−	0.0	2000 01 03	697	0.0	0.2+

1999 CN₁₂₅ = 1980 WW = 1986 CD

Id. A. Gnädig, G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	99.86304		(2000.0)	P	Q						
<i>n</i>	0.22541122	ω	52.39087	−0.55704776	−0.80489717						
<i>a</i>	2.6739444	Ω	72.68150	+0.67835142	−0.58307717						
<i>e</i>	0.1530010	<i>i</i>	12.37198	+0.47910036	−0.11027948						
<i>P</i>	4.37	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	2				

Residuals in seconds of arc

1980 11 30	095	0.6+	0.6−	1998 12 21	704	1.5−	1.5+	1999 02 18	704	0.0	0.0
1984 08 07	413	1.3+	0.1+	1998 12 27	699	0.1−	1.1+	1999 02 18	704	0.0	1.1+
1984 08 07	413	1.5−	0.2−	1998 12 27	699	0.5+	0.6+	1999 02 18	704	0.3−	0.6+
1986 02 07	675	1.1−	0.5−	1998 12 27	699	0.5+	0.1+	1999 02 22	699	0.6+	1.0+
1986 02 07	675	0.8−	2.2−	1999 02 11	704	0.3+	0.8−	1999 02 22	699	1.3+	1.2+
1998 11 25	704	0.6+	0.0	1999 02 11	704	0.5−	1.5−	1999 02 22	699	1.0+	1.4+
1998 11 25	704	1.3−	0.3+	1999 02 11	704	0.4+	0.2−	1999 04 06	704	(2.5+	1.9+)
1998 11 25	704	1.6+	1.7−	1999 02 11	704	0.1+	0.4−	1999 04 06	704	(2.0+	2.3+)
1998 12 21	704	1.3−	1.0+	1999 02 11	704	0.5−	0.1+	1999 05 08	704	(2.2+	0.6−)
1998 12 21	704	1.1−	1.0+	1999 02 18	704	0.2+	0.8−	1999 05 08	704	0.3+	0.7−
1998 12 21	704	0.4−	1.5−	1999 02 18	704	0.1+	0.0	1999 05 08	704	0.3+	0.2−

1999 CM₁₃₆ = 1996 TT₅₅ = 1997 WE₂₂

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	295.51901		(2000.0)	P	Q						
<i>n</i>	0.16999850	ω	317.99733	−0.10697331	+0.98891800						
<i>a</i>	3.2272999	Ω	305.60939	−0.87519417	−0.14278849						
<i>e</i>	0.0816091	<i>i</i>	7.27456	−0.47179643	+0.04065275						
<i>P</i>	5.80	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	4				

Residuals in seconds of arc

1996 10 02	809	0.2−	0.1−	1997 11 28	327	0.1+	0.2−	1999 02 12	691	0.3−	0.4+
1996 10 02	809	0.9−	0.9−	1997 12 01	327	0.2−	0.4−	1999 02 12	691	0.1−	0.4+
1996 10 02	809	0.2−	0.5−	1997 12 01	327	0.1+	0.5−	1999 02 12	691	0.0	0.5+
1996 10 03	809	1.3+	1.4+	1997 12 01	327	0.2−	0.2+	1999 03 16	910	0.0	0.7−
1996 10 03	809	0.2−	0.3+	1999 02 09	691	0.3+	0.5+	1999 03 16	910	0.1+	0.7−
1996 10 03	809	0.2+	0.1+	1999 02 09	691	0.1+	0.3+	1999 03 16	910	0.2+	1.0−
1997 11 28	327	0.3+	0.5+	1999 02 09	691	0.1−	0.3+				

1999 DC₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	69.99762		(2000.0)	P	Q						
<i>n</i>	0.26292623	ω	41.41501	−0.91030867	+0.39159456						
<i>a</i>	2.4131266	Ω	160.34210	−0.39760489	−0.91733249						
<i>e</i>	0.2080191	<i>i</i>	23.49871	+0.11510198	−0.07179692						
<i>P</i>	3.75	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	2				

Residuals in seconds of arc

1982 09 24	413	0.7+	0.7−	1999 02 20	719	1.3+	0.2−	1999 05 08	704	0.6+	1.1−
1982 09 24	413	0.8−	1.3+	1999 02 20	711	0.1+	0.1−	1999 05 08	704	1.8−	0.8+
1997 09 30	413	0.3−	1.5+	1999 02 20	711	0.1+	0.0	1999 05 08	704	0.1−	0.8+
1998 12 23	704	0.2+	0.1−	1999 02 20	711	0.1−	0.0	1999 05 08	704	(2.5−	0.9−)
1998 12 23	704	0.2−	0.4+	1999 02 20	557	0.1−	0.1−	1999 05 08	704	1.0+	0.4−
1998 12 23	704	0.2−	1.1−	1999 02 20	557	0.2+	0.1−	1999 06 07	704	0.1+	0.2+
1998 12 23	704	0.5−	0.7−	1999 02 20	557	0.1+	0.0	1999 06 07	704	1.0−	1.7+
1999 02 16	704	0.0	0.4−	1999 02 23	106	0.2+	0.3−	1999 06 07	704	0.2+	0.3+
1999 02 16	704	(2.7+	0.5−)	1999 02 23	106	0.0	0.2−	1999 06 07	704	0.3−	0.0
1999 02 16	704	1.0−	0.2+	1999 02 23	106	0.0	0.2−	1999 06 07	704	0.5−	0.8−
1999 02 16	704	0.9−	1.2−	1999 03 20	704	0.1−	0.3+	1999 06 08	704	0.1−	0.0
1999 02 19	106	0.6−	0.1+	1999 03 20	704	0.1−	0.1−	1999 06 08	704	0.2−	0.5+
1999 02 19	106	0.6+	0.1+	1999 03 20	704	0.6−	0.2−	1999 06 08	704	0.0	0.3+
1999 02 19	106	0.2−	0.4−	1999 03 20	704	0.6−	0.7−	1999 06 08	704	1.0−	0.4−
1999 02 20	761	0.4−	0.4+	1999 03 20	704	0.0	0.2−	1999 06 08	704	0.3+	0.3−
1999 02 20	761	0.1+	0.4+	1999 03 20	699	0.2+	0.0	1999 06 08	704	0.0	0.1+
1999 02 20	761	1.3+	0.8+	1999 03 20	699	0.2+	0.1+	1999 06 08	704	0.1−	0.9+
1999 02 20	713	0.2−	0.8+	1999 03 20	699	0.8+	0.1−	1999 06 08	704	0.4−	0.0
1999 02 20	761	0.9+	1.1+	1999 04 07	699	0.2+	0.7+	1999 06 08	704	0.1−	1.0−
1999 02 20	713	0.1−	0.2+	1999 04 07	699	0.4+	0.1+	1999 06 08	704	0.3+	0.0
1999 02 20	713	0.1+	0.0	1999 04 07	699	0.4+	0.7+				

1999 DH₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	95.49552		(2000.0)	P	Q						
<i>n</i>	0.26419439	ω	56.18659	−0.79181907	+0.61020724						
<i>a</i>	2.4053982	Ω	161.37565	−0.58372290	−0.74362629						
<i>e</i>	0.1078935	<i>i</i>	4.64784	−0.17969458	−0.27325276						
<i>P</i>	3.73	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	2				

Residuals in seconds of arc

1977 09 08	413	0.2−	1.4−	1999 03 24	704	0.4−	0.1+	1999 05 18	704	0.8−	0.2+
1977 09 08	413	0.4+	0.2+	1999 03 24	704	(2.3+	0.2+)	1999 05 19	704	0.5+	0.4−
1991 01 24	675	0.7−	0.7+	1999 03 24	704	0.3+	0.1−	1999 05 19	704	0.6+	0.7−
1991 01 24	675	0.7+	1.0−	1999 05 09	699	0.5+	0.2−	1999 05 19	704	0.3+	1.8−
1991 02 07	675	1.1−	0.3+	1999 05 09	699	1.0+	0.0	1999 05 19	704	0.2−	0.1−
1991 02 07	675	0.8+	0.8−	1999 05 09	699	0.2+	0.5+	1999 05 19	704	1.2+	0.5−
1999 02 20	704	0.1+	0.3−	1999 05 13	704	0.7+	0.0	1999 06 09	704	0.2+	0.1−
1999 02 20	704	1.5+	1.0−	1999 05 13	704	0.7−	1.0+	1999 06 09	704	0.2−	0.0
1999 02 20	704	(1.5+	2.3−)	1999 05 13	704	0.3+	0.8+	1999 06 09	704	0.5−	0.4−
1999 02 23	704	0.2−	0.6−	1999 05 13	704	0.6+	1.3−	1999 06 09	704	0.8−	0.1+
1999 02 23	704	1.3−	0.1+	1999 05 14	704	0.4+	0.6+	1999 06 09	704	1.0−	0.5−
1999 02 23	704	0.6+	0.2+	1999 05 14	704	0.9+	0.4+	1999 06 14	704	0.2−	0.1+
1999 02 23	704	(2.5−	0.4+)	1999 05 14	704	0.3+	0.4−	1999 06 14	704	0.3−	0.5+
1999 02 26	704	0.6−	1.9+	1999 05 14	704	0.2+	0.3−	1999 06 14	704	0.2−	0.5+
1999 02 26	704	(3.5+	0.1−)	1999 05 14	704	0.3−	1.1+	1999 06 14	704	0.4−	0.5+
1999 02 26	704	1.1−	1.0−	1999 05 18	704	0.3−	0.1−	1999 06 14	704	0.4−	0.7+
1999 02 26	704	0.2+	1.9+	1999 05 18	704	0.0	0.1−	1999 08 01	699	0.2−	0.9+
1999 03 24	704	1.4−	0.2+	1999 05 18	704	0.5−	0.1−	1999 08 01	699	0.2−	0.3+
1999 03 24	704	1.2+	1.0−	1999 05 18	704	0.3−	0.6−				

1999 DV₇ = 1992 ER₃

Id. A. Gnädig, M. E. Sansaturio

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	102.03710		(2000.0)	P	Q
<i>n</i>	0.28062131	ω	161.55644	-0.96893845	-0.24709179
<i>a</i>	2.3105868	Ω	4.17828	+0.20562307	-0.82785613
<i>e</i>	0.1477408	<i>i</i>	8.04301	+0.13739516	-0.50358700
<i>P</i>	3.51	<i>H</i>	14.7	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1990 08 28	675	0.6-	1.2+	1999 02 18	699	0.0	0.4+	1999 03 23	699	0.6+	0.3-
1990 08 28	675	1.6+	0.3-	1999 02 18	699	0.3+	0.0	1999 03 23	704	0.8-	0.3+
1990 10 12	675	1.3-	0.5+	1999 02 18	699	0.9+	0.9+	1999 03 23	704	0.3+	0.7+
1990 10 12	675	0.9-	1.2+	1999 02 19	566	0.3-	1.8-	1999 03 23	704	0.1-	0.2+
1992 03 08	399	(0.4-	3.0-)	1999 02 19	566	(0.7-	2.3-)	1999 03 23	704	0.5-	0.1+
1992 03 08	399	1.1-	1.7-	1999 02 19	566	(0.0	2.3-)	1999 04 06	704	0.1-	0.2-
1998 11 25	704	(0.4-	2.1-)	1999 02 22	699	0.6+	0.1-	1999 04 06	704	0.2+	0.5-
1998 11 25	704	0.6-	0.5+	1999 02 22	699	0.0	0.0	1999 04 06	704	0.4+	0.5-
1998 11 25	704	(3.4+	1.7+)	1999 02 22	699	0.2+	0.2+	1999 04 06	704	0.1-	0.2+
1998 11 25	704	0.2+	1.7-	1999 03 20	704	0.8-	0.3+	1999 04 06	704	0.8-	0.6-
1998 12 21	704	0.7+	0.7+	1999 03 20	704	0.7-	0.2+	1999 04 07	699	0.3+	0.9+
1998 12 21	704	0.2+	1.2+	1999 03 20	704	1.0-	0.2+	1999 04 07	699	0.4+	0.6+
1998 12 21	704	1.6-	1.1-	1999 03 20	704	0.1-	0.2+	1999 04 07	699	0.6+	1.1+
1998 12 21	704	0.4-	0.3+	1999 03 20	704	0.3+	0.4+	1999 05 15	704	0.2+	0.5-
1999 01 23	699	0.0	0.9-	1999 03 23	699	0.7+	1.1+	1999 05 15	704	0.2+	0.7+
1999 01 23	699	1.2+	0.3-	1999 03 23	699	0.7+	0.7+	1999 05 15	704	0.5+	0.0
1999 01 23	699	0.2+	0.6-	1999 03 23	704	0.4-	0.3+	1999 05 15	704	0.8+	0.3-

1999 EP₁ = 1997 TS₂₇

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	172.37569		(2000.0)	P	Q
<i>n</i>	0.24685449	ω	196.80616	+0.44294867	-0.89648701
<i>a</i>	2.5167613	Ω	226.90303	+0.82419033	+0.41172472
<i>e</i>	0.1541777	<i>i</i>	0.81364	+0.35285517	+0.16368811
<i>P</i>	3.99	<i>H</i>	16.8	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1997 10 05	691	0.0	0.2+	1999 03 06	691	0.1-	0.3+	1999 03 11	691	0.4+	0.1+
1997 10 05	691	0.1-	0.1-	1999 03 06	691	0.3+	0.2+	1999 03 12	691	0.3-	0.3-
1997 10 09	327	0.0	0.0	1999 03 06	691	0.0	0.3+	1999 03 12	691	0.7-	0.1-
1997 10 09	327	0.1+	0.1-	1999 03 11	691	0.0	0.4-				
1997 10 09	327	0.0	0.0	1999 03 11	691	0.3+	0.1-				

1999 EX₉ = 1997 SO₂₈

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	179.02684		(2000.0)	P	Q
<i>n</i>	0.23510561	ω	84.18490	+0.56471193	-0.82479299
<i>a</i>	2.5999244	Ω	331.37385	+0.73161719	+0.51634224
<i>e</i>	0.1403231	<i>i</i>	3.42028	+0.38188575	+0.23045004
<i>P</i>	4.19	<i>H</i>	17.0	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1997 09 30	691	0.4+	0.2-	1997 10 05	691	0.0	0.0	1999 03 14	691	0.2-	0.1-
1997 09 30	691	0.1-	0.2-	1997 10 05	691	0.1-	0.1+	1999 03 21	691	0.3+	0.2-
1997 09 30	691	0.1+	0.1+	1999 03 14	691	0.1-	0.0	1999 03 21	691	0.0	0.0
1997 10 05	691	0.4-	0.2+	1999 03 14	691	0.0	0.1-	1999 03 21	691	0.0	0.3+

1999 FN₂₁ = 1989 EN₆

Id. A. Gnädig, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	71.41133		(2000.0)	P	Q
<i>n</i>	0.30866116	ω	296.34679	-0.45328847	+0.89015464
<i>a</i>	2.1684433	Ω	306.62094	-0.79581309	-0.42760388
<i>e</i>	0.1209689	<i>i</i>	3.31527	-0.40151101	-0.15741551
<i>P</i>	3.19	<i>H</i>	15.4	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1977 07 20	413	0.5-	0.1-	1999 04 11	699	0.3+	0.5-	1999 05 13	704	1.6-	0.2+
1977 07 20	413	0.8+	0.5-	1999 04 11	699	0.4+	0.5-	1999 05 13	704	1.3-	0.4-
1983 05 12	413	0.5+	0.2-	1999 04 11	699	0.5+	0.7-	1999 05 13	704	0.5-	0.5-
1983 05 12	413	0.9-	0.5-	1999 04 15	704	0.5+	0.1+	1999 05 13	704	(2.5-	0.3+)
1989 03 05	033	1.5+	0.2+	1999 04 15	704	1.2+	0.3-	1999 05 14	704	0.6-	0.3+
1989 03 05	033	1.6-	0.6+	1999 04 15	704	0.9+	0.7+	1999 05 14	704	0.0	0.5-
1999 02 23	704	0.3-	1.0-	1999 04 15	704	1.4+	0.8+	1999 05 14	704	0.4-	0.6+
1999 02 23	704	0.7-	2.0-	1999 04 15	704	1.3+	0.9+	1999 05 14	704	0.1+	0.0
1999 02 23	704	0.6+	0.1-	1999 04 15	428	1.0+	0.4+	1999 05 14	704	1.2-	0.9+
1999 02 23	704	(3.0+	0.6+)	1999 04 15	428	0.5+	0.2+	1999 05 18	428	0.5-	0.5+
1999 02 23	704	1.4+	0.5-	1999 04 23	428	0.2+	0.2-	1999 05 31	428	0.1+	0.1+
1999 03 26	428	0.1-	0.2-	1999 04 23	428	0.0	0.1-	1999 06 01	428	0.5-	0.3+
1999 03 26	428	0.9-	0.0	1999 05 05	428	0.8-	0.3-	1999 06 14	428	0.5+	0.6+
1999 03 27	428	0.1+	0.2+	1999 05 05	428	0.4-	0.1-	1999 06 14	428	0.2-	0.6+
1999 03 27	428	0.3-	0.2-	1999 05 10	704	0.9-	0.9+	1999 07 04	428	0.3+	0.1+
1999 03 28	428	0.2+	0.5-	1999 05 10	704	0.1-	0.3+	1999 07 04	428	0.4-	0.1-
1999 03 28	428	0.4+	0.2-	1999 05 10	704	0.7-	0.4-	1999 08 02	428	0.3+	0.0
1999 03 29	428	0.6+	0.6-	1999 05 10	704	0.5-	0.5+	1999 08 02	428	0.1+	0.2-
1999 04 06	428	0.2+	0.0	1999 05 10	704	0.2+	0.8+	1999 08 16	428	(2.3-	0.1+)
1999 04 06	428	0.0	0.1-	1999 05 13	704	0.2+	0.3-				

1999 GX₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	17.61320		(2000.0)	P	Q
<i>n</i>	0.24264988	ω	279.47667	-0.15594396	+0.98539711
<i>a</i>	2.5457514	Ω	341.13332	-0.80287996	-0.16676853
<i>e</i>	0.1535116	<i>i</i>	12.20566	-0.57538270	-0.03436255
<i>P</i>	4.06	<i>H</i>	13.4	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1950 03 21	675	2.0-	1.5-	1999 01 13	699	0.3+	1.3-	1999 04 09	699	0.4+	0.1-
1950 03 21	675	1.9+	1.0+	1999 01 13	699	0.6+	1.0-	1999 04 09	699	0.1+	0.9+
1975 06 08	413	0.5-	0.2-	1999 01 13	699	0.4-	0.5-	1999 04 09	699	0.6+	0.1+
1975 06 08	413	0.5-	0.6-	1999 02 21	699	0.6+	0.5+	1999 04 11	699	0.9+	0.7+
1989 11 02	675	0.4-	0.7+	1999 02 21	699	0.1+	0.2+	1999 04 11	699	0.8+	0.9+
1989 11 09	675	0.5-	0.2+	1999 02 21	699	0.9+	0.6+	1999 04 11	699	0.4+	0.7+
1989 11 09	675	0.7+	1.1-	1999 03 22	699	1.4+	0.6+	1999 04 12	704	1.7-	0.4+
1989 11 09	675	0.7+	1.1-	1999 03 22	699	1.6+	0.4+	1999 04 12	704	0.0	1.1+
1991 02 12	413	0.4+	0.4-	1999 03 22	699	0.2+	0.0	1999 04 12	704	0.1+	0.1+
1991 02 12	413	0.4+	0.5-	1999 04 06	704	0.5-	0.0	1999 04 12	704	0.6-	1.3-
1992 08 27	675	1.0-	0.8+	1999 04 06	704	0.7-	0.3+	1999 06 08	704	1.5-	1.3-
1992 08 27	675	0.9+	0.0	1999 04 06	704	0.3-	0.5-	1999 06 08	704	0.7-	0.4-
1994 01 04	675	1.5-	0.4-	1999 04 06	704	0.2-	0.5-	1999 06 08	704	1.0-	0.6+
1994 01 04	675	0.2+	0.6-	1999 04 06	704	0.5-	0.3-	1999 06 08	704	1.3-	0.2-

1999 GV₁₀ = 1994 LV₉

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	312.43626		(2000.0)	P	Q
<i>n</i>	0.17045402	ω	151.78121	+0.71062943	+0.70351135
<i>a</i>	3.2215476	Ω	163.49968	-0.65120265	+0.66242799
<i>e</i>	0.1573254	<i>i</i>	1.77725	-0.26634738	+0.25741201
<i>P</i>	5.78	<i>H</i>	13.8	<i>G</i> 0.15	<i>U</i> 6

Residuals in seconds of arc

1994 06 08	809	0.2+	0.4+	1999 03 23	703	0.0	0.1-	1999 04 12	704	1.2+	1.6-
1994 06 08	809	0.1+	0.5+	1999 03 23	703	0.6+	0.3+	1999 04 12	704	0.5-	0.6-

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1994 06 08	809	0.6+	0.5−	1999 03 23	703	0.3+	1.0−	1999 04 12	704	1.4+	0.0
1994 06 09	809	0.3+	0.0	1999 04 11	691	0.3−	0.3+	1999 04 12	704	0.3−	1.7+
1994 06 09	809	0.0	0.6−	1999 04 11	691	0.6−	0.4+	1999 04 16	691	0.1−	0.3+
1994 06 09	809	1.4+	0.0	1999 04 11	691	0.5−	0.3+	1999 04 16	691	0.3+	0.1+
1999 03 23	703	0.6−	0.9+	1999 04 12	704	0.5−	1.4−	1999 04 16	691	0.0	0.2+

1999 GD₂₉ = 1996 QD₃

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.25367853	<i>ω</i>	150.56307	+0.75732929	+0.65261387		
<i>a</i>	2.4714220	<i>Ω</i>	168.60632	−0.61991595	+0.72972664		
<i>e</i>	0.1519101	<i>i</i>	6.80223	−0.20532063	+0.20394649		
<i>P</i>	3.89	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1996 08 18	010	0.2−	0.3+	1999 03 23	703	0.2+	1.4−	1999 04 12	704	0.4−	1.3+
1996 08 18	010	0.5−	0.7+	1999 03 23	703	0.6+	0.4−	1999 04 12	704	0.1−	0.2−
1996 08 18	010	0.3+	1.3+	1999 04 07	704	0.6−	0.6+	1999 04 16	704	1.0+	0.5−
1996 08 20	010	1.1+	0.3−	1999 04 07	704	0.5+	0.1−	1999 04 16	704	(1.1−	3.2−)
1996 08 20	010	0.4+	0.2−	1999 04 07	704	0.7−	0.7+	1999 04 16	704	1.4−	0.0
1996 08 20	010	1.0−	1.7−	1999 04 07	704	1.0−	1.4−	1999 04 16	704	0.5+	0.8−
1999 03 23	703	1.3−	1.7+	1999 04 12	704	1.3+	0.8+				
1999 03 23	703	0.6+	0.3−	1999 04 12	704	0.8+	0.2−				

1999 GV₃₇ = 1997 WR₅₀

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.17441273	<i>ω</i>	66.78052	−0.61733168	−0.77013985		
<i>a</i>	3.1726142	<i>Ω</i>	62.33030	+0.63912792	−0.60998732		
<i>e</i>	0.2118160	<i>i</i>	10.44644	+0.45871244	−0.18654780		
<i>P</i>	5.65	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 11 29	704	0.8+	0.3−	1997 12 04	704	(4.9−	0.7+)	1999 04 12	704	0.5−	0.9−
1997 11 29	704	0.2+	0.2+	1999 02 18	699	0.4−	0.6−	1999 04 16	704	1.8−	1.2+
1997 11 29	704	0.0	0.1+	1999 02 18	699	0.9+	0.7+	1999 04 16	704	(2.6−	2.4+)
1997 11 29	704	0.4−	0.1+	1999 02 18	699	0.4−	0.0	1999 04 16	704	(2.9−	2.4+)
1997 11 29	704	1.3−	0.2−	1999 04 12	704	0.3+	1.3−	1999 04 18	703	0.6−	0.2−
1997 12 04	704	0.3+	0.2+	1999 04 12	704	0.4+	0.2−	1999 04 18	703	0.4+	0.4−
1997 12 04	704	0.6+	0.1+	1999 04 12	704	0.8−	0.1+	1999 04 18	703	0.5+	0.1−
1997 12 04	704	0.2−	0.3−	1999 04 12	704	0.5+	1.8+	1999 04 18	703	1.4+	0.2−

1999 JZ

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.21438048	<i>ω</i>	34.61447	−0.08333418	−0.91180789		
<i>a</i>	2.7648987	<i>Ω</i>	63.29669	+0.78199051	−0.30992920		
<i>e</i>	0.3426518	<i>i</i>	26.74845	+0.61769430	+0.26935157		
<i>P</i>	4.60	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1953 01 12	675	0.3−	0.5+	1999 01 23	699	0.9+	0.0	1999 05 08	704	0.3+	1.3+
1984 09 23	413	0.8−	0.3+	1999 01 23	699	0.6+	0.0	1999 06 04	704	0.7+	0.4−
1984 09 23	413	1.1−	0.5+	1999 01 23	699	0.4+	0.0	1999 06 04	704	0.6+	0.1−
1986 06 26	413	0.2−	0.6−	1999 02 09	704	1.1+	1.4+	1999 06 04	704	0.4+	0.2−
1986 06 26	413	0.6−	0.1−	1999 02 09	704	0.5−	1.0+	1999 06 04	704	0.2+	0.0
1990 01 25	675	0.3+	0.5+	1999 02 09	704	0.9−	1.5+	1999 06 04	704	0.6+	0.6−
1990 01 25	675	0.5−	1.2−	1999 02 09	704	1.1−	0.7−	1999 06 07	704	0.5+	0.3−
1998 12 12	704	0.0	1.2+	1999 02 09	704	(3.6−	1.4−)	1999 06 07	704	0.2+	0.6+
1998 12 12	704	0.6+	0.4−	1999 05 07	704	0.7−	0.6+	1999 06 07	704	0.4+	0.6−
1998 12 12	704	0.1−	1.3+	1999 05 07	704	1.0−	1.8+	1999 06 07	704	0.1−	0.0
1998 12 12	704	0.8−	0.7−	1999 05 07	704	0.4+	0.5−	1999 06 07	704	0.1+	0.3+
1998 12 12	704	0.2−	0.6+	1999 05 07	704	0.0	0.2−	1999 06 08	704	0.6+	0.0

1999 01 13	704	0.1+	1.0−	1999 05 07	704	0.2+	0.4+	1999 06 08	704	0.2+	0.8−
1999 01 13	704	0.8+	1.6−	1999 05 08	704	(0.4+	2.4+)	1999 06 08	704	0.1−	0.1+
1999 01 13	704	0.6−	1.6−	1999 05 08	704	1.4−	0.6+	1999 06 08	704	0.3+	0.1+
1999 01 13	704	0.3+	1.8−	1999 05 08	704	1.9−	2.0+	1999 06 08	704	0.5−	0.0
1999 01 13	704	0.1−	1.9−	1999 05 08	704	0.0	1.4+				

1999 JM₄ = 1986 VK = 1993 VQ₁

Id. M. E. Sansaturio, S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.28332196	<i>ω</i>	135.95532	+0.95412100	−0.01173794		
<i>a</i>	2.2958802	<i>Ω</i>	227.33897	−0.02239758	+0.99363391		
<i>e</i>	0.1883849	<i>i</i>	24.00741	+0.29858244	+0.11204411		
<i>P</i>	3.48	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1986 11 03	046	0.6−	1.8−	1993 11 10	675	0.0	0.8−	1999 05 13	704	0.1+	0.5+
1986 11 03	046	0.5+	0.1+	1999 05 10	704	0.9+	1.0+	1999 05 13	704	0.1−	1.7+
1993 10 20	675	2.6+	0.7+	1999 05 10	704	1.7−	0.0	1999 05 13	704	0.6−	1.0+
1993 10 20	675	0.1+	0.8+	1999 05 10	704	0.1−	0.9−	1999 05 18	704	1.7+	1.6−
1993 11 09	675	0.9−	1.3+	1999 05 10	704	0.1+	0.3−	1999 05 18	704	0.0	0.7+
1993 11 09	675	1.0−	1.2+	1999 05 13	704	0.6+	0.3−	1999 05 18	704	1.9−	0.8+
1993 11 10	675	0.0	0.4+	1999 05 13	704	0.2+	0.8−	1999 05 18	704	0.4+	0.8+

1999 JN₁₇ = 1959 RW = 1969 QG

Id. A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.29463012	<i>ω</i>	79.22353	+0.42583235	+0.90373819		
<i>a</i>	2.2367526	<i>Ω</i>	216.08163	−0.85652522	+0.38701343		
<i>e</i>	0.2082523	<i>i</i>	4.27138	−0.29160138	+0.18296961		
<i>P</i>	3.35	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1959 09 02	024	0.2−	0.2+	1999 08 13	650	0.1+	0.3+	1999 10 15	704	0.2+	0.0
1969 08 21	095	(3.8+	6.0+)	1999 08 13	650	0.6−	0.1−	1999 10 15	704	0.2+	0.6−
1982 04 22	413	0.4−	0.0	1999 09 09	704	0.1−	1.6+	1999 10 15	704	0.4+	0.5−
1982 04 22	413	0.6+	0.8−	1999 09 09	704	1.6+	1.0+	1999 10 16	704	0.5+	1.3−
1992 05 30	413	0.3+	0.2+	1999 09 09	704	1.4+	1.8+	1999 10 16	704	0.4+	1.0−
1992 05 30	413	0.0	0.0	1999 09 09	704	0.5+	0.0	1999 10 16	704	0.3+	0.8−
1999 05 14	704	0.1+	0.1−	1999 09 09	704	1.7+	1.3−	1999 10 16	704	0.0	1.3−
1999 05 14	704	0.5−	1.1+	1999 09 12	106	0.6−	0.2−	1999 10 16	704	0.4+	1.4−
1999 05 14	704	0.7−	0.2−	1999 09 12	106	0.1−	0.2−	1999 10 28	699	0.2+	0.5+
1999 05 14	704	0.7−	0.8−	1999 09 12	106	0.5−	0.4−	1999 10 28	699	0.5−	0.5−
1999 05 14	704	0.1−	0.2+	1999 09 13	704	0.1−	1.9+	1999 10 28	699	0.6−	0.5+
1999 05 21	704	0.0	0.1+	1999 09 13	704	0.4+	0.3+	1999 11 06	703	0.1−	0.1+
1999 05 21	704	0.4+	0.4−	1999 09 13	704	0.0	1.6+	1999 11 06	703	0.9−	0.7+
1999 05 21	704	1.2+	0.8−	1999 09 13	704	(0.6+	3.0+)	1999 11 06	703	0.6−	1.1+
1999 05 21	704	0.6+	0.5−	1999 09 13	704	1.4+	0.1+	1999 11 06	703	1.5+	0.2+
1999 05 21	704	1.2+	0.0	1999 09 21	650	0.8+	1.3−	1999 11 08	704	0.7−	0.1−
1999 07 13	704	0.6−	0.1−	1999 09 21	650	0.8+	0.3−	1999 11 08	704	0.2−	0.2−
1999 07 13	704	0.6−	0.0	1999 09 29	650	1.1+	0.1+	1999 11 08	704	0.2+	0.1+
1999 07 13	704	0.7−	0.0	1999 09 29	650	0.4+	0.3+	1999 11 08	704	0.2+	0.2−
1999 07 13	704	1.0−	0.2−	1999 09 30	704	1.2+	0.3−	1999 11 10	704	0.5−	0.0
1999 07 13	704	1.2−	0.1−	1999 09 30	704	1.2+	0.0	1999 11 10	704	0.3−	0.3−
1999 07 15	120	0.1−	0.0	1999 09 30	704	1.0+	0.1+	1999 11 10	704	0.0	0.2+
1999 07 15	120	0.6−	0.1+	1999 09 30	704	0.1+	0.6+	1999 11 10	704	0.3+	0.4−
1999 07 15	120	0.4−	0.0	1999 09 30	704	(2.1+	0.4+)	1999 11 10	704	0.1−	0.1−
1999 07 16	120	1.2−	0.0	1999 10 13	704	0.0	0.5−	1999 12 07	699	(2.4−	0.0)
1999 07 16	120	0.8−	0.1+	1999 10 13	704	0.2+	0.6−	1999 12 07	699	0.3−	0.8+
1999 07 16	120	0.5−	0.1+	1999 10 13	704	0.3−	0.8−	2000 01 04	699	1.1−	0.8+
1999 07 17	120	0.2−	0.1+	1999 10 13	704	0.6+	0.3−	2000 01 04	699	0.9−	0.8+
1999 07 18	120	0.4−	0.2+	1999 10 13	704	0.2+	0.3−	2000 01 04	699	1.1−	0.2+
1999 07 18	120	0.3−	0.0	1999 10 15	704	0.2+	0.4−				
1999 07 18	120	0.4−	0.1−	1999 10 15	704	0.1+	0.3−				

1999 JT₆₃ = 1992 CZ

Id. A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	84.92078		(2000.0)	P		Q	
<i>n</i>	0.30614827	ω	109.83339	−0.39813566	+0.91561132		
<i>a</i>	2.1802929	Ω	136.57029	−0.86920059	−0.35700471		
<i>e</i>	0.0999979	<i>i</i>	4.67832	−0.29322062	−0.18494202		
<i>P</i>	3.22	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1989 02 15	413	0.4−	0.2+	1999 05 13	704	(2.8+	1.5−)	1999 05 19	704	0.9+	0.5−
1989 02 15	413	0.4+	0.3+	1999 05 13	704	1.9−	0.3+	1999 06 09	704	0.5+	0.3+
1989 04 04	675	0.6−	0.2+	1999 05 13	704	0.3+	0.5−	1999 06 09	704	0.0	0.1−
1989 04 04	675	0.8+	0.0	1999 05 13	704	1.1−	0.5−	1999 06 09	704	0.0	0.2−
1990 08 22	675	0.1+	0.2−	1999 05 14	704	(0.5+	2.4+)	1999 06 09	704	0.1−	0.5−
1990 08 22	675	0.5−	0.1−	1999 05 14	704	(0.4+	2.0+)	1999 06 09	704	0.1−	0.9−
1990 09 28	675	0.4+	0.1+	1999 05 14	704	0.8−	1.7+	1999 06 14	704	0.4−	0.2+
1992 02 06	303	(5.7+	2.8−)	1999 05 14	704	0.4−	0.5+	1999 06 14	704	0.1−	0.3−
1992 02 07	303	(2.4−	0.8−)	1999 05 18	704	0.0	0.6−	1999 06 14	704	0.3−	0.2−
1999 02 23	704	1.1−	1.7+	1999 05 18	704	0.7+	0.8−	1999 06 14	704	0.1+	0.7−
1999 02 23	704	0.4−	0.7+	1999 05 18	704	0.1+	0.2−	1999 06 14	704	0.4−	1.0−
1999 02 23	704	0.4+	1.5−	1999 05 18	704	0.5−	0.3−	1999 08 01	699	0.1−	0.6+
1999 02 23	704	0.3+	0.5−	1999 05 18	704	0.5+	1.0+	1999 08 01	699	0.6+	0.7+
1999 05 10	704	1.2+	1.1−	1999 05 19	704	1.1+	0.3−	1999 08 01	699	0.3−	0.5+
1999 05 10	704	0.1−	0.3−	1999 05 19	704	0.3+	0.5+	1999 08 13	699	0.1+	0.4−
1999 05 10	704	0.7−	0.1−	1999 05 19	704	1.0+	0.4+	1999 08 13	699	0.5−	1.3+
1999 05 10	704	0.1−	0.1−	1999 05 19	704	0.8+	1.3+	1999 08 13	699	0.1+	0.9+

1999 JH₈₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	58.43452		(2000.0)	P		Q	
<i>n</i>	0.23533052	ω	47.48338	+0.26268989	+0.94574432		
<i>a</i>	2.5982676	Ω	238.69701	−0.93784175	+0.20367982		
<i>e</i>	0.1387267	<i>i</i>	12.93159	−0.22681904	+0.25314466		
<i>P</i>	4.19	<i>H</i>	13.3	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1991 10 06	675	0.2−	0.5−	1999 05 21	704	0.5+	1.0+	1999 07 22	704	0.3+	0.7+
1991 10 06	675	0.2+	0.4+	1999 05 21	704	1.4+	1.0+	1999 07 22	704	0.4+	0.9+
1992 12 20	675	1.0−	0.3−	1999 05 21	704	0.9+	0.5−	1999 07 22	704	0.9+	1.0+
1992 12 20	675	1.1+	0.6+	1999 05 21	704	(2.2−	0.5−)	1999 07 22	704	0.3−	1.0+
1999 05 14	704	0.3+	0.2−	1999 05 21	704	1.0−	0.3−	1999 07 22	704	0.2+	0.4+
1999 05 14	704	0.6+	0.6+	1999 05 21	704	0.4−	0.5−	1999 08 14	723	1.8−	0.3−
1999 05 14	704	1.5−	0.2+	1999 05 21	704	1.7−	1.1−	1999 08 14	723	0.8−	0.1+
1999 05 14	704	0.9−	0.2−	1999 06 14	704	0.4+	0.6−	1999 08 15	723	0.0	0.2+
1999 05 20	704	0.2+	0.2−	1999 06 14	704	0.3+	0.1+	1999 08 15	723	1.3−	0.0
1999 05 20	704	0.7+	0.7+	1999 06 14	704	0.1+	0.1−	1999 08 15	723	0.3+	0.3−
1999 05 20	704	0.1+	1.0−	1999 06 14	704	0.5+	0.3−	1999 11 07	704	0.0	0.0
1999 05 20	704	(2.0−	2.1+)	1999 07 13	704	0.9+	0.0	1999 11 07	704	0.1+	0.4−
1999 05 20	704	0.8+	0.6+	1999 07 13	704	0.3−	0.4+	1999 11 07	704	0.1−	1.2−
1999 05 21	704	0.3−	1.1−	1999 07 13	704	0.3+	0.1−	1999 11 07	704	0.3−	0.9−
1999 05 21	704	0.0	0.4−	1999 07 13	704	0.2+	0.2−				
1999 05 21	704	(0.5−	2.0−)	1999 07 13	704	0.1−	0.3−				

1999 JV₈₆ = 1998 AY₇

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	258.51817		(2000.0)	P		Q	
<i>n</i>	0.24444476	ω	285.36357	+0.86604742	−0.48205371		
<i>a</i>	2.5332744	Ω	103.61366	+0.49487318	+0.78877990		
<i>e</i>	0.0340699	<i>i</i>	7.84224	+0.07115051	+0.38137971		
<i>P</i>	4.03	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1996 09 13	566	0.1−	0.2+	1998 01 08	704	0.1+	0.1−	1999 04 12	704	0.9−	1.6−
1996 09 13	566	0.1−	0.4+	1998 01 08	704	0.1−	0.6−	1999 04 16	703	0.2+	0.2+
1996 09 13	566	0.1−	0.4+	1998 01 26	704	0.9−	0.4+	1999 04 16	703	0.4+	0.2+
1998 01 02	704	0.4+	0.6−	1998 01 26	704	0.2+	0.2+	1999 04 16	703	0.6+	0.5+
1998 01 02	704	0.3+	0.3−	1998 01 26	704	0.4−	0.2+	1999 04 16	703	0.6+	0.9+
1998 01 02	704	0.3+	0.3−	1998 01 26	704	0.3−	0.1−	1999 05 12	704	0.5+	0.4+
1998 01 02	704	0.0	0.2−	1998 01 26	704	0.1−	0.3−	1999 05 12	704	1.3+	0.3+
1998 01 02	704	0.9−	0.5+	1999 03 24	699	0.6+	0.1+	1999 05 12	704	1.3−	0.8+
1998 01 06	704	0.3+	0.2−	1999 03 24	699	0.1+	0.3−	1999 05 12	704	0.2−	1.4−
1998 01 06	704	0.6+	0.0	1999 03 24	699	0.8+	1.9+	1999 05 17	704	0.1−	0.1−
1998 01 06	704	0.5+	1.6+	1999 04 12	704	0.0	0.7−	1999 05 17	704	0.3+	0.5+
1998 01 08	704	0.2−	0.0	1999 04 12	704	0.9−	0.7−	1999 05 17	704	0.9+	0.7+
1998 01 08	704	0.2+	0.6+	1999 04 12	704	0.9−	0.6−	1999 05 17	704	0.7−	0.2+
1998 01 08	704	0.3−	0.1−	1999 04 12	704	0.3−	0.1+	1999 05 17	704	0.8−	0.4−

1999 JP₁₀₈ = 1994 EU₈

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	301.63090		(2000.0)	P		Q	
<i>n</i>	0.22816554	ω	191.22724	+0.99994741	+0.00372943		
<i>a</i>	2.6523817	Ω	168.54616	−0.00010526	+0.93522493		
<i>e</i>	0.0928279	<i>i</i>	2.75765	−0.01025548	+0.35403449		
<i>P</i>	4.32	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1994 03 10	691	0.3−	0.2+	1999 05 13	704	0.8+	0.2+	1999 06 07	703	0.0	0.7−
1994 03 10	691	0.1−	0.2−	1999 05 18	704	0.3+	0.1−	1999 06 14	704	0.1+	1.0−
1994 03 18	691	0.2−	0.3−	1999 05 18	704	1.5−	0.3−	1999 06 14	704	0.1+	0.4+
1994 03 18	691	0.2+	0.1+	1999 05 18	704	0.3+	0.9+	1999 06 14	704	0.2+	1.1−
1994 03 18	691	0.3+	0.1−	1999 05 18	704	0.2−	0.8+	1999 06 14	704	0.2−	0.2−
1999 05 13	704	0.7+	0.7−	1999 06 07	703	1.2−	0.7−	1999 06 14	704	0.7−	0.5−
1999 05 13	704	0.5−	0.2+	1999 06 07	703	0.6+	0.4+				
1999 05 13	704	0.7+	1.0+	1999 06 07	703	0.4+	1.4+				

1999 JO₁₁₃ = 1998 BA₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	202.66860		(2000.0)	P		Q	
<i>n</i>	0.23375409	ω	231.19295	−0.13457937	−0.99044776		
<i>a</i>	2.6099363	Ω	226.56933	+0.92147149	−0.11394875		
<i>e</i>	0.0194586	<i>i</i>	2.36973	+0.36438810	−0.07764609		
<i>P</i>	4.22	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1998 01 18	910	0.9+	0.2−	1999 05 13	704	1.2+	1.4+	1999 05 17	703	0.1−	0.3+
1998 01 18	910	0.5+	0.3−	1999 05 13	704	2.4−	0.2+	1999 05 18	704	1.0−	0.1+
1998 01 18	910	0.7+	0.2−	1999 05 15	691	0.3+	0.2−	1999 05 18	704	1.4−	1.2+
1998 01 23	910	0.5−	0.4+	1999 05 15	691	0.4+	0.3−	1999 05 18	704	0.8+	2.3+
1998 01 23	910	0.5−	0.4+	1999 05 15	691	0.5+	0.8−	1999 05 18	704	1.1−	1.0+
1998 01 23	910	1.1−	0.2−	1999 05 17	703	0.4−	0.6+	1999 05 20	691	2.0+	3.5−
1999 05 13	704	0.8+	0.9−	1999 05 17	703	2.2−	1.6−	1999 05 20	691	0.3−	0.1+
1999 05 13	704	1.6−	0.6+	1999 05 17	703	2.7+	2.3−	1999 05 20	691	1.8+	1.7+

1999 KN = 1997 WL₅₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	177.06559		(2000.0)	P		Q	
<i>n</i>	0.28018344	ω	23.88255	−0.39235104	−0.89155352		
<i>a</i>	2.3129935	Ω	89.87394	+0.80328086	−0.45195041		
<i>e</i>	0.1204755	<i>i</i>	13.07694	+0.44810771	+0.02954907		
<i>P</i>	3.52	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1997 11 26	809	1.3−	0.3+	1999 05 15	704	0.2+	0.4−	1999 05 17	704	0.1+	0.6−
1997 11 26	809	1.4+	0.7−	1999 05 15	704	(2.6−	1.1+)	1999 05 17	704	1.1−	0.3−

M.P.C. 38550

2000 FEB. 22

1997 11 28	809	0.2+	0.4+	1999 05 15	704	1.3-	1.8-	1999 05 17	704	0.0	1.7+
1997 11 28	809	0.4-	0.0	1999 05 15	704	1.8-	0.4-	1999 05 17	704	(2.0+	0.8-)
1999 05 12	704	0.2-	0.8+	1999 05 16	703	1.4+	1.6-	1999 05 18	703	0.1+	0.2-
1999 05 12	704	1.7+	0.5-	1999 05 16	703	0.3+	0.8+	1999 05 18	703	1.4+	1.3+
1999 05 12	704	0.8+	0.2+	1999 05 16	703	0.2+	0.6+	1999 05 18	703	0.3+	0.2-
1999 05 12	704	1.4-	0.1-	1999 05 16	703	0.4-	1.7+	1999 05 18	703	0.3-	1.1-

1999 KQ₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.21228821	ω	82.23249	+0.84297339	+0.26546684		
<i>a</i>	2.7830359	Ω	261.42522	-0.42851614	+0.85717590		
<i>e</i>	0.3840270	<i>i</i>	28.24101	+0.32522265	+0.44133528		
<i>P</i>	4.64	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1975 03 11	413	1.3-	0.3-	1999 07 23	704	0.1+	0.3+	1999 10 05	704	0.4-	0.0
1975 03 11	413	1.2+	0.0	1999 07 23	704	0.0	0.0	1999 10 05	704	0.3-	0.0
1992 01 13	413	1.8-	0.8-	1999 07 26	628	0.5-	1.4+	1999 10 14	704	0.1-	0.1-
1992 01 13	413	1.3+	0.7-	1999 07 26	628	0.1-	0.7+	1999 10 14	704	0.1-	0.1+
1999 05 20	704	0.6-	0.8+	1999 07 26	628	0.1+	0.9+	1999 10 14	704	0.1-	0.2+
1999 05 20	704	0.7-	1.1-	1999 07 26	628	0.9+	0.2-	1999 10 14	704	0.0	0.3+
1999 05 20	704	(0.5+	2.1-)	1999 07 27	704	0.2+	0.1-	1999 10 14	704	0.2+	0.4+
1999 05 20	704	(1.5-	3.2-)	1999 07 27	704	0.6+	0.3-	1999 10 15	704	0.1-	0.1+
1999 05 20	704	0.5-	0.5+	1999 07 27	704	0.4+	0.1-	1999 10 15	704	0.3-	0.2-
1999 05 21	704	0.8-	1.2-	1999 07 27	704	0.1+	0.2+	1999 10 15	704	0.1-	0.1-
1999 05 21	704	0.3+	0.2-	1999 07 27	628	0.1-	0.5+	1999 10 15	704	0.4-	0.2-
1999 05 21	704	0.3+	1.4-	1999 07 27	628	0.2+	0.2+	1999 10 15	704	0.4-	0.1-
1999 05 21	704	0.2-	1.0-	1999 07 27	628	0.0	0.6+	1999 11 02	704	0.1+	0.5-
1999 05 21	704	0.2+	0.7-	1999 07 28	628	0.0	0.3+	1999 11 02	704	(0.2+	2.1-)
1999 06 21	704	0.3+	0.3+	1999 07 29	127	0.2+	0.6-	1999 11 02	704	0.4-	1.6-
1999 06 21	704	0.1+	0.2+	1999 07 29	127	0.4+	0.4-	1999 11 02	704	1.4-	1.3-
1999 06 21	704	0.3+	0.6+	1999 08 02	127	0.0	0.0	1999 11 02	704	0.8-	1.7-
1999 06 21	704	0.0	0.0	1999 08 02	127	0.0	0.4-	1999 11 03	704	0.8-	0.6-
1999 06 21	704	0.0	1.0+	1999 08 02	127	0.1-	0.1-	1999 11 03	704	0.2-	1.0-
1999 07 15	704	0.1-	0.2-	1999 08 07	628	0.2-	0.5+	1999 11 03	704	0.2-	0.7-
1999 07 15	704	0.3+	0.4+	1999 08 07	628	0.1+	0.4+	1999 11 03	704	0.6-	0.0
1999 07 15	704	0.2+	0.1+	1999 08 07	628	0.3-	0.4+	1999 11 03	704	0.1+	0.2+
1999 07 16	704	0.2+	0.1+	1999 08 07	628	0.1-	0.3+	1999 11 08	610	1.1+	0.2-
1999 07 16	704	0.4+	0.1+	1999 08 21	628	0.2-	0.3+	1999 11 08	610	1.1+	0.2-
1999 07 16	704	0.4-	0.7+	1999 08 21	628	0.0	0.4+	1999 11 08	610	1.1+	0.2-
1999 07 16	704	0.2+	0.2+	1999 08 21	628	0.0	0.2+	1999 11 08	610	1.1+	0.1-
1999 07 22	704	0.4+	0.8-	1999 08 21	628	0.0	0.0	1999 11 08	610	1.2+	0.1-
1999 07 22	704	0.0	0.5-	1999 08 28	628	0.0	0.1+	1999 11 25	699	0.8-	1.1+
1999 07 22	704	0.3+	0.8-	1999 08 28	628	0.1+	0.5+	1999 11 25	699	0.7-	0.2-
1999 07 22	704	0.0	1.3-	1999 08 28	628	0.2-	0.3+	1999 11 25	699	0.6-	0.2+
1999 07 22	704	1.1+	1.3-	1999 10 05	704	0.4-	0.5+	1999 12 08	704	0.8+	0.7+
1999 07 23	704	0.1+	0.1+	1999 10 05	704	0.1-	0.3-	1999 12 08	704	0.2-	0.7+
1999 07 23	704	0.1-	0.2+	1999 10 05	704	0.4-	0.2-	1999 12 08	704	0.5+	0.4+

1999 KX₈ = 1996 VG₁₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.19331492	ω	278.94291	+0.84577905	+0.51555488		
<i>a</i>	2.9622779	Ω	50.15118	-0.39158847	+0.77467529		
<i>e</i>	0.0116213	<i>i</i>	10.30470	-0.36237586	+0.36617121		
<i>P</i>	5.10	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1996 11 07	691	0.1-	0.0	1999 05 15	703	1.3+	0.5+	1999 05 18	704	0.8+	0.1+
1996 11 07	691	0.1+	0.0	1999 05 15	703	1.0+	0.7+	1999 05 18	704	1.1+	0.0
1996 11 07	691	0.1+	0.3-	1999 05 15	703	1.2-	0.3-	1999 05 18	704	3.0-	0.1-
1996 11 13	691	0.0	0.1+	1999 05 15	703	1.5-	0.6-	1999 05 19	704	0.3+	0.4-
1996 11 13	691	0.1+	0.2+	1999 05 18	704	0.0	0.4+	1999 05 19	704	2.6+	0.4-
1996 11 13	691	0.2-	0.0	1999 05 18	704	0.4+	0.3+	1999 05 19	704	1.7-	0.5-

1999 MG₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.20666056	ω	356.58260	-0.07992051	+0.97611795		
<i>a</i>	2.8333332	Ω	268.76274	-0.90968955	-0.15427474		
<i>e</i>	0.1389840	<i>i</i>	11.65705	-0.40752623	+0.15294788		
<i>P</i>	4.77	<i>H</i>	13.1	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1988 03 10	675	1.6-	0.6+	1999 06 08	699	0.4-	0.4+	1999 07 13	704	0.1+	0.2+
1988 03 10	675	1.9+	0.1+	1999 06 08	699	0.2+	0.1-	1999 07 13	704	0.4+	0.3+
1990 10 24	675	0.4-	1.3-	1999 06 20	699	0.1-	0.0	1999 09 30	704	0.2+	0.6-
1990 10 24	675	0.5+	1.2+	1999 06 20	699	0.0	0.1-	1999 09 30	704	0.1+	0.5+
1992 02 01	675	0.2+	0.3+	1999 06 20	699	0.0	0.1+	1999 09 30	704	0.6+	0.1-
1995 08 30	675	0.5-	0.2-	1999 06 22	699	0.4-	0.1-	1999 09 30	704	0.9+	0.2+
1995 08 30	675	0.4+	0.8-	1999 06 22	699	1.1-	0.9+	1999 10 16	704	0.1-	0.5+
1999 04 27	699	0.0	0.5-	1999 06 22	699	0.6-	0.2+	1999 10 16	704	0.3-	0.6+
1999 04 27	699	0.5+	1.6-	1999 07 13	704	0.2+	0.3-	1999 10 16	704	1.2-	0.3+
1999 04 27	699	0.5+	0.2+	1999 07 13	704	0.5+	0.1-	1999 10 16	704	0.6-	0.2+
1999 06 08	699	0.2+	0.6-	1999 07 13	704	0.0	0.2+				

1999 NT₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.28152736	ω	90.78477	+0.90658879	-0.22690092		
<i>a</i>	2.3056266	Ω	282.38400	+0.05060261	+0.89552519		
<i>e</i>	0.3190604	<i>i</i>	21.36472	+0.41897033	+0.38281928		
<i>P</i>	3.50	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1974 06 18	413	0.3+	1.5-	1999 07 22	704	0.1+	0.1-	1999 10 09	106	0.2+	0.1+
1974 06 22	413	0.9-	0.4+	1999 07 22	704	0.4+	0.1+	1999 10 09	106	0.5+	0.1+
1974 06 22	413	0.3+	0.2-	1999 07 23	704	0.2+	0.4+	1999 10 09	106	0.6-	0.9+
1980 03 18	413	0.8-	1.7-	1999 07 23	704	0.1-	0.2-	1999 10 21	716	1.0+	1.2-
1980 03 18	413	1.1-	0.8-	1999 07 23	704	0.1+	0.1+	1999 10 21	716	0.4-	0.1-
1989 11 08	675	(2.0+	3.7-)	1999 07 23	704	0.1+	0.2+	1999 10 22	716	0.2-	0.5+
1989 11 08	675	0.2+	0.5+	1999 08 01	127	(2.3+	0.1-)	1999 11 03	704	0.1+	0.5-
1989 12 07	675	0.2-	0.0	1999 08 01	127	(2.2+	0.0)	1999 11 03	704	0.3+	0.5-
1989 12 07	675	1.1+	0.4-	1999 08 02	127	0.4+	0.2+	1999 11 03	704	0.2+	0.5-
1999 05 21	704	0.4-	0.4+	1999 08 02	127	0.6+	0.3+	1999 11 03	704	0.9+	0.3-
1999 05 21	704	0.5-	0.6+	1999 08 02	127	0.4+	0.2+	1999 11 03	704	0.0	0.6-
1999 05 21	704	0.6+	1.1-	1999 08 11	704	0.3-	0.3-	1999 11 04	704	0.0	0.6-
1999 05 21	704	1.5-	0.3+	1999 08 11	704	0.4-	0.7-	1999 11 04	704	0.1-	0.5-
1999 07 12	704	0.3-	0.2-	1999 08 11	704	0.4-	0.3-	1999 11 04	704	0.2-	0.2-
1999 07 12	704	0.1-	0.4-	1999 08 11	704	0.4-	0.1-	1999 11 04	704	(2.2+	0.6+)
1999 07 12	704	0.0	0.3-	1999 09 07	723	0.3-	0.1+	1999 11 04	704	0.1-	0.2+
1999 07 12	704	0.3-	0.7-	1999 09 07	723	0.3-	0.1+	1999 11 08	610	0.4+	0.2-
1999 07 12	704	0.1+	0.6-	1999 09 11	628	0.2-	0.1+	1999 11 08	610	0.3+	0.1-
1999 07 13	704	0.3-	0.3-	1999 09 11	628	0.2-	0.1-	1999 11 08	610	0.2+	0.0
1999 07 13	704	0.4-	1.5+	1999 09 11	628	0.0	0.1+	1999 11 08	610	0.2+	0.1+
1999 07 13	704	0.1+	0.3-	1999 09 11	628	0.2-	0.1-	1999 11 08	610	0.0	0.1+
1999 07 13	704	0.2-	0.4-	1999 10 05	704	0.8-	0.7+	2000 01 31	704	0.4-	0.0
1999 07 13	704	0.1+	0.2-	1999 10 05	704	0.5+	0.1+	2000 01 31	704	0.2-	0.3+
1999 07 22	704	0.2+	0.5+	1999 10 05	704	0.7+	0.2+	2000 01 31	704	0.3+	0.1+
1999 07 22	704	0.1+	0.3+	1999 10 05	704	0.2+	0.3+	2000 01 31	704	0.2+	0.2+
1999 07 22	704	0.4+	0.8+	1999 10 05	704	0.9+	0.5-	2000 01 31	704	0.1-	0.3+

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M.P.C. 38551

Residuals in seconds of arc

1987 04 25	413	0.0	0.5-	1999 07 13	704	0.2-	0.2-	1999 09 21	704	0.0	0.4-
1987 04 25	413	0.8-	0.7-	1999 07 13	704	0.1+	0.2-	1999 10 02	723	0.1-	0.7+
1989 11 09	675	1.2-	0.5-	1999 07 13	704	0.1+	0.0	1999 10 02	723	0.1-	0.7-
1997 03 10	675	0.1-	1.1-	1999 07 23	704	0.1+	0.0	1999 10 02	723	0.1+	0.3-
1999 07 12	704	0.3-	0.2-	1999 07 23	704	1.2+	1.1+	1999 11 03	704	0.8+	0.6+
1999 07 12	704	0.1+	0.6-	1999 07 23	704	0.2+	0.3+	1999 11 03	704	0.8-	0.0
1999 07 12	704	0.3-	1.0-	1999 09 18	704	0.7+	0.4+	1999 11 03	704	0.1+	0.6-
1999 07 12	704	0.3+	0.6-	1999 09 18	704	0.3-	0.5+	1999 11 03	704	0.3+	0.3-
1999 07 12	704	0.1+	0.6-	1999 09 18	704	0.1+	0.6+	1999 12 08	704	0.5-	0.6-
1999 07 13	704	0.0	0.1+	1999 09 21	704	0.0	0.1+	1999 12 08	704	0.5-	0.1-
1999 07 13	704	0.2-	0.1-	1999 09 21	704	0.2+	0.1+	1999 12 08	704	0.5-	0.2+

1999 NN₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	0.22300		(2000.0)	P	Q
n	0.17977444	ω	133.08026	+0.80167081	-0.53491202
a	3.1092150	Ω	260.97529	+0.43920304	+0.82987525
e	0.2321431	i	15.67407	+0.40549303	+0.15867010
P	5.48	H	14.0	G 0.15	U 2

Residuals in seconds of arc

1950 12 11	675	0.8-	1.1-	1999 07 22	704	0.0	0.1+	1999 10 20	704	0.5+	0.1-
1950 12 11	675	1.0+	0.1+	1999 07 22	704	0.9+	0.1-	1999 10 20	704	0.1-	0.8-
1975 03 12	413	0.0	0.0	1999 07 22	704	0.2+	0.8+	1999 10 31	832	0.2-	0.1+
1975 03 12	413	0.7-	1.0-	1999 08 11	704	0.3+	0.5-	1999 10 31	832	0.1+	0.1+
1988 07 14	675	1.2-	0.3+	1999 08 11	704	0.0	0.1+	1999 11 01	699	1.2-	1.2+
1988 07 14	675	0.2+	1.4-	1999 08 11	704	0.0	0.1+	1999 11 01	699	0.6-	0.6-
1999 07 12	704	0.2-	0.9+	1999 08 11	704	0.1-	0.1-	1999 11 01	699	0.2+	0.3-
1999 07 12	704	0.2-	0.1-	1999 08 11	704	0.8-	0.1+	1999 11 05	832	0.1+	0.1+
1999 07 12	704	0.8+	1.4+	1999 09 09	699	0.7+	0.0	1999 11 05	832	0.2-	0.3+
1999 07 12	704	0.8+	0.8+	1999 09 09	699	0.1-	0.7-	1999 11 05	704	0.6-	0.5-
1999 07 12	704	0.0	0.0	1999 09 09	699	0.5+	0.6-	1999 11 05	704	0.5-	0.5-
1999 07 13	704	0.4+	0.2+	1999 10 03	704	0.6-	0.8+	1999 11 05	704	0.5-	0.5-
1999 07 13	704	0.4-	0.5-	1999 10 03	704	0.2+	1.2-	1999 11 05	704	0.4-	0.3-
1999 07 13	704	1.4+	0.2-	1999 10 03	704	0.2-	0.4-	1999 12 05	704	0.9-	0.6+
1999 07 13	704	0.0	0.5+	1999 10 03	704	0.3+	0.1-	1999 12 05	704	0.0	0.5+
1999 07 13	704	0.2-	0.6+	1999 10 20	704	0.2+	0.5-	1999 12 05	704	0.8-	0.1-
1999 07 22	704	1.3+	0.5-	1999 10 20	704	0.1-	0.4+	1999 12 05	704	0.2+	0.2+
1999 07 22	704	0.5+	0.5-	1999 10 20	704	0.3+	0.3+	1999 12 05	704	0.1+	0.7+

1999 NK₆ = 1986 UF₃

Id. A. Gnädig, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	336.55795		(2000.0)	P	Q
n	0.22249098	ω	104.90177	+0.76185180	-0.62537932
a	2.6972909	Ω	294.10605	+0.50017175	+0.73351336
e	0.1852300	i	10.65483	+0.41159454	+0.26619327
P	4.43	H	13.8	G 0.15	U 1

Residuals in seconds of arc

1984 03 07	413	1.4+	0.0	1999 06 13	703	0.2-	0.2+	1999 08 07	699	0.2-	0.5+
1986 10 28	010	0.5+	0.5-	1999 06 13	703	0.6-	0.9+	1999 08 07	699	0.1+	0.5+
1986 10 28	010	1.4-	0.3-	1999 06 13	703	0.1-	0.2+	1999 09 07	704	0.3+	0.1+
1995 10 26	675	0.3+	0.5+	1999 07 13	704	0.2+	0.1+	1999 09 07	704	0.0	0.3+
1995 10 26	675	0.1+	0.7+	1999 07 13	704	0.1-	0.1-	1999 09 07	704	0.2+	0.9-
1997 02 10	675	0.2+	1.2+	1999 07 13	704	0.1-	0.5-	1999 09 07	704	0.1-	0.0
1997 02 10	675	0.5-	0.8+	1999 07 13	704	0.2+	0.0	1999 09 07	704	0.7-	0.0
1999 06 13	703	0.6-	0.6-	1999 07 13	704	0.4+	0.1-	1999 09 09	704	1.0+	0.5+
1999 06 13	703	0.6+	0.2-	1999 07 16	704	0.1-	0.3-	1999 09 09	704	0.2-	0.4+
1999 06 13	703	0.6-	0.2+	1999 07 16	704	0.2-	0.2-	1999 09 09	704	0.4-	1.2+
1999 06 13	703	1.0+	0.3-	1999 07 16	704	0.2+	0.9-	1999 09 09	704	0.3-	0.2+
1999 06 13	703	0.4+	0.4+	1999 08 07	699	0.3-	0.4+	1999 09 09	704	0.4-	0.1-

1999 NQ₁₁ = 1998 HQ₇₀ = 1999 RD₁₂₀

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	66.12949		(2000.0)	P	Q
n	0.22277350	ω	135.18179	+0.50047534	+0.86566216
a	2.6950099	Ω	164.83597	-0.80699795	+0.47164486
e	0.0428557	i	2.71436	-0.31349440	+0.16786944
P	4.42	H	14.1	G 0.15	U 3

Residuals in seconds of arc

1998 02 27	910	0.4-	0.4-	1998 05 16	704	0.6-	1.0+	1999 09 07	704	0.1-	0.1+
1998 02 27	910	0.6-	0.8-	1998 05 16	704	(5.0-	0.4-)	1999 09 07	704	0.1+	0.1+
1998 02 27	910	0.4-	0.8-	1999 07 13	704	0.9+	0.1+	1999 09 09	704	1.3-	0.5-
1998 04 21	704	0.3-	0.7+	1999 07 13	704	0.0	0.1-	1999 09 09	704	0.1+	0.6-
1998 04 21	704	0.5+	0.3+	1999 07 13	704	0.1-	0.0	1999 09 09	704	0.0	0.8-
1998 04 21	704	0.1+	0.4+	1999 07 13	704	0.3+	0.7-	1999 09 09	704	0.3+	0.9-
1998 04 21	704	0.4+	0.2+	1999 07 13	704	0.2-	0.8-	1999 09 13	699	0.0	0.5+
1998 04 21	704	0.0	0.3+	1999 07 16	704	0.1+	0.1+	1999 09 13	704	0.1-	0.1+
1998 04 22	704	0.7+	0.3+	1999 07 16	704	0.0	0.2-	1999 09 13	704	0.4+	0.2-
1998 04 22	704	0.1-	0.8+	1999 07 16	704	0.9-	0.3+	1999 09 13	699	1.0+	1.1+
1998 04 22	704	0.4+	0.5-	1999 07 21	699	0.4-	1.0+	1999 09 13	704	0.2-	0.0
1998 04 22	704	1.0+	0.4-	1999 07 21	699	(0.1+	2.5+)	1999 09 13	704	0.4+	0.6-
1998 04 22	704	0.4+	0.1+	1999 07 21	699	0.8-	0.5+	1999 09 13	704	0.0	0.9-
1998 04 25	699	0.6-	0.3-	1999 08 12	699	0.6+	0.1+	1999 09 13	699	0.3+	0.1-
1998 04 25	699	0.2+	0.1+	1999 08 12	699	0.2+	0.3+	1999 11 10	704	0.2-	0.7+
1998 04 25	699	0.4-	0.0	1999 08 12	699	0.3+	1.0+	1999 11 10	704	0.4-	0.6+
1998 05 16	704	1.0-	0.8-	1999 09 07	704	0.5-	0.0	1999 11 10	704	0.1+	0.2+
1998 05 16	704	0.3+	0.8-	1999 09 07	704	0.0	0.1-	1999 11 10	704	0.2+	0.0
1998 05 16	704	(2.4-	0.2+)	1999 09 07	704	0.4-	0.2-				

1999 NR₁₁ = 1966 UM

Id. A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	47.92598		(2000.0)	P	Q		
n	0.26775572	ω	37.74253	+0.89095088	+0.44447895		
a	2.3840217	Ω	295.62409	-0.43769188	+0.78602182		
e	0.2824112	i	5.91887	-0.12096422	+0.42966051		
P	3.68	H	14.2	G	0.15	U	2

Residuals in seconds of arc

1966 10 18	095	0.7-	1.5+	1999 07 23	704	0.4-	0.6+	1999 10 02	723	1.7+	0.2+
1992 10 02	675	0.5+	0.4-	1999 09 01	138	0.2-	0.4-	1999 10 02	723	(1.6-	2.3-)
1992 10 02	675	0.0	1.4-	1999 09 01	138	0.5-	0.1+	1999 10 09	106	0.6+	0.1-
1998 03 24	566	0.2+	0.1+	1999 09 01	138	0.4-	0.1+	1999 10 09	106	0.3+	0.5+
1998 03 24	566	0.0	0.2-	1999 09 09	704	0.7+	0.1-	1999 10 09	106	0.1-	0.2-
1998 03 24	566	0.6-	0.3-	1999 09 09	704	0.0	0.4-	1999 10 31	832	0.2-	0.2-
1998 03 31	704	0.4-	1.4+	1999 09 09	704	0.0	0.2+	1999 10 31	832	0.2+	0.1+
1998 03 31	704	(0.6-	3.5-)	1999 09 09	704	0.1-	0.3-	1999 10 31	699	0.4-	0.1+
1998 03 31	704	0.5+	1.2-	1999 09 09	704	0.8-	0.1-	1999 10 31	699	0.0	0.0
1998 03 31	704	(3.8-	0.1-)	1999 09 14	704	1.6+	0.3-	1999 10 31	699	0.3+	0.1-
1999 07 13	704	0.2-	0.6-	1999 09 14	704	0.3+	0.4-	1999 11 05	832	0.6-	0.1-
1999 07 13	704	0.5+	0.0	1999 09 14	704	0.3+	0.4+	1999 11 05	832	0.7-	0.2+
1999 07 13	704	0.7+	0.1-	1999 09 14	704	0.3+	0.1-	1999 11 07	704	0.0	0.5-
1999 07 13	704	0.4+	0.2+	1999 09 14	704	1.7-	0.7+	1999 11 07	704	0.9-	0.2-
1999 07 13	704	0.5+	0.8+	1999 09 30	723	0.2-	0.3-	1999 11 07	704	0.1+	0.1-
1999 07 16	704	0.4-	0.2-	1999 09 30	723	0.1+	0.1-	1999 11 07	704	0.3-	0.1-
1999 07 16	704	0.3-	0.1+	1999 09 30	723	0.3+	0.3-	1999 11 07	704	0.0	0.1+
1999 07 16	704	0.6-	0.3+	1999 10 01	723	0.3+	0.4-	1999 12 07	699	0.0	0.9-
1999 07 23	704	0.4-	0.0	1999 10 01	723	0.2-	0.3-	1999 12 07	699	0.0	0.7+
1999 07 23	704	0.5-	0.1-	1999 10 01	723	0.4+	0.2-	1999 12 07	699	0.5-	1.5+
1999 07 23	704	0.2+	0.4-	1999 10 02	723	0.5+	0.4+				

1999 NX₁₄ = 1998 GV₁₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Marsden

M	30.34039		(2000.0)		P		Q
n	0.25956325	ω	256.81644	+0.89936975		+0.43404513	
a	2.4339253	Ω	77.43864	-0.37747720		+0.83133958	
e	0.2119759	i	3.07354	-0.22055614		+0.34710133	
P	3.80	H	14.2	G	0.15	U	4

Residuals in seconds of arc

1998 04 02	809	0.3-	1.3+	1999 06 15	704	0.1-	0.1-	1999 07 16	704	0.6+	0.5-
1998 04 02	809	0.5-	1.7+	1999 06 15	704	1.3-	0.2-	1999 07 16	704	0.7+	0.5+
1998 04 02	809	0.7+	0.0	1999 07 14	704	0.1-	0.1-	1999 07 16	704	0.6+	0.7+
1998 04 03	809	0.7+	1.4-	1999 07 14	704	0.1+	0.7-	1999 08 12	704	0.4-	0.6+
1998 04 03	809	0.2-	0.8-	1999 07 14	704	0.0	0.2-	1999 08 12	704	0.4-	0.9+
1998 04 03	809	0.3-	0.3-	1999 07 14	704	0.4+	0.2-	1999 08 12	704	0.4-	0.4+
1999 06 15	704	0.2+	0.3-	1999 07 14	704	0.1+	0.1+	1999 08 12	704	0.0	0.4-
1999 06 15	704	0.2-	0.1+	1999 07 16	704	0.5+	0.2-	1999 08 12	704	0.6-	0.0
1999 06 15	704	0.6-	0.2-	1999 07 16	704	0.4+	0.1-				

1999 NO₁₈ = 1998 GG₁₂

Id. B. G. Marsden

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	28.28120		(2000.0)		P	Q	
n	0.26534264	ω	290.75513	+0.93474987		+0.35287015	
a	2.3984537	Ω	48.60687	-0.30191251		+0.85046887	
e	0.2047650	i	3.17402	-0.18732729		+0.39010941	
P	3.71	H	14.2	G	0.15	U	4

Residuals in seconds of arc

1998 04 02	809	0.9+	0.0	1999 06 15	704	0.6+	0.7-	1999 07 16	704	0.1-	0.8+
1998 04 02	809	1.2+	0.1+	1999 06 15	704	0.3+	0.3-	1999 08 12	704	0.3+	0.4-
1998 04 02	809	0.9+	0.8-	1999 06 15	704	0.1+	0.9-	1999 08 12	704	0.9-	0.7-
1998 04 03	809	0.4+	0.6+	1999 07 14	704	0.1+	0.1-	1999 08 12	704	1.1-	0.1+
1998 04 03	809	1.6-	1.6+	1999 07 14	704	1.4+	0.1-	1999 08 12	704	1.1-	0.7+
1998 04 03	809	0.8-	0.4+	1999 07 14	704	0.7-	0.4-	1999 08 12	704	1.1-	1.6+
1999 06 11	703	0.1+	0.9-	1999 07 14	704	0.1+	0.1+	1999 09 11	704	0.4+	0.0
1999 06 11	703	0.3-	0.1+	1999 07 14	704	0.1+	0.2-	1999 09 11	704	(2.4+	0.1-)
1999 06 11	703	0.2-	0.5-	1999 07 16	704	0.3+	0.7+	1999 09 11	704	0.7+	0.6+
1999 06 11	703	0.7-	0.0	1999 07 16	704	0.1+	0.1+	1999 09 11	704	0.7+	0.4+
1999 06 15	704	0.9+	0.0	1999 07 16	704	0.2-	0.1-	1999 09 11	704	0.4+	0.7+
1999 06 15	704	0.3+	0.3-	1999 07 16	704	0.0	0.5+				

1999 NS₂₀ = 1983 CP₈ = 1998 BM₄₁

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	185.42953		(2000.0)		P		Q
n	0.26236789	ω	125.91031	-0.90886543		-0.41647207	
a	2.4165490	Ω	29.49697	+0.36629365		-0.82300973	
e	0.1461715	i	2.64077	+0.19948080		-0.38627193	
P	3.76	H	14.4	G	0.15	U	2

Residuals in seconds of arc

1983 02 10	095	0.1+	0.1+	1999 05 18	699	0.6-	0.8-	1999 07 14	704	0.1-	0.2-
1996 09 13	566	0.4+	0.2+	1999 05 18	699	0.6-	0.2+	1999 07 16	704	0.3+	0.1-
1996 09 13	566	0.5-	0.3+	1999 05 18	699	0.9-	1.3+	1999 07 16	704	0.6+	0.3+
1996 09 13	566	0.3-	0.1+	1999 06 11	703	0.6-	0.5-	1999 07 16	704	0.0	0.0
1998 01 25	566	0.3-	0.3+	1999 06 11	703	1.3-	0.9-	1999 07 16	704	0.0	0.1+
1998 01 25	566	0.5-	0.1+	1999 06 11	703	0.2-	0.4+	1999 07 16	704	0.1+	0.9+
1998 01 25	566	0.3-	0.5+	1999 06 11	703	1.5-	0.4-	1999 08 12	704	0.4+	0.2+
1998 01 29	566	0.5+	0.2-	1999 07 14	704	0.1-	0.1-	1999 08 12	704	1.0+	0.5+
1998 01 29	566	0.2+	0.2-	1999 07 14	704	0.2+	0.2+	1999 08 12	704	1.0+	0.9-
1998 01 29	566	0.6+	0.0	1999 07 14	704	1.1+	0.1+	1999 08 12	704	0.7+	0.2-

1999 NW₂₁ = 1994 LE₁ = 1996 XN₁₄ = 1998 HB₃₅

Id. A. Doppler, G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	5.09652		(2000.0)		P		Q
n	0.21575809	ω	254.35087		+0.96774690		+0.22680575
a	2.7531169	Ω	92.44424		-0.16777058		+0.90493649
e	0.0951402	i	6.30141		-0.18793340		+0.36006819
P	4.57	H	14.0	G	0.15	U	1

Residuals in seconds of arc

1994 06 08	104	0.1+	1.4+	1998 03 25	704	0.5-	0.9-	1999 06 11	703	0.4-	0.3-
1994 06 08	104	0.3-	0.8+	1998 03 25	704	1.6-	1.9-	1999 06 11	703	0.2-	1.0+
1994 06 08	104	(2.8+	1.1-)	1998 03 25	704	(2.9+	1.0+)	1999 06 11	703	0.2-	1.0+
1994 06 09	104	0.5+	1.5-	1998 04 20	704	1.0+	0.7-	1999 07 14	704	0.4-	0.5-
1994 06 09	104	0.6-	1.5-	1998 04 20	704	0.8-	0.0	1999 07 14	704	0.4+	0.6+
1996 12 09	691	0.2-	0.1+	1998 04 20	704	0.9+	0.5+	1999 07 14	704	0.4+	0.4+
1996 12 09	691	0.2-	0.1-	1998 04 20	704	0.1+	1.2+	1999 07 14	704	0.1+	0.0
1996 12 09	691	0.0	0.2+	1998 04 21	704	0.0	0.1-	1999 07 16	704	0.3-	0.5+
1996 12 11	691	0.1-	0.4+	1998 04 21	704	0.2+	0.2+	1999 07 16	704	0.3+	0.3-
1996 12 11	691	0.1+	0.1-	1998 04 21	704	0.7+	0.5+	1999 07 16	704	0.4-	0.5-
1996 12 11	691	0.2+	0.4-	1998 04 21	704	0.4-	0.0	1999 07 16	704	0.1-	0.4-
1998 03 24	704	(2.8+	0.6-)	1998 04 24	704	0.8+	0.9+	1999 07 16	704	0.5+	0.5-
1998 03 24	704	1.7-	1.0-	1998 04 24	704	1.3+	0.3+	1999 07 16	704	0.3-	0.3+
1998 03 24	704	1.6+	0.2-	1998 04 24	704	0.7+	1.0-	1999 07 16	704	0.1+	0.6-
1998 03 24	704	1.6-	1.4+	1998 04 24	704	0.4+	0.5+	1999 07 16	704	0.4-	0.5+
1998 03 24	704	(2.2-	0.1-)	1998 04 24	704	0.3+	1.8+				
1998 03 25	704	1.3-	1.3-	1999 06 11	703	0.8+	1.0-				

1999 NV₂₂ = 1998 BB₃₈

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	113.64715		(2000.0)		P		Q
n	0.28661466	ω	114.21674	-0.55783926		+0.82603339	
a	2.2782626	Ω	121.63614	-0.79165056		-0.50045391	
e	0.1060844	i	5.42711	-0.24920824		-0.25925803	
P	3.44	H	14.9	G	0.15	U	4

Residuals in seconds of arc

1997 12 26	566	0.6+	0.8+	1998 01 29	691	0.2+	0.2+	1999 07 14	704	0.5+	1.2+
1997 12 26	566	0.4+	0.4+	1998 02 03	691	0.3+	0.0	1999 07 14	704	0.8+	0.5-
1997 12 26	566	0.8+	0.9+	1998 02 03	691	0.5+	0.1+	1999 07 16	704	0.3+	0.0
1998 01 20	704	0.7-	0.0	1998 02 03	691	0.3+	0.1-	1999 07 16	704	0.6-	0.1-
1998 01 20	704	0.5+	1.3-	1999 06 11	703	1.4+	0.1+	1999 07 16	704	0.5-	0.1-
1998 01 20	704	0.4+	0.3-	1999 06 11	703	0.6-	0.1+	1999 07 16	704	0.3+	0.6-
1998 01 20	704	0.5-	0.8-	1999 06 11	703	0.6+	0.1+	1999 07 16	704	0.2-	0.2-
1998 01 20	704	2.0-	0.5-	1999 06 11	703	0.3-	1.1+	1999 07 16	704	0.0	0.3-
1998 01 20	704	1.2-	0.5-	1999 07 14	704	0.1+	0.4-	1999 07 16	704	0.6-	0.5+
1998 01 29	691	0.2+	0.3+	1999 07 14	704	0.3-	0.3-	1999 07 16	704	0.2+	0.4-
1998 01 29	691	0.4+	0.3+	1999 07 14	704	0.0	0.7-	1999 07 16	704	0.9-	0.5+

1999 NG₂₄ = 1981 WP₆ = 1998 HP₆₂

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	288.52156		(2000.0)		P		Q
n	0.26212969	ω	3.28494	+0.17269572		-0.98375402	
a	2.4180127	Ω	76.77459	+0.90254515		+0.13811168	
e	0.1740814	i	2.88713	+0.39444700		+0.11468735	
P	3.76	H	14.3	G	0.15	U	1

Residuals in seconds of arc

1981 11 24	095	0.6-	1.8+	1998 04 22	704	0.9+	0.9+	1999 07 14	704	0.1-	0.5+
1997 01 12	566	0.1+	0.1+	1998 04 22	704	0.5-	0.1+	1999 07 14	704	0.2+	0.8+
1997 01 12	566	0.4-	0.4+	1998 04 22	704	0.2+	0.3+	1999 07 14	704	0.2-	0.3+
1997 01 12	566	0.2+	0.0	1998 04 22	704	0.5-	0.1+	1999 07 16	704	0.6+	0.7+

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1998 04 21	704	(0.1+	2.5+)	1998 04 22	704	0.7-	0.3+	1999 07 16	704	0.5+	0.6+
1998 04 21	704	0.9+	1.4+	1999 06 11	703	1.0-	0.6-	1999 07 16	704	0.3+	0.7+
1998 04 21	704	0.6+	0.3-	1999 06 11	703	0.3-	0.6-	1999 07 16	704	0.5+	0.5+
1998 04 21	704	1.0+	0.4+	1999 06 11	703	0.5-	1.1-				
1998 04 21	704	0.8-	0.8-	1999 06 11	703	0.6-	1.2-				

1999 NM₂₄ = 1997 CB₇

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	260.43232		(2000.0)	P	Q						
<i>n</i>	0.19148060	ω	123.56900	+0.12394745	-0.98832977						
<i>a</i>	2.9811662	Ω	319.02196	+0.85978073	+0.15151933						
<i>e</i>	0.0620752	<i>i</i>	7.76058	+0.49539290	-0.01568946						
<i>P</i>	5.15	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	4				

Residuals in seconds of arc

1997 02 07	566	0.5-	0.6-	1999 06 11	703	0.1-	0.5-	1999 07 16	704	0.5+	0.3-
1997 02 07	566	0.5-	0.6-	1999 06 11	703	0.1+	0.2+	1999 07 16	704	0.2+	0.5+
1997 02 07	566	0.1-	0.5-	1999 06 11	703	0.1-	0.1-	1999 07 16	704	0.4-	0.6-
1997 02 08	566	0.3+	0.4+	1999 07 14	704	0.7+	0.5-	1999 07 16	704	0.3-	0.1+
1997 02 08	566	0.5+	0.6+	1999 07 14	704	0.1-	0.3+	1999 07 16	704	0.5-	0.2-
1997 02 08	566	0.3+	0.6+	1999 07 14	704	0.2+	0.3-				
1999 06 11	703	0.0	0.5+	1999 07 14	704	0.1-	0.6+				

1999 NX₂₄ = 1996 VC₃₈

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	90.34343		(2000.0)	P	Q						
<i>n</i>	0.27312085	ω	198.68594	-0.26179678	+0.96416846						
<i>a</i>	2.3526978	Ω	56.15846	-0.87876828	-0.21975240						
<i>e</i>	0.1710542	<i>i</i>	2.96166	-0.39903478	-0.14862053						
<i>P</i>	3.61	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	5				

Residuals in seconds of arc

1996 11 02	327	0.2+	0.1+	1999 06 11	703	0.5+	0.4-	1999 07 14	704	0.1+	0.4-
1996 11 02	327	0.3-	0.6+	1999 06 11	703	0.6-	0.3-	1999 07 14	704	0.8-	0.2+
1996 11 02	327	0.5+	0.9+	1999 06 11	703	0.4-	0.3-	1999 07 16	704	0.2+	0.5+
1996 11 02	327	0.7+	0.3+	1999 06 11	703	0.4+	0.8-	1999 07 16	704	0.1+	0.2-
1996 11 09	327	0.1-	1.2-	1999 07 14	704	0.6+	0.0	1999 07 16	704	0.4-	0.3+
1996 11 09	327	0.3-	0.7-	1999 07 14	704	0.9+	0.1+	1999 07 16	704	0.3-	0.4+
1996 11 09	327	0.4-	0.6-	1999 07 14	704	0.2+	0.0	1999 07 16	704	0.4-	0.7+

1999 NA₂₆ = 1989 RV₅ = 1998 HE₁₂₀

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	1.58155		(2000.0)	P	Q						
<i>n</i>	0.18448551	ω	239.02688	+0.94321796	+0.21872119						
<i>a</i>	3.0560553	Ω	107.33033	-0.13526333	+0.94029818						
<i>e</i>	0.1085299	<i>i</i>	15.18229	-0.30338707	+0.26076883						
<i>P</i>	5.34	<i>H</i>	12.3	<i>G</i>	0.15	<i>U</i>	3				

Residuals in seconds of arc

1989 09 04	413	0.1+	0.2-	1998 05 22	566	0.5+	0.7-	1999 07 14	704	0.0	0.1+
1998 04 23	704	0.2-	0.2+	1998 05 23	704	0.2+	0.1+	1999 07 14	704	0.1+	0.7+
1998 04 23	704	0.2+	0.3+	1998 05 23	704	0.2-	0.6+	1999 07 14	704	0.2+	0.4+
1998 04 23	704	0.3+	1.0+	1998 05 23	704	0.4-	0.2-	1999 07 14	704	0.2+	0.4+
1998 04 23	704	0.1+	0.8+	1998 05 23	704	0.5+	0.1+	1999 07 14	704	0.1+	0.3+
1998 04 23	704	0.1+	1.6+	1998 05 23	704	0.1+	0.4-	1999 07 16	704	0.2-	0.2+
1998 04 23	566	0.6-	0.1-	1999 05 15	699	0.5-	0.5+	1999 07 16	704	0.2+	0.3+
1998 04 23	566	0.4-	0.2-	1999 05 15	699	1.7-	0.4+	1999 07 16	704	0.2-	0.3-
1998 04 23	566	0.7-	0.0	1999 05 15	699	0.2+	0.6+	1999 07 16	704	0.6-	0.0
1998 04 24	704	0.2-	0.0	1999 06 11	703	0.0	1.8-	1999 07 16	704	0.5-	0.0
1998 04 24	704	0.1+	0.4-	1999 06 11	703	0.5+	0.7-	1999 09 29	704	0.8+	0.7+
1998 04 24	704	0.2-	0.1-	1999 06 11	703	0.7+	1.5-	1999 09 29	704	0.0	0.4+

1998 04 24	704	0.9-	0.5-	1999 06 11	703	0.0	0.9-	1999 09 29	704	0.3+	0.1+
1998 04 24	704	1.1-	0.7-	1999 06 21	699	0.2+	0.6+	1999 09 29	704	0.3+	0.2+
1998 05 22	566	1.6+	0.8-	1999 06 21	699	0.1-	0.2+	1999 09 29	704	0.2-	0.9-
1998 05 22	566	1.5+	0.6-	1999 06 21	699	0.5+	0.2+				

1999 ND₂₆ = 1978 WG₁₀ = 1992 SM₂₂ = 1998 KD₁₉

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	63.89204		(2000.0)	P	Q						
<i>n</i>	0.12515482	ω	167.43464	-0.33073653	+0.94129001						
<i>a</i>	3.9582601	Ω	83.22133	-0.87164392	-0.27718151						
<i>e</i>	0.1501271	<i>i</i>	3.91062	-0.36173227	-0.19272656						
<i>P</i>	7.88	<i>H</i>	12.9	<i>G</i>	0.15	<i>U</i>	3				

Residuals in seconds of arc

1978 11 29	675	0.6+	0.5+	1998 05 01	704	(3.2-	0.4+)	1999 06 11	703	0.7-	1.3-
1978 11 30	675	1.3-	0.7+	1998 05 02	566	0.4-	0.1+	1999 07 14	704	0.4+	0.5+
1992 09 22	809	0.7+	0.2+	1998 05 02	566	0.2-	0.0	1999 07 14	704	0.5+	0.3+
1992 09 22	809	0.5+	0.3-	1998 05 02	566	0.2+	0.0	1999 07 14	704	0.2+	0.4+
1992 09 22	809	0.4+	0.1+	1998 05 22	704	1.6+	0.1+	1999 07 14	704	0.4+	0.6+
1992 09 23	809	1.2-	0.5-	1998 05 22	704	0.3-	0.3+	1999 07 14	704	0.7+	0.8-
1992 09 23	809	1.0+	0.6-	1998 05 22	704	0.6+	0.8-	1999 07 14	704	0.7-	1.0+
1992 09 23	809	(2.3+	0.2-)	1998 05 22	704	1.5+	0.6-	1999 07 14	704	0.6+	0.7-
1998 04 22	704	0.8-	0.3-	1998 05 22	704	0.3-	0.1+	1999 07 14	704	0.6-	0.3+
1998 04 22	704	0.3+	0.4-	1998 05 24	704	0.2+	0.0	1999 07 14	704	0.4+	0.1+
1998 04 22	704	0.7+	0.4+	1998 05 24	704	0.4-	0.6-	1999 07 16	704	0.1+	0.1-
1998 04 22	704	0.5-	0.0	1998 05 24	704	0.9-	1.1+	1999 07 16	704	0.0	0.0
1998 04 22	704	0.3+	0.2+	1998 05 24	704	0.2+	1.1+	1999 07 16	704	0.6-	1.0+
1998 05 01	704	0.2+	0.0	1998 05 24	704	0.2+	0.1+	1999 07 16	704	0.9-	0.4+
1998 05 01	704	0.5-	0.3-	1999 06 11	703	0.6+	0.4-	1999 07 16	704	0.6-	0.8+
1998 05 01	704	1.5-	0.3-	1999 06 11	703	0.6+	0.5+				
1998 05 01	704	0.2+	0.5-	1999 06 11	703	1.1-	1.4-				

1999 NW₃₇ = 1981 UL₇ = 1998 GW₁₁

Id. B. G. Marsden, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	45.26806		(2000.0)	P	Q						
<i>n</i>	0.26459435	ω	245.28604	+0.78837590	+0.61318826						
<i>a</i>	2.4029736	Ω	76.85518	-0.54441067	+0.73296573						
<i>e</i>	0.1185166	<i>i</i>	2.92164	-0.28649687	+0.29455289						
<i>P</i>	3.72	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	3				

Residuals in seconds of arc

1981 10 30	381	0.8-	1.9+	1999 07 14	704	0.4+	0.1-	1999 09 03	699	0.6-	0.4+
1981 10 30	381	0.3-	2.0+	1999 07 14	704	0.6+	0.1-	1999 09 07	704	1.2+	1.6+
1998 04 02	809	0.6+	1.8+	1999 07 14	704	0.6+	0.5+	1999 09 07	704	1.4-	1.6+
1998 04 02	809	0.2+	2.2+	1999 07 16	704	0.1+	0.2+	1999 09 07	704	0.7-	0.6+
1998 04 02	809	0.3+	3.0+	1999 07 16	704	0.7+	0.9-	1999 09 07	704	1.5-	0.2+
1998 04 03	809	1.5+	1.7+	1999 07 16	704	0.8+	0.8-	1999 10 15	704	0.2+	1.8+
1998 04 03	809	1.2+	1.1+	1999 07 19	428	0.1+	0.1+	1999 10 15	704	0.6-	1.4+
1998 04 03	809	1.0+	1.4+	1999 07 20	428	0.3-	0.3+	1999 10 15	704	0.7-	1.4+
1999 06 22	703	0.7-	0.0	1999 07 20	428	0.5+	0.4+	1999 10 15	704	1.0-	1.1+
1999 06 22	703	0.7-	0.8-	1999 08 12	699	0.3-	0.2+	1999 11 10	704	0.5+	1.0+
1999 06 22	703	1.2-	0.1+	1999 08 12	699	0.0	0.2-	1999 11 10	704	0.1-	0.1+
1999 06 22	703	0.2+	0.5-	1999 08 12	699	0.5-	0.1+	1999 11 10	704	1.2+	1.6+
1999 07 14	704	0.1+	0.1-	1999 09 03	699	0.4-	0.8+				
1999 07 14	704	0.5+	0.1+	1999 09 03	699	0.5+	0.7-				

1999 NW₃₉ = 1987 VO = 1995 OV₁

Id. A. Doppler

M.P.C. 38554

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	7.20608	(2000.0)	P	Q
<i>n</i>	0.23961582	ω	261.78152	+0.95131223
<i>a</i>	2.5671962	Ω	110.03127	+0.27367350
<i>e</i>	0.1770191	<i>i</i>	13.97164	+0.35711106
<i>P</i>	4.11	<i>H</i>	14.2	<i>G</i> 0.15 <i>U</i> 1

Residuals in seconds of arc

1987 11 15	010	1.1+	1.9−	1997 02 07	566	(2.2−	0.8−)	1999 07 14	704	0.3+	0.1−
1987 11 15	010	(2.8+	2.7−)	1998 04 23	704	0.2−	0.6−	1999 07 14	704	0.4+	0.1−
1995 07 20	327	0.8−	0.2+	1998 04 23	704	0.6−	0.4−	1999 07 14	704	0.8+	0.6+
1995 07 20	327	0.4+	0.4+	1998 04 23	704	1.2−	0.2−	1999 07 14	704	0.1+	0.3+
1995 07 20	327	0.1+	0.1+	1998 04 23	704	0.5+	1.2−	1999 07 14	704	0.2+	0.1−
1995 07 20	327	0.4+	0.2+	1998 04 23	704	0.9+	0.6−	1999 07 16	704	0.0	0.6+
1995 07 30	327	0.3−	0.3−	1998 05 28	704	0.9+	1.1−	1999 07 16	704	0.5+	0.1−
1995 07 30	327	0.2−	1.7−	1998 05 28	704	(3.5+	1.6−)	1999 07 16	704	0.4+	0.4+
1995 07 30	327	0.2+	0.5+	1998 05 28	704	0.7+	0.3+	1999 09 11	704	0.2−	0.4+
1995 07 30	327	0.6−	0.0	1998 05 28	704	0.8−	1.0+	1999 09 11	704	0.2−	0.0
1997 01 11	566	0.0	0.6+	1998 05 28	704	1.0−	0.3+	1999 09 11	704	0.5−	0.2−
1997 01 11	566	0.1+	0.9+	1999 06 22	703	0.3+	0.9−	1999 09 11	704	0.1+	0.9−
1997 01 11	566	(2.1+	1.1+)	1999 06 22	703	0.1−	0.1+	1999 09 11	704	0.4−	0.2+
1997 02 07	566	0.0	0.5−	1999 06 22	703	0.2−	0.3+				
1997 02 07	566	0.4−	0.7−	1999 06 22	703	0.8−	0.4+				

1999 NX₄₀ = 1994 BS

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	114.74750	(2000.0)	P	Q
<i>n</i>	0.25142768	ω	149.96125	−0.52357752
<i>a</i>	2.4861500	Ω	88.28297	−0.80095124
<i>e</i>	0.1195168	<i>i</i>	5.97924	−0.29041986
<i>P</i>	3.92	<i>H</i>	14.0	<i>G</i> 0.15 <i>U</i> 3

Residuals in seconds of arc

1994 01 17	098	0.4−	1.9+	1998 02 22	566	0.0	0.4+	1999 07 14	704	0.0	0.2+
1994 01 17	098	0.2+	1.1−	1998 02 22	566	0.5−	0.4−	1999 07 16	704	0.0	0.2−
1994 01 18	098	0.1−	0.3+	1999 07 14	704	0.2−	0.1−	1999 07 16	704	0.0	0.1−
1994 01 19	098	0.4+	1.0−	1999 07 14	704	0.1+	0.4+	1999 07 16	704	0.2+	0.4−
1998 02 22	566	0.5+	0.0	1999 07 14	704	0.3−	0.1+				

1999 NW₄₇ = 1996 XP₂₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	12.62062	(2000.0)	P	Q
<i>n</i>	0.27910921	ω	176.42917	+0.99661174
<i>a</i>	2.3189245	Ω	188.25050	+0.07246280
<i>e</i>	0.1953255	<i>i</i>	6.33972	+0.03891245
<i>P</i>	3.53	<i>H</i>	15.6	<i>G</i> 0.15 <i>U</i> 6

Residuals in seconds of arc

1996 12 02	372	0.1+	0.1−	1999 07 13	704	0.0	0.4+	1999 07 19	704	0.5−	1.0+
1996 12 02	372	0.5−	0.5+	1999 07 13	704	0.4−	0.2−	1999 07 19	704	0.4+	0.6−
1996 12 03	372	0.6+	1.2−	1999 07 13	704	0.5+	0.4−	1999 07 19	704	0.1−	0.0
1996 12 03	372	0.3+	0.6+	1999 07 13	704	0.1+	0.2+				
1996 12 11	372	0.4−	0.1+	1999 07 13	704	0.0	0.3−				

1999 NF₄₈ = 1982 VD₄ = 1998 FB₁₄₄ = 1998 HX₄₄

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	327.91705	(2000.0)	P	Q
<i>n</i>	0.21961845	ω	175.36784	+0.89396160
<i>a</i>	2.7207596	Ω	211.21506	+0.40705690
<i>e</i>	0.0858137	<i>i</i>	7.15849	+0.18744954
<i>P</i>	4.49	<i>H</i>	14.1	<i>G</i> 0.15 <i>U</i> 4

Residuals in seconds of arc

1982 11 14	381	0.5−	2.1+	1998 04 01	704	0.2+	1.6+	1999 06 12	703	0.6+	0.7+
1982 11 14	381	0.1+	0.5+	1998 04 01	704	(0.4+	3.4+)	1999 06 12	703	0.4+	1.4+
1998 03 25	704	0.6+	0.7+	1998 04 01	704	0.2+	0.3+	1999 06 12	703	(1.4−	2.5+)
1998 03 25	704	1.2−	1.0−	1998 04 20	704	0.3−	1.6−	1999 07 13	704	0.2−	0.6+
1998 03 25	704	1.5+	1.5+	1998 04 20	704	(1.7+	2.3+)	1999 07 13	704	1.0−	0.1−
1998 03 25	704	0.5−	0.0	1998 04 20	704	1.6−	0.9+	1999 07 13	704	0.3−	0.3−
1998 03 25	704	(4.7−	0.6+)	1998 04 20	704	1.1−	1.8+	1999 07 13	704	0.2−	0.7+
1998 03 29	704	1.6+	1.5−	1998 04 21	704	0.6−	1.6−	1999 07 13	704	0.8−	0.1+
1998 03 29	704	0.9+	0.7+	1998 04 21	704	0.1+	0.6−	1999 07 19	704	0.2+	0.9−
1998 03 29	704	0.3+	1.6−	1998 04 21	704	1.2+	0.3+	1999 07 19	704	0.3−	0.1+
1998 03 29	704	0.3−	0.6+	1998 04 21	704	0.2+	1.0+	1999 07 19	704	0.5+	0.1+
1998 03 29	704	0.9−	0.9+	1998 04 21	704	(4.6−	2.9+)				
1998 04 01	704	0.3+	0.2−	1999 06 12	703	1.2+	0.7−				

1999 NR₄₈ = 1978 WT₃ = 1998 KM₁₃

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	9.98878	(2000.0)	P	Q
<i>n</i>	0.17528053	ω	94.81215	+0.86722807
<i>a</i>	3.1621340	Ω	236.44362	−0.49533971
<i>e</i>	0.0276867	<i>i</i>	8.69650	−0.05053753
<i>P</i>	5.62	<i>H</i>	13.2	<i>G</i> 0.15 <i>U</i> 4

Residuals in seconds of arc

1978 11 29	675	0.2+	0.3−	1998 05 22	704	1.5+	0.3−	1999 06 12	703	0.9+	0.0
1978 11 30	675	0.2−	0.4−	1998 05 22	704	1.1−	0.7−	1999 06 27	699	0.1+	1.4+
1998 04 21	704	0.4−	0.9+	1998 05 22	704	0.4−	0.5+	1999 06 27	699	0.0	0.5+
1998 04 21	704	0.6−	0.1−	1998 05 22	704	1.3−	1.5−	1999 06 27	699	0.5+	0.3+
1998 04 21	704	1.0−	1.0−	1998 05 22	704	(2.4−	1.1+)	1999 07 13	704	0.3−	0.3+
1998 04 21	704	(6.0−	0.8−)	1998 05 24	704	0.4+	0.8+	1999 07 13	704	0.4+	0.1−
1998 04 25	699	0.4+	1.3+	1998 05 24	704	1.3−	0.8−	1999 07 13	704	0.9−	0.6−
1998 04 25	699	0.9+	1.1+	1998 05 24	704	1.4+	0.6+	1999 07 13	704	0.7−	0.1−
1998 04 25	699	0.2−	1.0+	1998 05 24	704	1.5−	0.5+	1999 07 19	704	0.1+	0.0
1998 05 01	704	0.6+	0.1+	1998 05 24	704	0.6−	1.6−	1999 07 19	704	0.0	0.7−
1998 05 01	704	0.7+	0.2−	1999 06 12	703	0.5+	1.0+	1999 07 19	704	0.7−	0.9−
1998 05 01	704	1.2+	0.9−	1999 06 12	703	0.7−	0.1−				
1998 05 01	704	1.0+	0.3−	1999 06 12	703	1.1+	0.8−				

1999 NG₅₃ = 1983 VR₃

Id. A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	51.62003	(2000.0)	P	Q
<i>n</i>	0.23593374	ω	57.65631	+0.60556818
<i>a</i>	2.5938370	Ω	250.98232	−0.78324437
<i>e</i>	0.1827618	<i>i</i>	12.46842	−0.14076729
<i>P</i>	4.18	<i>H</i>	14.1	<i>G</i> 0.15 <i>U</i> 2

Residuals in seconds of arc

1983 11 08	381	0.0	1.3−	1999 07 22	704	0.4+	0.5−	1999 09 14	704	0.9−	0.4−
1996 11 14	675	0.4−	0.7−	1999 07 22	704	0.1+	0.1+	1999 09 14	704	0.6−	0.5−
1996 11 14	675	0.4+	0.8+	1999 07 22	704	0.1+	0.0	1999 10 08	704	0.7−	0.0
1999 05 20	704	1.4−	0.3−	1999 09 08	704	0.1+	0.4+	1999 10 08	704	0.6−	0.1+
1999 05 20	704	0.6+	1.6+	1999 09 08	704	0.1+	0.4−	1999 10 08	704	0.8−	0.1+
1999 05 20	704	(2.0−	1.3−)	1999 09 08	704	0.1−	0.3−	1999 10 08	704	0.7−	0.2+
1999 05 20	704	0.0	0.3+	1999 09 08	704	0.2+	0.4−	1999 10 08	704	0.1−	0.2+
1999 05 20	704	(2.9−	2.2−)	1999 09 09	704	0.0	0.5+	1999 10 11	699	0.5+	0.5+
1999 07 12	704	0.2+	0.2+	1999 09 09	704	0.3−	0.3−	1999 10 11	699	0.2+	1.2+

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1999 07 12	704	0.0	0.3−	1999 09 09	704	0.1−	0.6−	1999 10 11	699	0.1−	0.2+
1999 07 12	704	0.3+	0.5−	1999 09 09	704	0.0	0.7−	1999 11 07	704	0.5+	0.5+
1999 07 12	704	1.9+	0.2+	1999 09 09	704	0.2−	0.6−	1999 11 07	704	0.3+	0.9+
1999 07 12	704	0.0	0.5−	1999 09 14	704	0.1−	0.3+	1999 11 07	704	1.0+	0.2+
1999 07 22	704	0.0	0.2−	1999 09 14	704	0.1−	1.1−	1999 11 07	704	0.6+	0.8+
1999 07 22	704	0.1+	0.2−	1999 09 14	704	0.5−	0.1+	1999 11 07	704	0.2−	1.5+

1999 NV₅₄ = 1997 EV₆

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	31.83461		(2000.0)	P	Q
<i>n</i>	0.18448625	<i>ω</i>	129.82464	+0.83891611	+0.54145933
<i>a</i>	3.0560471	<i>Ω</i>	197.61327	−0.53823185	+0.81031244
<i>e</i>	0.1220418	<i>i</i>	10.50145	−0.08078509	+0.22408825
<i>P</i>	5.34	<i>H</i>	14.4	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1997 03 03	691	0.1+	0.1+	1998 04 21	704	1.6−	0.3−	1999 07 22	704	1.9−	0.3+
1997 03 03	691	0.1+	0.1+	1999 07 12	704	1.1+	0.3+	1999 09 06	699	0.3+	0.3−
1997 03 03	691	0.3+	0.1+	1999 07 12	704	0.2−	0.9+	1999 09 06	699	0.2−	0.4+
1997 03 08	691	0.2−	0.1+	1999 07 12	704	0.0	0.1+	1999 09 06	699	0.7+	0.5−
1997 03 08	691	0.0	0.0	1999 07 12	704	0.5−	1.3+	1999 09 09	704	0.3+	0.3−
1997 03 08	691	0.2−	0.2+	1999 07 12	704	0.6−	0.1+	1999 09 09	704	0.4+	0.9−
1998 04 21	704	0.9+	1.5+	1999 07 22	704	0.1−	0.6−	1999 09 09	704	0.7+	0.0
1998 04 21	704	1.5+	0.2−	1999 07 22	704	0.4−	0.8−	1999 09 09	704	0.0	0.1−
1998 04 21	704	0.7−	1.8−	1999 07 22	704	0.3+	1.0+	1999 09 09	704	0.1−	0.6−

1999 NX₅₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	18.69548		(2000.0)	P	Q
<i>n</i>	0.22023261	<i>ω</i>	187.53637	+0.96809305	+0.19916709
<i>a</i>	2.7156990	<i>Ω</i>	159.00451	−0.20202352	+0.97937474
<i>e</i>	0.0268011	<i>i</i>	25.11619	−0.14826442	−0.03402335
<i>P</i>	4.48	<i>H</i>	12.9	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1977 11 04	413	0.7−	0.9−	1999 09 04	703	0.5−	0.0	1999 09 29	704	0.2+	0.1−
1977 11 04	413	0.1−	0.0	1999 09 04	703	0.2−	0.3+	1999 09 30	704	0.3+	0.6−
1982 09 19	413	1.5+	2.0−	1999 09 07	704	0.4−	0.8−	1999 09 30	704	0.1+	0.0
1982 09 19	413	0.8−	1.9+	1999 09 07	704	0.4−	0.1−	1999 09 30	704	0.7+	0.1+
1982 10 13	413	0.4+	1.7−	1999 09 07	704	0.5−	0.7−	1999 09 30	704	0.5+	0.1+
1982 10 13	413	0.4+	0.6−	1999 09 07	704	0.0	0.3−	1999 09 30	704	0.2−	0.3−
1993 03 23	675	1.3−	1.2+	1999 09 07	704	0.8−	0.9−	1999 10 15	704	0.8+	0.2+
1993 03 23	675	1.4+	1.9−	1999 09 08	703	0.1−	0.2−	1999 10 15	704	0.9+	0.3+
1997 02 10	675	0.7−	1.1+	1999 09 08	703	0.1−	0.6+	1999 10 15	704	0.9+	0.3+
1999 05 20	704	0.8−	1.3−	1999 09 08	703	0.3+	0.2+	1999 10 15	704	0.9+	0.5+
1999 05 20	704	0.2−	0.1+	1999 09 08	703	0.9−	0.2+	1999 10 15	704	0.9+	0.8+
1999 05 20	704	(2.2+	1.9−)	1999 09 09	704	0.7−	0.9−	1999 10 16	704	0.5+	0.4+
1999 05 20	704	0.3+	0.3−	1999 09 09	704	0.5−	0.4−	1999 10 16	704	0.8+	0.1+
1999 07 12	704	0.8−	0.1−	1999 09 09	704	0.1+	0.0	1999 10 16	704	1.0+	0.7+
1999 07 12	704	0.4+	0.5−	1999 09 09	704	0.0	1.6−	1999 10 16	704	0.5+	0.6+
1999 07 12	704	0.5+	0.0	1999 09 09	704	0.4−	0.2+	1999 10 16	704	0.9+	0.3+
1999 07 12	704	0.2+	0.1+	1999 09 13	704	0.3−	0.0	1999 11 05	703	0.3−	0.5+
1999 07 12	704	0.5−	0.6−	1999 09 13	704	0.5−	0.6+	1999 11 05	703	0.6+	0.4−
1999 07 22	704	0.1+	0.3−	1999 09 13	704	0.6−	0.4+	1999 11 05	703	0.1+	0.7+
1999 07 22	704	0.2−	0.0	1999 09 13	704	0.1−	0.3+	1999 11 05	703	0.2+	0.1−
1999 07 22	704	0.3−	0.0	1999 09 13	704	0.4−	0.0	1999 11 10	704	0.4−	0.1−
1999 07 22	704	0.2−	0.1+	1999 09 29	704	0.5+	0.1+	1999 11 10	704	1.1−	1.1+
1999 07 22	704	0.3−	0.0	1999 09 29	704	1.2+	0.0	1999 11 10	704	0.6−	1.7+
1999 09 04	703	0.5−	0.1−	1999 09 29	704	0.6+	0.4+	1999 11 10	704	0.3−	0.3−
1999 09 04	703	0.4−	0.2+	1999 09 29	704	1.4+	0.8+				

1999 NR₆₀ = 1991 PM₁₇

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	325.08936		(2000.0)	P	Q
<i>n</i>	0.23746280	<i>ω</i>	237.61286	+0.83345259	−0.54255298
<i>a</i>	2.5826903	<i>Ω</i>	154.76760	+0.55243484	+0.81357144
<i>e</i>	0.1037063	<i>i</i>	14.23819	+0.01313490	+0.20913576
<i>P</i>	4.15	<i>H</i>	13.1	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1991 08 06	033	0.7+	0.7−	1998 04 24	704	0.2+	0.2+	1999 07 13	704	0.1+	0.1+
1991 08 07	033	0.2+	0.1−	1998 04 24	704	0.2−	0.1−	1999 07 13	704	0.2+	0.3+
1991 08 07	033	0.4−	0.4−	1998 04 24	704	0.2−	0.7−	1999 07 22	704	0.0	0.1+
1991 08 12	033	0.2−	0.4−	1998 05 16	704	0.1−	0.8−	1999 07 22	704	0.5−	0.6+
1998 03 24	704	0.4+	0.0	1998 05 16	704	0.2+	0.3−	1999 07 22	704	0.0	0.1+
1998 03 24	704	0.8+	0.0	1998 05 16	704	(1.6+	2.2−)	1999 07 22	704	0.3+	0.0
1998 03 24	704	0.2−	0.5−	1998 05 16	704	1.2−	1.6+	1999 07 22	704	0.2−	0.4+
1998 03 24	704	0.2+	0.3+	1998 05 16	704	(0.4−	2.9−)	1999 09 30	704	0.4+	0.0
1998 03 24	704	0.7−	0.3−	1999 07 13	704	0.1+	0.1−	1999 09 30	704	0.8−	0.5+
1998 04 24	704	0.3+	0.3−	1999 07 13	704	0.1−	0.3−	1999 09 30	704	0.3+	0.4+
1998 04 24	704	0.2+	0.0	1999 07 13	704	0.4+	0.1−	1999 09 30	704	0.2−	0.6−

1999 OS₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	74.79485		(2000.0)	P	Q
<i>n</i>	0.28518361	<i>ω</i>	282.09216	+0.31448275	+0.94920338
<i>a</i>	2.2858778	<i>Ω</i>	6.26820	−0.82855845	+0.27995511
<i>e</i>	0.1915018	<i>i</i>	5.60090	−0.46324022	+0.14365963
<i>P</i>	3.46	<i>H</i>	15.0	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1989 11 04	675	2.3−	1.5+	1999 07 30	322	0.2−	0.7+	1999 09 11	704	0.6−	1.4−
1989 11 04	675	1.0+	1.0+	1999 07 30	322	1.4−	1.2+	1999 09 11	704	0.6+	1.2−
1992 07 27	413	0.3−	0.8−	1999 07 31	322	0.1+	0.3+	1999 09 11	704	0.9−	0.8−
1992 07 27	413	0.5+	1.2−	1999 07 31	322	0.2−	0.4+	1999 09 17	322	0.1−	0.5−
1993 10 19	675	0.7+	0.3+	1999 07 31	322	0.2−	0.3+	1999 09 17	322	0.2−	0.6−
1993 10 19	675	0.9−	1.6−	1999 08 01	322	0.1+	0.2+	1999 09 17	322	0.2−	0.5−
1999 05 22	699	1.1−	1.1+	1999 08 01	322	0.1+	0.2+	1999 09 29	704	0.7−	0.6+
1999 05 22	699	1.0−	0.2+	1999 08 01	322	0.3+	0.7+	1999 09 29	704	0.1+	0.4+
1999 05 22	699	0.8−	0.2+	1999 08 12	322	0.2−	0.1−	1999 09 29	704	0.5−	0.1+
1999 07 14	704	1.3+	0.0	1999 08 12	322	0.0	0.1+	1999 09 29	704	(0.6−	2.1−)
1999 07 14	704	0.9+	0.1+	1999 08 12	322	0.0	0.5−	1999 10 05	699	0.2−	0.2−
1999 07 14	704	1.0+	0.3+	1999 08 19	322	1.8−	0.4−	1999 10 05	699	0.2+	0.2−
1999 07 14	704	0.7+	0.1+	1999 08 19	322	(7.7−	0.8+)	1999 10 05	699	0.6−	1.1−
1999 07 14	704	0.6+	0.0	1999 08 19	322	(3.8−	0.5+)	1999 10 15	704	0.7+	0.6+
1999 07 24	322	0.9+	0.3−	1999 08 31	322	0.1−	0.7−	1999 10 15	704	0.7+	0.4+
1999 07 24	322	0.5+	0.4+	1999 08 31	322	0.1−	0.4−	1999 10 15	704	1.0+	0.2+
1999 07 24	322	0.7+	0.0	1999 08 31	322	0.1−	0.4−	1999 10 15	704	0.6+	0.3+
1999 07 30	322	0.1+	0.6+	1999 09 11	699	0.9−	0.3+	1999 10 15	704	1.2+	0.6+
1999 07 30	322	0.2−	0.7+	1999 09 11	699	0.3−	0.1−	1999 11 10	704	0.0	0.2−
1999 07 30	322	0.4−	0.2+	1999 09 11	704	0.1−	1.1−	1999 11 10	704	0.1−	0.5−
1999 07 30	322	0.2−	0.8+	1999 09 11	704	1.2+	0.9−	1999 11 10	704	0.2−	0.6+
1999 07 30	322	0.2−	0.4+	1999 09 11	699	0.6−	0.3−	1999 11 10	704	0.8−	0.1+

1999 PZ

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	44.38386		(2000.0)	P	Q
<i>n</i>	0.28104880	<i>ω</i>	176.38822	+0.89640945	+0.44054775
<i>a</i>	2.3082432	<i>Ω</i>	157.27677	−0.40974416	+0.86554240
<i>e</i>	0.2383850	<i>i</i>	7.23680	−0.16899652	+0.23823105
<i>P</i>	3.51	<i>H</i>	14.4	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1990 01 26	675	0.6−	0.5+	1999 08 11	620	0.1+	0.3−	1999 09 30	704	0.4−	0.5+
1990 01 26	675	0.6+	0.6−	1999 08 11	620	0.1−	0.3−	1999 09 30	704	0.3−	0.3+
1991 01 23	675	0.1−	0.3+	1999 08 20	620	0.1+	0.3−	1999 09 30	704	0.2−	0.0
1991 01 23	675	0.2+	0.5−	1999 08 20	620	0.5+	0.2−	1999 09 30	704	0.4+	0.6+

1999 05 21	704	0.7−	1.4+	1999 08 20	620	0.4+	0.4−	1999 10 05	704	0.3−	0.4+
1999 05 21	704	1.1−	0.1+	1999 08 20	620	0.3+	0.3−	1999 10 05	704	0.3−	0.2+
1999 05 21	704	(2.6+	1.4−)	1999 09 01	620	0.0	0.2−	1999 10 05	704	0.3−	0.7+
1999 05 21	704	1.8+	0.7−	1999 09 01	620	0.2+	0.5−	1999 10 05	704	0.6−	0.2+
1999 05 21	704	(2.7−	0.4+)	1999 09 01	620	0.1−	0.2−	1999 10 05	704	0.3−	1.2+
1999 06 09	699	0.2+	0.9+	1999 09 04	699	0.6−	0.7+	1999 10 15	704	0.5+	0.0
1999 06 09	699	0.0	0.9+	1999 09 04	699	0.5−	0.5+	1999 10 15	704	0.6+	0.3−
1999 06 09	699	1.0−	0.5−	1999 09 04	699	0.5−	0.4+	1999 10 15	704	0.4+	0.1−
1999 07 23	704	0.5−	0.0	1999 09 07	704	0.6+	1.2+	1999 10 15	704	0.5+	0.5−
1999 07 23	704	0.7−	0.0	1999 09 07	704	0.3+	0.7−	1999 10 15	704	0.0	1.0−
1999 07 23	704	0.5−	0.5−	1999 09 07	704	0.1−	0.9+	1999 11 06	703	0.2−	0.9+
1999 08 05	620	0.2+	0.3−	1999 09 07	704	0.3−	1.7−	1999 11 06	703	0.7+	0.8+
1999 08 05	620	0.2+	0.3−	1999 09 13	704	0.0	0.8+	1999 11 06	703	0.2+	0.4+
1999 08 06	620	0.0	0.2−	1999 09 13	704	0.1+	0.5+	1999 11 06	703	(4.5+	2.3+)
1999 08 06	620	0.0	0.2−	1999 09 13	704	0.4+	0.2+	1999 11 10	704	0.1−	0.7−
1999 08 06	620	0.4+	0.0	1999 09 13	704	0.5+	0.8+	1999 11 10	704	0.6−	0.8−
1999 08 06	620	0.2+	0.1−	1999 09 13	704	0.7+	0.1−	1999 11 10	704	0.4+	0.4−
1999 08 07	620	0.2−	0.4−	1999 09 30	699	0.6−	0.4−	1999 11 10	704	0.2+	0.8−
1999 08 07	620	0.8+	0.1−	1999 09 30	699	0.8−	0.0	1999 11 10	704	(0.0	2.2−)
1999 08 11	620	0.1−	0.4−	1999 09 30	699	0.4+	0.5−				
1999 08 11	620	0.1+	0.5−	1999 09 30	704	0.4−	0.1+				

1999 QP₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	254.57298		(2000.0)	$\mathbf{P}$		$\mathbf{Q}$	
n	0.27104378	ω	195.45610	−0.79902973		−0.58911337	
a	2.3647020	Ω	307.81646	+0.56657101		−0.67058364	
e	0.1298786	i	8.76680	+0.20136730		−0.45084700	
P	3.64	H	13.8	G	0.15	U	4

Residuals in seconds of arc

1988 08 10	413	0.6−	0.7+	1999 09 07	327	0.6−	0.3−	1999 09 09	704	0.2−	0.4−
1988 08 10	413	0.1−	0.5+	1999 09 07	327	0.8−	0.5−	1999 09 09	704	0.7+	0.1+
1999 08 22	699	0.1−	0.4−	1999 09 08	699	0.6−	0.7+	1999 09 09	704	0.5−	1.0+
1999 08 22	699	0.3−	0.9+	1999 09 08	699	0.4+	0.5+	1999 09 09	704	0.3+	0.9−
1999 08 22	699	0.2+	0.4+	1999 09 08	704	0.4−	0.6+	1999 09 09	704	0.0	1.3−
1999 08 31	327	0.1−	0.0	1999 09 08	704	0.3+	0.1−	1999 09 09	704	0.2+	0.6−
1999 08 31	327	0.8−	0.4+	1999 09 08	699	0.3+	1.1+	1999 09 09	704	0.0	0.9−
1999 08 31	327	0.5−	0.4+	1999 09 08	704	0.3+	0.1+	1999 10 02	704	0.4−	0.0
1999 09 01	327	0.2−	0.1−	1999 09 08	704	0.6+	1.4−	1999 10 02	704	0.0	0.4−
1999 09 01	327	0.3−	0.4−	1999 09 08	704	0.9+	0.2−	1999 10 02	704	0.7+	0.0
1999 09 01	327	0.7−	0.6−	1999 09 09	704	0.1+	0.3−	1999 10 02	704	0.3−	0.1+
1999 09 05	703	0.3+	0.3+	1999 09 09	704	0.1+	0.3−	1999 12 03	704	0.2−	0.1+
1999 09 05	703	0.5+	0.6+	1999 09 09	704	0.1+	0.4−	1999 12 03	704	0.4+	0.6+
1999 09 05	703	0.8+	0.5+	1999 09 09	704	0.3+	0.7−	1999 12 03	704	0.1−	1.4+
1999 09 05	703	0.1−	1.2+	1999 09 09	704	0.2+	0.4−	1999 12 03	704	0.2−	0.9−
1999 09 07	327	0.2−	0.5−	1999 09 09	704	0.7+	0.3−	1999 12 03	704	0.5−	1.0+

1999 RA

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	42.54637		(2000.0)	P	Q
n	0.27168573	ω	166.50943	+0.88936130	+0.45661335
a	2.3609756	Ω	166.25035	−0.42803322	+0.84941470
e	0.2496056	i	5.61458	−0.16069861	+0.26457309
P	3.63	H	15.0	G 0.15	U 2

Residuals in seconds of arc

1984 05 30	413	0.7−	0.1+	1999 09 03	470	0.2−	0.4−	1999 09 13	704	0.9+	0.0
1984 05 30	413	0.2+	0.1−	1999 09 04	859	0.2−	0.4−	1999 09 13	704	0.2−	0.5−
1992 10 05	675	0.4+	0.1−	1999 09 04	739	0.3+	0.1+	1999 09 13	704	0.5+	0.1−
1994 02 10	675	0.3−	0.2+	1999 09 04	859	0.2−	0.5−	1999 09 16	739	0.9+	0.1−
1994 02 10	675	0.7+	0.5+	1999 09 04	859	0.0	0.7−	1999 09 16	739	0.2+	0.5−
1999 05 21	704	0.0	1.5+	1999 09 04	859	0.0	0.7−	1999 09 30	699	(0.1+	2.1+)
1999 05 21	704	0.1+	0.0	1999 09 04	739	0.1−	0.1+	1999 09 30	699	0.3−	1.8+
1999 05 21	704	0.1+	0.7+	1999 09 04	739	0.2+	0.0	1999 09 30	699	0.9−	1.6+
1999 05 21	704	0.2−	0.9−	1999 09 05	859	0.2+	0.7−	1999 09 30	704	0.5−	0.3−

1999 05 21	704	(0.2+	4.5+)	1999 09 05	859	0.1−	0.5−	1999 09 30	704	0.3−	0.4+
1999 07 13	704	0.7+	0.1−	1999 09 05	859	0.3−	0.4−	1999 09 30	704	0.2+	0.3+
1999 07 13	704	(0.5−	2.2+)	1999 09 05	470	0.1+	0.3+	1999 09 30	704	0.6+	0.8+
1999 07 13	704	0.3+	0.1−	1999 09 05	470	0.0	0.3+	1999 09 30	704	0.2+	0.5+
1999 07 13	704	0.1+	0.3−	1999 09 06	739	0.5−	0.0	1999 09 30	470	0.9+	0.3+
1999 07 13	704	0.2−	0.6−	1999 09 06	739	0.3+	0.4−	1999 09 30	470	0.3+	0.1+
1999 07 23	704	0.0	0.3−	1999 09 06	739	0.0	0.3−	1999 09 30	470	0.5−	0.8+
1999 07 23	704	0.3−	0.4+	1999 09 06	739	0.1−	0.1−	1999 10 05	699	0.0	0.8+
1999 07 23	704	0.5−	0.4+	1999 09 06	470	0.3−	0.1−	1999 10 05	699	1.4−	0.9+
1999 08 08	699	0.6−	0.3−	1999 09 06	470	0.0	0.1+	1999 10 05	704	0.3−	0.3+
1999 08 08	699	0.3−	0.4−	1999 09 06	470	0.1+	0.4+	1999 10 05	704	0.1+	0.4+
1999 08 08	699	0.4−	0.1+	1999 09 07	704	0.1+	0.4+	1999 10 05	699	0.8−	0.2+
1999 08 30	699	0.9−	0.2+	1999 09 07	704	0.6+	0.8−	1999 10 05	704	0.6−	0.1−
1999 08 30	699	0.5−	1.5+	1999 09 07	704	0.7+	0.3−	1999 10 05	704	0.2−	0.7+
1999 08 30	699	(0.2+	2.2+)	1999 09 07	704	0.6+	0.4−	1999 10 15	704	0.5+	0.2+
1999 09 01	470	0.1−	0.3−	1999 09 07	704	(2.0+	0.7+)	1999 10 15	704	0.5+	0.2+
1999 09 01	470	0.2−	0.2+	1999 09 09	704	0.3−	0.8−	1999 10 15	704	0.2+	0.3+
1999 09 01	470	0.4+	0.5−	1999 09 09	704	0.3+	0.1−	1999 10 15	704	0.9+	0.2+
1999 09 01	470	0.1−	0.0	1999 09 09	704	0.4+	0.2+	1999 10 15	704	0.6+	1.3+
1999 09 02	470	0.2−	0.2+	1999 09 09	704	0.3+	0.1−	1999 11 04	699	1.8−	0.8−
1999 09 02	470	0.3+	0.5−	1999 09 09	704	0.5+	0.3−	1999 11 04	699	0.8−	1.1+
1999 09 02	470	0.7+	0.4−	1999 09 11	470	0.1+	0.4+	1999 11 04	699	1.2−	0.7−
1999 09 02	470	1.0+	0.5+	1999 09 11	470	1.0+	0.5+	1999 11 10	704	0.0	0.7−
1999 09 03	470	0.0	0.3+	1999 09 13	739	0.4−	0.3−	1999 11 10	704	0.3−	0.5−
1999 09 03	470	0.3−	0.5+	1999 09 13	739	0.6−	0.3−	1999 11 10	704	0.3−	1.7−
1999 09 03	470	0.3−	0.1+	1999 09 13	704	0.3−	0.2+	1999 11 10	704	0.1+	1.3−
1999 09 03	470	0.3+	0.1−	1999 09 13	704	0.1−	0.4−	1999 11 10	704	1.1+	1.3−

1999 RY₃ = 1997 CA₈

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	24.74088		(2000.0)	P	Q		
n	0.21810643	ω	48.97425	+0.97102951	+0.22096592		
a	2.7333195	Ω	298.07858	−0.23824167	+0.86572509		
e	0.1583777	i	5.91809	−0.01850939	+0.44910371		
P	4.52	H	15.4	G	0.15	U	5

Residuals in seconds of arc

1997 02 01	691	0.1−	0.2−	1999 09 04	703	0.2−	0.9+	1999 09 08	703	0.1−	0.2+
1997 02 01	691	0.0	0.2−	1999 09 06	699	0.7−	0.1−	1999 09 09	704	1.0−	0.3+
1997 02 01	691	0.2−	0.2−	1999 09 06	699	1.5+	0.5−	1999 09 09	704	0.4−	0.6−
1997 02 07	691	0.2+	0.2+	1999 09 06	699	0.9+	0.7+	1999 09 09	704	0.3+	0.4+
1997 02 07	691	0.0	0.2−	1999 09 07	704	0.1−	1.1−	1999 09 09	704	0.5−	0.5−
1997 02 07	691	0.2−	0.1−	1999 09 07	704	0.0	1.0−	1999 09 13	704	0.2+	0.8−
1999 07 16	704	0.1+	0.5−	1999 09 07	704	0.3+	0.0	1999 09 13	704	0.3−	0.7+
1999 07 16	704	0.8+	0.4+	1999 09 07	704	0.6−	0.3−	1999 09 13	704	0.2+	0.4+
1999 07 16	704	0.7−	0.5−	1999 09 07	704	0.4+	0.0	1999 09 13	704	0.7+	0.1−
1999 09 04	703	0.7−	0.1+	1999 09 08	703	0.2+	0.0	1999 09 13	704	0.0	0.4−
1999 09 04	703	0.1−	0.1+	1999 09 08	703	0.1−	0.4+				
1999 09 04	703	0.2−	0.3+	1999 09 08	703	0.2+	0.6+				

2000 FEB. 22

M.P.C. 38557

1991 02 20	511 (33.1+ 19.1-)	1999 09 13	704 0.0 0.2-	1999 09 30	699 0.1+ 0.9+
1993 09 07	413 (4.6- 1.7-)	1999 09 13	704 0.2+ 0.0	1999 09 30	699 0.0 0.6+
1993 09 07	413 (4.8- 1.5-)	1999 09 13	704 0.1- 0.0	1999 09 30	699 0.6+ 0.7+
1995 12 26	327 (11.9+ 3.2-)	1999 09 13	704 0.2- 0.1-	1999 10 02	704 (2.5- 0.6+)
1995 12 26	327 (12.8+ 2.7-)	1999 09 13	704 0.2+ 0.3-	1999 10 02	704 0.7- 1.6+
1995 12 26	327 (12.5+ 3.2-)	1999 09 13	704 0.3- 0.0	1999 10 02	704 0.4- 0.9+
1999 09 07	704 0.3+ 0.1-	1999 09 13	704 0.1- 0.0	1999 10 02	704 0.5- 0.7+
1999 09 07	704 0.2+ 0.1-	1999 09 13	704 0.2- 0.5-	1999 10 05	739 0.4- 0.1+
1999 09 07	704 0.1- 0.5-	1999 09 13	704 0.0 0.0	1999 10 05	739 1.0- 0.2+
1999 09 07	704 0.1- 0.3-	1999 09 13	704 0.3- 0.0	1999 10 05	739 1.6- 0.8-
1999 09 08	704 0.2+ 0.3-	1999 09 13	704 0.3- 0.0	1999 10 06	704 0.6+ 0.6+
1999 09 08	704 0.7+ 0.1-	1999 09 13	704 0.2+ 0.1-	1999 10 06	704 0.2+ 0.2+
1999 09 08	704 0.3+ 0.1+	1999 09 13	704 0.1- 0.2+	1999 10 06	704 0.1- 0.9+
1999 09 08	704 0.6+ 0.2-	1999 09 14	704 0.0 0.3-	1999 10 06	704 0.2+ 0.4+
1999 09 08	704 0.4+ 0.4-	1999 09 14	704 0.4- 0.3-	1999 10 07	704 0.1+ 0.1+
1999 09 09	704 0.4+ 0.3-	1999 09 14	704 0.3- 0.2-	1999 10 07	704 0.3- 0.7+
1999 09 09	704 0.5- 0.2+	1999 09 14	704 0.1- 0.3-	1999 10 07	704 0.3- 0.6+
1999 09 09	704 0.4+ 0.4-	1999 09 14	704 0.0 0.2-	1999 10 07	704 0.1- 0.3+
1999 09 09	704 0.0 0.1+	1999 09 14	704 0.1+ 0.3-	1999 10 07	704 0.8- 1.0+
1999 09 09	704 0.0 0.4-	1999 09 14	704 0.1+ 0.1-	1999 11 14	704 1.0- 0.7-
1999 09 09	704 0.2+ 0.4-	1999 09 14	704 0.2+ 0.3-	1999 11 14	704 0.2+ 0.3-
1999 09 09	704 0.4+ 0.3+	1999 09 14	704 0.4+ 0.2+	1999 11 14	704 1.2- 0.6-
1999 09 09	704 0.2+ 0.2+	1999 09 14	704 0.0 0.2-	1999 11 14	704 0.4+ 0.0
1999 09 09	704 1.1+ 0.9+	1999 09 14	704 0.2+ 0.0	2000 01 07	699 0.2- 0.6-
1999 09 09	704 1.3+ 0.7+	1999 09 14	704 0.2+ 0.0	2000 01 07	699 0.8+ 0.2-
1999 09 10	704 0.0 0.4-	1999 09 14	704 0.1+ 0.1-	2000 01 07	699 0.2- 0.1-
1999 09 10	704 0.1+ 0.6-	1999 09 14	704 0.0 0.1-		
1999 09 10	704 0.4+ 0.1-	1999 09 14	704 0.2- 0.5-		

1999 RO₂₃ = 1989 EW₉

Id. A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Spahr			
<i>M</i>		(2000.0)		<i>P</i>	<i>Q</i>
<i>n</i>	0.24629401	ω	305.43936	+0.22770045	-0.97257552
<i>a</i>	2.5205780	Ω	131.32703	+0.91260046	+0.19616619
<i>e</i>	0.1398891	<i>i</i>	3.62100	+0.33957753	+0.12496272
<i>P</i>	4.00	<i>H</i>	14.6	<i>G</i>	0.15

Residuals in seconds of arc

1987 08 23	675 1.6- 0.8-	1999 09 07	704 0.6+ 1.7+	1999 09 14	704 0.4+ 0.8-
1987 08 23	675 0.8+ 1.0+	1999 09 07	704 0.2- 0.4+	1999 09 14	703 0.5- 0.4-
1989 03 05	033 1.3+ 0.3+	1999 09 07	704 0.3- 1.1+	1999 09 14	703 0.2- 0.4-
1989 03 05	033 0.6+ 0.3-	1999 09 08	704 0.5+ 0.2-	1999 09 14	703 0.2+ 0.4-
1993 03 22	675 1.5- 0.1+	1999 09 08	704 1.4+ 0.9+	1999 09 14	703 1.0+ 0.8+
1993 03 22	675 0.1+ 0.4+	1999 09 08	704 0.2- 0.2-	1999 10 07	704 0.4+ 0.4+
1993 03 23	675 1.8- 0.0	1999 09 08	704 0.2- 0.6-	1999 10 07	704 0.2- 0.5+
1993 03 23	675 1.2+ 0.4-	1999 09 08	704 0.7+ 0.8-	1999 10 07	704 1.0- 0.5-
1993 04 15	675 0.1- 0.3-	1999 09 08	704 0.7- 0.9-	1999 10 07	704 0.1- 0.1+
1999 09 05	699 0.3+ 0.1+	1999 09 08	704 0.2+ 0.7+	1999 10 07	704 0.7- 0.0
1999 09 05	699 0.2+ 0.6+	1999 09 14	704 0.3+ 0.5-	1999 12 02	704 (2.7+ 1.0+)
1999 09 05	699 0.1+ 0.2+	1999 09 14	704 0.1+ 0.6-	1999 12 02	704 (2.5+ 1.3+)
1999 09 07	704 0.8- 0.2+	1999 09 14	704 0.1- 0.8-	1999 12 02	704 (1.9+ 3.1+)
1999 09 07	704 0.4- 0.2+	1999 09 14	704 0.0 0.9-		

1999 RP₂₉ = 1982 BO₃

Id. A. Gnädig, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Spahr			
<i>M</i>		(2000.0)		<i>P</i>	<i>Q</i>
<i>n</i>	0.36621269	ω	221.52235	-0.97819792	+0.02368109
<i>a</i>	1.9348492	Ω	318.42369	+0.10539468	-0.79942415
<i>e</i>	0.0527858	<i>i</i>	18.11363	-0.17894357	-0.60030012
<i>P</i>	2.69	<i>H</i>	15.2	<i>G</i>	0.15

Residuals in seconds of arc

1982 01 20	033 0.2+ 0.1+	1999 09 09	704 0.5- 0.8-	1999 09 14	703 0.4- 0.7+
1982 01 20	033 0.2+ 0.5+	1999 09 09	704 0.6- 0.4-	1999 09 14	704 0.6+ 0.1+

1985 05 11	413 0.0 0.7+	1999 09 09	704 0.8- 0.9-	1999 09 14	703 0.5- 0.2+
1985 05 11	413 0.2+ 0.6-	1999 09 09	704 0.4- 0.2+	1999 09 14	704 0.5+ 0.2+
1999 09 07	703 0.8+ 1.1+	1999 09 09	704 0.3- 0.0	1999 09 14	703 0.6- 0.7+
1999 09 07	703 0.0 0.6+	1999 09 09	704 0.7- 0.7-	1999 09 14	703 0.2- 0.5+
1999 09 07	703 1.5- 1.1+	1999 09 10	704 0.3+ 0.2-	1999 09 14	704 0.2+ 0.3+
1999 09 07	703 0.9+ 0.7+	1999 09 10	704 0.2- 0.0	1999 10 01	703 0.2+ 0.1-
1999 09 08	704 0.1- 1.6-	1999 09 10	704 0.0 0.1-	1999 10 01	703 0.9+ 0.8+
1999 09 08	704 0.0 0.4-	1999 09 11	704 0.7+ 0.2-	1999 10 01	703 0.1+ 0.8+
1999 09 08	704 0.2+ 0.3-	1999 09 11	704 0.7+ 0.8+	1999 10 01	703 0.2- 0.4+
1999 09 08	704 0.4+ 0.6-	1999 09 11	704 0.1+ 0.5+	1999 10 02	704 0.9+ 0.7-
1999 09 09	704 0.4- 0.3-	1999 09 11	704 0.4- 0.2-	1999 10 02	704 0.3+ 0.2-
1999 09 09	704 0.0 0.3-	1999 09 11	704 0.3- 0.2-	1999 10 02	704 0.4+ 0.1+
1999 09 09	704 0.3- 0.1-	1999 09 14	704 0.2- 0.3+	1999 10 02	704 0.4- 1.0-
1999 09 09	704 0.3- 0.3-	1999 09 14	704 0.6+ 0.1+	1999 10 02	704 0.4+ 0.0

1999 RG₄₉ = 1998 GY₁₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Marsden			
<i>M</i>		(2000.0)		<i>P</i>	<i>Q</i>
<i>n</i>	0.25842118	ω	213.03168	+0.82566105	+0.56161768
<i>a</i>	2.4410910	Ω	112.71015	-0.50420621	+0.77717168
<i>e</i>	0.2164534	<i>i</i>	3.32898	-0.25310063	+0.28388334
<i>P</i>	3.81	<i>H</i>	14.9	<i>G</i>	0.15

Residuals in seconds of arc

1998 04 02	809 1.0+ 1.4-	1999 09 03	699 0.4- 0.5-	1999 09 09	704 0.6- 0.1-
1998 04 02	809 0.3- 1.6+	1999 09 03	699 0.4- 0.6-	1999 09 09	704 2.0- 0.4+
1998 04 02	809 1.4+ 1.3+	1999 09 03	699 0.6- 0.6-	1999 09 29	704 0.1+ 1.5+
1998 04 03	809 0.7+ 0.0	1999 09 07	704 0.7+ 1.1+	1999 09 29	704 0.2- 0.4+
1998 04 03	809 0.8- 1.8+	1999 09 07	704 0.5+ 0.3+	1999 09 29	704 1.1+ 0.4+
1998 04 03	809 0.1- 1.2+	1999 09 07	704 0.0 0.1+	1999 09 29	704 1.1- 0.2-
1999 07 13	704 0.8+ 0.3-	1999 09 07	704 0.2+ 0.1-	1999 11 10	704 0.5+ 0.5+
1999 07 13	704 1.0- 1.6+	1999 09 07	704 0.6+ 0.0	1999 11 10	704 0.4+ 0.1-
1999 07 13	704 0.7+ 1.0-	1999 09 09	704 0.7+ 0.8+	1999 11 10	704 0.4- 0.6+
1999 07 13	704 0.7+ 0.8-	1999 09 09	704 0.1- 0.2-	1999 11 10	704 0.0 1.3+
1999 07 13	704 0.1- 1.4-	1999 09 09	704 0.7- 1.2+		

1999 RS₄₉ = 1997 ER₄₅

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Spahr			
<i>M</i>		(2000.0)		<i>P</i>	<i>Q</i>
<i>n</i>	0.25857322	ω	68.26921	+0.72332810	-0.68380979
<i>a</i>	2.4401340	Ω	334.55836	+0.52176450	+0.63225579
<i>e</i>	0.3034467	<i>i</i>	12.90185	+0.45228119	+0.36422079
<i>P</i>	3.81	<i>H</i>	15.5	<i>G</i>	0.15

Residuals in seconds of arc

1997 03 11	704 0.0 0.6-	1999 09 07	704 0.3+ 0.1+	1999 09 30	699 1.3- 0.9-
1997 03 11	704 0.7- 0.2-	1999 09 07	704 0.3+ 0.1+	1999 09 30	699 1.4- 0.2+
1997 03 12	704 0.4+ 1.0+	1999 09 07	704 0.8+ 1.1+	1999 09 30	699 0.2+ 0.2-
1997 03 12	704 0.7+ 0.4+	1999 09 07	704 0.8+ 1.0+	1999 09 30	704 0.6- 0.4-
1999 08 13	703 0.1+ 0.4-	1999 09 13	704 0.4- 0.3+	1999 09 30	704 0.2+ 0.1-
1999 08 13	703 0.7- 0.3-	1999 09 13	704 1.0+ 0.9-	1999 09 30	704 0.2+ 1.9+
1999 08 13	703 0.4- 0.5-	1999 09 13	704 0.0 0.8-	1999 09 30	704 0.5- 0.6+
1999 08 13	703 1.1- 0.7+	1999 09 13	704 1.1+ 0.6-		
1999 09 07	704 0.6+ 0.0	1999 09 13	704 0.1+ 0.5-		

1999 RL₅₀ = 1977 ET₈ = 1992 EH₁₆

Id. A. Doppler, G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Spahr			
<i>M</i>		(2000.0)		<i>P</i>	<i>Q</i>
<i>n</i>	0.19593174	ω	200.69156	+0.72818237	-0.68533742
<i>a</i>	2.9358432	Ω	202.57664	+0.63169860	+0.67559558
<i>e</i>	0.0884265	<i>i</i>	1.18529	+0.26590848	+0.27181471
<i>P</i>	5.03	<i>H</i>	13.8	<i>G</i>	0.15

Residuals in seconds of arc

1977 03 14	381	0.5−	1.2−	1999 07 13	704	0.9−	0.4−	1999 09 07	704	0.6+	0.6+
1992 03 01	809	0.1−	0.2+	1999 07 13	704	0.3−	0.1+	1999 09 07	704	0.9+	0.4−
1992 03 03	809	0.0	1.2−	1999 07 13	704	0.8−	0.3+	1999 09 07	704	0.6+	0.8−
1992 03 06	809	0.2−	0.1+	1999 08 07	699	0.6−	1.0−	1999 09 09	704	0.4+	0.8+
1998 05 24	704	1.7+	0.9−	1999 08 07	699	0.5−	0.5−	1999 09 09	704	0.1+	0.5−
1998 05 24	704	1.6−	0.3+	1999 08 07	699	0.9+	0.1−	1999 09 09	704	0.3+	0.1−
1998 05 24	704	0.4−	1.3+	1999 09 04	703	0.8+	0.8+	1999 09 09	704	0.3+	0.7−
1998 05 24	704	0.6+	0.4+	1999 09 04	703	0.7−	0.0	1999 09 09	704	0.3+	0.0
1999 07 13	704	0.0	0.4−	1999 09 04	703	1.9−	1.0+				
1999 07 13	704	0.5+	0.4−	1999 09 04	703	0.7+	0.2−				

1999 RG₅₄ = 1984 RL = 1993 BD₁₀

Id. A. Doppler, G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	21.57643		(2000.0)	P	Q
<i>n</i>	0.25837632	ω	280.02468	+0.94565466	−0.31864025
<i>a</i>	2.4413736	Ω	98.57843	+0.31808637	+0.86505468
<i>e</i>	0.3166499	<i>i</i>	3.76043	+0.06751531	+0.38749038
<i>P</i>	3.81	<i>H</i>	15.6	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1984 09 05	675	0.6−	0.1+	1999 08 07	699	0.0	0.3+	1999 09 11	704	0.4−	0.3+
1984 09 06	675	0.6+	0.2−	1999 08 07	699	0.4+	0.3−	1999 09 11	704	0.5−	0.5−
1993 01 22	691	0.0	0.0	1999 09 07	704	0.3+	0.4+	1999 09 11	704	0.5−	0.4−
1993 01 22	691	0.1+	0.2+	1999 09 07	704	0.5−	0.7+	1999 11 10	704	0.7+	0.6+
1993 01 22	691	0.2−	0.2−	1999 09 07	704	0.3−	0.1+	1999 11 10	704	0.9+	0.6+
1993 01 29	691	0.1+	0.0	1999 09 07	704	0.3+	0.6+	1999 11 10	704	1.4+	1.4−
1993 01 29	691	0.1−	0.1+	1999 09 07	704	0.2+	0.9−	1999 11 27	699	1.0−	0.6−
1993 01 29	691	0.0	0.0	1999 09 11	704	0.2−	0.0	1999 11 27	699	0.6−	0.5+
1999 08 07	699	0.3+	0.2+	1999 09 11	704	0.3+	0.3−	1999 11 27	699	0.7−	0.4+

1999 RM₅₄ = 1990 GX = 1992 SV₁₄

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	345.07407		(2000.0)	P	Q
<i>n</i>	0.26795248	ω	70.20546	+0.52073839	−0.85328005
<i>a</i>	2.3828545	Ω	348.29623	+0.72426225	+0.45847269
<i>e</i>	0.2238584	<i>i</i>	7.73127	+0.45196871	+0.24842697
<i>P</i>	3.68	<i>H</i>	14.8	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1990 04 15	809	1.3+	0.5+	1999 09 13	704	0.1−	0.4−	1999 09 30	704	0.6−	0.4+
1990 04 16	809	1.0−	0.5−	1999 09 13	704	0.2−	0.8−	1999 09 30	704	0.7−	0.3−
1990 04 16	809	(2.7−	0.3−)	1999 09 13	704	0.2+	0.3−	1999 09 30	704	0.2−	0.1+
1990 04 16	809	1.1+	0.2−	1999 09 13	704	0.8−	0.1−	1999 09 30	704	0.3−	0.2−
1990 04 17	809	1.2−	0.7−	1999 09 30	704	0.1−	0.0	1999 09 30	704	0.6−	0.6−
1990 04 17	809	1.3−	1.0−	1999 09 30	704	0.1−	0.4+	1999 09 30	704	1.0−	0.0
1992 09 30	675	0.0	0.5+	1999 09 30	704	0.1−	0.3+	1999 10 04	703	0.5−	0.6+
1992 09 30	675	1.5+	0.4−	1999 09 30	704	0.2+	0.7+	1999 10 04	703	0.1+	0.9+
1992 10 01	675	0.7+	0.2−	1999 09 30	704	0.2−	0.7−	1999 10 04	703	0.7+	0.2+
1992 10 01	675	1.8−	1.0−	1999 09 30	704	0.2−	0.1−	1999 10 04	703	0.6+	1.7+
1999 09 07	704	0.9+	0.3−	1999 09 30	704	0.3+	0.1+	1999 11 08	704	0.7+	0.5+
1999 09 07	704	0.4+	0.0	1999 09 30	704	0.6−	0.4−	1999 11 08	704	0.7−	0.3+
1999 09 07	704	0.6+	0.5−	1999 09 30	704	0.4+	0.5−	1999 11 08	704	0.4+	0.9−
1999 09 07	704	0.3+	0.2−	1999 09 30	704	0.3+	0.1+	1999 11 08	704	0.6+	0.9−
1999 09 07	704	0.4+	0.3−	1999 09 30	704	0.1−	0.1−				
1999 09 13	704	0.2+	0.4+	1999 09 30	704	0.1+	0.4+				

1999 RW₅₇ = 1996 WP₁

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	95.47869		(2000.0)	P	Q
<i>n</i>	0.26777562	ω	210.32137	−0.04242748	+0.99817018
<i>a</i>	2.3839036	Ω	57.27894	−0.90606509	−0.02026974
<i>e</i>	0.1872914	<i>i</i>	2.93540	−0.42100590	−0.05696865
<i>P</i>	3.68	<i>H</i>	14.5	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1996 11 28	817	0.1+	0.2−	1999 08 13	699	0.2−	0.0	1999 09 13	704	0.4+	0.2−
1996 11 28	817	0.1+	0.3−	1999 08 13	699	0.4−	0.2−	1999 09 30	704	0.8+	0.7−
1996 11 30	817	0.5−	0.4+	1999 09 07	699	0.2−	0.0	1999 09 30	704	0.1−	0.7−
1996 11 30	817	0.2+	0.2+	1999 09 07	699	0.2−	0.4−	1999 09 30	704	0.4+	0.6+
1998 01 26	566	0.6+	0.2−	1999 09 07	704	0.1+	0.0	1999 09 30	704	0.8+	0.7+
1998 01 26	566	0.0	0.4−	1999 09 07	699	0.0	0.2−	1999 09 30	704	0.4+	0.5+
1998 01 26	566	0.5+	0.4−	1999 09 07	704	0.0	0.1−	1999 11 10	704	0.1−	0.3−
1998 02 27	566	0.2−	0.2+	1999 09 07	704	0.1+	0.4−	1999 11 10	704	0.2−	0.5−
1998 02 27	566	0.5−	0.3+	1999 09 07	704	0.2−	0.5−	1999 11 10	704	0.6+	0.0
1998 02 27	566	0.3−	0.6+	1999 09 07	704	0.0	0.4−	1999 11 10	704	0.6−	0.5−
1999 07 21	699	0.4−	0.4+	1999 09 13	704	0.3+	0.4−	1999 11 10	704	1.0−	0.9+
1999 07 21	699	0.9−	0.8+	1999 09 13	704	0.1+	0.0	1999 11 27	699	0.3−	1.1+
1999 07 21	699	0.0	0.1+	1999 09 13	704	0.0	0.2+	1999 11 27	699	0.1−	0.3+
1999 08 13	699	0.2−	0.3+	1999 09 13	704	0.3+	0.0	1999 11 27	699	0.1−	0.5+

1999 RL₅₉ = 1996 TZ₃₁ = 1998 FP₁₃₁

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	86.92253		(2000.0)	P	Q
<i>n</i>	0.29937857	ω	146.72699	+0.46831300	+0.88201905
<i>a</i>	2.2130382	Ω	151.09730	−0.83239929	+0.46023805
<i>e</i>	0.0610240	<i>i</i>	6.20072	−0.29630111	+0.10111054
<i>P</i>	3.29	<i>H</i>	15.9	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1996 10 09	691	0.2−	0.3+	1998 03 20	704	0.3+	1.1+	1999 09 07	704	0.2+	0.4−
1996 10 09	691	0.3−	0.1+	1998 03 26	704	0.2+	1.2+	1999 09 07	704	1.3+	0.4+
1996 10 09	691	0.3−	0.1+	1998 03 26	704	0.6−	1.3−	1999 09 07	704	0.0	0.3−
1996 10 17	691	0.2+	0.1−	1998 03 26	704	0.5−	0.4−	1999 09 09	704	0.2+	0.7−
1996 10 17	691	0.0	0.7+	1999 08 07	699	0.0	1.0+	1999 09 09	704	0.6+	1.2−
1996 10 17	691	0.1+	0.4+	1999 08 07	699	0.1−	1.5+	1999 09 09	704	1.3−	0.3+
1998 03 20	704	(2.4+	0.9+)	1999 08 07	699	0.8−	1.3+	1999 09 09	704	0.1−	0.2−
1998 03 20	704	0.3−	1.0+	1999 09 07	704	0.1−	0.4+	1999 09 09	704	0.5−	0.1+
1998 03 20	704	1.5+	1.0+	1999 09 07	704	0.3+	0.6−				

1999 RK₆₂ = 1998 KW₃₇

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	9.63970		(2000.0)	P	Q
<i>n</i>	0.18676216	ω	247.03723	+0.99244086	−0.07475700
<i>a</i>	3.0311688	Ω	117.13038	+0.10442077	+0.93104807
<i>e</i>	0.1048724	<i>i</i>	6.27841	−0.06447829	+0.35715668
<i>P</i>	5.28	<i>H</i>	13.8	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 05 22	704	0.7+	0.2+	1999 08 08	699	0.3+	0.3+	1999 09 13	704	0.2+	0.1+
1998 05 22	704	0.8−	0.0	1999 09 07	699	0.6−	0.0	1999 09 13	704	0.2+	0.2−
1998 05 22	704	0.2+	1.5+	1999 09 07	699	0.8−	0.6+	1999 09 13	704	0.7+	0.2+
1998 05 22	704	0.1−	1.3+	1999 09 07	699	0.9−	0.0	1999 09 13	704	0.3−	0.2−
1998 05 24	704	(2.3+	2.9−)	1999 09 07	704	0.4−	0.1−	1999 09 30	704	0.1+	1.0−
1998 05 24	704	1.0+	0.1+	1999 09 07	704	0.1+	0.2+	1999 09 30	704	0.3−	0.1+
1998 05 24	704	0.5+	1.3−	1999 09 07	704	0.2−	0.1+	1999 09 30	704	0.5+	1.3−
1998 05 24	704	1.4−	1.9−	1999 09 07	704	0.4+	0.4−	1999 09 30	704	0.1−	1.1+
1999 08 08	699	0.6+	0.3−	1999 09 07	704	0.1+	0.3−	1999 09 30	704	0.5+	0.6+
1999 08 08	699	0.2−	0.0	1999 09 13	704	0.2+	0.5+				

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1999 RJ₆₄ = 1998 HC₁₃₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	32.80933		(2000.0)	P		Q		Doppler	
<i>n</i>	0.27016455	ω	222.40352	+0.99487564	+0.04578076				
<i>a</i>	2.3698297	Ω	134.72928	−0.01537616	+0.94975018				
<i>e</i>	0.1413014	<i>i</i>	7.28990	−0.09993013	+0.30964288				
<i>P</i>	3.65	<i>H</i>	15.9	<i>G</i>	0.15	<i>U</i>	5		

Residuals in seconds of arc

1998 04 20	704	0.1+	1.7−	1998 04 24	704	0.3+	1.7+	1999 09 07	704	0.3+	0.5+
1998 04 20	704	0.4+	0.4−	1999 09 07	699	0.5−	0.1+	1999 09 07	704	0.6+	0.2−
1998 04 20	704	1.4−	0.3+	1999 09 07	699	0.2+	0.8+	1999 09 13	704	0.2+	1.0−
1998 04 20	704	1.2−	0.9+	1999 09 07	699	0.2+	0.0	1999 09 13	704	0.3+	0.3+
1998 04 24	704	1.7+	0.9−	1999 09 07	704	0.4−	0.5−	1999 09 13	704	0.1−	0.2+
1998 04 24	704	0.9+	0.2+	1999 09 07	704	0.4+	0.3+	1999 09 13	704	0.5−	0.1−
1998 04 24	704	0.7−	0.1+	1999 09 07	704	0.3−	0.7−	1999 09 13	704	0.4−	0.3+

1999 RM₇₃ = 1996 TV₈

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	155.97507		(2000.0)	P		Q		Spahr	
<i>n</i>	0.29362356	ω	315.17010	−0.69838528	+0.71197048				
<i>a</i>	2.2418615	Ω	270.38076	−0.63442949	−0.66314841				
<i>e</i>	0.1707231	<i>i</i>	4.19703	−0.33129627	−0.23093770				
<i>P</i>	3.36	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	5		

Residuals in seconds of arc

1996 10 09	566	0.0	0.0	1999 09 09	704	0.3+	0.7−	1999 10 01	703	0.6−	0.5+
1996 10 09	566	0.0	0.3+	1999 09 09	704	0.4−	0.5−	1999 10 01	703	0.5−	0.0
1996 10 09	566	0.3+	0.3+	1999 09 09	704	0.1−	0.1−	1999 10 02	704	0.8+	0.3−
1996 10 13	566	0.1+	0.0	1999 09 09	704	0.0	0.2+	1999 10 02	704	0.8+	0.8−
1996 10 13	566	0.3−	0.1−	1999 09 14	703	0.3−	0.0	1999 10 02	704	0.6+	0.8−
1996 10 13	566	0.2−	0.3−	1999 09 14	703	0.3−	0.1+	1999 10 02	704	0.0	0.4−
1999 08 22	699	(1.0−	2.5+)	1999 09 14	703	0.4−	0.1+	1999 10 02	704	0.1+	0.3+
1999 08 22	699	0.6−	1.6+	1999 09 14	703	0.4−	0.1+	1999 11 14	704	0.7−	0.3−
1999 08 22	699	0.1+	1.0+	1999 09 18	704	0.6−	0.4+	1999 11 14	704	0.2−	0.4−
1999 09 07	704	0.0	0.2+	1999 09 18	704	1.3+	0.2−	1999 11 14	704	1.0−	0.4−
1999 09 07	704	0.1+	0.2−	1999 09 18	704	0.7+	0.1−	1999 11 14	704	0.1−	0.6+
1999 09 07	704	0.4+	0.1−	1999 09 18	704	0.5+	0.4−	1999 12 03	704	0.7+	0.1+
1999 09 07	704	0.2−	0.1−	1999 09 18	704	0.2+	0.5−	1999 12 03	704	0.1+	0.7+
1999 09 07	704	0.1+	0.1−	1999 10 01	703	0.2−	0.1+	1999 12 03	704	0.1+	0.6+
1999 09 09	704	0.4−	0.0	1999 10 01	703	0.0	0.1−				

1999 RR₈₂ = 1995 UG₄₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	98.77253		(2000.0)	P		Q		Williams	
<i>n</i>	0.23911223	ω	59.00538	−0.07166284	+0.99617204				
<i>a</i>	2.5707994	Ω	207.02131	−0.94858040	−0.08358046				
<i>e</i>	0.2557010	<i>i</i>	6.32568	−0.30831747	+0.02560435				
<i>P</i>	4.12	<i>H</i>	16.2	<i>G</i>	0.15	<i>U</i>	4		

Residuals in seconds of arc

1995 10 23	691	0.1+	0.3+	1999 09 07	704	0.4−	0.3−	1999 10 17	691	0.3+	0.0
1995 10 23	691	0.0	0.1+	1999 09 07	704	0.1−	0.3−	1999 10 19	691	0.1+	0.6−
1995 10 23	691	0.4+	0.2+	1999 09 07	704	0.9+	0.9−	1999 10 19	691	0.4+	0.1+
1995 10 27	691	0.4−	0.1+	1999 09 09	704	0.5−	0.6−	1999 10 19	691	0.2+	0.1+
1995 10 27	691	0.1−	0.1+	1999 09 09	704	0.3−	1.5+	1999 11 16	691	0.0	0.2−
1995 10 27	691	0.3−	0.2+	1999 09 09	704	0.0	0.2−	1999 11 16	691	0.3+	1.3−
1999 09 07	704	0.3+	0.4+	1999 10 17	691	0.1−	0.2+	1999 11 16	691	0.3−	0.0
1999 09 07	704	0.1−	0.6+	1999 10 17	691	0.5−	0.5+				

1999 RJ₈₄ = 1998 ME₁₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	13.54620		(2000.0)	P		Q		Williams	
<i>n</i>	0.23142227	ω	167.41677	+0.88985254	−0.45503853				
<i>a</i>	2.6274388	Ω	219.70488	+0.41396669	+0.83584255				
<i>e</i>	0.1362118	<i>i</i>	2.97921	+0.19181773	+0.30709473				
<i>P</i>	4.26	<i>H</i>	15.3	<i>G</i>	0.15	<i>U</i>	3		

Residuals in seconds of arc

1998 06 21	691	0.6+	0.4+	1999 09 07	704	0.2+	0.4−	1999 10 16	691	0.0	0.1+
1998 06 21	691	(0.3+	2.9+)	1999 09 07	704	1.1−	1.3−	1999 10 16	691	0.2+	0.2−
1998 06 21	691	1.2+	0.2−	1999 09 09	704	0.0	0.1−	1999 10 19	691	0.2+	0.1−
1998 06 28	691	0.2−	0.2−	1999 09 09	704	0.1−	0.7+	1999 10 19	691	0.2+	0.0
1998 06 28	691	0.4−	0.8+	1999 09 09	704	0.5+	0.5+	1999 10 19	691	0.1+	0.1−
1998 06 28	691	0.5+	0.1−	1999 09 09	704	0.0	0.6+	1999 11 16	691	0.0	0.3+
1998 07 02	691	1.2−	0.8−	1999 09 09	704	0.8+	0.4+	1999 11 16	691	0.0	0.5+
1998 07 02	691	0.7−	0.1−	1999 10 02	704	0.5−	0.1−	1999 11 16	691	0.3+	0.2+
1998 07 02	691	(3.2−	2.2−)	1999 10 02	704	0.4−	0.2+	1999 12 07	704	0.7+	0.1+
1999 09 07	704	0.4+	0.3+	1999 10 02	704	0.4−	0.5−	1999 12 07	704	1.1−	0.9−
1999 09 07	704	0.3−	0.2−	1999 10 16	691	0.1+	0.0	1999 12 07	704	0.2+	0.0

1999 RP₈₆ = 1991 RN₂₃

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	30.19485		(2000.0)	P		Q		Spahr	
<i>n</i>	0.24719838	ω	269.87753	+0.97954788	−0.19370603				
<i>a</i>	2.5144267	Ω	101.29143	+0.19952492	+0.90015180				
<i>e</i>	0.1997420	<i>i</i>	3.18249	+0.02599519	+0.39013423				
<i>P</i>	3.99	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	2		

Residuals in seconds of arc

1991 09 15	675	0.1+	0.4−	1998 05 22	704	1.2−	1.6+	1999 09 14	704	0.1+	0.5+
1991 09 15	675	0.5+	0.2−	1998 05 22	704	0.2+	0.3+	1999 09 14	704	0.1+	0.0
1991 09 17	675	0.0	0.5−	1998 05 22	704	0.3−	0.7+	1999 09 14	704	0.1+	0.6+
1991 09 17	675	0.6+	0.7−	1999 07 16	704	1.6−	0.2+	1999 09 14	704	0.3+	0.6+
1995 08 28	809	(2.2+	1.1+)	1999 07 16	704	0.3+	0.3−	1999 10 02	704	1.0−	0.8+
1995 08 29	809	1.0+	0.5+	1999 07 16	704	1.4+	0.7−	1999 10 02	704	0.9−	0.5+
1995 08 31	809	0.3+	0.9−	1999 07 16	704	1.8+	1.8−	1999 10 02	704	0.9−	0.5+
1995 09 01	809	0.8−	1.4−	1999 08 22	703	0.7−	0.3+	1999 10 02	704	0.7−	0.4+
1995 09 23	809	(6.5+	0.8−)	1999 08 22	703	0.1+	0.5+	1999 10 02	704	1.4−	0.1−
1997 02 17	327	1.0−	0.2−	1999 08 22	703	0.6−	0.0	1999 11 08	704	0.8−	0.9−
1997 02 17	327	0.8+	0.8−	1999 08 22	703	0.1−	0.1−	1999 11 08	704	0.2+	0.4−
1997 02 17	327	0.7−	1.6−	1999 09 07	704	1.0+	0.4+	1999 11 08	704	0.3+	0.0
1998 04 22	704	0.4+	1.7−	1999 09 07	704	0.8+	0.2−	1999 11 08	704	0.5+	0.7−
1998 04 22	704	0.9+	1.4−	1999 09 07	704	0.2+	0.0	1999 11 08	704	1.4+	0.1+
1998 04 22	704	0.1+	1.1−	1999 09 07	704	0.4+	0.1−	1999 12 02	704	0.0	0.0
1998 04 22	704	0.8−	0.7−	1999 09 07	704	0.4−	0.4−	1999 12 02	704	1.1+	0.4−
1998 05 22	704	0.6+	1.2+	1999 09 14	704	0.5+	0.4+	1999 12 02	704	0.3−	0.5+

1999 RT₈₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	28.26651		(2000.0)	P		Q		Williams	
<i>n</i>	0.23724330	ω	181.63064	+0.96943738	−0.24377653				
<i>a</i>	2.5842831	Ω	192.58292	+0.22650595	+0.93261419				
<i>e</i>	0.1894109	<i>i</i>	7.29000	+0.09426675	+0.26608978				
<i>P</i>	4.15	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	2		

Residuals in seconds of arc

1991 10 16	675	0.2+	0.7−	1999 09 09	704	0.4+	0.2+	1999 11 12	704	0.3−	0.3+
1991 10 16	675	0.4+	1.3+	1999 09 09	704	0.1+	0.0	1999 11 12	704	0.3+	0.5−
1992 01 23	675	0.4+	0.3−	1999 09 09	704	0.4−	0.2−	1999 11 15	704	1.2−	0.2−
1992 01 23	675	1.1−	0.3−	1999 09 09	704	0.2−	0.3−	1999 11 15	704	0.9−	0.0
1997 03 06	675	1.3−	0.2−	1999 09 29	703	0.3+	0.7+	1999 11 15	704	0.1−	0.6−
1997 03 06	675	1.2+	0.2−	1999 09 29	703	0.3−	0.9+	1999 11 15	704	1.1−	0.2−
1999 07 23	704	0.1−	0.2+	1999 09 29	703	0.2−	0.4+	1999 11 15	704	0.4+	0.4−

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1999 07 23	704	0.7+	1.0−	1999 09 29	703	0.5−	0.9+	1999 12 03	704	(2.7+	1.1+)
1999 07 23	704	0.3+	0.8−	1999 10 06	704	0.0	0.3−	1999 12 03	704	0.0	0.1+
1999 07 23	704	0.0	1.0−	1999 10 06	704	0.1−	0.4−	1999 12 03	704	0.4−	0.8−
1999 09 07	704	0.4+	0.4+	1999 10 06	704	0.1+	0.0	1999 12 07	704	(2.7+	0.2+)
1999 09 07	704	0.8+	0.3−	1999 10 06	704	0.2−	0.6−	1999 12 07	704	0.7+	0.6−
1999 09 07	704	0.2−	0.5+	1999 10 06	704	0.3−	0.4−	1999 12 07	704	1.3+	0.1−
1999 09 07	704	0.3+	0.1+	1999 11 12	704	(2.6−	0.9+)	1999 12 07	704	1.2+	0.1−
1999 09 07	704	0.0	0.2+	1999 11 12	704	0.8−	0.6+				
1999 09 09	704	0.1+	0.5+	1999 11 12	704	0.6+	1.0+				

1999 RX₉₄ = 1998 FG₂₆

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	130.47605		(2000.0)		P		Q
<i>n</i>	0.27671191	ω	254.88071	−0.23434775			+0.97215019
<i>a</i>	2.3322986	Ω	1.57145	−0.85720103			−0.20553752
<i>e</i>	0.1760151	<i>i</i>	4.73893	−0.45857119			−0.11259808
<i>P</i>	3.56	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 02 26	809	0.9−	0.6+	1998 03 26	704	0.1+	0.0	1999 09 09	704	0.4+	0.3−
1998 02 26	809	1.6−	1.3+	1998 03 26	704	0.1+	0.9−	1999 09 09	704	0.0	0.3+
1998 02 26	809	1.3+	0.5+	1998 03 29	704	1.0+	0.6+	1999 09 09	704	0.8−	1.6−
1998 03 20	704	0.2−	0.3+	1998 03 29	704	1.6+	1.8−	1999 09 29	703	0.4+	0.3+
1998 03 20	704	0.6−	0.3−	1998 03 29	704	0.1−	0.6+	1999 09 29	703	0.1−	0.0
1998 03 20	704	0.4−	0.8−	1998 03 29	704	0.0	0.3−	1999 09 29	703	0.0	0.3+
1998 03 20	704	0.2−	0.0	1998 03 29	704	1.1+	0.1−	1999 09 29	703	0.3−	0.1+
1998 03 20	704	0.3−	0.1+	1999 09 07	704	0.9+	0.1+	1999 10 02	704	0.4+	0.3+
1998 03 22	704	1.0−	0.7−	1999 09 07	704	0.2+	0.0	1999 10 02	704	0.7+	0.6+
1998 03 22	704	1.0−	0.1−	1999 09 07	704	0.2+	0.5−	1999 10 02	704	0.9−	0.3+
1998 03 22	704	0.0	0.6−	1999 09 07	704	0.0	1.0−	1999 10 02	704	0.4−	0.5+
1998 03 22	704	(2.6−	1.4−)	1999 09 07	704	0.6−	0.2−	1999 10 02	704	0.3+	0.2−
1998 03 22	704	(2.7−	3.1−)	1999 09 09	704	1.4+	0.1+				
1998 03 26	704	0.0	0.5−	1999 09 09	704	0.7−	1.2−				

1999 RS₉₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	41.25361		(2000.0)		P		Q
<i>n</i>	0.24451921	ω	224.57758	+0.99749768			+0.02297535
<i>a</i>	2.5327602	Ω	133.97883	+0.00089283			+0.94155421
<i>e</i>	0.1841667	<i>i</i>	5.33138	−0.07069361			+0.33607709
<i>P</i>	4.03	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1982 07 17	413	0.4+	1.3−	1999 09 05	699	0.1+	0.4+	1999 10 02	704	0.0	0.2−
1982 07 17	413	0.2−	0.1+	1999 09 05	699	0.4+	0.2+	1999 10 02	704	0.0	0.4−
1986 06 26	413	1.0−	0.2−	1999 09 07	704	0.0	0.2+	1999 10 02	704	0.2−	0.2+
1986 06 26	413	0.5+	0.1+	1999 09 07	704	0.6−	0.3+	1999 11 06	703	0.1+	0.8+
1991 09 11	675	0.4+	0.6+	1999 09 07	704	0.1+	0.8+	1999 11 06	703	0.4−	0.4+
1991 09 11	675	0.3+	0.1−	1999 09 07	704	0.0	0.1+	1999 11 06	703	0.5+	0.4+
1991 10 01	413	0.1+	1.1−	1999 09 07	704	0.6−	0.1−	1999 11 06	703	0.6−	1.0+
1991 10 01	413	0.0	0.2+	1999 09 14	704	0.3−	0.5−	1999 12 02	704	0.6+	0.7−
1995 11 23	413	0.1−	0.5+	1999 09 14	704	0.6−	0.7−	1999 12 02	704	0.8+	0.6−
1995 11 23	413	1.6−	0.9−	1999 09 14	704	0.7−	0.8−	1999 12 02	704	0.8+	0.2−
1999 08 22	699	0.3−	0.6+	1999 09 14	704	0.2−	0.7−	1999 12 02	704	1.1+	0.2+
1999 08 22	699	1.3+	0.1+	1999 09 14	704	0.4−	0.8−	1999 12 03	704	0.4−	0.4−
1999 08 22	699	1.0+	0.3+	1999 10 02	704	0.2−	0.2+	1999 12 03	704	0.5+	0.1+
1999 09 05	699	0.4+	0.6+	1999 10 02	704	0.1−	0.4+	1999 12 03	704	0.2−	1.5−

1999 RS₉₈ = 1995 UB₄₆ = 1998 KE₁₃

Id. M. E. Sansaturio

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	107.20816		(2000.0)		P		Q
<i>n</i>	0.24278277	ω	266.93911	+0.29722632			+0.95372282
<i>a</i>	2.5448223	Ω	20.52960	−0.81639649			+0.27855703
<i>e</i>	0.1108987	<i>i</i>	7.45305	−0.49512956			+0.11321996
<i>P</i>	4.06	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1995 09 19	046	(2.3+	4.9+)	1998 05 01	704	(1.2−	2.2−)	1999 09 09	704	0.1+	0.2+
1995 09 19	046	(2.5+	2.2+)	1998 05 01	704	0.7+	0.6−	1999 09 09	704	1.0−	0.6−
1995 09 19	046	1.5+	0.7+	1998 05 01	704	0.6−	1.4−	1999 10 01	703	1.3−	0.4−
1995 10 20	010	0.2−	1.8−	1998 05 22	704	0.6+	0.1−	1999 10 01	703	0.2+	0.2+
1995 10 20	010	0.3+	1.0−	1998 05 22	704	1.2+	0.7+	1999 10 01	703	1.6−	0.1−
1995 10 20	010	0.8+	1.0+	1998 05 22	704	1.1−	0.0	1999 10 01	703	1.2−	0.4+
1995 10 23	010	0.1+	1.4−	1998 05 22	704	0.0	1.8−	1999 10 04	704	0.1−	0.7+
1995 10 23	010	0.8−	0.8−	1998 05 24	704	1.4+	0.6−	1999 10 04	704	0.2−	0.3+
1995 10 23	010	1.0+	1.5−	1998 05 24	704	0.5+	0.7+	1999 10 04	704	0.4+	0.5+
1998 04 22	704	0.1−	1.2+	1998 05 24	704	1.0+	0.5−	1999 10 04	704	0.7+	0.7+
1998 04 22	704	0.9−	1.4+	1998 05 24	704	0.7+	0.0	1999 11 09	704	0.5+	0.1+
1998 04 22	704	2.0−	0.6−	1998 05 24	704	0.4+	0.5+	1999 11 09	704	0.1+	0.0
1998 04 22	704	0.3+	0.0	1999 09 07	704	0.5−	0.2−	1999 11 09	704	0.4+	0.2−
1998 04 22	704	(8.2−	0.7−)	1999 09 07	704	0.7+	0.2+	1999 11 09	704	0.1+	0.3−
1998 04 25	699	0.3+	0.8−	1999 09 07	704	0.5+	0.1+	1999 11 09	704	0.2−	0.4−
1998 04 25	699	1.2−	0.2+	1999 09 09	704	0.6+	0.5−	1999 11 12	704	0.4+	1.2+
1998 04 25	699	0.2+	0.2−	1999 09 09	704	0.2+	0.9−	1999 11 12	704	0.2+	1.7+
1998 05 01	704	1.6−	1.0+	1999 09 09	704	0.6−	0.1+	1999 11 12	704	0.6−	1.5+

1999 RW₁₀₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	40.84815		(2000.0)		P		Q
<i>n</i>	0.18060201	ω	40.35415	+0.75043595			+0.63184677
<i>a</i>	3.0997095	Ω	279.36641	−0.64568223			+0.63814197
<i>e</i>	0.3111672	<i>i</i>	11.33633	−0.14121025			+0.43993691
<i>P</i>	5.46	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1986 01 10	413	1.2−	2.3−	1999 09 16	704	1.1+	0.2+	1999 11 12	703	0.0	0.2+
1995 11 30	675	0.2+	0.4−	1999 09 16	704	0.5+	0.3−	1999 11 12	703	0.3−	0.5+
1995 11 30	675	0.6−	0.4−	1999 09 16	704	0.3+	0.9−	1999 12 03	704	0.3−	0.6−
1999 07 12	704	0.5+	0.3−	1999 09 30	703	0.2−	0.2+	1999 12 03	704	0.9+	1.1−
1999 07 12	704	0.4+	0.3−	1999 09 30	703	0.0	0.1+	1999 12 03	704	0.3−	1.1−
1999 07 12	704	0.3+	0.2−	1999 09 30	703	0.2−	0.0	1999 12 03	704	1.5+	0.6−
1999 07 12	704	0.0	0.5−	1999 09 30	703	0.1−	0.1+	1999 12 03	704	0.1−	0.1−
1999 07 12	704	0.2+	0.4−	1999 10 12	699	0.2−	0.0	1999 12 05	704	0.3+	0.2+
1999 09 07	703	0.1−	0.1−	1999 10 12	699	1.1−	0.2−	1999 12 05	704	0.8−	0.3+
1999 09 07	703	0.2−	0.4+	1999 10 12	699	0.1+	0.4+	1999 12 05	704	0.9−	0.6+
1999 09 07	703	1.8−	0.5+	1999 10 12	699	(0.6−	2.0+)	1999 12 05	704	0.5−	0.8+
1999 09 07	703	2.0−	0.6+	1999 10 12	699	0.1−	0.2−	1999 12 05	704	0.2+	0.8+
1999 09 08	704	0.1+	0.3−	1999 10 12	699	0.8−	1.3+	1999 12 06	704	0.4+	0.2+
1999 09 08	704	0.5+	0.4−	1999 10 27	106	0.4+	0.5+	1999 12 06	704	0.4+	0.1+
1999 09 08	704	0.5+	0.4−	1999 10 27	106	0.0	0.1+	1999 12 06	704	0.0	0.8+
1999 09 08	704	0.3+	0.2−	1999 11 06	704	0.4+	0.4−	1999 12 06	704	0.4+	0.0
1999 09 08	704	0.5−	0.1−	1999 11 06	704	0.5+	0.4−	1999 12 06	704	0.4+	0.7+
1999 09 10	704	0.7+	0.6−	1999 11 06	704	0.5+	0.2−	1999 12 06	704	0.5−	0.2−
1999 09 10	704	0.1−	0.4−	1999 11 06	704	0.7+	0.5−	1999 12 06	704	0.3+	0.8+
1999 09 10	704	0.1−	0.3−	1999 11 06	704	0.7+	0.5−	1999 12 06	704	0.2+	1.3−
1999 09 16	704	1.1+	0.0	1999 11 12	703	1.7−	0.4−	1999 12 06	704	0.5−	0.3+
1999 09 16	704	0.9+	0.1+	1999 11 12	703	0.8−	0.9+				

1999 RS₁₀₃ = 1998 HF₁₂₄

Id. A. Doppler

2000 FEB. 22

M.P.C. 38561

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	172.79898		(2000.0)	P		Q	
<i>n</i>	0.24132145	ω	25.90138	−0.85349033	+0.52051931		
<i>a</i>	2.5550855	Ω	185.65694	−0.51105024	−0.84536638		
<i>e</i>	0.0210204	<i>i</i>	14.55806	−0.10189167	−0.12006385		
<i>P</i>	4.08	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 04 23	704	0.5+	0.1−	1999 09 05	703	0.7+	0.4+	1999 09 09	704	0.4+	0.5−
1998 04 23	704	0.3+	0.4+	1999 09 05	703	0.0	0.3+	1999 09 09	704	0.5+	0.1−
1998 04 23	704	0.1−	0.3−	1999 09 08	699	0.0	0.7+	1999 09 09	704	0.2+	0.4−
1998 04 23	704	0.1−	0.5+	1999 09 08	699	0.1−	1.2+	1999 09 09	704	0.2−	0.8−
1998 04 23	704	0.1−	0.1−	1999 09 08	704	0.1+	0.0	1999 09 09	704	0.0	0.2−
1998 04 24	704	0.0	0.2−	1999 09 08	704	0.3+	0.2+	1999 09 09	704	0.7+	0.0
1998 04 24	704	0.5−	0.9+	1999 09 08	699	0.1+	0.7+	1999 09 09	704	1.2−	0.3−
1998 04 24	704	0.5−	0.4−	1999 09 08	704	0.2+	0.1−	1999 09 14	704	0.7−	0.2−
1998 05 23	704	0.0	0.0	1999 09 08	704	0.1+	0.0	1999 09 14	704	0.1−	0.4−
1998 05 23	704	0.3−	0.7−	1999 09 08	704	0.0	0.1+	1999 09 14	704	1.0−	0.2−
1998 05 23	704	0.2−	0.1−	1999 09 09	704	0.1+	0.5−	1999 09 14	704	0.7−	0.1−
1998 05 23	704	0.4−	0.9−	1999 09 09	704	0.5+	0.4+	1999 09 14	704	0.7−	0.2+
1998 05 23	704	0.2−	0.2−	1999 09 09	704	0.2+	0.4+	1999 10 02	704	0.8−	0.4+
1998 05 27	699	0.7+	0.1+	1999 09 09	704	0.2−	0.1+	1999 10 02	704	0.7+	0.4−
1998 05 27	699	0.4+	0.9+	1999 09 09	704	0.0	0.3−	1999 10 02	704	0.4+	0.4+
1998 05 27	699	0.6+	0.5+	1999 09 09	704	0.1+	0.1−	1999 10 02	704	0.1−	0.3−
1999 09 05	703	0.2+	0.1−	1999 09 09	704	0.5+	0.5−	1999 10 02	704	0.2−	0.0
1999 09 05	703	0.1+	0.1+	1999 09 09	704	0.2−	0.1−				

1999 RA₁₁₆

Id. A. Gnädig (1982, 1986, 1990, 1991, 1992, 1994, 1996 observations)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	47.05746		(2000.0)	P		Q	
<i>n</i>	0.22704593	ω	160.25316	+0.72186261	+0.68436091		
<i>a</i>	2.6610942	Ω	155.59321	−0.66366149	+0.72668031		
<i>e</i>	0.2002564	<i>i</i>	14.40317	−0.19613212	+0.05988216		
<i>P</i>	4.34	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1982 09 16	413	0.4−	1.4−	1999 07 23	704	0.6−	0.8−	1999 09 13	699	1.1−	1.9+
1982 09 16	413	0.6+	0.4+	1999 07 23	704	0.4−	0.8−	1999 09 29	699	0.1+	0.4+
1986 10 02	413	0.9+	0.6−	1999 09 04	703	0.4−	0.1+	1999 09 29	704	1.0−	0.1−
1986 10 02	413	0.5−	0.5+	1999 09 04	703	0.3−	0.4−	1999 09 29	699	0.7−	0.1−
1990 05 01	413	0.3−	0.5+	1999 09 04	703	1.4−	0.5+	1999 09 29	704	1.1+	1.0−
1990 05 01	413	0.8−	0.2−	1999 09 04	703	1.1−	0.3+	1999 09 29	699	0.5−	0.3+
1991 10 14	675	0.8−	0.2+	1999 09 07	704	0.0	0.1−	1999 09 29	704	0.1−	0.1+
1991 10 14	675	0.3+	0.0	1999 09 07	704	0.4−	0.2−	1999 09 29	704	1.0+	0.1+
1992 12 21	675	0.8−	0.8+	1999 09 07	704	0.3+	0.5−	1999 09 30	704	0.8+	0.8+
1992 12 21	675	0.2+	0.0	1999 09 07	704	0.6−	0.5−	1999 09 30	704	0.7+	0.1+
1994 06 01	675	1.7+	0.5−	1999 09 07	704	0.2+	1.2−	1999 09 30	704	0.7+	0.1−
1996 11 18	675	0.0	0.8−	1999 09 09	704	0.3+	0.1+	1999 09 30	704	0.2+	0.6−
1996 11 18	675	0.1+	1.2+	1999 09 09	704	0.7+	0.3−	1999 09 30	704	0.5+	0.6−
1999 05 21	704	0.5−	0.6−	1999 09 09	704	0.8+	0.1−	1999 10 02	691	0.2−	0.6+
1999 05 21	704	0.4+	0.9+	1999 09 09	704	0.1+	0.2−	1999 10 02	691	0.3−	0.4+
1999 05 21	704	(3.0+	2.6+)	1999 09 09	704	0.5+	0.7−	1999 10 02	691	0.2+	0.1−
1999 05 21	704	1.1+	0.5−	1999 09 13	704	0.6+	0.5+	1999 10 06	691	1.3+	0.3−
1999 07 13	704	0.4−	0.0	1999 09 13	704	0.8+	0.3−	1999 10 06	691	0.2−	0.5+
1999 07 13	704	0.6−	0.2+	1999 09 13	699	0.9−	0.4+	1999 10 06	691	0.4+	0.3+
1999 07 13	704	0.5−	0.0	1999 09 13	704	0.4+	0.1+	1999 11 10	704	0.1+	0.2−
1999 07 13	704	0.4−	0.2+	1999 09 13	704	0.8+	0.2−	1999 11 10	704	0.9+	0.6−
1999 07 13	704	1.3−	1.6+	1999 09 13	704	0.8+	0.3−	1999 11 10	704	0.6+	0.9+
1999 07 23	704	0.4−	0.1+	1999 09 13	699	0.8−	1.1+	1999 11 10	704	0.0	0.5+

1999 RQ₁₂₁ = 1998 FF₁₀₅

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	88.06238		(2000.0)	P		Q	
<i>n</i>	0.24448279	ω	309.75023	+0.17703723	+0.98133425		
<i>a</i>	2.5330116	Ω	330.19169	−0.85047129	+0.11412914		
<i>e</i>	0.0655746	<i>i</i>	8.69000	−0.49533465	+0.15478251		
<i>P</i>	4.03	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 03 31	704	0.4+	0.1+	1998 04 19	704	0.1+	0.4−	1999 09 07	704	0.4−	0.5+
1998 03 31	704	1.7+	0.8−	1998 04 19	704	0.2+	0.9−	1999 09 09	704	0.8+	0.8−
1998 03 31	704	0.5+	0.8−	1999 07 21	699	0.5−	0.5−	1999 09 09	704	1.1+	0.6−
1998 03 31	704	(2.6+	0.5+)	1999 07 21	699	0.2−	0.7+	1999 09 09	704	0.2+	0.9−
1998 04 01	704	0.8+	0.6+	1999 07 21	699	0.1−	0.3+	1999 09 09	704	0.5−	1.0+
1998 04 01	704	0.7−	0.9+	1999 08 08	699	0.5+	0.1−	1999 09 13	704	0.3+	0.9+
1998 04 01	704	0.1+	1.1+	1999 08 08	699	0.4+	0.0	1999 09 13	704	0.5−	0.3−
1998 04 01	704	0.2+	0.3+	1999 08 08	699	0.5−	0.2−	1999 09 13	704	0.1−	0.5+
1998 04 01	704	1.2−	0.1+	1999 09 07	704	0.2+	0.4−	1999 09 13	704	0.4+	1.1+
1998 04 19	704	0.4−	0.1−	1999 09 07	704	0.3−	0.3−	1999 09 13	704	0.3−	0.4+
1998 04 19	704	1.1−	0.6−	1999 09 07	704	0.4−	0.6−				
1998 04 19	704	0.6−	0.6+	1999 09 07	704	0.1−	0.4−				

1999 RZ₁₂₈ = 1996 VT₃₄ = 1998 EU₁₆

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	108.45214		(2000.0)	P		Q	
<i>n</i>	0.26163169	ω	22.01568	−0.32252962	+0.94621549		
<i>a</i>	2.4210801	Ω	229.17811	−0.87340091	−0.30788374		
<i>e</i>	0.1778547	<i>i</i>	1.93202	−0.36489108	−0.09941755		
<i>P</i>	3.77	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1996 11 08	691	0.1+	0.0	1998 03 04	704	1.2+	0.5−	1999 09 07	704	0.1−	0.4−
1996 11 08	691	0.1+	0.1−	1998 03 04	704	1.1−	0.9−	1999 09 07	704	0.0	0.6+
1996 11 08	691	0.2+	0.1−	1998 03 04	704	0.9−	1.0+	1999 09 07	704	0.0	0.4+
1996 11 09	691	0.4−	0.2+	1999 08 22	703	0.9−	0.9−	1999 09 09	704	0.8−	0.1−
1996 11 09	691	0.2−	0.2−	1999 08 22	703	0.2+	0.9−	1999 09 09	704	0.3+	0.3+
1996 11 09	691	0.1+	0.0	1999 08 22	703	0.2+	0.2−	1999 09 09	704	0.2+	0.9−
1998 03 03	704	0.0	0.3+	1999 08 22	703	0.2+	0.2−	1999 09 09	704	0.6+	1.1+
1998 03 03	704	0.3−	0.3−	1999 08 22	703	0.3+	0.7+	1999 09 09	704	0.7+	0.6+
1998 03 03	704	0.2+	1.0−	1999 08 22	703	0.5+	0.1+	1999 09 13	704	1.0−	0.3+
1998 03 03	704	0.2−	1.0+	1999 08 22	703	0.3−	0.6+	1999 09 13	704	0.5−	0.0
1998 03 03	704	0.9+	0.0	1999 08 22	703	0.4+	0.4−	1999 09 13	704	0.1+	0.2−
1998 03 04	704	1.5+	0.8+	1999 09 07	704	0.4+	0.4−	1999 09 13	704	1.1−	0.5−
1998 03 04	704	1.0−	0.0	1999 09 07	704	0.3+	0.5+	1999 09 13	704	0.1+	0.6+

1999 RA₁₃₀ = 1998 DW₄

Id. G. V. Williams, A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	128.85268		(2000.0)	P		Q	
<i>n</i>	0.26692878	ω	84.02993	−0.59525711	+0.80319259		
<i>a</i>	2.3889430	Ω	149.40072	−0.75426577	−0.54845143		
<i>e</i>	0.1610028	<i>i</i>	2.64221	−0.27704172	−0.23255687		
<i>P</i>	3.69	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 02 22	566	0.2−	0.5+	1998 03 04	704	0.6+	0.0	1999 09 07	704	0.4+	0.3+
1998 02 22	566	0.0	0.3+	1998 03 04	704	0.8−	0.8−	1999 09 07	704	0.1+	0.5−
1998 02 22	566	0.1−	0.2+	1999 08 21	691	0.2−	0.3+	1999 09 07	704	0.5−	0.3+
1998 02 23	566	0.0	0.4+	1999 08 21	691	0.2−	0.1+	1999 09 09	704	0.4−	1.0−
1998 02 23	566	0.3+	0.3+	1999 08 21	691	0.5−	0.4+	1999 09 09	704	0.4−	0.2+
1998 02 23	566	0.0	0.5+	1999 08 22	703	0.5−	0.1+	1999 09 09	704	0.2−	0.1+
1998 03 03	704	0.3−	0.2+	1999 08 22	703	0.5−	0.4+	1999 09 09	704	0.8+	0.2+
1998 03 03	704	0.2+	1.3+	1999 08 22	703	0.5−	1.5+	1999 09 09	704	0.9−	0.1−
1998 03 03	704	0.5−	0.0	1999 08 22	703	0.5+	1.0+	1999 09 13	704	1.0+	0.4+
1998 03 03	704	1.7+	0.3+	1999 09 04	699	0.3+	0.7−	1999 09 13	704	0.6+	0.9−

1998 03 03	704	(3.5−	0.2−)	1999 09 04	699	0.0	0.2+	1999 09 13	704	0.2−	0.9−
1998 03 04	704	0.4−	0.3+	1999 09 04	699	0.7+	0.1−	1999 09 13	704	0.3+	0.1−
1998 03 04	704	0.7+	0.4+	1999 09 07	704	0.1−	1.1+	1999 09 13	704	0.3−	0.1+
1998 03 04	704	0.3−	0.8−	1999 09 07	704	0.1−	1.0+				

1999 RV₁₃₃ = 1999 RP₁₀₂ = 1992 QG₂

Id. A. Doppler, G. V. Williams (d)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>	90.09603		(2000.0)	P		Q	
<i>n</i>	0.28064029	ω	11.25226	+0.31518722		+0.94337452	
<i>a</i>	2.3104826	Ω	277.18357	−0.87861040		+0.24885581	
<i>e</i>	0.1091256	<i>i</i>	5.98491	−0.35874892		+0.21935198	
<i>P</i>	3.51	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1992 08 25	675	0.7+	0.1+	1999 09 08	699	0.0	0.5+	1999 10 02	704	(2.4+	0.6+)
1992 08 25	675	0.2−	0.9−	1999 09 08	704	0.1+	0.1+	1999 10 02	704	(2.4+	0.2−)
1992 08 28	675	0.7+	1.0−	1999 09 09	704	0.6−	0.1−	1999 10 02	704	(3.0+	1.5−)
1992 08 28	675	0.0	0.9−	1999 09 09	704	0.0	0.0	1999 10 02	704	1.2+	0.7+
1996 12 03	691	0.0	0.1−	1999 09 09	704	0.5−	0.2+	1999 10 02	704	(2.2+	0.3−)
1996 12 03	691	0.1+	0.2−	1999 09 09	704	0.1+	0.3+	1999 11 07	704	0.1+	0.0
1996 12 03	691	0.0	0.2−	1999 09 09	704	0.2+	0.3+	1999 11 07	704	0.6−	1.2+
1999 09 08	699	0.1−	0.1+	1999 09 14	704	0.0	0.0	1999 11 07	704	0.1−	0.0
1999 09 08	704	0.2−	0.0	1999 09 14	704	0.2−	0.0	1999 11 07	704	0.3−	0.0
1999 09 08	699	0.1−	0.0	1999 09 14	704	0.1+	0.4−	1999 11 07	704	0.1+	0.3+
1999 09 08	704	0.1−	0.2+	1999 09 14	704	0.2−	0.1+				
1999 09 08	704	0.1−	0.2+	1999 09 14	704	0.2−	0.1−				

1999 RQ₁₃₄ = 1997 EY₄₁

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>	3.03301		(2000.0)	P		Q	
<i>n</i>	0.21101391	ω	68.08537	+0.96506640		−0.25035265	
<i>a</i>	2.7942290	Ω	306.33099	+0.19070214		+0.87341790	
<i>e</i>	0.0770692	<i>i</i>	5.50388	+0.17966508		+0.41768974	
<i>P</i>	4.67	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 03 10	704	0.1+	1.7−	1999 08 22	703	1.3+	0.1+	1999 09 09	704	0.6−	0.3−
1997 03 10	704	0.1+	0.4−	1999 08 22	703	0.1+	0.6+	1999 09 09	704	0.1+	0.0
1997 03 11	704	0.2−	0.6+	1999 08 22	699	1.4−	0.5+	1999 09 09	704	0.4+	0.7+
1997 03 11	704	0.0	1.4+	1999 09 07	704	0.2−	0.9−	1999 09 14	704	0.2−	0.1−
1999 08 22	699	0.8−	0.4−	1999 09 07	704	0.2+	0.2−	1999 09 14	704	0.2+	0.8+
1999 08 22	703	0.1+	0.6−	1999 09 07	704	0.5+	0.5−	1999 09 14	704	0.1+	0.2+
1999 08 22	703	0.2−	0.6+	1999 09 07	704	0.3−	0.8−	1999 09 14	704	0.1−	0.7+
1999 08 22	699	1.0+	0.2−	1999 09 07	704	0.2−	0.3−				

1999 RC₁₃₇

Id. A. Gnädig (1980, 1988 observations)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>	88.66911		(2000.0)	P		Q	
<i>n</i>	0.26975849	ω	334.03954	+0.12459523		+0.99188300	
<i>a</i>	2.3722073	Ω	303.10812	−0.90497544		+0.10311628	
<i>e</i>	0.2067560	<i>i</i>	1.73629	−0.40681136		+0.07439857	
<i>P</i>	3.65	<i>H</i>	15.8	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1980 03 20	413	1.9−	0.5+	1999 08 22	699	0.5+	0.5+	1999 09 09	704	0.2−	1.4−
1980 03 20	413	1.7+	0.8−	1999 08 22	699	0.4+	0.0	1999 09 09	704	(0.1−	2.7−)
1988 10 09	413	0.0	0.6−	1999 09 04	699	0.2+	1.8+	1999 09 09	704	0.7−	1.4−
1988 10 09	413	0.1+	0.4+	1999 09 04	699	0.6−	1.6+	1999 09 09	704	(1.7−	2.1−)
1996 11 13	327	0.4+	0.1−	1999 09 04	699	0.9−	1.1+	1999 09 13	704	1.7−	0.3+
1996 11 13	327	0.4−	0.3+	1999 09 07	704	0.1−	0.1−	1999 09 13	704	0.1−	0.4−
1996 11 13	327	0.0	0.6+	1999 09 07	704	0.4+	0.6−	1999 09 13	704	0.7+	0.6−

1999 08 07	699	(1.2−	2.1+)	1999 09 07	704	0.9+	0.1+	1999 09 13	704	0.4+	1.4−
1999 08 07	699	0.2+	1.2+	1999 09 07	704	0.9+	0.4−	1999 09 30	704	0.3−	0.5−
1999 08 07	699	0.5−	1.1+	1999 09 07	704	0.8+	0.5−	1999 09 30	704	0.0	0.8−
1999 08 22	699	0.3−	0.1+	1999 09 09	704	0.3+	0.9−	1999 09 30	704	0.5−	0.6+

1999 RZ₁₃₈ = 1990 TN₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	15.07424		(2000.0)	P		Q	
<i>n</i>	0.21814222	ω	164.38460	+0.95925010		−0.26888636	
<i>a</i>	2.7330206	Ω	211.62853	+0.23826820		+0.93492878	
<i>e</i>	0.2630355	<i>i</i>	9.53068	+0.15187994		+0.23153467	
<i>P</i>	4.52	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1990 10 09	413	0.2−	1.4+	1999 09 09	704	0.8−	0.8−	1999 09 14	704	0.2−	0.6−
1990 10 11	413	0.3−	0.3+	1999 09 09	704	0.3−	0.6−	1999 09 14	704	0.4−	0.0
1999 07 12	704	0.2+	0.5+	1999 09 09	704	0.6−	0.4−	1999 09 19	699	0.2+	0.3−
1999 07 12	704	0.0	0.5+	1999 09 09	704	0.2−	0.8−	1999 09 19	699	0.1+	1.2+
1999 07 12	704	0.7+	0.9−	1999 09 10	704	0.3+	0.2−	1999 09 19	699	0.2−	0.3+
1999 07 12	704	0.8+	1.1+	1999 09 10	704	0.5−	0.1−	1999 11 07	704	1.2+	0.9−
1999 09 07	703	0.3−	0.4+	1999 09 10	704	0.2+	0.2+	1999 11 07	704	0.3+	0.5−
1999 09 07	703	0.4−	0.1−	1999 09 14	704	0.1−	0.4−	1999 11 07	704	0.1−	0.4+
1999 09 07	703	0.2−	0.5+	1999 09 14	704	0.3−	0.0				
1999 09 07	703	1.3+	0.1−	1999 09 14	704	0.8+	0.2−				

1999 RB₁₄₁

Id. A. Gnädig (1995 observation), A. Doppler (1995, 1999 observations)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>	63.34326		(2000.0)	P		Q	
<i>n</i>	0.27576631	ω	172.81262	+0.75416018		+0.65326936	
<i>a</i>	2.3376272	Ω	146.09544	−0.60831702		+0.73336843	
<i>e</i>	0.1279613	<i>i</i>	6.89285	−0.24737184		+0.18817517	
<i>P</i>	3.57	<i>H</i>	15.3	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1995 05 21	327	0.4−	0.1−	1999 08 07	699	0.5+	0.3+	1999 09 09	704	0.2+	0.1−
1995 05 21	327	0.2−	0.2−	1999 08 07	699	0.9+	0.8+	1999 09 09	704	0.8−	0.7+
1995 05 21	327	0.1−	0.3−	1999 08 07	699	0.3+	0.4+	1999 09 09	704	0.1−	0.1+
1995 08 13	413	1.1+	0.9+	1999 09 07	704	0.3−	0.3+	1999 09 09	704	0.2−	0.6−
1998 04 19	704	0.2+	1.2+	1999 09 07	704	0.2−	0.1+	1999 09 13	704	0.0	0.5−
1998 04 19	704	0.0	0.4−	1999 09 07	704	0.4−	0.6−	1999 09 13	704	0.1−	0.0
1998 04 19	704	0.7+	0.1−	1999 09 07	704	(2.3+	0.4−)	1999 09 13	704	0.5+	0.4−
1998 04 19	704	0.4−	1.2−	1999 09 07	704	0.1−	0.7−	1999 09 13	704	0.2+	0.3+
1998 04 19	704	0.8−	0.4−	1999 09 07	704	0.3−	1.0−	1999 09 13	704	0.1+	0.0

1999 RE₁₄₂ = 1992 SX₂₀

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	68.94722		(2000.0)	P		Q	
<i>n</i>	0.28204992	ω	297.41592	+0.76297419		+0.64616634	
<i>a</i>	2.3027780	Ω	22.34633	−0.57466190		+0.69104461	
<i>e</i>	0.2193766	<i>i</i>	2.77751	−0.29603054		+0.32392346	
<i>P</i>	3.49	<i>H</i>	16.9	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1992 09 22	809	0.5−	3.0+	1999 09 07	704	0.4+	1.2−	1999 09 14	704	0.0	0.7−
1992 09 22	809	0.1−	1.7+	1999 09 07	704	0.2−	1.3−	1999 09 14	704	0.2+	1.8−
1992 09 22	809	1.2−	1.7+	1999 09 07	704	0.1+	0.4−	1999 09 14	703	0.5−	0.2−
1992 09 23	809	1.1−	2.3+	1999 09 07	704	0.5+	0.2+	1999 09 14	703	0.2+	0.1−
1992 09 23	809	2.1−	2.1+	1999 09 07	704	0.3+	0.9−	1999 09 14	703	0.0	0.3+
1992 09 23	809	1.1−	1.9+	1999 09 09	704	1.3+	0.9−	1999 09 14	703	0.8+	0.2−
1999 08 22	703	0.6+	0.8+	1999 09 09	704	1.2+	0.6−	1999 10 31	691	0.3−	0.1+
1999 08 22	703	0.2−	0.9−	1999 09 09	704	0.4+	0.5−	1999 10 31	691	0.6−	0.1+

2000 FEB. 22

M.P.C. 38563

1999 08 22	703	2.2-	1.0+	1999 09 09	704	1.1+	0.2-	1999 10 31	691	0.5-	0.1-
1999 08 22	703	0.5-	1.0-	1999 09 09	704	0.3+	0.5-	1999 11 06	691	0.4+	1.0-
1999 09 05	699	0.5+	1.7+	1999 09 14	704	0.0	0.5-	1999 11 06	691	0.5+	0.8-
1999 09 05	699	0.6+	0.0	1999 09 14	704	0.5+	0.8-	1999 11 06	691	0.4+	0.8-
1999 09 05	699	0.3+	0.6-	1999 09 14	704	0.5+	1.6-				

1999 RG₁₄₅ = 1998 HD₁₁₁

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 178.88110 (2000.0)				<i>P</i>				<i>Q</i>			
<i>n</i>	0.24542699	ω	10.27867	-0.96336124	+0.26734306						
<i>a</i>	2.5265108	Ω	185.37412	-0.25948837	-0.94932652						
<i>e</i>	0.0954127	<i>i</i>	13.27910	-0.06782995	-0.16524783						
<i>P</i>	4.02	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	3				

Residuals in seconds of arc

1998 04 21	704	0.0	0.1-	1998 05 16	704	0.6-	0.1+	1999 09 14	704	0.7-	0.4-
1998 04 21	704	0.1-	0.7-	1998 05 16	704	0.4+	0.4+	1999 10 02	703	0.8-	0.8+
1998 04 21	704	0.0	0.1-	1998 05 16	704	0.3+	0.8+	1999 10 02	703	1.2-	0.9-
1998 04 21	704	0.1-	0.1+	1998 05 16	704	0.6-	0.9-	1999 10 02	703	0.5-	0.6-
1998 04 21	704	(0.3-	2.2-)	1998 05 23	699	0.1+	0.5+	1999 10 02	703	0.7-	0.7+
1998 04 23	704	0.1+	0.0	1998 05 23	699	0.3+	0.3-	1999 10 02	704	1.5+	0.1-
1998 04 23	704	0.4-	0.0	1998 05 23	699	0.5+	0.5+	1999 10 02	704	0.6+	0.4-
1998 04 23	704	0.5-	0.2-	1999 09 09	704	0.4+	0.5+	1999 10 02	704	0.6+	0.7-
1998 04 23	704	0.2+	0.8-	1999 09 09	704	0.1+	0.1+	1999 10 02	704	0.7+	0.5+
1998 04 23	704	0.2+	0.2-	1999 09 09	704	0.1-	0.3-	1999 10 02	704	1.2+	1.3-
1998 04 24	704	0.1+	0.4+	1999 09 09	704	0.3-	0.1+	1999 11 04	703	0.5+	0.2-
1998 04 24	704	0.1-	0.6+	1999 09 09	704	0.4-	0.3+	1999 11 04	703	0.4-	0.1-
1998 04 24	704	0.5+	0.3+	1999 09 14	704	0.4+	0.1+	1999 11 04	703	0.4-	0.4+
1998 04 24	704	0.2+	0.1+	1999 09 14	704	0.0	0.5+	1999 11 04	703	0.1+	0.4+
1998 04 24	704	0.0	0.1+	1999 09 14	704	0.0	0.7+				
1998 05 16	704	0.6-	0.5-	1999 09 14	704	0.5-	0.4-				

1999 RF₁₇₁ = 1996 TE₂₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 42.06075 (2000.0)				<i>P</i>				<i>Q</i>			
<i>n</i>	0.31203680	ω	353.86862	+0.99992291	-0.00895505						
<i>a</i>	2.1527760	Ω	6.66266	+0.01192482	+0.88562932						
<i>e</i>	0.0426128	<i>i</i>	4.25146	-0.00346024	+0.46430649						
<i>P</i>	3.16	<i>H</i>	16.8	<i>G</i>	0.15	<i>U</i>	5				

Residuals in seconds of arc

1996 10 06	691	0.0	0.4+	1998 03 22	704	0.2+	0.3-	1999 09 09	704	0.8+	1.3+
1996 10 06	691	0.1+	0.3+	1998 03 22	704	0.8+	0.3+	1999 09 09	704	0.6-	0.0
1996 10 06	691	0.0	0.1+	1998 03 29	704	1.0-	0.2+	1999 09 09	704	0.0	0.0
1996 10 16	691	0.2-	0.2-	1998 03 29	704	(2.3-	4.3+)	1999 09 14	704	0.4-	0.7-
1996 10 16	691	0.2+	0.4-	1998 03 29	704	(0.4+	3.0+)	1999 09 14	704	0.3+	0.4-
1996 10 16	691	0.1-	0.4-	1998 03 29	704	(4.0-	0.3+)	1999 09 14	704	0.2+	0.3-
1998 03 22	704	0.5-	1.1-	1999 09 09	704	0.6+	0.4-	1999 09 14	704	0.4+	0.2+
1998 03 22	704	(2.1-	1.9-)	1999 09 09	704	0.7-	0.7-	1999 09 14	704	0.5-	0.4+

1999 RJ₁₇₅ = 1994 AQ₄ = 1998 ED₁₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 103.77539 (2000.0)				<i>P</i>				<i>Q</i>			
<i>n</i>	0.27237134	ω	208.42615	+0.02555186	+0.99957895						
<i>a</i>	2.3570119	Ω	63.04092	-0.91423699	+0.02892917						
<i>e</i>	0.1989066	<i>i</i>	0.88383	-0.40437338	-0.00224302						
<i>P</i>	3.62	<i>H</i>	16.1	<i>G</i>	0.15	<i>U</i>	4				

Residuals in seconds of arc

1994 01 05	691	0.3+	0.2+	1998 03 03	809	0.5+	1.1-	1999 09 09	704	0.7-	0.0
1994 01 05	691	0.3+	0.4+	1998 03 03	809	1.2+	1.0-	1999 09 09	704	1.3-	1.0+

1994 01 05	691	0.1-	0.3+	1998 03 04	809	0.3-	2.0+	1999 09 14	704	1.2+	0.4-
1994 01 18	691	0.1-	0.3-	1998 03 04	809	1.0-	1.4+	1999 09 14	704	0.4+	1.0-
1994 01 18	691	0.6-	0.3-	1998 03 04	809	0.1+	0.4+	1999 09 14	704	1.0+	1.1+
1994 01 18	691	0.3+	0.5-	1999 09 09	704	0.2+	0.4+				
1998 03 03	809	0.5-	1.3-	1999 09 09	704	0.9-	1.0-				

1999 RW₁₇₇ = 1996 XB₁₁

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 107.80808 (2000.0)				<i>P</i>				<i>Q</i>			
<i>n</i>	0.28627131	ω	269.21085	+0.05834550	+0.99826143						
<i>a</i>	2.2800839	Ω	4.16174	-0.86396914	+0.05468961						
<i>e</i>	0.1636198	<i>i</i>	6.61662	-0.50015310	+0.02198113						
<i>P</i>	3.44	<i>H</i>	16.6	<i>G</i>	0.15	<i>U</i>	5				

Residuals in seconds of arc

1996 12 02	691	0.2+	0.3-	1999 09 07	704	0.3-	0.1-	1999 09 10	561	0.3+	0.2-
1996 12 02	691	0.6+	0.0	1999 09 07	704	0.1-	0.5-	1999 09 14	704	0.7+	0.0
1996 12 02	691	0.6+	0.2-	1999 09 09	704	1.7-	1.2-	1999 09 14	704	0.2+	0.2+
1996 12 09	691	0.6-	0.3+	1999 09 09	704	0.5-	0.2-	1999 09 14	704	1.2+	0.2-
1996 12 09	691	0.4-	0.0	1999 09 09	704	0.0	0.2+	1999 09 14	704	0.8-	0.1-
1996 12 09	691	0.4-	0.2+	1999 09 09	704	0.6+	1.9+	1999 09 14	704	0.6-	0.4+
1999 09 07	704	0.3+	0.2-	1999 09 10	561	0.4-	0.2+				
1999 09 07	704	0.3+	0.4-	1999 09 10	561	0.7+	0.2+				

1999 RF₁₇₉ = 1988 VR₈ = 1998 KT₂₀

Id. A. Doppler, G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 213.80670 (2000.0)				<i>P</i>				<i>Q</i>			
<i>n</i>	0.26074807	ω	143.35756	-0.99742911	-0.03439513						
<i>a</i>	2.4265467	Ω	34.83098	+0.00014099	-0.87822200						
<i>e</i>	0.0979875	<i>i</i>	6.31923	+0.07166001	-0.47701476						
<i>P</i>	3.78	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	3				

Residuals in seconds of arc

1988 11 04	033	0.0	0.0	1998 05 23	704	0.1+	0.3-	1999 09 09	704	0.9-	0.0
1998 04 22	704	0.7+	0.9-	1998 05 23	704	0.2+	1.1-	1999 09 13	704	0.7+	0.1+
1998 04 22	704	0.0	0.0	1998 05 24	704	0.1+	0.3-	1999 09 13	704	0.4+	0.8+
1998 04 22	704	0.2+	0.6-	1998 05 24	704	0.5-	0.3+	1999 09 13	704	0.2+	1.2+
1998 04 22	704	0.9+	0.1+	1998 05 24	704	0.2-	0.2+	1999 09 13	704	0.7+	0.3-
1998 04 22	704	0.2+	0.9-	1998 05 24	704	0.4+	0.4+	1999 09 13	704	0.0	0.7-
1998 05 03	566	0.2-	0.0	1998 05 24	704	0.3-	0.6-	1999 09 30	704	0.5-	1.0+
1998 05 03	566	0.3-	0.2-	1999 09 07	704	0.2+	0.1-	1999 09 30	704	0.4+	0.0
1998 05 03	566	0.4-	0.0	1999 09 07	704	0.0	0.3-	1999 09 30	704	1.3-	0.9+
1998 05 22	704	0.4-	0.1+	1999 09 07	704	0.0	0.2+	1999 09 30	704	0.0	1.2-
1998 05 22	704	0.1+	0.9+	1999 09 07	704	0.2-	1.5-	1999 09 30	704	0.2-	0.1+
1998 05 22	704	0.3-	0.7+	1999 09 07	704	0.2-	0.5-	1999 12 07	704	1.1-	0.6-
1998 05 22	704	0.8-	0.7+	1999 09 09	704	0.0	0.6+	1999 12 07	704	0.1-	1.7-
1998 05 23	704	0.2+	0.6+	1999 09 09	704	0.2+	0.2+	1999 12 07	704	1.4+	0.5+
1998 05 23	704	0.2-	0.7+	1999 09 09	704	0.4+	0.7+				
1998 05 23	704	0.6+	0.2-	1999 09 09	704	0.0	0.4-				

1999 RK₁₈₀ = 1979 PE

Id. A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 56.15141 (2000.0)				<i>P</i>				<i>Q</i>			
<i>n</i>	0.29733167	ω	236.51205	+0.93603472	+0.33993376						
<i>a</i>	2.2231833	Ω	103.47156	-0.28377766	+0.88208501						
<i>e</i>	0.1975219	<i>i</i>	5.37028	-0.20810872	+0.32614578						
<i>P</i>	3.31	<i>H</i>	15.6	<i>G</i>	0.15	<i>U</i>	3				

Residuals in seconds of arc

1979 08 14	808	0.1-	0.1-	1999 09 09	704	0.0	0.2+	1999 09 30	704	0.1+	0.2-
1979 08 14	808	1.3+	1.8+	1999 09 09	704	0.1-	0.1-	1999 09 30	704	0.3-	0.6-

M.P.C. 38564

2000 FEB. 22

1979 10 09	413	0.0	0.0	1999 09 09	704	0.1+	0.7+	1999 10 04	703	0.3-	0.1-
1979 10 09	413	1.9-	1.7-	1999 09 09	704	0.2-	0.6+	1999 10 04	703	0.1+	0.0
1982 07 20	413	0.9-	1.6-	1999 09 09	704	0.5-	0.2-	1999 10 04	703	0.2-	0.4-
1999 07 16	704	0.3-	0.1+	1999 09 13	704	0.3+	0.1+	1999 10 04	703	0.2-	0.2-
1999 07 16	704	0.9-	0.4+	1999 09 13	704	0.1+	0.9-	1999 11 08	704	0.1+	0.5-
1999 07 16	704	0.1+	0.6+	1999 09 13	704	0.3+	0.6-	1999 11 08	704	0.8-	0.2+
1999 07 16	704	0.3-	0.2-	1999 09 13	704	0.3+	0.4-	1999 11 08	704	0.1+	0.8+
1999 09 04	699	0.3+	0.3+	1999 09 30	704	0.9+	0.0	1999 11 08	704	0.4-	0.2+
1999 09 04	699	0.1+	0.3+	1999 09 30	704	0.1+	0.1-				
1999 09 04	699	0.5+	0.6+	1999 09 30	704	0.2+	0.5-				

1999 RD₁₈₃ = 1998 KC₄₄

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	84.79946		(2000.0)	P	Q
<i>n</i>	0.17762356	ω	230.78374	+0.27542009	+0.96094739
<i>a</i>	3.1342647	Ω	55.22366	-0.87159525	+0.26142179
<i>e</i>	0.1378196	<i>i</i>	1.87711	-0.40554345	+0.09076766
<i>P</i>	5.55	<i>H</i>	13.9	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 05 22	704	0.5+	1.8-	1999 08 22	703	0.3-	1.0+	1999 09 09	704	0.4-	1.5-
1998 05 22	704	0.4+	0.2-	1999 08 22	703	(1.7-	2.4+)	1999 09 09	704	(0.8-	2.1-)
1998 05 22	704	1.1+	1.1+	1999 08 22	703	1.0+	0.0	1999 09 14	704	0.1-	0.2-
1998 05 22	704	0.2+	0.7-	1999 08 22	703	0.2-	1.5+	1999 09 14	704	0.1-	0.5-
1998 05 24	704	1.4-	0.7+	1999 09 07	704	0.2+	0.3-	1999 09 14	704	0.4-	0.3-
1998 05 24	704	0.3-	0.6+	1999 09 07	704	0.3+	0.2-	1999 09 14	704	0.2-	0.3-
1998 05 24	704	0.5+	0.3-	1999 09 07	704	0.2+	0.4-	1999 09 14	704	0.5-	0.6-
1998 05 24	704	0.7-	0.0	1999 09 07	704	0.5+	0.4-	1999 10 02	704	0.2-	0.1+
1998 05 24	704	0.2-	0.6+	1999 09 07	704	0.1+	0.4+	1999 10 02	704	0.3+	0.1-
1999 08 12	699	(3.0-	0.9+)	1999 09 09	704	0.3+	0.4+	1999 10 02	704	0.2-	1.0+
1999 08 12	699	0.7-	1.6+	1999 09 09	704	0.8+	0.9-	1999 10 02	704	0.1-	0.4+
1999 08 12	699	0.3-	0.3-	1999 09 09	704	0.6-	1.2-	1999 10 02	704	0.4+	1.2+

1999 RL₁₉₅ = 1996 XR₃₀

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	56.85542		(2000.0)	P	Q
<i>n</i>	0.21982043	ω	23.55644	+0.67302978	+0.70224629
<i>a</i>	2.7190927	Ω	289.65099	-0.71172175	+0.52954754
<i>e</i>	0.2038935	<i>i</i>	14.26921	-0.20120404	+0.47584615
<i>P</i>	4.48	<i>H</i>	14.9	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1996 12 15	691	0.2+	0.2+	1999 09 08	704	0.1-	0.0	1999 09 29	703	0.5+	0.5+
1996 12 15	691	0.1+	0.0	1999 09 08	704	0.2-	0.1+	1999 09 29	703	0.3+	0.3+
1996 12 15	691	0.6+	0.1-	1999 09 16	704	0.3+	0.3+	1999 09 29	703	0.2-	1.1+
1996 12 17	691	0.4-	0.1-	1999 09 16	704	0.1-	0.2-	1999 11 05	704	0.2-	0.8-
1996 12 17	691	0.2+	0.2-	1999 09 16	704	0.2+	0.4-	1999 11 05	704	0.1+	0.8-
1996 12 17	691	0.4-	0.5+	1999 09 16	704	0.0	0.5-	1999 11 05	704	0.1+	0.3+
1999 09 08	704	0.3-	0.2+	1999 09 16	704	0.3-	0.4-				
1999 09 08	704	0.2-	0.0	1999 09 29	703	0.1+	0.1+				

1999 RK₁₉₆ = 1993 BP₁₄ = 1998 FV₁₂₅

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	127.57377		(2000.0)	P	Q
<i>n</i>	0.21721617	ω	292.70479	-0.51546415	+0.85079190
<i>a</i>	2.7407828	Ω	305.86660	-0.73262898	-0.49943288
<i>e</i>	0.2258169	<i>i</i>	7.24679	-0.44446765	-0.16346235
<i>P</i>	4.54	<i>H</i>	13.4	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1993 01 23	809	1.1+	0.9+	1998 04 01	704	0.5+	1.0+	1999 09 16	704	1.1-	0.2-
1993 01 28	809	0.8+	0.3+	1999 07 23	704	0.8+	0.0	1999 09 16	704	1.1-	0.5+
1993 01 28	809	1.6-	0.4-	1999 07 23	704	0.4+	0.1-	1999 09 16	704	0.6-	0.2-
1998 03 31	704	1.6-	2.0+	1999 07 23	704	0.5+	0.8-	1999 10 04	704	0.0	0.7-
1998 03 31	704	0.4-	0.8-	1999 07 23	704	0.8+	1.0+	1999 10 04	704	0.1+	0.2-
1998 03 31	704	0.1+	0.5-	1999 07 23	704	0.9+	0.3+	1999 10 04	704	0.2+	0.2-
1998 03 31	704	0.4+	0.2+	1999 08 12	699	0.3+	0.3+	1999 10 04	704	0.2+	0.2-
1998 03 31	704	0.1-	0.8+	1999 08 12	699	1.2-	0.8+	1999 10 04	704	0.3+	0.2-
1998 04 01	704	0.8+	1.2-	1999 08 12	699	0.2+	0.4+	1999 10 20	704	1.1-	0.4+
1998 04 01	704	0.3+	0.8-	1999 09 08	704	0.2+	0.1-	1999 10 20	704	0.1+	0.1-
1998 04 01	704	0.2+	0.0	1999 09 08	704	0.6-	0.2+	1999 10 20	704	0.6+	0.7+
1998 04 01	704	0.3+	0.4+	1999 09 08	704	0.5-	0.3-	1999 10 20	704	0.2+	0.6+

1999 RL₁₉₆ = 1986 CJ₁ = 1991 BH₄

Id. A. Doppler, G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	277.20089		(2000.0)	P	Q
<i>n</i>	0.18887753	ω	164.44810	-0.46065968	-0.88138440
<i>a</i>	3.0084942	Ω	312.85169	+0.79835274	-0.35993327
<i>e</i>	0.0787078	<i>i</i>	8.20779	+0.38784735	-0.30595683
<i>P</i>	5.22	<i>H</i>	12.8	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1986 02 07	046	1.6-	0.3+	1999 07 23	704	0.7-	0.8+	1999 10 20	704	0.2+	0.1+
1986 02 08	046	0.9+	1.8-	1999 09 08	704	0.8+	0.1-	1999 10 20	704	0.1+	0.3+
1991 01 18	801	0.1-	0.3+	1999 09 08	704	0.2-	0.7-	1999 10 20	704	0.0	0.5+
1991 01 18	801	0.2-	0.4+	1999 09 08	704	0.2-	0.7-	1999 10 30	703	0.8-	0.2+
1991 02 11	675	0.4+	0.2+	1999 09 16	704	0.1+	0.2-	1999 10 30	703	0.6+	0.1-
1991 02 11	675	0.2+	0.1+	1999 09 16	704	0.4+	0.3-	1999 10 30	703	0.4-	0.5+
1998 06 24	704	0.7-	0.8+	1999 09 16	704	0.3+	0.1-	1999 10 30	703	0.9-	0.5+
1998 06 24	704	0.6+	0.2+	1999 10 04	704	0.3+	0.0	1999 12 03	704	1.1-	1.2+
1998 06 24	704	(2.6+	1.7-)	1999 10 04	704	0.1+	0.1-	1999 12 03	704	1.8+	1.0+
1998 06 24	704	0.0	0.5-	1999 10 04	704	1.0+	0.8-	1999 12 03	704	(2.1+	0.8-)
1999 07 23	704	0.9-	1.6-	1999 10 04	704	0.3-	0.9-				
1999 07 23	704	0.5-	0.1+	1999 10 20	704	0.5+	0.2+				

1999 RB₁₉₇ = 1971 DG = 1981 AQ₃ = 1989 SU₁₂ = 2000 AR₂₂₈

Id. A. Doppler, G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	212.52075		(2000.0)	P	Q
<i>n</i>	0.19209204	ω	211.49604	-0.98776589	-0.08777344
<i>a</i>	2.9748368	Ω	322.78657	+0.14446275	-0.82631581
<i>e</i>	0.0763217	<i>i</i>	12.30572	-0.05872864	-0.55632545
<i>P</i>	5.13	<i>H</i>	12.4	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1971 02 18	095	1.1+	1.6+	1999 09 08	699	0.6-	0.4+	1999 10 04	704	0.2-	1.6+
1981 01 08	381	0.5+	0.2-	1999 09 08	704	0.1-	0.6+	1999 12 03	704	1.2+	0.1+
1981 01 08	381	0.7-	0.2+	1999 09 08	704	0.7-	0.9+	1999 12 03	704	0.6+	0.4-
1989 09 28	493	0.3-	1.9-	1999 09 08	699	0.3-	0.0	1999 12 03	704	0.3-	0.3-
1989 09 28	493	1.6+	0.6+	1999 09 08	704	0.2-	0.7+	1999 12 03	704	1.2+	0.1+
1989 10 03	493	1.4+	2.0-	1999 09 08	699	0.2-	0.3-	2000 01 06	699	0.1+	0.6+
1989 10 03	493	0.1+	1.5-	1999 09 16	704	0.4+	0.6+	2000 01 06	699	(0.5+	2.0+)
1999 07 23	704	0.2-	0.7-	1999 09 16	704	0.0	0.3-	2000 01 06	699	0.0	0.8+
1999 07 23	704	0.0	0.4-	1999 09 16	704	0.6+	1.0-	2000 01 07	699	0.8-	0.3-
1999 07 23	704	1.2+	0.3-	1999 10 04	704	0.6-	0.3+	2000 01 07	699	0.1+	0.5+
1999 07 23	704	0.5-	0.4-	1999 10 04	704	1.1-	0.5+	2000 01 07	699	1.1-	0.6+
1999 07 23	704	0.0	0.5+	1999 10 04	704	0.7-	0.4+				
1999 09 08	704	1.2-	0.9+	1999 10 04	704	0.2-	1.0+				

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1999 RB₂₀₅ = 1994 NV₁₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.21764419	ω	43.32113	+0.87505942	+0.44003844		
<i>a</i>	2.7371882	Ω	289.55542	-0.48154870	+0.74950265		
<i>e</i>	0.1934113	<i>i</i>	12.35254	-0.04880430	+0.49458260		
<i>P</i>	4.53	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	4
Residuals in seconds of arc							
1994 07 08	809	0.0	0.4+	1999 09 08	704	0.1-	0.8+
1994 07 08	809	0.6-	0.4+	1999 09 08	704	0.8-	0.9+
1994 07 08	809	1.4-	1.1-	1999 09 08	704	0.0	0.2+
1994 07 09	809	1.6+	0.2-	1999 09 18	704	0.4-	0.0
1994 07 09	809	1.4+	0.0	1999 09 18	704	0.8-	0.0
1994 07 09	809	0.9-	1.1+	1999 09 18	704	0.6-	0.1-
1999 07 22	704	0.3-	0.3-	1999 09 18	704	0.5+	1.2-
1999 07 22	704	0.2+	0.7+	1999 09 18	704	0.3+	0.4-
1999 07 22	704	0.4-	0.3+	1999 10 03	704	1.0+	1.1-
1999 07 22	704	0.7-	0.5+	1999 10 03	704	1.2+	0.2-
1999 07 22	704	0.3-	0.4-	1999 10 03	704	1.0+	0.1+
1999 09 08	704	0.5-	0.1+	1999 10 03	704	0.4+	0.3+
1999 09 08	704	0.9-	0.7+	1999 10 03	704	1.2+	0.2+

1999 RZ₂₀₅ = 1998 FE₁₀₁

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.28681078	ω	21.85724	+0.58987561	+0.80031031		
<i>a</i>	2.2772239	Ω	284.44913	-0.75632629	+0.50095839		
<i>e</i>	0.1246299	<i>i</i>	6.37193	-0.28287332	+0.32946031		
<i>P</i>	3.44	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	3
Residuals in seconds of arc							
1998 03 31	704	(2.5+	1.5-)	1999 09 08	704	0.7+	0.1+
1998 03 31	704	0.7+	0.4+	1999 09 08	704	0.6+	0.3+
1998 03 31	704	0.1-	0.3+	1999 09 08	704	0.5+	0.5-
1998 03 31	704	1.0+	0.9+	1999 09 08	704	0.2+	0.2-
1998 03 31	704	0.2+	0.8+	1999 09 08	704	1.0+	0.3-
1998 04 01	704	0.4-	0.1+	1999 09 18	704	0.4+	0.5-
1998 04 01	704	0.5+	0.4+	1999 09 18	704	0.4+	0.3-
1998 04 01	704	0.3-	0.3-	1999 09 18	704	0.3+	0.5-
1998 04 01	704	0.5-	0.2-	1999 09 18	704	0.4+	0.7-
1999 07 23	704	0.3-	1.0+	1999 09 18	704	0.7+	0.3-
1999 07 23	704	0.3+	0.7+	1999 09 29	703	0.4+	0.6+
1999 07 23	704	1.2+	0.3+	1999 09 29	703	0.5+	0.7+
1999 07 23	704	0.7-	1.1+	1999 09 29	703	0.5-	0.0
1999 07 23	704	0.9-	0.9+	1999 09 29	703	1.2-	0.0
1999 08 11	704	0.6-	0.1-	1999 10 03	704	0.0	0.1-
1999 08 11	704	0.0	0.2-	1999 10 03	704	0.4-	0.2+
1999 08 11	704	0.6-	0.8-	1999 10 03	704	0.0	0.2-

1999 RQ₂₀₆ = 1994 WG₁₁

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.16919670	ω	84.56653	+0.94179890	+0.23757662		
<i>a</i>	3.2374877	Ω	261.52775	-0.31177005	+0.88191102		
<i>e</i>	0.0780487	<i>i</i>	13.91448	+0.12575483	+0.40717356		
<i>P</i>	5.83	<i>H</i>	12.0	<i>G</i>	0.15	<i>U</i>	5
Residuals in seconds of arc							
1994 11 27	010	0.4+	0.4+	1999 09 08	704	0.6+	0.5-
1994 11 27	010	0.0	0.0	1999 09 08	704	0.0	0.3-
1994 11 28	010	0.4-	0.5+	1999 09 08	704	0.3-	0.3+
1994 11 28	010	0.3+	0.2+	1999 09 18	704	0.7-	0.3+

1994 11 28	010	0.3+	0.6-	1999 09 18	704	0.1-	0.1-	1999 10 03	703	0.2-	0.2+
1994 11 29	010	0.6-	0.5-	1999 09 18	704	0.4-	0.3+	1999 10 03	704	0.3+	0.5-
1999 09 08	704	0.2+	0.2-	1999 09 18	704	0.5-	0.4+	1999 10 03	703	0.1-	0.2+
1999 09 08	704	0.1+	0.3-	1999 09 18	704	0.7-	0.6+	1999 10 03	704	0.5+	1.1-

1999 RX₂₀₇ = 1995 QX₄

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26313161	ω	125.77487	+0.60539151	-0.78976597		
<i>a</i>	2.4118708	Ω	286.66888	+0.69289919	+0.58405770		
<i>e</i>	0.2496076	<i>i</i>	5.92252	+0.39165269	+0.18747349		
<i>P</i>	3.75	<i>H</i>	15.9	<i>G</i>	0.15	<i>U</i>	4
Residuals in seconds of arc							
1995 08 22	691	0.5-	0.6+	1999 09 08	704	0.2+	0.8-
1995 08 22	691	0.1-	0.3+	1999 09 08	704	0.1-	0.2+
1995 08 22	691	0.1-	0.4+	1999 09 18	704	0.8+	0.4-
1995 08 27	691	0.0	0.4+	1999 09 18	704	0.1+	0.4-
1995 08 27	691	0.0	0.1+	1999 09 18	704	0.7+	0.2+
1995 08 27	691	0.0	0.1-	1999 09 18	704	0.4+	0.3-
1999 09 06	703	0.1+	0.3+	1999 09 18	704	0.6+	0.4-
1999 09 06	703	0.9-	0.2-	1999 10 03	704	0.1+	0.1-
1999 09 06	703	0.5-	0.6+	1999 10 03	703	0.3-	1.1+
1999 09 06	703	(2.8-	0.6+)	1999 10 03	704	0.4+	0.7-
1999 09 08	704	0.2+	1.6-	1999 10 03	703	1.1-	0.4+
1999 09 08	704	0.9+	0.6-	1999 10 03	704	0.4+	0.0
1999 09 08	704	0.3+	0.9-	1999 10 03	704	0.2+	0.2-

1999 SE₃ = 1995 KK₂

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.27432718	ω	51.98539	+0.44889809	+0.80954552		
<i>a</i>	2.3457955	Ω	248.81724	-0.89274701	+0.38799187		
<i>e</i>	0.2284127	<i>i</i>	23.93721	-0.03864315	+0.44056595		
<i>P</i>	3.59	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	4
Residuals in seconds of arc							
1995 05 27	675	0.4-	1.1+	1999 09 27	704	0.3-	0.2+
1995 05 27	675	0.6-	0.3+	1999 09 27	704	0.1-	0.2+
1995 05 29	675	0.6+	0.5-	1999 09 27	704	0.1-	0.5+
1995 05 29	675	0.4+	0.8-	1999 09 27	704	0.1+	0.7+
1999 09 22	704	0.0	0.3-	1999 11 03	704	0.1+	0.2-
1999 09 22	704	0.1+	0.5-	1999 11 03	704	0.0	0.4-
1999 09 22	704	0.2-	0.6-	1999 11 03	704	0.2+	0.0

1999 SF₃ = 2000 AT₃ = 1991 NP₄

Id. A. Doppler, G. V. Williams (d)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26293205	ω	136.24193	+0.33313962	-0.86805382		
<i>a</i>	2.4130910	Ω	291.08443	+0.71952464	+0.48635349		
<i>e</i>	0.2906315	<i>i</i>	23.23581	+0.60934578	-0.09971382		
<i>P</i>	3.75	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i>	3
Residuals in seconds of arc							
1991 07 08	809	0.1-	0.2+	1999 09 18	703	0.5-	0.3+
1991 07 08	809	0.2+	0.1+	1999 09 18	703	0.5-	0.2+
1991 07 08	809	0.3+	0.0	1999 09 18	703	0.5-	0.1+
1991 07 10	809	0.3-	0.6-	1999 09 22	704	0.1+	0.3-
1991 07 10	809	0.2+	0.0	1999 09 22	704	0.0	0.1+
1999 07 27	704	0.2+	0.3-	1999 09 22	704	0.1+	0.1+
1999 07 27	704	0.5+	0.0	1999 09 22	704	0.3+	0.1+

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1999 07 27	704	0.2+	0.1+	1999 09 27	704	0.1+	0.2−	2000 01 04	704	0.8−	0.5−
1999 07 27	704	0.4+	0.1+	1999 09 27	704	0.0	0.4−	2000 01 04	704	0.0	0.2+
1999 07 27	704	0.0	0.5+	1999 09 27	704	0.2+	0.3−				
1999 09 18	703	0.4−	0.1+	1999 09 27	704	0.0	0.1+				

1999 SS₈ = 1998 FE₈₂

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	92.58498		(2000.0)	P	Q		
<i>n</i>	0.27841918	ω	179.18645	+0.26691563	+0.95192981		
<i>a</i>	2.3227544	Ω	106.28437	−0.88507764	+0.30383596		
<i>e</i>	0.1526278	<i>i</i>	9.00766	−0.38130515	−0.03890184		
<i>P</i>	3.54	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 03 24	704	0.3−	0.9+	1999 09 29	704	0.6−	0.6+	1999 11 09	699	0.5−	0.4+
1998 03 24	704	0.0	0.0	1999 09 29	704	0.3−	0.1−	1999 11 09	699	0.0	0.7−
1998 03 24	704	0.6−	1.0−	1999 09 29	704	0.1−	0.0	1999 11 09	699	0.5+	0.4−
1998 03 24	704	0.1−	0.7−	1999 09 29	704	0.2−	0.0	1999 11 10	704	0.1−	0.1+
1998 03 24	704	0.3+	0.1−	1999 09 29	704	0.2+	0.8−	1999 11 10	704	0.1+	0.3−
1998 03 25	704	0.5−	0.8+	1999 09 30	704	0.1−	0.3+	1999 11 10	704	0.1−	0.5+
1998 03 25	704	0.2−	1.5+	1999 09 30	704	0.3+	0.0	1999 11 10	704	0.3−	0.7+
1998 03 25	704	0.5+	0.2+	1999 09 30	704	0.1+	0.0	1999 11 10	704	0.5+	0.4−
1998 03 25	704	0.2+	1.1−	1999 09 30	704	0.3+	0.1−				
1998 03 25	704	0.7+	0.5−	1999 09 30	704	0.5+	0.2+				

1999 TZ₈ = 1998 FV₄₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	130.40692		(2000.0)	P	Q		
<i>n</i>	0.27419147	ω	273.64436	−0.23348422	+0.97206613		
<i>a</i>	2.3465695	Ω	342.79633	−0.85692733	−0.21733338		
<i>e</i>	0.1276994	<i>i</i>	4.64035	−0.45952222	−0.08862073		
<i>P</i>	3.59	<i>H</i>	15.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 03 20	704	1.1−	1.8+	1998 03 29	704	1.7−	0.7−	1999 10 07	691	0.2−	0.4+
1998 03 20	704	0.2+	1.0+	1998 03 29	704	1.2−	0.4−	1999 10 07	691	0.0	0.3+
1998 03 20	704	1.1+	1.0+	1999 09 09	704	0.3+	0.6+	1999 10 07	691	0.1+	0.2+
1998 03 20	704	0.5−	0.8−	1999 09 09	704	1.3+	0.7+	1999 10 07	595	0.4+	0.4−
1998 03 20	704	0.1+	0.7+	1999 09 09	704	1.5−	0.6+	1999 10 07	595	0.5−	0.3−
1998 03 22	704	0.3−	0.3+	1999 10 06	704	0.2−	0.4−	1999 10 12	691	0.2+	0.3+
1998 03 22	704	0.1−	0.0	1999 10 06	704	0.6−	0.3−	1999 10 12	691	0.0	0.4+
1998 03 22	704	0.9+	0.1−	1999 10 06	704	0.4+	0.4−	1999 10 12	691	0.3+	0.2+
1998 03 22	704	0.9+	0.4−	1999 10 06	704	0.1+	0.6−	1999 10 19	691	0.5+	0.3+
1998 03 22	704	0.4+	0.6−	1999 10 06	704	0.4−	0.5−	1999 10 19	691	0.5+	0.2+
1998 03 29	704	1.7+	1.0−	1999 10 06	595	1.1−	1.1−	1999 10 19	691	0.1+	0.5+
1998 03 29	704	(2.6+	0.8+)	1999 10 06	595	0.2−	0.0				

1999 TN₂₆ = 1995 WY₂₃ = 1998 HF₃₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	85.83618		(2000.0)	P	Q		
<i>n</i>	0.23733716	ω	294.84020	+0.57724016	+0.81639697		
<i>a</i>	2.5836017	Ω	10.46737	−0.71129634	+0.51294823		
<i>e</i>	0.2617035	<i>i</i>	5.37646	−0.40106273	+0.26529247		
<i>P</i>	4.15	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1995 11 18	691	0.3−	0.1+	1999 10 02	703	0.4−	0.2+	1999 11 10	691	0.3−	0.1+
1995 11 18	691	0.3−	0.1+	1999 10 02	703	0.2−	0.5+	1999 11 10	691	0.1−	0.1−
1995 11 18	691	0.3−	0.1+	1999 10 03	704	0.8−	0.8+	1999 11 14	704	0.3−	0.2−
1995 11 24	691	1.3+	1.4−	1999 10 03	704	0.3−	0.3+	1999 11 14	704	0.8+	0.1+
1995 11 24	691	0.1−	0.5+	1999 10 03	704	0.7+	0.2+	1999 11 14	704	0.7+	0.5−
1995 11 24	691	0.2−	0.3+	1999 10 03	704	0.4+	0.0	1999 11 14	704	0.7−	0.4−
1998 04 18	704	0.2+	0.1+	1999 10 06	704	0.1−	0.5+	1999 11 14	704	0.4−	0.6−
1998 04 18	704	1.4−	0.6+	1999 10 06	704	0.1+	0.5+	1999 11 15	691	0.1+	0.4−

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1998 04 18	704	(1.3−	2.1+)	1999 10 06	704	0.2+	0.5+	1999 11 15	691	0.1−	0.4−
1998 04 18	704	1.4−	0.1+	1999 10 06	704	0.2+	0.6+	1999 11 15	691	0.2−	0.4−
1998 04 20	704	0.3−	1.7+	1999 10 06	704	0.4+	0.6+	1999 11 16	704	1.1+	0.4−
1998 04 20	704	1.0−	1.5+	1999 11 04	704	0.5−	0.4−	1999 11 16	691	0.2−	0.2−
1998 04 20	704	1.1+	1.9+	1999 11 04	704	0.4−	0.1+	1999 11 16	704	1.4−	0.0
1998 04 20	704	(0.7−	3.0+)	1999 11 04	704	0.3−	0.0	1999 11 16	691	0.3+	0.2−
1998 04 22	704	0.4+	1.0−	1999 11 04	703	0.0	0.2+	1999 11 16	704	0.3+	0.4+
1998 04 22	704	0.8+	0.5−	1999 11 04	704	0.0	0.6+	1999 11 16	691	0.1−	0.1−
1998 04 22	704	1.7+	0.1+	1999 11 04	703	0.0	0.3+	1999 11 16	704	0.7+	0.2+
1998 04 22	704	1.1+	0.6+	1999 11 04	704	0.1+	0.4+	1999 11 16	704	1.0+	0.5−
1998 04 22	704	1.5+	0.3−	1999 11 04	703	1.2−	0.1+	1999 11 17	691	0.1+	0.1−
1999 10 02	703	0.0	0.7+	1999 11 04	703	0.2−	0.4+	1999 11 17	691	0.2−	0.1+
1999 10 02	703	0.4−	1.0+	1999 11 10	691	0.1−	0.0	1999 11 17	691	0.3−	0.0

1999 TH₂₈ = 1977 RD₁₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	66.17052		(2000.0)	P	Q		
<i>n</i>	0.27087336	ω	83.22726	+0.97414916	+0.22506303		
<i>a</i>	2.3656937	Ω	263.76483	−0.21423916	+0.89302087		
<i>e</i>	0.2271068	<i>i</i>	1.12368	−0.07165884	+0.38969264		
<i>P</i>	3.64	<i>H</i>	16.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1977 09 09	675	0.3+	0.7+	1999 11 04	704	0.0	0.1−	1999 11 14	704	0.1−	0.9−
1977 09 10	675	0.9−	0.6+	1999 11 04	704	0.3+	0.1−	1999 11 15	704	0.2+	0.3−
1999 10 03	704	1.1+	1.1−	1999 11 04	704	0.2+	0.2+	1999 11 15	704	0.2−	0.8−
1999 10 03	704	0.0	0.3−	1999 11 04	704	0.5+	0.2−	1999 11 15	704	0.0	0.4+
1999 10 03	704	0.2+	1.8−	1999 11 04	704	0.4+	0.1+	1999 11 15	704	0.1−	0.4+
1999 10 03	704	0.3−	1.2−	1999 11 11	703	0.4−	0.3+	1999 11 15	704	0.0	0.6+
1999 10 06	704	0.3+	0.2+	1999 11 11	703	1.1−	0.4+	1999 11 16	704	(2.3+	0.5+)
1999 10 06	704	0.1+	0.3−	1999 11 11	703	0.6−	0.1+	1999 11 16	704	0.6+	0.6+
1999 10 06	704	0.1+	0.0	1999 11 11	703	0.4+	0.8+	1999 11 16	704	1.8+	0.4+
1999 10 06	704	0.2+	0.3+	1999 11 12	699	(0.7−	2.9+)	1999 11 16	704	0.4−	0.0
1999 10 06	704	0.3−	0.1−	1999 11 12	699	0.3−	1.7+	1999 11 16	704	0.1+	0.1+
1999 10 29	703	0.4−	0.0	1999 11 12	699	1.0−	0.6+	1999 12 04	703	0.2+	1.0+
1999 10 29	703	0.2−	0.3+	1999 11 14	704	0.1+	0.1−	1999 12 04	703	0.0	0.2−
1999 10 29	703	0.7−	0.0	1999 11 14	704	0.2−	0.9−	1999 12 04	703	0.2−	0.4+
1999 10 29	703	0.1−	1.0−	1999 11 14	704	0.0	0.9−	1999 12 04	703	0.1−	0.0

1999 TW₃₅ = 1991 GL₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	275.00897		(2000.0)	P	Q		
<i>n</i>	0.29207261	ω	140.56404	−0.84926097	−0.52769255		
<i>a</i>	2.2497909	Ω	7.64454	+0.44579893	−0.73416970		
<i>e</i>	0.0734328	<i>i</i>	7.43570	+0.28287650	−0.42724165		
<i>P</i>	3.37	<i>H</i>	15.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1991 04 08	809	1.0+	0.1+	1999 10 06	704	0.3+	0.0	1999 11 14	704	0.4−	0.4−
1991 04 08	809	0.3−	1.4−	1999 10 06	704	0.1+	0.1−	1999 11 14	704	1.1+	0.4+
1991 04 08	809	(2.1+	3.4−)	1999 10 06	704	0.4+	0.2+	1999 11 15	704	1.0+	0.4+
1991 04 10	809	0.7+	0.8+	1999 10 07	704	0.5+	0.3+	1999 11 15	704	0.6−	0.1−
1991 04 10	809	0.1−	0.2+	1999 10 07	704	0.5+	0.0	1999 11 15	704	0.6−	0.1−
1991 04 10	809	1.4−	0.1+	1999 10 07	704	0.1−	0.1−	1999 11 15	704	0.2+	0.7+
1999 10 06	704	0.3−	0.1+	1999 10 07	704	1.1−	0.6−	1999 11 15	704	0.3+	0.6−
1999 10 06	704	0.2−	0.1+	1999 11 14	704	0.8−	0.3−				

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M.P.C. 38567

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	356.59456	(2000.0)	P	Q
<i>n</i>	0.17487135	ω	217.73459	+0.20015471 −0.97840917
<i>a</i>	3.1670647	Ω	220.79220	+0.91702020 +0.20559039
<i>e</i>	0.1424618	<i>i</i>	4.52238	+0.34498122 +0.02116829
<i>P</i>	5.64	<i>H</i>	13.6	<i>G</i> 0.15 <i>U</i> 2

Residuals in seconds of arc

1987 09 15	413	0.4−	0.3−	1999 11 01	703	0.3−	0.1−	1999 11 30	691	0.0	0.2−
1987 09 15	413	0.1+	1.0+	1999 11 01	703	0.1−	0.3+	1999 12 04	703	0.2−	0.2+
1990 03 02	809	0.3+	0.4+	1999 11 04	704	1.0+	0.4+	1999 12 04	703	0.7−	0.3+
1990 03 02	809	0.2−	0.3+	1999 11 04	704	0.8−	0.2−	1999 12 04	703	0.1+	0.2+
1990 03 02	809	0.1+	0.3−	1999 11 04	704	0.5+	0.1+	1999 12 04	703	0.1−	0.4+
1999 10 10	704	0.7+	0.2+	1999 11 04	704	0.3+	0.2+	1999 12 06	704	(0.6+ 2.7−)	
1999 10 10	704	0.4+	0.1−	1999 11 04	704	0.3+	0.1+	1999 12 06	704	0.2−	0.6−
1999 10 10	704	0.7+	0.2+	1999 11 09	704	0.2+	0.1+	1999 12 06	704	0.4+	1.1−
1999 10 10	704	0.0	0.6+	1999 11 09	704	0.5+	0.0	1999 12 06	704	1.5−	0.0
1999 10 10	704	0.9−	0.4+	1999 11 09	704	0.3+	0.3−	1999 12 07	704	0.3+	0.2−
1999 10 10	699	0.1+	0.0	1999 11 09	704	0.3+	0.0	1999 12 07	704	0.2+	0.0
1999 10 10	699	0.1+	0.1+	1999 11 12	704	0.1−	0.1+	1999 12 07	704	0.8+	0.8−
1999 10 10	699	0.8−	0.3+	1999 11 12	704	0.0	0.1+	1999 12 07	704	0.8+	0.2−
1999 10 20	699	0.4−	1.0−	1999 11 12	704	0.1+	0.1+	1999 12 07	704	1.0−	0.8−
1999 10 20	699	0.8+	1.0−	1999 11 12	704	0.1−	0.3+	1999 12 12	691	0.5+	0.5−
1999 10 20	699	0.6−	1.1+	1999 11 12	704	0.2−	0.0	1999 12 12	691	0.1−	2.0−
1999 10 21	704	0.9+	0.4−	1999 11 14	704	0.7−	0.1+	1999 12 12	691	1.6+	1.1−
1999 10 21	704	0.5+	0.2−	1999 11 14	704	0.8−	0.4+	1999 12 12	703	0.1+	0.5+
1999 10 21	704	0.1+	0.1−	1999 11 14	704	0.7−	0.0	1999 12 12	703	0.1−	0.0
1999 10 21	704	0.3+	0.3−	1999 11 14	704	0.8−	0.2+	1999 12 12	703	0.2−	0.7+
1999 10 21	704	0.9+	0.2+	1999 11 14	704	0.8−	0.0	1999 12 12	703	0.2+	0.5−
1999 10 29	703	0.1−	0.6−	1999 11 17	704	0.2−	0.7+	2000 02 03	704	0.8+	0.8+
1999 10 29	703	0.1+	0.8+	1999 11 17	704	0.0	0.6+	2000 02 03	704	0.0	1.1+
1999 10 29	703	0.2+	0.4−	1999 11 17	704	0.1−	0.2+	2000 02 03	704	0.5−	1.5+
1999 10 29	703	0.2+	0.2+	1999 11 17	704	0.4−	0.2+	2000 02 03	704	0.6−	0.0
1999 11 01	703	0.2−	0.0	1999 11 30	691	0.0	0.2−	2000 02 03	704	0.8−	0.8+
1999 11 01	703	0.1+	0.1−	1999 11 30	691	0.0	0.2−				

1999 UL₁₃ = 1981 UD₆

Id. A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	0.89520	(2000.0)	P	Q
<i>n</i>	0.27106443	ω	113.88382	+0.40701211 −0.91321219
<i>a</i>	2.3645819	Ω	312.08404	+0.82814432 +0.37798663
<i>e</i>	0.1928169	<i>i</i>	1.51426	+0.38538051 +0.15221564
<i>P</i>	3.64	<i>H</i>	15.3	<i>G</i> 0.15 <i>U</i> 3

Residuals in seconds of arc

1981 10 30	381	0.1+	0.9−	1999 10 04	704	0.1+	0.1−	1999 12 03	704	0.8−	1.0+
1981 10 30	381	0.1−	1.0−	1999 10 04	704	0.8+	0.1−	1999 12 03	704	0.2+	0.3−
1981 10 30	381	0.5+	0.8+	1999 10 04	704	0.9+	0.9−	1999 12 03	704	0.9+	0.3+
1981 10 30	381	0.1−	0.5+	1999 10 04	704	1.3+	1.0−	1999 12 07	704	0.4+	1.1+
1988 11 02	413	0.5+	0.2−	1999 10 29	703	0.3−	0.7+	1999 12 07	704	0.5+	0.4+
1988 11 02	413	1.1−	0.0	1999 10 29	703	0.6−	0.1+	1999 12 07	704	0.2−	0.3+
1999 09 05	699	0.9−	0.5+	1999 10 29	703	0.5−	0.1−	1999 12 07	704	0.7+	0.4+
1999 09 05	699	0.5−	0.7+	1999 10 29	703	0.4+	0.2+	1999 12 07	704	0.4+	0.2+
1999 09 05	699	0.3−	0.2−	1999 11 03	703	0.2+	0.5+	2000 01 07	704	0.2−	0.1−
1999 09 30	703	0.3−	0.1−	1999 11 03	703	0.4−	0.2+	2000 01 07	704	0.0	0.2−
1999 09 30	703	0.3−	0.3−	1999 11 03	703	0.3−	0.3+	2000 01 07	704	0.8−	0.6−
1999 09 30	703	0.0	0.2+	1999 11 03	703	0.2+	0.4−	2000 01 07	704	1.2−	0.1+
1999 09 30	703	0.1−	0.1+	1999 12 03	704	0.3+	0.0	2000 01 07	704	0.7−	1.3−
1999 10 04	704	0.3+	0.6−	1999 12 03	704	0.2−	0.0				

1999 US₁₃ = 1977 FE₂ = 1994 NG₆ = 1997 HB

Id. A. Doppler, G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	227.91930	(2000.0)	P	Q
<i>n</i>	0.24158957	ω	255.27803	−0.99718616 +0.04254272
<i>a</i>	2.5531947	Ω	287.13114	−0.01317224 −0.90999853
<i>e</i>	0.1506018	<i>i</i>	3.70330	−0.07379873 −0.41242307
<i>P</i>	4.08	<i>H</i>	14.1	<i>G</i> 0.15 <i>U</i> 1

Residuals in seconds of arc

1977 03 26	095	0.1+	1.6+	1998 06 24	704	1.1−	1.0−	1999 10 04	704	1.7+	0.8−
1994 07 11	809	1.8+	0.1+	1998 06 24	704	0.0	0.7−	1999 10 29	703	1.0−	0.2−
1994 07 11	809	0.9+	0.1−	1998 06 24	704	(2.6− 0.6+)		1999 10 29	703	0.8−	0.1−
1994 07 11	809	1.6+	0.6+	1998 06 24	704	1.7−	0.9+	1999 10 29	703	0.3−	0.6−
1994 07 12	809	(2.2+ 1.4+)		1998 06 24	704	1.2−	0.1+	1999 10 29	703	0.2+	0.0
1994 07 12	809	(2.2+ 1.4+)		1999 09 18	703	0.2+	0.6+	1999 11 03	703	0.9+	0.8+
1994 07 12	809	0.5+	0.3+	1999 09 18	703	0.7−	0.4+	1999 11 03	703	1.3−	0.6−
1997 04 25	589	0.0	0.3−	1999 09 18	703	0.1−	0.2−	1999 11 03	703	1.8−	0.1+
1997 04 25	589	0.3+	0.0	1999 09 18	703	0.6−	0.6−	1999 11 03	703	0.3−	0.7+
1997 04 28	589	0.2+	0.3+	1999 09 30	703	1.5−	0.8+	1999 11 05	704	0.3+	0.1−
1997 04 28	589	0.4+	0.1−	1999 09 30	703	0.1+	0.3+	1999 11 05	704	0.3+	0.3+
1997 04 28	589	0.3+	0.0	1999 09 30	703	0.5+	0.2+	1999 11 05	704	0.4−	0.8−
1997 05 10	589	0.1−	1.8−	1999 09 30	703	0.3−	0.1−	1999 11 05	704	0.5+	0.9−
1997 05 10	589	0.2−	0.4−	1999 10 04	704	0.4+	1.0+	1999 11 05	704	0.7+	0.1+
1997 05 10	589	0.1+	0.7+	1999 10 04	704	1.7+	0.4+				

1999 UM₁₄ = 1998 MB₄₂

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	247.89328	(2000.0)	P	Q
<i>n</i>	0.27206490	ω	72.77635	−0.99034026 +0.12948272
<i>a</i>	2.3587815	Ω	114.64018	−0.13861951 −0.91606517
<i>e</i>	0.1374956	<i>i</i>	3.12827	−0.00328663 −0.37955082
<i>P</i>	3.62	<i>H</i>	14.5	<i>G</i> 0.15 <i>U</i> 4

Residuals in seconds of arc

1998 06 26	809	0.7−	0.5−	1999 10 16	012	0.5+	0.4+	1999 11 05	704	0.9−	0.0
1998 06 26	809	0.6−	0.3−	1999 10 17	012	0.4+	1.0+	1999 11 05	704	0.2−	0.9−
1998 06 26	809	0.6−	0.0	1999 10 29	703	0.5−	0.3+	1999 11 05	704	0.3+	1.1−
1998 06 27	809	0.5+	0.2−	1999 10 29	703	1.1−	0.1−	1999 12 07	704	1.8+	0.0
1998 06 27	809	0.2+	0.1+	1999 10 29	703	0.0	0.5+	1999 12 07	704	0.5+	0.1+
1998 06 27	809	1.2+	0.4+	1999 10 29	703	0.5+	0.2+	1999 12 07	704	0.4−	0.9−
1999 10 01	703	0.5+	0.8−	1999 11 03	703	0.3−	0.1+	1999 12 07	704	0.4−	1.0−
1999 10 01	703	0.3+	0.2+	1999 11 03	703	1.3−	1.0+	2000 01 09	704	0.3+	0.5−
1999 10 01	703	0.5+	0.5+	1999 11 03	703	(2.4− 0.4−)		2000 01 09	704	0.7−	0.2−
1999 10 01	703	0.3+	0.1+	1999 11 03	703	1.3−	0.3+	2000 01 09	704	0.7+	0.2+
1999 10 12	012	1.0−	0.3−	1999 11 05	704	0.8+	0.1−	2000 01 09	704	0.0	0.2+
1999 10 13	012	(1.2− 3.3−)		1999 11 05	704	1.0+	0.3+	2000 01 09	704	(0.7− 2.1+)	

1999 UY₁₄ = 1998 MR₃₀

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	164.04138	(2000.0)	P	Q
<i>n</i>	0.19562152	ω	98.09863	−0.34195039 +0.93952152
<i>a</i>	2.9389462	Ω	151.88197	−0.87743514 −0.31189932
<i>e</i>	0.0541523	<i>i</i>	2.33672	−0.33641864 −0.14148539
<i>P</i>	5.04	<i>H</i>	14.2	<i>G</i> 0.15 <i>U</i> 5

Residuals in seconds of arc

1998 06 25	691	0.2−	0.1−	1999 10 29	703	0.4−	0.1+	1999 11 15	704	0.2+	0.1+
1998 06 25	691	0.4−	0.1+	1999 10 29	703	0.7−	1.0−	1999 11 15	704	0.7+	0.5−
1998 06 25	691	0.2−	0.3+	1999 11 03	703	1.5−	1.6+	1999 11 15	704	0.5+	0.2−
1998 07 02	691	0.3+	0.5−	1999 11 03	703	0.9−	0.1−	1999 11 15	704	0.5+	0.1+
1998 07 02	691	0.4+	0.1+	1999 11 03	703	0.2−	0.2+	1999 12 07	704	1.0+	1.3−
1998 07 02	691	0.3+	0.2−	1999 11 03	703	0.8−	0.5+	1999 12 07	704	1.0−	0.6−
1999 10 16	120	0.7+	0.7+	1999 11 05	704	0.0	0.5+	1999 12 07	704	0.7+	0.4−
1999 10 16	120	0.7+	0.0	1999 11 05	704	0.5+	0.5+	1999 12 07	704	0.1+	1.3−

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1999 10 29 703 0.2- 0.4+ 1999 11 05 704 0.3- 0.1+
 1999 10 29 703 (2.8- 0.2+) 1999 11 15 704 0.6+ 0.2+

1999 UB₁₆ = 1997 GL₁₆

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams		Q	
<i>M</i>	59.15725	(2000.0)	P		Q
<i>n</i>	0.20463742	ω	198.78364	+0.99781236	+0.06423715
<i>a</i>	2.8519770	Ω	157.51595	-0.05420916	+0.93028390
<i>e</i>	0.0776152	<i>i</i>	2.34131	-0.03783988	+0.36117234
<i>P</i>	4.82	<i>H</i>	15.0	<i>G</i>	0.15
				<i>U</i>	6

Residuals in seconds of arc

1997 04 03	704	0.5+	0.1-	1999 10 20	704	0.4+	0.1+	1999 11 03	703	0.5+	0.4+
1997 04 03	704	0.6-	0.9-	1999 10 20	704	0.0	0.5-	1999 11 03	703	0.5-	0.7+
1997 04 06	704	0.0	0.5-	1999 10 20	704	0.0	0.0	1999 11 03	703	0.1+	0.2-
1997 04 06	704	0.4-	0.5+	1999 10 20	704	0.5+	0.7+	1999 11 05	704	0.3+	0.7-
1997 04 07	704	0.9+	0.8+	1999 10 29	703	0.7-	0.1+	1999 11 05	704	0.5+	0.2-
1997 04 07	704	0.8-	0.5+	1999 10 29	703	1.0-	0.2+	1999 11 05	704	0.2+	0.3+
1997 04 07	704	0.5-	0.2+	1999 10 29	703	0.4+	0.9-	1999 11 05	704	0.2-	0.1+
1997 04 07	704	0.8+	0.6-	1999 10 29	703	0.3-	0.3-	1999 11 05	704	0.2-	0.4+
1999 10 20	704	0.3+	1.0-	1999 11 03	703	0.1-	0.6+				

1999 UC₁₇ = 1998 HN₄₄

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams		Q	
<i>M</i>	65.33752	(2000.0)	P		Q
<i>n</i>	0.17798691	ω	105.86792	+0.60995142	+0.77962318
<i>a</i>	3.1299976	Ω	203.55332	-0.79190563	+0.60625283
<i>e</i>	0.4174124	<i>i</i>	20.80590	+0.02906442	+0.15698795
<i>P</i>	5.54	<i>H</i>	14.5	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 03 29	704	0.2+	0.3-	1998 04 21	704	1.2-	1.6+	1999 10 30	703	1.4-	0.5-
1998 03 29	704	(0.6+ 2.0+)		1998 04 21	704	0.7+	0.3-	1999 10 30	703	0.4+	0.4-
1998 03 29	704	0.8+	0.1-	1998 04 21	704	(1.2+ 2.3-)		1999 10 30	703	0.0	0.3+
1998 03 29	704	1.7+	0.2+	1998 04 21	704	0.9+	0.7-	1999 11 03	703	0.0	0.4+
1998 03 29	704	0.2-	0.2-	1998 04 22	704	(2.6+ 0.3-)		1999 11 03	703	0.2-	0.1+
1998 04 01	704	0.6+	1.9+	1998 04 22	704	1.2-	0.3+	1999 11 03	703	0.0	0.0
1998 04 01	704	0.3-	1.4+	1998 04 22	704	0.4-	0.4+	1999 11 03	703	0.0	0.3+
1998 04 01	704	1.8+	0.7-	1998 04 22	704	0.7-	1.0-	1999 11 05	704	0.5+	0.2+
1998 04 01	704	(0.1+ 2.0-)		1998 04 22	704	0.3-	1.2-	1999 11 05	704	0.3+	0.2-
1998 04 20	704	0.1+	0.7-	1999 10 02	703	0.4+	0.5+	1999 11 05	704	1.5+	0.8-
1998 04 20	704	1.5-	0.5+	1999 10 02	703	0.2-	0.3+	1999 11 05	704	1.2+	1.4+
1998 04 20	704	(3.6+ 0.5+)		1999 10 02	703	0.4-	0.4+	2000 02 10	413	0.5-	0.1-
1998 04 20	704	0.9-	0.4+	1999 10 02	703	0.8-	0.3+	2000 02 10	413	0.3-	0.4-
1998 04 21	704	(2.2+ 3.0-)		1999 10 30	703	0.5-	0.1+	2000 02 10	413	0.4-	0.9-

1999 UY₂₀ = 1995 YG₁₈

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams		Q	
<i>M</i>	354.11194	(2000.0)	P		Q
<i>n</i>	0.22906660	ω	267.09415	+0.38637884	-0.92217565
<i>a</i>	2.6454214	Ω	160.14874	+0.86530356	+0.35588222
<i>e</i>	0.1512240	<i>i</i>	2.94054	+0.31931354	+0.15145930
<i>P</i>	4.30	<i>H</i>	16.8	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1995 12 22	691	0.1-	0.0	1995 12 27	691	0.0	0.0	1999 11 04	691	0.0	0.2-
1995 12 22	691	0.0	0.1+	1999 10 31	691	0.1-	0.1-	1999 11 04	691	0.1+	0.2+
1995 12 22	691	0.0	0.0	1999 10 31	691	0.2+	0.1-	1999 11 10	691	0.0	0.1+
1995 12 27	691	0.2+	0.2-	1999 10 31	691	0.0	0.1-	1999 11 10	691	0.1-	0.1+
1995 12 27	691	0.1-	0.1+	1999 11 04	691	0.1-	0.1-	1999 11 10	691	0.1-	0.2+

1999 UH₂₂ = 1995 VC₁₆

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams		Q	
<i>M</i>	103.52256	(2000.0)	P		Q
<i>n</i>	0.23349030	ω	240.57564	+0.55899728	+0.82882044
<i>a</i>	2.6119017	Ω	63.43032	-0.75112552	+0.51845765
<i>e</i>	0.1301474	<i>i</i>	1.54127	-0.35118726	+0.21037665
<i>P</i>	4.22	<i>H</i>	15.9	<i>G</i>	0.15
				<i>U</i>	6

Residuals in seconds of arc

1995 11 15	691	0.1-	0.2+	1999 10 31	691	0.0	0.2-	1999 11 09	704	0.8+	0.3+
1995 11 15	691	0.1+	0.4+	1999 10 31	691	0.2-	0.2-	1999 11 09	704	0.3-	0.4+
1995 11 15	691	0.3-	0.4+	1999 10 31	691	0.1-	0.0	1999 11 09	704	0.2+	1.2+
1995 11 27	691	0.1+	0.5-	1999 11 04	691	0.1+	0.4-	1999 11 09	704	0.6-	0.1+
1995 11 27	691	0.1+	0.3-	1999 11 04	691	0.1-	0.7-				
1995 11 27	691	0.1+	0.2-	1999 11 04	691	0.2+	0.4-				

1999 UO₂₆ = 1978 RM₁₀ = 1997 CC₁₂

Id. M. E. Sansaturio, A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams		Q	
<i>M</i>	71.50698	(2000.0)	P		Q
<i>n</i>	0.23826452	ω	11.52821	+0.93633442	+0.34937342
<i>a</i>	2.5768935	Ω	327.95404	-0.32713583	+0.83201740
<i>e</i>	0.0909536	<i>i</i>	3.76834	-0.12751475	+0.43091212
<i>P</i>	4.14	<i>H</i>	14.6	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1978 09 02	809	1.2+	0.1+	1998 05 24	704	0.4-	0.5+	1999 11 05	704	0.6+	0.4-
1978 09 02	809	0.4+	1.2-	1999 10 03	704	0.4+	0.5+	1999 11 05	704	0.4+	0.2-
1978 09 02	809	0.1+	1.0-	1999 10 03	704	0.2-	0.2+	1999 11 05	704	0.1+	0.2-
1978 09 02	809	0.3+	1.2-	1999 10 03	704	0.8-	0.6+	1999 11 05	704	0.0	0.3-
1978 09 02	809	0.3+	0.3-	1999 10 03	704	1.2-	1.0+	1999 11 05	704	0.2+	0.2+
1978 09 06	809	1.0-	0.7+	1999 10 03	704	0.6-	0.5+	1999 11 11	703	0.7-	0.2+
1978 09 10	809	0.2+	1.5+	1999 10 30	703	0.4-	0.2+	1999 11 11	703	0.6+	0.6-
1978 09 10	809	0.8-	0.6-	1999 10 30	703	0.5-	0.3+	1999 11 11	703	0.5-	0.4+
1978 09 10	809	0.4+	0.3+	1999 10 30	703	0.2-	0.5+	1999 11 11	703	0.7-	0.0
1978 09 10	809	0.2+	1.1-	1999 10 30	703	0.3-	0.4+	1999 11 16	704	0.4+	0.5-
1997 02 03	691	1.1+	0.2-	1999 11 04	704	0.4+	0.7-	1999 11 16	704	0.9+	1.0-
1997 02 03	691	0.3+	0.1-	1999 11 04	704	0.2+	1.1-	1999 11 16	704	0.9+	1.1-
1997 02 03	691	0.3+	0.3-	1999 11 04	704	0.3+	0.3+	1999 11 16	704	1.1+	0.1+
1997 02 07	691	1.3-	0.4-	1999 11 04	703	0.6-	0.5+	1999 11 16	704	0.1-	0.1+
1997 02 07	691	0.7-	0.8-	1999 11 04	704	0.1+	0.4-	2000 01 09	704	0.2-	2.0+
1997 02 07	691	0.8-	0.3-	1999 11 04	703	0.2-	0.4+	2000 01 09	704	0.7+	0.4-
1998 05 24	704	0.2+	1.1-	1999 11 04	704	0.2+	0.2-	2000 01 09	704	0.8+	1.4-
1998 05 24	704	0.2+	1.6+	1999 11 04	703	0.1-	0.3+				
1998 05 24	704	0.5+	1.3-	1999 11 04	703	0.9-	0.5+				

1999 UP₂₆ = 1997 AP₂₄

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams		Q	
<i>M</i>	32.58428	(2000.0)	P		Q
<i>n</i>	0.30803197	ω	67.27165	+0.79605502	-0.60456325
<i>a</i>	2.1713951	Ω	329.90359	+0.53253790	+0.72188658
<i>e</i>	0.1433163	<i>i</i>	3.23281	+0.28757571	+0.33672399
<i>P</i>	3.20	<i>H</i>	16.9	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1997 01 13	012	0.3-	0.0	1999 10 03	704	0.4-	0.7+	1999 11 04	704	0.4+	1.0+
1997 01 13	012	0.5-	0.1-	1999 10 30	703	0.7+	0.6+	1999 11 04	703	0.5-	0.5-
1997 01 13	012	0.0	0.3+	1999 10 30	703	0.4-	1.0+	1999 11 04	703	(2.2- 1.5+)	
1997 01 14	012	0.2+	0.6+	1999 10 30	703	0.3-	0.1+	1999 11			

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1999 10 03	704	0.6+	0.3+	1999 11 04	704	0.2+	0.4−	1999 11 05	704	0.0	0.1−
1999 10 03	704	0.7−	0.2−	1999 11 04	703	1.8−	1.2+	1999 11 05	704	0.0	0.3−

1999 UZ₂₇ = 1993 FN₇₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22513303	<i>ω</i>	259.95107	−0.47967093	−0.87686476		
<i>a</i>	2.6761467	<i>Ω</i>	218.76546	+0.82373551	−0.43744458		
<i>e</i>	0.0377782	<i>i</i>	2.92950	+0.30228399	−0.19937511		
<i>P</i>	4.38	<i>H</i>	16.5	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1993 03 21	809	0.3−	0.8−	1999 10 19	691	0.0	0.0	1999 11 05	691	0.5+	0.1−
1993 03 22	809	1.0+	1.4−	1999 10 19	691	0.1−	0.1+	1999 11 05	691	0.3+	0.1−
1999 10 17	691	0.5−	0.1+	1999 10 30	691	0.3+	0.6−	1999 11 16	691	0.2+	0.5−
1999 10 17	691	0.4−	0.1+	1999 10 30	691	0.7+	0.2+	1999 11 16	691	0.1+	0.5−
1999 10 17	691	0.0	0.1+	1999 10 30	691	0.2+	0.2+	1999 11 16	691	0.1−	0.3−
1999 10 19	691	0.1−	0.0	1999 11 05	691	0.4+	0.4−				

1999 UV₂₈ = 1992 YP₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.25791109	<i>ω</i>	8.12099	−0.87717209	−0.47983808		
<i>a</i>	2.4443086	<i>Ω</i>	143.18667	+0.43884640	−0.81633502		
<i>e</i>	0.0854557	<i>i</i>	1.72281	+0.19489217	−0.32148492		
<i>P</i>	3.82	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1992 12 29	033	0.6+	0.8+	1999 10 02	703	1.2−	0.9+	1999 10 19	691	0.0	0.4−
1992 12 30	033	0.6−	0.5+	1999 10 04	704	0.2−	0.1−	1999 10 31	691	0.1−	0.1+
1993 01 01	033	0.1−	0.8−	1999 10 04	704	0.2+	0.2−	1999 10 31	691	0.1−	0.1+
1995 09 19	809	0.1−	0.6+	1999 10 04	704	0.3+	0.6−	1999 10 31	691	0.1+	0.0
1995 09 20	809	0.4−	0.6+	1999 10 04	704	1.3+	0.8−	1999 11 05	691	0.1−	0.1+
1999 10 02	703	0.2−	0.1+	1999 10 04	704	1.4+	1.2−	1999 11 05	691	0.2−	0.0
1999 10 02	703	0.6−	0.7+	1999 10 19	691	0.0	0.3−	1999 11 05	691	0.0	0.0
1999 10 02	703	0.1−	0.7+	1999 10 19	691	0.0	0.4−				

1999 UH₃₀ = 1994 JV₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26880235	<i>ω</i>	116.96320	−0.99016345	−0.13414901		
<i>a</i>	2.3778293	<i>Ω</i>	55.35258	+0.10500385	−0.90025123		
<i>e</i>	0.1525841	<i>i</i>	2.76981	+0.09246912	−0.41418807		
<i>P</i>	3.67	<i>H</i>	17.0	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1994 05 02	691	0.2+	0.3+	1994 05 16	691	0.2−	0.9−	1999 11 09	691	0.1−	0.0
1994 05 02	691	0.2+	0.0	1999 10 31	691	0.0	0.0	1999 11 09	691	0.2+	0.1+
1994 05 02	691	0.1−	0.0	1999 10 31	691	0.1−	0.2−	1999 11 09	691	0.1+	0.2−
1994 05 11	691	0.1+	0.1+	1999 10 31	691	0.0	0.2−	1999 11 11	691	0.1−	0.1+
1994 05 11	691	0.2+	0.2+	1999 11 05	691	0.2−	0.1−	1999 11 11	691	0.2+	0.2+
1994 05 16	691	0.3−	0.2+	1999 11 05	691	0.0	0.1+	1999 11 11	691	0.0	0.1+
1994 05 16	691	0.0	0.1+	1999 11 05	691	0.1−	0.2+				

1999 UP₃₅ = 1998 KB₃₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26791869	<i>ω</i>	60.80780	+0.32802067	+0.94115175		
<i>a</i>	2.3830549	<i>Ω</i>	228.57604	−0.90006446	+0.28518293		
<i>e</i>	0.1166363	<i>i</i>	6.23681	−0.28685607	+0.18139481		
<i>P</i>	3.68	<i>H</i>	15.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 05 22	704	0.6+	0.3+	1998 05 24	704	0.6−	0.3−	1999 11 16	704	0.6+	0.3+
1998 05 22	704	(0.9−	2.7+)	1999 10 30	691	0.2−	0.5−	1999 11 16	704	0.3−	0.9+
1998 05 22	704	0.8+	0.2−	1999 10 30	691	0.1−	0.2+	1999 11 16	704	0.4−	0.2−
1998 05 22	704	0.8+	1.2−	1999 10 30	691	0.1−	0.2+	1999 11 16	704	0.1+	0.3+
1998 05 24	704	0.2−	0.9+	1999 11 06	691	0.3+	0.1−	1999 11 17	691	0.0	0.6−
1998 05 24	704	0.3−	0.8−	1999 11 06	691	0.1−	0.1−	1999 11 17	691	0.1−	0.3−
1998 05 24	704	1.1−	1.3+	1999 11 06	691	0.1+	0.0	1999 11 17	691	0.0	0.2−

1999 VW₁ = 1970 WA

Id. A. Gnädig, S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.23887828	<i>ω</i>	190.96196	−0.25009746	−0.95485931		
<i>a</i>	2.5724776	<i>Ω</i>	273.66718	+0.90003270	−0.16824530		
<i>e</i>	0.1216661	<i>i</i>	9.24320	+0.35692072	−0.24482079		
<i>P</i>	4.13	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1953 09 16	675	1.2−	1.3−	1999 11 04	888	0.2+	0.3+	1999 12 15	704	0.8+	0.4−
1953 09 16	675	0.5+	0.6−	1999 11 05	888	0.2−	0.0	1999 12 31	703	0.2−	0.1+
1970 11 24	029	1.9+	1.4+	1999 11 05	888	0.2−	0.3+	1999 12 31	703	0.2−	0.0
1970 11 24	029	0.3−	0.3−	1999 11 05	888	0.2−	0.1+	1999 12 31	703	0.0	0.1−
1984 03 07	413	1.0−	0.3+	1999 11 06	888	0.4−	0.1−	1999 12 31	703	0.0	0.2−
1984 03 07	413	0.9+	0.1−	1999 11 06	888	0.5−	0.3+	2000 01 03	704	0.5+	0.8+
1990 08 18	675	1.5−	0.2−	1999 11 06	888	0.2−	0.0	2000 01 03	704	0.5−	0.6−
1990 08 18	675	0.8+	0.0	1999 11 08	888	0.2−	0.0	2000 01 03	704	0.5−	0.7−
1990 08 23	675	0.7+	0.0	1999 11 08	888	0.0	0.2+	2000 01 03	704	1.0−	0.2+
1990 08 23	675	0.4+	0.5−	1999 11 08	888	0.1−	0.0	2000 01 03	704	0.6−	0.7−
1998 08 17	704	1.3+	1.4+	1999 11 13	888	0.6−	0.1+	2000 01 03	888	0.1+	0.3−
1998 08 17	704	0.3+	0.3+	1999 11 13	888	0.2−	0.3−	2000 01 03	888	0.3−	0.1−
1998 08 17	704	0.3−	0.3−	1999 11 18	888	0.1−	0.0	2000 01 04	704	1.2−	0.7+
1998 08 17	704	0.9−	0.1−	1999 11 18	888	0.1−	0.2+	2000 01 04	704	0.3−	0.1−
1998 08 17	704	0.1+	0.5+	1999 11 18	886	0.2+	1.2+	2000 01 04	704	1.0−	1.1−
1998 08 23	704	0.8−	0.3+	1999 11 18	886	0.0	0.7+	2000 01 28	888	0.0	0.1−
1998 08 23	704	(1.1−	2.1+)	1999 11 28	886	0.8+	0.1+	2000 01 28	888	0.0	0.3−
1998 08 23	704	0.3+	0.5−	1999 11 28	886	1.1+	0.1+	2000 01 28	106	0.0	0.1+
1998 08 23	704	0.2−	0.4+	1999 12 04	888	0.7+	0.1+	2000 01 28	106	0.1−	0.1+
1998 08 23	704	(4.2−	1.1+)	1999 12 04	888	0.5+	0.2+	2000 01 28	106	0.4+	0.6+
1999 09 03	704	(0.6+	3.1+)	1999 12 10	704	0.1+	0.4+	2000 01 30	704	0.2−	0.3+
1999 09 03	704	0.4+	0.4+	1999 12 10	704	0.4+	0.2+	2000 01 30	704	0.1+	0.3+
1999 09 03	704	1.1+	0.3−	1999 12 10	704	0.2+	0.1−	2000 01 30	704	0.2−	0.5+
1999 10 05	704	0.9−	0.3−	1999 12 10	704	0.4+	0.1+	2000 01 30	704	0.1−	0.4+
1999 10 05	704	0.4+	1.2−	1999 12 10	704	0.3+	0.0	2000 01 30	704	0.1−	0.8+
1999 10 05	704	0.3+	0.1+	1999 12 15	704	0.5+	0.3−	2000 02 11	704	0.2+	0.0
1999 10 05	704	0.5−	0.3+	1999 12 15	704	0.6−	1.2−	2000 02 11	704	1.0+	0.1+
1999 10 05	704	0.7+	1.1+	1999 12 15	704	0.9−	1.5−	2000 02 11	704	1.0+	0.2−
1999 11 04	888	0.0	0.1+	1999 12 15	704	0.4−	0.6−	2000 02 11	704	0.2+	0.3−

1999 VZ₂ = 1982 BF₄

Id. A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26569074	<i>ω</i>	91.91281	−0.12017877	−0.99269501		
<i>a</i>	2.3963584	<i>Ω</i>	5.02717	+0.85560301	−0.10901675		
<i>e</i>	0.0821876	<i>i</i>	6.98849	+0.50348838	−0.05169098		
<i>P</i>	3.71	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1976 05 30	413	0.9+	0.4−	1999 11 04	704	0.0	0.1+	1999 11 25	159	0.1+	0.8−
1976 05 30	413	0.3+	0.2−	1999 11 04	704	0.1+	0.2−	1999 11 25	159	0.0	0.5−
1982 01 26	381	0.1+	0.2−	1999 11 04	704	0.3+	0.2−	1999 11 25	159	0.2+	0.6−
1982 01 26	381	0.6−	0.0	1999 11 04	704	0.3+	0.0	1999 11 25	159	0.1−	0.5−
1991 08 06	413	0.3−	0.7−	1999 11 04	704	0.3+	0.1−	1999 11 25	159	0.3+	0.6−
1991 08 06	413	1.0+	0.5+	1999 11 07	159	0.8+	1.6+	1999 11 25	159	0.1−	0.6−
1995 08 28	809	1.3−	1.0−	1999 11 07	159	0.1−	1.6−	1999 12 03	699	0.1−	0.5+

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1995 08 29	809	0.6−	1.2−	1999 11 07	159	(2.5+	0.2−)	1999 12 03	699	0.0	0.7+
1995 09 19	809	(2.4+	0.6+)	1999 11 07	159	0.0	0.3−	1999 12 03	699	0.7+	1.2+
1995 09 20	809	1.7+	0.4+	1999 11 07	159	1.0+	0.7−	1999 12 04	703	0.0	0.6+
1995 09 22	809	1.7−	0.6−	1999 11 07	159	0.5−	0.5−	1999 12 04	703	0.6−	0.2+
1995 09 23	809	0.3+	0.1+	1999 11 07	159	0.5−	0.3+	1999 12 04	703	0.2−	0.1+
1995 09 23	809	(6.0+	0.1−)	1999 11 08	159	0.5−	0.0	1999 12 04	703	0.0	0.1+
1995 09 24	809	0.1−	0.2+	1999 11 08	159	0.8−	0.8−	1999 12 13	159	1.1+	0.5−
1999 10 03	704	(1.1−	3.0+)	1999 11 08	159	(2.7+	1.6−)	1999 12 13	159	0.5+	0.2−
1999 10 03	704	0.7+	0.7+	1999 11 08	159	0.7+	0.9+	1999 12 13	159	1.1+	0.5−
1999 10 03	704	0.9+	0.8−	1999 11 08	159	0.3+	0.6+	1999 12 13	159	0.5+	0.2+
1999 10 31	703	0.2−	0.3+	1999 11 08	159	0.4+	0.1−	1999 12 30	159	0.2+	0.5−
1999 10 31	703	0.4−	0.5+	1999 11 08	159	0.1−	0.2−	1999 12 30	159	0.2+	1.0−
1999 10 31	703	0.4−	0.6+	1999 11 08	159	0.1−	0.2−	1999 12 30	159	0.2+	0.3−
1999 10 31	703	0.3−	0.5+	1999 11 11	703	0.6−	0.2−	1999 12 30	159	0.5−	0.4−
1999 11 01	159	(2.2−	0.9+)	1999 11 11	703	0.2+	0.6+	1999 12 30	159	0.3+	0.6−
1999 11 01	159	1.7−	0.3+	1999 11 11	703	1.2−	0.4+	2000 01 06	704	0.1+	0.6−
1999 11 01	159	(2.1−	1.5+)	1999 11 11	703	0.3+	0.5+	2000 01 06	704	0.0	0.4−
1999 11 01	159	1.0−	1.2+	1999 11 12	699	0.1−	0.1−	2000 01 06	704	0.5+	0.9−
1999 11 01	159	0.8−	1.7+	1999 11 12	699	0.8−	1.0+	2000 01 06	704	1.1+	0.3−
1999 11 01	159	0.6+	0.2+	1999 11 12	699	0.1−	0.3−	2000 01 06	704	1.3+	0.0

1999 VA₁₅ = 1993 FT₇₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	247.60643		(2000.0)	P	Q
n	0.22939276	ω	319.34958	−0.90340700	−0.42508852
a	2.6429133	Ω	195.77558	+0.42705719	−0.88026780
e	0.1246800	i	11.92443	+0.03844407	−0.21078032
P	4.30	H	15.8	G 0.15	U 4

Residuals in seconds of arc

1993 03 21	809	0.2−	0.6+	1999 11 03	691	0.2−	0.4+	1999 11 13	691	0.0	0.2−
1993 03 22	809	0.2+	0.6−	1999 11 03	691	0.0	0.4+	1999 11 16	691	0.0	0.2+
1999 11 02	691	0.0	0.3−	1999 11 03	691	0.2+	0.2+	1999 11 16	691	0.1−	0.0
1999 11 02	691	0.1−	0.3−	1999 11 13	691	0.1−	0.2+	1999 11 16	691	0.0	0.0
1999 11 02	691	0.2+	0.1−	1999 11 13	691	0.1+	0.3−				

1999 VQ₁₅ = 1977 RN₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	63.24612		(2000.0)	P	Q
n	0.27035499	ω	27.36979	+0.96989016	+0.24215359
a	2.3687167	Ω	318.58977	−0.23001271	+0.87572845
e	0.1930875	i	2.25060	−0.08004514	+0.41768568
P	3.65	H	16.2	G 0.15	U 4

Residuals in seconds of arc

1977 09 09	675	0.4+	0.7−	1999 10 30	703	0.5+	0.0	1999 11 04	704	0.7−	0.3−
1977 09 10	675	0.1−	0.1−	1999 10 30	703	0.2−	0.2+	1999 11 04	704	0.1−	0.0
1999 10 02	703	0.3+	0.1−	1999 10 30	703	0.5−	0.1+	1999 11 04	704	0.2+	0.4−
1999 10 02	703	0.4−	0.0	1999 10 30	703	0.1−	0.4+	1999 11 14	704	1.3+	0.7−
1999 10 02	703	0.5−	0.9−	1999 11 02	691	0.1+	0.0	1999 11 14	704	0.8+	0.7−
1999 10 02	703	0.2−	0.2+	1999 11 02	691	0.1+	0.0	1999 11 14	704	0.7+	0.2−
1999 10 03	704	0.1+	1.6+	1999 11 02	691	0.1+	0.0	1999 11 14	704	0.2+	0.3−
1999 10 03	704	0.4−	0.8+	1999 11 03	691	0.0	0.0	1999 11 16	704	1.2−	1.2+
1999 10 03	704	0.2−	0.5+	1999 11 03	691	0.0	0.0	1999 11 16	704	0.1+	0.2−
1999 10 18	691	0.3+	0.2−	1999 11 03	691	0.2−	0.1+	1999 11 16	704	0.0	0.2−
1999 10 18	691	0.4+	0.1−	1999 11 04	704	0.6−	0.1+	1999 11 16	704	0.8−	0.7−
1999 10 18	691	0.3+	0.1−	1999 11 04	704	0.5+	0.4+				

1999 VQ₁₈ = 1995 TM₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	132.43797		(2000.0)	P	Q
n	0.24394962	ω	249.86189	+0.12442653	+0.98712454
a	2.5367010	Ω	27.87876	−0.81104461	+0.15954012
e	0.1205005	i	12.41304	−0.57159835	−0.01149352
P	4.04	H	16.8	G 0.15	U 5

2000 FEB. 22

Residuals in seconds of arc

1995 10 15	691	0.3−	0.1−	1999 11 02	691	0.0	0.2−	1999 11 10	691	0.2+	0.1+
1995 10 15	691	0.3+	0.1+	1999 11 02	691	0.3−	0.0	1999 11 10	691	0.1+	0.2+
1995 10 15	691	0.2+	0.1−	1999 11 02	691	0.2−	0.3−	1999 11 10	691	0.2+	0.3+
1995 10 22	691	0.1−	0.1+	1999 11 03	691	0.1−	0.0	1999 11 15	691	0.2+	0.0
1995 10 22	691	0.3−	0.0	1999 11 03	691	0.1+	0.1−	1999 11 15	691	0.1+	0.1+
1995 10 22	691	0.1+	0.1+	1999 11 03	691	0.3−	0.0	1999 11 15	691	0.2+	0.1−

1999 VN₁₉ = 1995 UB₄₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

M	9.05858		(2000.0)	P	Q
n	0.24440323	ω	279.73626	+0.33913450	−0.94029987
a	2.5335613	Ω	150.38949	+0.88428566	+0.30822428
e	0.1342438	i	3.33042	+0.32097766	+0.14433967
P	4.03	H	15.8	G 0.15	U 6

Residuals in seconds of arc

1995 10 25	691	0.2−	0.6−	1999 11 05	704	0.2+	0.4+	1999 11 15	704	0.3−	0.6−
1995 10 25	691	0.2−	0.4−	1999 11 10	120	1.3+	0.0	1999 11 15	704	0.7−	0.6−
1995 10 25	691	0.5−	0.1−	1999 11 10	120	0.4−	0.1+	1999 11 15	704	0.8−	0.8−
1995 10 28	691	0.8+	0.3−	1999 11 10	120	0.5+	1.2+	1999 11 15	704	0.4−	0.3−
1995 10 28	691	0.3+	0.5−	1999 11 12	120	0.1−	0.0	1999 11 17	704	0.5+	0.2+
1995 10 28	691	0.2+	0.2−	1999 11 12	120	1.3+	0.7+	1999 11 17	704	0.2+	1.1+
1999 11 05	704	0.4+	0.2+	1999 11 13	120	0.8−	0.3+	1999 11 17	704	0.9+	0.4+
1999 11 05	704	1.5−	1.0+	1999 11 13	120	0.5−	0.8−				
1999 11 05	704	0.3−	0.3−	1999 11 15	704	0.1+	0.1−				

1999 VV₁₉ = 1991 PG₂₇

Id. A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	86.21857		(2000.0)	P	Q
n	0.26275281	ω	217.78947	+0.86896655	+0.49127962
a	2.4141883	Ω	112.68589	−0.43686325	+0.81803475
e	0.1900130	i	3.69817	−0.23248147	+0.29910447
P	3.75	H	15.5	G 0.15	U 1

Residuals in seconds of arc

1979 05 19	413	1.4−	0.5−	1999 10 20	704	0.2+	0.5+	1999 11 15	732	0.7+	0.6−
1979 05 19	413	2.1−	0.3−	1999 11 01	703	0.3−	0.1+	1999 11 16	732	0.4+	1.1−
1983 05 08	413	1.7+	0.6−	1999 11 01	703	0.1−	0.4−	1999 11 16	732	0.1−	0.4−
1983 05 08	413	1.4+	0.2−	1999 11 01	703	0.3+	0.5+	1999 11 17	704	1.1+	0.1+
1991 08 05	809	0.4+	0.2−	1999 11 01	703	0.3−	0.5−	1999 11 17	704	0.4+	0.8−
1991 08 05	809	0.0	0.9−	1999 11 04	704	0.4+	0.4+	1999 11 17	704	0.4+	0.4−
1991 08 05	809	0.8−	1.0−	1999 11 04	704	0.3+	0.2+	1999 11 17	704	0.1+	0.6+
1998 04 21	704	1.1+	1.0+	1999 11 04	704	0.6−	0.8+	1999 11 25	120	1.8+	0.7+
1998 04 21	704	0.2−	0.5+	1999 11 04	704	0.2+	0.2−	1999 11 25	120	0.7−	0.0
1998 04 21	704	(0.4+	2.1−)	1999 11 04	704	0.7−	0.7−	1999 12 02	732	0.2−	1.0−
1998 04 21	704	0.6−	1.5−	1999 11 10	732	1.1+	0.3+	1999 12 02	732	0.2+	0.7−
1998 04 21	704	(0.2+	2.2+)	1999 11 10	732	0.2−	1.5+	1999 12 02	732	0.7+	0.4−
1998 05 01	704	0.7−	0.2+	1999 11 10	732	0.4+	0.2+	1999 12 03	732	1.4−	0.1−
1998 05 01	704	0.6+	0.3−	1999 11 12	699	0.4+	0.3+	1999 12 03	732	1.8−	0.7−
1998 05 01	704	0.5+	0.6−	1999 11 12	699	0.0	1.2+	1999 12 03	732	1.3−	0.6−
1998 05 01	704	(6.4−	2.2−)	1999 11 12	699	0.8+	0.4+	1999 12 07	704	0.3−	0.3+
1998 05 24	704	1.3+	0.7+	1999 11 13	732	0.8+	0.1−	1999 12 07	704	0.1−	0.2−
1998 05 24	704	0.7−	1.6−	1999 11 13	732	1.2+	1.2−	1999 12 07	704	0.9−	1.8−
1998 05 24	704	0.2−	0.6+	1999 11 13	732	0.7+	0.1+	1999 12 07	704	0.9+	1.0−
1998 05 24	704	1.9−	0.5+	1999 11 14	732	0.3+	1.4+	1999 12 30	732	0.0	1.1−
1999 10 20	704	0.4−	0.9+	1999 11 14	732	0.3+	0.1+	2000 01 02	732	0.4−	1.4−
1999 10 20	704	0.4−	0.5+	1999 11 14	732	0.8−	1.1+	2000 01 02	732	0.2+	0.1+
1999 10 20	704	1.4−	1.2+	1999 11 15	732	0.1+	0.1−				
1999 10 20	704	1.1−	0.2−	1999 11 15	732	0.3−	0.3−				

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M.P.C. 38571

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	36.30851		(2000.0)	P	Q				
<i>n</i>	0.22757431	ω	83.69372	+0.96119373	-0.21168496				
<i>a</i>	2.6569735	Ω	288.42027	+0.11376585	+0.88834608				
<i>e</i>	0.1852784	<i>i</i>	10.74629	+0.25132437	+0.40746868				
<i>P</i>	4.33	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	2		
Residuals in seconds of arc									
1976 05 31	413	0.6-	0.9+	1999 09 21	699	0.2-	0.6+	1999 11 17	678 1.0- 0.4-
1976 05 31	413	0.4+	1.5-	1999 10 05	704	0.1+	0.7-	1999 11 17	678 1.5- 0.0
1990 09 14	675	0.5+	0.5-	1999 10 05	704	0.0	0.8-	1999 11 27	678 0.1- 0.2-
1990 09 14	675	0.1+	0.5-	1999 10 05	704	0.4-	0.7-	1999 11 27	678 0.0 0.7-
1999 07 23	704	0.1+	0.1+	1999 10 05	704	0.6-	0.7-	1999 12 08	703 0.2+ 0.5+
1999 07 23	704	0.6+	0.3-	1999 10 05	704	0.3-	0.2-	1999 12 08	703 0.1- 0.1-
1999 07 23	704	0.2+	0.2-	1999 10 31	703	0.2+	0.1+	1999 12 08	703 0.2+ 0.0
1999 07 23	704	0.1+	0.0	1999 10 31	703	0.0	0.3+	1999 12 08	704 0.4- 0.2+
1999 07 23	704	0.2-	0.4+	1999 10 31	703	0.1+	0.1+	1999 12 08	703 0.3+ 0.0
1999 09 08	704	0.1+	0.6-	1999 10 31	703	0.4+	0.4-	1999 12 08	704 0.1+ 0.4-
1999 09 08	704	0.1-	0.3-	1999 11 03	704	0.2+	0.7+	1999 12 08	704 0.6+ 0.3-
1999 09 08	704	0.3+	0.1-	1999 11 03	704	0.3+	0.2+	1999 12 08	704 0.2+ 0.3-
1999 09 08	704	0.2+	0.2+	1999 11 03	704	0.7+	0.0	1999 12 08	704 0.7+ 0.4-
1999 09 08	704	0.6-	0.2+	1999 11 03	704	0.4+	0.3+	2000 01 06	704 0.5+ 0.1-
1999 09 13	703	0.2+	0.3+	1999 11 03	704	0.1+	0.5+	2000 01 06	704 1.5- 0.1-
1999 09 13	703	0.1-	0.5+	1999 11 11	678	0.1+	0.3+	2000 01 06	704 0.3+ 0.1-
1999 09 13	703	0.0	0.5+	1999 11 11	678	0.3+	0.3+	2000 01 06	704 0.7+ 0.1-
1999 09 13	703	0.2-	1.1+	1999 11 11	678	0.9-	0.1-	2000 01 06	704 0.6+ 0.2-
1999 09 21	699	0.5-	0.9+	1999 11 13	678	1.0+	0.8-		
1999 09 21	699	0.2-	0.7+	1999 11 13	678	0.7-	0.3+		

1999 VZ₂₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	40.81160		(2000.0)	P	Q				
<i>n</i>	0.23835214	ω	324.05529	+0.80065596	-0.57387065				
<i>a</i>	2.5762619	Ω	71.86038	+0.58325168	+0.68090253				
<i>e</i>	0.0603884	<i>i</i>	10.43460	+0.13699455	+0.45502111				
<i>P</i>	4.14	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	3		
Residuals in seconds of arc									
1982 11 07	413	1.1-	2.3+	1999 11 12	610	0.7+	0.2+	1999 12 02	610 0.3- 0.4-
1982 11 07	413	0.8+	1.6-	1999 11 12	610	0.9+	0.2+	1999 12 06	704 0.6+ 0.0
1999 10 10	704	0.6+	0.1+	1999 11 12	610	0.9+	0.2+	1999 12 06	704 0.0 0.1-
1999 10 10	704	0.2+	0.5-	1999 11 12	610	0.9+	0.2+	1999 12 06	704 0.4+ 0.4+
1999 10 10	704	0.4+	0.3+	1999 11 12	610	0.9+	0.2+	1999 12 06	704 0.2+ 0.7+
1999 10 10	704	0.4-	0.0	1999 11 15	704	0.0	0.2-	1999 12 06	704 0.1- 0.6+
1999 10 10	704	0.4-	0.7+	1999 11 15	704	0.3+	0.3-	1999 12 06	610 (2.7+ 0.3+)
1999 10 20	704	0.4+	0.4-	1999 11 15	704	0.2-	0.3-	1999 12 06	610 (2.3+ 0.6+)
1999 10 20	704	0.0	0.2-	1999 11 15	704	0.1-	0.2-	1999 12 06	610 1.8+ 1.0+
1999 10 20	704	0.0	1.3-	1999 11 15	704	0.0	0.5-	1999 12 06	610 1.4+ 1.4+
1999 10 20	704	0.7+	0.8-	1999 11 17	704	0.2+	0.3-	1999 12 06	610 0.9+ 1.8+
1999 10 20	704	0.1-	0.6-	1999 11 17	704	0.2+	0.1-	1999 12 07	704 0.1+ 0.1+
1999 11 04	704	0.4-	0.8-	1999 11 17	704	0.0	0.2-	1999 12 07	704 0.1+ 0.1-
1999 11 04	704	0.4-	0.3-	1999 11 17	704	0.0	0.4-	1999 12 07	704 0.6+ 0.6+
1999 11 04	704	0.5-	0.3-	1999 11 17	704	0.1-	0.1+	1999 12 07	704 0.1+ 0.3-
1999 11 04	704	0.3+	0.4+	1999 11 19	610	1.5-	0.2-	1999 12 07	704 0.2- 0.0
1999 11 04	704	0.4-	0.2-	1999 11 19	610	1.4-	0.0	1999 12 12	703 0.0 0.2-
1999 11 09	610	0.4-	0.2+	1999 11 19	610	1.2-	0.2+	1999 12 12	703 0.2+ 0.1-
1999 11 09	610	0.3-	0.2+	1999 11 19	610	1.0-	0.3+	1999 12 12	703 0.2- 0.1-
1999 11 09	610	0.3-	0.2+	1999 11 19	610	0.8-	0.4+	1999 12 12	703 1.0- 0.4+
1999 11 09	610	0.3-	0.2+	1999 11 28	610	0.5-	0.4-	2000 01 05	704 0.8- 0.6-
1999 11 09	610	0.2-	0.2+	1999 11 28	610	0.5-	0.4-	2000 01 05	704 0.1+ 0.4-
1999 11 12	699	0.8-	0.1-	1999 11 28	610	0.6-	0.3-	2000 01 05	704 0.3- 0.4-
1999 11 12	699	0.1+	0.4-	1999 11 28	610	0.6-	0.3-	2000 01 05	704 0.2+ 0.4+
1999 11 12	699	0.5-	0.5+	1999 11 28	610	0.6-	0.3-	2000 01 06	704 0.2- 0.0
1999 11 12	610	0.7+	0.3+	1999 12 02	610	0.8+	0.3+	2000 01 06	704 0.4+ 0.2-
1999 11 12	610	0.7+	0.2+	1999 12 02	610	0.5+	0.2+	2000 01 06	704 0.7- 0.5-

1999 11 12	610	0.8+	0.3+	1999 12 02	610	0.2+	0.0	2000 01 06	704	0.3-	0.2-
1999 11 12	610	0.7+	0.2+	1999 12 02	610	0.1-	0.2-	2000 01 06	704	0.4-	0.2-

1999 VY₂₃ = 1980 EX = 1982 VB₃

Id. A. Doppler, S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	149.87681		(2000.0)	P	Q				
<i>n</i>	0.23341129	ω	236.15366	+0.32579426	+0.94036396				
<i>a</i>	2.6124911	Ω	53.16249	-0.82201885	+0.33286877				
<i>e</i>	0.0682791	<i>i</i>	7.02226	-0.46705793	+0.07010004				
<i>P</i>	4.22	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	2		
Residuals in seconds of arc									
1980 03 15	095	0.6-	1.1-	1999 11 12	704	0.5+	0.1-	1999 12 08	704 0.1+ 0.1-
1982 11 14	381	0.6+	0.2-	1999 11 12	704	0.3+	0.2-	1999 12 08	704 0.2+ 0.1-
1982 11 14	381	0.2-	0.6-	1999 11 13	365	1.1+	0.9-	1999 12 08	704 0.3+ 0.6+
1999 10 22	704	0.1+	0.2+	1999 11 13	365	0.9+	1.0-	1999 12 08	704 0.4+ 0.0
1999 10 22	704	0.6-	0.2+	1999 11 14	365	0.9+	0.4-	1999 12 08	704 0.0 0.2+
1999 10 22	704	0.2-	0.6+	1999 11 14	365	0.5+	0.3+	1999 12 13	703 0.3- 0.3+
1999 10 22	704	1.0-	0.6-	1999 11 16	704	0.4+	0.0	1999 12 13	703 0.5- 0.3+
1999 10 22	704	1.2-	0.1-	1999 11 16	704	0.6+	0.1+	1999 12 13	703 0.5- 0.2+
1999 10 30	703	0.4-	0.1+	1999 11 16	704	0.0	0.3-	1999 12 13	703 0.8- 0.5+
1999 10 30	703	0.2-	0.1-	1999 11 16	704	0.8+	0.6-	1999 12 15	691 0.8- 0.2-
1999 10 30	703	(1.5- 2.9+)		1999 11 16	704	0.5+	0.8-	1999 12 15	691 0.9- 0.2-
1999 10 30	703	(0.8+ 2.4+)		1999 12 03	365	1.2+	0.6-	1999 12 15	691 0.7- 0.1-
1999 11 03	704	0.8+	0.7+	1999 12 03	365	1.1+	0.6+	1999 12 30	106 0.8- 0.6+
1999 11 03	704	0.1-	0.0	1999 12 04	703	0.3-	0.1+	1999 12 30	106 1.4- 0.7+
1999 11 03	704	0.0	0.4+	1999 12 04	703	1.5-	1.0-	1999 12 30	106 0.5- 0.7+
1999 11 03	704	0.5+	0.6-	1999 12 04	703	0.1-	0.3-	2000 01 03	704 0.3+ 0.5+
1999 11 03	704	0.3-	0.1+	1999 12 04	703	0.1-	0.1+	2000 01 03	704 0.0 0.9+
1999 11 09	704	0.0	0.3+	1999 12 06	691	(0.4- 3.0-)		2000 01 03	704 0.5- 0.0
1999 11 09	704	0.2+	0.3-	1999 12 06	691	0.2-	0.2+	2000 01 04	704 0.9+ 0.4+
1999 11 09	704	0.4+	0.0	1999 12 06	691	0.1-	0.3+	2000 01 04	704 0.9- 0.3-
1999 11 09	704	0.4+	0.2-	1999 12 07	704	0.4+	0.0	2000 01 04	704 1.2- 0.3-
1999 11 09	704	0.3+	0.5-	1999 12 07	704	0.1+	0.2+	2000 01 31	704 1.3- 0.4+
1999 11 12	704	0.3+	0.2-	1999 12 07	704	0.3+	0.1-	2000 01 31	704 0.9- 0.8+
1999 11 12	704	0.7+	0.1-	1999 12 07	704	0.4+	0.1+	2000 01 31	704 0.5- 0.3-
1999 11 12	704	0.5+	0.2+	1999 12 07	704	0.4+	0.2+		

1999 VG₂₅ = 1973 WM = 1982 BH₇

Id. A. Doppler, S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	23.72404		(2000.0)		P		Q				
n	0.26871440	ω	41.14467		+0.23876991		-0.97027220				
a	2.3783481	Ω	35.09413		+0.87199396		+0.19632652				
e	0.0717430	i	3.94030		+0.42733531		+0.14151947				
P	3.67	H	13.9	G	0.15	U	2				
Residuals in seconds of arc											
1973 11 22	033	0.2-	0.1-	1999 11 16	704	0.1+	0.2+	1999 12 15	704	0.5-	1.4+
1973 11 22	033	0.5-	1.1+	1999 11 16	704	0.1-	0.3+	2000 01 03	704	0.0	0.6-
1982 01 26	381	0.1+	1.3+	1999 11 16	704	0.3-	0.2-	2000 01 03	704	0.1-	0.2-
1982 01 26	381	0.9+	0.7+	1999 11 16	704	1.0-	0.4+	2000 01 03	704	0.4+	0.2+
1998 06 26	704	0.2-	0.1-	1999 11 16	704	0.4-	0.4+	2000 01 03	704	0.0	1.1-
1998 06 26	704	1.0+	0.0	1999 11 16	411	0.3+	0.2+	2000 01 03	704	0.6+	0.8-
1998 06 26	704	0.8-	0.2+	1999 11 16	411	0.8-	0.3+	2000 01 04	704	1.6-	1.2-
1998 06 26	704	0.1-	0.2+	1999 11 18	411	0.6+	0.5+	2000 01 04	704	0.3-	0.6-
1999 10 05	704	0.1+	0.4+	1999 11 18	411	1.5+	0.1-	2000 01 04	704	0.0	0.4-
1999 10 05	704	0.2+	0.2-	1999 12 06	411	0.1-	0.6-	2000 01 31	704	1.3-	0.4-
1999 10 05	704	0.7+	0.2-	1999 12 06	411	0.6+	0.9-	2000 01 31	704	1.7-	0.1-
1999 10 05	704	0.0	0.0	1999 12 10	704	0.7+	0.1-	2000 01 31	704	0.5+	1.2-
1999 10 05	704	0.8+	0.3+	1999 12 10	704	0.2+	0.1-	2000 02 05	106	0.1-	0.0
1999 11 13	411	1.0+	0.6-	1999 12 10	704	0.4+	0.1+	2000 02 05	106	0.4+	0.3+
1999 11 13	411	1.3+	0.3-	1999 12 10	704	0.0	0.6-	2000 02 05	106	0.6+	0.4+
1999 11 14	704	0.8+	0.9+	1999 12 10	704	0.1+	0.7-	2000 02 11	704	0.3-	0.1-
1999 11 14	704	0.9-	0.3+	1999 12 15	704	0.5+	0.9+	2000 02 11	704	0.4-	0.2+

1999 11 14	704	0.6−	0.0	1999 12 15	704	0.3+	0.9+	2000 02 11	704	0.8−	0.3−
1999 11 14	704	0.7−	0.2−	1999 12 15	704	0.7+	0.4+	2000 02 11	704	0.6−	0.3−
1999 11 14	704	0.6−	0.2−	1999 12 15	704	0.6−	0.8+	2000 02 11	704	0.6+	0.3+

1999 VY₂₅ = 1990 WE₁₁

Id. A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>	57.33560	(2000.0)		P	Q		
<i>n</i>	0.22305454	ω	289.03001	+0.91370986	−0.36456271		
<i>a</i>	2.6927457	Ω	92.67733	+0.40626664	+0.82933689		
<i>e</i>	0.2876293	<i>i</i>	10.35337	−0.00903892	+0.42343165		
<i>P</i>	4.42	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1976 05 27	413	0.2+	1.2+	1999 11 17	734	0.0	0.4+	1999 12 08	704	0.3+	0.9−
1990 10 29	675	0.9−	0.7−	1999 11 17	734	0.1−	0.8−	1999 12 08	704	0.3+	1.4−
1990 10 29	675	0.1−	1.1−	1999 11 17	704	0.0	0.3−	1999 12 08	704	0.2+	1.7−
1990 11 22	809	1.2+	1.5+	1999 11 17	704	0.3−	0.2−	1999 12 08	704	0.3−	1.3−
1990 11 22	809	0.1+	0.9+	1999 11 17	704	0.6+	0.3−	1999 12 17	734	0.5+	0.1+
1990 11 22	809	1.2−	1.2+	1999 11 17	704	1.1+	0.4−	1999 12 17	734	0.4+	0.6+
1999 11 04	704	0.1+	1.3−	1999 11 29	734	0.0	0.4+	1999 12 27	734	0.1−	0.5−
1999 11 04	704	0.1+	0.3+	1999 11 29	734	0.1+	1.2+	1999 12 27	734	0.8−	0.5−
1999 11 04	704	0.1−	0.3−	1999 11 29	734	0.7+	1.2+	2000 01 03	704	0.0	0.1−
1999 11 04	704	0.8+	1.2−	1999 12 07	704	1.3−	0.4+	2000 01 03	704	1.1−	0.8+
1999 11 04	704	0.4+	0.4−	1999 12 07	704	0.5+	0.8−	2000 01 03	704	0.0	0.6−
1999 11 14	734	0.1+	0.3+	1999 12 07	704	0.4+	0.1−	2000 01 04	704	0.1−	0.3+
1999 11 14	734	0.2+	0.6+	1999 12 07	704	0.4+	0.3−	2000 01 04	704	0.7+	0.1+
1999 11 14	734	0.2+	0.5+	1999 12 08	734	0.1−	0.2+	2000 01 04	704	1.0−	0.3−
1999 11 14	734	0.5+	0.3+	1999 12 08	734	0.0	0.2+	2000 01 30	704	0.8−	1.1+
1999 11 14	734	0.7+	0.9+	1999 12 08	734	0.1−	0.1−	2000 01 30	704	0.2−	0.7+
1999 11 15	734	0.1−	0.3+	1999 12 08	734	0.8−	0.3−	2000 01 30	704	0.5−	0.7+
1999 11 15	734	0.5+	0.4+	1999 12 08	734	0.3−	0.4+	2000 01 30	704	0.0	0.1−
1999 11 15	734	0.1+	0.3+	1999 12 08	734	0.8−	0.3+	2000 01 30	704	0.3−	0.1+
1999 11 15	734	0.4+	0.3+	1999 12 08	734	1.8−	1.0+				
1999 11 17	734	0.5+	0.2+	1999 12 08	704	0.9+	1.1−				

1999 VS₃₀ = 1995 TK₈

Id. A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>	33.26707	(2000.0)		P	Q		
<i>n</i>	0.26652807	ω	173.73821	+0.61081756	−0.78807325		
<i>a</i>	2.3913368	Ω	238.58607	+0.72249491	+0.59426089		
<i>e</i>	0.1172490	<i>i</i>	5.13852	+0.32388734	+0.16060681		
<i>P</i>	3.70	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1951 11 08	675	1.0−	1.0−	1999 11 16	704	0.5+	0.7−	1999 12 08	704	0.3−	0.9−
1951 11 08	675	0.5+	0.7−	1999 11 16	704	0.6+	0.9−	1999 12 13	691	0.5−	1.6+
1951 11 28	675	0.4−	0.4−	1999 11 16	704	0.3+	0.7−	1999 12 13	691	0.0	0.1−
1951 11 28	675	0.8+	1.1−	1999 11 16	704	0.5+	1.1−	1999 12 13	691	0.2+	0.0
1955 12 12	675	0.2−	0.7−	1999 11 16	704	0.5+	1.0−	1999 12 29	106	0.1+	0.3+
1955 12 12	675	0.0	1.0+	1999 11 25	120	0.1+	0.1+	1999 12 29	106	0.0	0.3−
1992 11 25	675	1.2+	0.2−	1999 11 25	120	0.2+	0.0	1999 12 29	106	0.0	0.0
1992 11 25	675	0.2−	0.1+	1999 11 26	120	0.1+	0.3−	1999 12 30	699	0.3−	0.3+
1995 10 11	400	0.4−	0.2−	1999 11 26	120	0.1+	0.3−	1999 12 30	699	0.1−	0.3+
1995 10 11	400	0.1+	0.6−	1999 11 27	120	0.2−	0.2−	1999 12 30	699	0.1+	0.4+
1999 10 03	704	1.6−	0.6+	1999 11 27	120	0.3+	0.2−	2000 02 03	704	0.2−	0.3+
1999 10 03	704	0.4+	1.2+	1999 11 27	120	0.0	0.2−	2000 02 03	704	0.1+	0.5+
1999 10 03	704	0.8−	1.5+	1999 11 29	120	0.3+	0.7−	2000 02 03	704	0.3−	1.0+
1999 10 03	704	0.6−	0.7+	1999 11 29	120	0.1+	0.5−	2000 02 03	704	0.2+	0.7+
1999 10 03	704	1.0+	0.0	1999 12 03	699	0.3+	1.1+	2000 02 03	704	0.3−	1.2+
1999 11 03	704	0.1+	0.0	1999 12 03	699	0.6+	1.1+	2000 02 03	049	1.5−	0.7−
1999 11 03	704	0.2+	0.0	1999 12 03	699	0.5+	1.1+	2000 02 03	049	1.1−	1.0−
1999 11 03	704	0.1+	0.5−	1999 12 04	703	0.4−	0.4+	2000 02 03	049	1.3−	0.8−
1999 11 03	704	0.0	0.4−	1999 12 04	703	0.6−	0.2+	2000 02 03	049	1.7−	1.0−
1999 11 03	704	0.1+	0.8−	1999 12 04	703	0.0	0.6+	2000 02 03	049	1.6−	0.8−

1999 11 09	704	0.4+	0.5+	1999 12 04	703	0.3−	0.2+	2000 02 03	049	1.8−	1.0−
1999 11 09	704	0.3+	0.5+	1999 12 07	704	0.2−	0.0	2000 02 07	703	0.3+	0.3−
1999 11 09	704	0.4+	0.6+	1999 12 07	704	0.4−	0.1−	2000 02 07	703	0.7+	0.0
1999 11 09	704	1.2+	0.1+	1999 12 07	704	0.6−	0.4+	2000 02 07	703	0.4+	0.5+
1999 11 09	704	0.3+	0.1+	1999 12 07	704	0.1−	0.2+	2000 02 07	703	0.2−	0.6+
1999 11 12	704	0.4+	0.1−	1999 12 07	704	0.1−	0.4+	2000 02 08	049	(2.4−	0.5−)
1999 11 12	704	0.5+	0.1+	1999 12 08	704	0.1−	0.2−	2000 02 08	049	(2.1−	0.2−)
1999 11 12	704	0.5+	0.2+	1999 12 08	704	0.2−	0.3−	2000 02 08	049	(2.3−	0.5−)
1999 11 12	704	0.7+	0.4+	1999 12 08	704	0.3−	0.4−				
1999 11 12	704	0.6+	0.7+	1999 12 08	704	0.3−	0.8−				

1999 VK₃₃ = 4749 P-L

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	349.35981	(2000.0)		P	Q		
<i>n</i>	0.22969054	ω	47.67264	−0.36496705	−0.93074176		
<i>a</i>	2.6406285	Ω	63.74608	+0.84655174	−0.34193796		
<i>e</i>	0.2297250	<i>i</i>	1.45536	+0.38749090	−0.12960792		
<i>P</i>	4.29	<i>H</i>	15.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1960 09 24	675	0.7+	0.5+	1999 11 12	704	0.2+	0.3+	1999 12 07	704	0.1+	0.2−
1960 09 24	675	0.7−	0.5−	1999 11 12	704	0.4+	0.0	1999 12 07	704	0.0	0.2−
1960 09 26	675	0.5+	0.6+	1999 11 12	704	0.2−	0.6+	1999 12 07	120	0.9+	1.1+
1960 09 26	675	0.2−	1.3−	1999 11 17	704	0.3−	0.7−	1999 12 07	120	0.9+	0.3+
1960 09 27	675	1.0−	0.1−	1999 11 17	704	0.3+	0.3−	1999 12 07	120	0.5−	0.1+
1960 09 27	675	0.4−	0.1+	1999 11 17	704	0.3−	0.8−	1999 12 07	120	0.2−	0.0
1960 09 28	675	0.2+	0.1+	1999 11 17	704	0.1+	0.6−	1999 12 07	120	0.1+	0.1+
1960 09 28	675	0.9+	0.3+	1999 11 17	704	0.3−	0.3−	1999 12 08	691	0.1−	0.4−
1999 10 30	703	1.0−	0.1+	1999 11 17	704	0.3+	0.8−	1999 12 08	691	0.1−	0.0
1999 10 30	703	0.1−	0.8+	1999 11 17	704	0.1−	1.3−	1999 12 08	704	0.3+	0.2−
1999 10 30	703	0.6−	1.5+	1999 11 17	704	0.5+	0.3−	1999 12 08	704	0.2+	0.8−
1999 10 30	703	0.4−	1.0+	1999 11 17	704	0.1+	1.2−	1999 12 08	691	0.2−	0.5−
1999 11 03	704	0.3−	0.3−	1999 11 17	704	0.6+	0.7−	1999 12 08	704	0.1−	0.3−
1999 11 03	704	1.4+	0.9−	1999 12 04	703	0.1+	0.4+	1999 12 08	704	0.2−	0.1+
1999 11 03	704	0.6−	0.8−	1999 12 04	703	0.4−	0.7+	1999 12 08	704	0.1+	0.1+
1999 11 03	704	0.1−	1.1+	1999 12 04	703	0.4−	0.4+	1999 12 13	691	0.2+	0.1+
1999 11 09	704	0.1−	0.6+	1999 12 04	703	0.4−	0.3+	1999 12 13	691	0.4+	0.2+
1999 11 09	704	0.2+	0.3+	1999 12 05	703	1.0−	0.8+	1999 12 13	691	0.2+	0.2+
1999 11 09	704	0.4+	0.3+	1999 12 05	703	0.6−	0.8+	2000 01 10	691	0.0	0.3−
1999 11 09	704	0.5+	0.3+	1999 12 05	703	0.4+	0.6+	2000 01 10	691	0.1+	0.3−
1999 11 09	704	0.6+	0.1+	1999 12 05	703	0.5−	0.5+	2000 01 10	691	0.0	0.3−
1999 11 12	704	0.1−	0.0	1999 12 07	704	0.0	0.2−				
1999 11 12	704	0.2+	0.4−	1999 12 07	704	0.7−	0.5−				

1999 VR₃₃ = 2000 AS₂₁₆ = 1993 SC₁₀

Id. A. Doppler, G. V. Williams (d)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

2000 FEB. 22

1999 11 09	704	0.0	0.5−	1999 11 27	049	1.6+	0.6+	2000 01 10	691	0.3+	0.0
1999 11 09	704	0.0	0.6−	1999 12 04	703	1.0−	0.1+	2000 01 10	691	0.1+	0.1−
1999 11 09	704	0.3−	0.4+	1999 12 04	703	0.5−	1.2+				

1999 VW₃₄ = 1990 BB₄

Id. A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	37.48690	(2000.0)		P		Q	
<i>n</i>	0.19275936	ω	133.42033	+0.79441186		−0.60592301	
<i>a</i>	2.9679670	Ω	263.91898	+0.54433324		+0.74094967	
<i>e</i>	0.2173271	<i>i</i>	2.42289	+0.26946451		+0.28957017	
<i>P</i>	5.11	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1989 11 04	675	0.6+	0.3+	1999 11 12	704	0.7+	0.2+	1999 12 12	704	0.4−	0.4+
1989 11 04	675	0.6−	0.3+	1999 11 12	704	0.8−	0.1+	1999 12 12	704	0.6−	0.5+
1990 01 24	033	0.8−	1.0+	1999 11 12	704	0.1+	0.7−	1999 12 12	704	0.2−	0.6+
1990 01 24	033	1.1+	0.8+	1999 11 12	704	0.9+	0.7−	2000 01 04	704	0.7+	0.4+
1998 06 28	809	0.3−	1.9+	1999 11 12	704	0.0	0.7−	2000 01 04	704	0.3+	0.2+
1998 06 28	809	0.4−	1.9+	1999 11 16	704	0.3−	0.1+	2000 01 04	704	0.1+	0.1−
1998 06 28	809	0.8−	1.9+	1999 11 16	704	0.2−	0.2−	2000 01 04	704	0.4+	0.4+
1999 10 06	704	1.7−	0.9+	1999 11 16	704	0.2−	0.3−	2000 01 04	704	0.1+	1.0−
1999 10 06	704	0.4+	0.1−	1999 11 16	704	0.1+	0.1+	2000 01 30	704	0.3−	0.7+
1999 10 06	704	0.4+	0.8+	1999 11 16	704	0.2−	0.1−	2000 01 30	704	0.1+	0.8+
1999 10 06	704	0.1+	0.7−	1999 12 07	704	0.2−	0.2−	2000 01 30	704	0.1−	0.7+
1999 10 06	704	0.3+	0.7−	1999 12 07	704	0.0	0.2−	2000 01 30	704	0.5−	1.0+
1999 11 03	704	0.3−	0.0	1999 12 07	704	0.1−	0.3−	2000 01 30	704	1.0−	1.1+
1999 11 03	704	0.2+	0.6−	1999 12 07	704	0.2−	0.1−	2000 02 03	704	0.5+	0.4+
1999 11 03	704	0.3+	0.6−	1999 12 07	704	0.4−	0.1+	2000 02 03	704	0.1+	0.3+
1999 11 03	704	0.5+	0.1−	1999 12 08	704	0.1−	0.3−	2000 02 03	704	0.4+	0.3+
1999 11 03	704	1.0−	0.0	1999 12 08	704	0.2+	0.2−	2000 02 03	704	0.2−	0.0
1999 11 09	704	0.1+	0.2−	1999 12 08	704	0.4+	0.0	2000 02 03	704	0.2−	0.4+
1999 11 09	704	0.2+	0.2−	1999 12 08	704	0.1−	0.4+	2000 02 11	704	0.3+	1.3+
1999 11 09	704	0.1−	0.0	1999 12 08	704	0.3+	0.4−	2000 02 11	704	0.2+	0.7+
1999 11 09	704	0.1+	0.2−	1999 12 12	704	0.2+	0.1−	2000 02 11	704	0.0	0.7+
1999 11 09	704	0.2+	0.3−	1999 12 12	704	0.0	0.1+				

1999 VY₃₄ = 1997 GS₂₃

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	98.44129	(2000.0)		P		Q	
<i>n</i>	0.19490835	ω	63.17335	+0.91167594		+0.41069580	
<i>a</i>	2.9461109	Ω	272.57560	−0.38155896		+0.83413321	
<i>e</i>	0.1010743	<i>i</i>	0.76079	−0.15251145		+0.36817218	
<i>P</i>	5.06	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 04 06	704	0.5−	0.6+	1999 11 03	704	0.3+	0.2−	1999 11 28	120	1.9+	0.8−
1997 04 06	704	1.1+	0.6−	1999 11 09	704	0.2+	0.6+	1999 12 07	704	0.4−	0.9+
1997 04 08	704	0.4−	0.2+	1999 11 09	704	0.2+	0.1+	1999 12 07	704	0.6−	0.3+
1997 04 08	704	0.2−	0.3+	1999 11 09	704	0.2+	0.4−	1999 12 07	704	0.1−	0.2+
1997 05 01	704	1.1+	0.3−	1999 11 09	704	0.4−	0.3−	1999 12 07	704	1.1+	0.9−
1997 05 01	704	0.0	0.7+	1999 11 09	704	0.3+	1.0−	1999 12 08	704	0.7+	1.4−
1997 05 01	704	1.0−	0.4−	1999 11 12	704	0.1−	0.1+	1999 12 08	704	0.0	0.4+
1997 05 01	704	0.1+	0.2+	1999 11 12	704	0.3−	0.3+	1999 12 08	704	1.2+	0.2+
1999 11 03	704	0.8−	0.4−	1999 11 12	704	0.5−	0.6+	1999 12 08	704	1.2−	1.7+
1999 11 03	704	0.5+	0.9+	1999 11 12	704	0.6−	0.4+	2000 01 06	704	0.4+	0.3−
1999 11 03	704	0.7−	0.9+	1999 11 12	704	0.2+	0.1+	2000 01 06	704	0.4−	1.0−
1999 11 03	704	0.4+	0.1−	1999 11 28	120	1.2−	0.2+	2000 01 06	704	0.3−	0.6−

1999 VT₃₇ = 1998 RP₂₅

Id. A. Doppler

M.P.C. 38573

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	43.15794	(2000.0)		P		Q	
<i>n</i>	0.12615220	ω	342.29742	+0.91623219		−0.40041672	
<i>a</i>	3.9373694	Ω	41.31516	+0.37003415		+0.83271902	
<i>e</i>	0.2508967	<i>i</i>	1.18055	+0.15360110		+0.38242056	
<i>P</i>	7.81	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 08 17	704	1.8−	1.1−	1999 11 03	704	0.2+	0.4−	1999 12 05	703	0.2+	0.4+
1998 08 17	704	0.9−	0.7+	1999 11 03	704	0.0	0.1−	1999 12 05	703	0.4−	0.1−
1998 08 17	704	0.1+	0.2−	1999 11 03	704	0.0	1.1−	1999 12 05	703	0.7−	0.3−
1998 08 17	704	0.1−	0.3+	1999 11 09	704	0.0	0.2−	1999 12 07	704	0.2−	0.1+
1998 08 17	704	(2.7−	0.6+)	1999 11 09	704	0.1+	0.2−	1999 12 07	704	0.0	0.3−
1998 08 30	699	1.3+	0.7+	1999 11 09	704	0.2+	0.3+	1999 12 07	704	0.4+	0.1−
1998 08 30	699	0.5+	0.1−	1999 11 09	704	0.4+	0.5+	1999 12 07	704	0.3+	0.2−
1998 08 30	699	1.2+	1.3+	1999 11 09	704	0.4+	0.5+	1999 12 07	704	0.4+	0.3+
1998 09 14	704	0.6+	1.0−	1999 11 12	704	0.4+	0.5+	2000 01 03	704	0.3−	0.0
1998 09 14	704	1.8+	0.5+	1999 11 12	704	0.1−	0.7+	2000 01 03	704	0.3+	0.1+
1998 09 14	704	1.1+	0.1−	1999 11 12	704	0.4−	0.3−	2000 01 03	704	0.4+	0.5+
1998 09 14	704	0.6+	0.1+	1999 11 12	704	0.3−	0.1−	2000 01 03	704	0.1−	0.2+
1998 09 14	704	0.4−	0.4+	1999 11 12	704	0.3−	0.4−	2000 01 03	704	0.4+	0.4+
1998 09 18	704	0.4−	0.0	1999 11 16	704	0.1+	0.8−	2000 01 04	704	0.6+	0.2+
1998 09 18	704	0.2+	0.5+	1999 11 16	704	0.0	0.2+	2000 01 04	704	1.6−	0.5+
1998 09 18	704	1.6−	1.1−	1999 11 16	704	0.3−	0.9−	2000 01 04	704	0.4+	0.4+
1998 09 18	704	1.7−	0.2−	1999 11 16	704	0.5+	0.6+	2000 01 04	704	0.4+	0.2−
1998 09 18	704	0.6−	0.5−	1999 11 16	704	0.2−	0.3−	2000 01 04	704	0.3−	0.5−
1999 11 03	704	0.2+	0.1+	1999 12 05	703	1.3−	0.2+				

1999 VY₄₂ = 1996 JZ₁₀ = 1996 JY₁₁

Id. A. Doppler, G. V. Williams (d)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	311.47102	(2000.0)		P		Q	
<i>n</i>	0.16796533	ω	54.94634	−0.65553782		−0.74698966	
<i>a</i>	3.2532913	Ω	76.40880	+0.65041903		−0.63305263	
<i>e</i>	0.0823686	<i>i</i>	6.54549	+0.38369944		−0.20310296	
<i>P</i>	5.87	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1996 05 09	691	(2.4+	1.4−)	1999 11 04	691	0.2+	0.2−	1999 11 15	704	0.2+	0.8−
1996 05 09	691	0.3+	0.7+	1999 11 04	691	0.3+	0.1−	1999 11 15	704	0.2+	0.2−
1996 05 15	691	0.0	0.1−	1999 11 10	691	0.2+	0.1−	1999 11 15	704	0.2+	1.3+
1996 05 15	691	0.0	0.1−	1999 11 10	691	0.2+	0.1−	1999 11 15	704	1.0−	1.0+
1996 05 15	691	0.0	0.0	1999 11 10	691	0.3+	0.1−	1999 12 07	704	0.0	0.6+
1996 05 22	691	0.4−	0.5−	1999 11 11	691	0.3−	0.2−	1999 12 07	704	0.8−	0.2+
1996 05 22	691	0.1+	0.1−	1999 11 11	691	0.4−	0.0	1999 12 07	704	0.3−	0.1−
1996 05 22	691	0.1−	0.1−	1999 11 11	691	0.7−	0.2−	1999 12 07	704	1.5+	0.8−
1999 11 04	691	0.3+	0.1−	1999 11 15	704	0.1−	0.3−				

1999 VB₄₄ = 1998 MQ₂

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	61.61757	(2000.0)		P		Q	
<i>n</i>	0.18037167	ω	119.00520	+0.96883593		+0.23660935	
<i>a</i>	3.1023479	Ω	227.41287	−0.24739498		+0.90953178	
<i>e</i>	0.0646562	<i>i</i>	5.71379	−0.01235554		+0.34171327	
<i>P</i>	5.46	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 06 20	910	0.4+	0.6+	1999 10 02	703	0.3−	0.0	1999 11 04	703	0.1+	1.0+
1998 06 20	910	0.2+	0.6+	1999 10 18	691	0.1+	0.2+	1999 11 04	704	0.5−	0.4−
1998 06 20	910	0.3+	0.6+	1999 10 18	691	0.0	0.1−	1999 11 04	703	0.7−	0.4+
1998 06 21	910	0.5+	0.3+	1999 10 18	691	0.3+	0.1−	1999 11 04	704	0.5−	0.6−
1998 06 21	910	0.2+	0.0	1999 10 20	704	0.5−	0.2−	1999 11 04	703	0.3−	0.1+
1998 06 21	910	0.3+	0.0	1999 10 20	704	0.1+	0.8+	1999 11 04	703	1.4+	0.2−
1998 06 24	704	0.1−	0.5+	1999 10 20	704	0.3+	0.2−	1999 11 14	704	0.2+	0.4+

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1998 06 24	704	1.7−	0.2+	1999 10 20	704	0.1−	0.1−	1999 11 14	704	0.0	0.2−
1998 06 24	704	1.2−	1.4−	1999 10 20	704	0.0	0.1−	1999 11 14	704	0.5+	0.8−
1998 06 24	704	(1.0−	3.1−)	1999 11 03	703	0.1+	0.4−	1999 11 14	704	0.0	0.3+
1998 06 26	910	0.4+	0.3−	1999 11 03	703	0.6−	0.7−	1999 11 14	704	0.4+	0.1+
1998 06 26	910	0.3+	0.5−	1999 11 03	703	(2.6+	0.1−)	1999 11 16	704	0.7+	1.6+
1998 06 26	910	0.3+	0.6−	1999 11 03	703	0.4−	0.8−	1999 11 16	704	1.1+	1.5+
1999 10 02	703	0.1+	0.1+	1999 11 04	704	0.2+	0.4−	1999 11 16	704	0.7−	0.8−
1999 10 02	703	0.8+	0.4+	1999 11 04	704	1.4−	0.1+	1999 11 16	704	1.2−	0.1+
1999 10 02	703	0.0	0.4−	1999 11 04	704	0.0	0.4+	1999 11 16	704	1.1+	1.0−

1999 VN₄₄ = 1985 FB₁

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.23247849	ω	239.18358	−0.50696964	+0.86195766		
<i>a</i>	2.6194746	Ω	0.40093	−0.53879405	−0.31391959		
<i>e</i>	0.1549984	<i>i</i>	27.98408	−0.67281703	−0.39809985		
<i>P</i>	4.24	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1985 03 21	688	0.7+	0.4+	1999 09 18	703	(4.2−	0.1−)	1999 11 05	704	0.4+	0.2+
1985 03 21	688	0.2+	0.2−	1999 10 04	704	0.7−	0.1+	1999 11 05	704	0.3+	0.2−
1985 03 24	688	0.4−	0.6+	1999 10 04	704	1.0−	0.4−	1999 11 05	704	0.5+	0.1−
1985 03 24	688	1.4+	0.6+	1999 10 04	704	0.4−	0.3+	1999 11 05	704	0.6+	0.0
1999 09 07	704	0.1+	0.4+	1999 10 04	704	0.5+	0.9−	1999 11 05	704	1.0+	0.8+
1999 09 07	704	0.4+	0.0	1999 10 04	704	0.9+	0.8−	1999 11 05	704	0.7−	0.3+
1999 09 07	704	0.3+	0.0	1999 11 04	703	0.6−	0.2+	1999 11 05	704	0.6+	0.9+
1999 09 07	704	0.1−	0.3+	1999 11 04	703	0.6−	1.2+	1999 11 12	703	0.3−	0.3−
1999 09 07	704	0.1+	0.7−	1999 11 04	703	0.7−	0.8+	1999 11 12	703	1.0+	0.5−
1999 09 18	703	1.3−	0.9+	1999 11 04	703	0.6−	0.3−	1999 11 12	703	1.4−	1.5−
1999 09 18	703	0.9−	0.3+	1999 11 05	704	0.9+	0.9+	1999 11 12	703	0.1+	0.6−
1999 09 18	703	0.9−	0.7+	1999 11 05	704	0.5+	0.3−				

1999 VS₄₅ = 1994 RV₂₀

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22249169	ω	238.66532	−0.63143109	+0.77510182		
<i>a</i>	2.6972851	Ω	352.06104	−0.64410736	−0.54051767		
<i>e</i>	0.1404608	<i>i</i>	9.42862	−0.43176439	−0.32719691		
<i>P</i>	4.43	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1994 09 05	809	0.3−	0.6−	1999 10 03	704	0.2+	0.5−	1999 11 04	703	0.1−	0.9+
1994 09 05	809	0.0	0.7−	1999 10 03	704	0.4+	0.6−	1999 11 04	703	0.3−	0.5+
1994 09 05	809	1.8−	0.5−	1999 10 03	704	0.8+	0.1+	1999 11 11	703	0.1+	0.1−
1994 09 06	809	1.4+	0.3+	1999 11 04	704	1.7+	0.2−	1999 11 11	703	0.3+	0.1+
1994 09 06	809	1.0+	0.1−	1999 11 04	704	0.5+	0.1+	1999 11 11	703	0.8−	0.2+
1994 09 06	809	0.1+	0.9+	1999 11 04	704	0.7+	0.2−	1999 11 11	703	1.0−	0.3+
1999 09 12	703	1.2−	0.5−	1999 11 04	704	0.3+	0.3−	2000 01 06	704	0.3+	0.6−
1999 09 12	703	0.1+	0.7+	1999 11 04	703	1.1−	1.7+	2000 01 06	704	0.9+	0.2−
1999 09 12	703	1.1−	0.8+	1999 11 04	704	0.2−	0.0	2000 01 06	704	0.1−	1.1−
1999 09 12	703	0.4−	0.0	1999 11 04	703	0.6−	0.1+	2000 01 06	704	0.5+	1.3−

1999 VV₄₇ = 1998 MN₄₇

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.18254241	ω	1.80874	+0.35492052	+0.92496678		
<i>a</i>	3.0777041	Ω	288.99882	−0.85954515	+0.26567550		
<i>e</i>	0.0501048	<i>i</i>	8.26351	−0.36771397	+0.27175906		
<i>P</i>	5.40	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	4

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Residuals in seconds of arc

1998 06 28	809	(4.9+	3.3+)	1999 10 03	704	0.2−	0.9−	1999 11 04	704	0.3+	0.1+
1998 06 28	809	(4.4+	2.4+)	1999 10 03	704	0.4−	0.8−	1999 11 04	704	0.4+	0.3−
1998 06 28	809	(4.4+	2.7+)	1999 10 03	704	1.0+	0.7−	1999 11 09	703	0.8−	0.6+
1998 07 01	809	0.0	0.2+	1999 10 03	704	0.0	0.8−	1999 11 09	703	0.6−	0.8+
1998 07 01	809	0.6−	0.1+	1999 11 03	704	0.1+	0.4+	1999 11 09	703	0.6−	0.7+
1998 07 01	809	0.4+	0.1+	1999 11 03	704	0.6+	0.0	1999 11 09	703	1.0−	0.8+
1999 09 18	704	0.1−	0.3+	1999 11 03	704	0.1+	0.2−	1999 11 11	703	0.0	0.7+
1999 09 18	704	0.1+	0.1+	1999 11 03	704	0.2+	0.0	1999 11 11	703	0.3+	0.1−
1999 09 18	704	0.5+	0.0	1999 11 03	704	0.5−	0.2−	1999 11 11	703	0.0	0.6+
1999 09 18	704	0.4+	0.3−	1999 11 04	704	0.3+	0.1+	1999 11 11	703	0.6−	0.2+
1999 09 18	704	0.2−	0.7−	1999 11 04	704	0.4+	0.2−				

1999 VO₅₃ = 1997 JF₃

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.20085935	ω	310.84918	+0.91792578	+0.39641018		
<i>a</i>	2.8876287	Ω	25.80959	−0.35168330	+0.83216849		
<i>e</i>	0.0784763	<i>i</i>	2.16783	−0.18366034	+0.38775581		
<i>P</i>	4.91	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 04 03	704	0.1+	0.2+	1999 10 20	704	0.1−	0.2+	1999 11 12	704	0.2−	0.2−
1997 04 03	704	0.2+	0.2−	1999 10 20	704	0.5−	0.3−	1999 11 12	704	0.9+	0.0
1997 04 03	704	0.7+	0.0	1999 10 20	704	0.5+	1.0+	1999 11 12	704	0.2+	0.3+
1997 04 03	704	0.5+	0.2−	1999 10 20	704	0.0	0.7−	1999 11 12	704	1.0+	0.1+
1997 05 03	691	0.1−	0.0	1999 10 20	704	0.6−	1.2−	1999 11 12	704	0.1+	0.0
1997 05 03	691	0.2−	0.3−	1999 11 04	704	0.2−	0.5−	1999 11 14	691	0.0	0.5−
1997 05 03	691	0.0	0.2+	1999 11 04	704	0.0	0.4+	1999 11 14	691	0.0	0.1+
1997 05 06	691	0.6−	0.1+	1999 11 04	704	0.0	0.2+	1999 11 14	691	0.0	0.1+
1997 05 06	691	0.2−	0.1+	1999 11 04	704	0.1+	0.2−				
1997 05 06	691	0.6−	0.0	1999 11 04	704	1.0−	1.1+				

1999 VR₅₃ = 1995 VV₁₆

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.23849046	ω	351.51180	+0.93080627	−0.36536087		
<i>a</i>	2.5752657	Ω	29.92477	+0.33658004	+0.84552408		
<i>e</i>	0.1235672	<i>i</i>	1.21082	+0.14252569	+0.38935903		
<i>P</i>	4.13	<i>H</i>	15.8	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1995 11 15	691	0.1+	0.1−	1999 10 20	704	0.3+	0.2+	1999 11 04	704	0.3−	0.0
1995 11 15	691	0.0	0.3−	1999 10 20	704	0.1−	0.4+	1999 11 12	704	0.9+	0.5+
1995 11 15	691	0.5−	0.5+	1999 10 20	704	0.6−	0.8−	1999 11 12	704	0.3+	0.1−
1995 11 20	691	0.2+	0.0	1999 11 04	704	0.3−	0.1−	1999 11 12	704	0.4+	0.5−
1995 11 20	691	0.2+	0.2−	1999 11 04	704	0.3−	0.6+	1999 11 14	691	0.2−	0.2−
1999 10 20	704	0.4+	0.1+	1999 11 04	704	0.2−	0.4+	1999 11 14	691	0.4−	0.2−
1999 10 20	704	0.4+	0.3−	1999 11 04	704	0.0	0.0	1999 11 14	691	0.3−	0.0

1999 VH₅₄ = 1996 CZ₁ = 1997 GQ₃₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.18510225	ω	170.97808	−0.44337532	+0.89629546		
<i>a</i>	3.0492632	Ω	72.70210	−0.82292855	−0.40327367		
<i>e</i>	0.0305711	<i>i</i>	0.51191	−0.35525615	−0.18445809		
<i>P</i>	5.32	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1996 02 15	566	0.0	1.0−	1999 10 20	704	0.6−	0.6+	1999 11 09	704	0.1+	0.6+
1996 02 15	566	0.6−	1.0−	1999 10 29	703	0.2+	0.5+	1999 11 09	704	1.3−	0.2+
1996 02 15	566	0.8−	1.2−	1999 10 29	703	0.6−	0.7+	1999 11 12	704	0.0	1.0+
1996 02 16	566	1.3+	1.1+	1999 10 29	703	1.0−	0.3+	1999 11 12	704	0.5+	0.1+

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1996 02 16	566	0.2+	1.2+	1999 10 29	703	0.8+	0.2+	1999 11 12	704	0.2+	0.0
1996 02 16	566	0.1-	1.0+	1999 11 04	704	0.3-	0.0	1999 11 12	704	0.8+	0.6-
1997 04 06	704	0.0	0.1+	1999 11 04	704	0.4-	0.0	1999 11 12	704	0.7-	0.1+
1997 04 06	704	0.2-	0.1-	1999 11 04	704	0.1-	0.3-	1999 11 13	691	0.3-	0.0
1997 04 11	704	0.3+	0.1-	1999 11 04	704	0.1+	0.0	1999 11 13	691	0.2-	0.2+
1997 04 11	704	0.1-	0.1-	1999 11 04	704	0.1+	1.6-	1999 11 13	691	0.2-	0.3-
1997 05 04	809	(1.1-	3.0+)	1999 11 05	691	0.1-	0.2-	1999 11 16	704	0.7+	0.4-
1997 05 04	809	(1.1-	3.2+)	1999 11 05	691	0.4-	0.1-	1999 11 16	704	0.5+	0.0
1997 05 04	809	(1.2-	3.8+)	1999 11 05	691	0.4-	0.5-	1999 11 16	704	0.9+	0.9-
1999 10 20	704	0.1-	0.7-	1999 11 09	704	0.1-	0.1+	1999 11 16	704	0.0	0.4-
1999 10 20	704	0.4+	1.0+	1999 11 09	704	0.5+	0.3+	1999 11 16	704	0.2+	0.9-
1999 10 20	704	0.8+	0.7+	1999 11 09	704	0.2+	0.2+				

1999 VT₅₄ = 1997 GY₁₉

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	355.92377		(2000.0)	P	Q		
n	0.21872824	ω	214.07931	+0.36593865	-0.92576696		
a	2.7281368	Ω	214.73084	+0.88672751	+0.37786656		
e	0.0384464	i	9.60923	+0.28249463	+0.01313027		
P	4.51	H	14.7	G	0.15	U	4

Residuals in seconds of arc

1997 04 05	704	0.4+	1.4+	1999 10 19	046	0.5-	0.3+	1999 11 09	704	0.1+	0.5+
1997 04 05	704	(2.8-	0.6-)	1999 10 20	704	0.1+	1.1-	1999 11 09	704	0.3+	0.1-
1997 04 07	704	0.3-	1.3-	1999 10 20	704	0.6+	0.9+	1999 11 09	704	0.5-	0.1-
1997 04 07	704	0.2-	0.2-	1999 10 20	704	0.5+	0.2-	1999 11 09	704	0.4+	0.4-
1999 10 06	704	0.1+	0.2+	1999 10 20	704	0.2+	0.4+	1999 11 12	704	0.2-	0.3-
1999 10 06	704	0.0	0.3-	1999 11 04	704	0.3-	0.2+	1999 11 12	704	0.2+	0.7-
1999 10 06	704	0.2+	0.5-	1999 11 04	704	0.0	0.2-	1999 11 12	704	0.1-	0.1-
1999 10 06	704	0.3-	0.4+	1999 11 04	704	0.0	0.5-	1999 11 12	704	0.6+	0.1-
1999 10 06	704	0.4+	0.1-	1999 11 04	704	0.1+	0.0	1999 11 12	704	0.2-	0.1-
1999 10 19	046	0.1+	0.0	1999 11 04	704	0.2+	0.3-	1999 11 17	704	0.1+	0.6-
1999 10 19	046	0.6-	0.5+	1999 11 05	691	0.2-	0.2-	1999 11 17	704	0.3-	0.7+
1999 10 19	046	0.3-	0.2+	1999 11 05	691	0.2-	0.2-	1999 11 17	704	0.4+	0.6+
1999 10 19	046	0.3-	0.3+	1999 11 05	691	0.2-	0.3-	1999 11 17	704	0.4-	1.3+

1999 VB₅₅ = 1977 RR₁₅ = 1996 CY₅ = 1998 MK₃₉

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	78.64338		(2000.0)	P	Q		
n	0.18278884	ω	129.22808	+0.87129766	+0.49061254		
a	3.0749373	Ω	201.39903	-0.45965234	+0.80740230		
e	0.0916589	i	1.85655	-0.17193053	+0.32772072		
P	5.39	H	14.6	G	0.15	U	1

Residuals in seconds of arc

1977 09 09	675	0.1+	0.4-	1999 10 20	704	0.5+	0.2+	1999 11 09	704	0.6-	0.7+
1977 09 10	675	0.7+	1.7-	1999 10 20	704	0.0	0.1-	1999 11 09	704	0.2-	0.2+
1996 02 10	691	0.0	0.4+	1999 10 20	704	0.1+	0.1+	1999 11 09	704	0.6-	0.7+
1996 02 10	691	0.0	0.4+	1999 10 20	704	0.0	0.6+	1999 11 09	704	0.2-	0.2+
1996 02 10	691	0.1+	0.5+	1999 10 29	703	0.2+	0.2+	1999 11 12	704	0.1-	0.8-
1996 02 16	691	0.2+	0.6+	1999 10 29	703	(0.6-	2.4+)	1999 11 12	704	0.5-	0.6-
1996 02 16	691	0.4+	0.5+	1999 10 29	703	0.8-	1.6+	1999 11 12	704	0.6-	1.0-
1996 02 16	691	0.3+	0.5+	1999 10 29	703	(3.0-	2.9+)	1999 11 12	704	0.1+	0.3-
1998 06 26	809	0.3+	0.6+	1999 11 04	704	1.0+	0.7+	1999 11 12	704	0.0	1.1-
1998 06 26	809	0.7-	1.0+	1999 11 04	704	0.6+	0.9+	1999 11 14	691	0.4-	0.6+
1998 06 26	809	0.2+	0.0	1999 11 04	704	1.2+	0.3+	1999 11 14	691	0.3-	0.6+
1998 06 27	809	0.6-	1.5+	1999 11 04	704	0.3+	0.7-	1999 11 14	691	0.4-	0.5+
1998 06 27	809	0.6-	0.7+	1999 11 04	704	0.7-	0.3-				
1998 06 27	809	0.5+	0.9+	1999 11 09	704	0.2+	0.4+				

1999 VQ₅₆ = 1998 HU₄₆

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	136.83594		(2000.0)	P	Q
n	0.28489586	ω	230.26816	+0.14074302	+0.98647064
a	2.2874167	Ω	48.03493	-0.87025393	+0.16375376
e	0.1631889	i	6.49173	-0.47206938	-0.00777109
P	3.46	H	15.7	G 0.15	U 4

Residuals in seconds of arc

1998 03 25	704	1.0-	1.9-	1998 04 21	704	0.0	1.3-	1999 11 04	704	0.5+	0.6+
1998 03 25	704	0.6-	0.1-	1998 04 22	704	0.4-	0.4+	1999 11 05	704	0.6+	0.6-
1998 03 25	704	0.3-	1.7+	1998 04 22	704	0.0	1.3-	1999 11 05	704	0.4-	0.2+
1998 03 25	704	0.1-	0.7+	1998 04 22	704	0.7+	1.1+	1999 11 05	704	0.3+	0.4-
1998 03 29	704	0.4-	0.1-	1998 04 22	704	1.7-	1.0+	1999 11 05	704	0.3-	0.1+
1998 03 29	704	0.7+	1.4+	1998 04 22	704	(4.4-	1.1+)	1999 11 05	704	0.8-	0.9+
1998 03 29	704	0.8+	1.2-	1998 05 16	704	1.4+	0.5-	1999 11 09	704	1.1-	1.3-
1998 03 29	704	1.3+	0.2-	1998 05 16	704	1.9-	0.8-	1999 11 09	704	0.4-	0.0
1998 04 20	704	0.4+	0.6-	1998 05 16	704	1.2-	1.1-	1999 11 09	704	0.4-	0.4+
1998 04 20	704	(2.4+	1.4+)	1998 05 16	704	0.7-	0.6+	1999 11 09	704	0.9-	0.0
1998 04 20	704	0.4+	0.8-	1998 05 19	910	0.6+	0.8+	1999 11 12	704	0.0	0.5-
1998 04 20	704	1.1+	1.3+	1998 05 19	910	0.2+	0.8+	1999 11 12	704	0.5+	1.1-
1998 04 20	704	0.4-	1.7+	1998 05 19	910	0.4+	0.3+	1999 11 12	704	0.2+	0.4-
1998 04 21	704	1.5+	0.8-	1999 11 04	704	0.5+	0.1-	1999 11 12	704	0.8+	0.9+
1998 04 21	704	0.1+	0.2+	1999 11 04	704	0.1+	0.6+	1999 11 12	704	0.3+	0.5-
1998 04 21	704	0.0	0.8-	1999 11 04	704	0.4+	0.9+				
1998 04 21	704	0.9-	0.6-	1999 11 04	704	0.3+	0.2+				

1999 VF₅₇ = 1997 EX₁₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	40.96210		(2000.0)	P	Q
n	0.22662196	ω	157.61785	+0.94800800	-0.31792270
a	2.6644120	Ω	220.92829	+0.28856671	+0.87773961
e	0.0986567	i	1.25537	+0.13420168	+0.35846664
P	4.35	H	16.6	G 0.15	U 5

Residuals in seconds of arc

1997 03 05	691	0.1-	0.2+	1999 11 04	704	0.7+	0.3-	1999 11 12	704	0.4-	0.2+
1997 03 05	691	0.3-	0.7+	1999 11 04	704	0.6+	0.2-	1999 11 12	704	0.1-	0.7-
1997 03 05	691	0.4+	0.5+	1999 11 04	704	0.3+	0.6+	1999 11 12	704	0.5+	0.3-
1997 03 10	691	0.4-	0.2+	1999 11 09	704	1.7-	0.5+	1999 11 12	704	1.0-	0.1+
1997 03 10	691	0.8+	1.7-	1999 11 09	704	0.9+	0.2-	1999 11 14	691	0.4+	0.2-
1997 03 10	691	0.3-	0.2+	1999 11 09	704	0.1+	1.2+	1999 11 14	691	0.4+	0.2-
1999 11 04	704	0.8-	0.1+	1999 11 12	704	0.1-	0.5-	1999 11 14	691	0.3+	0.0

1999 VO₅₇ = 1998 MK₇

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	324.42885		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.20486366	ω	278.90779	-0.17472189	-0.98461765
a	2.8498769	Ω	181.15518	+0.91447915	-0.16205357
e	0.0242643	i	1.67684	+0.36496594	-0.06532021
P	4.81	H	15.0	G 0.15	U 5

Residuals in seconds of arc

1998 06 21	691	0.1-	0.1+	1999 10 20	704	0.9-	0.4-	1999 11 12	704	0.0	0.0
1998 06 21	691	0.1+	0.1-	1999 11 04	704	0.1-	1.0+	1999 11 12	704	0.1+	0.1+
1998 06 25	691	0.0	0.2-	1999 11 04	704	0.1+	0.8+	1999 11 13	691	0.3-	0.2+
1998 06 25	691	0.1+	0.0	1999 11 04	704	0.7+	0.5+	1999 11 13	691	0.2-	0.1+
1998 06 25	691	0.2-	0.2+	1999 11 04	704	0.6-	0.5+	1999 11 13	691	0.3-	0.6-
1999 10 20	704	1.3+	1.0-	1999 11 12	704	0.4+	1.4-				
1999 10 20	704	0.4-	0.3+	1999 11 12	704	0.2+	0.1-				

1999 VS₅₉ = 1996 AN₅

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	140.14798		(2000.0)	P	Q
<i>n</i>	0.19511819	ω	238.00184	+0.11209728	+0.99338178
<i>a</i>	2.9439982	Ω	38.45904	-0.89758150	+0.11203301
<i>e</i>	0.0606500	<i>i</i>	2.30707	-0.42635860	+0.02532291
<i>P</i>	5.05	<i>H</i>	14.2	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1996 01 12	691	0.2+	0.3+	1999 11 05	704	0.3+	0.3+	1999 11 14	704	0.5-	0.1+
1996 01 12	691	0.2+	0.2+	1999 11 05	704	0.2-	0.0	1999 11 14	704	0.5+	0.3-
1996 01 12	691	0.1+	0.1-	1999 11 05	704	0.6-	0.7-	1999 11 14	704	0.4-	0.6+
1996 01 18	691	0.1+	0.5-	1999 11 05	704	0.1-	0.9+	1999 11 14	704	1.1-	1.6+
1996 01 18	691	0.3-	0.0	1999 11 05	704	0.1-	0.2+	1999 11 14	704	0.0	0.1+
1996 01 18	691	0.2-	0.0	1999 11 05	704	0.2-	0.4-	1999 11 16	704	0.1+	0.2+
1999 11 04	704	0.5+	0.7-	1999 11 09	704	0.3-	0.0	1999 11 16	704	0.1+	0.1-
1999 11 04	704	0.1-	0.2+	1999 11 09	704	0.4+	0.1+	1999 11 16	704	1.3-	0.5+
1999 11 04	704	1.1-	0.2+	1999 11 09	704	1.2+	0.4-	1999 11 16	704	0.1+	1.6+
1999 11 04	704	0.3-	0.5-	1999 11 09	704	0.7+	0.2-	1999 12 07	704	1.1-	0.7-
1999 11 04	704	0.5-	0.4-	1999 11 12	704	0.1+	0.3+	1999 12 07	704	0.2-	0.7+
1999 11 05	704	0.1+	0.5+	1999 11 12	704	0.1-	0.6-	1999 12 07	704	0.6+	0.2-
1999 11 05	704	0.0	0.0	1999 11 12	704	0.7+	0.2-	1999 12 07	704	0.6+	0.2-
1999 11 05	704	0.4+	0.0	1999 11 12	704	1.2+	1.6-	1999 12 07	704	0.0	0.3+
1999 11 05	704	0.1+	0.9-	1999 11 12	704	0.4+	0.5-				

1999 VD₆₀ = 1996 GK₇

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	328.81827		(2000.0)	P	Q
<i>n</i>	0.17243494	ω	63.57473	-0.24904781	-0.96615313
<i>a</i>	3.1968275	Ω	41.02953	+0.84808141	-0.25109260
<i>e</i>	0.1236290	<i>i</i>	5.88049	+0.46768912	-0.05916613
<i>P</i>	5.72	<i>H</i>	14.4	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1996 04 12	691	0.0	0.2+	1999 11 04	704	0.1+	0.7-	1999 11 09	704	0.1-	0.0
1996 04 12	691	0.1+	0.1+	1999 11 04	704	0.1-	0.6-	1999 11 12	704	0.7-	0.1-
1996 04 12	691	0.2+	0.1+	1999 11 04	704	1.0+	0.2+	1999 11 12	704	0.4-	0.8+
1996 04 24	691	0.1-	0.0	1999 11 04	704	1.4+	0.1-	1999 11 12	704	0.2-	0.2-
1996 04 24	691	0.2-	0.2-	1999 11 05	704	0.6-	1.0+	1999 11 12	704	0.5-	0.7+
1996 04 24	691	0.1-	0.2-	1999 11 05	704	1.8+	0.3+	1999 11 16	704	0.0	0.3-
1999 10 29	703	1.3-	0.7-	1999 11 05	704	0.9+	0.2-	1999 11 16	704	0.5-	0.1+
1999 10 29	703	1.2-	0.2-	1999 11 05	704	0.9+	0.2+	1999 11 16	704	0.0	0.2-
1999 10 29	703	0.7-	0.9+	1999 11 05	704	0.4+	0.7-	1999 11 16	704	0.6-	0.4+
1999 10 29	703	1.0-	0.2-	1999 11 09	704	0.6+	0.1-				
1999 11 04	704	0.1+	0.7-	1999 11 09	704	0.9+	0.2+				

1999 VQ₆₀ = 1981 UR₄

Id. A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	119.63796		(2000.0)	P	Q
<i>n</i>	0.21748929	ω	246.40030	+0.41758234	+0.89932530
<i>a</i>	2.7384877	Ω	48.93359	-0.75826817	+0.42359335
<i>e</i>	0.0884332	<i>i</i>	9.91076	-0.50065394	+0.10854805
<i>P</i>	4.53	<i>H</i>	13.8	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1981 10 30	381	0.3-	1.1+	1999 10 20	704	0.2+	0.0	1999 11 17	704	0.1+	0.1-
1981 10 30	381	0.1+	0.2-	1999 10 20	704	0.0	0.1+	1999 12 04	703	0.7+	0.4+
1990 11 10	675	1.7-	0.1-	1999 10 30	703	0.3+	0.9+	1999 12 04	703	0.9-	0.2+
1990 11 10	675	1.0+	0.2+	1999 10 30	703	0.1+	0.3+	1999 12 04	703	1.0-	0.0
1993 05 24	413	1.3-	0.0	1999 10 30	703	0.3-	0.2-	1999 12 04	703	0.6-	0.2-
1993 05 24	413	1.6+	0.7+	1999 10 30	703	0.3+	0.2-	1999 12 04	699	2.0-	0.9+
1996 01 19	675	0.6-	0.6-	1999 11 04	704	0.1+	0.3+	1999 12 04	699	0.4-	0.4+
1996 01 19	675	0.7+	0.7+	1999 11 04	704	0.2-	0.3+	1999 12 04	699	0.5-	0.6-
1999 10 02	703	0.4-	0.3+	1999 11 04	704	0.3+	0.1-	1999 12 06	704	0.1+	0.1-

1999 10 02	703	0.1+	0.2+	1999 11 04	704	0.3+	0.6+	1999 12 06	704	0.4+	0.9-
1999 10 02	703	0.9+	0.8+	1999 11 04	704	0.1+	0.0	1999 12 06	704	0.2-	0.6-
1999 10 02	703	0.1-	0.2+	1999 11 09	704	0.5+	0.2-	1999 12 06	704	0.3-	1.9-
1999 10 10	704	0.3+	0.3+	1999 11 09	704	0.3+	0.3-	1999 12 06	704	0.2-	0.4-
1999 10 10	704	0.5-	0.2+	1999 11 09	704	0.4+	0.3-	1999 12 07	704	0.1+	0.1+
1999 10 10	704	0.5+	0.1-	1999 11 09	704	0.1+	0.5-	1999 12 07	704	0.3-	0.1+
1999 10 10	704	0.2+	0.3-	1999 11 12	704	0.5+	0.4+	1999 12 07	704	0.2-	0.2-
1999 10 10	704	0.1-	0.5-	1999 11 12	704	0.4+	0.1-	1999 12 07	704	0.1+	0.2-
1999 10 15	704	0.3+	0.3+	1999 11 12	704	0.4+	0.0	1999 12 07	704	0.1-	0.3-
1999 10 15	704	0.0	0.3-	1999 11 12	704	0.5+	0.5+	1999 12 12	703	0.4-	0.4-
1999 10 15	704	0.0	0.2-	1999 11 12	704	0.1+	0.4+	1999 12 12	703	0.4-	0.4-
1999 10 15	704	0.1+	0.2+	1999 11 17	704	0.2+	0.1-	1999 12 12	703	0.4-	0.8+
1999 10 20	704	0.1+	0.1+	1999 11 17	704	0.1-	0.5+	1999 12 12	703	0.1+	0.0
1999 10 20	704	0.3+	0.3-	1999 11 17	704	0.1+	0.6-				
1999 10 20	704	0.4-	0.3+	1999 11 17	704	0.5+	0.2-				

1999 VA₆₂ = 1994 RF₁₇

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	267.97038		(2000.0)	P	Q
<i>n</i>	0.23195437	ω	306.44211	-0.99177858	-0.12709611
<i>a</i>	2.6234191	Ω	226.26134	+0.12301272	-0.91484310
<i>e</i>	0.1259665	<i>i</i>	1.18119	+0.03525783	-0.38328668
<i>P</i>	4.25	<i>H</i>	14.6	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1994 09 03	809	0.9+	0.6+	1999 11 04	704	0.2+	0.3+	1999 11 16	704	0.0	0.9+
1994 09 03	809	0.1+	0.9+	1999 11 04	704	0.1-	1.1+	1999 11 16	704	0.5-	0.8+
1994 09 03	809	0.1+	0.3-	1999 11 04	704	0.4+	1.2+	1999 11 16	704	(2.2+	0.5+)
1994 09 04	809	0.7+	0.6-	1999 11 04	704	0.3-	0.2-	1999 11 16	704	0.5+	1.6+
1994 09 04	809	1.4-	0.7+	1999 11 09	704	0.7+	0.5-	1999 11 16	704	0.0	0.3-
1994 09 04	809	0.5-	1.5-	1999 11 09	704	0.1+	0.6-	1999 11 16	691	0.5+	0.5-
1998 08 17	704	0.3+	1.4-	1999 11 09	704	0.8+	0.7-	1999 11 16	691	0.5+	0.5-
1998 08 17	704	1.4-	0.6-	1999 11 11	703	1.0-	0.2+	1999 11 16	691	0.4+	0.5-
1998 08 17	704	1.5+	0.4+	1999 11 11	703	0.9-	0.2+	1999 12 07	704	0.3-	0.0
1998 08 17	704	0.3-	1.4+	1999 11 11	703	1.4-	0.5+	1999 12 07	704	0.8+	0.9-
1998 08 17	704	(3.6-	0.7+)	1999 11 11	703	1.8-	0.8+	1999 12 07	704	0.1+	0.2-
1999 10 19	691	0.7-	0.0	1999 11 12	704	0.3+	0.1-	1999 12 07	704	0.6+	0.3-
1999 10 19	691	1.0-	0.1-	1999 11 12	704	0.2+	0.7-	1999 12 07	704	1.3+	1.0-
1999 10 19	691	0.9-	0.1-	1999 11 12	704	0.4+	0.4-				
1999 11 04	704	0.8+	0.5+	1999 11 12	704	0.4+	0.5-				

1999 VB₆₂ = 1998 KZ₆₂

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	140.39124		(2000.0)	P	Q
<i>n</i>	0.26627481	ω	52.84152	+0.10163792	+0.97928866
<i>a</i>	2.3928528	Ω	224.02224	-0.97382218	+0.06196362
<i>e</i>	0.1567081	<i>i</i>	14.59466	-0.20332266	+0.19275431
<i>P</i>	3.70	<i>H</i>	15.4	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 05 22	704	0.5+	0.5+	1998 05 28	699	1.0+	0.5-	1999 11 12	704	0.1+	0.1-
1998 05 22	704	1.9-	0.6-	1999 11 04	704	0.5-	0.4-	1999 11 12	704	0.3+	0.5-
1998 05 22	704	1.1-	1.7+	1999 11 04	704	0.3-	0.4+	1999 11 12	704	0.2-	0.4-
1998 05 22	704	0.8+	1.3+	1999 11 04	704	0.2-	1.1+	1999 11 16	691	0.3-	0.4+
1998 05 24	704	0.4+	0.8-	1999 11 04	704	0.2-	0.4+	1999 11 16	691	0.2-	0.2+
1998 05 24	704	0.8-	1.0-	1999 11 04	704	0.5+	0.5-	1999 11 16	691	0.4-	0.2+
1998 05 24	704	0.6+	0.0	1999 11 09	704	0.4+	0.3-	1999 11 17	704	(2.3-	0.7-)
1998 05 24	704	0.6-	0.9-	1999 11 09	704	1.1+	0.1-	1999 11 17	704	0.8-	0.6-
1998 05 24	704	0.6+	1.1+	1999 11 09	704	0.2+	0.0	1999 11 17	704	0.4+	0.7+
1998 05 28	699	0.3+	0.6-	1999 11 12	704	0.3-	0.0				
1998 05 28	699	0.2+	0.0	1999 11 12	704	0.3+	0.2-				

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1999 VJ₆₆ = 1981 UN₆

Id. A. Gnädig

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	17.52226		(2000.0)	P		Q	
<i>n</i>	0.21887649	ω	4.81475	+0.52759609		−0.83695356	
<i>a</i>	2.7269048	Ω	53.41722	+0.77322506		+0.40223726	
<i>e</i>	0.1859401	<i>i</i>	10.43467	+0.35180304		+0.37109826	
<i>P</i>	4.50	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1981 10 30	381	0.0	0.3−	1999 10 21	704	0.1+	0.8+	1999 11 14	704	1.0+	0.2+
1981 10 30	381	0.3+	0.4−	1999 11 01	703	0.3−	0.1−	1999 11 17	704	0.1+	0.4+
1995 12 01	675	0.1−	0.1+	1999 11 01	703	0.7−	0.0	1999 11 17	704	0.6−	0.1+
1999 10 08	703	0.2+	0.2−	1999 11 01	703	0.2+	0.1+	1999 11 17	704	0.4−	0.3−
1999 10 08	703	0.1+	0.2−	1999 11 01	703	1.2−	0.4+	1999 11 17	704	0.1+	0.3−
1999 10 08	703	0.0	0.2+	1999 11 04	704	0.1+	1.3−	1999 11 17	704	0.3−	0.3+
1999 10 08	703	0.5−	0.3+	1999 11 04	704	0.1+	0.6−	1999 12 07	704	0.3+	0.2+
1999 10 10	704	0.5+	0.1+	1999 11 04	704	0.6+	0.8−	1999 12 07	704	0.5+	0.0
1999 10 10	704	0.3+	0.3+	1999 11 04	704	0.4+	0.5−	1999 12 07	704	0.6+	0.2−
1999 10 10	704	0.4−	0.1+	1999 11 04	704	0.1+	0.7−	1999 12 07	704	0.3+	0.2−
1999 10 10	704	1.2−	0.2+	1999 11 09	704	0.7+	0.3−	1999 12 07	704	0.0	0.1+
1999 10 10	704	0.2−	0.3+	1999 11 09	704	0.4+	0.1−	1999 12 08	704	0.3+	0.6−
1999 10 15	704	0.8−	0.2−	1999 11 09	704	0.9+	0.0	1999 12 08	704	0.1+	0.3+
1999 10 15	704	0.1+	0.4−	1999 11 12	704	0.2−	0.2−	1999 12 08	704	0.2+	0.1+
1999 10 15	704	0.1+	0.4−	1999 11 12	704	0.1−	0.1−	1999 12 08	704	0.0	0.2+
1999 10 15	704	0.0	0.3−	1999 11 12	704	0.3+	0.4−	1999 12 08	704	0.1+	0.1−
1999 10 19	691	0.8−	0.4+	1999 11 12	704	0.2+	0.0	1999 12 12	703	1.9−	1.2+
1999 10 19	691	1.1−	0.2+	1999 11 12	704	0.2+	0.1+	1999 12 12	703	0.5−	0.4+
1999 10 19	691	1.3−	0.8+	1999 11 14	704	0.6+	0.3+	1999 12 12	703	0.8−	0.5−
1999 10 21	704	0.8+	0.0	1999 11 14	704	0.4+	0.4+	1999 12 12	703	0.1−	0.1+
1999 10 21	704	0.1−	0.2+	1999 11 14	704	1.0+	0.5+				
1999 10 21	704	0.2+	0.2+	1999 11 14	704	0.8+	0.4+				

1999 VW₆₇ = 1991 HX₃

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	297.63672		(2000.0)	P		Q	
<i>n</i>	0.18416455	ω	274.95804	−0.75856729		−0.64450774	
<i>a</i>	3.0596049	Ω	224.95546	+0.63858263		−0.70608554	
<i>e</i>	0.0370803	<i>i</i>	7.79590	+0.12956809		−0.29334790	
<i>P</i>	5.35	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1991 04 19	809	0.0	0.3−	1999 11 04	704	0.2−	0.0	1999 11 17	704	0.8+	0.3−
1991 04 19	809	0.0	1.4−	1999 11 09	704	0.2+	0.3−	1999 11 17	704	0.5+	0.4−
1991 04 19	809	0.6−	0.3−	1999 11 09	704	0.2−	0.2−	1999 11 17	704	1.0+	0.1−
1998 08 24	704	0.5+	0.5−	1999 11 09	704	0.3−	0.7−	1999 11 17	704	0.5+	0.4−
1998 08 24	704	1.1−	0.1−	1999 11 09	704	0.0	0.9−	1999 11 17	704	0.2+	0.8−
1998 08 24	704	0.1+	0.2−	1999 11 09	704	0.3+	0.8−	1999 12 03	691	0.5+	0.8+
1998 08 24	704	0.4−	0.0	1999 11 11	691	0.9−	0.5−	1999 12 03	691	0.3+	0.5+
1998 08 27	327	0.3+	0.0	1999 11 11	691	0.1+	0.3−	1999 12 03	691	0.3+	0.6+
1998 08 27	327	0.2+	0.1−	1999 11 11	691	0.2+	0.3−	1999 12 04	703	0.6−	1.7+
1998 08 27	327	0.6+	0.0	1999 11 12	704	0.4−	0.1−	1999 12 04	703	0.5+	1.1+
1999 11 01	703	0.3−	0.3+	1999 11 12	704	0.1+	0.0	1999 12 04	703	0.6−	0.0
1999 11 01	703	0.2−	0.9+	1999 11 12	704	0.2−	0.0	1999 12 04	703	0.1−	0.0
1999 11 01	703	0.0	1.1−	1999 11 12	704	0.2−	0.1+	1999 12 07	704	0.2−	0.8+
1999 11 01	703	0.7−	0.8+	1999 11 12	704	0.3−	0.2−	1999 12 07	704	0.0	0.5−
1999 11 04	704	0.4+	0.0	1999 11 13	691	0.3+	0.0	1999 12 07	704	1.1−	1.5−
1999 11 04	704	0.2−	0.4+	1999 11 13	691	0.2+	0.1+	1999 12 07	704	0.5+	0.1+
1999 11 04	704	0.8−	0.0	1999 11 13	691	0.6+	0.0	1999 12 07	704	0.0	0.6−

1999 VX₇₂ = 1991 RS₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	77.70590		(2000.0)	P		Q	
<i>n</i>	0.25385126	ω	311.81769	+0.90319241		+0.42765396	
<i>a</i>	2.4703008	Ω	22.93719	−0.36047563		+0.80227869	
<i>e</i>	0.2614167	<i>i</i>	5.42096	−0.23302531		+0.41648650	
<i>P</i>	3.88	<i>H</i>	15.4	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1991 09 13	675	0.3+	0.2−	1999 11 03	704	0.0	0.4−	1999 11 14	704	0.6+	0.1+
1991 09 13	675	0.4−	0.6+	1999 11 03	704	0.3−	0.2−	1999 11 15	704	0.1−	0.1−
1991 09 16	675	0.1+	0.3+	1999 11 09	703	0.6−	0.2+	1999 11 15	704	0.8+	0.7+
1991 09 16	675	0.0	0.7−	1999 11 09	703	0.3+	1.6+	1999 11 15	704	0.1+	0.2−
1999 11 01	012	1.6+	1.0−	1999 11 09	703	1.2−	0.4+	1999 11 15	704	0.1+	0.2−
1999 11 01	012	1.0+	0.2−	1999 11 09	703	0.5−	0.4+	1999 11 16	704	0.6−	0.0
1999 11 03	012	1.3−	0.8+	1999 11 14	704	0.7−	1.0−	1999 11 16	704	0.4+	0.3−
1999 11 03	012	0.3−	0.6+	1999 11 14	704	0.0	0.2−	1999 11 16	704	0.6−	0.1−
1999 11 03	704	0.5−	0.0	1999 11 14	704	0.3+	0.3+	1999 11 16	704	0.1+	0.3+
1999 11 03	704	0.5+	0.9−	1999 11 14	704	0.5+	0.3+	1999 11 16	704	0.5+	0.9−

1999 VZ₇₇ = 1992 SX₂₃ = 1994 GJ₁₁

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	298.26878		(2000.0)	P		Q	
<i>n</i>	0.28708613	ω	202.57993	−0.70620299		−0.70078283	
<i>a</i>	2.2757676	Ω	292.51888	+0.66512820		−0.60781656	
<i>e</i>	0.0909995	<i>i</i>	6.27082	+0.24265576		−0.37344673	
<i>P</i>	3.43	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1992 09 29	675	0.8−	0.3−	1999 10 28	703	0.0	0.2+	1999 11 05	704	0.2−	0.2+
1992 09 29	675	0.2+	0.1−	1999 10 28	703	0.2−	0.1−	1999 11 09	703	0.3+	0.3+
1992 10 04	675	0.6+	0.2+	1999 10 28	703	0.1+	0.4+	1999 11 09	703	0.1−	0.3+
1992 10 04	675	0.8+	1.3−	1999 11 04	704	0.2+	0.2−	1999 11 09	703	0.2+	0.1+
1994 04 06	033	0.3+	0.1+	1999 11 04	704	0.7−	0.4+	1999 11 09	703	0.1+	0.2+
1994 04 06	033	0.3+	0.3−	1999 11 04	704	0.0	0.1+	1999 11 11	703	0.1−	0.3+
1994 04 08	033	0.9−	0.3−	1999 11 04	704	0.0	0.6+	1999 11 11	703	(0.9−	2.1−)
1999 09 05	703	0.3−	0.2−	1999 11 04	704	0.1+	0.2−	1999 11 11	703	1.2+	0.5−
1999 09 05	703	0.1+	0.3+	1999 11 04	704	0.5−	0.4+	1999 11 11	703	0.2−	0.4+
1999 09 05	703	0.2−	0.8+	1999 11 04	704	0.1+	0.1−	1999 12 06	704	0.2+	1.8+
1999 09 05	703	0.1+	1.0+	1999 11 04	704	0.5−	0.4+	1999 12 06	704	(2.9+	0.8+)
1999 09 18	704	0.6+	0.1−	1999 11 04	704	0.1−	0.5−	1999 12 06	704	(2.1+	0.3−)
1999 09 18	704	0.8+	0.2−	1999 11 04	704	0.6−	0.7+	1999 12 06	704	1.9+	1.0−
1999 09 18	704	0.7+	0.3+	1999 11 04	704	0.4−	0.1−	1999 12 07	699	0.1−	0.3+
1999 09 18	704	0.0	0.3+	1999 11 04	704	0.0	0.3+	1999 12 07	699	0.2+	0.8+
1999 09 18	704	0.4−	0.4−	1999 11 04	704	0.9−	0.6−	1999 12 07	699	0.3+	0.6+
1999 10 03	704	0.3+	0.4−	1999 11 04	704	0.6−	0.3−	2000 01 06	704	0.1−	0.6−
1999 10 03	704	0.1+	0.8−	1999 11 04	704	0.7−	0.6−	2000 01 06	704	0.1+	0.9−
1999 10 03	704	0.3−	0.6−	1999 11 05	704	0.4−	0.2−	2000 01 06	704	0.3+	0.6−
1999 10 03	704	0.0	0.7−	1999 11 05	704	0.3−	0.2−	2000 01 06	704	0.2+	0.3−
1999 10 03	704	0.2−	0.5−	1999 11 05	704	0.2−	0.0	2000 01 06	704	0.1−	0.3−
1999 10 28	703	0.2+	0.1+	1999 11 05	704	0.0	0.3+				

1999 VB₈₁ = 1991 JN₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	175.13039		(2000.0)	P		Q	
<i>n</i>	0.28597005	ω	75.20380	−0.13611341		+0.99060012	
<i>a</i>	2.2816850	Ω	187.01557	−0.94634844		−0.13406524	
<i>e</i>	0.0886867	<i>i</i>	6.38596	−0.29308320		−0.02716473	
<i>P</i>	3.45	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1991 05 13	809

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1991 05 17	809	1.0−	1.1+	1998 06 19	704	(2.7−	0.3−)	1999 11 05	704	0.4+	0.1+
1991 05 17	809	0.7−	0.3−	1998 06 19	704	0.6+	0.1−	1999 11 05	704	0.2+	0.1+
1991 05 17	809	0.7+	0.4+	1998 06 19	704	0.2−	0.5−	1999 11 05	704	0.8+	0.8+
1998 05 26	704	0.0	0.9−	1998 06 19	704	0.1+	1.1+	1999 11 05	704	0.4+	0.1+
1998 05 26	704	0.4+	0.6+	1999 10 20	704	0.1−	0.0	1999 12 04	699	0.6−	1.0+
1998 05 26	704	0.8+	1.2+	1999 10 20	704	1.5−	0.2−	1999 12 04	699	0.3+	0.2−
1998 05 26	704	0.7+	1.7−	1999 10 20	704	0.2−	1.2−	1999 12 04	699	0.3−	1.1+
1998 05 26	704	(3.2−	1.3−)	1999 10 20	704	0.6+	0.1−	1999 12 14	704	0.3+	0.7−
1998 06 03	704	0.5−	0.4+	1999 11 04	704	0.7−	0.2+	1999 12 14	704	1.0+	0.2−
1998 06 03	704	0.6−	0.2−	1999 11 04	704	0.7−	0.6+	1999 12 14	704	0.6−	0.0

1999 VT₈₅ = 1998 MQ₄₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	131.81106		(2000.0)		P		Q
<i>n</i>	0.21035148	ω	22.10764		+0.24486104		+0.96814637
<i>a</i>	2.8000922	Ω	262.09671		−0.89727043		+0.20583544
<i>e</i>	0.0713205	<i>i</i>	3.02692		−0.36735383		+0.14256357
<i>P</i>	4.69	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 06 24	704	0.9−	0.6+	1998 06 27	809	0.4−	0.5+	1999 11 07	704	0.9−	0.1+
1998 06 24	704	(1.3−	3.3−)	1999 11 04	704	0.4+	0.5+	1999 11 07	704	0.3−	0.0
1998 06 24	704	(2.0−	2.2−)	1999 11 04	704	0.8+	0.3+	1999 11 07	704	0.4−	0.7−
1998 06 26	809	0.7+	0.2+	1999 11 04	704	0.4+	0.1−	1999 11 16	704	0.2+	0.3+
1998 06 26	809	0.5+	0.7−	1999 11 04	704	0.1+	0.3+	1999 11 16	704	0.5+	0.2−
1998 06 26	809	0.1+	0.2+	1999 11 04	704	0.0	0.1+	1999 11 16	704	0.2−	0.0
1998 06 27	809	0.4+	0.8−	1999 11 07	704	0.7−	0.7−	1999 11 16	704	0.2+	0.2−
1998 06 27	809	0.3−	0.0	1999 11 07	704	0.2+	0.4−	1999 11 16	704	0.3−	0.7+

1999 VX₈₅ = 1996 WN

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	123.38601		(2000.0)		P		Q
<i>n</i>	0.31657046	ω	39.02740		+0.37122613		+0.92810788
<i>a</i>	2.1321731	Ω	252.78027		−0.85919684		+0.33174093
<i>e</i>	0.1805089	<i>i</i>	1.70419		−0.35209651		+0.16900804
<i>P</i>	3.11	<i>H</i>	16.0	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1996 11 17	817	1.8−	0.7+	1999 11 04	704	0.7+	0.6−	1999 11 07	704	0.8−	1.1−
1996 11 17	817	0.6−	0.4+	1999 11 04	704	0.4−	0.2+	1999 11 07	704	0.4−	0.0
1996 11 18	817	0.7+	0.3−	1999 11 04	704	0.2+	0.5+	1999 11 16	704	0.7−	0.0
1996 11 18	817	0.9+	0.7−	1999 11 04	704	0.5+	0.3−	1999 11 16	704	0.8+	0.2−
1996 11 18	817	0.9+	0.1−	1999 11 07	704	0.5−	0.1−	1999 11 16	704	0.2+	0.1−
1999 11 04	704	0.3+	0.6+	1999 11 07	704	0.1−	0.5+	1999 11 16	704	0.1−	0.6+

1999 VS₈₉ = 1993 TU₁₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	305.27943		(2000.0)		P		Q
<i>n</i>	0.17022855	ω	70.37103		−0.53777181		−0.83929260
<i>a</i>	3.2243916	Ω	52.42012		+0.73080465		−0.51132471
<i>e</i>	0.1004692	<i>i</i>	5.78883		+0.42038797		−0.18475655
<i>P</i>	5.79	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1993 10 09	809	0.9+	0.2−	1999 10 01	703	1.0−	0.4+	1999 11 09	704	0.0	0.1+
1993 10 09	809	1.2+	0.1+	1999 10 20	704	0.1−	0.0	1999 11 09	704	0.4−	0.1+
1993 10 09	809	0.4−	1.1−	1999 10 20	704	0.7+	0.1−	1999 11 09	704	0.7−	0.6+
1993 10 11	809	0.8+	0.6−	1999 10 20	704	0.2−	0.9+	1999 11 12	704	0.3+	0.4−
1993 10 11	809	0.2+	0.9−	1999 10 20	704	1.5+	0.0	1999 11 12	704	0.4+	1.1−
1993 10 11	809	1.2−	0.4−	1999 10 20	704	0.2+	0.1+	1999 11 12	704	0.0	1.3−
1993 10 20	809	(3.3+	2.6+)	1999 11 03	703	0.9−	0.1+	1999 11 12	704	0.2+	0.5−
1993 10 20	809	(2.3+	0.8+)	1999 11 03	703	0.2−	0.2−	1999 11 12	704	0.5−	1.1−
1998 08 17	704	0.2+	0.4−	1999 11 03	703	0.9−	0.3+	1999 12 04	699	0.3−	1.2+
1998 08 17	704	0.8−	0.4+	1999 11 03	703	1.1−	0.1+	1999 12 04	699	0.2+	1.6+
1998 08 17	704	0.1+	1.4+	1999 11 05	704	0.1+	0.2+	1999 12 04	699	0.1+	0.9+

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1998 08 17	704	0.1+	0.5−	1999 11 05	704	0.5−	0.5+	1999 12 07	704	0.3+	0.9−
1998 08 17	704	(6.7−	0.9+)	1999 11 05	704	0.3−	0.4−	1999 12 07	704	0.4+	0.1+
1999 10 01	703	0.2−	0.2+	1999 11 05	704	0.0	0.6+	1999 12 07	704	0.1+	0.4+
1999 10 01	703	0.0	0.7+	1999 11 09	704	0.2−	0.0	1999 12 07	704	0.7+	0.4−
1999 10 01	703	0.3−	0.1+	1999 11 09	704	0.0	0.0	1999 12 07	704	1.8+	0.3−

1999 VK₉₁ = 1994 TG₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	13.62670		(2000.0)		P		Q
<i>n</i>	0.20109879	ω	203.29741		+0.66642578		−0.74447279
<i>a</i>	2.8853361	Ω	204.96982		+0.69824192		+0.64222745
<i>e</i>	0.2445002	<i>i</i>	5.49983		+0.26140945		+0.18249430
<i>P</i>	4.90	<i>H</i>	15.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1994 10 11	691	0.1−	0.3+	1999 10 06	704	0.1+	0.8−	1999 11 05	704	0.9+	0.9−
1994 10 11	691	0.1+	0.0	1999 10 06	704	0.1+	1.5−	1999 11 05	704	(0.1+	2.4−)
1994 10 11	691	0.0	0.2+	1999 10 06	704	0.1−	0.9−	1999 11 09	704	0.3+	0.4+
1994 10 12	691	0.2+	0.2+	1999 10 06	704	0.8−	1.6−	1999 11 09	704	0.3+	0.6+
1994 10 12	691	0.1+	0.2+	1999 10 20	704	0.1−	0.5+	1999 11 09	704	0.3+	0.3+
1994 10 12	691	0.1+	0.1+	1999 10 20	704	0.1+	0.2−	1999 11 09	704	0.4+	1.0+
1994 10 13	691	0.6−	0.1−	1999 10 20	704	0.2+	0.2+	1999 11 09	704	0.3+	0.3+
1994 10 13	691	0.0	0.2−	1999 10 20	704	0.8+	0.1−	1999 11 12	704	1.0−	0.1−
1994 10 13	691	0.2+	0.2−	1999 10 20	704	0.2+	0.9+	1999 11 12	704	0.1+	0.1−
1999 10 02	703	0.4+	1.6+	1999 11 02	703	0.0	1.0−	1999 11 12	704	0.6−	0.5+
1999 10 02	703	0.5−	0.7+	1999 11 02	703	0.2+	0.3−	1999 11 12	704	1.0−	0.1−
1999 10 02	703	0.6−	1.1+	1999 11 02	703	0.3+	0.6−	1999 11 12	704	0.8−	0.1−
1999 10 02	703	(2.3+	0.5+)	1999 11 02	703	0.4−	0.6+				
1999 10 06	704	0.3−	0.5−	1999 11 05	704	1.1+	0.5−				

1999 VF₁₀₆ = 1995 TK₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	85.53911		(2000.0)		P		Q
<i>n</i>	0.25925944	ω	312.48949		+0.90246927		+0.43064817
<i>a</i>	2.4358264	Ω	22.00704		−0.38734996		+0.82104113
<i>e</i>	0.2095245	<i>i</i>	1.46172		−0.18843892		+0.37474474
<i>P</i>	3.80	<i>H</i>	16.2	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1995 10 15	691	0.2+	0.3−	1995 10 21	691	0.1−	0.2+	1999 11 12	704	0.2−	0.7−
1995 10 15	691	0.1−	0.1−	1999 11 09	704	0.1+	0.3−	1999 11 12	704	0.4+	0.1+
1995 10 15	691	0.2+	0.1−	1999 11 09	704	0.2−	0.6+	1999 11 12	704	0.6−	0.6+
1995 10 21	691	0.1+	0.2+	1999 11 09	704	0.4−	0.0	1999 11 12	704	0.7+	0.4−
1995 10 21	691	0.4−	0.1+	1999 11 09	704	0.3+	0.0				

1999 VP₁₀₆ = 1995 UW₃₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	183.82858		(2000.0)		P		Q
<i>n</i>	0.27188488	ω	31.90427		−0.25993829		+0.96537458
<i>a</i>	2.3598225	Ω	223.04045		−0.89258239		−0.24890592
<i>e</i>	0.1737142	<i>i</i>	1.84720		−0.36841385		−0.07808818
<i>P</i>	3.63	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1995 10 22	691	0.0	0.1+	1999 11 09	704	0.4+	0.5−	1999 11 16	704	1.1+	1.5+
1995 10 22	691	0.1−	0.1+	1999 11 09	704	0.3−	0.0	1999 11 16	704	0.5−	0.3−
1995 10 22	691	0.4−	0.1−	1999 11 09	704	0.3+	0.5−	1999 11 16	704	0.2−	0.3+
1995 10 27	691	0.3+	0.1−	1999 11 12	704	0.8+	0.1+	1999 11 16	704	0.9−	0.6+
1995 10 27	691	0.0	0.0	1999 11 12	704	0.2−	0.0	1999 11 17	691	0.1+	0.5−
1995 10 27	691	0.1+	0.1+	1999 11 12	704	0.5−	0.4+	1999 11 17	691	0.1−	0.2−
1999 11 09	704	0.3+	0.0	1999 11 12	704	0.0	0.2−	1999 11 17	691	0.2+	0.2−
1999 11 09	704	0.8−	0.2−	1999 11 12	704	0.3+	0.3−				

1999 VP₁₁₃ = 1998 KK₃₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	205.93881		(2000.0)	P		Q	
<i>n</i>	0.31588423	ω	283.66532	-0.52513720		+0.85092311	
<i>a</i>	2.1352599	Ω	314.64981	-0.77374264		-0.48360386	
<i>e</i>	0.0963234	<i>i</i>	1.02126	-0.35433494		-0.20507845	
<i>P</i>	3.12	<i>H</i>	16.2	<i>G</i>	0.15	<i>U</i>	5
Residuals in seconds of arc							
1998 05 22	704	0.5-	0.2-	1998 05 24	704	1.2+	1.0+
1998 05 22	704	0.3-	0.4-	1999 11 04	703	1.5+	0.4-
1998 05 22	704	0.1-	0.4-	1999 11 04	703	0.3+	0.8+
1998 05 22	704	0.5-	0.3+	1999 11 04	703	1.0-	0.7-
1998 05 24	704	0.3-	0.6+	1999 11 04	703	0.4+	0.6-
1998 05 24	704	0.4+	0.4-	1999 11 09	703	0.2-	0.6-
1998 05 24	704	0.1+	0.3-	1999 11 09	703	0.9+	0.0
1999 11 09	703			1999 11 16	704	0.1+	0.2-

1999 VV₁₁₄ = 1997 EX₅₃

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	7.47196		(2000.0)	P		Q	
<i>n</i>	0.23844679	ω	53.17462	+0.49379879		-0.86903253	
<i>a</i>	2.5755801	Ω	7.43017	+0.70278141		+0.37801117	
<i>e</i>	0.1464639	<i>i</i>	13.75338	+0.51211429		+0.31920217	
<i>P</i>	4.13	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	3
Residuals in seconds of arc							
1997 03 08	809	(3.5+	1.9+)	1999 10 03	704	0.0	0.1-
1997 03 08	809	(2.9+	1.6+)	1999 10 28	703	0.4-	0.0
1997 03 08	809	(3.1+	1.6+)	1999 10 28	703	0.1-	0.0
1997 03 09	809	0.2+	0.1+	1999 10 28	703	0.0	0.2-
1997 03 09	809	0.2-	0.4+	1999 10 28	703	0.1-	0.1-
1997 03 09	809	0.3+	0.1-	1999 11 03	704	0.2-	0.2-
1999 09 12	703	0.1+	0.3+	1999 11 03	704	0.2+	0.5-
1999 09 12	703	0.5-	0.2+	1999 11 03	704	0.2+	0.5-
1999 09 12	703	0.3-	0.3-	1999 11 03	704	0.8+	0.3-
1999 09 12	703	(3.1-	0.7+)	1999 11 09	703	0.0	0.2+
1999 09 18	699	0.3-	0.1+	1999 11 09	703	0.3+	0.0
1999 09 18	699	0.1-	0.3+	1999 11 09	703	0.5-	0.8+
1999 09 18	699	0.2-	0.1+	1999 11 09	703	0.0	0.8+
1999 10 03	704	1.3+	0.5-	1999 11 11	703	0.2+	0.1-
1999 10 03	704	0.4-	0.1+	1999 11 11	703	0.2-	0.2+
1999 10 03	704	0.4-	0.2+	1999 11 11	703	0.0	0.2-
1999 10 03	704	0.3+	0.2+	1999 11 11	703	0.1-	0.0

**1999 VE₁₁₅ = 1968 QD = 1971 DV = 1990 ST₁₉ = 1997 BU₆
= 1997 EQ₂₃**

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	129.93662		(2000.0)	P		Q	
<i>n</i>	0.22586405	ω	325.05222	+0.01788746		+0.98806736	
<i>a</i>	2.6703692	Ω	305.49670	-0.86918915		-0.06025331	
<i>e</i>	0.1638110	<i>i</i>	10.83037	-0.49415612		+0.14174777	
<i>P</i>	4.36	<i>H</i>	12.5	<i>G</i>	0.15	<i>U</i>	1
Residuals in seconds of arc							
1968 08 24	095	2.7+	1.7-	1999 09 21	699	1.1-	0.2+
1968 08 28	095	(2.1-	7.2+)	1999 09 21	699	0.3+	0.4-
1968 08 31	095	(4.5-	6.6+)	1999 10 05	704	0.2+	0.6+
1971 02 18	095	4.3-	3.9-	1999 10 05	704	0.2+	0.4+
1990 09 18	675	0.2-	1.6-	1999 10 05	704	0.1+	0.6+
1990 09 18	675	0.3+	2.5-	1999 10 05	704	0.3+	0.8+
1997 01 31	901	(38.6-	2.5+)	1999 10 05	704	0.5+	0.4+
1997 01 31	901	(37.1-	2.6+)	1999 10 28	703	0.7-	0.3-
1999 11 10	703			1999 12 07	699	0.5-	1.1+
1999 11 10	703			1999 12 07	699	0.4-	0.3+
1999 11 10	703			1999 12 07	699	0.6-	1.4+
1999 12 08	704			1999 12 08	704	0.2-	1.6+
1999 12 08	704			1999 12 08	704	0.6+	0.0

1997 02 03	901	0.3+	0.6+	1999 10 28	703	0.4-	0.2-	1999 12 08	703	0.8-	0.2-
1997 02 03	901	1.1+	0.1+	1999 10 28	703	0.2-	0.1+	1999 12 08	704	1.0+	0.1-
1997 03 04	691	0.5+	0.9+	1999 10 28	703	0.4-	0.1+	1999 12 08	703	0.1-	0.3+
1997 03 04	691	0.5+	0.8+	1999 11 03	704	0.1+	0.1+	1999 12 08	704	1.2+	0.3-
1997 03 04	691	0.7+	0.6+	1999 11 03	704	0.1+	0.1+	1999 12 08	703	0.5-	0.0
1997 03 12	691	0.3+	0.6+	1999 11 03	704	0.4+	0.2+	1999 12 08	704	1.0+	1.4-
1997 03 12	691	0.4+	0.4+	1999 11 03	704	0.8+	0.2+	1999 12 08	703	0.6-	0.4+
1997 03 12	691	0.7+	0.5+	1999 11 03	704	0.5+	0.1-	2000 01 06	704	0.2-	0.0
1998 08 15	704	0.7-	1.1+	1999 11 09	703	0.5-	0.1+	2000 01 06	704	0.1+	0.1-
1998 08 15	704	0.1-	2.9+	1999 11 09	703	0.4-	0.1+	2000 01 06	704	0.1+	0.6-
1998 08 15	704	(0.4-	3.7+)	1999 11 09	703	0.4-	0.2+	2000 01 06	704	0.4+	0.3-
1998 08 15	704	0.8+	2.4+	1999 11 09	703	0.5-	0.0	2000 01 06	704	1.1+	0.3-
1999 09 21	699	0.3-	0.5+	1999 11 10	703	0.7-	0.3+				

1999 VF₁₂₂ = 1996 GM₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	12.34245		(2000.0)	P		Q	
<i>n</i>	0.17874245	ω	341.17670	+0.44089288		-0.89498404	
<i>a</i>	3.1211711	Ω	82.61442	+0.83203883		+0.37914193	
<i>e</i>	0.1337394	<i>i</i>	3.92882	+0.33663756		+0.23506374	
<i>P</i>	5.51	<i>H</i>	16.7	<i>G</i>	0.15	<i>U</i>	5
Residuals in seconds of arc							
1996 04 11	691	0.3-	0.2+	1996 04 23	691	0.3-	0.1-
1996 04 11	691	0.3-	0.1-	1999 11 10	691	0.0	0.0
1996 04 11	691	0.5+	0.4+	1999 11 04	691	0.1+	0.2+
1996 04 11	691	0.5+	0.4+	1999 11 04	691	0.2+	0.1-
1996 04 23	691	0.2-	0.7-	1999 11 04	691	0.1-	0.1-
1996 04 23	691	0.7+	0.3+	1999 11 10	691	0.3+	0.1+
1999 11 10	691			1999 11 16	691	0.3-	0.2-
1999 11 10	691			1999 11 16	691	0.0	0.2-

1999 VC₁₂₃ = 1997 JA₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	101.04517		(2000.0)	P		Q	
<i>n</i>	0.17092412	ω	217.09212	+0.67828296		+0.73359174	
<i>a</i>	3.2156380	Ω	95.65948	-0.66360160		+0.63617631	
<i>e</i>	0.1612040	<i>i</i>	2.42673	-0.31553945		+0.23900391	
<i>P</i>	5.77	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	4
Residuals in seconds of arc							
1997 04 08	704	0.7-	0.2+	1997 05 05	704	(0.2-	2.8+)
1997 04 08	704	0.2+	1.1+	1997 05 05	704	0.1+	0.5-
1997 04 30	704	1.0+	0.4+	1998 08 17	704	1.2+	1.3-
1997 04 30	704	0.8+	1.8+	1998 08 17	704	0.7-	0.2+
1997 04 30	704	0.4+	0.6+	1998 08 17	704	0.1-	0.3+
1997 04 30	704	0.1-	0.3+	1998 08 17	704	0.3-	0.6+
1997 04 30	704	1.0-	0.2-	1998 08 17	704	0.3-	0.6+
1997 05 01	704	0.6+	0.2-	1999 11 01	703	0.2+	0.7+
1997 05 01	704	0.1-	0.6-	1999 11 01	703	1.9-	0.3+
1997 05 01	704	0.3+	0.4-	1999 11 01	703	1.2-	1.8+
1997 05 01	704	0.2-	0.2-	1999 11 01	703	1.2-	0.7+
1997 05 01	704	0.3+	0.1+	1999 11 05	691	0.4-	0.2+
1997 05 05	704	0.6-	0.7+	1999 11 05	691	0.3-	0.0
1997 05 05	704	(0.6-	2.2+)	1999 11 05	691	0.2-	0.0
1997 05 05	704	0.1-	0.2-	1999 11 10	691	0.2+	0.2+
1999 11 10	691			1999 12 07	704	0.3+	0.6-
1999 11 10	691			1999 12 07	704	1.2-	0.0
1999 12 07	704			1999 12 07	704	0.8-	1.4-
1999 12 07	704			1999 12 07	704	0.2-	1.5-

1999 VA₁₂₄ = 1998 KS₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	176.64871		(2000.0)	P		Q	
<i>n</i>	0.30722097	ω	181.03039	-0.10169173		+0.99196867	
<i>a</i>	2.1752148	Ω	83.13597	-0.91218305		-0.06280921	
<i>e</i>	0.1324505	<i>i</i>	4.34464	-0.39696458		-0.10978691	
<i>P</i>	3.21	<i>H</i>	16.4	<i>G</i>	0.15	<i>U</i>	4
Residuals in seconds of arc							
1998 05 01	704	0.5-	0.8-	1998 05 23	699	0.0	0.4-
1998 05 01	704	0.9+	0.8+	1998 05 24	704	0.3-	0.1-
1999 11 10	691			1999 11 10	691	0.4+	0.0
1999 11 10	691			1999 11 10	691	0.2+	0.2-

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1998 05 01	704	(2.3− 0.2−)	1998 05 24	704	0.8+ 0.2−	1999 11 15	704	0.5− 0.3+
1998 05 01	704	(0.2− 4.2+)	1998 05 24	704	0.1− 0.2−	1999 11 15	704	0.5− 0.9+
1998 05 22	704	0.3− 0.3−	1998 05 24	704	1.1+ 0.2+	1999 11 15	704	0.5− 0.6+
1998 05 22	704	0.2+ 0.4−	1998 05 24	704	1.1− 0.5+	1999 11 15	704	0.0 0.3−
1998 05 22	704	0.6− 0.1−	1998 05 24	699	0.1− 0.7+	1999 11 16	691	0.1+ 0.2−
1998 05 22	704	0.6+ 0.3+	1998 05 24	699	0.6− 1.1+	1999 11 16	691	0.2+ 0.3−
1998 05 23	699	0.0 0.6−	1998 05 24	699	0.9− 0.3−	1999 11 16	691	0.0 0.0
1998 05 23	699	0.0 0.2−	1999 11 05	691	0.0 0.0	1999 12 07	704	0.6− 0.7−
1998 05 23	699	0.1+ 0.1−	1999 11 05	691	0.2− 0.0	1999 12 07	704	0.3− 0.7+
1998 05 23	699	1.1+ 0.0	1999 11 05	691	0.0 0.1−	1999 12 07	704	1.2+ 0.2−
1998 05 23	699	0.1− 0.2+	1999 11 10	691	0.4+ 0.1−			

1999 VR₁₂₉ = 1994 WJ₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.19406483	ω	109.36145	+0.89927367	+0.41424919		
<i>a</i>	2.9546417	Ω	226.45258	−0.43728179	+0.85851821		
<i>e</i>	0.0675088	<i>i</i>	11.16702	+0.00956547	+0.30223186		
<i>P</i>	5.08	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1994 11 29	691	0.2+ 0.1−	1999 11 11	691	0.2− 0.0	1999 11 15	691	0.3+ 0.1+
1994 11 29	691	0.0 0.1−	1999 11 11	691	0.0 0.0	1999 11 15	691	0.6+ 0.6+
1994 11 29	691	0.2+ 0.1−	1999 11 11	691	0.0 0.0	1999 11 15	691	0.3+ 0.1+
1994 12 03	691	0.2− 0.2−	1999 11 13	691	0.0 0.1−	1999 11 16	704	1.7− 0.3−
1994 12 03	691	0.1+ 0.1−	1999 11 13	691	0.0 0.1−	1999 11 16	704	0.4+ 0.2+
1994 12 03	691	0.4− 0.5+	1999 11 13	691	0.2− 0.2−	1999 11 16	704	0.5+ 0.4+
1999 11 04	704	0.0 0.6+	1999 11 14	704	0.1− 0.1+	1999 11 16	704	0.3− 0.5+
1999 11 04	704	0.7+ 0.2−	1999 11 14	704	0.1+ 0.7−	1999 12 07	704	0.4− 0.1+
1999 11 04	704	0.3+ 0.5+	1999 11 14	704	0.0 0.7−	1999 12 07	704	0.1+ 0.7+
1999 11 04	704	0.0 0.2+	1999 11 14	704	0.6− 0.0	1999 12 07	704	0.7+ 0.1+
1999 11 04	704	0.3− 0.5−	1999 11 14	704	0.0 0.5−	1999 12 07	704	0.3− 0.8−

1999 VG₁₃₉ = 1996 EA₁₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.17266553	ω	298.97468	−0.99220495	+0.09236015		
<i>a</i>	3.1939806	Ω	246.43138	−0.05601667	−0.93024703		
<i>e</i>	0.0695053	<i>i</i>	5.23687	−0.11131694	−0.35511979		
<i>P</i>	5.71	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1996 03 13	691	0.1− 0.1−	1999 11 04	704	1.1+ 0.3−	1999 11 14	704	0.9− 0.0
1996 03 13	691	0.4− 0.1+	1999 11 04	703	0.3− 0.4+	1999 11 15	691	0.1− 0.0
1996 03 13	691	0.2− 0.1−	1999 11 04	704	0.0 0.8−	1999 11 15	691	0.2− 0.0
1996 03 19	691	0.1+ 0.2+	1999 11 04	703	0.3− 0.5+	1999 11 15	691	0.2− 0.1+
1996 03 19	691	0.4+ 0.1−	1999 11 04	703	0.5+ 0.1+	1999 11 16	691	0.1+ 0.2−
1996 03 19	691	0.3+ 0.1+	1999 11 10	691	0.1+ 0.2+	1999 11 16	691	0.1+ 0.1−
1999 11 04	704	0.6− 0.4+	1999 11 10	691	0.1+ 0.1+	1999 11 16	691	0.0 0.1−
1999 11 04	704	0.2− 0.2−	1999 11 10	691	0.1+ 0.1+	1999 11 17	691	0.3+ 0.1+
1999 11 04	704	0.7− 0.7−	1999 11 14	704	0.5− 0.7−	1999 11 17	691	0.2+ 0.1−
1999 11 04	703	0.5+ 0.3+	1999 11 14	704	0.4+ 0.6+	1999 11 17	691	0.2+ 0.1+

1999 WT₇ = 1995 TK₄

Id. M. E. Sansaturio, A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.27251298	ω	91.32108	+0.49071771	+0.87099892		
<i>a</i>	2.3561951	Ω	208.10558	−0.81802004	+0.45120331		
<i>e</i>	0.0848522	<i>i</i>	2.87162	−0.30006557	+0.19436167		
<i>P</i>	3.62	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1995 10 15	691	0.3− 0.2−	1999 11 29	120	0.6− 0.6+	1999 12 07	704	0.4− 0.7−
1995 10 15	691	0.2− 0.3−	1999 11 29	120	0.5+ 0.2+	1999 12 08	704	0.3− 0.0

1995 10 15	691	0.1− 0.2−	1999 12 05	120	0.3+ 0.5+	1999 12 08	704	0.4− 0.0
1995 10 21	691	0.1+ 0.3+	1999 12 05	120	0.3− 0.1+	1999 12 08	704	1.6+ 0.8−
1995 10 21	691	0.1+ 0.3+	1999 12 07	704	0.3− 0.5−	1999 12 08	704	0.8+ 0.1−
1995 10 21	691	0.3+ 0.2+	1999 12 07	704	0.5+ 0.9−	2000 01 06	704	0.3+ 0.2+
1999 11 28	120	(2.3+ 1.2−)	1999 12 07	704	0.7− 0.3+	2000 01 06	704	0.5− 0.3+
1999 11 28	120	0.4− 0.1+	1999 12 07	704	(0.1− 2.5−)	2000 01 06	704	0.2− 0.5+

1999 WA₁₈ = 1998 HW₃₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26932728	ω	229.07950	+0.47400925	+0.88007192		
<i>a</i>	2.3747386	Ω	69.23610	−0.79856569	+0.44310872		
<i>e</i>	0.2177981	<i>i</i>	1.72106	−0.37095562	+0.17066950		
<i>P</i>	3.66	<i>H</i>	16.4	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1995 08 25	809	0.2− 0.9+	1998 03 03	910	0.2+ 0.6+	1999 11 12	704	0.7− 0.6+
1995 08 26	809	0.3+ 0.1+	1998 04 20	704	0.2+ 0.3−	1999 11 12	691	0.4− 0.0
1995 08 28	809	0.1+ 0.1+	1998 04 20	704	1.4− 1.1−	1999 11 12	691	0.4− 0.1+
1995 08 29	809	(2.7+ 3.4+)	1998 04 20	704	0.0 2.0−	1999 11 12	691	0.4− 0.2+
1995 09 19	809	(4.0− 2.5+)	1998 04 20	704	(3.9− 1.0−)	1999 11 17	691	0.1+ 0.1+
1995 09 19	809	0.5− 0.6−	1998 04 21	704	0.8− 1.2+	1999 11 17	691	0.0 0.1+
1995 09 20	809	1.4− 0.4−	1998 04 21	704	0.1− 0.6−	1999 11 17	691	0.0 0.1+
1995 09 22	809	0.1+ 0.5−	1998 04 21	704	0.4+ 1.6+	1999 11 30	691	0.0 0.5−
1995 09 23	809	1.0+ 0.3+	1998 04 21	704	0.5+ 0.3+	1999 11 30	691	0.1+ 0.3−
1995 09 23	809	(4.5+ 1.5−)	1999 11 12	704	0.3+ 0.4−	1999 11 30	691	0.1− 0.4−
1995 09 24	809	0.5+ 0.5+	1999 11 12	704	0.3− 0.7+	1999 12 06	691	0.5+ 0.4−
1998 03 03	910	0.8+ 0.4+	1999 11 12	704	0.1+ 0.4+	1999 12 06	691	0.6+ 0.4−
1998 03 03	910	0.8+ 0.9+	1999 11 12	704	0.5+ 0.9+	1999 12 06	691	0.3+ 0.7−

1999 XG = 1982 UZ₁ = 1998 HR₇₁

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22807254	ω	289.91982	+0.92428923	+0.34533559		
<i>a</i>	2.6531026	Ω	50.23919	−0.21982847	+0.82983315		
<i>e</i>	0.2139332	<i>i</i>	12.21004	−0.31203344	+0.43831527		
<i>P</i>	4.32	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1982 10 16	046	0.3− 0.2−	1999 09 30	704	0.1− 0.3+	1999 12 01	704	0.4+ 1.5+
1982 10 16	046	0.7+ 0.4−	1999 09 30	704	0.3+ 0.4−	1999 12 01	704	1.6− 1.4+
1998 04 21	704	0.6− 0.9+	1999 09 30	704	0.9+ 0.2−	1999 12 02	704	0.7− 0.2+
1998 04 21	704	0.3+ 0.3−	1999 09 30	704	0.7+ 0.4−	1999 12 02	704	0.2− 0.1+
1998 04 21	704	0.0 0.9+	1999 11 09	699	1.1− 0.3−	1999 12 02	704	1.3− 0.1−
1998 04 21	704	0.1+ 0.6+	1999 11 09	699	0.9+ 0.5−	1999 12 03	704	0.5+ 0.4+
1998 04 21	704	0.3− 0.5+	1999 11 09	699	0.5− 0.4−	1999 12 03	704	0.7+ 0.7+
1998 04 22	704	0.2+ 0.2−	1999 11 10	704	0.6+ 0.3−	1999 12 03	704	0.4− 1.3+
1998 04 22	704	0.1+ 0.2−	1999 11 10	704	0.6+ 0.2+	1999 12 03	704	(0.1+ 2.4+)
1998 04 22	704	0.8+ 0.2+	1999 11 10	704	0.5+ 0.1−	1999 12 03	704	0.6− 0.6−
1998 04 22	704	0.6+ 0.5−	1999 11 10	704	1.3− 0.2+			
1998 04 22	704	0.1+ 0.1+	1999 12 01	704	1.2− 0.3+			

1999 XU = 1995 UJ₄₉ = 1996 CB₉ = 1998 HT₇₁

Id. A. Doppler, G. V. Williams (d)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.23311821	ω	273.85111	+0.96258019	+0.24763575		
<i>a</i>	2.6146802	Ω	71.83665	−0.17890964	+0.88578184		
<i>e</i>	0.2515815	<i>i</i>	6.65234	−0.20354536	+0.39251379		
<i>P</i>	4.23	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1995 10 23	033	0.3− 1.6−	1998 04 21	910	1.1+ 0.6+	1999 12 02	704	0.3+ 0.1−
1995 10 24	033	0.4+ 1.2−	1998 04 21	910	1.1+ 0.4+	1999 12 02	704	0.3− 1.5+

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1995 10 24	033	0.3+	0.8-	1998 04 21	910	1.0+	0.5+	1999 12 02	704	0.2+	0.4+
1996 01 23	327	0.4+	1.1+	1998 04 22	704	0.4-	0.0	1999 12 02	704	1.1-	0.2+
1996 01 23	327	0.7+	1.1+	1998 04 22	704	(1.6-	2.5+)	1999 12 02	704	0.3+	0.4-
1996 01 23	327	0.5+	1.7+	1998 04 22	704	0.7+	0.4+	1999 12 02	704	1.4-	1.4-
1996 02 08	327	0.6+	1.5+	1998 04 22	704	0.1+	0.0	1999 12 02	704	0.4-	0.0
1996 02 08	327	0.2-	0.7+	1998 04 22	704	0.5-	0.4+	1999 12 03	704	0.4-	0.0
1996 02 08	327	0.8-	0.6+	1999 09 30	704	0.2-	0.1+	1999 12 03	704	1.8-	0.3+
1996 02 11	327	0.7-	0.7-	1999 09 30	704	0.3-	0.4+	1999 12 03	704	0.1-	0.0
1996 02 11	327	0.1+	0.4-	1999 09 30	704	0.2-	0.7+	1999 12 03	704	0.5+	0.3+
1996 02 11	327	0.4-	0.2-	1999 09 30	704	0.5-	0.8+	1999 12 03	704	0.1+	0.8-
1996 02 11	327	0.9-	0.3+	1999 09 30	704	0.0	0.6+	1999 12 03	704	0.4+	1.1+
1998 04 21	704	(0.1+	2.2+)	1999 11 08	704	0.4+	0.0	1999 12 03	704	1.2+	0.8+
1998 04 21	704	0.4-	1.1+	1999 11 08	704	0.7+	0.4+	1999 12 03	704	0.4+	0.7-
1998 04 21	704	0.4+	1.5-	1999 11 08	704	0.7+	0.3-	1999 12 09	699	0.3-	0.6+
1998 04 21	704	0.6-	1.9+	1999 11 08	704	0.4-	0.2+	1999 12 09	699	0.4-	0.6+
1998 04 21	704	0.3-	1.3+	1999 11 08	704	0.2+	0.3-	1999 12 09	699	0.6-	0.9+

1999 XW₁ = 1966 UF = 1977 TW₇ = 1997 EU₃₇Id. G. V. Williams (*MPC* 37244), S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams				Q			
<i>M</i>	60.97566	(2000.0)	P				
<i>n</i>	0.26981917	ω	249.38018	+0.99442902	+0.08339820		
<i>a</i>	2.3718516	Ω	105.79213	-0.05279871	+0.92341417		
<i>e</i>	0.3015484	<i>i</i>	3.84129	-0.09123164	+0.37463451		
<i>P</i>	3.65	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1966 10 18	095	0.9-	0.1-	1999 11 04	704	0.2+	0.3+	1999 12 06	704	0.0	0.4-
1977 10 10	095	1.4+	0.4+	1999 11 04	704	0.2-	0.1+	1999 12 06	704	0.4+	0.1-
1997 02 04	566	0.3-	0.7-	1999 11 04	704	0.0	0.2+	1999 12 06	704	0.1+	1.5-
1997 02 04	566	1.0-	0.0	1999 11 04	704	0.1-	0.1+	1999 12 06	704	1.0-	1.1-
1997 02 04	566	1.3-	0.1-	1999 11 17	704	0.4-	0.1+	1999 12 17	120	0.6+	1.0-
1997 03 05	704	0.2+	0.3-	1999 11 17	704	0.4-	0.3-	1999 12 17	120	0.2-	0.4-
1997 03 05	704	0.3+	0.6+	1999 11 17	704	0.1-	0.2+	1999 12 30	699	0.9-	0.1+
1997 03 06	704	1.1+	0.0	1999 11 17	704	0.3-	0.3-	1999 12 30	699	1.5-	0.1-
1997 03 06	704	0.7+	0.6-	1999 11 17	704	1.2-	0.2-	1999 12 30	699	0.4-	1.5+
1998 04 19	688	0.4-	0.1+	1999 12 02	699	0.5+	0.1-	2000 01 05	704	0.6+	0.5+
1998 04 19	688	0.9-	0.2-	1999 12 02	699	0.1+	0.1+	2000 01 05	704	0.1-	0.1+
1998 04 19	688	0.8-	0.1-	1999 12 02	699	0.3+	0.0	2000 01 05	704	0.3+	0.2-
1998 04 22	704	0.0	0.3-	1999 12 03	678	0.2+	0.1+	2000 01 05	704	0.2+	0.2-
1998 04 22	704	0.4+	0.7-	1999 12 03	678	0.2+	0.2-	2000 01 05	704	0.0	0.8+
1998 04 22	704	0.0	0.5-	1999 12 04	678	0.1-	0.3+	2000 01 05	106	0.0	0.6+
1998 04 22	704	1.1+	0.7+	1999 12 04	678	0.2+	0.1-	2000 01 05	106	0.1+	0.6+
1998 04 22	704	0.0	0.5-	1999 12 04	678	0.2+	0.2-	2000 01 05	106	0.1+	0.5+
1999 10 03	704	0.9-	0.2+	1999 12 04	703	0.0	0.2+	2000 01 06	704	0.0	0.6-
1999 10 03	704	0.3-	0.5-	1999 12 04	703	0.1-	0.2+	2000 01 06	704	0.6+	0.5-
1999 10 03	704	1.3+	0.2+	1999 12 04	703	0.2-	0.1+	2000 01 06	704	0.3+	0.3+
1999 10 20	704	1.1+	0.2-	1999 12 04	703	0.0	0.2+	2000 01 06	704	0.6+	0.2+
1999 10 20	704	0.4+	0.2-	1999 12 05	703	0.1-	0.1+	2000 02 03	704	0.7-	0.2+
1999 10 20	704	0.7+	0.8-	1999 12 05	703	0.2-	0.3+	2000 02 03	704	0.5-	0.8+
1999 10 20	704	0.5+	0.6-	1999 12 05	703	0.4-	0.3+	2000 02 03	704	0.1+	0.8+
1999 10 20	704	0.3-	0.8-	1999 12 05	703	0.3-	0.1+				
1999 11 04	704	0.3+	0.1-	1999 12 06	704	0.6+	0.1+				

1999 XD₃ = 1997 EC₃₁

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr				Q			
<i>M</i>	28.06939	(2000.0)	P				
<i>n</i>	0.27044197	ω	200.00536	+0.57829489	-0.81279070		
<i>a</i>	2.3682088	Ω	214.76846	+0.76428872	+0.56989964		
<i>e</i>	0.0853768	<i>i</i>	7.08428	+0.28537304	+0.12077118		
<i>P</i>	3.64	<i>H</i>	15.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 03 08	691	0.1-	0.3+	1999 11 12	699	0.3+	0.0	1999 12 05	703	0.1-	0.1+
1997 03 08	691	0.1-	0.1+	1999 11 12	699	1.0+	0.0	1999 12 06	704	0.1+	0.2-

1997 03 08	691	0.1+	0.2+	1999 12 02	699	0.2+	0.3+	1999 12 06	704	0.4-	0.5+
1997 03 16	691	0.2+	0.5-	1999 12 02	699	0.2+	1.0+	1999 12 06	704	0.4-	0.4+
1997 03 16	691	0.1-	0.2-	1999 12 02	699	0.2-	0.9+	1999 12 06	704	0.8+	1.0-
1997 03 16	691	0.1-	0.1+	1999 12 04	703	0.3+	0.4-	1999 12 06	704	0.7+	0.0
1999 11 04	704	0.5-	0.0	1999 12 04	703	0.3-	0.4-	1999 12 14	704	0.1+	0.7+
1999 11 04	704	0.3-	0.9-	1999 12 04	703	1.3-	0.1-	1999 12 14	704	0.0	0.5+
1999 11 04	704	0.2-	0.1+	1999 12 04	703	0.2-	0.2-	1999 12 14	704	0.5+	0.7-
1999 11 04	704	0.4-	0.3+	1999 12 05	703	0.4+	0.0	1999 12 14	704	0.4+	0.6-
1999 11 04	704	0.1-	0.0	1999 12 05	703	0.2-	0.1+	1999 12 14	704	1.0-	1.0-
1999 11 12	699	0.1+	0.1+	1999 12 05	703	0.1+	0.4+				

1999 XV₃ = 1992 RH₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams				Q			
<i>M</i>	26.42494	(2000.0)	P				
<i>n</i>	0.15940176	ω	271.89549	+0.68942123	-0.72294455		
<i>a</i>	3.3687903	Ω	134.40657	+0.68723639	+0.63305722		
<i>e</i>	0.0224186	<i>i</i>	3.63334	+0.22892033	+0.27674852		
<i>P</i>	6.18	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1992 09 02	809	1.3+	0.0	1999 11 12	699	0.0	0.3+	1999 12 04	703	0.5-	0.2-
1992 09 02	809	0.6+	0.3-	1999 11 15	704	0.3+	0.7-	1999 12 04	703	0.2+	1.3+
1992 09 02	809	0.7+	0.3+	1999 11 15	704	0.3-	1.0-	1999 12 04	703	0.6-	0.8+
1992 09 03	809	2.6-	0.1+	1999 11 15	704	0.2+	0.9-	1999 12 04	703	0.9-	0.0
1998 08 17	704	1.1-	0.8+	1999 11 15	704	1.1-	1.0-	1999 12 04	703	0.7-	0.5-
1998 08 17	704	0.5+	0.3-	1999 11 15	704	0.5-	1.3-	1999 12 04	703	0.7+	1.2+
1998 08 17	704	0.8+	1.3-	1999 11 17	704	1.1+	1.5-	1999 12 05	703	0.6-	0.6+
1998 08 17	704	1.6+	0.1-	1999 11 17	704	0.1+	0.8-	1999 12 05	703	1.3-	0.0
1998 08 17	704	2.0-	1.2+	1999 11 17	704	0.1-	0.0	1999 12 05	703	3.6+	0.1-
1999 11 04	704	0.6+	0.1+	1999 11 17	704	0.2+	0.0	1999 12 05	703	0.5+	0.0
1999 11 04	704	0.2-	0.1+	1999 12 02	699	1.2-	0.1+	1999 12 14	704	1.1+	0.2+
1999 11 04	704	0.7+	0.2-	1999 12 02	699	0.3+	1.6+	1999 12 14	704	0.2-	0.4-
1999 11 04	704	1.1+	0.1+	1999 12 02	699	0.8-	1.3+	1999 12 14	704	1.2-	0.4+
1999 11 12	699	0.9-	1.8-	1999 12 04	703	2.8+	2.5+	1999 12 14	704	0.0	1.0-
1999 11 12	699	0.8-	0.1-	1999 12 04	703	0.3-	0.8+	1999 12 14	704	1.1-	0.0

1999 XB₇ = 1993 TA₂₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams				Q			
<i>M</i>	14.95660	(2000.0)	P				
<i>n</i>	0.17635083	ω	32.81434	+0.40322361	-0.91369438		
<i>a</i>	3.1493267	Ω	33.48508	+0.81852386	+0.33532688		
<i>e</i>	0.1146081	<i>i</i>	5.27549	+0.40918139	+0.22960501		
<i>P</i>	5.59	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1993 10 09	809	0.4-	0.4-	1993 10 12	809	0.3-	0.3+	1999 12 04	703	0.7-	0.2+
1993 10 09	809	0.2+	0.5-	1999 11 14	704	0.0	0.1-	1999 12 04	703	0.6+	0.5+
1993 10 09	809	0.5-	0.1-	1999 11 14	704	1.6+	0.1-	1999 12 04	703	0.4-	0.6-
1993 10 11	809	(3.6+	4.2+)	1999 11 14	704	0.7+	1.0+	1999 12 04	703	0.2+	1.1-
1993 10 11	809	(3.4+	3.7+)	1999 11 14	704	1.0+	0.4+	1999 12 05	703	0.2-	0.2-
1993 10 11	809	(1.5+	3.1+)	1999 11 16	704	0.9+	0.0	1999 12 05	703	1.5-	0.2+
1993 10 12	809	0.2+	0.1-	1999 11 16	704	0.0	0.0	1999 12 05	703	0.8-	0.2+
1993 10 12	809	0.8+	0.9+	1999 11 16	704	0.1-	1.5-	1999 12 05	703	1.0-	0.8+

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Residuals in seconds of arc

1991 09 14	675	0.5+	0.4-	1998 08 17	704	0.8+	0.0	1999 12 05	691	0.3-	0.2+
1991 09 14	675	0.3+	0.0	1998 08 17	704	0.2-	0.5+	1999 12 05	691	0.6-	0.1-
1991 09 16	675	0.9-	0.2-	1998 08 17	704	0.7-	0.1+	1999 12 12	691	0.3+	0.1+
1991 09 16	675	0.2+	0.3+	1998 08 17	704	0.1+	0.7+	1999 12 12	691	0.4+	0.0
1998 07 31	699	0.3-	0.3-	1999 12 04	691	0.3-	0.4-	1999 12 12	691	0.4+	0.1+
1998 07 31	699	0.1-	0.2+	1999 12 04	691	0.5-	0.0	1999 12 17	691	0.4+	0.3+
1998 07 31	699	0.3-	0.2+	1999 12 04	691	0.1-	0.1-	1999 12 17	691	0.2+	0.2+
1998 08 17	704	0.6+	0.8-	1999 12 05	691	0.0	0.2+	1999 12 17	691	0.1+	0.2+

1999 XS₁₁ = 1998 QG₁₉

Id. A. Doppler, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	35.29192		(2000.0)	P	Q
<i>n</i>	0.15544296	ω	41.78458	+0.90041139	-0.43191244
<i>a</i>	3.4257474	Ω	343.57558	+0.33412817	+0.76322742
<i>e</i>	0.0804287	<i>i</i>	10.61127	+0.27859951	+0.48055755
<i>P</i>	6.34	<i>H</i>	13.3	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 08 17	704	0.0	0.2-	1998 08 27	699	0.4+	0.7+	1999 12 06	703	0.1-	0.2-
1998 08 17	704	0.0	0.0	1998 08 27	699	0.2+	0.1-	1999 12 07	703	0.1-	0.6-
1998 08 17	704	0.4+	0.2+	1998 08 27	699	1.2+	0.1+	1999 12 07	703	0.5+	0.2-
1998 08 17	704	0.5+	0.2-	1999 12 05	699	1.0+	0.5+	1999 12 07	703	0.2-	1.0-
1998 08 17	704	0.8-	0.5+	1999 12 05	699	0.1-	0.1-	1999 12 07	703	1.1-	0.8+
1998 08 23	704	0.7+	0.9-	1999 12 05	699	0.0	1.6+	1999 12 13	703	0.5+	0.1+
1998 08 23	704	1.8-	0.1+	1999 12 06	703	0.5+	0.5-	1999 12 13	703	0.5-	0.6-
1998 08 23	704	0.3+	1.7-	1999 12 06	703	0.1-	0.5-	1999 12 13	703	0.5-	0.1+
1998 08 23	704	1.1-	1.4+	1999 12 06	703	0.2+	0.8+	1999 12 13	703	0.0	0.3-

1999 XG₁₃ = 1998 LX₁

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	82.00461		(2000.0)	P	Q
<i>n</i>	0.27342730	ω	266.57488	+0.97047779	+0.13626537
<i>a</i>	2.3509396	Ω	85.52398	-0.04542077	+0.91360214
<i>e</i>	0.0795869	<i>i</i>	11.51462	-0.23687511	+0.38309642
<i>P</i>	3.60	<i>H</i>	14.8	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 06 01	809	0.1+	1.0-	1999 11 05	704	0.2-	0.1-	1999 12 05	704	0.2+	0.4-
1998 06 01	809	0.2+	1.0-	1999 11 12	699	0.9+	1.0-	1999 12 06	704	0.1+	0.4-
1998 06 01	809	0.1-	0.8-	1999 11 12	699	0.6-	0.9+	1999 12 06	704	0.7-	0.3-
1998 06 02	809	0.9+	0.7+	1999 11 12	699	0.8+	0.2-	1999 12 06	704	0.5-	0.2-
1998 06 02	809	1.2-	0.4+	1999 12 04	699	0.2-	0.8-	1999 12 06	704	0.6-	1.8-
1998 06 02	809	0.3-	0.3+	1999 12 04	699	0.1+	0.5+	2000 01 05	704	0.3-	0.6+
1999 11 05	704	0.7+	0.8+	1999 12 04	699	0.8-	0.1-	2000 01 05	704	0.0	0.2-
1999 11 05	704	0.1-	1.0+	1999 12 05	704	0.3+	0.5+	2000 01 05	704	0.2+	0.2+
1999 11 05	704	0.2+	0.2+	1999 12 05	704	0.3+	0.9-	2000 01 05	704	1.4+	0.5-
1999 11 05	704	0.0	0.7+	1999 12 05	704	0.2-	0.1+				

1999 XL₁₄ = 1964 ER = 1998 XZ₉₀

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	165.39866		(2000.0)	P	Q
<i>n</i>	0.19041218	ω	217.08012	+0.98538651	+0.10752887
<i>a</i>	2.9923076	Ω	136.16209	-0.06954422	+0.96194230
<i>e</i>	0.1234850	<i>i</i>	10.99527	-0.15548967	+0.25120619
<i>P</i>	5.18	<i>H</i>	12.2	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1964 03 11	033	0.7+	0.5-	1999 01 18	704	(4.3-	0.2+)	2000 01 10	699	0.4+	0.5+
1964 03 12	033	1.2-	1.1-	1999 12 05	704	0.4-	0.8+	2000 01 10	699	0.4-	0.2+
1998 12 15	704	(2.9-	0.6-)	1999 12 05	704	0.2-	1.6+	2000 02 04	704	0.0	0.5-

1998 12 15	704	0.2+	0.5+	1999 12 05	704	0.2-	0.8-	2000 02 04	704	0.1-	0.6+
1998 12 15	704	0.2+	1.1+	1999 12 06	704	0.2+	0.3+	2000 02 04	704	0.2-	0.0
1998 12 15	704	0.4+	0.2+	1999 12 06	704	0.5-	0.3-	2000 02 04	704	0.2+	0.7+
1998 12 22	704	0.0	0.2-	1999 12 06	704	0.5+	0.1-	2000 02 04	704	0.3-	0.1+
1998 12 22	704	0.6-	0.8-	1999 12 06	704	0.1-	0.8+	2000 02 11	704	0.6+	0.2-
1998 12 22	704	0.3+	0.6-	1999 12 06	704	0.4-	0.5+	2000 02 11	704	0.1+	1.2-
1998 12 22	704	0.4-	0.4-	1999 12 06	704	0.5-	0.7-	2000 02 11	704	0.3-	0.3-
1998 12 22	704	0.3-	0.2+	1999 12 06	704	0.1-	0.1+	2000 02 11	704	0.5+	1.1+
1999 01 18	704	0.1-	1.4+	1999 12 06	704	0.5+	0.5-	2000 02 11	704	0.3+	0.1+
1999 01 18	704	0.2-	1.1-	1999 12 06	704	0.4+	0.3-				
1999 01 18	704	0.7+	1.1-	2000 01 10	699	0.2+	0.3-				

1999 XO₁₇ = 1981 UA₈ = 1992 YX₅ = 1998 HG₈₉

Id. G. V. Williams, A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	37.92245		(2000.0)	P	Q
<i>n</i>	0.26954084	ω	322.39177	+0.99010052	-0.10746079
<i>a</i>	2.3734841	Ω	44.04609	+0.13780902	+0.86634497
<i>e</i>	0.1333994	<i>i</i>	7.46244	-0.02663907	+0.48774848
<i>P</i>	3.66	<i>H</i>	14.4	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1981 10 30	381	0.9-	0.2+	1998 05 01	704	0.6-	0.5+	1999 10 02	704	0.3+	0.8-
1981 10 30	381	0.8+	0.1+	1998 05 01	704	0.3-	0.1-	1999 10 02	704	0.8+	0.6-
1992 12 21	372	(2.6+	0.6+)	1998 05 01	704	1.4-	0.1+	1999 10 02	704	0.6+	0.5-
1992 12 21	372	(2.8-	0.8-)	1998 05 16	704	0.9+	1.3-	1999 10 02	704	0.5+	0.7-
1998 03 29	910	1.2+	0.1+	1998 05 16	704	0.8-	1.7+	1999 10 02	704	1.1+	0.7-
1998 03 29	910	1.2+	0.1-	1998 05 16	704	(2.2+	0.6-)	1999 11 07	704	0.9-	0.7-
1998 03 29	910	1.4+	0.1-	1998 05 16	704	0.2+	1.9-	1999 11 07	704	0.3+	0.3+
1998 04 21	704	0.3-	1.2-	1999 09 05	699	0.4-	0.7+	1999 11 07	704	0.8-	0.0
1998 04 21	704	0.7-	0.6+	1999 09 05	699	0.7-	1.0+	1999 11 07	704	0.4+	0.1+
1998 04 21	704	0.3+	0.6+	1999 09 05	699	0.2+	1.1+	1999 11 07	704	1.2-	0.4+
1998 04 21	704	0.0	0.2+	1999 09 08	703	0.3+	0.3+	1999 12 02	704	0.2-	0.3-
1998 04 21	704	1.0-	0.3+	1999 09 08	703	0.1-	0.9+	1999 12 02	704	0.4+	0.3+
1998 04 22	704	0.3-	0.2-	1999 09 08	703	0.1-	0.3+	1999 12 02	704	0.4+	0.0
1998 04 22	704	0.6+	0.3+	1999 09 08	703	0.1-	0.5+	1999 12 02	704	0.4+	0.6-
1998 04 22	704	0.9-	0.6-	1999 09 14	704	0.6-	0.3-	1999 12 07	704	0.8+	0.2-
1998 04 22	704	1.0-	0.4-	1999 09 14	704	0.4-	0.1-	1999 12 07	704	0.5+	0.2+
1998 04 22	704	0.3+	0.5-	1999 09 14	704	0.3-	0.3-	1999 12 07	704	1.0+	0.9-
1998 05 01	704	0.2+	1.3-	1999 09 14	704	0.5-	0.3-	1999 12 07	704	0.6+	1.4-
1998 05 01	704	0.1-	0.8+	1999 09 14	704	0.4-	0.5-				

1999 XS₁₉ = 1979 OS₁₂

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	24.67009		(2000.0)	P	Q
<i>n</i>	0.30196546	ω	144.13317	+0.73872660	-0.67232471
<i>a</i>	2.2003809	Ω	258.18614	+0.60651016	+0.69387490
<i>e</i>	0.1217126	<i>i</i>	2.78539	+0.29398715	+0.25790913
<i>P</i>	3.26	<i>H</i>	15.5	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1979 07 26	675	(2.2-	4.0+)	1999 10 20	704	0.3+	0.1+	1999 11 16	704	0.7+	0.1-
1979 07 27	675	0.4-	1.4+	1999 10 20	704	0.2-	0.2+	1999 11 16	704	0.2+	0.7-
1999 09 18	704	0.1-	1.6-	1999 10 20	704	0.3+	0.8+	1999 11 16	704	0.9-	0.1-
1999 09 18	704	0.2+	1.2-	1999 11 04	703	0.3-	0.7+	1999 11 16	704	0.3-	0.8-
1999 09 18	704	0.2+	0.2-	1999 11 04	703	(2.8-	0.7-)	1999 12 05	704	0.8-	0.6+
1999 09 18	704	0.2+	0.8-	1999 11 04	703	0.3-	0.2+	1999 12 05	704	0.6+	0.2+
1999 10 01	703	0.8+	0.2+	1999 11 04	703	0.6-	0.6+	1999 12 05	704	0.3+	0.9+
1999 10 01	703	0.0	0.1-	1999 11 05	704	0.3-	0.1+	1999 12 05	704	0.6+	0.0
1999 10 01	703	0.1+	0.1+	1999 11 05	704	0.7-	0.4+	1999 12 05	704	1.1+	0.2+
1999 10 01	703	0.1-	0.0	1999 11 05	704	1.0-	0.8+	1999 12 07	704	0.0	0.2+
1999 10 03	704	0.3-	0.4+	1999 11 05	704	0.8+	0.0	1999 12 07	704	0.1-	0.0
1999 10 03	704	0.2-	0.1-	1999 11 05	704	0.4+	0.8+	1999 12 07	704	1.0-	0.4-
1999 10 03	704	0.5+	0.7-	1999 11 14	704	0.7+	0.3-	1999 12 07	704	0.6-	0.1+
1999 10 03	704	0.1+	0.1+	1999 11 14	704	0.3+	0.1+	1999 12 07	704	0.1-	0.3+

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1999 10 03	704	0.0	0.0	1999 11 14	704	0.1+	0.6-	1999 12 13	699	(2.7-	0.9+)
1999 10 20	704	0.2+	0.0	1999 11 14	704	0.2-	0.6-	1999 12 13	699	(2.5-	2.0+)
1999 10 20	704	0.1+	0.0	1999 11 14	704	0.7-	1.2-	1999 12 13	699	0.2+	1.1+

1999 XM₂₃ = 1995 YA₂₅

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	69.24314		(2000.0)	P	Q		
<i>n</i>	0.20642747	ω	239.37378	+0.99063829	+0.12698642		
<i>a</i>	2.8354657	Ω	113.29049	-0.09894067	+0.92075089		
<i>e</i>	0.0901266	<i>i</i>	3.12688	-0.09405600	+0.36890684		
<i>P</i>	4.77	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1995 12 25	566	0.2+	0.1+	1999 11 01	703	0.0	0.5-	1999 12 04	703	0.0	0.6+
1995 12 25	566	0.2-	0.3+	1999 11 01	703	0.8-	0.1+	1999 12 04	703	0.4-	0.9+
1995 12 25	566	0.2+	0.3+	1999 11 01	703	0.5-	1.1-	1999 12 04	703	0.8-	0.7+
1995 12 27	566	1.1+	0.2-	1999 11 04	704	0.2-	0.1+	1999 12 04	703	0.3-	0.2-
1995 12 27	566	0.6-	0.3+	1999 11 04	704	0.2+	0.3-	1999 12 06	704	0.5+	0.7+
1995 12 27	566	0.5-	0.1+	1999 11 04	704	0.1+	0.1-	1999 12 06	704	1.5+	1.1-
1997 04 05	566	1.6+	0.2+	1999 11 04	704	0.1-	0.5-	1999 12 06	704	1.0+	0.1+
1997 04 05	566	0.4-	0.1+	1999 11 04	704	0.9+	0.7-	1999 12 07	704	0.3+	0.6+
1997 04 05	566	1.0-	0.1+	1999 11 15	704	0.3-	0.0	1999 12 07	704	0.3-	0.2+
1998 06 26	809	0.6+	0.9+	1999 11 15	704	0.0	0.1-	1999 12 07	704	0.1-	0.1+
1998 06 26	809	0.1-	0.6+	1999 11 15	704	0.4-	0.1+	1999 12 07	704	0.1-	0.6+
1998 06 26	809	0.7-	0.4+	1999 11 15	704	0.0	0.2+	1999 12 12	703	0.2+	1.0+
1999 10 20	704	0.3-	0.3+	1999 11 15	704	0.4+	0.9+	1999 12 12	703	0.6+	0.7+
1999 10 20	704	0.2+	0.5-	1999 11 17	704	0.1-	0.2-	1999 12 12	703	0.2-	0.7+
1999 10 20	704	0.6-	0.5-	1999 11 17	704	0.6+	0.8-	1999 12 12	703	0.7-	0.8+
1999 10 20	704	0.4-	1.3-	1999 11 17	704	1.0+	0.4-				
1999 11 01	703	0.5-	0.9+	1999 11 17	704	1.1-	0.6-				

1999 XH₂₄ = 1998 KK₂₄

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	91.54978		(2000.0)	P	Q		
<i>n</i>	0.22252572	ω	68.96604	+0.66159517	+0.74502764		
<i>a</i>	2.6970101	Ω	242.74675	-0.71859448	+0.59752932		
<i>e</i>	0.2396080	<i>i</i>	5.48690	-0.21427506	+0.29646674		
<i>P</i>	4.43	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 04 22	704	0.4-	0.4+	1998 05 24	704	1.4+	0.8+	1999 11 14	704	0.1+	0.2-
1998 04 22	704	1.3+	1.7-	1998 05 24	704	1.4-	0.9+	1999 11 16	704	0.3-	0.4+
1998 04 22	704	1.0-	1.4-	1999 10 03	703	0.0	0.2+	1999 11 16	704	0.4+	1.0-
1998 04 22	704	1.0+	0.7-	1999 10 03	703	1.1-	0.2-	1999 11 16	704	0.3+	0.2-
1998 04 25	809	(3.1+	1.8+)	1999 10 03	703	0.1+	0.8+	1999 11 16	704	1.0+	0.2-
1998 04 25	809	1.7+	1.2+	1999 10 03	703	0.6-	0.3-	1999 11 16	704	0.7+	0.3-
1998 04 25	809	1.1+	0.2-	1999 10 29	703	0.4-	0.9-	1999 12 04	703	1.0-	0.2-
1998 05 01	704	0.0	1.2-	1999 10 29	703	(2.2-	0.2+)	1999 12 04	703	0.6-	1.0+
1998 05 01	704	0.3-	0.5-	1999 10 29	703	0.8-	0.7-	1999 12 04	703	0.0	0.1-
1998 05 01	704	0.9-	0.9+	1999 10 29	703	0.6-	1.3-	1999 12 04	703	0.3+	0.0
1998 05 01	704	0.5-	0.2-	1999 11 03	704	0.0	0.1-	1999 12 06	704	0.0	0.2+
1998 05 22	704	0.1+	1.2-	1999 11 03	704	0.1-	0.1+	1999 12 06	704	0.6+	0.4+
1998 05 22	704	0.8-	0.6-	1999 11 03	704	0.2-	0.1-	1999 12 06	704	0.6+	0.1+
1998 05 22	704	0.9+	1.1+	1999 11 03	704	0.1-	0.8+	1999 12 07	704	0.1+	0.7-
1998 05 22	704	1.4-	0.5+	1999 11 03	704	0.6-	0.1+	1999 12 07	704	1.1+	1.1-
1998 05 22	704	0.3+	0.3+	1999 11 14	704	0.5+	0.1+	1999 12 07	704	0.3-	0.5-
1998 05 24	704	0.3-	0.3-	1999 11 14	704	0.5+	0.1+	1999 12 07	704	0.1+	0.0
1998 05 24	704	1.4-	0.8-	1999 11 14	704	0.1+	0.2+	1999 12 07	704	0.5+	0.3+
1998 05 24	704	0.1+	1.1-	1999 11 14	704	0.3+	0.0				

1999 XU₂₆ = 1998 KN₂₈

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	184.51180		(2000.0)	P	Q		
<i>n</i>	0.30287909	ω	149.11881	-0.31658784	+0.94800122		
<i>a</i>	2.1959537	Ω	102.40757	-0.87697207	-0.27940346		
<i>e</i>	0.1298790	<i>i</i>	1.91563	-0.36151366	-0.15240538		
<i>P</i>	3.25	<i>H</i>	15.5	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 05 05	699	0.4-	0.9+	1999 10 17	691	0.2+	0.5-	1999 12 05	691	0.2+	0.5-
1998 05 05	699	0.0	1.3+	1999 10 17	691	0.2+	0.1-	1999 12 06	704	0.7-	0.9-
1998 05 05	699	0.1+	0.5+	1999 10 17	691	0.3+	0.1+	1999 12 06	704	0.2+	0.9+
1998 05 22	704	0.2+	0.2-	1999 11 01	703	0.8-	0.2-	1999 12 06	704	0.7-	1.6+
1998 05 22	704	0.3-	0.0	1999 11 01	703	0.2-	0.2+	1999 12 06	704	0.5+	0.5+
1998 05 22	704	0.1-	0.7-	1999 11 01	703	0.9+	0.4-	1999 12 07	704	0.2+	0.8+
1998 05 22	704	0.3-	1.1-	1999 11 01	703	0.3+	0.1+	1999 12 07	704	0.5-	0.3-
1998 05 22	704	0.2-	1.5-	1999 11 04	704	0.4+	0.0	1999 12 07	704	0.3+	0.2-
1998 05 24	704	0.2+	0.1+	1999 11 04	704	0.4-	0.8-	1999 12 07	704	0.9+	0.9-
1998 05 24	704	0.2-	0.0	1999 11 04	704	0.1-	0.2-	1999 12 07	704	0.8+	0.5-
1998 05 24	704	0.7+	0.5+	1999 12 04	703	1.7-	0.1+	1999 12 12	703	0.0	0.1+
1998 05 24	704	0.8+	1.5-	1999 12 04	703	(3.9+	1.1-)	1999 12 12	703	0.5-	1.6+
1998 05 24	704	0.8-	0.1+	1999 12 04	703	0.3-	0.4+	1999 12 12	703	0.6-	0.4-
1998 06 30	699	0.2-	1.0+	1999 12 04	703	0.5+	0.4+	1999 12 12	703	0.0	0.1-
1998 06 30	699	0.1-	1.2+	1999 12 05	691	0.2+	0.2-				
1998 06 30	699	0.9+	0.1+	1999 12 05	691	0.2+	0.4-				

1999 XR₂₇ = 1999 XC₁₁₁ = 1998 HO₉₁Id. G. V. Williams (d, *MPC* 38194), M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	63.85973		(2000.0)	P	Q		
<i>n</i>	0.28801687	ω	284.48310	+0.99468645	-0.04021254		
<i>a</i>	2.2708621	Ω	77.88756	+0.07615984	+0.90682730		
<i>e</i>	0.2228414	<i>i</i>	5.56244	-0.06927157	+0.41957979		
<i>P</i>	3.42	<i>H</i>	15.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 04 21	704	0.4+	1.8-	1999 11 15	704	0.2+	0.3+	1999 12 12	703	0.8-	0.4+
1998 04 21	704	1.1+	0.2+	1999 12 02	699	0.4-	0.2-	2000 01 04	704	0.2-	1.3-
1998 04 21	704	0.3-	1.9+	1999 12 02	699	0.2-	0.3+	2000 01 04	704	0.7+	0.8-
1998 04 21	704	1.6-	1.3+	1999 12 02	699	0.1+	0.3+	2000 01 04	704	0.6+	0.6-
1998 04 22	704	0.5+	0.2+	1999 12 05	703	0.2-	0.5+	2000 01 04	704	1.6+	0.1-
1998 04 22	704	0.4+	0.2+	1999 12 05	703	0.1-	0.4+	2000 01 04	704	0.0	0.9+
1998 04 22	704	0.2+	0.3+	1999 12 05	703	0.1+	0.2+	2000 01 06	704	0.0	0.6-
1998 04 22	704	0.2+	0.2+	1999 12 05	703	0.5-	0.3+	2000 01 06	704	0.0	0.4-
1999 11 04	704	0.3+	0.5-	1999 12 06	704	0.3+	1.2+	2000 01 06	704	0.2+	0.2-
1999 11 04	704	0.2+	0.3-	1999 12 06	704	0.0	0.0	2000 01 06	704	0.3+	0.5+
1999 11 04	704	0.6+	0.1-	1999 12 06	704	0.4+	0.1+	2000 01 06	704	0.1+	0.9-
1999 11 04	704	0.4-	0.6+	1999 12 06	704	0.3-	0.4-	2000 01 30	704	0.8+	0.5+
1999 11 04	704	0.1-	0.2+	1999 12 07	704	0.1+	0.4-	2000 01 30	704	1.0+	0.2-
1999 11 12	699	0.4-	0.2+	1999 12 07	704	0.1+	0.5-	2000 01 30	704	0.8+	0.7+
1999 11 12	699	0.2-	1.1+	1999 12 07	704	0.2-	0.4-	2000 01 30	704	0.2+	1.2-
1999 11 12	699	0.4-	1.0+	1999 12 07	704	0.1+	0.3-	2000 02 03	704	0.2+	0.0
1999 11 15	704	0.2-	0.4-	1999 12 07	704	0.4-	0.3-	2000 02 03	704	0.3-	0.3+
1999 11 15	704	0.4-	0.2-	1999 12 12	703	0.4-	0.4+	2000 02 03	704	0.9-	0.0
1999 11 15	704	0.1-	0.1-	1999 12 12	703	0.5-	0.2+	2000 02 03	704	1.0+	0.5+
1999 11 15	704	0.2+	0.4+	1999 12 12	703	0.2-	0.0				

1999 XH₂₉ = 1984 HB₁

Id. G. V. Williams, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	283.57828		(2000.0)	P	Q
n	0.17058280	ω	80.17829	-0.97215495	-0.13759752
a	3.2199260	Ω	91.73359	+0.05520123	-0.92114669
e	0.1321203	i	10.93967	+0.22774454	-0.36408199
P	5.78	H	12.9	G 0.15	U 4

Residuals in seconds of arc

1984 04 19	046	0.1+	0.6+	1999 12 07	704	0.2+	0.2-	1999 12 31	699	0.2+	0.5+
1984 04 19	046	0.2-	0.9-	1999 12 07	704	0.0	0.2-	1999 12 31	699	0.0	1.2+
1984 04 25	046	(4.0-	3.9-)	1999 12 07	704	0.4+	0.3-	1999 12 31	699	0.7+	0.5+
1984 04 25	046	(3.8-	1.1+)	1999 12 07	704	0.1+	0.1-	2000 01 05	704	(0.3+	2.1-)
1999 11 04	704	0.1-	0.3-	1999 12 07	704	0.3+	0.3-	2000 01 05	704	0.2-	1.2-
1999 11 04	704	0.6-	0.6-	1999 12 08	704	0.1+	0.0	2000 01 05	704	0.6-	0.2-
1999 11 04	704	0.6-	0.3-	1999 12 08	704	0.7+	0.1+	2000 01 05	704	0.7-	0.4-
1999 11 04	704	0.4-	1.0-	1999 12 08	704	0.2+	0.3-	2000 01 05	704	1.0-	0.3-
1999 11 04	704	0.2-	0.6-	1999 12 08	704	0.2-	0.2+	2000 01 06	704	0.5-	0.5-
1999 12 01	106	1.6-	0.6-	1999 12 08	704	0.6+	0.8-	2000 01 06	704	0.8-	0.7-
1999 12 01	106	0.2-	0.8-	1999 12 13	699	0.2+	0.5+	2000 01 06	704	0.5-	0.5-
1999 12 01	106	0.8-	1.2-	1999 12 13	699	0.4+	1.3+	2000 01 06	704	0.7-	0.7-
1999 12 03	699	1.5+	0.7+	1999 12 13	699	0.8-	0.6+	2000 01 06	704	0.2+	0.6+
1999 12 03	699	0.6+	0.5+	1999 12 14	704	1.7-	1.1+	2000 02 07	703	1.1-	0.3+
1999 12 03	699	0.8+	0.4+	1999 12 14	704	0.7+	0.8+	2000 02 07	703	0.4-	1.3+
1999 12 06	704	0.8+	0.8+	1999 12 14	704	0.2+	0.1+	2000 02 07	703	0.5+	0.5+
1999 12 06	704	1.0+	0.3-	1999 12 14	704	1.1+	1.1+	2000 02 07	703	0.4+	0.9+
1999 12 06	704	0.4+	0.6-	1999 12 14	704	0.6-	0.9+	2000 02 09	049	0.3+	1.5-
1999 12 06	106	0.2-	0.1+	1999 12 30	699	0.5+	0.6+	2000 02 09	049	0.1+	1.1-
1999 12 06	106	0.4+	0.3-	1999 12 30	699	0.4+	0.5+	2000 02 09	049	0.2+	1.2-
1999 12 06	106	0.1-	0.4+	1999 12 30	699	0.1+	0.0				

1999 XK₃₀ = 1987 BT

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Spahr		
<i>M</i>	44.98308	(2000.0)	P	Q	
<i>n</i>	0.21877184	ω	285.47728	+0.70874970	-0.69904839
<i>a</i>	2.7277743	Ω	118.98391	+0.68168677	+0.64401469
<i>e</i>	0.0606741	<i>i</i>	6.22785	+0.18159572	+0.31076749
<i>P</i>	4.51	<i>H</i>	14.5	<i>G</i>	0.15
				<i>U</i>	6

Residuals in seconds of arc

1987 01 26	033	0.6-	0.8+	1999 12 07	704	0.1-	0.6+	1999 12 08	704	0.5-	0.3-
1987 01 27	033	0.1-	0.1-	1999 12 07	704	0.0	0.7+	1999 12 14	704	0.1+	1.5-
1987 01 28	033	0.7+	0.7-	1999 12 07	704	0.2+	0.4+	1999 12 14	704	1.0-	0.2-
1999 12 06	704	0.2-	0.9+	1999 12 07	704	0.2+	0.0	1999 12 14	704	0.7+	0.7+
1999 12 06	704	0.4+	0.2+	1999 12 08	704	0.2-	0.4+	1999 12 14	704	1.8-	0.6+
1999 12 06	704	0.7+	0.4+	1999 12 08	704	0.0	0.1+	1999 12 14	704	0.7-	0.1+
1999 12 06	704	0.9+	1.6-	1999 12 08	704	0.6+	0.6-				
1999 12 07	704	0.3+	0.3+	1999 12 08	704	0.4+	1.0-				

1999 XB₃₂ = 1998 RS₂₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Spahr		
<i>M</i>	55.57823	(2000.0)	P	Q	
<i>n</i>	0.23889746	ω	183.02009	+0.32464149	-0.94467539
<i>a</i>	2.5723399	Ω	248.03984	+0.86884417	+0.31743002
<i>e</i>	0.1303874	<i>i</i>	2.89646	+0.37378831	+0.08262325
<i>P</i>	4.13	<i>H</i>	14.7	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 08 17	704	0.1-	0.8+	1998 09 18	704	0.5+	0.7-	2000 01 07	704	0.1+	0.7+
1998 08 17	704	0.3+	0.5+	1998 09 18	704	0.6+	0.8+	2000 01 07	704	0.9-	0.5-
1998 08 17	704	1.6+	0.2+	1999 12 06	704	1.3+	0.5-	2000 02 02	704	0.6+	1.0+
1998 08 17	704	1.0-	0.0	1999 12 06	704	1.0-	0.4+	2000 02 02	704	0.1-	0.0
1998 08 17	704	(3.7-	3.3-)	1999 12 06	704	0.7-	0.4-	2000 02 02	704	0.2+	0.4+
1998 09 14	704	0.3-	0.9+	1999 12 06	704	1.0-	1.3-	2000 02 02	704	0.2+	0.1+
1998 09 14	704	0.7+	0.5-	1999 12 07	704	1.2-	0.2-	2000 02 02	704	0.0	0.0
1998 09 14	704	0.1-	0.4-	1999 12 07	704	0.2+	0.7+	2000 02 04	704	0.9+	1.0+
1998 09 14	704	1.3-	1.4+	1999 12 07	704	0.8+	0.6-	2000 02 04	704	0.5+	0.3+
1998 09 18	704	0.9-	0.4-	2000 01 07	704	0.1-	0.4-	2000 02 04	704	0.5+	0.3+
1998 09 18	704	0.4-	0.6-	2000 01 07	704	0.3-	0.1-				
1998 09 18	704	0.0	0.7-	2000 01 07	704	0.1-	0.0				

1999 XU₃₂ = 1994 NO₄ = 1994 NC₁₃ = 1997 JW₃

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Spahr		
<i>M</i>	55.21168	(2000.0)	P	Q	
<i>n</i>	0.26034783	ω	182.74972	+0.42770307	-0.90339859
<i>a</i>	2.4290329	Ω	241.93002	+0.82999176	+0.40593911
<i>e</i>	0.1705979	<i>i</i>	1.99237	+0.35802760	+0.13814643
<i>P</i>	3.79	<i>H</i>	15.1	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1994 07 11	809	0.8-	0.4+	1999 12 06	704	0.3+	0.0	2000 01 05	704	0.0	0.0
1994 07 11	809	0.1-	1.9+	1999 12 06	704	0.4+	0.3+	2000 01 05	704	0.6+	0.1+
1994 07 11	809	0.1-	1.0+	1999 12 06	704	0.0	0.0	2000 01 07	704	0.1-	0.6-
1994 07 12	809	0.4+	1.1+	1999 12 06	704	0.6-	0.0	2000 01 07	704	0.3+	1.5+
1994 07 12	809	0.7-	2.0+	1999 12 07	704	0.4-	1.1-	2000 01 07	704	(0.3-	2.1+)
1994 07 12	809	0.1+	0.1+	1999 12 07	704	0.0	0.2+	2000 02 02	704	0.2+	0.2-
1997 05 01	704	0.1-	0.0	1999 12 07	704	0.2-	1.3-	2000 02 02	704	0.7+	0.6+
1997 05 01	704	0.4-	0.6-	1999 12 07	704	0.6-	0.8+	2000 02 02	704	0.9+	0.2-
1997 05 01	704	0.9-	0.4-	1999 12 07	704	0.6+	0.7-	2000 02 02	704	0.1+	0.2+
1997 05 01	704	1.0-	0.3-	1999 12 31	699	0.1+	1.3+	2000 02 02	704	0.9-	0.2+
1997 05 05	704	1.6+	0.8-	1999 12 31	699	0.7+	0.7+	2000 02 03	704	0.1+	0.7+
1997 05 05	704	0.7+	0.1+	1999 12 31	699	0.7+	0.3+	2000 02 03	704	0.5-	0.8+
1997 05 05	704	0.2-	0.2+	2000 01 05	704	(2.4-	0.7-)	2000 02 03	704	0.3-	0.1+
1997 05 05	704	(2.6-	1.1-)	2000 01 05	704	0.8-	1.1+	2000 02 03	704	0.7-	0.2+
1999 12 06	704	0.5+	0.3+	2000 01 05	704	1.0+	0.1+	2000 02 03	704	0.2-	0.3-

1999 XZ₃₂ = 1993 OF₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Nakano		
<i>M</i>	343.02695	(2000.0)	P	Q	
<i>n</i>	0.23499583	ω	223.87585	-0.90282246	-0.39762469
<i>a</i>	2.6007341	Ω	292.03671	+0.42690016	-0.78304364
<i>e</i>	0.0368735	<i>i</i>	10.17353	+0.05165138	-0.47826485
<i>P</i>	4.19	<i>H</i>	14.1	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1993 07 12	809	(5.2+	1.6+)	1999 12 06	704	0.3-	0.3+	2000 01 07	704	0.0	0.0
1993 07 12	809	(4.0+	2.6+)	1999 12 06	704	1.4+	0.4+	2000 01 07	704	0.0	0.3+
1993 07 12	809	(4.4+	1.4+)	1999 12 06	704	1.7+	0.7-	2000 01 07	704	0.1+	0.4-
1993 07 13	809	0.5+	0.2+	1999 12 07	704	0.0	0.7+	2000 02 02	704	0.3+	0.2-
1993 07 13	809	0.9+	0.4+	1999 12 07	704	0.5-	0.1+	2000 02 02	704	1.0-	0.3-
1993 07 13	809	0.2-	0.1+	1999 12 07	704	0.5-	0.2-	2000 02 02	704	0.4-	0.2+
1993 07 19	809	(7.0+	0.7+)	1999 12 07	704	0.1-	0.2-	2000 02 02	704	0.4-	0.4+
1993 07 19	809	(5.7+	0.5+)	2000 01 05	704	0.2+	0.1+	2000 02 02	704	0.6-	0.2-
1993 07 19	809	(6.1+	0.7+)	2000 01 05	704	0.3-	0.4-	2000 02 04	704	0.1-	0.1+
1993 07 20	809	0.6-	0.0	2000 01 05	704	1.9+	0.9+	2000 02 04	704	0.2-	0.3-
1993 07 20	809	0.8-	0.6+	2000 01 05	704	0.2-	0.1-	2000 02 04	704	0.1-	0.3+
1993 07 20	809	1.2-	0.5-	2000 01 05	704	0.5-	0.2+	2000 02 04	704	0.0	0.3+
1993 07 24	809	0.9+	0.9+	2000 01 07	704	0.9+	0.3-				
1999 12 06	704	0.1+	0.9+	2000 01 07	704	0.1-	0.1-				

1999 XU₃₃ = 1987 DC₂ = 1994 TW₁₄ = 1998 QU₂₁

Id. G. V. Williams, A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Williams		
<i>M</i>	61.18547	(2000.0)	P	Q	
<i>n</i>	0.22723421	ω	132.62193	+0.52284618	-0.85232330
<i>a</i>	2.6596240	Ω	285.85016	+0.77798430	+0.48350411
<i>e</i>	0.1977269	<i>i</i>	0.79213	+0.34838526	+0.19942111
<i>P</i>	4.34	<i>H</i>	14.3	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1987 02 23	010	(3.4+	3.7-)	1999 11 16	704	0.0	1.1-	2000 01 07	704	0.1+	1.3+
1987 02 23	010	0.8-	1.1-	1999 11 16	704	0.3-	0.5+	2000 01 07	704	0.4-	0.4-
1987 02 23	010	0.1+	1.4-	1999 11 16	704	0.1-	0.1+	2000 01 07	704	0.5+	0.2-
1994 10 04	114	0.9-	0.3-	1999 12 06	704	0.5-	0.5-	2000 01 26	120	1.2+	0.1-
1994 10 07	114	2.0+	0.0	1999 12 06	704	0.6-	0.3-	2000 01 26	120	1.0-	0.2+

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1994 10 08	114	0.5−	1.0−	1999 12 06	704	0.1+	0.1−	2000 01 26	120	0.6−	0.6+
1998 08 17	704	0.6+	0.1−	1999 12 06	704	0.0	0.3+	2000 01 30	704	0.4+	0.2+
1998 08 17	704	0.3−	0.8−	1999 12 06	704	0.2−	0.9+	2000 01 30	704	0.6+	0.5−
1998 08 17	704	0.5+	0.3−	1999 12 07	704	0.0	0.2−	2000 01 30	703	0.4+	0.3+
1998 08 17	704	0.8−	0.3+	1999 12 07	704	0.2−	0.2−	2000 01 30	704	1.7+	0.1+
1998 08 17	704	0.7+	0.3+	1999 12 07	704	0.0	0.2+	2000 01 30	703	0.4−	0.5+
1998 08 23	699	0.3+	0.8−	1999 12 07	704	0.1+	0.4−	2000 01 30	703	0.1+	0.7+
1998 08 23	704	0.2+	0.3−	1999 12 07	704	0.1−	0.3−	2000 01 30	703	0.1−	0.3+
1998 08 23	704	0.5−	1.0+	2000 01 04	704	0.2+	0.1+	2000 01 30	120	0.1−	0.6+
1998 08 23	699	0.6+	0.5−	2000 01 04	704	0.4+	0.2+	2000 01 30	120	0.5−	0.2−
1998 08 23	704	0.7−	0.1+	2000 01 04	704	0.4+	0.2−	2000 02 03	704	0.2−	0.6+
1998 08 23	704	0.3+	0.4−	2000 01 04	704	0.3−	0.5+	2000 02 03	704	0.2−	0.1+
1998 08 23	699	0.5+	0.1+	2000 01 04	704	1.7+	0.1+	2000 02 03	704	0.1−	0.2+
1998 08 23	704	0.8+	0.1−	2000 01 06	120	0.1−	0.1−	2000 02 03	704	0.1+	0.4+
1998 09 21	699	1.2−	1.2+	2000 01 06	120	0.1−	0.3−	2000 02 03	704	0.1−	0.5+
1998 09 21	699	1.4−	1.3+	2000 01 07	120	0.0	0.0	2000 02 07	691	0.5−	0.2−
1998 09 21	699	0.6−	1.1+	2000 01 07	120	0.5+	0.2+	2000 02 07	691	0.4−	0.2−
1999 11 16	704	0.7+	0.1+	2000 01 07	704	0.7+	0.0	2000 02 07	691	0.4−	0.2−
1999 11 16	704	0.0	0.0	2000 01 07	704	1.1−	0.4−				

1999 XX₃₃ = 1997 LN₁₃

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<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.27712226	<i>ω</i>	5.24463	−0.48053298	−0.87575040		
<i>a</i>	2.3299957	<i>Ω</i>	113.48259	+0.80276130	−0.46053547		
<i>e</i>	0.1856719	<i>i</i>	2.89734	+0.35307556	−0.14480442		
<i>P</i>	3.56	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 05 04	809	0.1−	0.6+	1999 12 07	704	0.2+	0.3+	2000 01 30	704	0.2+	0.2−
1997 05 04	809	0.6+	0.6−	1999 12 07	704	0.5+	0.4+	2000 01 30	704	0.7−	0.2−
1997 05 04	809	(0.1−	2.2−)	1999 12 07	704	0.1−	0.2+	2000 02 03	704	0.1−	0.2+
1997 06 07	809	(4.9−	2.4+)	1999 12 07	704	0.2+	0.3+	2000 02 03	704	0.1+	0.2+
1997 06 07	809	(3.5−	2.6+)	1999 12 07	704	0.1+	0.3−	2000 02 03	704	0.1+	0.2−
1997 06 07	809	(3.7−	2.3+)	2000 01 07	704	0.1+	0.8−	2000 02 03	704	0.2+	0.4−
1997 06 08	809	0.3−	1.0+	2000 01 07	704	0.7+	0.6+	2000 02 03	704	0.0	0.6−
1997 06 08	809	(0.6−	2.6+)	2000 01 07	704	1.3+	0.2+	2000 02 11	704	0.3−	0.3−
1997 06 08	809	(2.3−	2.5+)	2000 01 07	704	0.5+	1.3+	2000 02 11	704	0.1−	0.1+
1999 12 06	704	0.3+	0.5−	2000 01 07	704	1.2+	1.1+	2000 02 11	704	0.2−	0.0
1999 12 06	704	0.5+	0.9−	2000 01 30	704	0.7−	0.2−	2000 02 11	704	0.3+	0.5−
1999 12 06	704	0.8−	0.1−	2000 01 30	704	0.4−	0.6−	2000 02 11	704	0.2−	0.3+
1999 12 06	704	2.0−	1.7+	2000 01 30	704	0.8−	0.4−				

1999 XD₃₄ = 1990 RE₁₀ = 1998 VD₃₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26346796	<i>ω</i>	298.04842	−0.10823065	+0.99248277		
<i>a</i>	2.4098177	<i>Ω</i>	325.59095	−0.87291882	−0.12237816		
<i>e</i>	0.1148182	<i>i</i>	5.80260	−0.47570880	−0.00124206		
<i>P</i>	3.74	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1990 09 14	675	(0.7+	4.6−)	1999 12 06	704	0.7−	0.4−	2000 01 30	703	0.1−	0.4+
1990 09 14	675	0.5−	0.5−	1999 12 06	704	0.2+	0.1+	2000 02 03	704	0.0	0.4+
1990 09 15	675	0.7+	0.2−	1999 12 06	704	0.9−	0.8−	2000 02 03	704	0.1−	0.0
1990 09 15	675	0.4+	0.6−	1999 12 06	704	0.8−	0.3+	2000 02 03	704	0.0	0.0
1998 11 11	704	0.1−	0.4+	1999 12 06	704	0.2−	0.2+	2000 02 03	704	0.1+	0.3+
1998 11 11	704	0.2−	0.2+	1999 12 07	704	0.3−	0.1+	2000 02 03	704	0.1−	0.3+
1998 11 11	704	0.4−	0.9+	1999 12 07	704	0.7−	0.1−	2000 02 03	120	0.1+	0.4+
1998 11 11	704	1.1+	0.4−	1999 12 07	704	0.4−	0.5−	2000 02 03	120	0.0	0.6−
1998 11 11	704	0.9+	1.0+	1999 12 07	704	0.7−	0.1−	2000 02 10	704	0.1−	0.1−
1998 11 14	704	0.8−	0.1+	1999 12 07	704	0.5−	0.5−	2000 02 10	704	0.0	0.6−
1998 11 14	704	0.4−	0.1+	2000 01 04	704	0.2+	1.2+	2000 02 10	704	0.3+	1.2−
1998 11 14	704	(0.9−	2.6−)	2000 01 04	704	0.3+	0.2−	2000 02 10	704	0.1+	0.6−
1998 11 16	704	1.0−	0.4+	2000 01 04	704	0.2+	1.3+	2000 02 10	691	0.1−	0.2−
1998 11 16	704	0.4+	1.5−	2000 01 04	704	0.1+	0.2+	2000 02 10	704	0.1−	0.4−

1998 11 16	704	0.5−	0.9+	2000 01 27	376	0.1+	0.5−	2000 02 10	691	0.2−	0.3−
1998 11 16	704	0.1+	0.5+	2000 01 27	376	0.2−	0.6+	2000 02 10	691	0.1−	0.3−
1998 11 16	704	0.7+	1.9−	2000 01 27	376	0.4−	0.3+	2000 02 11	704	0.2−	0.0
1999 11 16	704	(2.2+	0.2−)	2000 01 28	376	0.1+	0.2−	2000 02 11	704	0.2−	0.1+
1999 11 16	704	0.6+	0.3−	2000 01 28	376	0.6+	0.5+	2000 02 11	704	0.1+	0.3−
1999 11 16	704	0.2+	0.6−	2000 01 30	703	0.1+	0.1+	2000 02 11	704	0.4+	0.4−
1999 11 16	704	0.7+	0.3+	2000 01 30	703	0.2+	0.4+				
1999 11 16	704	0.9+	0.0	2000 01 30	703	0.4+	0.0				

1999 XJ₃₆ = 1999 XO₆₅ = 1997 JW₁₁ = 1998 QM₁₁Id. G. V. Williams (*MPC* 37884), M. E. Sansaturio (d)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.19557520	<i>ω</i>	187.50047	+0.99566704	+0.09265984		
<i>a</i>	2.9394101	<i>Ω</i>	167.17501	−0.08338072	+0.92688056		
<i>e</i>	0.1183683	<i>i</i>	2.02119	−0.04116785	+0.36373971		
<i>P</i>	5.04	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 04 11	704	(1.6−	3.0−)	1998 08 23	704	1.7−	0.1+	1999 12 07	704	0.3−	0.4+
1997 04 11	704	0.2−	0.6+	1998 08 23	704	0.2+	0.3−	1999 12 07	120	1.7+	0.0
1997 05 03	809	(1.5+	2.3+)	1998 08 23	704	0.4+	0.2−	1999 12 07	120	(2.6+	0.9+)
1997 05 03	809	1.3+	1.4+	1999 11 03	704	0.2−	0.5+	1999 12 08	704	0.4−	0.4+
1997 05 03	809	0.0	1.2+	1999 11 03	704	0.0	0.4+	1999 12 08	704	0.8−	0.4+
1997 05 04	809	1.1+	1.1+	1999 11 03	704	0.4+	0.2+	1999 12 08	704	0.3−	0.6+
1997 05 04	809	0.4−	2.0+	1999 11 15	704	0.1+	0.5+	1999 12 08	704	0.1+	0.1−
1997 05 04	809	(0.6+	3.0+)	1999 11 15	704	0.4−	0.2+	1999 12 08	704	0.3−	0.5+
1998 08 17	704	0.0	0.3−	1999 11 15	704	0.2−	1.4+	1999 12 17	120	1.1−	0.2+
1998 08 17	704	0.1+	0.3−	1999 12 06	120	1.0+	0.7+	1999 12 17	120	1.4+	0.6−
1998 08 17	704	0.7+	0.3+	1999 12 06	120	1.0+	0.8+	1999 12 30	120	0.2+	0.2+
1998 08 17	704	0.2+	1.0+	1999 12 07	704	0.6+	0.0	1999 12 30	120	1.6+	0.2−
1998 08 17	704	(0.3+	2.2+)	1999 12 07	704	0.7−	0.0	2000 01 05	704	1.2−	0.2+
1998 08 23	704	0.1+	1.2+	1999 12 07	704	0.9−	0.3−	2000 01 05	704	1.0−	0.1−
1998 08 23	704	0.8−	1.3+	1999 12 07	704	0.0	0.2+	2000 01 05	704	1.0−	0.2+

1999 XN₃₇ = 1981 UK₂₈

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.27658518	<i>ω</i>	21.69196	+0.86705914	−0.49790732		
<i>a</i>	2.3330110	<i>Ω</i>	8.23354	+0.43758495	+0.74457211		
<i>e</i>	0.1482659	<i>i</i>	6.90882	+0.23817612	+0.44463544		
<i>P</i>	3.56	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1981 10 24	675	0.1+	0.6+	1999 12 12	704	0.4−	0.5−	2000 01 02	704	(2.1−	0.3−)
1981 10 25	675	0.1+	0.6−	1999 12 12	704	0.3−	0.1−	2000 01 10	174	0.1−	0.5+
1981 10 26	675	0.1−	0.0	1999 12 12	704	1.5+	0.1+	2000 01 10	174	0.3+	0.7+
1999 12 07	744	0.6−	0.6−	1999 12 12	704	0.9−	0.2−	2000 01 11	740	0.9−	0.0
1999 12 07	703	0.6−	0.6+	1999 12 12	704	1.1−	0.5+	2000 01 11	740	0.7+	0.3−
1999 12 07	744	0.5−	0.3−	1999 12 15	704	0.4−	0.2−	2000 01 11	740	0.3−	0.3+
1999 12 07	703	0.2−	0.5+	1999 12 15	704	0.3+	0.4−	2000 01 11	732	0.1−	0.4+</

1999 XU₄₂ = 1998 LJ₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.27302662	ω	139.00915	+0.87181176	−0.48751959		
<i>a</i>	2.3532391	Ω	250.22830	+0.43517996	+0.81549498		
<i>e</i>	0.1270399	<i>i</i>	2.90138	+0.22486141	+0.31191760		
<i>P</i>	3.61	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 06 01	809	0.7+	1.7+	1999 11 12	699	0.5−	0.4+	1999 12 08	704	0.2−	0.5−
1998 06 01	809	0.4−	1.3+	1999 11 14	704	0.0	0.0	1999 12 08	704	0.2−	0.1+
1998 06 01	809	0.5−	0.7+	1999 11 14	704	0.2+	0.2−	1999 12 08	704	0.3−	0.1−
1998 06 02	809	0.3+	0.8+	1999 11 14	704	0.1+	0.2−	1999 12 08	704	0.2−	0.9+
1998 06 02	809	0.2+	0.4−	1999 11 14	704	0.1+	0.4−	2000 01 06	704	0.4−	0.1−
1998 06 02	809	0.1+	0.2+	1999 11 14	704	0.2+	0.4−	2000 01 06	704	0.8−	0.6+
1999 11 03	704	0.0	0.3−	1999 11 16	704	0.2+	0.3−	2000 01 06	704	0.0	1.8+
1999 11 03	704	0.2+	0.2−	1999 11 16	704	0.2+	0.1+	2000 01 06	704	0.1+	0.6+
1999 11 03	704	0.1+	0.9−	1999 11 16	704	0.3+	0.1−	2000 01 06	704	0.1+	1.2+
1999 11 03	704	0.5+	0.1+	1999 11 16	704	0.3−	0.1−	2000 01 30	704	0.8+	0.1+
1999 11 03	704	0.6+	0.5−	1999 11 16	704	0.4−	0.2−	2000 01 30	704	0.2+	0.3−
1999 11 04	703	0.7−	0.2−	1999 12 07	704	0.4−	0.1−	2000 01 30	704	0.0	0.3+
1999 11 04	703	0.4+	0.4+	1999 12 07	704	0.3−	0.1+	2000 01 30	704	0.7−	0.2−
1999 11 04	703	0.6+	0.0	1999 12 07	704	0.4+	0.9+	2000 02 03	704	0.2+	0.7+
1999 11 04	703	0.4−	0.6+	1999 12 07	704	0.1−	0.1+	2000 02 03	704	0.3+	0.7−
1999 11 12	699	0.3−	0.4+	1999 12 07	704	0.1−	0.4+	2000 02 03	704	0.0	0.2−
1999 11 12	699	0.1−	0.5+	1999 12 08	704	0.4−	0.3+				

1999 XV₄₆ = 1999 XA₁₁₉ = 1980 FL₁ = 1988 DS₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.23517633	ω	168.79207	−0.96993450	+0.24296538		
<i>a</i>	2.5994032	Ω	25.28277	−0.22573522	−0.87674890		
<i>e</i>	0.0853811	<i>i</i>	1.87320	−0.09094326	−0.41506529		
<i>P</i>	4.19	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1980 03 16	809	0.1+	0.1−	1999 11 03	704	0.1−	0.2−	1999 11 16	704	0.4+	0.1−
1980 03 16	809	0.2+	0.6−	1999 11 03	704	0.1+	0.0	1999 11 16	704	0.1−	0.1−
1980 03 16	809	0.3−	0.6+	1999 11 03	704	0.5−	0.3−	1999 11 16	704	1.1+	0.1+
1980 03 16	809	0.1+	1.0+	1999 11 03	704	1.1+	1.0−	1999 12 05	703	0.7+	0.2+
1980 03 17	809	0.3+	0.6−	1999 11 09	703	0.5−	0.2+	1999 12 05	703	0.1−	0.1+
1980 03 17	809	0.2−	1.0−	1999 11 09	703	(2.2− 1.1−)		1999 12 05	703	1.6+	1.6+
1980 03 17	809	0.5−	0.9+	1999 11 09	703	0.5−	0.6−	1999 12 05	703	0.2+	0.2+
1980 03 17	809	0.1+	0.1−	1999 11 09	703	(2.7− 1.5+)		1999 12 07	704	0.3+	1.3−
1988 02 21	809	0.6+	1.8−	1999 11 14	704	0.2−	0.3−	1999 12 07	704	0.0	1.1−
1988 02 21	809	0.0	1.0−	1999 11 14	704	0.1−	0.4+	1999 12 07	704	0.4−	0.6−
1988 02 21	809	0.3−	2.1−	1999 11 14	704	0.2−	1.0+	1999 12 07	704	0.5−	0.5−
1988 02 23	809	0.2+	0.2−	1999 11 14	704	0.4−	0.9+	1999 12 08	704	0.4+	0.6−
1988 02 23	809	1.0−	0.3−	1999 11 14	704	0.9−	0.5+	1999 12 08	704	1.0−	0.1+
1988 02 23	809	0.3+	1.7+	1999 11 15	704	0.1+	0.3−	1999 12 08	704	0.2−	1.2+
1998 08 17	704	0.4+	0.6−	1999 11 15	704	0.4+	0.1+	1999 12 13	703	0.7−	1.4+
1998 08 17	704	0.9+	1.4−	1999 11 15	704	0.1+	0.1+	1999 12 13	703	0.9−	0.3−
1998 08 17	704	0.1+	0.9−	1999 11 15	704	0.2+	0.1+	1999 12 13	703	0.6−	0.5+
1998 08 17	704	(3.9− 0.4−)		1999 11 15	704	0.4+	0.1−	1999 12 13	703	0.1+	0.5−

1999 XW₄₆ = 1996 FF₁₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.17828094	ω	133.07128	−0.89593671	−0.44404077		
<i>a</i>	3.1265552	Ω	20.57452	+0.39771737	−0.81317844		
<i>e</i>	0.1108449	<i>i</i>	1.82466	+0.19778348	−0.37625606		
<i>P</i>	5.53	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1996 03 22	809	0.5+	0.5+	1999 11 14	704	0.1−	1.0+	1999 12 07	704	0.0	1.1−
1996 03 22	809	1.2−	0.4+	1999 11 14	704	0.0	1.4+	1999 12 07	704	0.5+	1.8−
1996 03 22	809	0.2−	0.4−	1999 11 14	704	0.0	1.0+	1999 12 07	704	0.2+	0.2−
1996 03 24	809	1.5+	0.3+	1999 11 15	704	0.4+	0.4+	1999 12 07	704	0.5+	1.1−
1996 03 24	809	0.3−	0.0	1999 11 15	704	0.6+	0.5+	1999 12 08	704	0.2+	1.1−
1996 03 24	809	0.3−	0.7−	1999 11 15	704	0.2−	0.6+	1999 12 08	704	0.6+	1.2−
1996 03 26	809	(3.8− 0.9−)		1999 11 15	704	0.1+	0.7+	1999 12 08	704	0.3+	1.5−
1996 03 26	809	(4.3− 1.2−)		1999 11 15	704	1.0+	0.6+	1999 12 08	704	0.2+	1.1−
1996 03 26	809	(6.0− 0.3−)		1999 11 16	704	0.8−	0.5+	1999 12 08	704	0.0	1.4−
1996 03 26	809	(1.0+ 3.2+)		1999 11 16	704	0.2+	1.1+	1999 12 13	703	1.5−	0.7+
1996 03 26	809	(0.2− 2.8+)		1999 11 16	704	0.7+	0.0	1999 12 13	703	0.1+	0.6+
1996 03 26	809	(0.1+ 2.8+)		1999 11 16	704	0.1−	0.2+	1999 12 13	703	0.0	0.2−
1999 11 03	704	0.1−	0.4−	1999 12 02	699	0.1+	0.1−	1999 12 13	703	0.0	0.2−
1999 11 03	704	0.0	0.5−	1999 12 02	699	0.1+	0.3−	2000 01 30	704	0.6−	0.1+
1999 11 03	704	0.5−	0.1−	1999 12 02	699	0.3+	1.2+	2000 01 30	704	0.2−	0.4+
1999 11 03	704	0.8−	0.3−	1999 12 03	691	0.0	0.3−	2000 01 30	704	0.2+	1.5+
1999 11 03	704	0.9−	0.4−	1999 12 03	691	0.0	0.5−	2000 01 30	704	0.2−	1.6+
1999 11 14	704	0.0	0.9+	1999 12 03	691	0.2−	0.4−				
1999 11 14	704	0.2−	1.1+	1999 12 07	704	0.3+	1.2−				

1999 XH₄₇ = 1999 VG₃₀Id. G. V. Williams (d, *MPC* 38194)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	59.50783	ω	316.31520	+0.97144446	−0.20280251		
<i>a</i>	3.2433450	Ω	55.77621	+0.23708325	+0.85012103		
<i>e</i>	0.0586070	<i>i</i>	8.56571	−0.00933822	+0.48596849		
<i>P</i>	5.84	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 09 17	699	0.2−	0.5−	1999 11 12	704	0.3−	0.6−	1999 12 07	704	0.6+	0.0
1998 09 17	699	0.0	0.0	1999 11 16	704	0.3+	0.8−	1999 12 07	704	0.2−	0.8−
1998 09 17	699	0.2+	0.7+	1999 11 16	704	0.6−	0.5+	1999 12 08	704	1.0+	0.4−
1999 11 03	704	1.0+	0.3+	1999 11 16	704	0.6−	0.4−	1999 12 08	704	1.0+	0.4−
1999 11 03	704	0.1+	0.0	1999 11 16	704	0.2−	0.3−	1999 12 08	704	0.3−	0.6+
1999 11 03	704	0.1−	0.5+	1999 11 16	704	0.6−	0.4−	1999 12 08	704	1.8+	1.0+
1999 11 03	704	0.4+	0.4+	1999 11 17	699	0.1−	0.6+	1999 12 13	703	0.7−	0.9+
1999 11 09	703	0.6−	0.1+	1999 11 17	699	0.3+	0.9+	1999 12 13	703	0.7−	0.6+
1999 11 09	703	0.0	0.3+	1999 11 17	699	0.1+	0.7+	1999 12 13	703	0.1−	0.7+
1999 11 09	703	0.3−	1.2+	1999 12 03	691	0.0	0.1−	1999 12 13	703	0.5−	0.1+
1999 11 09	703	0.3−	0.1−	1999 12 03	691	0.0	0.2−	1999 12 14	691	0.1+	0.3−
1999 11 09	704	0.2+	0.5−	1999 12 03	691	0.2+	0.7−	1999 12 14	691	0.1−	0.3−
1999 11 09	704	0.3−	0.3−	1999 12 05	703	(3.2+ 0.3−)		1999 12 14	691	0.1−	0.4−
1999 11 09	704	0.1−	0.1−	1999 12 05	703	0.0	0.8+	2000 01 30	704	1.0−	0.3+
1999 11 09	704	0.0	0.5−	1999 12 05	703	0.1−	0.7+	2000 01 30	704	0.3+	0.2−
1999 11 09	704	0.2+	0.1−	1999 12 05	703	0.2−	0.3+	2000 01 30	704	0.5−	0.0
1999 11 12	704	0.6+	0.5−	1999 12 07	704	0.2+	0.3−	2000 01 30	704	0.0	0.2+
1999 11 12	704	0.6−	0.5−	1999 12 07	704	0.2+	0.6−	2000 01 30	704	0.3+	0.4+
1999 11 12	704	0.3−	0.6−	1999 12 07	704	0.1+	1.2−				

1999 XZ₄₉ = 1999 VD₂₇ = 1991 KE₃ = 1991 LT₂ = 1998 HD₇₆Id. G. V. Williams (d, *MPC* 38194; d, unpublished), M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	116.29837		(2000.0)	P	Q
n	0.27339846	ω	236.25199	+0.59645516	+0.80081190
a	2.3511049	Ω	70.45721	-0.71606873	+0.56142891
e	0.2277982	i	3.29928	-0.36261110	+0.20856145
P	3.61	H	15.0	G 0.15	U 1

2000 FEB. 22

M.P.C. 38587

1991 06 06	809	0.5+	1.9+	1998 05 16	704	1.7-	1.0-	1999 11 17	704	0.4+	0.3-
1991 06 08	809	(1.7-	5.6+)	1998 05 25	699	0.4-	1.2+	1999 11 17	704	0.4-	0.6-
1991 06 08	809	(1.1-	5.3+)	1998 05 25	699	1.6+	1.0-	1999 11 17	704	0.0	0.1+
1991 06 08	809	(0.5-	4.5+)	1998 05 25	699	0.1+	0.3+	1999 11 17	704	0.1-	0.2+
1997 01 15	566	0.1+	0.0	1999 11 03	704	0.5+	0.4-	1999 12 07	704	0.3-	0.3-
1997 01 15	566	0.1-	0.1-	1999 11 03	704	0.2-	0.5+	1999 12 07	704	0.1-	0.4-
1997 01 15	566	0.0	0.3-	1999 11 03	704	0.4+	1.5+	1999 12 07	704	1.0-	0.0
1998 04 21	704	0.1+	0.3-	1999 11 03	704	0.4+	1.0+	1999 12 07	704	0.3-	0.8-
1998 04 21	704	0.3+	0.0	1999 11 09	704	0.6+	0.2+	1999 12 07	704	0.4-	0.5+
1998 04 21	704	0.8-	0.1-	1999 11 09	704	0.5+	0.1+	1999 12 08	691	0.1+	0.6+
1998 04 21	704	0.7-	1.1-	1999 11 09	704	0.4+	0.3+	1999 12 08	691	0.3-	1.3+
1998 04 22	704	0.1-	0.7-	1999 11 09	704	0.3+	0.9+	1999 12 08	704	0.4-	0.2+
1998 04 22	704	0.6-	0.3-	1999 11 09	704	0.4+	0.2-	1999 12 08	704	0.2+	0.1-
1998 04 22	704	0.1-	0.4-	1999 11 10	704	0.7+	0.2+	1999 12 08	691	0.4-	0.9+
1998 04 22	704	0.1-	0.1-	1999 11 10	704	0.3+	0.3-	1999 12 08	704	0.8-	0.5-
1998 05 01	704	0.3-	0.2-	1999 11 10	704	0.3+	0.3+	1999 12 08	704	0.6-	1.1-
1998 05 01	699	0.5+	0.7+	1999 11 10	704	0.1+	0.9-	1999 12 08	704	0.8-	1.1-
1998 05 01	704	0.4-	0.2+	1999 11 10	704	0.3+	0.2-	1999 12 13	691	0.1+	0.4+
1998 05 01	699	0.5+	0.2-	1999 11 10	691	0.1+	0.0	1999 12 13	691	0.1+	0.4+
1998 05 01	704	0.0	0.7+	1999 11 10	691	0.0	0.1-	1999 12 13	691	0.1+	0.4+
1998 05 01	699	0.6-	1.6+	1999 11 10	691	0.0	0.0				
1998 05 01	704	0.0	1.0+	1999 11 12	704	0.4-	0.3-				

1999 XR₅₀ = 1992 EM₃₃ = 1997 GG₃₆

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	329.73958		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.22125377	ω	270.57079	-0.45767926	-0.88882327
a	2.7073366	Ω	206.70418	+0.83465205	-0.42063766
e	0.0368897	i	2.91673	+0.30640765	-0.18181624
P	4.45	H	14.9	G 0.15	U 1

Residuals in seconds of arc

1992 03 03	809	1.3-	0.4-	1998 08 17	704	0.1-	0.0	1999 12 08	704	0.5-	0.0
1992 03 06	809	0.9+	0.6-	1998 08 17	704	1.1+	0.8+	1999 12 08	704	0.4-	0.3-
1997 04 06	704	1.2+	1.9+	1999 11 04	704	1.3-	1.5+	1999 12 12	691	0.2+	0.2+
1997 04 06	704	1.4+	0.2-	1999 11 04	704	0.2-	0.7+	1999 12 12	691	0.3+	0.1+
1997 04 11	704	0.8+	0.1+	1999 11 04	704	0.2+	0.4-	1999 12 12	691	0.2+	0.2+
1997 04 11	704	0.4+	0.3+	1999 12 07	704	0.7-	0.8+	1999 12 31	691	0.3+	0.3+
1997 05 04	809	0.4-	0.5+	1999 12 07	704	0.0	1.1+	1999 12 31	691	0.3+	0.3+
1997 05 04	809	1.4-	0.6+	1999 12 07	704	0.3-	0.2-	1999 12 31	691	0.2+	0.4+
1997 05 04	809	0.7-	1.6+	1999 12 07	704	0.4+	0.0	2000 01 05	691	0.3+	0.1-
1998 08 17	704	0.9-	1.4+	1999 12 08	704	0.1-	0.5-	2000 01 05	691	0.1+	0.2-
1998 08 17	704	0.4-	1.5-	1999 12 08	704	0.3+	0.8+	2000 01 05	691	0.2+	0.2-

1999 XP₅₁ = 1999 VX₃₀ = 1993 TD₄₃ = 1996 FN₂Id. G. V. Williams (d. *MPC* 38194; unpublished), M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	196.26757		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.18612877	ω	249.31329	-0.41446354	+0.91006541
a	3.0380416	Ω	356.20076	-0.82949905	-0.37820430
e	0.0813095	i	0.82806	-0.37436787	-0.16953600
P	5.30	H	13.3	G 0.15	U 4

Residuals in seconds of arc

1993 10 10	809	0.8+	0.0	1999 11 09	704	0.2-	0.2+	1999 12 07	704	0.1+	0.2-
1993 10 10	809	0.1-	0.9-	1999 11 09	704	0.3-	0.1+	1999 12 07	704	1.0+	0.1-
1993 10 10	809	1.1-	1.7-	1999 11 09	704	0.1-	0.8-	1999 12 07	704	0.1-	0.0
1993 10 22	809	1.8+	0.6-	1999 11 12	704	0.1-	0.4+	1999 12 07	704	0.5+	0.5-
1993 10 22	809	1.0+	1.2-	1999 11 12	704	0.4-	0.3+	1999 12 07	704	0.3+	0.4-
1993 10 22	809	0.3-	0.5-	1999 11 12	704	0.3+	0.6+	1999 12 08	704	0.5-	0.1-
1996 03 17	566	0.8-	0.5-	1999 11 12	704	0.5-	0.0	1999 12 08	704	0.4-	0.2-
1996 03 17	566	0.9-	0.1+	1999 11 12	704	0.1-	0.3+	1999 12 08	704	0.2+	0.2-
1996 03 17	566	1.0-	0.0	1999 11 16	704	0.5+	0.2+	1999 12 08	704	0.2-	0.3-
1996 03 23	566	0.8+	1.1-	1999 11 16	704	0.5+	0.8-	1999 12 08	704	0.2+	0.1+
1996 03 23	566	0.2+	1.1-	1999 11 16	704	0.9+	0.6+	1999 12 14	691	0.1-	0.5+

1996 03 23	566	0.3+	0.8-	1999 11 16	704	0.1+	0.9-	1999 12 14	691	0.3-	0.5+
1999 11 03	704	0.6+	0.9+	1999 11 16	704	0.4+	0.1-	1999 12 14	691	0.0	0.3+
1999 11 03	704	0.1-	0.7+	1999 12 04	703	0.5-	0.7+	2000 01 06	704	1.0+	0.4-
1999 11 03	704	0.9-	0.3+	1999 12 04	703	1.2-	0.3+	2000 01 06	704	0.0	0.0
1999 11 03	704	0.3+	0.7+	1999 12 05	703	0.8-	0.3-	2000 01 06	704	1.1-	0.5-
1999 11 03	704	0.6+	0.9+	1999 12 05	703	0.7+	0.3-	2000 01 06	704	0.6+	0.5-
1999 11 09	704	0.5+	0.2-	1999 12 05	703	0.4-	0.5+	2000 01 06	704	0.1+	0.5-
1999 11 09	704	0.6-	0.0	1999 12 05	703	0.7-	0.7+				

1999 XQ₆₀ = 1993 FW₅₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	343.68653		(2000.0)	P	Q
n	0.25818602	ω	280.37373	-0.50813728	-0.86121382
a	2.4425731	Ω	200.17628	+0.80148970	-0.46842808
e	0.1443024	i	1.72073	+0.31529473	-0.19719506
P	3.82	H	15.4	G 0.15	U 5

Residuals in seconds of arc

1993 03 19	809	0.2-	0.6+	1999 11 15	704	0.2-	0.6-	1999 12 08	704	0.6+	0.2+
1993 03 20	809	0.1-	0.3-	1999 11 15	704	0.0	0.3+	1999 12 08	704	0.4+	0.4-
1993 03 24	809	0.2+	0.7-	1999 12 07	704	0.3+	0.2-	1999 12 31	699	1.4-	0.9-
1999 11 09	704	0.2+	0.8-	1999 12 07	704	0.7+	0.2-	1999 12 31	699	0.6-	0.4+
1999 11 09	704	0.1+	0.5-	1999 12 07	704	0.2+	0.8-	1999 12 31	699	0.7+	0.5+
1999 11 09	704	0.4-	0.1+	1999 12 07	704	0.3-	0.5-	1999 12 31	703	0.1+	0.5+
1999 11 09	704	0.3-	1.2+	1999 12 07	704	0.4-	0.0	1999 12 31	703	0.4+	0.1+
1999 11 15	704	0.4-	0.0	1999 12 08	704	0.2-	0.3+	1999 12 31	703	0.4+	0.9+
1999 11 15	704	0.3-	0.0	1999 12 08	704	0.5+	0.2+	1999 12 31	703	0.6-	0.4+
1999 11 15	704	0.1-	0.3-	1999 12 08	704	0.1+	0.1+				

1999 XD₆₇ = 1998 TO₂

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	1.71488		(2000.0)	P	Q
n	0.08169449	ω	199.52339	+0.14098431	-0.98605163
a	5.2602641	Ω	242.45736	+0.92106558	+0.16340340
e	0.1102422	i	5.72591	+0.36298982	-0.03164673
P	12.06	H	12.2	G 0.15	U 3

Residuals in seconds of arc

1997 10 30	568	0.1+	0.4-	1999 11 12	704	0.0	0.7+	1999 12 08	704	0.3+	0.6-
1997 10 30	568	0.2+	0.1-	1999 11 12	704	0.8-	1.4+	1999 12 08	704	0.2+	0.2+
1997 10 30	568	0.1+	0.5-	1999 11 12	704	0.5-	0.6+	1999 12 08	704	0.7-	0.3+
1998 10 13	910	0.5+	0.0	1999 11 12	704	1.6-	1.3+	2000 01 06	704	0.7-	0.9-
1998 10 13	910	0.4+	0.2-	1999 12 07	704	0.1+	0.4+	2000 01 06	704	(1.0+	2.2-)
1998 10 13	910	0.4+	0.3+	1999 12 07	704	0.1+	0.2-	2000 01 06	704	0.6+	1.1-
1998 10 15	910	0.4-	0.3+	1999 12 07	704	0.3+	1.1-	2000 01 06	704	0.2-	1.6-
1998 10 15	910	0.4-	0.2+	1999 12 07	704	0.5+	0.6-	2000 01 06	704	0.1+	0.8-
1998 10 15	910	0.5-	0.2+	1999 12 08	704	0.6+	0.5+				
1999 11 12	704	0.6+	1.0+	1999 12 08	704	1.0+	0.4+				

1999 XM₇₁ = 1996 RB₂₇

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	17.29662		(2000.0)	P	Q
n	0.08252488	ω	318.84677	+0.37835413	-0.92299712
a	5.2249178	Ω	108.81532	+0.86750332	+0.32711464
e	0.0109647	i	4.25159	+0.32293364	+0.20266310
P	11.94	H	11.3	G 0.15	U 2

Residuals in seconds of arc

1996 09 10	809	0.9+	0.3-	1999 11 15	704	0.1+	0.4+	1999 12 07	704	0.1+	0.1-
1996 09 11	809	1.0-	0.4+	1999 11 15	704	0.5-	0.3-	1999 12 07	704	0.2+	0

1998 11 11	704	0.7−	1.0+	1999 11 17	704	0.0	0.7−	1999 12 08	704	0.5+	0.2−
1998 11 11	704	0.7+	0.6−	1999 11 17	704	1.5−	0.2−	1999 12 08	704	0.1+	0.0
1998 11 11	704	0.9+	0.2+	1999 11 17	704	0.4−	0.5−	2000 01 05	704	0.1+	0.5+
1998 11 11	704	0.8−	0.6+	1999 11 17	704	0.5−	0.0	2000 01 05	704	0.2+	1.0+
1998 11 11	704	0.7−	1.1−	1999 12 07	704	0.4−	0.5−	2000 01 05	704	0.7+	1.0+
1999 11 15	704	0.0	0.7−	1999 12 07	704	0.1+	0.6−				

1999 XX₇₁ = 1997 EF₅₅

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr				Q			
P				Q			
<i>M</i>	293.39601	(2000.0)					
<i>n</i>	0.27162178	ω	301.69030	−0.99863756	+0.04899540		
<i>a</i>	2.3613462	Ω	241.12360	−0.03817942	−0.92061210		
<i>e</i>	0.1403372	<i>i</i>	1.17505	−0.03557171	−0.38739233		
<i>P</i>	3.63	<i>H</i>	15.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 03 08	809	0.7+	0.5+	1999 12 07	704	0.1+	0.5+	1999 12 18	691	0.2−	0.0
1997 03 08	809	0.0	0.6+	1999 12 07	704	0.2+	0.4−	1999 12 18	691	0.1−	0.4+
1997 03 08	809	0.2−	0.2+	1999 12 07	704	1.4−	0.6−	2000 01 06	704	0.3−	0.1−
1997 03 09	809	0.0	0.2+	1999 12 08	704	0.1+	0.2+	2000 01 06	704	0.2+	0.2−
1997 03 09	809	0.2−	0.8−	1999 12 08	704	1.2+	0.1−	2000 01 06	704	0.4+	0.6+
1997 03 09	809	0.2−	0.8−	1999 12 08	704	0.0	0.3−				
1999 12 07	704	0.6+	0.1+	1999 12 18	691	0.7−	0.0				

1999 XR₇₃ = 1997 CM₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Doppler				Q			
P				Q			
<i>M</i>	64.17153	(2000.0)					
<i>n</i>	0.29486020	ω	300.97063	+0.91774936	−0.39120658		
<i>a</i>	2.2355889	Ω	82.13498	+0.38389073	+0.82957308		
<i>e</i>	0.1792275	<i>i</i>	3.96573	+0.10180381	+0.39845440		
<i>P</i>	3.34	<i>H</i>	16.5	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1997 02 06	046	0.4−	0.5+	1999 12 05	703	0.4+	0.7+	1999 12 08	704	0.4+	0.1−
1997 02 06	046	0.4+	0.1+	1999 12 05	703	(0.7+ 4.9+)		1999 12 08	704	0.1+	0.3+
1997 02 06	046	0.4−	0.6+	1999 12 05	703	0.4−	0.4+	2000 01 03	704	0.4+	0.4+
1997 02 06	046	0.1+	0.9+	1999 12 05	703	0.2−	1.4+	2000 01 03	704	1.2+	1.0+
1997 02 09	046	0.9+	0.3+	1999 12 07	704	0.5+	0.4−	2000 01 03	704	0.1−	0.1+
1997 02 09	046	0.4+	0.6−	1999 12 07	704	0.4+	0.4−	2000 01 04	704	0.4+	1.1−
1997 02 09	046	1.7+	0.2+	1999 12 07	704	0.5−	1.1−	2000 01 04	704	0.5−	0.1+
1997 02 10	046	1.0−	0.7−	1999 12 08	704	0.6−	0.3−	2000 01 04	704	0.0	0.1+
1997 02 10	046	0.3−	0.9−	1999 12 08	704	0.1−	0.7−	2000 01 04	704	0.6−	0.6−
1997 02 10	046	1.4−	0.5−	1999 12 08	704	0.2−	0.1−	2000 01 04	704	0.7−	0.4+

1999 XA₇₅ = 1998 KT₆₃

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr				Q			
P				Q			
<i>M</i>	111.96989	(2000.0)					
<i>n</i>	0.26954674	ω	240.71676	+0.84197369	+0.53669180		
<i>a</i>	2.3734495	Ω	86.77386	−0.47385389	+0.78450289		
<i>e</i>	0.2252917	<i>i</i>	3.16685	−0.25795891	+0.31067205		
<i>P</i>	3.66	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 05 22	704	0.1−	0.0	1998 06 18	704	1.0+	0.2−	1999 12 08	704	0.3+	0.1−
1998 05 22	704	0.5+	2.0−	1998 06 18	704	0.5−	0.1+	1999 12 15	703	0.6−	1.8+
1998 05 22	704	0.0	0.5+	1998 06 18	704	(4.9− 1.9+)		1999 12 15	703	0.0	0.2+
1998 05 22	704	1.1−	1.0−	1999 12 07	704	0.1+	0.1−	1999 12 15	703	0.7−	0.5+
1998 05 22	704	0.8+	1.2+	1999 12 07	704	0.2−	0.3−	1999 12 15	703	0.9−	0.5+
1998 05 24	704	0.4−	0.6+	1999 12 07	704	0.0	0.9−	2000 01 04	704	0.3+	0.8+
1998 05 24	704	0.3+	0.4+	1999 12 07	704	0.1+	0.1+	2000 01 04	704	0.1+	0.0
1998 05 24	704	0.2−	0.3+	1999 12 08	704	0.2+	0.4+	2000 01 04	704	0.4−	0.8−
1998 05 24	704	0.2+	0.1+	1999 12 08	704	0.3+	0.6−	2000 01 04	704	0.6+	0.8−

1998 05 24	704	0.3−	0.0	1999 12 08	704	0.0	0.4−
1998 06 18	704	(3.1+ 0.1−)		1999 12 08	704	0.9+	0.1−

1999 XR₇₆ = 1997 LU₁₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr				Q			
P				Q			
<i>M</i>	81.52772	(2000.0)					
<i>n</i>	0.20838938	ω	281.65074	+0.96612312	−0.22886809		
<i>a</i>	2.8176410	Ω	91.66460	+0.25760436	+0.88327110		
<i>e</i>	0.0677550	<i>i</i>	6.85293	−0.01568819	+0.40920845		
<i>P</i>	4.73	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1997 06 08	809	0.1−	0.8−	1999 12 08	704	0.1+	0.4−	2000 01 04	704	0.3−	0.5−
1997 06 08	809	0.6−	0.7−	1999 12 08	704	0.2−	0.3−	2000 01 09	691	0.0	0.4−
1997 06 08	809	0.7−	1.2−	1999 12 08	704	0.3+	0.7−	2000 01 09	691	0.4+	1.1−
1997 06 09	809	0.6+	0.3−	1999 12 08	704	0.6+	0.2−	2000 01 09	691	0.3+	0.5−
1997 06 09	809	0.2+	0.2−	1999 12 27	691	0.5+	0.1+	2000 01 15	691	0.2+	0.2+
1997 06 09	809	0.6−	0.2−	1999 12 27	691	0.6+	0.3−	2000 01 15	691	0.2−	0.3−
1998 09 17	699	0.4+	0.2−	1999 12 27	691	0.3−	0.5−	2000 01 15	691	0.2−	0.1−
1998 09 17	699	0.4+	0.5−	2000 01 03	704	0.2−	0.4−	2000 01 30	704	0.2−	0.4+
1998 09 17	699	0.4−	0.6−	2000 01 03	704	0.2+	0.5−	2000 01 30	704	0.1−	0.7+
1999 12 07	704	0.2−	0.9+	2000 01 03	704	0.7−	0.5−	2000 01 30	704	0.3+	0.2−
1999 12 07	704	0.8−	0.1+	2000 01 03	704	0.1−	0.0	2000 01 30	704	0.6+	1.1+
1999 12 07	704	0.2+	0.3−	2000 01 04	704	0.1+	0.3−	2000 01 30	704	0.5−	1.5+
1999 12 07	704	0.3+	0.4−	2000 01 04	704	0.4−	0.2−				

1999 XU₇₆ = 1997 MR₃

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr				Q			
P				Q			
<i>M</i>	173.55376	(2000.0)					
<i>n</i>	0.18334993	ω	28.51838	+0.26067235	+0.95308336		
<i>a</i>	3.0686608	Ω	256.93847	−0.91305712	+0.19159339		
<i>e</i>	0.0658348	<i>i</i>	9.08948	−0.31365048	+0.23435885		
<i>P</i>	5.38	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1997 06 28	704	0.4+	0.4−	1998 10 12	699	0.9+	0.2−	1999 12 08	704	0.4+	0.2+
1997 06 28	704	0.3+	0.7−	1998 10 12	699	0.9+	0.2+	2000 01 05	704	0.7−	0.3+
1997 06 28	704	1.2−	0.8−	1998 10 12	699	0.9−	0.2+	2000 01 05	704	0.1+	0.6+
1997 07 02	704	0.3+	0.2−	1999 12 07	704	0.6+	0.2+	2000 01 05	704	0.2−	0.0
1997 07 02	704	0.3+	0.1−	1999 12 07	704	0.1−	0.1+	2000 01 06	704	0.2−	1.7−
1997 07 02	704	0.0	0.3+	1999 12 07	704	0.9+	1.4−	2000 01 06	704	0.2−	0.4−
1997 07 02	704	0.3+	0.2+	1999 12 07	704	0.2−	0.4+	2000 01 06	704	0.5+	0.5−
1997 07 02	704	0.0	0.0	1999 12 08	704	1.1−	0.9+	2000 01 06	704	0.2−	0.1−
1998 09 19	699	1.0+	0.1−	1999 12 08	704	0.6+	0.5−	2000 01 06	704	0.2+	0.6−
1998 09 19	699	1.0−	0.4+	1999 12 08	704	0.3−	0.0				
1998 09 19	699	0.9−	0.3−	1999 12 08	704	0.5−	0.6+				

1999 XK₇₇ = 1994 NR₉

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr				Q			
P				Q			
<i>M</i>	4.65077	(2000.0)					
<i>n</i>	0.08204141	ω	336.85702	−0.01691080	−0.99588358		
<i>a</i>	5.2454245	Ω	114.01396	+0.93191807	−0.04796891		
<i>e</i>	0.0293674	<i>i</i>	5.59454	+0.36227440	+0.07690828		
<i>P</i>	12.01	<i>H</i>	11.5	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1994 07 08	809	(7.9− 3.6+)	1997 10 30	704	(1.4+ 2.3−)	1999 12 07	704	0.1+	0.3+
1994 07 08	809	(7.9− 4.5+)	1997 10 30	704	1.6− 0.1+	1999 12 08	704	0.6+	0.2+
1994 07 08	809	(8.6− 4.4+)	1997 10 30	704	1.5+ 0.6−	1999 12 08	704	0.3+	0.5+
1994 07 09	809	(9.4− 4.0+)	1998 11 24	704	0.3+ 0.2−	1999 12 08	704	0.5+	0.7+
1994 07 09	809	(9.0− 4.7+)	1998 11 24	704	0.4+ 0.1−	2000 01 05	704	0.2−	1.8−

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1994 07 09	809	(9.6− 3.8+)	1998 11 24	704	0.1− 0.4−	2000 01 05	704	1.1− 0.0
1996 09 15	809	0.1− 0.8+	1998 11 24	704	(4.7− 2.1−)	2000 01 05	704	1.0− 0.4−
1997 10 28	809	1.1− 0.1−	1999 12 07	704	0.3− 0.6+	2000 01 05	704	0.1+ 0.1+
1997 10 28	809	0.1+ 0.2+	1999 12 07	704	0.5+ 0.3+			
1997 10 30	704	0.8+ 0.2−	1999 12 07	704	0.1+ 0.5+			

1999 XM₈₁ = 2685 P-L

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

<i>M</i>	7.83410		(2000.0)		P		Q
<i>n</i>	0.18086684	ω	259.38616		+0.00636525		−0.99997925
<i>a</i>	3.0966830	Ω	190.24929		+0.91963447		+0.00624432
<i>e</i>	0.0321322	<i>i</i>	0.32018		+0.39272374		+0.00158539
<i>P</i>	5.45	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1960 09 24	675	0.4− 1.0+	1999 12 08	704	0.7− 0.3−	2000 01 05	704	0.5+ 0.8+
1960 09 26	675	0.3+ 0.2−	1999 12 08	704	0.5+ 0.7+	2000 01 05	704	0.4+ 0.6−
1960 09 28	675	0.3+ 0.5−	1999 12 08	704	0.9+ 1.1−	2000 01 05	704	0.7+ 0.0
1960 09 29	675	0.2− 0.4−	1999 12 27	691	0.6− 0.3−	2000 01 06	691	0.6− 0.2+
1999 12 07	704	0.8+ 0.6+	1999 12 27	691	0.1+ 0.1+	2000 01 06	691	0.5− 0.2+
1999 12 07	704	0.3− 0.2+	1999 12 27	691	0.0 0.1−	2000 01 06	691	0.4− 0.3+
1999 12 07	704	0.3+ 0.0	2000 01 05	704	1.3+ 0.5−			
1999 12 08	704	1.5− 0.9+	2000 01 05	704	0.8− 0.9−			

1999 XR₈₁ = 1990 HL₃ = 1996 LZ₂

Id. G. V. Williams, A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	359.14169		(2000.0)		P		Q
<i>n</i>	0.17908673	ω	19.07935		−0.23417947		−0.91888896
<i>a</i>	3.1171697	Ω	85.46612		+0.84542937		−0.35372242
<i>e</i>	0.1724769	<i>i</i>	18.57173		+0.48000954		+0.17470984
<i>P</i>	5.50	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1990 04 29	413	(30.7− 5.4−)	1999 12 07	704	0.2+ 0.1+	2000 01 04	704	0.2+ 0.1+
1990 04 30	413	0.8− 1.9−	1999 12 07	704	0.0 0.2−	2000 01 04	704	0.0 0.1−
1990 04 30	413	0.7+ 1.7+	1999 12 07	704	0.3+ 0.3−	2000 01 04	704	0.3+ 0.2−
1996 06 15	691	0.4− 0.0	1999 12 08	704	0.6− 0.9+	2000 01 04	704	0.1− 0.1−
1996 06 15	691	0.2− 0.2−	1999 12 08	704	0.2− 0.2+	2000 01 30	704	1.5+ 0.4−
1996 06 15	691	0.0 0.1+	1999 12 08	704	0.1− 0.1+	2000 01 30	704	1.2+ 0.1+
1996 06 21	691	0.4+ 0.1+	1999 12 08	704	0.4− 0.1+	2000 01 30	704	1.8− 0.5+
1996 06 21	691	0.3+ 0.0	1999 12 08	704	0.1− 0.1−	2000 01 30	704	1.3− 0.1−
1996 06 21	691	0.1+ 0.4+	2000 01 03	704	0.3+ 0.4+	2000 01 30	704	0.7− 0.4−
1999 11 04	704	0.1− 0.4−	2000 01 03	704	0.5+ 0.3−	2000 02 11	704	0.1+ 0.1−
1999 11 04	704	0.0 0.0	2000 01 03	704	0.7+ 0.4+	2000 02 11	704	0.2− 0.0
1999 11 04	704	0.1+ 0.1−	2000 01 03	704	0.2+ 0.2−	2000 02 11	704	0.1− 0.2+
1999 11 04	704	0.3− 0.0	2000 01 03	704	0.7+ 1.6−	2000 02 11	704	0.2− 0.7+
1999 11 04	704	0.4− 0.4+	2000 01 04	704	0.1− 0.5+	2000 02 11	704	0.2+ 0.4+

1999 XH₈₄ = 1998 MC₄₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	79.26843		(2000.0)		P		Q
<i>n</i>	0.23163646	ω	278.29916		+0.95178402		−0.20103114
<i>a</i>	2.6258189	Ω	93.52843		+0.27790778		+0.88489590
<i>e</i>	0.2079095	<i>i</i>	13.42421		−0.12990164		+0.42017345
<i>P</i>	4.25	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 06 28	809	0.0 0.1+	1999 12 08	704	1.0− 1.7−	2000 01 04	704	0.5− 0.7−
1998 06 28	809	1.9− 1.3−	1999 12 08	704	0.7− 0.4+	2000 01 04	704	0.4− 0.6−
1998 06 28	809	0.8− 0.5−	1999 12 08	704	0.4+ 0.2+	2000 01 04	704	0.2− 0.4−
1998 07 01	809	0.5+ 0.4+	1999 12 08	704	1.1+ 0.1+	2000 01 04	704	0.0 0.2−
1998 07 01	809	1.7+ 1.3+	1999 12 08	704	0.7+ 0.3+	2000 01 31	704	0.2+ 0.9+
1998 07 01	809	0.4+ 0.0	2000 01 03	704	0.7− 0.6−	2000 01 31	704	0.1+ 0.9+

1999 12 07	704	0.4+ 1.4+	2000 01 03	704	0.9+ 0.8−	2000 01 31	704	0.5− 0.1+
1999 12 07	704	0.6− 0.5+	2000 01 03	704	0.4− 0.2−	2000 01 31	704	0.5+ 0.8+
1999 12 07	704	0.2+ 0.2+	2000 01 03	704	0.1+ 0.9−			
1999 12 07	704	0.0 0.7+	2000 01 04	704	0.2+ 0.1−			

1999 XW₈₅ = 1984 DH₂ = 1986 RF₉ = 1990 FH₁ = 1991 NM₇= 1998 VU₂₃

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	267.83860		(2000.0)		P		Q
<i>n</i>	0.18010858	ω	88.67865		−0.74573224		+0.66562836
<i>a</i>	3.1053683	Ω	133.05090		−0.62581336		−0.68506107
<i>e</i>	0.1174115	<i>i</i>	2.24899		−0.22856306		−0.29602402
<i>P</i>	5.47	<i>H</i>	12.2	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1984 02 26	095	1.2+ 0.2+	1996 06 13	566	0.4+ 0.1−	1999 12 07	704	0.7− 0.3+
1986 09 08	095	1.3+ 1.5−	1996 06 13	566	0.8+ 0.0	1999 12 08	704	1.0+ 0.4−
1990 03 27	400	(9.3− 22.2+)	1998 11 10	704	0.2− 0.4−	1999 12 08	704	0.4+ 0.2+
1990 03 27	400	(10.0− 23.1+)	1998 11 10	704	1.4+ 0.4+	1999 12 08	704	0.2+ 0.7−
1990 03 29	400	(4.8+ 14.6+)	1998 11 10	704	1.0+ 0.6+	1999 12 08	704	0.7+ 0.9−
1990 03 29	400	(0.4− 12.5+)	1998 11 10	704	0.8− 1.0+	1999 12 08	704	(2.3− 0.7−)
1990 04 01	675	1.0− 0.6+	1998 11 10	704	1.3− 1.6+	1999 12 16	684	0.2− 0.5−
1990 04 01	675	1.1− 0.2+	1998 11 11	704	0.1+ 0.7−	1999 12 16	684	0.3− 0.5−
1990 04 19	400	0.8− 1.7−	1998 11 11	704	0.3− 0.5−	1999 12 17	684	0.0 0.2−
1990 04 19	400	0.8+ 0.4+	1998 11 11	704	0.0 1.1−	1999 12 17	684	0.1+ 0.4−
1990 04 20	400	(3.5+ 2.4+)	1998 11 11	704	0.5− 1.0−	2000 01 05	704	0.1− 0.9+
1990 04 20	400	(2.8+ 0.7+)	1998 11 11	704	(0.0 2.1−)	2000 01 05	704	0.2+ 0.6+
1991 07 12	809	0.1− 0.1−	1998 11 11	699	0.1− 0.5+	2000 01 05	704	0.1+ 0.6+
1991 07 12	809	0.2− 0.1+	1998 11 11	699	0.4+ 0.4−	2000 01 05	704	0.3− 0.7+
1991 07 12	809	0.1+ 0.2+	1998 11 11	699	0.5− 0.0	2000 01 05	704	0.2+ 0.8+
1991 07 14	809	0.0 0.1−	1998 11 24	699	0.3− 0.1+	2000 02 02	704	0.1+ 0.5+
1991 07 14	809	0.1+ 0.3−	1998 11 24	699	0.3+ 0.3+	2000 02 02	704	0.1− 0.4+
1991 07 14	809	0.4+ 0.2−	1998 11 24	699	0.3− 0.1+	2000 02 02	704	0.1− 0.6+
1991 07 15	809	0.6− 1.4+	1998 12 08	699	0.6+ 0.0	2000 02 02	704	0.2− 0.7+
1991 07 15	809	0.6− 1.5+	1998 12 08	699	0.2+ 0.1−	2000 02 02	704	0.1− 0.7+
1991 07 15	809	0.3− 1.5+	1998 12 08	699	0.1+ 0.3−	2000 02 03	704	0.5− 0.4+
1991 07 16	809	0.9− 1.4+	1999 12 07	704	(2.6+ 0.4+)	2000 02 03	704	0.1− 0.4+
1991 07 16	809	0.6− 1.5+	1999 12 07	704	0.2− 0.1+	2000 02 03	704	0.0 0.8+
1991 07 16	809	0.2− 1.5+	1999 12 07	704	0.2+ 0.5+	2000 02 03	704	0.3+ 0.6+
1996 06 13	566	0.7+ 0.5+	1999 12 07	704	0.0 1.3+	2000 02 03	704	0.1+ 0.9+

1999 XY₈₇ = 1993 BG₇ = 1998 SE₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	295.31181		(2000.0)		P		Q
<i>n</i>	0.27216393	ω	303.40340		−0.96793714		+0.24097469
<i>a</i>	2.3582092	Ω	250.62744		−0.19819500		−0.90609679
<i>e</i>	0.1435085	<i>i</i>	4.31103		−0.15432573		−0.34773525
<i>P</i>	3.62	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1993 01 23	809	0.4+ 0.6−	1998 08 23	704	(5.0− 1.0−)	2000 01 05	704	0.3+ 1.0+
1993 01 23	809	0.0 1.6−	1998 09 17	146	0.4− 0.2−	2000 01 05	704	0.1+ 1.0+
1993 01 23	809	1.6− 0.9−	1998 09 17	146	0.1− 0.1+	2000 01 05	704	0.5− 1.5+
1993 01 28	809	0.8+ 0.4−	1998 09 21	146	(2.3− 0.3−)	2000 02 02	704	0.5− 1.3+
1993 01 28	809	0.0 0.1+	1998 09 21	146	1.6− 0.7+	2000 02 02	704	0.1+ 0.2−
1993 01 28	809	1.0− 0.8−	1999 12 07	704	0.0 1.1−	2000 02 02	704	0.5+ 0.8+
1998 08 17	704	(2.4+ 0.5+)	1999 12 07	704	0.3+ 0.1−	2000 02 02	704	0.5− 0.4+
1998 08 17	704	0.7+ 0.9−	1999 12 07	704	0.3+ 0.2−	2000 02 03	704	0.6+ 0.5+
1998 08 17	704	1.0− 0.5−	1999 12 07	704	0.2− 0.8−	2000 02 03	704	0.2+ 0.5+
1998 08 17	704	1.7+ 0.3−	1999 12 08	704	0.4− 1.2−	2000 02 03	704	0.2+ 0.4+
1998 08 17	704	1.4+ 0.6−	1999 12 08	704	0.2+ 0.4−	2000 02 03	704	0.3− 0.6+
1998 08 23	704	(2.0+ 1.5−)	1999 12 08	704	0.0 0.4−	2000 02 03	704	0.6− 0.7+

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1998 08 23	704	1.3+	0.7+	1999 12 08	704	0.1+	0.4−
1998 08 23	704	1.3−	0.6−	1999 12 08	704	0.3+	0.6−

1999 XA₈₈ = 1998 QD₅₀

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>	286.13878		(2000.0)	P		Q	
<i>n</i>	0.26689094	ω	82.87273	−0.95560274		+0.27346905	
<i>a</i>	2.3891688	Ω	112.94960	−0.29465601		−0.88828460	
<i>e</i>	0.0818387	<i>i</i>	6.84299	+0.0011277		−0.36900563	
<i>P</i>	3.69	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 17	704	0.3+	0.5−	1999 11 04	704	0.7+	0.4+	0.9−
1998 08 17	704	0.3−	0.4−	1999 12 07	704	1.4−	1.1+	1.2−
1998 08 17	704	0.1+	0.5−	1999 12 07	704	0.6−	0.2+	0.2−
1998 08 17	704	0.4−	0.3+	1999 12 07	704	0.2−	0.4+	0.1−
1998 08 17	704	1.0−	0.0	1999 12 07	704	0.7−	0.3+	0.6+
1998 08 23	704	0.2+	0.2+	1999 12 08	704	0.0	0.3−	0.8+
1998 08 23	704	0.5+	1.7+	1999 12 08	704	0.5−	0.4−	0.8+
1998 08 23	704	0.3−	0.1−	1999 12 08	704	0.0	0.5−	0.3+
1998 08 23	704	0.6+	0.0	1999 12 08	704	0.5−	0.6−	0.4+
1999 11 04	704	0.5+	0.4+	1999 12 08	704	0.4−	0.9−	0.6+
1999 11 04	704	0.3+	0.2−	2000 01 05	704	0.5+	0.9−	1.0+
1999 11 04	704	0.5+	0.2+	2000 01 05	704	0.1+	1.0−	2.0+
1999 11 04	704	1.3+	0.2−	2000 01 05	704	0.3+	1.0−	

1999 XQ₈₈ = 1989 TC₆ = 1992 HO₂ = 1998 SX₁₁₃

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>	264.45391		(2000.0)	P		Q	
<i>n</i>	0.21794621	ω	116.89886	−0.81364886		+0.57673436	
<i>a</i>	2.7346589	Ω	98.40833	−0.55617668		−0.73558146	
<i>e</i>	0.0700270	<i>i</i>	4.24143	−0.16924253		−0.35538346	
<i>P</i>	4.52	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1989 10 07	809	1.0+	0.6+	1998 09 26	704	0.0	0.6−	0.1−
1989 10 07	809	0.1−	0.5+	1998 09 26	704	0.2−	1.5−	0.1−
1989 10 07	809	1.7−	1.4−	1998 09 27	704	0.4−	0.8+	0.6−
1989 10 08	809	0.6+	0.8+	1998 09 27	704	0.7−	0.3−	0.3−
1989 10 08	809	0.6+	0.9+	1998 09 27	704	0.2+	0.2+	0.2−
1989 10 08	809	1.1−	0.4+	1998 09 27	704	0.1+	0.2−	0.0
1992 04 28	691	0.4−	0.4+	1998 09 27	704	0.5+	1.1−	0.3−
1992 04 28	691	0.1+	0.3+	1999 12 07	704	0.1−	0.0	0.4−
1992 04 28	691	0.2+	0.5−	1999 12 07	704	0.6−	0.8+	0.5−
1992 05 03	691	0.4−	0.5−	1999 12 07	704	0.3+	0.3−	0.4+
1992 05 03	691	0.3+	0.3−	1999 12 07	704	0.4−	0.4−	0.4+
1992 05 03	691	0.0	0.2+	1999 12 08	704	0.2+	0.4+	0.9+
1998 09 26	704	1.3+	0.6+	1999 12 08	704	0.1+	0.7−	0.2+
1998 09 26	704	0.0	0.1+	1999 12 08	704	0.2+	0.2+	0.0
1998 09 26	704	(2.2+	0.6−)	1999 12 08	704	0.4−	0.3−	0.6+

1999 XR₈₈ = 1993 CB₁ = 1998 QF₁₀₅

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>	246.45625		(2000.0)	P		Q	
<i>n</i>	0.26766318	ω	142.10186	−0.55021151		+0.82571937	
<i>a</i>	2.3845712	Ω	94.18815	−0.79335005		−0.47047912	
<i>e</i>	0.0938778	<i>i</i>	7.16056	−0.26050526		−0.31118631	
<i>P</i>	3.68	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	2

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Residuals in seconds of arc

1993 02 13	372	0.1−	0.5+	1999 12 07	704	0.1+	0.0	2000 01 25	704	0.7+	1.3+
1993 02 13	372	(5.1−	2.0+)	1999 12 07	704	0.5+	0.3+	2000 01 25	704	0.3+	0.2−
1993 02 17	372	0.1−	1.2−	1999 12 07	704	0.0	1.0−	2000 01 25	704	0.2−	0.6+
1993 02 17	372	(3.0−	0.7+)	1999 12 08	704	0.2−	0.3+	2000 01 25	704	1.6+	0.6+
1998 08 25	809	0.4+	0.4−	1999 12 08	704	0.7−	0.3−	2000 01 30	704	0.5+	0.0
1998 08 25	809	0.0	1.0−	1999 12 08	704	0.2−	0.2+	2000 01 30	704	0.0	0.0
1998 08 25	809	0.6−	2.0−	1999 12 08	704	0.1−	0.0	2000 01 30	704	0.9−	0.1+
1998 08 26	809	0.4−	0.8+	2000 01 04	704	1.0−	0.1−	2000 01 30	704	0.4−	0.1−
1998 08 26	809	0.0	0.8+	2000 01 04	704	0.1+	0.3−	2000 01 31	704	0.7−	0.2+
1998 08 26	809	0.7+	1.4+	2000 01 04	704	0.1+	0.0	2000 01 31	704	0.2−	0.3+
1999 12 07	704	0.5+	0.2−	2000 01 04	704	0.0	0.5−	2000 01 31	704	0.1+	0.4−

1999 XT₈₉ = 1997 JT

Id. G. V. Williams, A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	345.49568		(2000.0)	P		Q	
<i>n</i>	0.28132092	ω	30.53196	−0.78469975		−0.61320318	
<i>a</i>	2.3067544	Ω	111.36938	+0.54722651		−0.75401621	
<i>e</i>	0.1277693	<i>i</i>	5.58980	+0.29118629		−0.23546000	
<i>P</i>	3.50	<i>H</i>	15.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 05 01	552	1.1+	1.3+	1999 12 08	704	0.5+	0.2−	2000 01 07	704	0.0	0.5−
1997 05 01	552	0.4+	0.4−	1999 12 08	704	0.2−	1.9+	2000 01 25	704	0.5+	0.5−
1997 05 01	552	0.3+	0.4+	1999 12 08	704	0.8+	0.1+	2000 01 25	704	0.4−	0.3−
1997 05 03	552	0.9−	1.5−	2000 01 05	704	0.5+	0.6−	2000 01 25	704	0.6+	0.2−
1997 05 03	552	0.3−	0.7−	2000 01 05	704	0.4−	0.2+	2000 01 25	704	0.3+	0.2+
1997 05 10	552	0.6−	1.1+	2000 01 05	704	0.1+	0.0	2000 01 25	704	0.5+	0.5−
1997 05 10	552	(2.5−	0.5−)	2000 01 05	704	0.1+	0.5−	2000 01 25	704	1.0−	0.3−
1999 12 07	704	1.0−	1.0−	2000 01 05	704	0.2+	0.1+	2000 01 25	704	0.8−	1.0+
1999 12 07	704	0.1+	0.2−	2000 01 07	704	0.6−	0.2−	2000 01 25	704	0.9+	1.0+
1999 12 07	704	0.1−	0.3+	2000 01 07	704	0.3−	0.0	2000 01 30	704	0.6+	0.9+
1999 12 07	704	0.5−	0.9+	2000 01 07	704	0.3+	0.3−	2000 01 30	704	1.3−	0.1−
1999 12 08	704	0.4−	0.1+	2000 01 07	704	0.5+	0.4−	2000 01 30	704	0.7+	0.6−

1999 XE₉₀ = 1993 OV₁₁

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				Williams			
<i>M</i>	166.86385		(2000.0)	P		Q	
<i>n</i>	0.22186878	ω	19.04978	+0.53911462		+0.82542528	
<i>a</i>	2.7023312	Ω	283.89717	−0.79339656		+0.43101682	
<i>e</i>	0.1486270	<i>i</i>	9.93120	−0.28262577		+0.36455123	
<i>P</i>	4.44	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1993 07 12	809	0.3+	0.2−	1999 12 07	704	0.8+	0.4+	2000 01 04	704	0.2−	0.3+
1993 07 12	809	1.0+	0.4+	1999 12 07	704	0.0	0.4−	2000 01 04	704	0.1−	0.2+
1993 07 12	809	0.5−	0.7+	1999 12 07	704	0.1+	0.4−	2000 01 04	704	0.1−	0.7−
1993 07 19	809	0.5+	1.2+	1999 12 08	704	0.7+	0.5−	2000 01 04	704	0.1+	0.5+
1993 07 19	809	0.7+	1.2+	1999 12 08	704	0.2−	0.2−	2000 01 04	704	0.8−	0.2+
1993 07 19	809	0.2−	0.6+	1999 12 08	704	0.3−	0.9−	2000 01 13	691	0.0	0.4+
1993 07 23	809	0.1−	1.0−	1999 12 08	704	0.3+	0.7+	2000 01 13	691	0.0	0.5+
1993 07 23	809	0.5−	1.1−	2000 01 03	704	0.0	0.2+	2000 01 13	691	0.2+	0.3−
1993 07 23	809	1.6−	0.9−	2000 01 03	704	0.6+	0.1+				
1999 12 07	704	0.5−	0.0	2000 01 03	704	0.3−	0.8+				

1999 XE₉₁ = 1998 RO₃₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	309.73208		(2000.0)	P		Q	
<i>n</i>	0.27698308	ω	288.25084	−0.99441127		+0.09077580	
<i>a</i>	2.3307761	Ω	256.98429	−0.06311325		−0.92044836	
<i>e</i>	0.1060423	<i>i</i>	3.17172	−0.08463424		−0.38017703	
<i>P</i>	3.56	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	4

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Residuals in seconds of arc

1998 08 17	704	1.0+	0.6-	1999 12 07	704	0.1-	0.2-	2000 01 05	704	0.3-	0.5-
1998 08 17	704	0.4-	1.6-	1999 12 07	704	0.4+	0.1+	2000 02 02	704	0.2-	0.3-
1998 08 17	704	0.3+	0.8-	1999 12 07	704	0.3-	0.6+	2000 02 02	704	0.3+	0.3-
1998 08 17	704	0.9+	1.0+	1999 12 07	704	0.7-	0.9-	2000 02 02	704	0.1+	1.0-
1998 08 17	704	(2.9-	3.3+)	1999 12 08	704	1.3+	0.7+	2000 02 02	704	0.5-	0.1-
1998 09 14	704	1.1+	1.8+	1999 12 08	704	0.2-	0.4+	2000 02 02	704	1.0+	2.0+
1998 09 14	704	0.9-	0.6+	1999 12 08	704	0.3-	0.1-	2000 02 03	704	0.3-	0.9+
1998 09 14	704	1.0+	0.3+	1999 12 08	704	0.6-	0.3+	2000 02 03	704	0.3+	0.0
1998 09 14	704	0.9-	1.2-	1999 12 08	704	0.0	1.0-	2000 02 03	704	0.1-	0.6-
1998 09 18	704	0.9-	0.1+	2000 01 05	704	0.4-	0.2-	2000 02 03	704	0.1-	0.2+
1998 09 18	704	0.1-	0.5-	2000 01 05	704	0.1-	0.3-	2000 02 03	704	0.3+	0.6+
1998 09 18	704	1.6-	1.2+	2000 01 05	704	1.0+	0.1-				
1998 09 18	704	0.4+	0.3-	2000 01 05	704	0.5-	0.3-				

1999 XF₉₁ = 1995 DU₁₂

Id. G. V. Williams, A. Doppler

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Williams

<i>M</i>	304.61463		(2000.0)	P	Q
<i>n</i>	0.18154560	ω	66.60180	-0.99337184	+0.10821672
<i>a</i>	3.0889596	Ω	119.59095	-0.11482713	-0.91898865
<i>e</i>	0.1009743	<i>i</i>	2.55404	-0.00520810	-0.37914245
<i>P</i>	5.43	<i>H</i>	13.7	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1995 02 22	033	0.0	0.3-	1999 12 08	704	(0.8+	2.5-)	2000 01 04	704	0.1+	0.3+
1995 02 23	033	0.2-	0.1-	1999 12 08	691	0.4+	0.4-	2000 01 04	704	0.5-	0.8+
1995 02 24	033	0.1-	0.5-	1999 12 08	691	0.3+	0.5-	2000 01 30	704	0.1-	0.4+
1999 12 02	691	0.0	0.1-	1999 12 15	691	0.0	0.0	2000 01 30	704	0.3-	0.5+
1999 12 02	691	0.1+	0.1-	1999 12 15	691	1.0+	0.3-	2000 01 30	704	0.2+	0.3-
1999 12 02	691	0.1+	0.0	1999 12 15	691	0.3+	0.4-	2000 01 30	704	0.2+	0.8-
1999 12 07	704	0.2+	0.9-	2000 01 04	704	1.2-	0.4+	2000 01 31	704	0.6-	0.4+
1999 12 07	704	1.1+	0.7-	2000 01 04	704	1.1-	1.4+	2000 01 31	704	0.5-	0.1+
1999 12 07	704	0.6+	0.8-	2000 01 04	704	0.3-	0.3-	2000 01 31	704	0.5-	0.2-
1999 12 07	704	0.0	0.4-	2000 01 04	704	0.6-	0.7+	2000 02 11	704	0.0	0.1-
1999 12 08	704	1.7+	0.8-	2000 01 04	704	0.5-	0.5+	2000 02 11	704	0.5-	0.2+
1999 12 08	704	0.5+	0.5-	2000 01 04	704	0.2-	0.8+	2000 02 11	704	0.1-	0.4+
1999 12 08	691	0.1+	0.3-	2000 01 04	704	0.3-	0.8+	2000 02 11	704	0.5+	1.0+
1999 12 08	704	0.3+	1.4-	2000 01 04	704	0.2-	0.7+				

1999 XN₉₁ = 1996 FP₂₀ = 1998 VV₁₂

Id. G. V. Williams

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Spahr

<i>M</i>	187.20950		(2000.0)	P	Q
<i>n</i>	0.18766285	ω	138.57986	+0.40423258	+0.91449797
<i>a</i>	3.0214623	Ω	155.24885	-0.84951227	+0.38227167
<i>e</i>	0.0559850	<i>i</i>	2.32900	-0.33900579	+0.13252103
<i>P</i>	5.25	<i>H</i>	13.4	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1996 03 24	809	0.3+	1.0+	1998 11 11	704	0.3-	0.1+	2000 01 05	704	0.3-	0.1+
1996 03 24	809	0.7-	1.4+	1998 11 11	704	0.1-	0.7+	2000 01 05	704	0.8-	0.3+
1996 03 24	809	1.0-	0.6+	1998 11 11	704	0.4-	0.4-	2000 01 05	704	0.1-	0.5+
1996 03 26	809	1.2+	0.0	1998 11 11	704	(1.8-	2.4-)	2000 02 02	704	0.2+	0.2-
1996 03 26	809	0.5+	1.0+	1999 12 07	704	0.1-	0.4-	2000 02 02	704	0.1+	0.1-
1996 03 26	809	0.9+	0.1-	1999 12 07	704	0.4-	0.3-	2000 02 02	704	0.2+	1.1+
1998 10 20	699	0.3-	0.8-	1999 12 07	704	0.1+	0.4-	2000 02 02	704	0.6+	0.4-
1998 10 20	699	1.5-	0.1+	1999 12 08	704	0.5-	0.6-	2000 02 02	704	0.3+	0.0
1998 10 20	699	0.2-	0.7+	1999 12 08	704	0.2+	1.2-	2000 02 03	704	0.5+	0.0
1998 11 10	704	0.6-	1.5+	1999 12 08	704	0.4+	0.3-	2000 02 03	704	0.4-	0.0
1998 11 10	704	0.2+	1.4+	1999 12 08	704	0.5-	0.5-	2000 02 03	704	0.3+	0.6+
1998 11 10	704	0.1+	0.0	2000 01 05	704	0.6-	0.8+	2000 02 03	704	0.7+	0.6+
1998 11 10	704	1.6+	1.3+	2000 01 05	704	0.7-	1.1-	2000 02 03	704	0.7+	0.4+

1999 XM₉₂ = 1997 CW₂₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	355.50324		(2000.0)	P	Q
<i>n</i>	0.29036882	ω	32.15894	-0.54560689	-0.83610568
<i>a</i>	2.2585830	Ω	90.96624	+0.75633089	-0.52052726
<i>e</i>	0.0786340	<i>i</i>	3.26377	+0.36093864	-0.17314347
<i>P</i>	3.39	<i>H</i>	15.2	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1997 02 06	691	0.5+	0.1+	1999 12 07	704	0.6+	1.1-	2000 01 04	704	0.1+	0.2-
1997 02 06	691	0.4+	0.0	1999 12 07	704	0.3+	0.7-	2000 01 04	704	0.5-	0.4-
1997 02 06	691	0.5+	0.1+	1999 12 08	704	0.3+	0.2+	2000 01 04	704	0.4-	0.1+
1997 02 09	369	0.2-	0.9+	1999 12 08	704	0.3+	0.2-	2000 01 04	704	0.1+	0.7+
1997 02 09	369	0.0	0.4-	1999 12 08	704	0.4+	0.5-	2000 01 30	704	0.5-	1.0+
1997 02 09	369	0.4-	0.0	2000 01 03	704	0.1-	0.1-	2000 01 30	704	0.2+	0.3+
1997 02 13	369	1.8-	0.3-	2000 01 03	704	0.7+	0.2-	2000 01 30	704	1.2-	0.1+
1997 02 13	369	0.8+	1.1-	2000 01 03	704	0.4-	0.1-	2000 01 30	704	0.3+	0.6+
1999 12 07	704	0.1-	0.0	2000 01 04	704	0.2-	0.1-	2000 01 30	704	0.2-	0.8+

1999 XP₉₂ = 1992 PC₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	102.77797		(2000.0)	P	Q
<i>n</i>	0.30776832	ω	161.37650	+0.99430502	+0.10652199
<i>a</i>	2.1726350	Ω	192.50997	-0.09958728	+0.91783264
<i>e</i>	0.1675759	<i>i</i>	0.86100	-0.03794603	+0.38240857
<i>P</i>	3.20	<i>H</i>	15.4	<i>G</i>	0.15
				<i>U</i>	6

Residuals in seconds of arc

1992 07 30	809	1.0-	0.5+	1992 08 09	010	1.5+	0.6+	1999 12 08	704	0.8-	0.4+
1992 07 30	809	1.0-	0.4+	1999 12 07	704	0.9-	0.3+	2000 01 05	704	0.4+	0.1+
1992 07 30	809	0.2-	1.1-	1999 12 07	704	0.8-	0.1-	2000 01 05	704	1.2+	0.1+
1992 08 08	010	(4.1+	0.2-)	1999 12 07	704	0.4+	1.4+	2000 01 05	704	0.7+	0.0
1992 08 08	010	1.0+	0.0	1999 12 08	704	0.5+	0.0	2000 01 05	704	0.9+	0.0
1992 08 08	010	(0.2+	2.6-)	1999 12 08	704	0.1-	0.1+	2000 01 06	691	0.3-	0.5-
1992 08 09	010	0.1-	1.1-	1999 12 08	704	0.8-	1.0-	2000 01 06	691	0.5-	0.6-
1992 08 09	010	0.3-	0.5+	1999 12 08	704	0.5+	0.6+	2000 01 06	691	0.5-	0.8-

1999 XD₉₄ = 1988 DR₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	74.66332		(2000.0)	P	Q
<i>n</i>	0.08205405	ω	100.73717	+0.68701708	-0.70715431
<i>a</i>	5.2448857	Ω	304.52596	+0.56181300	+0.66282208
<i>e</i>	0.0411490	<i>i</i>	11.70591	+0.46084019	+0.24617000
<i>P</i>	12.01	<i>H</i>	10.8	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1988 02 21	809	(3.4+	0.3-)	1999 12 08	704	0.4-	0.0	2000 01 30	704	0.0	0.4+
1988 02 21	809	0.8+	0.2-	1999 12 08	704	1.1-	0.4+	2000 01 30	704	0.2+	0.5+
1988 02 21	809	0.3-	0.7+	2000 01 04	704	0.0	0.8-	2000 01 30	704	0.9-	0.5+
1988 02 23	809	1.0+	0.7-	2000 01 04	704	0.1+	0.0	2000 02 03	704	0.0	0.3+
1988 02 23	809	0.4-	0.2+	2000 01 04	704	0.4+	0.8-	2000 02 03	704	0.2-	0.7+
1988 02 23	809	0.6-	0.0	2000 01 04	704	1.0+	0.7-	2000 02 03	704	0.1+	0.2+
1999 01 16	704	1.1-	1.0-	2000 01 04	704	0.1-	0.6-	2000 02 03	704	0.5+	1.2+
1999 01 16	704	0.9+	0.5+	2000 01 06	704	0.2-	1.1-	2000 02 03	704	0.4+	0.6+
1999 01 16	704	0.3+	0.5+	2000 01 06	704	0.8+	1.7-	2000 02 11	704	0.3-	0.1+
1999 01 16	704	(3.5-	1.0-)	2000 01 06	704	(1.9-	2.9-)	2000 02 11	704	0.4+	1.0-
1999 12 07	704	0.8+	0.8+	2000 01 06	704	(1.6-	2.4-)	2000 02 11	704	0.2+	0.1-
1999 12 07	704	0.1+	0.4+	2000 01 27	691	0.2-	0.3+	2000 02 11	704	0.1+	0.2-
1999 12 07	704	0.7-	0.4+	2000 01 27	691	0.6-	0.2+	2000 02 11	704	0.3-	0.3-
1999 12 08	704	0.6+	0.4-	2000 01 27	691	0.8-	0.5+				

1999 XV₉₄ = 1983 EH₂ = 1991 UJ₃ = 1998 VK₃₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	196.92402		(2000.0)	P	Q
<i>n</i>	0.28169455	ω	314.17687	+0.76438773	+0.64471439
<i>a</i>	2.3047142	Ω	5.69330	-0.56823232	+0.67904355
<i>e</i>	0.1769206	<i>i</i>	4.27795	-0.30466938	+0.35106013
<i>P</i>	3.50	<i>H</i>	13.7	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1983 03 11	381	1.2+	0.6-	1998 11 10	704	0.0	0.6-	2000 01 10	699	0.5+	1.0-
1983 03 11	381	1.0+	0.8-	1998 11 10	704	0.7+	1.1-	2000 01 10	699	0.1-	0.5-
1991 10 31	399	0.7-	1.3-	1998 11 10	704	1.4+	1.1-	2000 01 10	699	0.2-	0.1+
1991 10 31	399	(2.4-	1.2-)	1998 11 10	704	0.2+	0.5-	2000 02 02	703	0.2+	0.8+
1991 11 04	399	(0.9+	2.1+)	1998 11 10	704	0.8+	0.1+	2000 02 02	703	0.5-	0.7+
1991 11 04	399	0.5-	0.4+	1998 11 11	704	0.2+	0.0	2000 02 02	703	0.0	0.5+
1991 11 05	399	1.7-	0.6+	1998 11 11	704	0.1-	0.3+	2000 02 02	703	0.4-	0.5+
1991 11 05	399	0.5-	0.0	1998 11 11	704	0.4-	0.4-	2000 02 04	704	0.0	0.4+
1991 11 09	399	(4.1+	0.1+)	1998 11 11	704	0.8+	0.2-	2000 02 04	704	0.3-	0.3+
1991 11 09	399	(2.6+	1.2-)	1998 11 11	704	0.4+	1.9+	2000 02 04	704	0.1+	0.7+
1997 04 01	809	1.0-	1.0-	1999 12 07	704	0.2-	0.4-	2000 02 04	704	0.1-	0.4+
1997 04 01	809	1.5-	1.0-	1999 12 07	704	0.2+	1.3-	2000 02 04	704	0.1-	0.7+
1997 04 01	809	1.4-	1.1-	1999 12 07	704	0.9+	0.2-	2000 02 11	704	(0.8-	2.8+)
1998 08 31	704	0.2-	1.7-	1999 12 07	704	0.5-	0.2+	2000 02 11	704	0.1-	0.5+
1998 08 31	704	0.6+	0.7-	1999 12 08	704	0.4+	1.7-	2000 02 11	704	0.0	0.3+
1998 08 31	704	0.1+	0.6+	1999 12 08	704	0.1-	0.9-	2000 02 11	704	0.3+	0.7+
1998 08 31	704	0.1+	1.9+	1999 12 08	704	0.4+	0.0	2000 02 11	704	0.7+	0.4+
1998 08 31	704	0.0	1.2-	1999 12 08	704	0.1-	1.0-				

1999 XB₉₅ = 1994 AY₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	107.21025		(2000.0)	P	Q
<i>n</i>	0.17509200	ω	289.59129	+0.90314956	-0.28841135
<i>a</i>	3.1644034	Ω	88.21673	+0.40122747	+0.83058676
<i>e</i>	0.1839260	<i>i</i>	18.55283	-0.15276582	+0.47638696
<i>P</i>	5.63	<i>H</i>	12.4	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1994 01 11	675	1.5-	0.4-	1999 01 07	704	0.5-	1.1-	1999 12 09	703	0.6+	0.0
1994 01 11	675	0.3-	1.2-	1999 01 07	704	0.7-	1.4+	1999 12 09	703	0.2+	0.6-
1994 01 13	675	1.6+	0.0	1999 01 07	704	0.9+	1.1+	1999 12 10	704	0.1-	0.2-
1994 01 13	675	0.2+	1.0+	1999 01 11	704	(2.3-	2.0-)	1999 12 10	704	0.3-	0.0
1998 11 13	704	0.4+	1.9-	1999 01 11	704	0.2+	0.3-	1999 12 10	704	0.5+	0.2+
1998 11 13	704	0.2+	1.5-	1999 01 11	704	0.8-	1.2-	1999 12 10	704	0.3+	0.2-
1998 11 13	704	1.2+	0.6+	1999 01 11	704	(5.2-	1.1+)	1999 12 10	704	0.1+	0.1+
1998 11 13	704	0.9+	1.3+	1999 02 20	699	0.5-	0.1+	2000 01 29	704	0.4-	0.2+
1998 11 13	704	0.5-	1.1+	1999 02 20	699	0.9-	0.9-	2000 01 29	704	0.3-	0.3-
1998 11 16	566	0.3-	0.2-	1999 02 20	699	0.4-	0.8+	2000 01 29	704	0.7-	0.2+
1998 11 16	566	0.0	0.1+	1999 12 07	703	0.3+	0.6+	2000 01 29	704	0.6-	0.3-
1998 11 16	566	0.6-	0.0	1999 12 07	703	1.1+	1.0-	2000 02 02	704	0.2+	0.1+
1998 12 14	699	0.1+	0.2+	1999 12 07	703	0.7+	0.4+	2000 02 02	704	0.0	0.1+
1998 12 14	699	0.4-	0.3+	1999 12 07	703	0.2-	0.8+	2000 02 02	704	0.2+	0.0
1998 12 14	699	0.0	0.4+	1999 12 09	703	0.5-	0.0	2000 02 02	704	0.1-	0.3-
1999 01 07	704	0.5+	0.2-	1999 12 09	703	0.4-	0.4+	2000 02 02	704	0.1-	0.0

1999 XD₉₉ = 1998 QF₁₉

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Williams

<i>M</i>	220.47367		(2000.0)	P	Q
<i>n</i>	0.26640082	ω	220.13318	-0.36989435	+0.92875146
<i>a</i>	2.3920982	Ω	28.18294	-0.83857216	-0.32240718
<i>e</i>	0.0507910	<i>i</i>	2.97020	-0.39996863	-0.18295992
<i>P</i>	3.70	<i>H</i>	14.5	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 08 17	704	0.3-	0.2-	1999 12 07	704	0.2-	0.6-	2000 01 03	704	0.3+	0.4+
1998 08 17	704	0.7-	0.8+	1999 12 07	704	0.2+	0.3+	2000 01 04	704	0.6+	0.2-

1998 08 17	704	0.4-	0.3-	1999 12 10	704	0.6-	1.1-	2000 01 04	704	0.2-	1.1+
1998 08 17	704	0.4-	0.3-	1999 12 10	704	0.8-	0.9-	2000 01 04	704	0.4+	0.2+
1998 08 23	704	0.5-	0.7+	1999 12 10	704	0.1+	0.7+	2000 01 04	704	0.5+	0.0
1998 08 23	704	0.3+	0.7-	2000 01 03	704	0.7+	0.3+	2000 01 30	704	0.5-	0.2+
1998 08 23	704	1.8+	0.3+	2000 01 03	704	0.5-	0.0	2000 01 30	704	0.0	0.2-
1999 12 07	704	0.5-	0.7-	2000 01 03	704	0.4+	0.3+	2000 01 30	704	0.1-	0.1-
1999 12 07	704	0.8+	0.1-	2000 01 03	704	0.0	0.4+	2000 01 30	704	0.8-	0.2+

1999 XF₁₀₀ = 1969 TV₇ = 1976 YD₈ = 1994 JJ₁

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Williams

<i>M</i>	305.64089		(2000.0)	P	Q
<i>n</i>	0.30167568	ω	245.68220	-0.99629755	-0.06363573
<i>a</i>	2.2017897	Ω	290.62703	+0.08201180	-0.90520739
<i>e</i>	0.0884712	<i>i</i>	3.54125	-0.02579275	-0.42017862
<i>P</i>	3.27	<i>H</i>	14.3	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1969 10 08	033	0.8+	0.5+	1998 08 23	704	0.9-	1.9+	2000 01 04	704	0.3-	0.0
1969 10 08	033	0.5-	0.6-	1998 08 23	704	(0.8-	2.2+)	2000 01 04	704	0.2-	0.0
1976 12 18	095	0.5-	1.2+	1999 11 16	704	1.1+	0.3-	2000 01 04	704	0.0	0.4-
1994 05 04	675	1.1+	0.6-	1999 11 16	704	0.2-	1.5-	2000 01 04	704	0.6+	0.7+
1994 05 04	675	1.0-	0.1-	1999 11 16	704	2.0-	0.2-	2000 01 04	704	0.1-	0.0
1994 05 06	675	(1.2+	3.0+)	1999 12 07	704	0.9+	0.3-	2000 01 08	704	0.3-	0.4-
1994 05 06	675	0.0	0.5+	1999 12 07	704	1.3+	0.5+	2000 01 08	704	0.0	0.9-
1998 08 02	910	1.7+	0.7-	1999 12 07	704	0.6+	0.0	2000 01 08	704	0.0	0.1-
1998 08 02	910	1.0+	1.2-	1999 12 07	704	0.6+	0.1+	2000 01 08	704	0.2-	0.7+
1998 08 02	910	1.1+	1.1-	1999 12 07	704	0.3+	0.5-	2000 01 30	704	0.1-	0.5+
1998 08 17	704	(0.2+	3.6+)	1999 12 10	704	0.9-	0.5+	2000 01 30	704	0.3+	0.7+
1998 08 17	704	1.3-	0.1-	1999 12 10	704	0.5+	0.1+	2000 01 30	704	0.1+	0.6+
1998 08 17	704	0.3-	0.5-	1999 12 10	704	0.1+	1.0+	2000 01 30	704	0.0	0.6+
1998 08 17	704	0.3+	0.2-	2000 01 03	704	0.3-	0.0	2000 01 30	704	0.5-	0.9+
1998 08 17	704	0.5-	1.0-	2000 01 03	704	0.3-	0.4-	2000 01 31	704	0.3-	0.3-
1998 08 23	704	1.1-	1.1+	2000 01 03	704	0.7-	0.6-	2000 01 31	704	0.0	0.2-
1998 08 23	704	(0.4+	2.7+)	2000 01 03	704	0.3-	0.5-	2000 01 31	704	0.3+	0.7-
1998 08 23	704	0.1+	1.6+	2000 01 03	704	0.4+	0.5-	2000 01 31	704	0.5-	1.1-

1999 XM₁₀₀ = 1997 MJ₁₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	30.77472		(2000.0)	P	Q
<i>n</i>	0.18720590	ω	345.40487	+0.28732755	-0.93334554
<i>a</i>	3.0263770	Ω	87.54329	+0.89897187	+0.18523257
<i>e</i>	0.0904653	<i>i</i>	12.43860	+0.33059410	+0.30749797
<i>P</i>	5.26	<i>H</i>	12.5	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1997 06 28	704	0.7+	0.3+	1999 12 07	704	0.1-	0.3-	2000 01 30	704	0.0	0.2+
1997 06 28	704	0.3-	0.5+	1999 12 07	704	0.1-	0.3-	2000 01 30	704	0.1-	0.8+
1997 06 28	704	0.3-	0.6+	1999 12 07	704	0.5-	0.6-	2000 01 30	704	0.3-	0.2+
1997 06 29	704	0.4-	0.6-	1999 12 07	704	0.5-	0.3-	2000 01 30	704	0.3+	0.3-
1997 06 29	704	0.1-	0.9-	1999 12 10	704	0.2+	0.3+	2000 01 31	704	0.6+	0.6+
1997 06 29	704	0.5+	0.1+	1999 12 10	704	0.3+	0.0	2000 01 31	704	0.4+	0.1+
1997 06 29	704	0.3-	0.2-	1999 12 10	704	0.2+	0.9+	2000 01 31	704	0.3-	0.6-
1997 06 29	704	0.1+	0.2+	1999 12 10	704	0.0	0.2+	2000 01 31	704	0.4-	0.9-
1999 12 07	704	0.5+	0.3+	2000 01 30	704	0.3+	0.5+	2000 01 31	704	0.4-	0.7-

1999 XS₁₀₀ = 1992 YR₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	95.39150		(2000.0)	P	Q
n	0.28077942	ω	283.66299	+0.99696193	+0.05021419
a	2.3097193	Ω	73.48381	-0.02117491	+0.91039033
e	0.1836438	i	3.56071	-0.07495689	+0.41069208
P	3.51	H	14.5	G 0.15	U 2

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Residuals in seconds of arc

1992 12 29	033	0.1−	0.5+	1999 12 10	704	0.5+	0.4+	2000 01 04	704	0.3−	0.4−
1992 12 30	033	0.2+	0.6−	1999 12 10	704	1.1+	0.2−	2000 01 06	704	0.7−	0.3−
1993 01 01	033	0.1−	0.9−	1999 12 10	704	0.7+	0.4+	2000 01 06	704	1.2−	0.3−
1998 06 24	704	0.3+	1.4+	1999 12 10	704	0.1+	0.0	2000 01 06	704	0.3−	0.3−
1998 06 24	704	(3.3+ 0.4+)		2000 01 03	704	0.1−	0.1−	2000 01 30	704	0.4−	0.2−
1998 06 24	704	(2.2+ 2.6−)		2000 01 03	704	0.1−	0.3+	2000 01 30	704	0.1−	0.6−
1998 06 24	704	(5.2+ 0.3+)		2000 01 03	704	0.4−	0.5+	2000 01 30	704	0.0	0.5+
1998 06 24	704	0.1+	0.1+	2000 01 03	704	0.0	0.2+	2000 01 30	704	0.5+	0.4+
1999 12 07	704	0.3+	1.1−	2000 01 03	704	1.2−	1.4+	2000 01 31	704	0.3+	0.1+
1999 12 07	704	0.5+	0.8+	2000 01 04	704	0.3−	0.0	2000 01 31	704	0.1−	0.2−
1999 12 07	704	0.3+	0.9+	2000 01 04	704	0.0	0.1+	2000 01 31	704	0.2+	0.2−
1999 12 07	704	0.5+	1.2+	2000 01 04	704	0.2+	0.3+	2000 01 31	704	0.3+	1.2−

1999 XD₁₀₁ = 1978 VH₂ = 1981 QE₄ = 1981 RC₃ = 1998 MF₂₉

Id. G. V. Williams (d, NPC 20606; unpublished)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	142.47902	(2000.0)	<i>P</i>	<i>Q</i>	
<i>n</i>	0.28686137	<i>ω</i>	26.62782	+0.82763740	+0.55983003
<i>a</i>	2.2769562	<i>Ω</i>	299.27117	−0.52279419	+0.74295836
<i>e</i>	0.1310803	<i>i</i>	2.63369	−0.20421206	+0.36688311
<i>P</i>	3.44	<i>H</i>	14.0	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1978 10 30	010	0.8−	0.6−	1999 12 07	704	0.3−	1.8−	2000 01 25	704	0.0	0.4+
1978 11 01	010	0.1+	0.3+	1999 12 07	704	1.5−	0.8−	2000 01 25	704	0.7+	0.7+
1978 11 01	010	0.4−	0.5−	1999 12 10	704	0.3−	0.1−	2000 01 25	704	0.6+	0.4+
1981 08 30	675	0.5+	0.7+	1999 12 10	704	0.3−	0.3−	2000 01 30	704	0.6−	0.0
1981 08 31	675	0.1−	0.1+	1999 12 10	704	0.3−	0.1+	2000 01 30	704	0.3+	0.9+
1981 09 02	095	0.2−	1.3+	1999 12 10	704	0.2−	0.1+	2000 01 30	704	0.5+	1.1+
1998 06 24	704	0.2−	0.2+	1999 12 10	704	0.2−	0.2−	2000 01 30	704	0.7+	0.3+
1998 06 24	704	0.0	0.5−	2000 01 04	704	0.1+	0.1+	2000 01 30	704	0.1+	0.7+
1998 06 24	704	0.1−	0.3−	2000 01 04	704	0.3+	0.3−	2000 01 31	704	0.2+	0.2+
1998 06 24	704	0.4+	1.5−	2000 01 04	704	0.2+	0.5−	2000 01 31	704	0.2+	0.0
1998 06 24	704	1.0−	0.2+	2000 01 04	704	0.2+	0.5−	2000 01 31	704	0.0	0.0
1998 06 26	704	0.7+	0.5+	2000 01 04	704	0.1+	0.7−	2000 01 31	704	0.2+	0.7−
1998 06 26	704	0.0	0.4+	2000 01 05	691	0.2+	0.2−	2000 02 11	704	0.1−	0.6+
1998 06 26	704	0.3+	0.2+	2000 01 05	691	0.2+	0.1−	2000 02 11	704	0.1−	0.2+
1998 06 26	704	0.1+	0.8+	2000 01 05	691	0.2+	0.1−	2000 02 11	704	0.4+	0.5+
1998 06 26	704	1.0−	0.0	2000 01 25	704	0.1−	0.0	2000 02 11	704	0.2−	1.2+
1999 12 07	704	0.6−	0.4−	2000 01 25	704	0.2+	0.7+	2000 02 11	704	0.1−	1.0+

1999 XS₁₀₁ = 1977 CJ₂ = 1998 RX₂₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	356.48236	(2000.0)	<i>P</i>	<i>Q</i>	
<i>n</i>	0.25501022	<i>ω</i>	68.08143	−0.60061097	−0.79857018
<i>a</i>	2.4628105	<i>Ω</i>	58.89256	+0.71553841	−0.55884152
<i>e</i>	0.0963368	<i>i</i>	2.63733	+0.35675094	−0.22356616
<i>P</i>	3.86	<i>H</i>	14.4	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1977 02 11	675	0.1+	0.5+	1999 12 07	704	0.8+	0.9−	2000 01 07	704	0.4+	0.5−
1977 02 12	675	0.1+	0.1+	1999 12 07	704	0.2−	0.1+	2000 01 07	704	0.5+	0.5−
1998 08 17	704	0.8+	0.5−	1999 12 07	704	0.4+	0.1+	2000 01 07	704	0.5+	1.0−
1998 08 17	704	1.8−	1.5+	1999 12 07	704	0.1+	0.6+	2000 01 07	704	0.2+	0.5−
1998 08 17	704	0.2−	0.6−	1999 12 07	704	1.3−	0.2+	2000 01 07	704	0.5+	0.6−
1998 08 17	704	0.2+	1.6+	1999 12 10	704	0.2+	0.2+	2000 01 07	704	1.0+	0.5−
1998 08 17	704	(3.5− 0.4−)		1999 12 10	704	0.3−	0.8+	2000 01 07	704	0.4+	1.0−
1998 09 14	704	0.4+	0.5−	1999 12 10	704	0.1−	0.1+	2000 01 07	704	0.3+	0.6−
1998 09 14	704	(2.0+ 0.5−)		1999 12 10	704	0.2+	0.7+	2000 01 07	704	0.8+	0.9−
1998 09 14	704	1.7+	0.8+	1999 12 10	704	0.2−	0.4+	2000 01 07	704	0.1+	0.8−
1998 09 14	704	(0.8+ 2.3−)		2000 01 03	704	0.2−	0.3+	2000 01 30	704	0.5−	0.2+
1998 09 14	704	0.6+	1.1−	2000 01 03	704	0.0	0.5+	2000 01 30	704	0.3−	0.5+
1998 09 18	704	1.0−	0.8−	2000 01 03	704	0.3+	0.0	2000 01 30	704	0.2−	0.3+
1998 09 18	704	0.6−	0.1−	2000 01 03	704	0.1+	0.3+	2000 01 30	704	0.0	0.1+
1998 09 18	704	0.1−	1.7−	2000 01 03	704	0.3+	0.2+	2000 01 30	704	0.4−	0.2−

1998 09 18	704	0.0	1.2+	2000 01 04	704	0.1+	0.2−	2000 02 11	704	0.1+	0.3−
1999 12 06	703	0.6+	1.0+	2000 01 04	704	0.2+	0.2−	2000 02 11	704	0.0	0.9+
1999 12 06	703	0.7−	0.1+	2000 01 04	704	0.5−	0.2−	2000 02 11	704	0.5−	0.4+
1999 12 06	703	0.3−	1.8+	2000 01 04	704	0.1−	0.2−	2000 02 11	704	0.1−	0.2+
1999 12 06	703	0.9−	0.6+	2000 01 04	704	0.8−	0.2−	2000 02 11	704	0.6−	1.2−

1999 XD₁₀₂ = 1981 UG₂₂ = 1996 KM₅ = 1998 UO₄₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	94.91502	(2000.0)	<i>P</i>	<i>Q</i>	
<i>n</i>	0.17213536	<i>ω</i>	287.63256	+0.94517827	−0.29572391
<i>a</i>	3.2005355	<i>Ω</i>	89.74361	+0.32654667	+0.85891090
<i>e</i>	0.0650010	<i>i</i>	7.96180	−0.00230244	+0.41811415
<i>P</i>	5.73	<i>H</i>	13.2	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1981 10 24	675	0.1+	0.5+	1998 11 13	704	1.0+	0.1+	2000 01 04	704	0.5+	0.4−
1981 10 25	675	0.2+	0.0	1998 11 13	704	(2.8+ 0.2+)		2000 01 04	704	0.6+	0.3−
1981 10 26	675	0.5−	0.0	1998 11 13	704	1.1+	0.2−	2000 01 04	704	1.0+	0.2−
1996 05 22	809	(0.9− 3.8−)		1998 11 13	704	1.0+	1.3−	2000 01 08	704	0.8−	0.1−
1996 05 22	809	(1.8− 3.5−)		1998 11 13	704	0.0	1.2+	2000 01 08	704	0.3−	0.1+
1996 05 22	809	(1.0− 2.8−)		1999 12 07	704	0.9−	0.7+	2000 01 08	704	0.1+	0.2+
1996 05 24	809	0.9−	1.7−	1999 12 07	704	0.4+	0.4−	2000 01 08	704	0.1+	0.7+
1996 05 24	809	0.4−	1.7−	1999 12 07	704	1.7+	0.5+	2000 01 08	704	1.0+	0.4+
1996 05 24	809	(1.3− 2.1−)		1999 12 07	704	0.9−	0.4+	2000 01 30	704	0.2−	0.1+
1998 10 20	699	0.8+	0.4−	1999 12 07	704	0.3−	0.1+	2000 01 30	704	0.0	1.0−
1998 10 20	699	0.1+	0.4−	1999 12 10	704	0.0	0.3−	2000 01 30	704	0.1+	0.7−
1998 10 20	699	0.3+	0.1−	1999 12 10	704	1.6−	0.1−	2000 01 30	704	0.1−	0.2+
1998 10 28	704	0.8+	0.7+	1999 12 10	704	0.1−	0.5+	2000 01 30	704	0.9−	0.8−
1998 10 28	704	1.2−	1.4−	1999 12 10	704	0.3−	0.2−	2000 01 31	704	0.0	0.5+
1998 10 28	704	1.5−	0.8+	2000 01 03	704	0.0	0.3+	2000 01 31	704	0.5−	0.2+
1998 10 28	704	0.3−	0.5−	2000 01 03	704	0.7+	0.6−	2000 01 31	704	0.6−	0.0
1998 10 29	704	0.2+	0.1−	2000 01 03	704	0.2+	1.1−	2000 01 31	704	0.0	0.6−
1998 10 29	704	0.1−	0.6+	2000 01 03	704	0.4+	0.4−	2000 02 11	704	0.4+	0.4+
1998 10 29	704	0.0	0.9−	2000 01 03	704	0.5+	0.3−	2000 02 11	704	0.4−	0.1−
1998 10 29	704	0.3−	0.8−	2000 01 04	704	0.1−	0.1−	2000 02 11	704	0.2−	0.7+
1998 10 29	704	0.0	0.6−	2000 01 04	704	0.3+	0.3+				

1999 XF₁₀₂ = 1989 AA₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams		Spahr	
<i>M</i>	32.77558	(2000.0)	<i>P</i>	<i>Q</i>	
<i>n</i>	0.17408978	<i>ω</i>	133.78999	+0.48103220	−0.87495413
<i>a</i>	3.1765366	<i>Ω</i>	287.38136	+0.78678838	+0.45868575
<i>e</i>	0.1811399	<i>i</i>	3.32474	+0.38674549	+0.15512138
<i>P</i>	5.66	<i>H</i>	13.9	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1989 01 04	413	1.5−	0.1−	1998 09 14	699	0.3+	0.2−	2000 01 03	704	0.2−	0.0
1989 01 04	413	2.3+	0.3+	1998 09 14	699	1.1+	0.0	2000 01 03	704	0.2−	0.1−
1989 01 10	413	1.1−	1.7+	1998 09 14	699	0.8+	0.3+	2000 01 03	704	0.1−	0.2−
1989 01 10	413	0.4+	1.7−	1999 12 07	704	(3.4− 0.7−)		2000 01 04	704	0.2+	0.4+
1998 08 17	704	0.9−	0.5+	1999 12 07	704	0.1−	0.7+	2000 01 04	704	0.0	0.6+

1999 XJ₁₀₂ = 1995 TK₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	67.85446		(2000.0)	P			Q				
<i>n</i>	0.27042571	<i>ω</i>	77.48882		+0.94350053		−0.33078029				
<i>a</i>	2.3683037	<i>Ω</i>	301.82429		+0.29427213		+0.86381684				
<i>e</i>	0.2232859	<i>i</i>	1.33378		+0.15235047		+0.38000641				
<i>P</i>	3.64	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	5				
Residuals in seconds of arc											
1995 10 14	327	0.1+	0.1+	1995 10 17	691	0.1−	0.0	1999 12 10	704	0.4−	0.8+
1995 10 14	327	0.2−	0.2+	1995 10 17	691	0.0	0.3−	2000 01 03	704	0.7−	0.3−
1995 10 14	327	0.0	0.3−	1999 12 07	704	0.6+	0.1+	2000 01 03	704	0.4−	0.5+
1995 10 15	327	0.0	0.1−	1999 12 07	704	0.4+	0.1−	2000 01 03	704	0.2+	0.2−
1995 10 15	327	0.3+	0.2+	1999 12 07	704	0.2−	0.3−	2000 01 04	704	0.3+	0.2−
1995 10 15	327	0.1+	0.2+	1999 12 10	704	0.4−	0.9−	2000 01 04	704	0.3+	0.2+
1995 10 17	691	0.1−	0.1−	1999 12 10	704	0.2−	0.4+	2000 01 04	704	0.4+	0.1−

1999 XV₁₀₂ = 1980 RK₈ = 1998 OE₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	153.19354		(2000.0)		P		Q		
<i>n</i>	0.26971870	<i>ω</i>	23.58068		+0.71223690		+0.69519938		
<i>a</i>	2.3724406	<i>Ω</i>	292.00305		−0.65952436		+0.61544777		
<i>e</i>	0.1245773	<i>i</i>	6.00766		−0.24030442		+0.37137833		
<i>P</i>	3.65	<i>H</i>	14.8	<i>G</i>	0.15		<i>U</i>	4	
Residuals in seconds of arc									
1980 09 13	675	0.4−	0.3−	1998 07 27	910	0.3+	0.4+	2000 01 03	704 0.2+ 0.8+
1980 09 14	675	0.7+	0.5−	1998 07 27	910	0.2+	0.5+	2000 01 03	704 0.2− 0.1+
1998 07 03	699	0.3−	0.4−	1998 07 27	910	0.2+	0.7+	2000 01 03	704 0.3− 0.3+
1998 07 03	699	0.2−	1.0+	1999 12 07	704	0.4+	0.2+	2000 01 03	704 0.9− 0.1−
1998 07 03	699	0.7+	0.4+	1999 12 07	704	1.0−	0.4−	2000 01 03	704 0.1+ 0.3−
1998 07 15	699	0.3−	0.0	1999 12 07	704	(2.3−	0.1−)	2000 01 04	704 1.6+ 0.3−
1998 07 15	699	1.1−	0.3−	1999 12 07	704	1.4−	0.6+	2000 01 04	704 0.2− 0.9+
1998 07 15	699	0.5−	0.2−	1999 12 10	704	0.3−	0.6−	2000 01 04	704 0.5+ 0.7+
1998 07 24	910	0.1+	0.1+	1999 12 10	704	0.1+	0.2−	2000 01 30	704 0.4− 0.0
1998 07 24	910	0.0	0.0	1999 12 10	704	0.9+	0.1−	2000 01 30	704 0.5+ 0.9+
1998 07 24	910	0.0	0.0	1999 12 10	704	0.0	0.4−	2000 01 30	704 0.6+ 0.5+

1999 XO₁₀₃ = 1998 QL₁₀₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	47.95361		(2000.0)		P		Q		
<i>n</i>	0.21408632	<i>ω</i>	33.22889		+0.38770726		−0.92153526		
<i>a</i>	2.7674308	<i>Ω</i>	33.97310		+0.83717239		+0.34233148		
<i>e</i>	0.0787521	<i>i</i>	2.18968		+0.38577905		+0.18325374		
<i>P</i>	4.60	<i>H</i>	14.3		<i>G</i>	0.15	<i>U</i>	4	
Residuals in seconds of arc									
1998 08 23	704 (2.8−	3.7−)	1999 12 07	704 0.9−	0.7−	2000 01 04	704 0.6+	1.3+	
1998 08 23	704 0.7−	0.9−	1999 12 10	704 0.7+	0.5−	2000 01 30	704 1.1+	0.0	
1998 08 23	704 (5.4−	2.6−)	1999 12 10	704 0.2−	0.1+	2000 01 30	704 0.1+	0.5−	
1998 08 23	704 (6.3−	4.5−)	1999 12 10	704 0.2+	0.4−	2000 01 30	704 0.0	1.8−	
1998 08 26	809 0.8+	0.4+	1999 12 10	704 0.5−	0.1−	2000 01 31	704 1.3−	1.0−	
1998 08 26	809 0.1−	0.1−	2000 01 03	704 0.3+	0.7+	2000 01 31	704 0.5+	1.0−	
1998 08 26	809 0.2+	0.6+	2000 01 03	704 0.0	0.4+	2000 01 31	704 0.1−	0.3−	
1998 08 27	809 0.6−	0.3−	2000 01 03	704 0.2+	0.8+	2000 02 11	704 0.2+	0.5+	
1998 08 27	809 0.3−	0.3−	2000 01 03	704 0.3−	0.3+	2000 02 11	704 0.5−	1.0+	
1998 08 27	809 0.8+	0.1+	2000 01 03	704 0.4+	0.7−	2000 02 11	704 0.7−	0.9−	
1999 12 07	704 0.7+	0.1−	2000 01 04	704 0.0	1.2+	2000 02 11	704 0.0	0.6−	
1999 12 07	704 0.9−	0.5+	2000 01 04	704 0.3+	1.3+				

1999 XV₁₀₄ = 1992 DS₁ = 1993 OD₇

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	309.48270		(2000.0)		P		Q		
<i>n</i>	0.23768463	<i>ω</i>	66.51616		−0.98425155		+0.12316219		
<i>a</i>	2.5810831	<i>Ω</i>	120.34302		−0.15856665		−0.93220133		
<i>e</i>	0.1454463	<i>i</i>	8.44931		+0.07813777		−0.34034066		
<i>P</i>	4.15	<i>H</i>	13.6		<i>G</i>	0.15	<i>U</i>	3	
Residuals in seconds of arc									
1992 02 27	033	0.9−	0.6+	1999 12 11	411	1.1−	0.3+	2000 02 02	704 0.3− 0.1−
1992 02 27	033	0.5+	0.4−	1999 12 11	411	0.4+	1.1+	2000 02 02	704 0.0 0.0
1992 02 28	033	0.3+	0.5−	1999 12 19	411	0.6−	0.0	2000 02 02	704 0.0 0.1+
1993 07 20	809	1.1+	0.0	1999 12 19	411	0.4+	0.2+	2000 02 02	704 0.2+ 0.2−
1993 07 20	809	0.1−	0.6−	2000 01 10	411	0.7+	0.3−	2000 02 03	704 0.1− 0.0
1993 07 20	809	0.8−	1.1−	2000 01 10	411	0.2+	1.4−	2000 02 03	704 0.0 0.2−
1993 07 24	809	0.1−	0.2−	2000 01 31	411	1.7+	0.2−	2000 02 03	704 0.7− 0.5−
1999 12 10	411	1.2−	0.3−	2000 01 31	411	0.6+	0.1+	2000 02 03	704 0.1+ 0.0
1999 12 10	411	0.0	0.3−	2000 02 02	704	0.4−	0.4+	2000 02 03	704 0.2− 0.1−

1999 XY₁₀₄ = 1985 UT₁ = 1992 DA₃ = 1997 EE₃

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	75.39857		(2000.0)		P		Q		
<i>n</i>	0.21015090	<i>ω</i>	333.69074		+0.92755563		+0.37365911		
<i>a</i>	2.8018736	<i>Ω</i>	4.37485		−0.33185811		+0.82909752		
<i>e</i>	0.1581781	<i>i</i>	3.31198		−0.17178693		+0.41590404		
<i>P</i>	4.69	<i>H</i>	13.7		<i>G</i>	0.15	<i>U</i>	1	
Residuals in seconds of arc									
1985 10 22	033	(3.7+ 1.8−)	1999 10 03	703	0.3+	0.4+	1999 11 16	704	0.3+ 0.7−
1992 02 24	691	0.6− 0.4+	1999 10 29	703	0.6− 0.4−		1999 11 16	704	0.3+ 0.2−
1992 02 24	691	0.2− 0.1−	1999 10 29	703	0.9− 0.1+		1999 11 16	704	0.6+ 0.5−
1992 02 24	691	0.1− 0.3+	1999 10 29	703	0.7− 0.2+		1999 11 16	704	0.1+ 0.7−
1992 03 11	691	0.6+ 0.1−	1999 10 29	703	1.1− 0.7−		1999 12 07	699	0.1+ 1.6+
1992 03 11	691	0.1+ 0.3+	1999 11 03	704	0.0 0.1+		1999 12 07	699	0.1+ 0.1+
1992 03 11	691	0.7+ 0.2+	1999 11 03	704	0.1− 0.7+		1999 12 07	699	0.2+ 1.6+
1997 03 02	691	0.4− 0.4−	1999 11 03	704	0.1− 0.3+		1999 12 08	704	0.7+ 0.1−
1997 03 02	691	0.3− 0.6−	1999 11 03	704	0.1+ 0.7+		1999 12 08	704	0.4+ 0.7−
1997 03 02	691	0.2− 0.3−	1999 11 03	704	0.5+ 0.6+		1999 12 08	704	0.4+ 0.5−
1997 03 07	691	0.1− 0.2−	1999 11 11	703	0.0 0.4+		1999 12 08	704	0.3+ 0.4−
1997 03 07	691	0.2− 0.4−	1999 11 11	703	0.4− 0.2+		1999 12 08	704	0.3− 0.5−
1997 03 07	691	0.1+ 0.5−	1999 11 11	703	0.5− 0.1+		1999 12 09	678	0.2+ 0.2−
1998 06 24	704	0.2− 0.6+	1999 11 11	703	0.2− 0.1−		1999 12 09	678	0.5− 0.7+
1998 06 24	704	0.7+ 1.2−	1999 11 14	704	1.0+ 0.8−		1999 12 11	678	0.3+ 0.4−
1998 06 24	704	1.0+ 0.5−	1999 11 14	704	0.3+ 0.8−		1999 12 11	678	1.5+ 0.6+
1998 06 24	704	1.7− 0.2+	1999 11 14	704	0.0 0.8−		1999 12 12	703	0.8− 0.0
1999 10 03	704	0.6+ 0.0	1999 11 14	704	0.1+ 1.0−		1999 12 12	703	0.5+ 0.1+
1999 10 03	704	0.3+ 1.0−	1999 11 14	703	0.6− 0.3+		1999 12 12	703	0.4− 0.7+
1999 10 03	704	0.1+ 0.0	1999 11 14	703	0.3+ 0.2+		1999 12 12	703	0.1− 0.0
1999 10 03	704	0.1− 0.7−	1999 11 14	704	0.0 1.0−		2000 01 06	704	0.7− 1.2−
1999 10 03	703	0.1+ 0.1−	1999 11 14	703	0.0 0.3+		2000 01 06	704	0.2− 0.7+
1999 10 03	703	0.0 0.2+	1999 11 14	703	0.7− 0.3+		2000 01 06	704	0.2+ 1.0+
1999 10 03	703	0.1+ 0.5+	1999 11 16	704	0.5+ 0.6−				

1999 XU₁₀₆ = 1991 JC₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	181.35845			(2000.0)		P		Q			
n	0.28421405			ω	205.99845	−0.43957281		+0.89138669			
a	2.2910735			Ω	38.20276	−0.78980283		−0.32500789			
e	0.1846624			i	10.29050	−0.42777007		−0.31591082			
P	3.47			H	14.3	G	0.15	U	4		
Residuals in seconds of arc											
1991 05 08	675	0.1+	0.2+	1999 11 04	704	0.5−	0.2+	1999 11 15	704	0.6+	0.0
1991 05 08	675	0.3−	1.9−	1999 11 04	704	0.6−	0.3+	1999 11 16	704	0.5−	0.4−
1991 05 10	675	1.5+	1.9+	1999 11 04	704	0.6+	0.1−	1999 11 16	704	0.6−	0.5+

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1991 05 10	675	1.4−	0.4−	1999 11 04	704	0.7−	0.1−	1999 11 16	704	0.3+	0.4+
1999 10 02	703	0.3+	0.0	1999 11 11	703	0.5−	0.3+	1999 11 16	704	1.2+	0.3+
1999 10 02	703	0.0	0.5+	1999 11 11	703	0.1−	0.2−	1999 12 04	703	(2.8−	1.1−)
1999 10 02	703	0.2+	0.3+	1999 11 11	703	0.3−	0.2−	1999 12 04	703	1.4−	0.4−
1999 10 02	703	0.6+	0.7+	1999 11 11	703	0.1−	0.0	1999 12 04	703	0.2+	0.3−
1999 10 03	704	0.1+	0.2−	1999 11 14	704	0.5+	0.4−	1999 12 04	703	0.8+	0.0
1999 10 03	704	1.1−	0.6−	1999 11 14	704	0.8+	0.0	1999 12 06	704	0.2+	0.7−
1999 10 03	704	0.4+	0.4−	1999 11 14	704	0.5+	0.2−	1999 12 06	704	0.4+	0.9+
1999 10 03	704	0.8−	0.9−	1999 11 14	704	0.6+	0.0	1999 12 06	704	0.6−	0.3−
1999 10 29	703	0.4−	0.2−	1999 11 14	704	0.7+	0.1+	1999 12 06	704	0.4−	0.3+
1999 10 29	703	0.4−	0.6+	1999 11 15	704	0.0	0.1−	1999 12 12	703	0.2−	0.4+
1999 10 29	703	0.4−	0.0	1999 11 15	704	0.7+	0.2+	1999 12 12	703	0.3+	0.1+
1999 10 29	703	1.0−	1.0−	1999 11 15	704	0.1+	0.1+	1999 12 12	703	0.3+	0.0
1999 11 04	704	0.5+	0.2+	1999 11 15	704	0.1+	0.0	1999 12 12	703	0.1+	0.1+

1999 XE₁₀₈ = 1998 MS₄₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.19712850	ω	268.64616	+0.99401426	+0.09508215		
<i>a</i>	2.9239488	Ω	85.89582	−0.06572041	+0.91383157		
<i>e</i>	0.1131776	<i>i</i>	3.09226	−0.08727245	+0.39480532		
<i>P</i>	5.00	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 06 26	704	1.2−	0.6+	1999 11 01	703	0.1+	0.5+	1999 11 15	704	0.2+	0.1−
1998 06 26	704	0.9+	0.1−	1999 11 04	704	0.1−	0.2−	1999 11 15	704	0.3−	0.2+
1998 06 26	704	0.9−	1.3−	1999 11 04	704	0.5+	0.1+	1999 11 15	704	0.3+	0.0
1998 06 26	704	1.4+	1.8+	1999 11 04	704	0.4−	0.5−	1999 12 04	703	0.1+	0.5+
1998 06 28	809	(2.5+	4.3+)	1999 11 04	704	0.3+	0.0	1999 12 04	703	0.1−	0.0
1998 06 28	809	(1.6+	4.2+)	1999 11 04	704	0.8+	0.5−	1999 12 04	703	0.6−	1.1+
1998 06 28	809	(2.1+	5.0+)	1999 11 14	704	0.0	0.1−	1999 12 04	703	0.1−	0.3−
1998 07 01	809	0.5+	0.3−	1999 11 14	704	0.2+	0.4−	1999 12 12	703	0.6+	1.2−
1998 07 01	809	0.3−	0.5−	1999 11 14	704	0.5−	0.4−	1999 12 12	703	0.6+	0.4+
1998 07 01	809	0.3−	0.3−	1999 11 14	704	0.0	0.2−	1999 12 12	703	0.2+	0.0
1999 11 01	703	0.1−	0.7+	1999 11 14	704	0.1−	0.3−	1999 12 12	703	0.7−	0.1+
1999 11 01	703	0.8−	0.5+	1999 11 15	704	0.1+	0.2−				
1999 11 01	703	0.1−	0.1+	1999 11 15	704	0.1+	0.2+				

1999 XG₁₀₈ = 1996 FJ₁₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.17139558	ω	100.28070	−0.94067725	+0.33656254		
<i>a</i>	3.2097384	Ω	99.39709	−0.32587595	−0.86083102		
<i>e</i>	0.1070990	<i>i</i>	2.50002	−0.09450488	−0.38170094		
<i>P</i>	5.75	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1996 03 16	566	1.1+	1.2+	1998 08 17	704	0.9−	0.5+	1999 11 15	704	0.1+	0.1+
1996 03 16	566	0.9+	1.2+	1999 11 01	703	0.4−	0.4+	1999 11 15	704	0.1−	0.1+
1996 03 16	566	1.3+	1.3+	1999 11 01	703	0.1−	0.1+	1999 11 15	704	0.3+	0.0
1996 03 19	691	0.6−	0.2−	1999 11 01	703	0.2+	1.0+	1999 11 15	704	0.6+	0.3−
1996 03 19	691	0.6−	0.1−	1999 11 01	703	0.1−	0.9+	1999 12 04	703	0.5−	1.1+
1996 03 19	691	0.6−	0.1−	1999 11 04	704	1.2+	1.6−	1999 12 04	703	0.1−	1.2+
1996 03 23	691	0.1+	0.3+	1999 11 04	704	1.5−	1.4−	1999 12 04	703	0.4−	0.0
1996 03 23	691	0.0	0.2+	1999 11 04	704	0.1+	1.2−	1999 12 04	703	1.2−	0.2+
1997 06 29	704	0.2−	0.1+	1999 11 04	704	0.6−	0.0	1999 12 07	704	1.0+	0.2+
1997 06 29	704	0.5−	0.5+	1999 11 04	704	0.4−	0.6−	1999 12 07	704	0.5+	0.8+
1997 06 29	704	0.7+	0.1+	1999 11 14	704	1.0+	0.0	1999 12 07	704	0.9+	0.9+
1997 06 29	704	(2.8−	0.5+)	1999 11 14	704	0.2+	0.4−	1999 12 12	703	1.0−	1.5+
1998 08 17	704	1.4−	1.6+	1999 11 14	704	0.0	0.4−	1999 12 12	703	0.2−	0.1−
1998 08 17	704	0.4−	0.2+	1999 11 14	704	0.1+	0.0	1999 12 12	703	0.6+	0.4+
1998 08 17	704	0.2−	0.6+	1999 11 14	704	0.2+	0.1+	1999 12 12	703	1.4−	0.4−
1998 08 17	704	1.7+	0.0	1999 11 15	704	0.0	0.3−				

1999 XC₁₁₂ = 1995 SS₄₄ = 1997 GQ₃₀

Id. A. Doppler, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26167406	ω	54.21510	+0.63037977	−0.77628626		
<i>a</i>	2.4208187	Ω	356.70624	+0.70651332	+0.57425213		
<i>e</i>	0.1781564	<i>i</i>	0.99419	+0.32165241	+0.26002719		
<i>P</i>	3.77	<i>H</i>	16.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1995 09 25	691	0.2+	0.4−	1999 11 14	704	0.5+	0.8−	1999 12 12	704	0.0	0.4−
1995 09 25	691	0.3+	0.2−	1999 11 14	704	1.4−	0.2+	1999 12 12	704	0.2+	0.8−
1995 10 01	691	0.1−	0.6−	1999 11 14	704	0.4−	0.0	1999 12 12	704	0.0	1.0−
1995 10 01	691	0.4+	0.4−	1999 11 14	704	0.2+	0.6−	1999 12 13	704	0.6−	0.8+
1995 10 01	691	0.1+	0.4−	1999 11 14	704	0.2−	0.5−	1999 12 13	704	0.7−	0.3+
1997 04 08	691	0.5+	0.1−	1999 11 16	704	0.1−	0.2−	1999 12 13	704	0.3−	0.4+
1997 04 08	691	0.5+	0.3−	1999 11 16	704	0.4+	0.6−	1999 12 13	704	0.5−	0.4+
1997 04 08	691	0.4+	0.1−	1999 11 16	704	0.2+	0.5−	1999 12 13	704	0.4+	0.0
1997 04 08	691	0.0	0.2+	1999 11 16	704	0.1−	0.3−	1999 12 13	704	0.7−	0.2+
1997 04 08	691	0.8−	0.3−	1999 11 16	704	0.3−	0.9+	1999 12 13	704	0.1−	0.3−
1997 04 08	691	0.8−	0.3−	1999 12 07	704	0.4+	0.6−	1999 12 13	704	0.7−	0.0
1997 04 16	691	0.4−	0.5−	1999 12 07	704	0.1−	0.2+	1999 12 13	704	0.4+	0.1−
1997 04 16	691	0.5−	0.8−	1999 12 07	704	0.8−	0.7+	1999 12 13	704	0.3−	0.4+
1997 04 16	691	0.1−	0.7−	1999 12 07	704	0.3+	0.3+	2000 01 04	704	0.0	0.3+
1999 11 03	704	1.9+	0.6+	1999 12 07	704	0.0	0.2−	2000 01 04	704	1.0+	0.8+
1999 11 03	704	0.8+	0.3−	1999 12 12	704	0.4−	0.5+	2000 01 04	704	1.1+	0.7−
1999 11 03	704	0.3+	0.1+	1999 12 12	704	0.2+	0.0	2000 01 04	704	0.3−	0.5+

1999 XT₁₁₈ = 1994 JZ₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.24070155	ω	293.91662	+0.94332096	+0.31981439		
<i>a</i>	2.5594705	Ω	47.56273	−0.24364103	+0.84876898		
<i>e</i>	0.3108412	<i>i</i>	6.90141	−0.22535440	+0.42108191		
<i>P</i>	4.09	<i>H</i>	16.0	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1994 05 04	691	0.3−	0.4−	1999 11 14	704	0.3+	0.4+	1999 12 05	703	0.1−	0.6+
1994 05 04	691	0.0	0.2−	1999 11 14	704	0.5−	0.1−	1999 12 05	703	1.8−	0.1+
1994 05 17	691	0.0	0.1−	1999 11 15	704	0.3+	0.0	1999 12 05	703	0.6−	0.3+
1994 05 17	691	0.3−	0.1+	1999 11 15	704	0.2+	0.3+	1999 12 08	704	0.6−	0.0
1994 05 17	691	0.3+	0.3−	1999 11 15	704	0.2+	0.3+	1999 12 08	704	0.5−	0.7−
1999 11 03	704	1.6−	0.3−	1999 11 15	704	0.1+	0.1+	1999 12 08	704	0.0	0.6−
1999 11 03	704	0.1−	0.5−	1999 11 15	704	0.4+	0.0	1999 12 08	704	0.2+	0.2+
1999 11 03	704	0.1−	1.3−	1999 11 16	704	1.3+	1.4+	1999 12 08	704	0.0	1.1−
1999 11 03	704	0.4−	1.4−	1999 11 16	704	0.9+	0.5+	1999 12 13	703	0.9−	0.8−
1999 11 14	704	0.0	0.2+	1999 11 16	704	0.6+	0.0	1999 12 13	703	(2.8−	0.2+)
1999 11 14	704	0.3+	0.5+	1999 11 16	704	1.2+	0.5−	1999 12 13	703	0.8+	0.2+
1999 11 14	704	0.6+	0.4+	1999 12 05	703	0.7+	0.2−	1999 12 13	703	1.1−	0.8+

1999 XP₁₂₀ = 1983 VL₇ = 1988 VZ₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.18723922	ω	72.74048	−0.40082300	−0.90856873		
<i>a</i>	3.0260180	Ω	41.51933	+0.75861787	−0.40115539		
<i>e</i>	0.1048382	<i>i</i>	10.22415	+0.51365343	−0.11652135		
<i>P</i>	5.26	<i>H</i>	12.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

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1999 11 16	704	0.3−	0.2+	1999 12 15	704	0.4+	0.1+	2000 01 31	704	0.3+	0.4+
1999 11 16	704	0.2−	0.4+	1999 12 15	704	0.8+	0.3+	2000 01 31	704	0.6+	0.1−
1999 11 16	704	0.9−	0.3+	1999 12 15	704	0.7+	1.1−				
1999 12 05	703	0.6−	0.3+	1999 12 15	704	0.5+	0.5−				

1999 XS₁₂₀ = 1991 NF₄ = 1998 MM₂₅ = 2000 AB₁₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	186.21569		(2000.0)	P	Q
<i>n</i>	0.27862168	ω	333.19901	−0.21776360	+0.97120857
<i>a</i>	2.3216288	Ω	284.09557	−0.87665050	−0.23814624
<i>e</i>	0.0880042	<i>i</i>	5.71649	−0.42902554	−0.00634660
<i>P</i>	3.54	<i>H</i>	14.1	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1991 07 08	809	1.3−	0.9+	1998 06 26	704	(2.4−	0.2+)	2000 01 03	704	0.5−	0.9−
1991 07 08	809	1.0−	0.9+	1998 06 26	704	(1.1+	2.2+)	2000 01 04	704	0.1+	0.0
1991 07 08	809	0.6−	0.8+	1998 06 26	704	0.2+	0.6−	2000 01 04	704	0.1−	0.0
1991 07 08	809	0.1−	0.9+	1998 06 26	704	0.8−	0.3+	2000 01 04	704	0.9+	0.2+
1991 07 08	809	0.3+	0.9+	1999 12 05	703	0.1+	0.4+	2000 01 04	704	0.3+	0.6−
1991 07 08	809	0.5+	0.8+	1999 12 05	703	0.1−	0.7+	2000 01 04	704	0.4+	0.1−
1991 07 10	809	0.4+	1.2−	1999 12 05	703	0.0	0.5+	2000 01 30	704	0.3+	0.1+
1991 07 10	809	0.9+	1.1−	1999 12 05	703	0.5−	0.6+	2000 01 30	704	0.3+	0.5+
1991 07 10	809	1.3+	1.2−	1999 12 13	703	0.6−	0.2+	2000 01 30	704	0.2+	0.5+
1991 07 11	809	0.2−	1.2−	1999 12 13	703	0.0	0.1+	2000 01 30	704	0.9−	0.0
1991 07 11	809	0.1+	0.9−	1999 12 13	703	0.3−	0.4+	2000 01 30	704	0.8−	0.4+
1991 07 11	809	0.2+	1.0−	1999 12 13	703	0.1+	0.3−	2000 01 31	704	0.4+	0.1+
1998 06 24	704	0.4+	0.6+	2000 01 03	704	0.3+	0.9−	2000 01 31	704	0.5−	0.2−
1998 06 24	704	0.0	0.3−	2000 01 03	704	0.3+	0.7−	2000 01 31	704	1.1−	0.0
1998 06 24	704	0.1−	1.4+	2000 01 03	704	0.6+	0.1+				
1998 06 24	704	0.0	0.6+	2000 01 03	704	1.0+	0.4−				

1999 XZ₁₂₀ = 1986 WY₉ = 1990 SJ₁₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	60.01858		(2000.0)	P	Q
<i>n</i>	0.22783210	ω	40.94971	+0.99939200	−0.01339820
<i>a</i>	2.6549689	Ω	319.78323	−0.00183133	+0.90177156
<i>e</i>	0.2355879	<i>i</i>	2.85753	+0.03481787	+0.43200526
<i>P</i>	4.33	<i>H</i>	15.0	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1986 11 30	381	0.1−	0.3+	1999 11 16	704	(3.0+	0.6−)	1999 12 13	703	0.1−	0.7−
1986 11 30	381	0.8+	1.4+	1999 11 16	704	0.3+	0.5−	1999 12 13	703	0.1+	0.2−
1986 12 01	381	1.6−	0.6−	1999 11 16	704	0.1+	0.1−	1999 12 13	703	0.4+	1.0+
1986 12 01	381	0.8+	1.1−	1999 11 16	704	0.1+	0.4−	1999 12 13	703	0.3−	0.6+
1990 09 16	675	0.4+	0.4+	1999 12 05	703	0.4−	0.6−	1999 12 15	704	1.1−	0.8−
1990 09 16	675	0.2−	0.2−	1999 12 05	703	1.0−	0.6+	1999 12 15	704	0.5+	0.6+
1990 09 19	675	0.0	0.2−	1999 12 05	703	0.4+	0.5+	1999 12 15	704	0.7+	0.1−
1990 09 19	675	0.3−	0.1+	1999 12 05	703	0.1−	0.1−	1999 12 15	704	0.3+	0.1+

1999 XE₁₂₂ = 1996 XX₂₇ = 1998 MD₂₇

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	179.19999		(2000.0)	P	Q
<i>n</i>	0.25433134	ω	315.58607	−0.35903739	+0.91697417
<i>a</i>	2.4671911	Ω	292.66058	−0.79524466	−0.39810738
<i>e</i>	0.1452758	<i>i</i>	10.86389	−0.48854691	−0.02586290
<i>P</i>	3.88	<i>H</i>	14.4	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1996 12 11	691	0.2+	0.2−	1998 06 26	704	0.5+	0.6−	1999 12 07	703	1.4+	0.8−
1996 12 11	691	0.3+	0.0	1998 06 26	704	0.8+	0.2+	1999 12 07	703	1.1−	1.6+
1996 12 11	691	0.0	0.2−	1998 06 26	704	0.3+	0.0	1999 12 07	703	(2.5+	1.8−)
1996 12 15	691	0.1−	0.1+	1998 06 26	704	0.5+	2.0−	1999 12 13	703	0.5+	1.3−
1996 12 15	691	0.2−	0.1−	1998 07 21	704	0.8−	0.4+	1999 12 13	703	0.5−	1.1+
1996 12 15	691	0.3−	0.1+	1998 07 21	704	(0.9+	2.7−)	1999 12 13	703	0.5−	0.2+

1998 06 24	704	0.4−	0.6−	1998 07 21	704	(1.9−	2.9−)	1999 12 13	703	1.0−	0.9−
1998 06 24	704	0.8+	0.9+	1998 07 21	704	(6.2−	1.4−)	1999 12 15	704	0.4+	1.1−
1998 06 24	704	0.4−	1.7+	1999 12 05	699	0.9+	1.5+	1999 12 15	704	0.1−	0.6−
1998 06 24	704	1.0−	0.2+	1999 12 05	699	0.2+	0.1+	1999 12 15	704	0.4+	1.3−
1998 06 24	704	0.7−	0.6+	1999 12 05	699	0.1−	0.3+				
1998 06 26	704	0.3+	1.3−	1999 12 07	703	0.4−	1.0+				

1999 XQ₁₂₄ = 1993 TY₃₅

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	16.77848		(2000.0)	P	Q
<i>n</i>	0.17457273	ω	31.12534	+0.52271609	−0.84835570
<i>a</i>	3.1706753	Ω	27.62636	+0.74016495	+0.40271835
<i>e</i>	0.1287479	<i>i</i>	10.44012	+0.42299377	+0.34367213
<i>P</i>	5.65	<i>H</i>	14.7	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1993 10 09	809	(2.4+	0.0)	1993 10 20	809	0.9−	0.2+	1999 12 07	703	0.1−	0.0
1993 10 09	809	1.7+	1.5−	1999 11 03	704	0.0	0.0	1999 12 07	703	0.2+	0.0
1993 10 09	809	1.7+	0.4+	1999 11 03	704	0.1−	0.0	1999 12 07	703	0.4−	0.4+
1993 10 11	809	0.9+	0.4+	1999 11 03	704	1.1+	0.0	1999 12 13	703	0.1−	0.9−
1993 10 11	809	0.5−	0.4+	1999 12 05	699	1.3+	1.0+	1999 12 13	703	1.8−	0.5+
1993 10 11	809	0.7−	0.9+	1999 12 05	699	0.1−	0.5+	1999 12 13	703	0.1−	0.3−
1993 10 20	809	1.0−	0.3−	1999 12 05	699	0.1+	0.2−	1999 12 13	703	0.6+	0.8−
1993 10 20	809	1.3−	0.4−	1999 12 07	703	0.7−	0.4−				

1999 XP₁₂₈ = 1998 QM₃₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	156.11387		(2000.0)	P	Q
<i>n</i>	0.21935934	ω	238.83480	+0.26813769	+0.96165949
<i>a</i>	2.7229017	Ω	46.83448	−0.85484945	+0.26505571
<i>e</i>	0.1381810	<i>i</i>	4.52632	−0.44422358	+0.07040244
<i>P</i>	4.49	<i>H</i>	14.1	<i>G</i>	0.15
				<i>U</i>	5

Residuals in seconds of arc

1998 08 17	704	0.1+	0.2+	1999 11 16	704	1.3−	1.0−	1999 12 13	704	0.9+	0.8+
1998 08 17	704	0.9+	0.3+	1999 11 16	704	0.0	1.3−	1999 12 13	704	1.1+	0.4−
1998 08 17	704	0.1+	1.1+	1999 11 16	704	0.1−	0.6−	1999 12 14	704	0.7+	0.5−
1998 08 17	704	0.4+	0.3+	1999 12 07	704	0.1−	1.1+	1999 12 14	704	0.1+	0.2+
1998 08 17	704	0.4−	0.4+	1999 12 07	704	0.1−	1.8+	1999 12 14	704	0.6−	0.4+
1998 08 23	704	0.9+	0.4−	1999 12 07	704	0.4−	1.5+	2000 01 04	704	0.5−	0.2−
1998 08 23	704	0.2−	0.8−	1999 12 07	704	0.3+	1.8+	2000 01 04	704	0.1+	0.6−
1998 08 23	704	1.6−	0.9−	1999 12 13	704	0.4+	0.4−	2000 01 04	704	0.0	1.2−
1998 08 23	704	0.3−	0.3−	1999 12 13	704	0.3+	0.6−	2000 01 04	704	0.4−	0.8−
1999 11 16	704	0.1−	0.1+	1999 12 13	704	0.3−	0.4−				

1999 XL₁₃₀ = 1990 TO₁₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	48.17507		(2000.0)	P	Q
<i>n</i>	0.22586174	ω	32.96683	+0.87416423	−0.48560403
<i>a</i>	2.6703874	Ω	356.07492	+0.42801870	+0.77534215
<i>e</i>	0.2389673	<i>i</i>	4.24081	+0.22942731	+0.40377379
<i>P</i>	4.36	<i>H</i>	14.3	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1990 10 10	033	0.5−	0.3+	1999 12 12	704	0.3−	0.5−	2000 01 04	704	0.1−	0.2−
1990 10 11	033	0.1+	0.0	1999 12 12	704	0.0	0.7−	2000 01 04	704	0.3+	0.1+
1990 10 11	033	0.2+	0.2−	1999 12 13	704	0.2+	0.0	2000 01 04	704	0.3+	0.3+
1990 10 12	033	0.8+	0.0	1999 12 13	704	0.3−	0.2+	2000 01 30	704	0.4+	0.6+
1990 10 13	033	0.3−	0.1+	1999 12 13	704	0.1+	0.0	2000 01 30	704	0.5+	0.2+
1990 10 14	033	0.5−	0.2+	1999 12 13	704	0.0	0.1+	2000 01 30	704	0.1−	0.4+
1999 11 16	704	0.2+	0.1+	1999 12 13	704	0.0	0.3+	2000 01 30	704	0.0	1.4+
1999 11 16	704	0.6−	0.7+	2000 01 02	704	0.2−	0.6+	2000 01 30	704	0.0	0.2+
1999 11 16	704	0.0	0.4−	2000 01 02	704	0.2+	0.1−	2000 02 11	704	1.9+	0.5−
1999 11 16	704	0.5+	0.5−	2000 01 02	704	0.1+	0.2+	2000 02 11	704	0.2−	0.6+

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1999 11 16	704	0.1+	0.2-	2000 01 02	704	0.2-	1.1-	2000 02 11	704	1.3-	0.2+
1999 12 12	704	0.2+	0.0	2000 01 02	704	0.7-	0.8-	2000 02 11	704	0.8-	0.1+
1999 12 12	704	0.3-	0.4-	2000 01 04	704	0.1+	0.2-				
1999 12 12	704	0.2-	0.5-	2000 01 04	704	0.3+	0.1+				

1999 XG₁₃₁ = 1998 QP₈₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	208.97243	(2000.0)	
<i>n</i>	0.27639366	ω	320.53804
<i>a</i>	2.3340886	Ω	290.47842
<i>e</i>	0.1745632	<i>i</i>	11.41561
<i>P</i>	3.57	<i>H</i>	14.4
		<i>G</i>	0.15
		<i>U</i>	4

Residuals in seconds of arc

1998 06 26	699	0.1-	0.3+	1998 09 17	699	0.5-	0.3-	2000 01 02	704	0.0	1.3+
1998 06 26	699	0.6+	1.0+	1998 09 17	699	0.2-	0.2-	2000 01 02	704	0.7+	1.0+
1998 06 26	699	0.2+	0.2+	1998 09 17	699	0.0	0.0	2000 01 02	704	(0.8+	2.0+)
1998 07 31	699	0.3+	0.3-	1999 12 12	704	(1.5+	3.3-)	2000 01 02	704	1.0-	1.2+
1998 07 31	699	0.8+	0.0	1999 12 12	704	0.0	0.9-	2000 01 04	704	0.1-	0.8-
1998 07 31	699	0.1-	0.1-	1999 12 12	704	0.1-	1.0-	2000 01 04	704	0.5+	0.3-
1998 08 21	566	0.9-	1.0-	1999 12 12	704	0.2-	1.2-	2000 01 04	704	1.5+	0.2+
1998 08 21	566	0.4-	0.6-	1999 12 13	704	0.1+	0.6-	2000 01 04	704	0.1-	0.9+
1998 08 21	566	1.4-	1.2-	1999 12 13	704	0.6+	0.2-	2000 01 30	704	1.0-	0.2+
1998 08 24	704	0.1-	0.3+	1999 12 13	704	0.2-	0.4-	2000 01 30	704	0.4-	0.1-
1998 08 24	704	0.7-	0.2+	1999 12 13	704	0.3-	0.0	2000 01 30	704	0.2-	0.3-
1998 08 24	704	0.6+	1.1+	1999 12 13	704	0.8-	0.0	2000 01 30	704	0.0	0.3+
1998 08 24	704	0.8-	0.3+	1999 12 15	704	0.0	0.1+	2000 01 30	704	0.3-	0.1+
1998 08 27	704	1.7+	0.5-	1999 12 15	704	0.2+	0.3+	2000 02 11	704	1.3+	1.6+
1998 08 27	704	1.0-	0.0	1999 12 15	704	0.2+	0.8-	2000 02 11	704	0.8-	0.5+
1998 08 27	704	1.1+	0.2+	1999 12 15	704	0.1+	0.2-	2000 02 11	704	0.4+	0.3+
1998 08 27	704	0.7+	1.1+	1999 12 15	704	0.4-	0.4-	2000 02 11	704	0.0	1.1-
1998 08 27	704	(2.3-	1.5-)	2000 01 02	704	0.1+	1.4+				

1999 XU₁₃₁ = 1998 QY₉₈

Id. G. V. Williams, A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	259.02915	(2000.0)	
<i>n</i>	0.26934485	ω	218.06073
<i>a</i>	2.3746354	Ω	10.81104
<i>e</i>	0.0764302	<i>i</i>	6.71225
<i>P</i>	3.66	<i>H</i>	14.5
		<i>G</i>	0.15
		<i>U</i>	4

Residuals in seconds of arc

1997 04 11	704	0.1+	0.1-	1999 12 12	704	0.3-	0.9+	1999 12 15	704	0.2+	0.2-
1997 04 11	704	0.3-	0.2-	1999 12 13	704	0.1+	0.1-	1999 12 15	704	0.1-	1.0-
1998 08 26	809	0.9+	0.8+	1999 12 13	704	0.1+	0.6-	1999 12 15	704	0.7-	0.9-
1998 08 26	809	0.1-	0.2+	1999 12 13	704	0.1+	0.0	1999 12 15	704	(0.7-	2.1-)
1998 08 26	809	1.0+	0.0	1999 12 13	704	0.2-	0.1-	2000 01 29	704	(1.4-	2.9-)
1998 08 27	809	1.2-	0.1+	1999 12 13	704	0.6-	0.4-	2000 01 29	704	(1.1-	2.6-)
1998 08 27	809	0.8-	0.2+	1999 12 15	704	1.1+	0.6+	2000 01 29	704	(0.0	3.9-)
1998 08 27	809	0.2-	0.6-	1999 12 15	704	0.3-	0.7-	2000 02 11	704	0.7-	0.3+
1999 12 12	704	0.4+	0.8+	1999 12 15	704	0.9-	0.1-	2000 02 11	704	0.2+	1.5+
1999 12 12	704	0.8-	0.7-	1999 12 15	704	0.2+	1.0-	2000 02 11	704	0.5+	1.4+
1999 12 12	704	0.0	0.4-	1999 12 15	704	0.7-	0.6-	2000 02 11	704	1.2+	0.7+
1999 12 12	704	0.5+	0.3+	1999 12 15	704	0.9-	0.1+	2000 02 11	704	0.9+	1.2+

1999 XQ₁₃₂ = 1982 BW₉ = 1993 BF₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	342.80925	(2000.0)	
<i>n</i>	0.27131617	ω	194.01735
<i>a</i>	2.3631190	Ω	297.06131
<i>e</i>	0.0798314	<i>i</i>	13.41086
<i>P</i>	3.63	<i>H</i>	13.8
		<i>G</i>	0.15
		<i>U</i>	2

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Residuals in seconds of arc

1982 01 19	095	1.0+	2.3+	1999 12 13	704	0.2-	0.1-	2000 01 30	704	0.3+	0.3-
1993 01 23	809	0.2-	0.7-	1999 12 13	704	0.0	0.1-	2000 01 30	704	0.1+	0.6-
1993 01 23	809	0.5-	0.8-	1999 12 13	704	0.7-	0.5+	2000 01 31	704	0.1-	0.9+
1993 01 23	809	1.5-	0.9-	1999 12 13	704	0.1+	0.6+	2000 01 31	704	0.2+	0.1-
1993 01 28	809	0.6+	0.4+	1999 12 15	704	0.2-	0.2-	2000 01 31	704	0.3-	0.5-
1993 01 28	809	0.0	0.0	1999 12 15	704	0.4-	0.3-	2000 01 31	704	0.3-	0.3-
1993 01 28	809	0.5+	0.0	1999 12 15	704	(0.7+	2.9-)	2000 02 11	704	0.2+	0.5+
1999 12 12	704	0.3-	0.3-	1999 12 15	704	0.3+	0.2-	2000 02 11	704	0.1+	0.1+
1999 12 12	704	0.1-	0.2-	1999 12 15	704	0.4-	0.7-	2000 02 11	704	0.2-	0.3+
1999 12 12	704	0.2+	0.2-	2000 01 30	704	0.4+	0.3+	2000 02 11	704	0.1+	0.3+
1999 12 12	704	0.1+	0.1+	2000 01 30	704	0.2+	0.4-	2000 02 11	704	0.1+	0.4+
1999 12 12	704	0.2+	0.4+	2000 01 30	704	0.4+	0.1-				

1999 XX₁₃₂ = 1997 EU₃₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	210.36111	(2000.0)	
<i>n</i>	0.29306548	ω	262.69490
<i>a</i>	2.2447067	Ω	1.05378
<i>e</i>	0.0865722	<i>i</i>	7.54274
<i>P</i>	3.36	<i>H</i>	14.8
		<i>G</i>	0.15
		<i>U</i>	5

Residuals in seconds of arc

1997 03 05	704	1.0-	0.1-	1999 12 12	704	0.2-	0.1+	1999 12 13	704	0.7-	0.0
1997 03 05	704	0.9+	0.0	1999 12 12	704	0.4+	0.5+	2000 01 29	704	1.0+	0.5-
1997 03 06	704	0.8+	0.0	1999 12 12	704	0.6+	0.0	2000 01 29	704	0.6-	0.0
1997 03 06	704	0.6-	1.7-	1999 12 13	704	0.6-	0.7-	2000 01 29	704	0.4-	0.4+
1997 03 06	704	1.0-	0.1+	1999 12 13	704	0.4+	0.3+	2000 01 29	704	0.0	0.1-
1997 03 06	704	0.9+	1.8+	1999 12 13	704	0.3+	0.0				
1999 12 12	704	0.2+	0.2-	1999 12 13	704	0.2-	0.0				

1999 XD₁₃₃ = 1998 RF₂₈

Id. G. V. Williams, A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr			
<i>M</i>	274.42130	(2000.0)	
<i>n</i>	0.27593725	ω	233.78762
<i>a</i>	2.3366617	Ω	336.11744
<i>e</i>	0.1147057	<i>i</i>	9.62894
<i>P</i>	3.57	<i>H</i>	14.6
		<i>G</i>	0.15
		<i>U</i>	4

Residuals in seconds of arc

1998 08 17	704	0.4-	1.3+	1999 12 12	704	0.0	0.5-	1999 12 15	704	0.1-	0.0
1998 08 17	704	0.6+	0.8+	1999 12 12	704	1.5-	1.0-	1999 12 16	704	0.0	0.1+
1998 08 17	704	0.4+	1.0-	1999 12 12	704	0.2+	0.7-	1999 12 16	704	0.3-	0.2+
1998 08 17	704	0.2-	0.2+	1999 12 12	704	0.1+	1.1-	1999 12 16	704	0.3+	0.1+
1998 08 17	704	0.4+	1.2+	1999 12 12	704	0.2+	1.8-	1999 12 16	704	0.3+	0.4+
1998 09 14	704	0.9+	0.4-	1999 12 13	704	0.2+	0.0	2000 01 02	704	0.0	0.1+
1998 09 14	704	(0.7+	4.0-)	1999 12 13	704	0.4+	0.2-	2000 01 02	704	0.2-	0.1-
1998 09 14	704	0.5-	0.2-	1999 12 13	704	0.3-	0.0	2000 01 02	704	0.1-	0.2+
1998 09 14	704	0.4-	1.5-	1999 12 13	704	0.6+	0.6+	2000 01 02	704	0.0	0.5-
1998 09 18	704	1.2-	0.5+	1999 12 13	704	0.2+	0.0	2000 01 29	704	0.3+	0.8+
1998 09 18	704	(2.3-	2.5+)	1999 12 15	704	0.2-	0.5+	2000 01 29	704	0.5-	0.5+
1998 09 18	704	0.2-	0.1+	1999 12 15	704	0.2-	0.7+	2000 01 29	704	0.2+	0.4+
1998 09 18	704	(2.0-	2.1+)	1999 12 15	704	0.8-	0.1+	2000 01 29	704	0.4+	0.3+
1998 09 18	704	0.3+	0.4-	1999 12 15	704	0.0	0.6+	2000 01 29	704	0.5+	0.5+

1999 XM₁₃₃ = 1995 EW = 1998 QR₆₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	51.22334	(2000.0)	
<i>n</i>	0.17870717	ω	92.83941
<i>a</i>	3.1215819	Ω	305.66986
<i>e</i>	0.1984524	<i>i</i>	16.25335
<i>P</i>	5.52	<i>H</i>	14.0
		<i>G</i>	0.15
		<i>U</i>	2

Residuals in seconds of arc

1995 03 05	595	0.3−	1.5−	1998 09 17	699	0.6−	0.0	2000 01 29	704	0.1−	0.4+
1995 03 06	595	(1.7−	2.6−)	1999 12 12	704	0.1+	0.4−	2000 01 29	704	0.2−	0.7−
1995 03 09	589	0.9−	0.3−	1999 12 12	704	0.8+	0.0	2000 01 29	704	0.2−	0.2+
1995 03 09	589	0.3+	0.3+	1999 12 12	704	0.1+	0.3−	2000 01 29	704	0.1−	0.0
1995 03 09	589	0.2+	0.4+	1999 12 12	704	0.4+	0.7+	2000 01 29	704	0.3−	0.1−
1998 08 24	704	1.0+	0.2−	1999 12 12	704	0.2+	0.2+	2000 01 30	704	0.4−	0.1+
1998 08 24	704	1.3−	0.6−	1999 12 13	704	0.1−	0.5−	2000 01 30	704	0.7+	0.8+
1998 08 24	704	(3.4+	1.1−)	1999 12 13	704	0.1+	0.4−	2000 01 30	704	0.2−	0.1+
1998 08 24	704	0.7−	1.4−	1999 12 13	704	0.1−	0.6−	2000 02 11	704	0.2+	0.7+
1998 08 24	704	0.3−	1.6−	1999 12 13	704	0.1−	0.3−	2000 02 11	704	0.3+	0.1−
1998 08 27	704	1.5+	0.7+	1999 12 13	704	0.6−	1.0−	2000 02 11	704	1.1−	0.3+
1998 08 27	704	1.2+	0.5+	2000 01 02	704	0.2+	0.0	2000 02 11	704	0.6+	1.0−
1998 08 27	704	1.1+	0.5+	2000 01 02	704	0.1+	0.7+	2000 02 11	704	0.2+	0.4+
1998 08 27	704	1.5−	0.5+	2000 01 02	704	0.1−	0.5+	2000 02 11	704	0.3+	1.0−
1998 09 17	699	0.1−	1.0+	2000 01 02	704	0.6−	1.2+	2000 02 11	704	0.3+	0.5+
1998 09 17	699	0.4+	0.0	2000 01 02	704	0.2−	0.4−				

1999 XN₁₃₃ = 1998 VV₃₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	218.53020		(2000.0)	P	Q
n	0.21935640	ω	208.78806	−0.19970557	+0.96389425
a	2.7229260	Ω	50.26729	−0.84941163	−0.08068328
e	0.1189963	i	13.24064	−0.48848498	−0.25376776
P	4.49	H	13.6	G 0.15	U 4

Residuals in seconds of arc

1998 09 24	699	0.2−	0.1−	1998 11 11	704	1.6+	0.2−	1999 12 15	704	0.2+	0.2−
1998 09 24	699	0.6+	0.3−	1999 12 12	704	0.5+	0.7+	1999 12 15	704	0.2−	0.5−
1998 09 24	699	0.2−	0.1−	1999 12 12	704	0.4+	0.0	2000 01 21	704	0.4−	0.6−
1998 10 20	699	0.5−	0.5+	1999 12 12	704	0.3+	0.6−	2000 01 21	704	1.8−	1.2+
1998 10 20	699	0.1−	0.5−	1999 12 12	704	1.2+	0.8−	2000 01 21	704	0.7−	0.1−
1998 10 20	699	1.7−	0.3+	1999 12 13	704	0.3−	0.0	2000 01 21	704	0.2−	0.0
1998 11 10	704	1.3+	1.0−	1999 12 13	704	0.4−	0.7+	2000 01 27	704	0.6+	0.1−
1998 11 10	704	0.8+	0.4+	1999 12 13	704	0.4−	0.0	2000 01 27	704	0.4+	0.1−
1998 11 10	704	0.9+	1.9−	1999 12 13	704	0.3−	0.1−	2000 01 27	704	0.6+	0.5+
1998 11 10	704	1.0−	1.0+	1999 12 15	704	0.0	0.1+	2000 01 27	704	0.4+	0.8−
1998 11 11	704	1.6−	1.0+	1999 12 15	704	0.3+	0.5−				
1998 11 11	704	0.1+	0.9+	1999 12 15	704	0.4−	1.2+				

1999 XV₁₃₃ = 1996 AL₄

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	301.01368		(2000.0)	P	Q
n	0.23464060	ω	224.79656	-0.98086149	-0.05509867
a	2.6033583	Ω	311.08744	+0.14854425	-0.83183529
e	0.0507230	i	14.34575	-0.12587830	-0.55228090
P	4.20	H	14.8	G 0.15	U 4

Residuals in seconds of arc

1996 01 12	691	0.2−	0.1−	1999 12 12	704	1.5+	0.5−	1999 12 15	704	0.0	0.7−
1996 01 12	691	0.1−	0.1+	1999 12 13	704	0.0	0.5−	2000 01 02	704	0.0	0.1−
1996 01 12	691	0.1+	0.1+	1999 12 13	704	0.2+	0.2−	2000 01 02	704	0.2−	0.5+
1996 01 18	691	0.3+	0.2+	1999 12 13	704	0.1−	0.1+	2000 01 02	704	0.5−	0.3+
1996 01 18	691	0.0	0.0	1999 12 13	704	0.2−	0.7+	2000 01 30	704	1.1−	0.1+
1996 01 18	691	0.1−	0.3−	1999 12 15	704	0.4−	0.3+	2000 01 30	704	0.5−	0.1−
1999 12 12	704	0.5+	0.3+	1999 12 15	704	0.9−	0.1+	2000 01 30	704	0.2−	0.3−
1999 12 12	704	0.2−	0.6−	1999 12 15	704	0.0	0.5+	2000 01 30	704	1.2+	0.5−
1999 12 12	704	0.8+	0.2+	1999 12 15	704	0.7−	0.3−	2000 01 30	704	0.7+	0.6+

1999 XF₁₃₄ = 1997 GD₅

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	317.98176		(2000.0)			P		Q			
n	0.29110244	ω	169.90996			−0.99650767		−0.08268501			
a	2.2547868	Ω	5.38816			+0.06532745		−0.85887494			
e	0.0866259	i	7.12501			+0.05200762		−0.50546713			
P	3.39	H	15.3			G	0.15	U	5		
Residuals in seconds of arc											
1997 04 08	691	0.1−	0.4−	1999 12 12	704	0.8−	0.2−	1999 12 13	704	0.3−	1.0+
1997 04 08	691	0.2−	0.5−	1999 12 13	704	1.4+	0.3+	1999 12 15	704	0.2−	0.5−
1997 04 08	691	0.3−	0.6−	1999 12 13	704	0.3−	0.0	1999 12 15	704	0.6+	0.6+
1997 04 09	691	0.7+	0.3+	1999 12 13	704	0.2+	0.1−	1999 12 15	704	0.4+	0.6−
1997 04 09	691	0.1+	0.5+	1999 12 13	704	0.2+	0.0	1999 12 15	704	0.5−	0.1+
1997 04 09	691	0.1−	0.6+	1999 12 13	704	0.1+	0.0	2000 01 02	704	0.4−	1.0+
1999 12 12	704	0.2+	0.3+	1999 12 13	704	0.5−	0.8−	2000 01 02	704	0.0	0.7+
1999 12 12	704	0.3−	0.3−	1999 12 13	704	0.2−	0.2+	2000 01 02	704	0.3+	1.3−
1999 12 12	704	0.2−	0.1−	1999 12 13	704	0.2−	0.1−	2000 01 02	704	(0.1+	4.3−)
1999 12 12	704	0.1−	0.1−	1999 12 13	704	0.4+	0.1−				

Residuals in seconds of arc

1997 04 08	691	0.1−	0.4−	1999 12 12	704	0.8−	0.2−	1999 12 13	704	0.3−	1.0+
1997 04 08	691	0.2−	0.5−	1999 12 13	704	1.4+	0.3+	1999 12 15	704	0.2−	0.5−
1997 04 08	691	0.3−	0.6−	1999 12 13	704	0.3−	0.0	1999 12 15	704	0.6+	0.6+
1997 04 09	691	0.7+	0.3+	1999 12 13	704	0.2+	0.1−	1999 12 15	704	0.4+	0.6−
1997 04 09	691	0.1−	0.5+	1999 12 13	704	0.2+	0.0	1999 12 15	704	0.5−	0.1+
1997 04 09	691	0.1−	0.6+	1999 12 13	704	0.1+	0.0	2000 01 02	704	0.4−	1.0+
1999 12 12	704	0.2+	0.3+	1999 12 13	704	0.5−	0.8−	2000 01 02	704	0.0	0.7+
1999 12 12	704	0.3−	0.3−	1999 12 13	704	0.2−	0.2+	2000 01 02	704	0.3+	1.3−
1999 12 12	704	0.2−	0.1−	1999 12 13	704	0.2−	0.1−	2000 01 02	704	(0.1+	4.3−)
1999 12 12	704	0.1−	0.1−	1999 12 13	704	0.4+	0.1−				

1999 XW₁₃₄ = 1998 KA₆₆

Id. G. V. Williams, A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	248.73805		(2000.0)	P	Q
n	0.36799529	ω	126.87371	-0.43166251	+0.81735344
a	1.9285957	Ω	113.25535	-0.90157656	-0.37745221
e	0.0614471	i	24.53945	-0.02876069	-0.43527369
P	2.68	H	15.3	G 0.15	U 4

Residuals in seconds of arc

1998 05 27	704	0.2+	1.1+	1999 12 14	704	1.2+	0.4+	2000 01 25	704	0.6+	0.4+
1998 05 27	704	1.1+	1.1+	1999 12 14	704	0.4+	0.5−	2000 01 25	704	0.1+	1.1−
1998 05 27	704	(2.3+	1.2+)	2000 01 05	704	0.4−	0.2+	2000 01 25	704	0.2−	0.1+
1998 05 27	704	0.1−	0.8−	2000 01 05	704	0.1−	0.4+	2000 01 25	704	0.4−	0.3+
1998 06 04	704	0.6−	0.9−	2000 01 05	704	0.2−	0.2+	2000 01 25	704	0.2+	1.4+
1998 06 04	704	0.9−	0.7−	2000 01 05	704	0.2+	0.0	2000 01 25	704	0.0	0.2+
1998 06 04	704	0.7−	0.7+	2000 01 05	704	0.1−	0.0	2000 01 30	704	0.0	0.3+
1998 06 04	704	(0.7−	2.5+)	2000 01 06	704	0.4−	0.7+	2000 01 30	704	0.3+	0.7−
1998 06 04	704	1.1−	0.6+	2000 01 06	704	0.1−	0.2+	2000 01 30	704	0.3−	0.9−
1998 06 25	704	1.3+	1.6−	2000 01 06	704	0.8−	0.8+	2000 01 30	704	0.0	0.8−
1998 06 25	704	(3.3−	0.9+)	2000 01 07	704	0.6−	0.4−	2000 01 30	704	0.6−	0.2−
1998 06 25	704	0.7+	0.2+	2000 01 07	704	0.5−	0.7+	2000 01 31	704	0.2−	0.3−
1998 06 25	704	(2.7−	2.1−)	2000 01 07	704	0.0	0.3+	2000 01 31	704	0.1+	0.1−
1999 12 05	704	0.3+	0.5−	2000 01 07	704	0.2−	0.2+	2000 01 31	704	0.7+	0.1−
1999 12 05	704	0.6−	0.6−	2000 01 07	704	0.5+	0.0	2000 02 11	704	0.9+	0.1+
1999 12 05	704	1.2−	0.3−	2000 01 25	704	0.7+	0.2+	2000 02 11	704	0.4+	0.1−
1999 12 05	704	0.8−	0.4+	2000 01 25	704	0.2−	0.1−	2000 02 11	704	0.0	0.3−
1999 12 05	704	0.4+	1.6−	2000 01 25	704	0.0	0.1+				
1999 12 14	704	1.6+	0.2+	2000 01 25	704	0.2+	0.0				

1999 XQ₁₃₈ = 1998 QO₁₀₃

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	105.49434		(2000.0)	P	Q		
n	0.20517535	ω	272.17852	+0.99800643	−0.03264223		
a	2.8469899	Ω	89.69525	+0.05147754	+0.91617443		
e	0.1014442	i	3.09640	−0.03651351	+0.39944823		
P	4.80	H	14.8	G	0.15	U	4

Residuals in seconds of arc

1998 08 26	809	0.5−	0.1−	1999 12 05	691	0.1−	0.2+	2000 01 04	704	0.1+	0.2+
1998 08 26	809	0.3−	0.8−	1999 12 05	691	0.3+	0.6+	2000 01 04	704	0.3+	0.3−
1998 08 26	809	1.1−	0.9−	1999 12 07	691	0.3−	0.0	2000 01 04	704	0.7−	0.5+
1998 08 27	809	1.4+	0.6+	1999 12 07	691	0.5−	0.1+	2000 01 04	704	0.5+	1.1−
1998 08 27	809	1.3+	0.4+	1999 12 07	691	0.2−	0.2+	2000 01 04	704	0.7−	0.8+
1998 08 27	809	(3.1+	0.4−)	2000 01 03	704	0.9+	0.5−	2000 01 08	704	0.1+	0.3−

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1998 09 25	699	(2.9+ 0.4-)	2000 01 03	704	0.3+ 0.8-	2000 01 08	704	1.4- 1.2-
1998 09 25	699	0.8- 0.7+	2000 01 03	704	0.3- 0.1-	2000 01 08	704	0.5+ 0.5+
1998 09 25	699	0.0 0.1-	2000 01 03	704	0.0 0.0	2000 01 08	704	0.6+ 0.8+
1999 12 05	691	0.2+ 0.3+	2000 01 03	704	0.3+ 0.0			

1999 XK₁₄₀ = 2782 P-L

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>			(2000.0)			P			Q		
<i>n</i>	0.18347140	ω	161.43053			+0.14186434			+0.98811041		
<i>a</i>	3.0673062	Ω	116.68894			-0.91639848			+0.15373446		
<i>e</i>	0.0401510	<i>i</i>	3.80334			-0.37428377			-0.00188196		
<i>P</i>	5.37	<i>H</i>	14.6			<i>G</i>	0.15		<i>U</i>	5	

Residuals in seconds of arc

1960 09 24	675	0.3+ 0.9-	1999 12 02	691	0.2+ 0.1+	2000 01 05	704	0.3- 0.2-
1960 09 24	675	0.4- 0.1-	1999 12 02	691	0.1+ 0.2+	2000 01 05	704	0.6+ 0.5-
1960 09 26	675	0.6- 0.5+	1999 12 08	691	0.2+ 0.1-	2000 01 05	704	0.0 0.4-
1960 09 26	675	0.1+ 0.3-	1999 12 08	691	0.2- 0.2-	2000 01 05	704	0.6+ 0.7+
1960 09 28	675	0.1+ 0.2+	1999 12 08	691	0.0 0.1-	2000 01 05	704	0.6+ 0.1-
1960 09 29	675	0.1- 0.2+	1999 12 31	691	0.5- 0.2-	2000 01 07	691	0.2+ 0.1+
1960 09 29	675	0.6+ 0.4+	1999 12 31	691	0.4- 0.3-	2000 01 07	691	0.4- 0.4+
1999 12 02	691	0.0 0.0	1999 12 31	691	0.4- 0.3-	2000 01 07	691	0.1- 0.8+

1999 XK₁₄₂ = 1934 RN = 1951 RS₁ = 1975 WD

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>			(2000.0)			P			Q		
<i>n</i>	0.28993989	ω	21.37815			+0.88893012			+0.44177741		
<i>a</i>	2.2608100	Ω	311.81516			-0.44026146			+0.75120294		
<i>e</i>	0.3387203	<i>i</i>	9.34175			-0.12638472			+0.49043538		
<i>P</i>	3.40	<i>H</i>	13.8			<i>G</i>	0.15		<i>U</i>	2	

Residuals in seconds of arc

1934 09 12	094	(8.6+ 21.6-)	X	1999 12 12	704	0.3- 0.2-	1999 12 17	104	0.4+ 0.7+
1934 09 15	094	(20.7+ 0.4+)	X	1999 12 12	704	0.2- 0.3-	2000 01 02	704	0.1- 0.6-
1951 09 07	094	(49.7- 27.6+)	X	1999 12 12	704	0.3- 0.4-	2000 01 02	704	0.2+ 0.4-
1975 11 27	095	0.1- 0.5+		1999 12 12	704	0.3- 0.5-	2000 01 02	704	0.2- 0.2-
1998 03 22	699	1.0- 0.1+		1999 12 12	704	0.5- 0.7-	2000 01 02	704	0.3+ 0.3-
1998 03 22	699	(3.0+ 1.2-)		1999 12 13	104	0.0 0.2-	2000 01 02	704	0.4- 0.5-
1998 03 22	699	1.0+ 0.2-		1999 12 13	104	0.1+ 0.2-	2000 01 30	704	0.0 0.1+
1998 03 31	704	(2.1+ 5.6+)		1999 12 13	104	0.4- 0.1+	2000 01 30	704	0.5- 0.3-
1998 03 31	704	0.9- 1.0-		1999 12 15	704	0.1+ 0.5-	2000 01 30	704	0.1- 0.5-
1998 03 31	704	0.2- 0.0		1999 12 15	704	1.2+ 0.1+	2000 01 30	704	0.7- 0.6-
1998 03 31	704	0.7- 0.7-		1999 12 15	704	0.5+ 0.5+	2000 02 11	704	0.5- 0.1-
1998 04 01	704	0.7+ 0.7+		1999 12 15	704	0.1+ 0.4+	2000 02 11	704	0.6+ 1.0+
1998 04 01	704	0.7+ 0.1-		1999 12 15	704	0.5- 1.2+	2000 02 11	704	0.5- 0.4+
1998 04 01	704	0.3+ 0.4+		1999 12 17	104	0.5+ 0.3+	2000 02 11	704	0.2+ 0.6+
1998 04 01	704	0.7+ 0.8+		1999 12 17	104	0.5+ 0.2+			
1998 04 01	704	0.4- 0.2+		1999 12 17	104	0.3+ 0.4+			

1999 XU₁₄₃ = 2000 AJ₂₂₁ = 1998 MG₄₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>			(2000.0)			P			Q		
<i>n</i>	0.30788336	ω	210.76235			+0.65083903			+0.75335698		
<i>a</i>	2.1720938	Ω	100.01684			-0.67567172			+0.63129643		
<i>e</i>	0.1783352	<i>i</i>	5.48553			-0.34623156			+0.18416861		
<i>P</i>	3.20	<i>H</i>	14.7			<i>G</i>	0.15		<i>U</i>	3	

Residuals in seconds of arc

1998 06 26	704	(3.6+ 0.2-)		1999 12 13	734	0.7- 0.4-	2000 01 08	691	0.0 0.3+
1998 06 26	704	(4.0+ 0.2-)		1999 12 13	734	1.3- 0.6-	2000 01 14	691	0.1+ 0.3+
1998 06 26	704	(3.7+ 0.7-)		1999 12 13	734	1.3- 0.8-	2000 01 14	691	0.1+ 0.3+
1998 06 26	704	(3.9+ 1.3-)		1999 12 17	734	0.7+ 0.4-	2000 01 14	691	0.3+ 0.2+
1998 06 26	704	0.4- 1.3+		1999 12 17	734	0.1- 0.1+	2000 01 15	691	0.3+ 0.2+

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1998 06 28	809	1.2- 0.6-	1999 12 17	734	1.2- 0.7-	2000 01 15	691	0.4+ 0.1+
1998 06 28	809	1.0- 1.2-	1999 12 17	734	0.7- 0.5-	2000 01 15	691	0.3+ 0.1+
1998 06 28	809	1.4- 0.2-	1999 12 30	699	1.1+ 1.3+	2000 01 30	704	(0.2- 2.7+)
1998 07 01	809	0.5+ 0.3+	1999 12 30	699	(0.1+ 2.7+)	2000 01 30	704	(0.7+ 2.1+)
1998 07 01	809	0.5+ 0.1+	1999 12 30	699	1.3+ 1.0+	2000 01 30	704	0.2- 0.5+
1998 07 01	809	0.0 0.2+	2000 01 03	704	0.0 0.2-	2000 01 30	704	1.1- 0.0
1998 08 17	704	1.7+ 1.2+	2000 01 03	704	0.4- 0.1+	2000 01 31	704	(0.1- 3.4+)
1998 08 17	704	0.7+ 0.1-	2000 01 03	704	0.4- 0.4+	2000 01 31	734	0.3+ 0.1+
1998 08 17	704	0.1+ 0.8+	2000 01 03	704	0.5- 0.0	2000 01 31	704	1.7- 1.6+
1998 08 17	704	0.5+ 1.0+	2000 01 03	704	0.5- 0.0	2000 01 31	734	0.3+ 0.3+
1998 08 17	704	0.2- 1.2+	2000 01 04	704	0.0 0.3-	2000 01 31	734	0.3+ 0.2+
1999 12 07	704	0.4- 0.6-	2000 01 04	704	0.1- 0.0	2000 01 31	704	0.6+ 1.6+
1999 12 07	704	0.6+ 0.3-	2000 01 04	704	0.2- 0.0	2000 02 11	704	0.4- 0.9+
1999 12 07	704	1.2+ 0.3-	2000 01 04	704	0.3- 0.2+	2000 02 11	704	0.5+ 0.5+
1999 12 07	704	0.2+ 1.1-	2000 01 04	704	0.6+ 0.3+	2000 02 11	704	0.6+ 0.6+
1999 12 07	704	0.5+ 0.7-	2000 01 08	691	0.2+ 0.2+	2000 02 11	704	0.8+ 0.2+
1999 12 13	734	0.7- 0.8-	2000 01 08	691	0.1+ 0.3+	2000 02 11	704	1.0+ 0.5+

1999 XG₁₄₆ = 1998 HH₆₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>			(2000.0)			P			Q		
<i>n</i>	0.29998927	ω	214.20110			+0.27879748			+0.95632895		
<i>a</i>	2.2100337	Ω	72.12346			-0.85919420			+0.28922412		
<i>e</i>	0.1914317	<i>i</i>	5.29262			-0.42901898			+0.04224153		
<i>P</i>	3.29	<i>H</i>	15.7			<i>G</i>	0.15		<i>U</i>	4	

Residuals in seconds of arc

1998 03 24	704	0.8+ 0.7-	1998 04 22	704	0.5+ 0.1+	1999 11 15	704	0.3+ 0.1+
1998 03 24	704	0.2- 0.2-	1998 04 22	704	0.4- 0.0	1999 11 15	704	0.4- 0.3+
1998 03 24	704	1.1- 0.2+	1999 11 04	704	1.0+ 1.5-	1999 11 19	049	1.0+ 0.8+
1998 03 24	704	1.8- 0.5+	1999 11 04	704	0.6+ 0.6-	1999 11 19	049	1.6+ 0.6+
1998 03 24	704	(3.1- 0.6+)	1999 11 04	704	(2.4- 0.8-)	1999 11 19	049	1.6+ 0.2-
1998 04 21	704	1.3+ 0.5-	1999 11 12	704	0.3- 0.1-	1999 12 07	691	0.2- 0.1+
1998 04 21	704	1.6- 0.1+	1999 11 12	704	0.3- 0.2+	1999 12 07	691	0.4- 0.1+
1998 04 21	704	0.4+ 0.2+	1999 11 12	704	0.3- 0.4-	1999 12 07	691	0.2- 0.1+
1998 04 21	704	0.6+ 0.7-	1999 11 12	704	0.9- 0.3-	1999 12 13	691	0.1- 0.3+
1998 04 21	704	0.1- 0.6+	1999 11 12	704	0.5- 0.4-	1999 12 13	691	0.2- 0.4+
1998 04 22	704	0.4+ 0.2+	1999 11 15	704	0.8- 0.5+	1999 12 13	691	0.2- 0.3+
1998 04 22	704	0.2+ 0.3-	1999 11 15	704	0.8- 0.2-			
1998 04 22	704	0.8+ 0.2+	1999 11 15	704	0.6- 0.5-			

1999 XP₁₅₁ = 2000 AM₂₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>			(2000.0)			P			Q		
<i>n</i>	0.22476090	ω	60.66873			+0.97072636			-0.23790134		
<i>a</i>	2.6790997	Ω	313.07234			+0.20167716			+0.88208846		
<i>e</i>	0.2325427	<i>i</i>	2.59431			+0.13044788			+0.40659918		
<i>P</i>	4.39	<i>H</i>	14.4			<i>G</i>	0.15		<i>U</i>	3	

Residuals in seconds of arc

1998 06 23	699	0.3+ 1.7-	1999 12 07	704	0.7- 0.0	2000 01 04	704	0.1- 0.3-
1998 06 23	699	0.5- 0.3-	1999 12 07	704	0.2- 0.5+	2000 01 04	704	0.4+ 0.3-
1998 06 23	699	0.3+ 0.6-	1999 12 07	691	0.0 0.3+	2000 01 04	704	0.2+ 0.3-
1998 07 16	699	0.1- 0.3+	1999 12 07	704	0.7- 0.4-	2000 01 30	704	0.5+ 0.2+
1998 07 16	699	0.0 1.4+	1999 12 07	704	0.3- 0.4+	2000 01 30	704	0.2- 0.6+
1998 07 16	699	0.9+ 0.4-	1999 12 14	691	0.1+ 0.4-	2000 01 30	704	0.6- 0.8+
1998 07 20	566	0.3- 0.3+	1999 12 14	691	0.1+ 0.2-	2000 01 31	704	0.8- 0.2-
1998 07 20	566	0.1- 0.1+	1999 12 14	691	0.0 0.4-	2000 01 31	704	0.4+ 0.9-
1998 07 20	566	0.1- 0.5+	2000 01 03	704	0.1+ 0.0	2000 01 31	704	0.8- 0.4-
1998 08 17	704	0.7+ 0.8-	2000 01 03	704	0.1- 0.5-	2000 02 11	704	0.5- 0

1999 XD₁₅₄ = 1998 RS₃₀

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.21104353	ω	299.32527	−0.57618847	−0.81729261		
<i>a</i>	2.7939675	Ω	185.86949	+0.76960667	−0.53994440		
<i>e</i>	0.0295883	<i>i</i>	3.52984	+0.27515889	−0.20122832		
<i>P</i>	4.67	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 08 17	704	1.5−	0.9−	1999 12 08	704	0.1+	0.5+	1999 12 14	704	0.2+	0.0
1998 08 17	704	0.2+	0.2−	1999 12 08	704	0.1+	0.6+	1999 12 14	704	0.5+	0.3−
1998 08 17	704	(2.5−	0.8+)	1999 12 08	704	0.3+	0.1+	2000 01 05	704	0.3+	0.4−
1998 08 17	704	0.9−	1.6+	1999 12 08	704	1.0+	0.0	2000 01 05	704	0.9−	0.2−
1998 09 14	704	0.6+	0.6−	1999 12 08	704	0.5−	0.2+	2000 01 05	704	0.2−	0.1−
1998 09 14	704	1.1−	0.4+	1999 12 08	704	0.5+	0.3+	2000 01 05	704	0.0	0.7−
1998 09 14	704	0.5+	0.9−	1999 12 08	704	0.4−	0.0	2000 01 05	704	0.3+	0.1+
1998 09 14	704	1.5+	0.8−	1999 12 08	704	0.1−	0.1+	2000 01 06	704	0.4−	0.6+
1998 09 18	704	0.3+	0.1+	1999 12 08	704	0.2+	0.2−	2000 01 06	704	0.7−	0.4−
1998 09 18	704	(0.7−	3.0+)	1999 12 14	704	0.2−	0.2+	2000 01 06	704	0.1−	0.3−
1998 09 18	704	0.3+	1.0+	1999 12 14	704	0.0	0.1−				
1998 09 18	704	(1.9−	3.3+)	1999 12 14	704	0.0	0.1+				

1999 XG₁₅₆ = 1977 HL = 1981 QV = 1995 UQ₄₅ = 1998 MR₃₄

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.28707048	ω	50.79601	+0.05195484	+0.99692485		
<i>a</i>	2.2758503	Ω	222.29603	−0.94101466	+0.02920405		
<i>e</i>	0.1576781	<i>i</i>	5.00104	−0.33435326	+0.07271837		
<i>P</i>	3.43	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1977 04 24	675	0.1−	1.4+	1998 06 24	704	0.9−	1.8−	1999 12 14	704	0.0	1.1+
1977 04 25	675	0.6+	1.5+	1998 06 24	704	0.4−	1.4+	1999 12 14	704	0.1−	1.3+
1981 08 24	046	1.0+	0.5+	1998 06 26	704	0.8−	0.2+	2000 01 05	704	0.0	0.0
1981 08 24	046	0.2−	0.8−	1998 06 26	704	0.5+	0.7+	2000 01 05	704	0.2+	0.4+
1995 10 20	010	(1.5+	2.8+)	1998 06 26	704	0.0	1.3−	2000 01 05	704	0.1−	0.1−
1995 10 20	010	(1.5+	2.7+)	1998 06 26	704	0.5−	1.4+	2000 01 05	704	0.5−	0.1−
1995 10 20	010	(1.8+	2.7+)	1999 12 08	704	0.2+	0.3−	2000 01 05	704	0.3−	0.0
1995 10 23	010	0.1−	0.4+	1999 12 08	704	0.2−	0.2−	2000 01 06	704	1.8+	0.0
1995 10 23	010	0.9−	0.4+	1999 12 08	704	0.0	0.6−	2000 01 06	704	0.1−	0.1−
1995 10 23	010	1.5−	1.9+	1999 12 08	704	0.3−	0.6−	2000 01 06	704	0.0	0.0
1998 06 24	704	1.2+	0.1−	1999 12 08	704	0.2−	0.8−	2000 01 06	704	0.4−	0.0
1998 06 24	704	0.2+	0.4−	1999 12 14	704	1.1+	0.7+				
1998 06 24	704	0.7+	0.7+	1999 12 14	704	0.1+	0.3+				

1999 XV₁₅₆ = 1996 RV₃₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.08338729	ω	36.94537	−0.94284585	−0.32143379		
<i>a</i>	5.1888302	Ω	124.07876	+0.27471578	−0.89903146		
<i>e</i>	0.0266790	<i>i</i>	6.09026	+0.18860793	−0.29735963		
<i>P</i>	11.82	<i>H</i>	11.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1996 09 15	809	0.1+	0.6−	1999 12 08	704	0.3+	0.1−	2000 01 05	704	0.5+	0.1−
1996 09 16	809	0.4−	0.4+	1999 12 08	704	0.4−	0.2−	2000 01 05	704	0.2+	0.1−
1996 09 16	809	0.5−	0.5+	1999 12 08	704	0.4−	0.4−	2000 01 05	704	0.4−	0.2+
1996 09 16	809	0.8+	0.4−	1999 12 14	704	0.3+	0.3+	2000 01 05	704	0.2−	0.1−
1999 12 08	704	0.6+	0.1−	1999 12 14	704	0.4−	0.1+				
1999 12 08	704	0.1+	1.1+	1999 12 14	704	0.1−	0.6−				

1999 XF₁₆₂ = 1996 FK₁₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22620442	ω	59.51111	+0.64027629	−0.76708732		
<i>a</i>	2.6676898	Ω	350.35956	+0.59613560	+0.52929475		
<i>e</i>	0.0540909	<i>i</i>	13.92137	+0.48442607	+0.36252463		
<i>P</i>	4.36	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1996 03 20	704	0.4−	0.0	1999 12 13	704	0.7+	0.4−	1999 12 30	704	0.3−	0.5+
1996 03 20	704	0.7−	0.7−	1999 12 13	704	1.0+	0.5−	1999 12 30	704	0.5−	1.0+
1996 03 20	704	0.6−	0.3−	1999 12 13	704	0.0	0.7−	2000 01 30	461	0.3+	0.3−
1996 03 21	704	1.2+	1.3+	1999 12 13	704	0.4+	0.5−	2000 01 30	461	0.0	0.3−
1996 03 21	704	0.8+	0.1+	1999 12 14	704	0.6−	1.3+	2000 01 30	461	0.2+	0.3−
1999 11 01	704	0.5+	0.3−	1999 12 14	704	0.1+	0.0	2000 01 30	461	0.3+	0.1+
1999 11 01	704	0.2−	0.1+	1999 12 14	704	0.1+	0.3+	2000 02 01	461	0.8−	0.1−
1999 11 01	704	0.3−	0.3−	1999 12 14	704	0.1−	0.1+	2000 02 01	461	0.3−	0.4−
1999 11 01	704	0.1+	0.9+	1999 12 14	704	0.3+	0.6−	2000 02 01	461	0.6−	0.7−
1999 12 13	704	0.3+	0.2−	1999 12 30	704	0.2−	0.9+	2000 02 01	461	0.2−	0.2−

1999 XW₁₆₂ = 1993 BZ₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.27667593	ω	31.71097	−0.89012044	−0.45357031		
<i>a</i>	2.3325008	Ω	121.25330	+0.40654668	−0.83420189		
<i>e</i>	0.1563640	<i>i</i>	2.96819	+0.20592571	−0.31365776		
<i>P</i>	3.56	<i>H</i>	16.2	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1993 01 27	010	0.2+	0.4−	1999 12 08	691	0.5+	0.1−	2000 01 30	704	0.1−	0.1+
1993 01 27	010	0.5−	0.1−	1999 12 08	691	0.0	0.0	2000 01 31	704	0.3−	0.8+
1993 01 27	010	1.1−	0.1+	1999 12 08	691	0.0	0.1−	2000 01 31	704	0.4+	0.1+
1993 01 28	010	1.4−	0.5+	1999 12 15	691	0.2−	0.4−	2000 01 31	704	0.3−	0.6−
1993 01 28	010	(3.4−	0.1+)	1999 12 15	691	0.1−	0.2+	2000 02 11	012	0.3+	0.3+
1993 01 28	010	(3.3−	0.6−)	1999 12 15	691	0.0	0.0	2000 02 11	012	0.2−	0.5+
1993 01 29	691	0.5+	0.0	2000 01 30	704	0.6+	0.1−	2000 02 11	012	0.2−	0.0
1993 01 29	691	0.5+	0.2−	2000 01 30	704	0.1−	0.0	2000 02 11	012	0.4+	1.1−
1993 01 29	691	1.6+	0.0	2000 01 30	704	0.8−	0.4+				

1999 XA₁₆₃ = 1977 EH₅ = 1995 QO₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.29515675	ω	179.27686	+0.34615461	−0.93783288		
<i>a</i>	2.2340912	Ω	250.47058	+0.86062552	+0.32821342		
<i>e</i>	0.0759459	<i>i</i>	1.54592	+0.37349794	+0.11289573		
<i>P</i>	3.34	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1977 03 12	381	0.6+	0.5−	1999 11 14	703	0.1−	1.0+	1999 12 15	691	0.2−	0.4−
1977 03 12	381	1.0−	0.4−	1999 11 14	703	(2.2+	0.4+)	1999 12 15	691	0.2−	0.3−
1995 08 28	596	(2.1−	0.4−)	1999 12 05	699	0.2−	0.6+	1999 12 15	691	0.3−	0.3−
1995 08 28	596	0.1+	0.5−	1999 12 05	699	0.2+	0.3+	2000 01 05	704	0.5+	0.1−
1995 08 28	596	0.8−	0.5−	1999 12 05	699	0.1−	1.0+	2000 01 05	704	0.1−	0.4−
1995 08 29	596	1.4−	0.3−	1999 12 07	704	1.5+	0.8+	2000 01 05	704	0.0	0.2−
1995 08 29	596	1.2+	0.5−	1999 12 07	704	0.1+	0.8+	2000 01 05	704	0.2−	0.4−
1995 08 29	596	(2.3+	0.3−)	1999 12 07	704	0.5+	0.1+	2000 01 05	704	0.1−	0.6−
1995 08 31	596	0.1+	0.3−	1999 12 07	704	0.1+	0.5−	2000 02 02	704	0.5−	0.2−
1995 08 31	596	0.5+	0.1+	1999 12 07	704	1.4−	0.3−	2000 02 02	704	0.2−	0.0
1995 08 31	596	1.0+	0.4+	1999 12 08	691	0.1−	0.0	2000 02 02	704	0.0	0.3−
1995 09 18	809	(1.0+	2.3+)	1999 12 08	691	0.4−	0.1+	2000 02 02	704	0.0	0.2+
1999 11 12	703	0.2+	0.2+	1999 12 08	691	0.2−	0.1−	2000 02 02	704	0.3+	0.1+
1999 11 12	703	1.6+	1.8+	1999 12 08	704	1.6+	0.2−	2000 02 03	704	0.1+	0.1+
1999 11 12	703	0.5−	0.1+	1999 12 08	704	0.4+	0.4+	2000 02 03	704	0.3−	0.3−
1999 11 12	703	0.6+	1.0−	1999 12 08	704	0.1+	0.2+	2000 02 03	704	0.1+	0.1−

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1999 11 14 703 0.7- 1.1- 1999 12 08 704 0.3- 0.2- 2000 02 03 704 0.1+ 0.0
 1999 11 14 703 0.5- 0.1- 1999 12 08 704 0.6- 0.6- 2000 02 03 704 0.3- 0.1+

1999 XB₁₆₅ = 1981 UC₂₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	46.22371		(2000.0)	P	Q
<i>n</i>	0.28143635	ω	77.03420	+0.14497729	-0.98941464
<i>a</i>	2.3061237	Ω	4.64388	+0.87470417	+0.12516655
<i>e</i>	0.1718485	<i>i</i>	4.49455	+0.46246536	+0.07343026
<i>P</i>	3.50	<i>H</i>	14.7	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1981 10 24	675	0.2-	0.9+	1999 12 08	704	0.1+	0.3+	2000 01 30	704	0.7-	0.3-
1981 10 25	675	0.2+	0.2-	1999 12 15	704	0.8-	0.4-	2000 02 03	704	0.2-	0.3-
1981 10 26	675	0.1+	0.6-	1999 12 15	704	0.2-	0.5-	2000 02 03	704	0.2+	0.3-
1999 11 16	704	0.4+	0.8-	1999 12 15	704	0.6-	0.2-	2000 02 03	704	0.2+	0.0
1999 11 16	704	0.6-	0.4-	2000 01 04	704	1.7+	1.3-	2000 02 03	704	0.1+	0.1+
1999 11 16	704	0.0	0.3-	2000 01 04	704	1.7+	1.2+	2000 02 03	704	0.2+	0.4+
1999 11 16	704	0.4+	0.8-	2000 01 04	704	0.3-	1.1+	2000 02 11	704	0.3-	0.2+
1999 11 16	704	0.1-	0.6-	2000 01 04	704	(0.9-	2.8+)	2000 02 11	704	0.2-	0.1-
1999 12 08	704	0.4-	2.0+	2000 01 30	704	0.2-	0.1+	2000 02 11	704	0.0	0.1+
1999 12 08	704	0.3+	1.2+	2000 01 30	704	0.2-	0.1-	2000 02 11	704	0.3-	0.2-
1999 12 08	704	0.2+	1.0+	2000 01 30	704	0.2-	0.0	2000 02 11	704	0.4-	0.0
1999 12 08	704	0.4-	0.6-	2000 01 30	704	0.7+	0.8-				

1999 XR₁₆₆ = 1998 QS₁₀₇ = 1998 SA₆₈

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Williams

<i>M</i>	324.29294		(2000.0)	P	Q
<i>n</i>	0.17351523	ω	182.65521	-0.45109982	-0.88162383
<i>a</i>	3.1835450	Ω	294.19062	+0.82160560	-0.34952311
<i>e</i>	0.0431601	<i>i</i>	8.74832	+0.34853005	-0.31713249
<i>P</i>	5.68	<i>H</i>	13.1	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 08 23	704	1.1-	0.6-	1998 09 23	704	1.7+	0.7-	1999 12 15	704	1.4+	0.0
1998 08 23	704	0.1-	0.2-	1998 09 23	704	0.3-	1.0+	1999 12 15	704	0.1-	0.5-
1998 08 23	704	0.5-	1.0+	1999 12 05	699	1.0-	0.7+	2000 01 30	704	0.8-	0.3-
1998 09 19	704	0.6+	0.2-	1999 12 05	699	0.2+	0.9+	2000 01 30	704	0.1-	0.9-
1998 09 19	704	0.2+	0.7+	1999 12 05	699	0.3+	0.4+	2000 01 30	704	0.4-	0.4-
1998 09 19	704	0.7-	1.0-	1999 12 10	704	0.1+	0.4-	2000 01 30	704	0.4+	0.3-
1998 09 19	704	0.2-	0.9-	1999 12 10	704	0.2+	1.1+	2000 01 30	704	0.1+	1.5-
1998 09 19	704	1.3-	0.7-	1999 12 10	704	0.4+	0.4-	2000 01 31	704	0.6-	0.4+
1998 09 23	704	1.1+	0.6+	1999 12 10	704	0.3-	0.4-	2000 01 31	704	0.1+	1.0+
1998 09 23	704	1.1+	0.7+	1999 12 15	704	0.1-	0.1-	2000 01 31	704	0.1-	0.2+
1998 09 23	704	0.4-	0.0	1999 12 15	704	0.0	0.3+				

1999 XB₁₆₇ = 2000 AC₁₀ = 1993 ST₁₅

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Williams

<i>M</i>	199.78473		(2000.0)	P	Q
<i>n</i>	0.19292379	ω	198.40608	-0.46157377	+0.87053051
<i>a</i>	2.9662803	Ω	44.53431	-0.78027815	-0.30688113
<i>e</i>	0.0998527	<i>i</i>	14.08385	-0.42203752	-0.38470848
<i>P</i>	5.11	<i>H</i>	12.4	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1993 09 19	675	0.4+	1.2+	1999 12 10	704	0.8-	0.3+	2000 01 04	704	0.1-	0.7-
1993 09 19	675	0.9-	0.6-	1999 12 10	704	0.2-	0.1+	2000 01 04	704	0.3+	0.7-
1993 09 23	675	0.0	1.4-	1999 12 10	704	(2.5-	1.0+)	2000 01 04	704	0.5+	1.2-
1993 09 23	675	0.5+	0.7+	1999 12 10	704	0.1+	0.2+	2000 01 04	704	0.2-	1.2-
1998 09 22	699	0.5+	0.3-	1999 12 10	704	0.6-	0.7+	2000 01 31	704	0.8-	0.2+
1998 09 22	699	0.2+	0.1+	1999 12 13	703	0.8+	1.1+	2000 01 31	704	0.3-	0.6+
1998 09 22	699	1.0+	0.3-	1999 12 13	703	0.4-	0.3+	2000 01 31	704	0.1+	0.2-
1998 12 08	704	1.9-	0.6+	1999 12 13	703	0.1+	0.3+	2000 01 31	704	0.9-	0.3+
1998 12 08	704	(2.3-	0.1-)	1999 12 13	703	0.6-	0.5-	2000 02 03	704	1.0-	0.3+
1998 12 08	704	(1.1+	2.6-)	1999 12 15	704	0.4+	0.3+	2000 02 03	704	0.2-	0.5-

1998 12 08	704	(3.6-	1.6+)	1999 12 15	704	0.3-	0.1+	2000 02 03	704	0.1+	0.2+
1998 12 21	327	0.0	0.2+	1999 12 15	704	0.1+	0.1-	2000 02 03	704	0.1+	0.6+
1998 12 21	327	0.1+	0.3-	1999 12 15	704	0.1+	0.2+	2000 02 03	704	0.5+	0.0
1998 12 21	327	0.9-	0.6+	1999 12 15	704	0.0	0.2+	2000 02 06	704	0.7-	0.1-
1998 12 21	327	0.5-	0.1+	2000 01 03	704	0.4+	0.4-	2000 02 06	704	0.1+	1.3+
1999 11 16	704	0.4+	0.2+	2000 01 03	704	0.3+	0.1-	2000 02 06	704	0.5-	0.2-
1999 11 16	704	0.3+	0.4-	2000 01 03	704	0.3+	0.8-	2000 02 06	704	0.6-	0.6+
1999 11 16	704	0.1+	0.2+	2000 01 03	704	0.5+	0.9-	2000 02 06	704	0.1+	0.0
1999 11 16	704	0.7+	0.2+	2000 01 03	704	0.0	0.4-				
1999 11 16	704	0.6+	0.3+	2000 01 04	704	0.5+	0.8-				

1999 XN₁₆₈ = 1980 TR₄

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Spahr

<i>M</i>	131.95535		(2000.0)	P	Q
<i>n</i>	0.21370226	ω	274.13485	+0.44644559	+0.89265672
<i>a</i>	2.7707456	Ω	22.70212	-0.74389415	+0.40879510
<i>e</i>	0.1459000	<i>i</i>	9.25210	-0.49730054	+0.18986982
<i>P</i>	4.61	<i>H</i>	12.9	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1980 10 07	675	0.3+	1.0-	1999 12 10	704	0.6-	0.2-	2000 01 03	704	0.5-	0.4+
1980 10 08	675	0.3+	0.5+	1999 12 10	704	1.5+	0.5-	2000 01 03	704	0.2+	0.1-
1980 10 09	675	0.9-	0.4+	1999 12 15	704	0.7-	0.6-	2000 01 30	704	0.5-	1.3+
1980 10 10	675	0.5+	0.2+	1999 12 15	704	0.4-	0.9-	2000 01 30	704	0.0	0.5+
1999 12 05	699	0.9-	1.2+	1999 12 15	704	0.9+	1.1-	2000 01 30	704	0.4-	0.0
1999 12 05	699	0.3+	1.2+	1999 12 15	704	0.4+	1.0-	2000 01 30	704	0.4-	0.5+
1999 12 05	699	0.2-	1.4+	1999 12 15	704	0.7+	1.7-	2000 01 30	704	0.8+	0.7+
1999 12 07	703	0.2-	0.4-	1999 12 31	699	0.4+	0.7+	2000 02 02	704	1.1-	0.5-
1999 12 07	703	0.4-	0.3+	1999 12 31	699	1.0-	1.0+	2000 02 02	704	0.7+	0.4-
1999 12 07	703	0.0	0.5+	1999 12 31	699	0.0	1.8+	2000 02 02	704	0.9+	0.5-
1999 12 07	703	0.3-	0.1-	2000 01 03	704	0.1+	0.2-	2000 02 02	704	0.2+	1.1-
1999 12 10	704	0.1+	0.9-	2000 01 03	704	0.1-	0.7-	2000 02 02	704	0.1-	0.9-
1999 12 10	704	0.6+	0.6-	2000 01 03	704	0.2-	0.8+				

1999 XS₁₆₈ = 1995 YT₂₂

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Williams

<i>M</i>	278.79325		(2000.0)	P	Q
<i>n</i>	0.26564659	ω	227.12801	-0.99708474	-0.01831194
<i>a</i>	2.3966239	Ω	311.67917	+0.05021541	-0.88839675
<i>e</i>	0.0698160	<i>i</i>	5.69169	-0.05744935	-0.45871112
<i>P</i>	3.71	<i>H</i>	13.7	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1995 12 24	327	0.1-	0.0	1999 12 10	704	0.4+	0.1-	2000 01 30	704	0.0	0.4-
1995 12 24	327	0.6+	0.3-	1999 12 10	704	0.1+	0.7+	2000 01 30	704	0.1+	0.1+
1995 12 24	327	0.4-	0.3-	1999 12 15	704	1.2+	0.1+	2000 01 30	704	0.3+	0.5+
1995 12 26	327	0.1+	0.0	1999 12 15	704	0.5-	0.1-	2000 01 30	704	0.1+	0.6+
1995 12 26	327	0.2+	0.3+	1999 12 15	704	0.2-	0.0	2000 01 31	704	0.3-	0.6-
1995 12 26	327	0.5-	0.3+	1999 12 15	704	0.6-	0.1+	2000 01 31	704	0.4-	0.3+
1999 12 10	704	0.7+	0.3-	1999 12 15	704	0.1-	0.0	2000 01 31	704	0.6+	0.6-
1999 12 10	704	1.0-	0.5-	2000 01 30	704	0.3-	0.0				

1999 XZ₁₆₈ = 1998 QO₁₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	291.27658		(2000.0)	P	Q
<i>n</i>	0.29274089	ω	260.12058	-0.98850660	+0.06782814
<i>a</i>	2.2463657	Ω	283.67567	-0.00417865	-0.90561742
<i>e</i>	0.1102857	<i>i</i>	7.99286	-0.15111994	-0.41863640
<i>P</i>	3.37	<i>H</i>	14.1	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 08 17	704	0.9+	1.3+	1999 12 10	704	0.2-	0.2+	2000 01 30	704	0.0	1.7+
1998 08 17	704	0.2-	0.0	1999 12 15	704	0.8+	0.5+	2000 01 30	704	0.0	0.7+
1998 08 17	704	1.0+	1.6+	1999 12 15	704	0.2+	0.1+	2000 01 30	704	1.1+	0.6-

1998 08 17	704	0.1−	0.5+	1999 12 15	704	0.0	0.1+	2000 01 30	704	0.4+	0.4−
1998 08 23	704	0.4−	0.1−	1999 12 15	704	0.0	0.0	2000 01 30	704	0.5+	1.1−
1998 08 23	704	0.2+	0.7−	1999 12 15	704	0.1+	0.5−	2000 02 03	704	1.8−	1.8+
1998 08 23	704	0.7+	1.7−	2000 01 03	704	0.3+	0.2+	2000 02 03	704	0.4−	0.3+
1998 08 23	704	1.4−	0.2−	2000 01 03	704	0.3+	0.4+	2000 02 03	704	1.2+	0.5+
1998 08 23	704	0.8−	0.8−	2000 01 03	704	0.1+	0.2−	2000 02 03	704	0.4−	0.3+
1999 11 16	704	0.2−	0.3+	2000 01 03	704	0.8−	0.5+	2000 02 03	704	1.3+	1.8−
1999 11 16	704	0.1−	0.1−	2000 01 03	704	0.0	0.0	2000 02 11	704	0.4−	0.5−
1999 11 16	704	0.4−	0.2−	2000 01 04	704	0.4−	0.4−	2000 02 11	704	0.5−	0.1+
1999 11 16	704	0.2+	0.0	2000 01 04	704	0.2−	0.3−	2000 02 11	704	0.6−	0.3−
1999 11 16	704	0.2−	0.5+	2000 01 04	704	0.1+	0.2−	2000 02 11	704	0.1+	0.3−
1999 12 10	704	0.0	0.2−	2000 01 04	704	0.4+	0.5−	2000 02 11	704	0.4−	0.2−
1999 12 10	704	0.1−	0.1+	2000 01 04	704	0.0	0.2−				

1999 XE₁₆₉ = 1998 RT₃₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	274.62292		(2000.0)	P		Q	
<i>n</i>	0.23746525	ω	151.61819	−0.96404097		+0.25769718	
<i>a</i>	2.5826725	Ω	43.47558	−0.25817063		−0.85018436	
<i>e</i>	0.0619535	<i>i</i>	5.41580	−0.06303117		−0.45910642	
<i>P</i>	4.15	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 14	704	0.3+	1.2−	1999 11 16	704	0.1−	0.0	1999 12 15	704	0.0	0.3+
1998 09 14	704	0.5−	0.4+	1999 11 16	704	0.2+	0.1+	2000 01 02	704	0.7+	0.4+
1998 09 14	704	0.6−	0.3−	1999 12 10	704	0.7−	0.0	2000 01 02	704	0.3−	0.0
1998 09 14	704	0.1+	0.7−	1999 12 10	704	0.5−	0.3−	2000 01 02	704	0.4+	0.2−
1998 09 18	704	0.1+	0.5−	1999 12 10	704	0.4+	0.2−	2000 01 02	704	0.2−	0.0
1998 09 18	704	0.7+	0.7+	1999 12 10	704	1.3+	0.2−	2000 01 04	704	0.0	0.1+
1998 09 18	704	0.7−	0.2−	1999 12 10	704	0.4+	0.3−	2000 01 04	704	0.4+	0.6−
1998 09 18	704	0.6+	1.9+	1999 12 15	704	0.0	0.3+	2000 01 04	704	0.9−	0.1+
1999 11 16	704	0.2−	0.3−	1999 12 15	704	0.1−	0.2+	2000 01 04	704	0.1+	0.1+
1999 11 16	704	0.2+	0.0	1999 12 15	704	0.9−	0.5+				

1999 XF₁₆₉ = 1997 CC₃₀ = 1997 EA₂₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	74.44508		(2000.0)	P		Q	
<i>n</i>	0.29638081	ω	75.90959	+0.96962559		−0.22622433	
<i>a</i>	2.2279358	Ω	297.09556	+0.16394805		+0.88327562	
<i>e</i>	0.1769748	<i>i</i>	5.99628	+0.18151380		+0.41066621	
<i>P</i>	3.33	<i>H</i>	15.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 02 06	566	0.3−	0.5+	1999 12 15	704	0.1−	0.1−	2000 01 04	704	0.7+	0.4−
1997 02 06	566	0.1+	0.5+	1999 12 15	704	0.4−	0.2+	2000 01 04	704	0.8+	0.1+
1997 02 06	566	0.1+	0.3+	1999 12 15	704	0.8−	0.5+	2000 01 30	704	0.1−	0.4+
1997 03 05	691	0.3+	0.3−	1999 12 15	704	0.5−	0.2+	2000 01 30	704	0.2−	0.3+
1997 03 05	691	0.5+	0.4−	1999 12 15	704	0.6−	0.5+	2000 01 30	704	0.1−	0.3+
1997 03 12	691	0.1−	0.3−	2000 01 03	704	0.2+	0.6−	2000 01 30	704	0.0	0.6+
1997 03 12	691	0.1−	0.3−	2000 01 03	704	0.3+	1.3−	2000 01 30	704	0.0	0.9+
1997 03 12	691	0.4−	0.0	2000 01 03	704	0.7+	1.1−	2000 02 11	704	0.6−	0.6+
1999 12 10	704	0.1+	1.6+	2000 01 03	704	0.4−	1.9−	2000 02 11	704	0.1+	0.4+
1999 12 10	704	0.5+	0.4+	2000 01 03	704	0.3+	0.9−	2000 02 11	704	0.5−	0.2−
1999 12 10	704	0.1+	0.5+	2000 01 04	704	0.3+	0.3−	2000 02 11	704	0.2+	0.1+
1999 12 10	704	0.9−	0.0	2000 01 04	704	0.2+	0.1−	2000 02 11	704	0.2+	0.0
1999 12 10	704	0.2+	0.4+	2000 01 04	704	0.2+	0.7−				

1999 XL₁₆₉ = 1998 UY₄₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	339.21026		(2000.0)	P		Q	
<i>n</i>	0.17648605	ω	112.16161	−0.64276878		−0.76566863	
<i>a</i>	3.1477178	Ω	17.90470	+0.67023138		−0.57755867	
<i>e</i>	0.1117156	<i>i</i>	4.56931	+0.37099622		−0.28315638	
<i>P</i>	5.58	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 10 24	691	0.6−	0.3+	1999 11 16	704	0.5−	0.0	2000 01 02	704	0.6−	0.1+
1998 10 24	691	0.7−	0.6+	1999 12 10	704	0.6−	0.3+	2000 01 02	704	0.3+	0.1−
1998 10 24	691	0.3−	0.3+	1999 12 10	704	0.4−	0.4+	2000 01 02	704	0.2−	0.1+
1998 10 28	691	0.5+	0.5−	1999 12 10	704	0.1+	0.0	2000 01 02	704	0.3+	0.0
1998 10 28	691	0.4+	0.2−	1999 12 15	704	0.4−	0.2+	2000 01 04	704	0.7−	0.1−
1998 10 28	691	0.7−	0.3−	1999 12 15	704	0.1−	0.1−	2000 01 04	704	0.4+	0.5+
1999 11 16	704	0.4+	0.9−	1999 12 15	704	0.0	0.5−	2000 01 04	704	1.2+	0.5+
1999 11 16	704	0.9+	0.7−	1999 12 15	704	0.0	0.1+				

1999 XO₁₆₉ = 1972 NS = 1990 XG₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	89.35929		(2000.0)	P		Q	
<i>n</i>	0.22573474	ω	51.32474	+0.95908289		+0.23935743	
<i>a</i>	2.6713889	Ω	294.36008	−0.28250237		+0.84445011	
<i>e</i>	0.2732366	<i>i</i>	9.55537	+0.01877285		+0.47917850	
<i>P</i>	4.37	<i>H</i>	13.1	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1972 07 13	095	(1.4−	4.1−)	1999 12 10	704	1.4−	0.6−	2000 01 04	704	0.1+	0.3−
1972 07 16	095	1.6+	0.3−	1999 12 10	704	0.5−	0.7−	2000 01 04	704	0.2+	0.1−
1972 07 19	095	1.6−	0.4+	1999 12 10	704	0.7−	0.7−	2000 01 30	704	0.1+	0.4+
1990 12 07	033	0.7−	1.6+	1999 12 10	704	0.5−	0.8−	2000 01 30	704	0.1+	0.7+
1990 12 07	033	0.2+	0.9+	1999 12 15	704	0.1−	0.3−	2000 01 30	704	0.1+	0.9+
1998 06 24	704	0.2+	0.5−	1999 12 15	704	0.0	0.0	2000 01 30	704	0.2+	1.1+
1998 06 24	704	0.8−	0.2+	1999 12 15	704	0.3−	0.6+	2000 01 30	704	0.2+	1.0+
1998 06 24	704	1.0+	1.8+	1999 12 15	704	0.1−	0.4+	2000 01 31	704	0.3+	0.4+
1998 06 24	704	(1.4+	3.1+)	2000 01 03	704	0.4+	0.2−	2000 01 31	704	0.3+	0.6+
1998 06 24	704	0.7−	0.9+	2000 01 03	704	0.5+	0.2−	2000 01 31	704	0.1−	1.2+
1999 11 16	704	0.5+	0.4−	2000 01 03	704	0.1−	0.3−	2000 01 31	704	0.5+	0.2+
1999 11 16	704	0.0	0.1−	2000 01 03	704	0.1+	0.6−	2000 02 11	704	0.2−	1.0+
1999 11 16	704	0.3+	0.5−	2000 01 03	704	0.1+	0.8−	2000 02 11	704	0.9+	0.2+
1999 11 16	704	0.2+	0.1+	2000 01 04	704	0.3+	0.1−	2000 02 11	704	0.5−	0.6+
1999 11 16	704	0.6−	0.0	2000 01 04	704	0.3+	0.2−	2000 02 11	704	0.3+	0.3+
1999 12 10	704	0.8−	0.1−	2000 01 04	704	0.1+	0.1−	2000 02 11	704	0.2−	1.3−

1999 XQ₁₆₉ = 1978 WQ = 1989 YW₄ = 1998 MG₂₀

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				Williams			
<i>M</i>	127.90670		(2000.0)	P		Q	
<i>n</i>	0.28665115	ω	353.79122	+0.83202820		+0.55359892	
<i>a</i>	2.2780693	Ω	332.50120	−0.50559709		+0.73047817	
<i>e</i>	0.1693358	<i>i</i>	4.40438	−0.22825571		+0.39991235	
<i>P</i>	3.44	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1978 11 24	033	0.4+	0.7+	1998 06 26	704	0.8+	0.0	1999 12 15	704	0.6−	0.4−
1978 11 24	033	0.7−	0.4−	1998 06 26	704	0.4+	1.0+	2000 01 02	704	0.1+	0.3+
1989 12 30	413	(3.2+	0.8−)	1998 06 26	704	0.0	0.4+	2000 01 02	704	0.2−	0.1+
1989 12 31	413	1.4+	0.8+	1999 11 16	704	0.4+	0.2−	2000 01 02	704	0.3+	0.2+
1997 02 03	566	0.9−	0.7−	1999 11 16	704	0.5−	0.4−	2000 01 02	704	0.3+	1.8−
1997 02 03	566	1.0−	0.6−	1999 11 16	704	0.5+	0.2−	2000 01 02	704	0.0	0.2+
1997 02 03	566	0.9−	0.5−	1999 11 16	704	0.3+	0.2−	2000 01 04	704	0.2+	0.5+
1997 02 06	910	0.3+	0.2+	1999 11 16	704	0.0	0.1−	2000 01 04	704	1.3−	0.0
1997 02 06	910	0.4+	0.2+	1999 12 10	704	0.4+	0.2−	2000 01 04	704	0.2−	0.7+
1997 02 07	910	0.3+	0.1+	1999 12 10	704	0.3−	0.1−	2000 01 04	704	0.2+	1.2+
1998 06 24	704	0.5−	0.8+	1999 12 10	704	0.3−	0.3−	2000 01 30	704	0.4+	0.1−
1998 06 24	704	0.3+	1.6−	1999 12 10	704	0.1−	0.1−	2000 01 30	704	0.4+	0.9+
1998 06 24	704	0.3−	0.4+	1999 12 15	704	0.1+	0.2+	2000 01 30	704	0.0	0.2−
1998 06 26	704	0.3−	0.1+	1999 12 15	704	0.1−	0.2−	2000 01 30	704	0.0	0.5+
1998 06 26	704	0.1−	0.5+	1999 12 15	704	0.2+	0.1+	2000 01 30	704	0.2−	1.5+

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M.P.C. 38603

1999 XF₁₇₀ = 1998 QX₈₇

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Williams

<i>M</i>	275.83799		(2000.0)		P		Q
<i>n</i>	0.23335082	ω	276.40680	−0.92136670			+0.32511068
<i>a</i>	2.6129424	Ω	282.72476	−0.20951175			−0.87704686
<i>e</i>	0.1363024	<i>i</i>	12.61537	−0.32739613			−0.35368327
<i>P</i>	4.22	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 19	704	0.7−	0.8+	1998 10 10	699	0.4−	0.2−	2000 01 04	704	0.1+	0.6+
1998 08 19	704	1.5+	0.7+	1998 10 10	699	1.0+	1.1−	2000 01 04	704	0.5+	0.4+
1998 08 19	704	0.7−	0.4−	1998 10 10	699	0.2+	0.7−	2000 01 04	704	0.0	0.6+
1998 08 19	704	0.6−	0.6+	1999 12 10	704	0.2−	0.2+	2000 01 04	704	0.3−	0.1+
1998 08 19	704	(5.7−	0.5−)	1999 12 10	704	0.5+	0.0	2000 01 04	704	1.0+	0.5+
1998 08 24	704	1.0+	0.8−	1999 12 10	704	0.2−	0.2+	2000 01 30	704	0.2+	0.4+
1998 08 24	704	(2.1+	1.5−)	1999 12 15	704	0.1+	0.2−	2000 01 30	704	0.5+	0.0
1998 08 24	704	(0.6−	2.2−)	1999 12 15	704	0.0	0.3−	2000 01 30	704	0.1+	0.1+
1998 08 24	704	0.0	1.6−	1999 12 15	704	0.1+	0.7−	2000 01 30	704	0.4+	0.2+
1998 08 27	704	1.0−	0.4+	1999 12 15	704	0.3−	0.5−	2000 01 30	704	0.4+	0.3−
1998 08 27	704	0.1+	1.3+	2000 01 03	704	(2.2−	0.4+)	2000 02 11	704	0.1−	0.1+
1998 08 27	704	0.9−	1.5+	2000 01 03	704	1.6−	0.3−	2000 02 11	704	0.5−	0.7−
1998 08 27	704	1.4+	0.4+	2000 01 03	704	0.4+	0.5+	2000 02 11	704	0.1+	0.6−
1998 08 27	704	0.9−	0.8−	2000 01 03	704	0.7−	0.1+	2000 02 11	704	0.4−	0.0

1999 XR₁₇₀ = 1989 EW₂ = 1996 RA₉Id. G. V. Williams (*MPC* 37969), M. E. Sansaturio

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Williams

<i>M</i>	38.11583		(2000.0)		P		Q
<i>n</i>	0.08097099	ω	125.68586	+0.57847083			−0.76969975
<i>a</i>	5.2915523	Ω	286.72185	+0.62717956			+0.63138092
<i>e</i>	0.0991684	<i>i</i>	16.37883	+0.52155277			+0.09444806
<i>P</i>	12.17	<i>H</i>	11.3	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1989 03 02	809	0.5+	0.8+	1998 11 14	704	2.6+	0.3+	1999 12 10	704	0.3+	0.5−
1989 03 02	809	0.4+	0.4+	1998 11 14	704	0.5−	0.3+	1999 12 10	704	0.7−	0.3+
1989 03 02	809	1.2+	0.0	1998 11 16	704	0.9−	0.3+	1999 12 15	704	0.5−	1.0+
1989 03 03	809	0.9−	0.1+	1998 11 16	704	0.4+	0.5+	1999 12 15	704	0.3−	0.4+
1989 03 03	809	0.3−	0.3+	1998 11 16	704	0.2+	0.5+	1999 12 15	704	0.0	0.1+
1989 03 03	809	0.3−	0.7−	1998 11 16	704	1.6−	0.8+	1999 12 15	704	0.2+	0.0
1996 09 07	691	0.4+	0.1−	1999 11 16	704	0.5+	0.4−	1999 12 16	704	0.2+	0.3+
1996 09 07	691	0.4+	0.2−	1999 11 16	704	0.1−	0.7−	1999 12 16	704	0.3−	1.1−
1996 09 07	691	0.1+	0.0	1999 11 16	704	0.3+	0.9−	1999 12 16	704	0.6−	0.9−
1996 09 13	691	0.0	0.2−	1999 11 16	704	0.5+	0.1−	1999 12 16	704	0.3+	0.4−
1996 09 13	691	0.1+	0.4−	1999 11 16	704	0.5−	0.7+	2000 01 04	704	0.4−	0.3−
1996 09 13	691	0.2−	0.2−	1999 11 16	704	0.0	0.9−	2000 01 04	704	0.0	0.5−
1998 11 14	704	1.4−	0.1−	1999 11 16	704	0.1+	0.3+	2000 01 04	704	0.3−	0.1+
1998 11 14	704	0.2−	0.1+	1999 11 16	704	0.1−	0.0	2000 01 04	704	0.4−	0.4+
1998 11 14	704	0.9+	0.3+	1999 12 10	704	0.5+	1.0−	2000 01 04	704	0.0	0.5+

1999 XW₁₇₀ = 1982 BV₁₂ = 1985 XG₁

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Williams

<i>M</i>	149.86280		(2000.0)		P		Q
<i>n</i>	0.21321098	ω	359.04161	+0.61760165			+0.78022637
<i>a</i>	2.7750001	Ω	309.09186	−0.72073952			+0.51104153
<i>e</i>	0.1465683	<i>i</i>	7.33359	−0.31480589			+0.36067072
<i>P</i>	4.62	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1982 01 30	675	0.8−	0.1−	1998 09 27	699	0.8+	0.8−	2000 01 02	704	0.0	0.3−
1982 01 31	675	0.4+	0.2−	1998 11 14	699	1.4−	1.4+	2000 01 02	704	0.2−	0.2−
1985 12 14	010	1.1−	2.0+	1998 11 14	699	0.1+	0.6+	2000 01 03	704	0.3−	0.2−
1985 12 14	010	1.6+	0.1+	1998 11 14	699	0.5−	0.2+	2000 01 03	704	0.0	0.7+
1998 06 29	704	0.1−	1.3−	1998 12 09	704	1.8−	0.4−	2000 01 03	704	0.0	0.0
1998 06 29	704	0.7−	0.5−	1998 12 09	704	(0.1−	2.4−)	2000 01 03	704	0.1−	0.4+

1998 06 29	704	(0.4+	2.7−)	1998 12 09	704	(2.8−	1.5+)	2000 01 03	704	0.4+	0.9+
1998 06 29	704	1.8+	0.1+	1998 12 09	704	1.2−	0.3+	2000 01 03	411	1.4+	0.8−
1998 06 29	704	(1.4−	2.5+)	1999 11 16	704	0.3−	0.7−	2000 01 03	411	0.2+	0.2+
1998 08 23	704	1.0+	0.9−	1999 11 16	704	0.4−	0.8−	2000 01 04	704	0.6−	0.4−
1998 08 23	704	1.2+	0.5+	1999 11 16	704	0.6−	0.5−	2000 01 04	704	0.2+	0.7−
1998 08 23	704	0.9−	1.3−	1999 11 16	704	0.6+	0.6−	2000 01 04	704	0.2−	0.6−
1998 08 23	704	0.9−	0.2−	1999 11 16	704	0.6−	0.2−	2000 01 04	704	0.3+	0.6−
1998 08 23	704	1.4+	0.8+	1999 12 10	704	0.2−	1.1−	2000 01 04	704	0.4+	0.9−
1998 08 23	704	1.3+	1.2+	1999 12 10	704	(0.6−	2.0−)	2000 01 04	411	0.3−	0.1+
1998 08 23	704	0.6−	1.3+	1999 12 10	704	0.4−	0.7−	2000 01 04	411	0.5+	0.6+
1998 08 23	704	0.9−	0.9+	1999 12 15	704	0.5+	0.6+	2000 01 30	704	0.4+	0.8−
1998 08 23	704	0.6+	1.3−	1999 12 15	704	1.9−	1.8+	2000 01 30	704	0.3+	0.9+
1998 08 23	704	(0.1−	2.3−)	1999 12 15	704	0.3−	0.9−	2000 01 30	704	0.4+	0.1+
1998 09 27	699	0.4+	0.4−	1999 12 15	704	0.3−	0.2+	2000 01 30	704	0.1+	1.2+
1998 09 27	699	0.4−	0.5−	2000 01 02	704	0.1+	0.1−				

1999 XY₁₇₀ = 1998 RH₄₀

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	296.60354		(2000.0)		P		Q
<i>n</i>	0.27521354	ω	145.06347	−0.97821034			+0.19266214
<i>a</i>	2.3407562	Ω	46.24370	−0.20638056			−0.86175157
<i>e</i>	0.1285841	<i>i</i>	6.14905	−0.02261830			−0.46932454
<i>P</i>	3.58	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1995 10 15	327	0.5−	0.3+	1999 12 10	704	0.9+	0.1+	2000 01 02	704	0.2−	0.4+
1995 10 15	327	0.2−	0.2−	1999 12 10	704	0.2+	0.6+	2000 01 04	704	1.7−	1.0−
1995 10 15	327	0.7+	0.2+	1999 12 15	704	0.8+	0.3−	2000 01 04	704	0.4−	0.8−
1998 09 14	704	0.6+	1.0+	1999 12 15	704	0.5+	0.7−	2000 01 04	704	0.4−	1.2−
1998 09 14	704	0.5−	1.9−	1999 12 15	704	0.2+	0.4−	2000 01 04	704	0.3−	0.9−
1998 09 14	704	0.1+	0.1−	1999 12 15	704	0.1−	0.7−	2000 01 30	704	0.3−	0.1+
1998 09 14	704	0.1−	1.5+	1999 12 15	704	0.2−	0.9−	2000 01 30	704	0.3+	0.4+
1998 09 18	704	0.9+	1.8−	2000 01 02	704	0.1+	0.4+	2000 01 30	704	0.2−	0.6−
1998 09 18	704	0.7−	0.2−	2000 01 02	704	0.6+	1.4+	2000 01 30	704	0.3−	0.3+
1998 09 18	704	0.4−	1.6+	2000 01 02	704	0.3+	1.4+	2000 01 30	704	0.5−	0.3+
1999 12 10	704	0.7+	0.2−	2000 01 02	704	0.1−	2.0+				

1999 XZ₁₇₀ = 1998 ME₃₀

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	104.17996		(2000.0)		P		Q
<i>n</i>	0.24447234	ω	340.86291	+0.97006698			+0.24273383
<i>a</i>	2.5330838	Ω	5.10496	−0.21110501			+0.85738646
<i>e</i>	0.1929004	<i>i</i>	4.57398	−0.12001974			+0.45383780
<i>P</i>	4.03	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 06 24	704	0.5+	0.5−	1999 12 15	704	0.0	0.7−	2000 01 30	704	0.7−	0.3−
1998 06 24	704	0.1−	1.0−	1999 12 15	704	0.2−	0.6−	2000 01 30	704	0.4+	0.0
1998 06 24	704	1.3−	0.3−	1999 12 15	704	1.1+	1.0−	2000 01 30	704	0.0	0.1−
1998 06 24	704	0.2−	0.7+	2000 01 02	704	0.7−	0.6−	2000 01 30	704	0.6+	0.1−
1998 06 26	704	0.2−	0.5−	2000 01 02	704	0.3−	0.1+	2000 02 02	704	0.6+	0.2+
1998 06 26	704	0.1−	0.3−	2000 01 02	704	0.6−	0.4+	2000 02 02	704	0.5+	0.3−
1998 06 26	704	0.1+	1.3+	2000 01 02	704	(2.1−	0.4+)	2000 02 02	704	0.6+	1.0−
1998 06 26	704	1.4+	0.4+	2000 01 02	704	0.2−	0.3−	2000 02 03	704	0.5−	0.6−
1999 12 10	704	0.3−	0.3+	2000 01 04	704	0.1+	1.5+	2000 02 03	704	0.5+	0.1+
1999 12 10	704	0.0	0.3+	2000 01 04	704	0.6−	0.2+	2000 02 03	704	0.2+	0.1+
1999 12 10	704	0.0	0.3+	2000 01 04	704	0.2−	0.2+	2000 02 03	704	0.1−	0.5+
1999 12 15	704	0.3−	0.3+	2000 01 04	704	0.8−	0.3−				
1999 12 15	704	1.7+	0.1+	2000 01 30	704	0.4−	0.7+				

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	37.33176		(2000.0)	P	Q
<i>n</i>	0.29658434	ω	86.82454	+0.26922462	-0.96296371
<i>a</i>	2.2269164	Ω	347.52718	+0.85416048	+0.24584734
<i>e</i>	0.1051598	<i>i</i>	3.92894	+0.44489098	+0.11072478
<i>P</i>	3.32	<i>H</i>	15.2	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1977 02 18	381	1.8+	1.5-	2000 01 02	704	0.4-	1.5+	2000 01 29	704	0.2+	0.2+
1977 02 18	381	0.2-	0.9+	2000 01 02	704	0.1-	0.6+	2000 01 29	704	0.2-	0.4+
1977 02 19	381	2.1-	0.4-	2000 01 02	704	0.6+	0.4+	2000 01 29	704	0.9-	0.9+
1999 12 10	704	0.2+	0.4-	2000 01 04	704	0.5-	0.1-	2000 01 30	704	0.3+	0.1-
1999 12 10	704	0.4-	0.2-	2000 01 04	704	0.3-	0.3-	2000 01 30	704	0.3-	0.2-
1999 12 10	704	0.0	0.1-	2000 01 04	704	0.2-	0.3-	2000 01 30	704	0.3-	0.1+
1999 12 15	704	0.3+	0.2-	2000 01 04	704	0.0	0.7-	2000 01 30	704	0.5-	0.1+
1999 12 15	704	0.1-	0.3-	2000 01 04	704	0.2-	0.6-	2000 01 31	704	0.1+	0.0
1999 12 15	704	0.2-	0.5-	2000 01 25	704	0.4-	0.4-	2000 01 31	704	0.2+	0.1+
1999 12 15	704	0.0	0.5-	2000 01 25	704	0.3+	0.2+	2000 01 31	704	0.2+	0.5+
1999 12 15	704	0.5+	0.8-	2000 01 25	704	1.7+	0.2-	2000 01 31	704	1.6+	0.9+
2000 01 02	704	0.7-	0.2+	2000 01 29	704	0.1-	0.3+				
2000 01 02	704	0.2-	0.1+	2000 01 29	704	0.0	0.4+				

1999 XO₁₇₁ = 1992 FK₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	58.64312		(2000.0)	P	Q
<i>n</i>	0.22537581	ω	52.06257	+0.81284991	-0.58207038
<i>a</i>	2.6742244	Ω	343.49791	+0.50763182	+0.72615195
<i>e</i>	0.2071751	<i>i</i>	4.37303	+0.28563081	+0.36591997
<i>P</i>	4.37	<i>H</i>	14.5	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1992 03 26	691	0.0	0.2-	1999 12 10	704	0.4-	0.1+	2000 01 30	704	0.7-	0.2+
1992 03 26	691	0.1+	0.7+	1999 12 10	704	0.1-	0.6+	2000 01 30	704	0.3-	0.0
1992 03 26	691	0.5-	0.1+	1999 12 10	704	0.5-	0.0	2000 01 30	704	0.4+	0.1+
1992 04 07	691	0.4+	0.6-	1999 12 15	704	0.3-	0.3-	2000 01 30	704	0.1+	0.2+
1992 04 07	691	0.0	0.1+	1999 12 15	704	0.2-	0.2-	2000 01 30	704	0.0	0.1-
1992 04 07	691	0.0	0.1-	1999 12 15	704	0.4+	0.2+	2000 01 31	704	0.1+	0.5-
1999 12 10	704	0.3+	0.2-	1999 12 15	704	0.1+	0.3-	2000 01 31	704	0.5+	0.1-
1999 12 10	704	0.2+	0.5+	1999 12 15	704	0.5+	0.3-	2000 01 31	704	0.3-	0.2+

1999 XR₁₇₁ = 1996 SP₈ = 1998 XD₂₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	22.22606		(2000.0)	P	Q
<i>n</i>	0.08468029	ω	130.86192	+0.08733570	-0.98692897
<i>a</i>	5.1358756	Ω	313.57193	+0.84848736	+0.14493371
<i>e</i>	0.0753734	<i>i</i>	10.77418	+0.52195945	-0.07046580
<i>P</i>	11.64	<i>H</i>	11.5	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1996 09 16	809	0.3-	0.4+	1999 12 10	704	0.4-	0.3-	2000 01 03	704	0.7+	0.3-
1996 09 17	809	0.2-	0.3+	1999 12 10	704	0.3-	0.1-	2000 01 04	704	0.1-	0.4-
1998 12 14	704	1.0-	1.4+	1999 12 15	704	1.3+	1.7+	2000 01 04	704	0.0	0.3-
1998 12 14	704	0.3-	1.0+	1999 12 15	704	0.9-	0.7+	2000 01 04	704	0.0	0.4+
1998 12 14	704	0.1+	0.5-	1999 12 15	704	0.4+	0.1-	2000 01 30	704	0.1-	0.1+
1998 12 17	704	0.8+	0.5-	1999 12 15	704	0.9-	0.1-	2000 01 30	704	0.7-	0.9+
1998 12 17	704	1.4+	0.7-	2000 01 03	704	0.0	0.7+	2000 01 30	704	0.7+	0.3-
1998 12 17	704	1.0-	0.8-	2000 01 03	704	0.0	0.2+	2000 01 31	704	0.7+	0.4+
1998 12 17	704	0.0	1.0-	2000 01 03	704	0.2+	0.7-	2000 01 31	704	0.4-	0.3+
1999 12 10	704	0.1+	1.2-	2000 01 03	704	0.1+	0.5-	2000 01 31	704	0.1-	0.0

1999 XS₁₇₁ = 1998 RL₆₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	128.38319		(2000.0)	P	Q
<i>n</i>	0.20652941	ω	327.00221	+0.91015994	+0.41405966
<i>a</i>	2.8345325	Ω	8.56670	-0.35905106	+0.80388617
<i>e</i>	0.1158763	<i>i</i>	4.92406	-0.20661854	+0.42699136
<i>P</i>	4.77	<i>H</i>	13.7	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 08 28	704	0.5+	0.6-	1998 09 26	704	1.2+	0.2+	2000 01 02	704	0.8-	0.4+
1998 08 28	704	0.1+	0.9-	1998 09 26	704	0.7+	1.0-	2000 01 02	704	0.7-	0.0
1998 08 28	704	0.1+	0.1-	1998 09 26	704	0.2+	1.4-	2000 01 02	704	0.2-	0.7+
1998 08 28	704	0.3-	0.6+	1998 09 27	704	0.8-	0.2+	2000 01 04	704	0.3-	0.3+
1998 08 28	704	0.4-	0.1-	1998 09 27	704	0.2+	0.2-	2000 01 04	704	0.2-	0.0
1998 09 14	704	0.5-	0.1-	1998 09 27	704	0.1+	0.2+	2000 01 04	704	0.8-	0.4+
1998 09 14	704	0.4-	0.3+	1998 09 27	704	0.8-	0.1+	2000 01 04	704	0.2+	0.1+
1998 09 14	704	0.2-	0.1-	1998 09 27	704	0.5-	0.2-	2000 01 04	704	0.5-	0.8+
1998 09 16	699	0.2+	0.9+	1999 12 10	704	0.6-	0.4-	2000 01 08	704	0.1-	0.5-
1998 09 16	699	0.2+	0.9+	1999 12 10	704	1.2+	0.7-	2000 01 08	704	0.2-	0.2-
1998 09 16	699	0.4+	0.8+	1999 12 10	704	0.9+	0.0	2000 01 08	704	0.1-	0.4+
1998 09 18	704	0.2-	0.3-	1999 12 10	704	0.0	1.1-	2000 01 08	704	0.0	0.2-
1998 09 18	704	0.1+	0.7+	1999 12 15	704	0.4-	0.4+	2000 01 08	704	0.0	0.4+
1998 09 18	704	0.7-	0.2-	1999 12 15	704	0.4-	0.1+	2000 01 30	704	0.5+	0.3+
1998 09 18	704	0.6+	0.6+	1999 12 15	704	0.1-	0.0	2000 01 30	704	0.3+	0.3+
1998 09 18	704	0.3-	0.1+	1999 12 15	704	1.1+	1.3-	2000 01 30	704	0.1+	1.1-
1998 09 26	704	0.3+	0.3+	1999 12 15	704	0.2+	0.6+	2000 01 30	704	0.0	0.4+
1998 09 26	704	0.2+	0.8-	2000 01 02	704	0.6+	0.0	2000 01 30	704	0.7+	0.3-

1999 XE₁₇₂ = 1952 UA₁ = 1991 OD₁ = 1995 YS₂₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	84.41074		(2000.0)	P	Q
<i>n</i>	0.27461185	ω	53.18126	+0.95850225	-0.27996290
<i>a</i>	2.3441741	Ω	322.99059	+0.22472985	+0.85811586
<i>e</i>	0.1586378	<i>i</i>	5.12755	+0.17541360	+0.43041601
<i>P</i>	3.59	<i>H</i>	14.0	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1952 10 24	760	0.1-	0.3+	1999 12 10	704	0.0	0.1-	2000 01 30	704	0.4+	0.5-
1952 10 24	760	(1.9+	3.6+)	1999 12 10	704	0.1+	0.2-	2000 01 30	704	1.0-	0.8+
1991 07 18	809	0.1-	0.3-	1999 12 10	704	0.1+	0.5-	2000 01 31	704	0.6+	1.2-
1991 07 18	809	0.1+	0.1-	1999 12 10	704	0.0	0.2-	2000 01 31	704	0.3+	0.1+
1991 07 18	809	0.2+	0.2-	1999 12 10	704	0.2+	0.1+	2000 01 31	704	0.5+	0.2-
1991 07 19	809	(5.0-	0.1-)	1999 12 15	704	0.9-	0.2-	2000 01 31	704	0.5-	0.7-
1991 07 19	809	(4.5-	0.2+)	1999 12 15	704	0.3-	1.4+	2000 02 11	704	1.0+	0.6+
1995 12 24	327	0.2-	0.0	1999 12 15	704	0.4-	0.6+	2000 02 11	704	0.4+	0.1-
1995 12 24	327	0.5+	0.2+	1999 12 15	704	0.5-	1.1+	2000 02 11	704	0.2+	0.3+
1995 12 24	327	0.1+	0.2-	1999 12 15	704	0.9-	0.3+	2000 02 11	704	0.4+	0.1-
1995 12 26	327	0.1-	0.2-	2000 01 30	704	0.2+	0.2-	2000 02 11	704	0.3-	1.0-
1995 12 26	327	0.2+	0.3-	2000 01 30	704	0.4+	0.0				
1995 12 26	327	0.1+	0.1-	2000 01 30	704	0.3+	0.2-				

1999 XK₁₇₂ = 1995 SY₄₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	73.55632		(2000.0)	P	Q
<i>n</i>	0.28311135	ω	32.33596	+0.90696078	-0.42113646
<i>a</i>	2.2970187	Ω	352.55674	+0.37185990	+0.80961435
<i>e</i>	0.1943717	<i>i</i>	3.60168	+0.19784428	+0.40886267
<i>P</i>	3.48	<i>H</i>	15.0	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1995 09 26	691	0.3-	0.5-	1999 12 10	704	0.0	0.3+	2000 01 03	704	0.1+	0.3-
1995 09 26	691	0.4-	0.6-	1999 12 10	704	0.3-	0.4+	2000 01 04	704	0.0	0.2+
1995 09 26	691	0.0	0.6-	1999 12 10	704	0.1+	0.3+	2000 01 04	704	0.0	0.7-
1995 09 26	010	0.7-	0.8+	1999 12 10	704	0.1-	0.8+	2000 01 04	704	0.4-	0.2-
1995 09 26	010	0.3+	1.8+	1999 12 15	704	0.2-	0.0	2000 01 04	704	0.1-	0.9+
1995 09 26	010	0.2+	1.3+	1999 12 15	704	0.1-	0.3-	2000 01 04	704	0.4-	1.1-

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1995 09 27	010	0.7−	1.1−	1999 12 15	704	0.2+	0.0	2000 01 30	704	0.7−	0.0
1995 09 27	010	1.7+	0.1+	1999 12 15	704	0.5+	0.2−	2000 01 30	704	0.2−	0.2−
1995 09 27	010	(3.7+	0.7−)	1999 12 15	704	0.5+	0.1+	2000 01 30	704	0.4+	0.2−
1995 10 02	691	0.2+	0.5−	2000 01 03	704	0.1+	0.2+	2000 01 30	704	0.1−	0.4−
1995 10 02	691	0.1+	0.5−	2000 01 03	704	0.8+	0.5+	2000 01 30	704	0.2−	0.0
1995 10 02	691	0.2−	0.6−	2000 01 03	704	0.1−	0.4−				

1999 XW₁₇₃ = 1997 GO₁₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>				Williams			
50.23698				(2000.0)			
				P		Q	
<i>n</i>	0.27329274	<i>ω</i>	40.00494	+0.45144027	−0.89165217		
<i>a</i>	2.3517112	<i>Ω</i>	23.21965	+0.79501393	+0.38461014		
<i>e</i>	0.1258713	<i>i</i>	4.95170	+0.40515990	+0.23881256		
<i>P</i>	3.61	<i>H</i>	15.5	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1997 04 03	704	0.4−	0.3+	1999 12 15	704	0.3+	0.5−	2000 01 04	704	0.5−	0.4−
1997 04 03	704	0.0	0.4+	1999 12 15	704	0.0	0.4−	2000 01 04	704	0.2−	0.2−
1997 04 07	704	0.4−	0.1−	1999 12 15	704	0.5+	0.5−	2000 01 04	704	0.3+	0.2−
1997 04 07	704	0.9+	0.5−	1999 12 15	704	0.8+	0.2−	2000 01 04	704	0.5+	0.5−
1999 12 10	704	0.4+	0.2+	1999 12 31	699	0.9−	1.0+	2000 01 29	704	0.7−	0.2+
1999 12 10	704	0.7−	0.0	1999 12 31	699	0.6+	0.4+	2000 01 29	704	1.6+	0.5−
1999 12 10	704	0.2−	0.3+	1999 12 31	699	0.4+	0.7+	2000 01 29	704	0.6−	0.0
1999 12 10	704	0.0	0.8+	2000 01 03	691	0.3−	0.3−	2000 01 29	704	0.1−	0.6+
1999 12 10	704	0.7−	0.5+	2000 01 03	691	0.2−	0.2−				
1999 12 15	704	0.0	0.7−	2000 01 03	691	0.3−	0.3−				

1999 XG₁₇₄ = 1995 YH₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>				Williams			
251.37044				(2000.0)			
				P		Q	
<i>n</i>	0.28245683	<i>ω</i>	171.03164	−0.42428734	+0.89595721		
<i>a</i>	2.3005658	<i>Ω</i>	73.77379	−0.83905495	−0.33445522		
<i>e</i>	0.1041545	<i>i</i>	7.85995	−0.34053934	−0.29223345		
<i>P</i>	3.49	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1995 12 16	691	0.1+	0.2+	1999 12 15	704	0.9−	0.0	2000 01 04	704	0.8−	0.7−
1995 12 16	691	0.1−	0.3+	1999 12 15	704	0.3+	0.3−	2000 01 30	704	0.7−	0.1+
1995 12 16	691	0.1−	0.1+	1999 12 15	704	0.0	0.7−	2000 01 30	704	0.0	0.2+
1995 12 28	691	0.3−	0.0	2000 01 03	704	0.5+	0.8−	2000 01 30	704	0.7−	0.0
1995 12 28	691	0.1+	0.1−	2000 01 03	704	0.9−	0.4−	2000 01 30	704	0.4−	0.0
1995 12 28	691	0.2+	0.2−	2000 01 03	704	0.1+	1.7+	2000 02 11	704	0.1+	0.3+
1999 12 10	704	0.7+	0.0	2000 01 03	704	1.0−	0.7+	2000 02 11	704	0.0	0.2−
1999 12 10	704	0.0	0.0	2000 01 04	704	0.1−	0.1+	2000 02 11	704	0.0	1.1+
1999 12 10	704	0.5+	0.1−	2000 01 04	704	1.2+	0.4−	2000 02 11	704	1.2+	0.2−
1999 12 10	704	0.2+	0.5−	2000 01 04	704	0.1+	0.1−	2000 02 11	704	0.1+	0.2−
1999 12 15	704	0.7+	0.0	2000 01 04	704	0.0	0.1−				

1999 XL₁₇₄ = 1994 LE₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>				Williams			
91.57811				(2000.0)			
				P		Q	
<i>n</i>	0.26226323	<i>ω</i>	323.35084	+0.97615022	−0.21306055		
<i>a</i>	2.4171918	<i>Ω</i>	49.00508	+0.20998131	+0.87787715		
<i>e</i>	0.1864767	<i>i</i>	3.16446	+0.05512353	+0.42887866		
<i>P</i>	3.76	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1994 06 08	809	(3.0−	0.6+)	1999 12 15	704	0.5−	0.7+	2000 01 30	704	0.7+	0.7−
1994 06 08	809	0.1−	0.1−	1999 12 15	704	0.5−	0.5−	2000 01 30	704	0.2−	0.7−
1994 06 08	809	0.7+	0.3−	2000 01 03	704	0.8−	0.7−	2000 01 30	704	0.4+	0.0
1994 06 09	809	(1.3+	2.5+)	2000 01 03	704	0.1+	0.1−	2000 01 30	704	0.1−	0.2+
1994 06 09	809	0.1+	0.5+	2000 01 03	704	0.2+	0.5−	2000 01 31	704	0.3−	0.3−
1994 06 09	809	0.6−	0.5+	2000 01 03	704	0.8−	0.4−	2000 01 31	704	0.4+	0.3+
1999 12 10	704	0.4+	0.6+	2000 01 03	704	0.3−	0.3−	2000 01 31	704	0.0	0.6−
1999 12 10	704	0.8−	0.6+	2000 01 04	704	0.4−	0.1−	2000 02 11	704	0.2+	0.1+

1999 12 10	704	0.9+	0.9+	2000 01 04	704	0.1+	0.2+	2000 02 11	704	0.7+	0.7+
1999 12 10	704	0.1+	0.3+	2000 01 04	704	0.2+	0.1+	2000 02 11	704	(2.5−	0.2−)
1999 12 15	704	0.4+	0.2+	2000 01 04	704	0.1+	0.3+				
1999 12 15	704	0.3+	0.0	2000 01 04	704	0.2−	0.5+				

1999 XC₁₇₅ = 1978 WJ₆ = 1993 UQ₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>				Spahr			
7.97638				(2000.0)			
				P		Q	
<i>n</i>	0.19238855	<i>ω</i>	41.69187	−0.41899076	−0.88705924		
<i>a</i>	2.9717794	<i>Ω</i>	73.91097	+0.77054424	−0.46029865		
<i>e</i>	0.0508373	<i>i</i>	11.63863	+0.48032107	−0.03537041		
<i>P</i>	5.12	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1978 11 29	675	0.8−	0.8+	1998 10 17	699	0.1−	0.4+	1999 12 15	704	1.0−	0.7+
1978 11 30	675	0.7+	0.3+	1998 10 17	699	0.5+	0.0	2000 01 02	704	0.3−	0.0
1993 10 10	809	0.4+	1.0−	1998 10 17	699	0.4+	0.4+	2000 01 02	704	1.0+	0.1−
1993 10 10	809	0.1+	1.2−	1999 12 10	704	0.8−	0.2−	2000 01 02	704	0.6+	0.5−
1993 10 10	809	0.3−	1.3−	1999 12 10	704	0.4−	0.8−	2000 01 02	704	1.2+	0.4−
1993 10 20	809	0.5+	0.1+	1999 12 10	704	0.1+	0.4+	2000 01 02	704	1.2+	1.0−
1993 10 20	809	0.1−	0.2+	1999 12 10	704	0.4−	0.1+	2000 01 29	704	(0.6+	7.6+)
1993 10 20	809	1.0−	0.3−	1999 12 10	704	0.4+	0.4+	2000 01 29	704	(1.0+	6.4+)
1993 10 21	809	1.1+	0.4+	1999 12 15	704	1.5−	0.1+	2000 01 29	704	(1.4+	6.7+)
1993 10 21	809	0.7−	0.4+	1999 12 15	704	0.7−	0.6+				
1993 10 21	809	0.7−	1.2+	1999 12 15	704	0.5+	0.2+				

1999 XP₁₇₅ = 1998 RY₆₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>				Williams			
143.98590				(2000.0)			
				P		Q	
<i>n</i>	0.23414543	<i>ω</i>	329.36407	+0.88158317	+0.47201906		
<i>a</i>	2.6070274	<i>Ω</i>	2.47640	−0.41768133	+0.78304490		
<i>e</i>	0.1735229	<i>i</i>	4.00656	−0.21989411	+0.40501691		
<i>P</i>	4.21	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 14	704	0.2−	0.5+	1998 09 27	704	0.2+	0.0	1999 12 15	704	0.1−	0.2−
1998 09 14	704	0.1+	0.8+	1998 09 27	704	0.4+	1.0+	2000 01 30	704	0.6+	0.3+
1998 09 14	704	0.4+	0.7+	1998 09 27	704	1.1−	0.7+	2000 01 30	704	1.2+	0.1−
1998 09 18	704	0.6−	0.5−	1998 09 27	704	0.4+	0.4+	2000 01 30	704	0.1+	0.2−
1998 09 18	704	0.4+	0.4−	1998 09 27	704	0.1−	0.3+	2000 01 30	704	0.4+	0.3+
1998 09 18	704	0.6+	0.8−	1999 12 10	704	0.8−	0.7−	2000 01 31	704	0.3−	0.3−
1998 09 18	704	0.4−	0.5−	1999 12 10	704	0.0	0.0	2000 01 31	704	0.7−	0.3+
1998 09 18	704	0.0	0.7−	1999 12 10	704	0.4+	0.7−	2000 01 31	704	0.0	0.2+
1998 09 26	704	0.1+	0.0	1999 12 10	704	0.8−	1.0−	2000 02 11	704	0.2+	0.1−
1998 09 26	704	0.0	0.3+	1999 12 15	704	0.1−	0.2−	2000 02 11	704	0.1+	0.3+
1998 09 26	704	0.5−	0.8−	1999 12 15	704	0.4+	0.1−	2000 02 11	704	0.2+	0.4+
1998 09 26	704	0.4+	0.1−	1999 12 15	704	0.2−	0.5−	2000 02 11	704	0.1+	1.1+
1998 09 26	704	0.4−	0.2−	1999 12 15	704	0.1−	0.6+	2000 02 11	704	0.9−	0.5+

1999 XQ₁₇₅ = 1990 DY₃ = 2000 AK₃₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>			

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1990 03 01	809	(7.7– 2.7–)	2000 01 03	704	0.3+ 0.1+	2000 02 07	703	0.3– 0.5+
1990 03 01	809	(7.8– 2.7–)	2000 01 03	704	0.0 0.6–	2000 02 07	703	0.4– 0.5+
1990 03 01	809	(7.8– 2.7–)	2000 01 03	704	0.5+ 0.1–	2000 02 07	703	0.5– 0.1+
1999 11 16	704	0.4– 0.2+	2000 01 03	704	0.6+ 0.1–	2000 02 07	703	0.3– 0.8+
1999 11 16	704	0.2– 0.1–	2000 01 04	704	0.1+ 0.2–	2000 02 11	704	0.4– 0.3+
1999 11 16	704	0.8– 0.1+	2000 01 04	704	0.1– 0.2–	2000 02 11	704	0.3– 0.0
1999 11 16	704	0.6– 0.5+	2000 01 04	704	0.2+ 0.1–	2000 02 11	704	0.1– 0.0
1999 11 16	704	0.5– 0.1+	2000 01 04	704	0.1– 0.5–	2000 02 11	704	0.1+ 0.1+
1999 12 10	704	2.0+ 0.2+	2000 01 04	704	0.3+ 0.6–	2000 02 11	704	0.6– 0.5–
1999 12 10	704	0.0 0.2–	2000 01 30	704	0.4– 0.5+			
1999 12 10	704	1.8– 0.3–	2000 01 30	704	0.2+ 0.4+			

1999 XG₁₇₆ = 1998 SG₉₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26093529	ω	103.40074	–0.95183463	–0.29287250		
<i>a</i>	2.4253858	Ω	59.63572	+0.22448449	–0.86726994		
<i>e</i>	0.1582135	<i>i</i>	6.03774	+0.20884813	–0.40257739		
<i>P</i>	3.78	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1996 03 20	046	0.1+ 0.6–	1998 09 27	704	0.8+ 0.3–	1999 12 15	704	0.7+ 0.4–
1996 03 20	046	0.2+ 0.2–	1998 09 27	704	0.3+ 0.4+	1999 12 15	704	0.3+ 0.4–
1996 03 20	046	0.3– 0.0	1998 09 27	704	1.5– 0.8+	1999 12 15	704	1.0+ 0.2+
1996 03 20	046	0.0 0.2–	1998 09 27	704	(2.9– 0.3–)	1999 12 15	704	0.2+ 0.5+
1996 03 20	046	0.2+ 0.2–	1999 11 11	703	0.1– 0.0	2000 01 03	704	0.2– 0.5–
1996 03 20	046	0.1+ 0.4–	1999 11 11	703	0.6+ 0.2+	2000 01 03	704	0.1+ 0.1–
1998 08 29	704	(3.5– 0.1+)	1999 11 11	703	0.3+ 0.1+	2000 01 03	704	0.1+ 0.1–
1998 08 29	704	1.9– 1.7+	1999 11 11	703	0.5+ 1.4+	2000 01 03	704	0.2– 0.1–
1998 08 29	704	0.5– 1.6–	1999 11 16	704	0.0 0.6+	2000 01 03	704	0.2+ 0.0
1998 08 29	704	1.0+ 0.6–	1999 11 16	704	0.1– 0.8+	2000 01 06	699	0.0 0.0
1998 08 29	704	(2.3– 1.1–)	1999 11 16	704	0.9– 0.2–	2000 01 06	699	0.2– 0.4+
1998 09 24	699	0.4– 0.2+	1999 11 16	704	0.2– 0.2–	2000 01 06	699	1.6+ 0.2–
1998 09 24	699	0.7+ 0.2–	1999 11 16	704	0.3– 0.2–	2000 01 29	704	0.5– 0.3+
1998 09 24	699	0.1– 0.4+	1999 12 10	704	0.7– 0.4–	2000 01 29	704	0.3– 0.4+
1998 09 26	704	1.0+ 0.5–	1999 12 10	704	0.1– 0.0	2000 01 29	704	0.4– 0.3+
1998 09 26	704	0.0 1.1–	1999 12 10	704	0.3– 0.4–	2000 01 29	704	0.2– 0.2+
1998 09 26	704	0.3+ 0.0	1999 12 10	704	0.0 0.1–	2000 01 29	704	0.1– 0.2+
1998 09 26	704	0.6+ 0.4+	1999 12 10	704	0.4– 0.1–			
1998 09 27	704	0.4– 0.3+	1999 12 15	704	0.3– 0.9–			

1999 XH₁₇₆ = 1980 RF₆

Id. G. V. Williams, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22577433	ω	308.91320	+0.05674499	+0.99420092		
<i>a</i>	2.6710766	Ω	324.02078	–0.86112781	+0.00243884		
<i>e</i>	0.1912806	<i>i</i>	8.94516	–0.50521173	+0.10751089		
<i>P</i>	4.37	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1980 09 13	675	0.6– 0.0	2000 01 03	704	1.0– 0.4+	2000 01 31	704	0.1+ 0.7+
1980 09 14	675	0.2+ 0.7+	2000 01 03	704	0.4– 0.2–	2000 01 31	704	0.9– 0.6+
1998 11 14	704	0.2+ 0.3+	2000 01 03	704	0.2– 0.3–	2000 02 07	703	0.2+ 0.1–
1998 11 14	704	0.9+ 0.1–	2000 01 03	704	0.1– 0.0	2000 02 07	703	0.8+ 0.6+
1998 11 14	704	0.9+ 1.1–	2000 01 03	704	0.1+ 0.1+	2000 02 07	703	0.4– 0.2–
1998 11 14	704	1.8– 0.1–	2000 01 04	704	0.0 0.3–	2000 02 07	703	0.3+ 0.0
1999 11 16	704	0.3– 0.1+	2000 01 04	704	0.2– 0.3–	2000 02 11	704	0.3+ 0.0
1999 11 16	704	0.5+ 0.7–	2000 01 04	704	0.1– 0.2+	2000 02 11	704	0.4+ 0.1+
1999 11 16	704	0.3+ 0.0	2000 01 04	704	0.3+ 0.1+	2000 02 11	704	0.0 0.4+
1999 11 16	704	0.3+ 0.7–	2000 01 04	704	0.0 0.1+	2000 02 11	704	0.1+ 0.3+
1999 12 10	704	0.6+ 0.9–	2000 01 06	699	0.5+ 0.2+	2000 02 11	704	0.0 0.4+
1999 12 10	704	0.5+ 0.1+	2000 01 06	699	0.1+ 0.2+	2000 02 11	049	0.9– 0.8–
1999 12 10	704	1.0+ 0.3+	2000 01 06	699	0.1+ 0.5+	2000 02 11	049	0.3– 0.6–
1999 12 10	704	0.3– 0.3+	2000 01 30	704	0.5+ 0.6+	2000 02 12	049	0.3– 0.6–
1999 12 15	704	0.1+ 0.0	2000 01 30	704	0.6+ 0.4–	2000 02 14	049	0.4– 0.2–

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1999 12 15	704	0.1– 0.2–	2000 01 30	704	0.4– 0.0	2000 02 14	049	0.2– 0.8–
1999 12 15	704	0.0 0.1–	2000 01 31	704	0.2+ 0.1–	2000 02 14	049	0.3– 0.4–
1999 12 15	704	0.1+ 1.8+	2000 01 31	704	0.1– 0.3+			

1999 XW₁₇₆ = 1992 DK₅ = 1998 SF₁₂₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.23706398	ω	97.97996	–0.96168001	–0.25341251		
<i>a</i>	2.5855861	Ω	67.38944	+0.18483025	–0.88115568		
<i>e</i>	0.0701994	<i>i</i>	6.50983	+0.20250760	–0.39918262		
<i>P</i>	4.16	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1992 02 26	399	0.2+ 0.7–	1999 11 16	704	0.4– 0.2–	2000 01 03	704	0.1– 0.1+
1992 02 26	399	0.0 1.0+	1999 11 16	704	0.6– 0.4–	2000 01 03	704	0.3+ 0.8+
1998 09 17	699	0.1+ 0.3+	1999 11 16	704	0.1– 0.3+	2000 01 03	704	0.1– 0.2–
1998 09 17	699	0.9+ 0.1–	1999 11 16	704	1.0– 0.2–	2000 01 03	704	0.1– 0.1–
1998 09 17	699	0.6+ 0.1+	1999 12 10	704	0.6– 0.3+	2000 01 04	704	0.4– 0.4+
1998 09 26	704	0.1+ 0.4–	1999 12 10	704	0.8+ 0.1–	2000 01 04	704	0.2– 0.1+
1998 09 26	704	0.4– 0.5–	1999 12 10	704	1.0+ 0.9+	2000 01 04	704	0.3– 0.1+
1998 09 26	704	0.2+ 0.2–	1999 12 10	704	0.6+ 0.5+	2000 01 04	704	0.2– 0.0
1998 09 26	704	0.6– 0.3+	1999 12 15	704	0.6+ 0.0	2000 01 04	704	0.1+ 0.4–
1998 09 26	704	0.2– 0.4+	1999 12 15	704	1.1+ 0.0	2000 01 30	704	0.2– 0.2–
1998 09 27	704	0.2– 1.1–	1999 12 15	704	1.0+ 0.2–	2000 01 30	704	0.1– 0.0
1998 09 27	704	0.8– 0.7+	1999 12 15	704	0.6+ 0.0	2000 01 30	704	0.2– 0.5–
1998 09 27	704	0.2+ 0.0	1999 12 15	704	0.5+ 0.9–	2000 01 30	704	0.5+ 0.6+
1998 09 27	704	0.2+ 0.5+	2000 01 03	704	0.5– 0.4–	2000 01 30	704	1.6– 0.9–

1999 XY₁₇₆ = 1990 WT

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22848385	ω	29.88296	–0.27688665	–0.93747042		
<i>a</i>	2.6499176	Ω	76.87934	+0.83311574	–0.34357956		
<i>e</i>	0.2047767	<i>i</i>	12.50727	+0.47880262	+0.05569831		
<i>P</i>	4.31	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1990 11 18	809	1.3+ 0.2+	1999 12 10	704	0.1– 0.2+	2000 01 10	699	0.2+ 0.8–
1990 11 18	809	0.2+ 0.4–	1999 12 10	704	0.2+ 0.6+	2000 01 10	699	1.0+ 0.5+
1990 11 18	809	0.2+ 0.4–	1999 12 10	704	0.4+ 0.1+	2000 01 10	699	0.4+ 0.7–
1990 11 20	809	0.2+ 0.9–	1999 12 10	704	0.6– 0.4+	2000 01 10	699	1.2+ 0.4+
1990 11 20	809	0.5– 0.8–	1999 12 15	704	0.3+ 0.6+	2000 01 10	699	0.4– 0.2+
1990 11 20	809	0.2– 0.1–	1999 12 15	704	0.2+ 0.3+	2000 01 29	704	0.4– 0.1+
1999 11 11	703	0.6– 1.2+	1999 12 15	704	0.4– 0.1+	2000 01 29	704	0.3+ 0.0
1999 11 11	703	1.3– 0.6+	1999 12 15	704	0.4– 0.0	2000 01 29	704	0.0 0.6+
1999 11 11	703	0.1– 1.1+	1999 12 15	704	0.3– 0.3+	2000 01 29	704	0.0 0.3+
1999 11 11	703	0.7– 1.3+	2000 01 02	704	0.2+ 0.1–	2000 01 29	704	0.4+ 0.4+
1999 12 07	703	0.7– 1.0+	2000 01 02	704	0.4+ 0.3–	2000 02 03	704	0.5– 0.4–
1999 12 07	703	0.8+ 1.4+	2000 01 02	704	0.7+ 0.8–	2000 02 03	704	0.5– 1.1–
1999 12 07	703	0.4– 0.7+	2000 01 02	704	0.6+ 0.6–	2000 02 03	704	0.0 1.4–
1999 12 07	703	0.6– 0.3+	2000 01 02	704	0.6+ 0.9–	2000 02 03	704	0.7– 1.1–
1999 12 10	704	0.2– 0.2+	2000 01 10	699	0.8+ 0.2–	2000 02 03	704	0.8– 0.9–

1999 XN₁₇₇ = 1995 YE₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.24711267	ω	119.26976	–0.91829167	–0.39256434		
<i>a</i>	2.5150080	Ω	37.68180	+0.32783518	–0.82666244		
<i>e</i>	0.0962734	<i>i</i>	4.81588	+0.22195606	–0.40314074		
<i>P</i>	3.99	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1995 12 26	966	0.8+ 0

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M.P.C. 38607

1995 12 26	966	1.0−	0.1−	1999 12 15	704	0.0	1.5+	2000 01 30	704	0.0	0.6+
1995 12 29	966	0.4+	1.5+	2000 01 02	704	0.4−	0.6−	2000 01 30	704	0.4+	0.2−
1995 12 29	966	(1.1+	2.4+)	2000 01 02	704	0.3+	0.5+	2000 01 30	704	0.7−	0.6+
1999 12 10	704	0.1−	0.1−	2000 01 02	704	0.2−	0.3+	2000 01 30	704	0.7+	0.5+
1999 12 10	704	0.0	1.1−	2000 01 02	704	0.5+	1.4−	2000 02 11	704	0.5+	0.1−
1999 12 10	704	0.4+	1.0+	2000 01 04	704	0.3+	0.6−	2000 02 11	704	0.3+	0.2−
1999 12 10	704	0.1+	0.2−	2000 01 04	704	0.1−	0.6−	2000 02 11	704	0.4−	0.4+
1999 12 15	704	0.4−	0.3+	2000 01 04	704	0.1−	0.6−	2000 02 11	704	0.2−	0.2+
1999 12 15	704	0.1−	0.4+	2000 01 04	704	0.1−	1.0−				

1999 XE₁₇₉ = 1997 MH₁₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	112.43964			(2000.0)		P		Q			
<i>n</i>	0.19123584	ω	276.36165		+0.97522626		−0.10127198				
<i>a</i>	2.9837094	Ω	89.57542		+0.17278251		+0.90387773				
<i>e</i>	0.1306748	<i>i</i>	11.34241		−0.13813018		+0.41563090				
<i>P</i>	5.15	<i>H</i>	13.5		<i>G</i>	0.15	<i>U</i>	3			

Residuals in seconds of arc

1997 06 28	704	0.2−	0.1+	1999 01 11	704	1.4−	0.9+	1999 12 15	703	0.2+	1.1+
1997 06 28	704	0.2+	0.6+	1999 01 11	704	0.4+	0.3−	1999 12 15	704	0.4−	0.7−
1997 06 28	704	0.1+	0.4+	1999 01 11	704	0.5+	0.6+	1999 12 15	703	0.2−	1.0+
1997 06 29	704	0.1+	0.2+	1999 01 11	704	2.0−	0.5+	1999 12 15	704	0.1+	0.6+
1997 06 29	704	0.6+	0.1+	1999 11 16	704	2.0+	1.2−	1999 12 15	704	0.8+	0.1+
1997 06 29	704	0.3−	0.6+	1999 11 16	704	0.2−	0.6−	1999 12 15	704	0.0	0.4+
1997 06 29	704	0.2−	0.6+	1999 11 16	704	0.6+	0.1−	2000 01 03	704	0.2−	0.9−
1998 10 17	699	0.2+	0.6+	1999 11 16	704	0.4+	0.3−	2000 01 03	704	0.1+	0.5−
1998 10 17	699	0.1+	0.4+	1999 12 10	704	1.3+	0.4−	2000 01 03	704	1.2−	0.2+
1998 10 17	699	0.1+	0.6+	1999 12 10	704	0.1+	0.6+	2000 01 03	704	0.1−	0.1+
1998 11 13	704	0.6+	0.2−	1999 12 10	704	0.1+	0.2−	2000 01 06	699	0.9−	0.3+
1998 11 13	704	1.9+	0.6+	1999 12 10	704	0.3−	0.2−	2000 01 06	699	0.4−	0.7+
1998 11 13	704	0.3+	0.3−	1999 12 15	703	0.3+	1.1+	2000 01 06	699	1.2−	0.1+
1998 11 13	704	2.0−	1.2−	1999 12 15	703	0.7+	0.7+				
1998 11 13	704	0.1−	0.8−	1999 12 15	704	0.2−	0.3+				

1999 XS₁₇₉ = 1998 SG₉₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	38.05659			(2000.0)		P		Q			
<i>n</i>	0.17548599	ω	28.12379		+0.34278055		−0.93845080				
<i>a</i>	3.1596653	Ω	41.86890		+0.84949817		+0.29030926				
<i>e</i>	0.1325198	<i>i</i>	3.65631		+0.40106653		+0.18716472				
<i>P</i>	5.62	<i>H</i>	14.0		<i>G</i>	0.15	<i>U</i>	3			

Residuals in seconds of arc

1998 09 26	704	0.3+	0.8−	1999 12 15	704	0.3−	0.9−	2000 01 30	704	0.5+	0.0
1998 09 26	704	0.0	0.3+	1999 12 15	704	0.6−	0.9−	2000 01 30	704	0.3−	0.5+
1998 09 26	704	1.2+	1.1−	1999 12 15	704	0.2+	0.1+	2000 01 30	704	0.2+	0.1+
1998 09 26	704	(0.6−	2.5−)	1999 12 15	704	0.5+	1.4+	2000 01 30	704	0.1−	0.1−
1998 09 26	704	0.8+	0.5+	2000 01 03	704	0.2+	0.6−	2000 01 31	704	0.1−	0.8+
1998 09 27	704	0.3+	1.0+	2000 01 03	704	0.2−	0.0	2000 01 31	704	0.5+	0.1+
1998 09 27	704	0.6−	0.8+	2000 01 03	704	0.4+	0.4+	2000 01 31	704	0.3+	0.1+
1998 09 27	704	0.0	0.8+	2000 01 04	704	1.2−	1.0−	2000 02 11	704	0.1+	1.4+
1998 09 27	704	0.6−	0.9−	2000 01 04	704	0.3−	0.0	2000 02 11	704	0.7−	0.8+
1998 09 27	704	1.5−	0.5−	2000 01 04	704	0.1−	0.1−	2000 02 11	704	0.5+	1.0−
1999 12 10	704	0.8+	0.1+	2000 01 04	704	0.2−	0.2+	2000 02 11	704	0.2−	0.2+
1999 12 10	704	0.0	0.0	2000 01 04	704	0.5−	0.4−				
1999 12 10	704	0.2+	0.4−	2000 01 30	704	0.5+	0.7−				

1999 XK₁₈₀ = 1989 XN₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	73.24997			(2000.0)		P		Q			
<i>n</i>	0.21341462	ω	338.23857		+0.55415045		−0.79199195				
<i>a</i>	2.7732346	Ω	77.23023		+0.79722856		+0.41639279				
<i>e</i>	0.1106034	<i>i</i>	15.23346		+0.23946588		+0.44650397				
<i>P</i>	4.62	<i>H</i>	13.8		<i>G</i>	0.15	<i>U</i>	3			

Residuals in seconds of arc

1989 11 06	809	0.4+	0.5−	1999 12 10	704	0.3+	0.5−	2000 01 02	704	0.2−	0.0
1989 11 06	809	0.6+	0.6+	1999 12 10	704	0.4−	0.4+	2000 01 02	704	0.2−	0.4+
1989 11 06	809	0.6−	0.1−	1999 12 10	704	0.3−	0.8−	2000 01 02	704	0.4+	1.2+
1989 12 02	809	0.3−	0.7+	1999 12 10	704	0.5+	0.6+	2000 01 02	704	0.0	0.1−
1989 12 02	809	0.5−	0.7+	1999 12 10	704	0.7+	0.0	2000 01 29	704	0.1−	0.1+
1989 12 02	809	1.0−	0.1+	1999 12 15	704	0.2−	0.1+	2000 01 29	704	0.5+	0.1+
1989 12 03	809	0.7+	0.5−	1999 12 15	704	0.8−	0.6−	2000 01 29	704	0.1−	0.0
1989 12 03	809	0.0	0.4−	1999 12 15	704	0.4+	0.2−	2000 01 29	704	0.1+	0.3−
1989 12 03	809	0.7+	0.7−	2000 01 02	704	0.5−	0.1+	2000 01 29	704	0.0	0.4−

1999 XK₁₈₂ = 1998 MK₃₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	131.82276			(2000.0)		P		Q			
<i>n</i>	0.22863336	ω	6.88848		+0.47852665		+0.86011271				
<i>a</i>	2.6487622	Ω	291.83364		−0.81442476		+0.35954719				
<i>e</i>	0.1732810	<i>i</i>	10.97267		−0.32821418		+0.36184520				
<i>P</i>	4.31	<i>H</i>	13.0		<i>G</i>	0.15	<i>U</i>	4			

Residuals in seconds of arc

1998 06 24	704	0.4−	0.0	1998 06 28	809	(1.3+	2.2+)	1999 12 15	704	0.1−	0.9−
1998 06 24	704	0.2−	0.5−	1998 06 28	809	1.4+	1.5+	1999 12 15	704	0.9−	0.7+
1998 06 24	704	0.3−	0.2−	1998 07 01	809	1.4+	0.1+	1999 12 15	704	0.3−	1.1−
1998 06 24	704	0.1−	0.6−	1998 07 01	809	1.3+	0.4−	2000 01 30	704	1.5−	0.1−
1998 06 24	704	0.4−	0.5−	1998 07 01	809	1.5+	0.7−	2000 01 30	704	0.5−	0.7−
1998 06 26	704	1.0−	0.2+	1999 12 12	704	0.2+	0.1+	2000 01 30	704	0.2+	0.1+
1998 06 26	704	0.7−	0.9−	1999 12 12	704	0.0	0.5+	2000 01 30	704	0.4+	0.4−
1998 06 26	704	1.8−	0.3−	1999 12 12	704	0.1+	0.5+	2000 01 31	704	0.2+	1.2−
1998 06 26	704	1.2−	0.0	1999 12 12	704	0.2+	0.8+	2000 01 31	704	0.9+	0.7+
1998 06 26	704	1.2−	0.6+	1999 12 15	704	0.7+	0.8+	2000 01 31	704	0.4+	0.2+
1998 06 28	809	1.5+	1.6+	1999 12 15	704	0.0	0.4−				

1999 XZ₁₈₂ = 1998 KQ₁₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	81.53582			(2000.0)		P		Q			
<i>n</i>	0.28945411	ω	323.18590		+0.99269222		+0.09953044				
<i>a</i>	2.2633388	Ω	31.30934		−0.05264846		+0.86600281				
<i>e</i>	0.1821447	<i>i</i>	7.54502		−0.10858316		+0.49003349				
<i>P</i>	3.41	<i>H</i>	14.3		<i>G</i>	0.15	<i>U</i>	1			

Residuals in seconds of arc

1992 10 23	010	0.8+	1.1+	1998 05 22	704	1.7+	0.3−	1999 12 15	704	0.3−	0.2+
1992 10 23	010	0.6+	1.4+	1998 05 22	704	1.9−	1.0+	1999 12 15	704	0.0	0.1−
1992 11 03	010	0.4+	1.2−	1998 05 22	704	0.1−	0.2−	1999 12 15	704	0.3−	0.2+
1992 11 03	010	0.3−	1.3−	1998 05 24	704	0.7+	0.3−	2000 01 02	704	0.5+	0.1−
1992 11 03	010	0.9−	1.4−	1998 05 24	704	0.6+	1.7−	2000 01 02	704	0.6+	0.4−
1997 02 05	327	0.1+	0.3−	1998 05 24	704	0.1+	0.2−	2000 01 02	704	0.0	0.0
1997 02 05	327	0.3+	0.2−	1998 05 24	704	(1.3−	2.3−)	2000 01 02	704	0.2+	0.1+
1997 02 05	327	0.2−	0.2−	1998 05 24	704	0.6−	0.0	2000 01 02	704	0.6−	0.2−
1997 02 05	327	0.3−	0.3−	1999 10 05	704	(0.3+	3.2−)	2000 01 29	704	0.1−	0.4+
1998 04 22	704	0.1+	0.4−	1999 10 05	704	0.3+	1.5−	2000 01 29	704	0.1+	0.0
1998 04 22	704	0.4+	0.3−	1999 10 05	704	(1.1+	2.1−)	2000 01 29	704	0.4−	0.5+
1998 04 22	704	1.1−	0.3−	1999 10 05	704	0.4+	0.9−	2000 01 30	704	0.1+	0.0
1998 04 22	704	0.8−	0.0	1999 12 12	704	0.2+	0.1−	2000 01 30	704	0.1+	0.1−
1998 05 01	704	0.2+	0.1+	1999 12 12	704	0.2+	0.5−	2000 01 30	704	0.4−	0.1−
1998 05 01	704	(1.5−	2.3−)	1999 12 12	704	0.1+	0.0	2000 01 30	704	0.8−	0.1+
1998 05 01	704	0.4−	0.4−	1999 12 12	704	0.1+	0.3+	2000 01 30	704	0.2+	0.6+
1998 05 01	704	0.1−	0.8+	1999 12 12	704	0.1+	0.8+	2000 02 11	704	0.3−	0.2+
1998 05 22	704	1.4+	1.6−	1999 12 15	704	0.2+	0.1−	2000 02 11	704	0.2−	0.1+
1998 05 22	704	1.7−	0.8+	1999 12 15	704	0.2+	0.4−	2000 02 11	704	0.6−	0.3−

1999 XJ₁₈₃ = 1982 BR₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	290.23775		(2000.0)	P		Q	
<i>n</i>	0.21366597	ω	232.33313	−0.98505730	+0.14227766		
<i>a</i>	2.7710593	Ω	315.60732	−0.07804380	−0.87109016		
<i>e</i>	0.2336791	<i>i</i>	7.97443	−0.15352941	−0.47006277		
<i>P</i>	4.61	<i>H</i>	13.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1982 01 30	675	0.1−	0.3−	1999 12 15	704	0.6−	0.4+	2000 01 04	704	0.1+	0.5+
1982 01 31	675	0.0	0.2+	1999 12 15	704	0.3−	0.3+	2000 01 04	704	0.0	0.8+
1999 12 12	704	0.9−	0.2−	1999 12 15	704	0.4−	0.4+	2000 01 04	704	0.3−	0.3−
1999 12 12	704	0.7+	0.6−	2000 01 02	704	0.7−	0.9−	2000 02 11	704	1.0+	0.6+
1999 12 12	704	0.8+	0.3−	2000 01 02	704	0.0	0.2+	2000 02 11	704	0.2+	0.1−
1999 12 12	704	0.4+	1.1−	2000 01 02	704	0.1+	0.6+	2000 02 11	704	0.5−	0.7+
1999 12 12	704	0.8+	1.2−	2000 01 02	704	0.4+	0.2+	2000 02 11	704	0.4−	0.6−
1999 12 15	704	0.0	0.4+	2000 01 04	704	0.3−	0.8+	2000 02 11	704	0.1+	0.5−
1999 12 15	704	0.1−	0.1+	2000 01 04	704	0.4−	0.1−				

1999 XW₁₈₃ = 1998 KS₆₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	84.90168		(2000.0)	P		Q	
<i>n</i>	0.26828097	ω	350.31190	+0.97895415	+0.20405645		
<i>a</i>	2.3809091	Ω	357.90614	−0.18106045	+0.86137656		
<i>e</i>	0.2196436	<i>i</i>	4.89759	−0.09415879	+0.46517888		
<i>P</i>	3.67	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 05 22	704	1.6+	0.3−	1999 12 12	704	0.4−	0.1+	2000 01 02	704	0.4−	0.0
1998 05 22	704	1.6+	0.6+	1999 12 12	704	0.2+	0.4−	2000 01 02	704	0.5+	0.5+
1998 05 22	704	0.7−	0.6−	1999 12 12	704	0.4−	0.5−	2000 01 02	704	0.2+	0.1+
1998 05 22	704	1.7+	1.9−	1999 12 15	704	0.2−	0.6−	2000 01 02	704	0.3+	1.0+
1998 05 24	704	0.0	0.0	1999 12 15	704	0.6+	0.0	2000 01 04	704	0.0	0.1−
1998 05 24	704	0.8−	0.0	1999 12 15	704	0.2+	0.8+	2000 01 04	704	0.2+	0.7+
1998 05 24	704	1.4−	0.8+	1999 12 15	704	0.3+	0.1−	2000 01 04	704	0.1+	0.3−
1998 05 24	704	2.0−	1.5+	1999 12 15	704	0.2−	0.4+	2000 01 04	704	0.1+	0.1−
1999 12 12	704	0.4−	0.1−	2000 01 02	704	0.4−	0.2−	2000 01 04	704	0.3−	1.1−

1999 XQ₁₈₆ = 1981 EV₄₃

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	128.07082		(2000.0)	P		Q	
<i>n</i>	0.24455061	ω	311.93357	+0.70228430	+0.71187589		
<i>a</i>	2.5325433	Ω	2.69582	−0.61423095	+0.60977460		
<i>e</i>	0.1574900	<i>i</i>	6.62766	−0.35988484	+0.34843600		
<i>P</i>	4.03	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1981 03 06	413	0.2−	0.6+	1999 12 12	704	0.8−	1.1+	2000 01 02	704	0.1−	0.0
1981 03 06	413	0.3+	0.5−	1999 12 12	704	0.3−	0.3−	2000 01 02	704	0.2+	0.5−
1981 03 11	413	0.3−	0.4−	1999 12 12	704	0.5−	0.5−	2000 01 02	704	0.3−	0.7+
1981 03 15	413	(3.5−	1.5+)	1999 12 12	704	0.8+	0.5−	2000 01 04	704	1.1+	0.6+
1997 04 29	704	0.8−	0.2−	1999 12 15	704	0.3−	0.2−	2000 01 04	704	0.1−	0.0
1997 04 29	704	0.7+	0.7+	1999 12 15	704	0.1−	1.1−	2000 01 04	704	0.1−	0.4+
1997 04 29	704	0.2+	0.3−	1999 12 15	704	0.1−	0.2+	2000 01 04	704	0.0	0.7+
1997 04 29	704	(3.3−	0.5−)	2000 01 02	704	0.6+	0.5−				

1999 XA₁₈₇ = 1996 RE₃₀ = 1997 TX₂₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	35.97793		(2000.0)	P		Q	
<i>n</i>	0.08561648	ω	25.00729	+0.40385379	−0.90935552		
<i>a</i>	5.0983673	Ω	41.37416	+0.81187768	+0.30595170		
<i>e</i>	0.0858604	<i>i</i>	8.69069	+0.42161208	+0.28189732		
<i>P</i>	11.51	<i>H</i>	11.4	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1996 09 12	809	0.3−	0.6−	1998 11 21	704	0.2−	0.1+	1999 12 15	704	1.3−	1.2−
1996 09 16	809	0.5+	0.3−	1998 11 21	704	0.6−	0.8+	2000 01 02	704	0.8+	0.5+
1997 10 06	809	0.4−	0.5−	1998 11 21	704	(0.2−	2.3+)	2000 01 02	704	0.9+	0.4+
1997 10 06	809	0.0	0.5−	1998 11 21	704	(4.7−	0.4−)	2000 01 02	704	0.1−	0.9+
1997 10 07	809	0.2−	0.1+	1998 11 24	704	0.1−	1.0−	2000 01 02	704	0.7−	0.2+
1997 10 07	809	0.1−	0.2+	1998 11 24	704	1.6+	1.1+	2000 01 29	704	0.1+	0.3−
1997 10 27	809	0.1−	0.3−	1998 11 24	704	0.0	1.2−	2000 01 29	704	0.9+	0.8−
1997 10 27	809	0.0	0.7+	1998 11 24	704	(0.4−	3.0−)	2000 01 29	704	0.8−	0.4−
1997 10 30	704	0.3−	0.3+	1999 12 12	704	0.5+	0.4−	2000 01 29	704	0.6+	0.2−
1997 10 30	704	0.5+	0.6−	1999 12 12	704	0.6+	0.6−	2000 01 29	704	0.1+	0.5−
1997 10 30	704	0.6−	1.0+	1999 12 12	704	0.2−	0.2−	2000 01 30	704	0.8+	1.5+
1997 10 30	704	1.0+	0.8−	1999 12 12	704	0.4+	0.4−	2000 01 30	704	0.3−	1.0+
1997 10 30	704	0.8+	0.4+	1999 12 12	704	0.4−	0.2−	2000 01 30	704	0.2−	0.1+
1998 11 18	704	0.0	0.3−	1999 12 12	704	0.3−	1.1−	2000 01 30	704	(2.3+	0.5−)
1998 11 18	704	0.4−	0.7+	1999 12 12	704	0.2−	0.7−	2000 01 30	704	(1.4+	2.5−)
1998 11 18	704	1.0−	0.1+	1999 12 12	704	0.0	0.8−	2000 02 11	704	0.8+	0.2+
1998 11 18	704	0.0	0.1+	1999 12 12	704	0.8−	0.6−	2000 02 11	704	0.2+	1.3+
1998 11 18	704	(3.0−	0.4+)	1999 12 12	704	0.5−	0.8−	2000 02 11	704	0.3+	0.6+
1998 11 20	699	0.1−	0.2+	1999 12 15	704	0.0	0.0	2000 02 11	704	0.4+	0.8+
1998 11 20	699	0.1−	0.2−	1999 12 15	704	0.2+	0.1+	2000 02 11	704	1.0−	0.7+
1998 11 20	699	0.5−	1.1+	1999 12 15	704	0.8−	0.5−				
1998 11 21	704	0.2−	0.8+	1999 12 15	704	0.3−	0.8−				

1999 XR₁₈₈ = 1993 TX₃₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	282.42943		(2000.0)	P		Q	
<i>n</i>	0.18452884	ω	126.66423	−0.98813086	−0.07512980		
<i>a</i>	3.0555769	Ω	49.43559	−0.00137482	−0.86787869		
<i>e</i>	0.0249850	<i>i</i>	10.15874	+0.15360834	−0.49106220		
<i>P</i>	5.34	<i>H</i>	12.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1993 10 09	809	0.7−	0.6+	1999 11 16	704	0.1−	0.0	2000 01 02	704	0.1+	0.6−
1993 10 09	809	1.0−	1.2−	1999 11 16	704	0.0	1.7+	2000 01 02	704	0.1−	1.1−
1993 10 09	809	1.0−	0.1+	1999 11 16	704	0.1+	0.5+	2000 01 02	704	0.2−	0.7−
1993 10 11	809	1.1+	0.6+	1999 12 12	704	0.5−	0.2−	2000 01 02	704	0.7+	0.8−
1993 10 11	809	0.1+	0.7+	1999 12 12	704	0.6−	1.1−	2000 01 04	704	0.3−	0.6+
1993 10 11	809	0.6+	0.9+	1999 12 12	704	0.5−	0.2+	2000 01 04	704	0.2+	0.3−
1993 10 21	809	(0.5+	3.3−)	1999 12 12	704	0.3+	0.3−	2000 01 04	704	0.1+	0.4−
1993 10 21	809	(0.9+	2.8−)	1999 12 12	704	0.2+	0.0	2000 01 04	704	0.2+	0.7−
1993 10 21	809	(0.9+	2.8−)	1999 12 15	704	0.1−	0.0	2000 01 04	704	0.6+	0.3−
1998 12 22	327	0.2+	1.2−	1999 12 15	704	0.0	0.1+	2000 02 11	704	0.4−	0.1+
1998 12 22	327	0.6+	0.3−	1999 12 15	704	0.5−	0.0	2000 02 11	704	0.6−	0.6+
1998 12 22	327	0.5+	0.8−	1999 12 15	704	0.1+	0.6+	2000 02 11	704	0.6−	1.0+
1999 11 16	704	0.0	0.2−	1999 12 15	704	0.2+	0.6+	2000 02 11	704	2.0+	0.8+

1999 XJ₁₈₉ = 1964 EW = 1990 CM = 1993 TY₃₂ = 1998 US₃₂

Id. G. V. Williams, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	288.97723		(2000.0)	P		Q	
<i>n</i>	0.18640287	ω	128.75136	−0.98550750	−0.11483180		
<i>a</i>	3.0350626	Ω	45.05527	+0.03633355	−0.86184404		
<i>e</i>	0.0543428	<i>i</i>	10.16018	+0.16569500	−0.49400253		
<i>P</i>	5.29	<i>H</i>	12.9	<i>G</i>	0.15	<i>U</i>	2

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Residuals in seconds of arc

1964 03 11	033	0.8−	0.2+	1998 10 17	699	0.3−	0.2−	1999 12 15	704	0.1+	0.6+
1964 03 12	033	0.7+	0.5−	1998 10 17	699	0.4+	0.2+	1999 12 15	704	0.0	1.1+
1990 02 01	372	(6.5+	5.5−)	1998 10 17	699	0.9+	0.1−	1999 12 15	704	0.1+	1.2+
1990 02 01	372	(3.5+	2.9−)	1998 10 28	704	1.3+	0.1−	1999 12 15	704	0.1−	1.4+
1993 10 09	809	0.6+	0.4+	1998 10 28	704	(0.9−	2.5−)	1999 12 15	704	0.4+	1.1+
1993 10 09	809	0.4−	0.4+	1998 10 28	704	(0.8+	3.0−)	2000 01 02	704	1.7+	0.6−
1993 10 09	809	0.5−	0.7+	1998 10 28	704	1.7−	0.5+	2000 01 02	704	1.3−	1.4−
1993 10 11	809	0.2−	0.8−	1998 10 29	704	0.4+	0.1−	2000 01 02	704	0.4−	0.5−
1993 10 11	809	0.2−	0.4−	1998 10 29	704	0.8−	0.4−	2000 01 02	704	0.2−	1.2−
1993 10 11	809	0.5+	0.4−	1998 10 29	704	0.0	0.9−	2000 01 02	704	0.1−	1.0−
1993 10 21	809	(5.5−	3.1−)	1998 10 29	704	0.2−	0.1+	2000 01 04	704	0.3+	0.2−
1993 10 21	809	(5.1−	3.0−)	1999 12 12	704	0.0	0.5+	2000 01 04	704	0.3−	0.8−
1993 10 21	809	(5.7−	3.7−)	1999 12 12	704	0.2+	0.3+	2000 01 04	704	0.1+	0.5−
1998 09 17	699	0.9+	0.4+	1999 12 12	704	0.1−	0.4+	2000 01 04	704	0.2+	0.7−
1998 09 17	699	0.4+	0.2+	1999 12 12	704	0.2−	0.4+	2000 01 04	704	0.1−	0.8−
1998 09 17	699	0.7−	0.5−	1999 12 12	704	0.1−	0.7+				

1999 XM₁₈₉ = 1998 TS₁₇

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	13.04599		(2000.0)	P	Q
<i>n</i>	0.21430716	ω	104.04116	+0.07328373	−0.99699248
<i>a</i>	2.7655293	Ω	341.69973	+0.88123951	+0.07656894
<i>e</i>	0.1055993	<i>i</i>	4.60490	+0.46695441	+0.01196637
<i>P</i>	4.60	<i>H</i>	14.8	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 10 14	910	0.0	0.5+	1999 12 12	704	0.3+	0.6+	2000 01 04	704	0.0	0.2−
1998 10 14	910	0.3−	0.1−	1999 12 15	704	0.0	0.3−	2000 01 04	704	0.5−	0.3+
1998 10 14	910	0.1−	0.2+	1999 12 15	704	0.3−	0.8−	2000 01 04	704	0.3−	0.1−
1998 10 21	910	0.2+	0.3−	1999 12 15	704	0.0	0.7−	2000 01 04	704	0.3+	0.2−
1998 10 21	910	0.0	0.0	1999 12 15	704	0.5−	0.6−	2000 01 04	704	0.0	0.1+
1998 10 21	910	0.0	0.2−	2000 01 02	704	0.3−	0.5−	2000 02 11	704	0.2+	1.0−
1999 12 12	704	0.4+	0.0	2000 01 02	704	0.1+	0.4+	2000 02 11	704	0.1+	0.8+
1999 12 12	704	0.1−	0.2+	2000 01 02	704	0.6+	0.5+	2000 02 11	704	0.1−	0.3−
1999 12 12	704	0.2−	0.8+	2000 01 02	704	0.8−	0.7−	2000 02 11	704	0.2+	0.2−
1999 12 12	704	0.7+	0.6+	2000 01 02	704	0.4+	0.0	2000 02 11	704	0.3−	1.6+

1999 XZ₁₈₉ = 1998 MN₄₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	67.33268		(2000.0)	P	Q
<i>n</i>	0.18402938	ω	75.29731	+0.93669348	−0.00593702
<i>a</i>	3.0611029	Ω	284.09194	−0.16322865	+0.87716569
<i>e</i>	0.2671812	<i>i</i>	21.15934	+0.30977692	+0.48015112
<i>P</i>	5.36	<i>H</i>	13.6	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1998 06 24	704	0.6+	0.2+	1999 12 12	704	0.5+	0.6+	2000 01 04	704	0.7+	0.3−
1998 06 24	704	0.8+	0.1+	1999 12 12	704	0.1−	0.3+	2000 01 30	704	0.1−	0.2−
1998 06 24	704	0.2−	0.8+	1999 12 12	704	0.9−	0.6−	2000 01 30	704	0.3+	0.3+
1998 06 24	704	1.1−	0.4+	1999 12 12	704	0.4−	0.4−	2000 01 30	704	0.5+	0.4−
1998 06 26	809	(1.4+	3.5+)	1999 12 12	704	0.3−	1.4−	2000 01 30	704	0.5+	0.4−
1998 06 26	809	(0.8+	3.4+)	1999 12 15	704	0.1+	0.0	2000 01 30	704	0.2+	0.6+
1998 06 26	809	(1.3+	3.3+)	1999 12 15	704	(0.6+	2.7+)	2000 01 31	704	1.2−	1.1−
1998 06 27	809	(0.8+	4.1+)	1999 12 15	704	1.0+	1.2+	2000 01 31	704	0.8−	0.2+
1998 06 27	809	(1.6+	3.8+)	1999 12 15	704	0.1−	0.6+	2000 01 31	704	0.1−	0.5−
1998 06 27	809	(1.6+	3.4+)	1999 12 15	704	1.0+	0.3+	2000 02 11	704	0.1−	1.4+
1998 07 26	704	0.7+	0.5−	2000 01 04	704	0.3+	0.5+	2000 02 11	704	1.3−	0.7−
1998 07 26	704	(2.0+	2.3−)	2000 01 04	704	0.0	0.4+	2000 02 11	704	0.1−	0.4+
1998 07 26	704	1.1−	0.5+	2000 01 04	704	0.0	0.5−	2000 02 11	704	0.3−	0.6+
1998 07 26	704	0.1+	1.2−	2000 01 04	704	0.5+	0.5−				

1999 XS₁₉₀ = 1980 RM₆ = 1998 RH₁₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	83.47831		(2000.0)	P	Q
<i>n</i>	0.21623475	ω	71.52409	+0.96355472	−0.24260406
<i>a</i>	2.7490695	Ω	302.37482	+0.16586677	+0.87240210
<i>e</i>	0.0310861	<i>i</i>	7.66982	+0.20988216	+0.42433225
<i>P</i>	4.56	<i>H</i>	13.9	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1980 09 13	675	0.3−	0.5−	1998 09 14	704	1.1−	0.7+	1999 12 15	704	0.0	0.2+
1980 09 14	675	0.4+	0.2+	1998 09 18	704	1.1−	0.4+	1999 12 15	704	1.0−	0.1+
1998 08 23	704	0.6+	0.0	1998 09 18	704	0.5+	1.7−	2000 01 02	704	0.1+	0.1+
1998 08 23	704	1.4+	0.6+	1998 09 18	704	0.0	0.8+	2000 01 02	704	0.4−	0.1+
1998 08 23	704	0.4+	0.5−	1998 09 18	704	0.7+	1.4−	2000 01 02	704	0.7+	0.2+
1998 08 23	704	0.7+	0.9+	1998 09 18	704	0.6−	0.9+	2000 01 02	704	0.6+	0.3−
1998 08 26	699	0.4−	1.2+	1999 12 12	704	0.7+	0.4−	2000 01 02	704	0.1−	0.0
1998 08 26	699	0.6+	0.0	1999 12 12	704	0.2+	0.3+	2000 01 04	704	0.1+	0.3−
1998 08 26	699	0.5−	0.7−	1999 12 12	704	0.7+	0.8−	2000 01 04	704	0.3+	0.1+
1998 09 14	704	0.2−	0.3−	1999 12 12	704	0.3+	0.4−	2000 01 04	704	0.3−	0.4+
1998 09 14	704	0.3−	0.6−	1999 12 12	704	0.2+	0.0	2000 01 04	704	1.9−	0.5+
1998 09 14	704	0.7−	0.2−	1999 12 15	704	0.1+	0.2+				
1998 09 14	704	0.1−	0.3+	1999 12 15	704	0.3−	0.1+				

1999 XU₁₉₀ = 1995 SD₂₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	356.58825		(2000.0)	P	Q
<i>n</i>	0.27279131	ω	113.81543	−0.46108832	−0.88733585
<i>a</i>	2.3545921	Ω	3.65707	+0.77805438	−0.40738131
<i>e</i>	0.1737230	<i>i</i>	5.13930	+0.42664851	−0.21604526
<i>P</i>	3.61	<i>H</i>	14.9	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1995 09 19	691	0.4−	0.1−	1999 12 12	704	0.3+	0.2−	2000 01 29	704	0.4−	0.5+
1995 09 19	691	0.2−	0.0	1999 12 12	704	0.1+	0.1−	2000 01 29	704	0.1−	0.4−
1995 09 19	691	0.1+	0.4+	1999 12 15	704	0.1−	0.6−	2000 01 29	704	0.4+	0.6−
1995 09 25	691	0.5−	0.2−	1999 12 15	704	0.1−	0.1+	2000 01 30	704	0.4−	0.1−
1995 09 25	691	0.5−	0.2−	1999 12 15	704	0.2−	0.9−	2000 01 30	704	0.3+	0.2+
1995 09 25	691	0.4−	0.2−	1999 12 15	704	0.1−	0.5−	2000 01 30	704	0.2−	0.2+
1995 10 20	010	0.7+	0.3+	1999 12 15	704	0.3−	1.1−	2000 01 30	704	0.4−	0.7+
1995 10 20	010	0.6+	0.8+	2000 01 02	704	0.7+	1.4+	2000 01 30	704	0.1−	0.2+
1995 10 20	010	0.2−	0.6+	2000 01 02	704	0.0	0.5+	2000 02 11	704	0.3+	1.3+
1999 12 12	704	0.2+	0.8−	2000 01 02	704	0.2+	0.3+	2000 02 11	704	1.3+	0.0
1999 12 12	704	0.3−	1.0−	2000 01 29	704	0.6−	0.6+	2000 02 11	704	0.2−	0.7+
1999 12 12	704	0.1−	0.4−	2000 01 29	704	0.0	0.5+	2000 02 11	704	0.3−	0.6−

1999 XG₁₉₁ = 1997 TU₂₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	80.06969		(2000.0)	P	Q
<i>n</i>	0.08357965	ω	338.49106	+0.97410915	−0.19224910
<i>a</i>	5.1808659	Ω	33.30232	+0.22579511	+0.80098656
<i>e</i>	0.0106103	<i>i</i>	12.51315	+0.01131047	+0.56697515
<i>P</i>	11.79	<i>H</i>	11.3	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1997 10 06	809	0.7−	0.8+	1997 12 05	910	0.3−	0.3−	1999 12 15	704	0.2−	1.4+
1997 10 06	809	0.7+	1.0+	1997 12 05	910	0.3−	0.2−	2000 01 02	704	0.6+	0.2−
1997 10 07	809	1.2−	0.7−	1999 12 12	704	0.1−	0.0	2000 01 02	704	0.5−	0.2−
1997 10 07	809	1.0+	0.4−	1999 12 12	704	0.0	0.2+	2000 01 02	704	0.0	0.2−
1997 10 30	704	1.1+	0.2+	1999 12 12	704	0.0	0.1+	2000 01 29	704	1.1+	0.3+
1997 10 30	704	1.0+	0.9+	1999 12 12	704	0.3−	0.1−	2000 01 29	704	0.7+	0.5−
1997 10 30	704	1.0−	1.3−	1999 12 12	704	0.8−	0.2+	2000 01 29	704	1.0−	0.2+
1997 10 30	704	(2.2+	0.2+)	1999 12 15	704	0.1−	0.1−	2000 01 29	704	0.2+	0.3−
1997 10 30	704	(2.3−	0.4−)	1999 12 15	704	0.8+	0.0	2000 01 29	704	0.2−	1.0−
1997 12 05	910	0.3−	0.3−	1999 12 15	704	0.0	0.4+				

1999 XX₁₉₁ = 1997 HL₁₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.25299294	ω	34.76480	+0.34264354	-0.93789512		
<i>a</i>	2.4758849	Ω	35.28610	+0.83921941	+0.27959253		
<i>e</i>	0.2236024	<i>i</i>	5.39346	+0.42226317	+0.20537956		
<i>P</i>	3.90	<i>H</i>	15.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 04 29	691	0.2-	0.6+	1999 11 16	704	0.1+	0.1+	2000 01 02	704	0.0	0.0
1997 04 29	691	0.2+	0.1-	1999 12 12	704	0.1+	0.3+	2000 01 02	704	0.1-	0.7+
1997 04 29	691	0.4+	0.3-	1999 12 12	704	0.3+	0.5-	2000 01 02	704	0.1+	0.8+
1997 05 08	691	0.0	0.4-	1999 12 12	704	0.2-	0.5-	2000 01 02	704	0.3+	0.3-
1997 05 08	691	0.4-	0.3+	1999 12 12	704	0.7-	0.1-	2000 01 02	704	0.3+	0.9+
1997 05 08	691	0.0	0.2-	1999 12 12	704	0.5-	1.0-	2000 01 04	704	0.1+	0.6+
1999 11 16	704	0.1-	0.1-	1999 12 15	704	0.3+	0.3+	2000 01 04	704	0.5-	0.0
1999 11 16	704	0.7+	0.5+	1999 12 15	704	0.2-	0.4+	2000 01 04	704	0.2+	1.1-
1999 11 16	704	0.2-	0.2+	1999 12 15	704	0.1+	0.1-	2000 01 04	704	0.4+	0.3-
1999 11 16	704	0.1-	0.2-	1999 12 15	704	0.4-	0.3-	2000 01 04	704	0.0	0.2-

1999 XE₁₉₂ = 1998 MM₃₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.24450290	ω	127.13879	+0.53432629	-0.82723211		
<i>a</i>	2.5328727	Ω	289.68512	+0.70518644	+0.54957526		
<i>e</i>	0.1559856	<i>i</i>	10.63282	+0.46605526	+0.11685063		
<i>P</i>	4.03	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1994 07 08	010	0.0	0.6+	1998 07 01	809	0.3+	1.3+	2000 01 04	704	0.3+	0.2-
1994 07 08	010	0.2-	0.7-	1998 07 01	809	0.0	1.2+	2000 01 04	704	0.3-	0.4+
1994 07 08	010	0.7+	1.0-	1999 12 12	704	0.1+	0.1-	2000 01 04	704	0.3+	0.2-
1998 06 23	699	0.2+	0.5-	1999 12 12	704	0.1+	0.0	2000 01 04	704	0.6-	1.4-
1998 06 23	699	1.0-	0.0	1999 12 12	704	0.6+	0.1+	2000 01 30	704	(1.4+	2.3+)
1998 06 23	699	0.1-	0.5-	1999 12 12	704	0.4+	0.1+	2000 01 30	704	(2.6+	1.0+)
1998 06 24	704	0.1+	0.3-	1999 12 12	704	0.1+	0.2+	2000 01 30	704	0.3+	0.5+
1998 06 24	704	(1.9-	2.2-)	1999 12 15	704	0.2-	0.2+	2000 01 30	704	0.6+	1.2+
1998 06 24	704	(3.4-	0.9+)	1999 12 15	704	0.6-	0.1-	2000 01 30	704	0.4-	0.1+
1998 06 24	704	0.7+	0.8-	1999 12 15	704	0.2-	0.1-	2000 01 31	704	0.1+	0.3+
1998 06 26	704	0.8-	0.3-	1999 12 15	704	0.2-	0.5-	2000 01 31	704	0.5+	0.6+
1998 06 26	704	0.8-	0.7-	1999 12 15	704	0.3-	0.4-	2000 01 31	704	0.6+	0.1-
1998 06 26	704	0.9+	1.4+	2000 01 03	704	0.0	0.0	2000 01 31	704	0.7+	0.1-
1998 06 26	704	0.0	0.1-	2000 01 03	704	0.1-	0.1+	2000 02 11	704	0.4-	0.4+
1998 06 28	809	(3.3+	3.5+)	2000 01 03	704	0.0	0.3+	2000 02 11	704	0.3+	0.4+
1998 06 28	809	(3.6+	2.6+)	2000 01 03	704	0.1-	0.3+	2000 02 11	704	0.1-	0.1-
1998 06 28	809	(3.6+	3.0+)	2000 01 03	704	0.1+	0.2+	2000 02 11	704	0.3-	0.5-
1998 07 01	809	0.3-	1.2+	2000 01 04	704	0.8-	0.6+	2000 02 11	704	0.1-	1.2-

1999 XK₁₉₂ = 1996 RZ₂₉ = 1997 TL₂₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.08456087	ω	71.85704	-0.11411288	-0.99063792		
<i>a</i>	5.1407100	Ω	25.06167	+0.83147929	-0.13651296		
<i>e</i>	0.0573735	<i>i</i>	10.18898	+0.54370989	+0.00085184		
<i>P</i>	11.66	<i>H</i>	11.6	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1996 09 12	809	0.1-	0.3-	1999 12 12	704	0.4-	0.0	2000 01 02	704	0.7-	0.2-
1996 09 16	809	0.2+	0.0	1999 12 12	704	0.5-	0.1+	2000 01 02	704	0.2+	0.4+
1997 10 06	809	0.3-	0.3+	1999 12 12	704	0.9+	1.1+	2000 01 02	704	0.5-	0.3+
1997 10 06	809	0.9-	1.2-	1999 12 12	704	0.5+	0.4+	2000 01 29	704	0.8+	0.4-
1997 10 07	809	0.6-	0.2+	1999 12 15	704	0.0	0.8-	2000 01 29	704	0.1+	0.5+
1997 10 07	809	1.6+	1.1+	1999 12 15	704	0.1+	1.4-	2000 01 29	704	0.1-	0.3+
1999 12 12	704	0.1-	0.1+	1999 12 15	704	0.1+	0.7-	2000 01 29	704	0.4-	0.3+

1999 XF₁₉₃ = 1977 CJ = 1996 RT₃₀

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.08089122	ω	112.35294	+0.21357082	-0.97292316		
<i>a</i>	5.2950304	Ω	324.94421	+0.83015965	+0.22842290		
<i>e</i>	0.0500380	<i>i</i>	8.84966	+0.51499754	+0.03526333		
<i>P</i>	12.18	<i>H</i>	11.7	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1977 02 11	675	0.1+	0.2+	1999 12 12	704	0.2-	0.5-	1999 12 15	704	0.2-	0.3+
1977 02 12	675	(7.4-	0.1+)	1999 12 12	704	0.0	0.4+	2000 01 04	704	0.4-	0.3-
1996 09 13	809	0.8-	1.4-	1999 12 12	704	0.0	0.6+	2000 01 04	704	0.0	0.5-
1996 09 13	809	1.3+	1.9+	1999 12 15	704	0.2-	0.6+	2000 01 04	704	0.3+	0.1+
1996 09 14	809	0.5-	0.4-	1999 12 15	704	0.0	0.3-	2000 01 04	704	0.2+	0.6-
1999 12 12	704	0.1+	0.1+	1999 12 15	704	0.4+	0.0				

1999 XG₁₉₃ = 1989 SE₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.30477253	ω	359.90743	+0.73424109	-0.67573352		
<i>a</i>	2.1868492	Ω	42.84902	+0.62293008	+0.63230246		
<i>e</i>	0.1346202	<i>i</i>	5.51658	+0.26990395	+0.37891664		
<i>P</i>	3.23	<i>H</i>	15.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1989 09 26	809	0.9-	1.4-	1989 10 08	809	0.0	1.0+	1999 12 15	704	0.1-	0.7-
1989 09 26	809	1.2-	1.9-	1989 10 08	809	0.2+	1.9+	1999 12 15	704	0.1+	0.7-
1989 09 26	809	(1.4-	3.0-)	1989 10 08	809	0.1+	2.1+	1999 12 15	704	0.4+	0.5-
1989 09 26	809	0.5-	0.1+	1997 01 18	327	0.2-	1.1+	1999 12 15	704	0.3+	1.3-
1989 09 26	809	1.8-	0.0	1997 01 18	327	0.4-	0.3+	2000 01 02	704	0.4-	0.4+
1989 09 26	809	2.3-	0.4-	1997 01 18	327	0.9+	0.2+	2000 01 02	704	0.6-	0.0
1989 09 28	809	1.5-	0.1+	1999 11 16	704	0.2-	0.2-	2000 01 02	704	0.4-	0.7-
1989 09 28	809	0.6-	0.5-	1999 11 16	704	0.1-	0.5-	2000 01 04	704	0.5+	1.8+
1989 09 28	809	1.2-	0.6-	1999 11 16	704	0.4-	0.9-	2000 01 04	704	0.4+	1.1+
1989 09 29	675	2.1+	1.1-	1999 11 16	704	0.2-	1.0-	2000 01 04	704	1.8+	1.9+
1989 09 29	675	2.1+	0.9-	1999 11 16	704	0.1+	0.2+	2000 01 04	704	0.8+	0.8+
1989 10 03	809	1.7+	0.5+	1999 12 12	704	0.1-	0.1-	2000 02 11	704	1.0-	0.5+
1989 10 03	809	1.5+	1.0+	1999 12 12	704	0.3-	0.3-	2000 02 11	704	0.7-	0.2+
1989 10 03	809	1.0+	0.4+	1999 12 12	704	0.6-	0.5-	2000 02 11	704	1.3+	0.0
1989 10 07	809	0.2+	0.3-	1999 12 12	704	0.3-	0.4-	2000 02 11	704	0.6+	1.6-
1989 10 07	809	0.5+	1.0+	1999 12 12	704	0.8-	0.0				
1989 10 07	809	0.4-	0.5+	1999 12 15	704	0.2-	0.1+				

1999 XM₁₉₃ = 1990 EQ

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.08372912	ω	182.46513	-0.70171785	-0.69519829		
<i>a</i>	5.1746984	Ω	312.15720	+0.65720908	-0.54716258		
<i>e</i>	0.1383557	<i>i</i>	12.13679	+0.27507869	-0.46616784		
<i>P</i>	11.77	<i>H</i>	11.1	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1990 03 02	809	0.7+	0.0	1999 12 12	704	0.4-	0.3-	2000 01 25	704	0.2-	0.1+
1990 03 02	809	1.8+	0.1+	1999 12 15	704	0.3+	0.0	2000 01 25	704	1.1+	0.5+
1990 03 02	809	0.9+	0.0	1999 12 15	704	0.2+	0.1+	2000 01 29	704	0.3+	0.2+
1990 03 04	809	0.8-	0.5-	1999 12 15	704	0.1+	0.0	2000 01 29	704	0.2-	0.2+
1990 03 04	809	0.9-	0.2+	1999 12 15	704	0.0	0.0	2000 01 29	704	0.2-	0.2-
1990 03 04	809	1.7-	0.2+	2000 01 02	704	0.8+	0.3+	2000 01 29	704	0.1-	0.4-
1999 12 12	704	0.5-	0.1-	2000 01 02	704	0.0	0.0	2000 01 29	704	0.3-	0.0
1999 12 12	704	0.6-	0.2-	2000 01 02	704	0.0	0.3+	2000 01 30	704	0.1-	0.5-
1999 12 12	704	0.0	0.4+	2000 01 02	704	0.2+	0.2+	2000 01 30	704	0.5-	0.4-
1999 12 12	704	0.2-	0.3+	2000 01 25	704	0.4+	0.6-	2000 01 30	704	0.2-	0.0

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1999 XU₁₉₃ = 1998 RU₂₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.19263677	ω	89.28074	+0.76635474	−0.63279755		
<i>a</i>	2.9692260	Ω	309.96861	+0.51681891	+0.70969863		
<i>e</i>	0.0762081	<i>i</i>	8.30947	+0.38157388	+0.30966935		
<i>P</i>	5.12	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	3
Residuals in seconds of arc							
1998 08 17	704	0.3+	0.1−	1998 09 18	704	1.0+	0.9−
1998 08 17	704	(2.5+	1.0−)	1998 09 18	704	0.2−	0.1+
1998 08 17	704	0.2+	0.6−	1998 09 18	704	1.2+	0.8−
1998 08 17	704	0.5+	0.6+	1998 09 18	704	0.2+	0.8+
1998 08 17	704	0.1+	0.1−	1999 12 12	704	1.2−	0.1+
1998 09 14	704	0.8+	0.5+	1999 12 12	704	0.1−	0.4+
1998 09 14	704	0.1+	0.3+	1999 12 12	704	0.3+	0.4−
1998 09 14	704	1.1−	0.3−	1999 12 12	704	0.4+	0.1+
1998 09 14	704	1.8−	0.4+	1999 12 12	704	0.9+	0.0
1998 09 14	704	0.7−	0.4+	1999 12 15	704	0.3−	0.1+
1998 09 16	699	0.1+	0.1−	1999 12 15	704	0.0	0.7+
1998 09 16	699	0.2−	0.1+	1999 12 15	704	0.1−	0.1−
1998 09 16	699	0.5+	0.5+	1999 12 15	704	0.3+	0.1+
1998 09 18	704	0.9−	0.6−	2000 01 02	704	0.1−	0.2−

1999 XA₁₉₄ = 1997 HC₁₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22137756	ω	358.56673	+0.94225692	−0.33286261		
<i>a</i>	2.7063273	Ω	20.99106	+0.30826948	+0.81916361		
<i>e</i>	0.1114732	<i>i</i>	5.89667	+0.13085039	+0.46709042		
<i>P</i>	4.45	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	5
Residuals in seconds of arc							
1997 04 30	704	0.8−	0.3+	1997 05 05	704	0.3+	1.3−
1997 04 30	704	1.0−	0.2−	1997 05 05	704	0.5+	0.4−
1997 04 30	704	0.7−	1.2+	1997 05 05	704	0.7+	0.2−
1997 04 30	704	0.5−	0.5+	1997 05 05	704	0.2−	0.1−
1997 04 30	704	1.3−	0.7−	1997 05 05	704	0.1+	0.2−
1997 05 01	704	1.6+	0.3+	1999 12 12	704	0.8+	0.8+
1997 05 01	704	1.6+	0.4−	1999 12 12	704	1.0+	0.6−
1997 05 01	704	0.2−	0.9+	1999 12 12	704	0.5−	0.1−
1997 05 01	704	(0.0	2.2+)	1999 12 12	704	0.8+	0.1−
1997 05 01	704	(2.9−	0.9+)	1999 12 15	704	0.7−	0.2+

1999 XG₁₉₄ = 1998 SZ₅₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.17820780	ω	121.24014	−0.41117079	−0.91139890		
<i>a</i>	3.1274106	Ω	352.97413	+0.78176107	−0.34294401		
<i>e</i>	0.1683216	<i>i</i>	8.01152	+0.46881575	−0.22746747		
<i>P</i>	5.53	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	5
Residuals in seconds of arc							
1998 09 16	699	0.7+	0.2−	1999 12 12	704	0.2+	0.1−
1998 09 16	699	0.3+	0.7+	1999 12 12	704	0.1+	0.0
1998 09 16	699	1.1−	0.1−	1999 12 12	704	0.2+	0.1−
1998 09 25	699	0.0	0.7−	1999 12 12	704	0.2+	0.0
1998 09 25	699	0.2+	0.0	1999 12 15	704	0.5+	1.4+
1998 09 25	699	0.1+	0.0	1999 12 15	704	0.3+	0.3−
1999 12 12	704	0.3−	0.1−	1999 12 15	704	1.5−	0.7+

1999 XT₁₉₄ = 1995 UK₄₈

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.27206669	ω	236.97476	+0.18982099	+0.97746422		
<i>a</i>	2.3587711	Ω	44.26807	−0.85089863	+0.21071576		
<i>e</i>	0.1052298	<i>i</i>	7.60414	−0.48983621	+0.01275013		
<i>P</i>	3.62	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	3
Residuals in seconds of arc							
1995 10 17	327	0.1+	0.3+	1998 08 20	699	0.2+	0.4+
1995 10 17	327	0.2−	0.4+	1999 12 12	704	0.4+	0.0
1995 10 17	327	0.4−	0.1+	1999 12 12	704	0.4−	0.3−
1995 10 18	327	0.3+	0.3−	1999 12 12	704	0.2−	0.8−
1995 10 18	327	0.1+	0.2−	1999 12 12	704	0.1−	0.9+
1995 10 18	327	0.0	0.3−	1999 12 12	704	0.6−	0.5−
1998 08 20	699	0.6−	0.3−	1999 12 15	704	0.4−	1.0−
1998 08 20	699	0.5+	0.1−	1999 12 15	704	0.3+	0.5+

1999 XL₁₉₅ = 1980 BS₂ = 1998 QF₇₇

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.24000326	ω	291.42359	−0.43328314	+0.88220809		
<i>a</i>	2.5644326	Ω	311.52841	−0.70853045	−0.45982542		
<i>e</i>	0.0952384	<i>i</i>	14.25355	−0.55700119	−0.10133836		
<i>P</i>	4.11	<i>H</i>	12.3	<i>G</i>	0.15	<i>U</i>	2
Residuals in seconds of arc							
1980 01 24	095	0.3−	0.4−	1998 12 09	704	0.2−	1.1−
1998 06 30	704	1.6+	0.1−	1998 12 09	704	0.5−	0.2−
1998 06 30	704	1.6+	0.0	1998 12 09	704	0.8−	1.3+
1998 06 30	704	1.2−	0.7+	1998 12 09	704	1.0+	0.2+
1998 06 30	704	0.3+	0.2−	1998 12 09	704	1.0−	0.3+
1998 06 30	704	0.6+	0.2−	1999 12 12	704	0.2−	0.3−
1998 08 24	704	0.4+	0.5−	1999 12 12	704	0.3−	0.3−
1998 08 24	704	0.0	0.4+	1999 12 12	704	0.1−	0.2−
1998 08 24	704	0.5+	1.3+	1999 12 12	704	0.3−	0.3−
1998 08 24	704	0.1−	0.6−	1999 12 12	704	0.0	0.3−
1998 08 24	704	0.1+	1.5−	1999 12 15	704	0.0	0.2−
1998 08 27	704	0.7−	0.4+	1999 12 15	704	0.1+	0.4−
1998 08 27	704	0.5−	0.4−	1999 12 15	704	0.4+	0.3−
1998 08 27	704	0.1+	1.0+	1999 12 15	704	1.2+	0.5+
1998 08 27	704	0.3+	0.1+	1999 12 15	704	0.1−	0.9−
1998 08 27	704	0.2−	0.3+	1999 12 16	704	0.1+	0.4−
1998 09 18	699	0.0	0.4−	1999 12 16	704	0.1−	0.1−
1998 09 18	699	0.2−	0.7−	1999 12 16	704	0.0	0.2−
1998 09 18	699	0.8−	0.0	1999 12 16	704	0.0	0.2−

1999 XM₁₉₆ = 1998 UT₃₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.17810926	ω	319.19658	+0.98963485	−0.04698133		
<i>a</i>	3.1285640	Ω	44.07668	+0.11137095	+0.84765945		
<i>e</i>	0.1085973	<i>i</i>	11.24961	−0.09066079	+0.52845644		
<i>P</i>	5.53	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	4
Residuals in seconds of arc							
1998 10 28	704	1.2+	0.3−	1999 12 12	704	0.4−	0.0
1998 10 28	704	0.6+	0.3+	1999 12 12	704	0.4−	1.2−
1998 10 28	704	0.2+	0.4−	1999 12 12	704	0.5−	0.4−
1998 10 28	704	0.3−	0.1−	1999 12 15	704	0.8+	0.2−
1998 10 28	704	0.9−	0.5−	1999 12 15	704	0.6+	0.4+
1998 10 29	704	0.6+	0.9+	1999 12 15	704	0.1−	0.1−
1998 10 29	704	(2.3−	1.1+)	1999 12 15	704	0.4−	0.3−
1998 10 29	704	2.0−	0.3−	1999 12 15	704	0.3−	0.2+

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1998 10 29 704 0.6+ 0.5+ 2000 01 02 704 0.8+ 0.4- 2000 01 29 704 0.3- 0.3-
 1999 12 12 704 0.7+ 1.5+ 2000 01 02 704 0.2- 0.2-

1999 XQ₁₉₆ = 1998 RL₄₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	33.97989		(2000.0)	P		Q	
<i>n</i>	0.18286781	ω	82.01962	+0.34704137		-0.93731551	
<i>a</i>	3.0740520	Ω	347.53270	+0.79232662		+0.31108273	
<i>e</i>	0.1099420	<i>i</i>	8.43125	+0.50177765		+0.15705787	
<i>P</i>	5.39	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 14	704	1.1+	1.2-	1998 09 18	704	0.1-	0.3-	1999 12 15	704	0.7+	0.8-
1998 09 14	704	(0.7+	2.2-)	1999 12 12	704	0.5-	0.4+	2000 01 02	704	1.9-	0.1-
1998 09 14	704	0.5-	1.2+	1999 12 12	704	1.0+	0.6+	2000 01 02	704	0.5+	0.6+
1998 09 14	704	(2.8+	0.0)	1999 12 12	704	1.1-	0.4-	2000 01 02	704	0.2+	0.2-
1998 09 18	704	0.2-	0.4+	1999 12 12	704	0.5+	0.3+	2000 01 29	704	0.5-	0.2+
1998 09 18	704	(0.9+	2.5+)	1999 12 15	704	0.2+	0.6+	2000 01 29	704	0.3+	0.0
1998 09 18	704	0.2-	0.0	1999 12 15	704	0.4+	0.3-	2000 01 29	704	0.5+	0.4-
1998 09 18	704	(2.6+	2.1+)	1999 12 15	704	0.4-	0.6-	2000 01 29	704	0.2+	0.1+

1999 XW₁₉₆ = 1989 TX₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	232.11228		(2000.0)	P		Q	
<i>n</i>	0.31556045	ω	209.78558	-0.31176713		+0.94692888	
<i>a</i>	2.1367203	Ω	42.18573	-0.84710101		-0.23969268	
<i>e</i>	0.1301042	<i>i</i>	6.69367	-0.43037324		-0.21418011	
<i>P</i>	3.12	<i>H</i>	15.4	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1989 10 07	809	1.4+	0.8+	1999 12 12	704	0.4-	0.6-	2000 01 02	704	0.2+	0.1+
1989 10 07	809	0.1+	0.4+	1999 12 12	704	0.2-	0.7+	2000 01 02	704	0.8+	0.3+
1989 10 07	809	0.8+	1.8+	1999 12 15	704	0.2+	0.0	2000 01 02	704	0.1+	0.3-
1989 10 08	809	2.6-	0.5-	1999 12 15	704	0.1-	0.6+	2000 01 04	704	0.1-	0.4-
1989 10 08	809	0.5-	1.6-	1999 12 15	704	0.1-	0.2+	2000 01 04	704	0.1+	0.2+
1989 10 08	809	0.1+	1.2-	1999 12 15	704	0.2+	0.1-	2000 01 04	704	0.1-	0.3+
1999 12 12	704	1.0-	0.2-	1999 12 15	704	0.8+	0.4+	2000 01 04	704	0.1-	0.8-
1999 12 12	704	0.0	0.1+	2000 01 02	704	0.7-	0.5+	2000 01 04	704	0.5+	0.0
1999 12 12	704	0.1+	0.7-	2000 01 02	704	0.4-	0.2-				

1999 XP₁₉₉ = 1997 SM₃₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	4.02342		(2000.0)	P		Q	
<i>n</i>	0.08443122	ω	65.36313	+0.04631182		-0.99802241	
<i>a</i>	5.1459710	Ω	22.10797	+0.87081271		+0.01948890	
<i>e</i>	0.0646829	<i>i</i>	6.48443	+0.48942869		+0.05976162	
<i>P</i>	11.67	<i>H</i>	12.2	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1997 09 29	809	(2.8-	1.5-)	1997 10 05	809	0.7+	0.3+	1999 12 15	704	0.4-	0.9+
1997 09 29	809	0.1-	0.0	1999 12 12	704	0.6-	0.9+	1999 12 15	704	0.3+	0.7+
1997 10 01	809	0.4-	0.2-	1999 12 12	704	1.2+	0.3+	2000 01 04	704	0.3+	0.5-
1997 10 01	809	0.3-	0.0	1999 12 12	704	0.5-	0.5-	2000 01 04	704	0.5-	1.0-
1997 10 01	809	0.4-	0.5-	1999 12 12	704	0.4-	0.6-	2000 01 04	704	0.0	1.2-
1997 10 05	809	0.6+	0.3+	1999 12 15	704	0.6+	1.0+				

**1999 XZ₂₀₀ = 1972 VX₁ = 1980 PA₂ = 1993 PC₉ = 1995 YL₁₉
= 1998 YA₃₀**

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	229.07571		(2000.0)	P		Q	
<i>n</i>	0.22303216	ω	296.94381	-0.36482726		+0.92027710	
<i>a</i>	2.6929258	Ω	310.92518	-0.77406537		-0.38417814	
<i>e</i>	0.1491028	<i>i</i>	10.78542	-0.51742041		-0.07414316	
<i>P</i>	4.42	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1972 11 03	033	(5.7-	0.1-)	1998 08 29	704	(2.2+	1.5+)	1999 12 15	704	0.8-	0.5+
1972 11 03	033	1.6-	1.5-	1998 08 29	704	1.0-	1.5+	1999 12 15	704	1.4-	0.1-
1980 08 06	809	0.6+	1.0-	1998 08 29	704	0.2+	1.5+	1999 12 15	704	0.8-	0.7+
1980 08 07	809	0.9+	1.1-	1998 08 29	704	0.8-	0.8-	2000 01 02	704	0.2+	0.3-
1980 08 09	809	0.9+	1.5+	1998 08 29	704	1.9-	1.6+	2000 01 02	704	0.5+	0.5-
1980 08 10	809	0.9+	0.4-	1998 09 19	699	0.2-	0.5-	2000 01 02	704	0.1+	0.5-
1993 08 14	010	0.1+	0.5+	1998 09 19	699	0.4+	0.2-	2000 01 02	704	0.1-	0.0
1993 08 14	010	0.5-	0.2-	1998 09 19	699	0.1+	0.3+	2000 01 04	704	0.7+	0.5+
1993 08 14	010	(2.3-	1.4-)	1998 12 16	327	0.2+	0.7+	2000 01 04	704	0.7+	0.1-
1993 08 18	010	0.7+	1.5-	1998 12 16	327	0.1-	0.5+	2000 01 04	704	0.8+	0.3-
1993 08 18	010	0.4-	1.2-	1998 12 16	327	0.3+	0.4+	2000 01 04	704	0.3+	0.2-
1993 08 18	010	(0.6-	2.3-)	1998 12 24	327	0.2+	0.3+	2000 01 04	704	1.2+	1.0-
1995 12 22	691	0.0	0.0	1998 12 24	327	0.2-	0.2-	2000 01 30	704	0.1-	0.3+
1995 12 22	691	0.0	0.2-	1998 12 24	327	0.1+	0.1-	2000 01 30	704	0.2-	0.1-
1995 12 22	691	0.0	0.0	1999 12 12	704	0.1-	0.4-	2000 01 30	704	0.5+	0.3+
1995 12 27	691	0.0	0.0	1999 12 12	704	0.7-	0.3-	2000 01 30	704	0.1+	0.3-
1995 12 27	691	0.1-	0.1-	1999 12 12	704	0.7-	0.4-				
1995 12 27	691	0.3+	0.1+	1999 12 15	704	(0.1+	2.5+)				

1999 XZ₂₀₂ = 1997 GB₄₀

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	67.16632		(2000.0)	P		Q	
<i>n</i>	0.23181062	ω	329.76491	+0.86201465		-0.46131191	
<i>a</i>	2.6245036	Ω	59.17226	+0.50011258		+0.70652927	
<i>e</i>	0.1842302	<i>i</i>	14.15900	+0.08257212		+0.53666350	
<i>P</i>	4.25	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1997 04 07	809	0.8+	0.4+	1999 12 12	704	0.4+	0.2+	1999 12 30	704	0.5+	0.1+
1997 04 07	809	0.4+	0.7+	1999 12 13	699	0.7+	0.6+	1999 12 30	704	0.7+	0.0
1997 04 07	809	0.2+	1.1+	1999 12 13	699	0.8+	0.2+	2000 01 21	704	0.2+	0.3+
1997 04 08	809	0.0	0.0	1999 12 13	699	0.7-	0.4+	2000 01 21	704	0.1+	0.3+
1997 04 08	809	0.9-	1.2-	1999 12 15	704	0.0	0.3-	2000 01 21	704	0.4-	0.8+
1997 04 08	809	0.4-	0.9-	1999 12 15	704	0.2-	0.5-	2000 01 21	704	0.1-	0.6+
1999 12 03	699	0.3+	0.6-	1999 12 15	704	0.2-	0.3+	2000 01 21	704	0.8-	0.6+
1999 12 03	699	0.2-	0.1+	1999 12 15	704	0.0	0.3+	2000 01 27	704	0.3+	0.1-
1999 12 03	699	0.0	0.3-	1999 12 15	704	1.1-	0.0	2000 01 27	704	0.2+	0.3-
1999 12 12	704	0.1-	0.0	1999 12 30	704	0.3-	0.3-	2000 01 27	704	0.1-	0.8-
1999 12 12	704	0.1+	0.0	1999 12 30	704	0.1-	0.5-	2000 01 27	704	0.0	1.3-
1999 12 12	704	0.2+	0.2+	1999 12 30	704	0.3-	0.1-				

1999 XB₂₀₄ = 1996 BA₁₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	87.55641		(2000.0)	P		Q	
<i>n</i>	0.21964850	ω	11.29631	+0.98497470		-0.17265420	
<i>a</i>	2.7205114	Ω	358.62746	+0.14294696		+0.82781195	
<i>e</i>	0.1705555	<i>i</i>	9.41683	+0.09690716		+0.53377701	
<i>P</i>	4.49	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1996 01 24	691	0.1+	0.1-	1999 12 12	704	0.2+	0.1-	2000 01 02	704	0.2-	0.1-
1996 01 24	691	0.1+	0.0	1999 12 12	704	0.3+	0.0	2000 01 02	704	0.3-	0.1+
1996 01 24	691	0.1-	0.0	1999 12 12	704	0.5+	0.2+	2000 01 02	704	0.3-	0.5+
1996 01 29	691	0.0	0.0	1999 12 12	704	0.8+	0.3+	2000 01 02	704	0.3+	0.4+
1996 01 29	691	0.0	0.1+	1999 12 12	704	0.4+	0.7+	2000 01 29	704	0.3+	0.7+

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1996 01 29	691	0.0	0.2+	1999 12 15	704	0.1−	0.2+	2000 01 29	704	0.6−	0.2+
1998 09 14	699	0.6+	1.0−	1999 12 15	704	0.6−	0.8−	2000 01 29	704	0.1−	0.1+
1998 09 14	699	0.5−	0.1+	1999 12 15	704	0.7−	0.7−	2000 01 29	704	0.4−	0.0
1998 09 14	699	0.1−	1.1+	1999 12 15	704	0.3−	1.1−	2000 01 29	704	0.7+	0.7−

1999 XQ₂₀₅ = 1993 DS = 1998 RE₅₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	324.44947		(2000.0)	P	Q
<i>n</i>	0.27348118	ω	176.42611	−0.99830068	−0.05827021
<i>a</i>	2.3506308	Ω	0.23577	+0.04930607	−0.85000275
<i>e</i>	0.1647232	<i>i</i>	8.19306	+0.03105918	−0.52354552
<i>P</i>	3.60	<i>H</i>	14.5	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1993 02 21	399	0.5−	1.2−	1998 09 26	704	0.2+	0.9−	1999 12 15	704	0.9+	0.5+
1993 02 21	399	0.7−	0.5−	1998 09 26	704	1.0−	0.4−	1999 12 15	704	0.8+	0.6+
1993 02 25	399	0.4+	0.3+	1998 09 27	704	1.1+	0.7−	1999 12 15	704	0.4+	0.1+
1993 02 25	399	(2.2+	2.5+)	1998 09 27	704	0.9+	1.8+	1999 12 15	704	0.3+	0.4+
1998 09 14	704	1.8+	1.0−	1998 09 27	704	0.5+	0.2+	1999 12 15	704	0.3+	0.1−
1998 09 14	704	1.6+	0.6−	1998 09 27	704	1.1−	0.9−	2000 01 02	704	0.0	0.7−
1998 09 14	704	0.1−	0.1+	1998 09 27	704	0.2−	0.0	2000 01 02	704	0.0	0.4−
1998 09 14	704	(2.7−	0.5+)	1999 11 16	703	0.9−	0.6+	2000 01 02	704	0.1−	0.0
1998 09 18	704	1.0−	0.3+	1999 11 16	703	1.1−	0.8+	2000 01 02	704	0.6−	0.2−
1998 09 18	704	1.0+	1.1−	1999 11 16	703	0.4−	0.3−	2000 01 02	704	0.4−	0.2+
1998 09 18	704	0.2−	1.7+	1999 11 16	703	0.6+	0.7+	2000 01 29	704	1.2−	0.4−
1998 09 18	704	1.0+	0.2+	1999 12 12	704	0.0	0.1+	2000 01 29	704	0.5+	0.0
1998 09 18	704	1.3−	0.4−	1999 12 12	704	0.3+	0.4+	2000 01 29	704	0.4+	0.4−
1998 09 26	704	0.4−	0.7+	1999 12 12	704	0.2+	0.5−	2000 01 29	704	0.6+	0.6−
1998 09 26	704	0.4+	0.9−	1999 12 12	704	0.6+	0.1+	2000 01 29	704	1.0−	0.9−
1998 09 26	704	1.7−	0.5−	1999 12 12	704	0.0	0.9+				

1999 XP₂₀₆ = 1998 RK₆₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	62.18316		(2000.0)	P	Q
<i>n</i>	0.19146244	ω	57.38945	+0.61247624	−0.79033446
<i>a</i>	2.9813548	Ω	354.75948	+0.65575898	+0.51902871
<i>e</i>	0.1089684	<i>i</i>	9.85343	+0.44142158	+0.32554668
<i>P</i>	5.15	<i>H</i>	14.0	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 09 14	704	0.6+	0.2+	1998 09 26	704	0.6−	0.7−	1999 12 15	704	0.6+	0.9+
1998 09 14	704	0.8−	0.1+	1998 09 26	704	0.0	0.5+	1999 12 15	704	0.1+	0.6−
1998 09 14	704	0.5−	0.3+	1998 09 26	704	0.7−	0.8−	1999 12 15	704	0.5+	0.1+
1998 09 15	699	0.5+	0.0	1998 09 27	704	0.5+	0.7−	2000 01 02	704	0.5−	0.1+
1998 09 15	699	0.3−	0.5−	1998 09 27	704	0.5+	0.3+	2000 01 02	704	0.1+	0.6−
1998 09 15	699	0.1−	0.6+	1998 09 27	704	(2.5−	0.7+)	2000 01 02	704	0.2+	0.9−
1998 09 18	704	0.1−	0.5−	1998 09 27	704	1.5−	1.1+	2000 01 02	704	0.9−	1.2−
1998 09 18	704	1.5+	0.0	1998 09 27	704	0.6−	0.2+	2000 01 29	704	0.2−	0.1+
1998 09 18	704	0.4−	0.9+	1999 12 12	704	0.6−	0.6+	2000 01 29	704	0.2−	0.3+
1998 09 18	704	0.8+	0.0	1999 12 12	704	0.5−	0.5−	2000 01 29	704	0.4+	0.4+
1998 09 18	704	0.9+	0.3+	1999 12 12	704	0.4−	0.2−	2000 01 29	704	0.3+	0.1+
1998 09 26	704	0.2+	0.5−	1999 12 12	704	0.1−	0.8+	2000 01 29	704	0.7+	0.9+
1998 09 26	704	0.1−	0.4−	1999 12 15	704	0.4+	0.1−				

1999 XG₂₀₇ = 1998 QA₃₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	279.92528		(2000.0)	P	Q
<i>n</i>	0.29153254	ω	216.68990	−0.89333996	+0.44900023
<i>a</i>	2.2525686	Ω	349.93912	−0.38301099	−0.78229447
<i>e</i>	0.0676466	<i>i</i>	6.08127	−0.23504531	−0.43175705
<i>P</i>	3.38	<i>H</i>	15.2	<i>G</i>	0.15
				<i>U</i>	5

Residuals in seconds of arc

1997 04 29	704	0.6+	0.3−	1998 08 23	704	0.6+	0.9+	2000 01 02	704	0.8+	0.7−
1997 04 29	704	0.7+	1.0−	1998 08 23	704	0.2−	1.2+	2000 01 29	704	0.4+	0.5+
1997 04 29	704	1.5+	0.1+	1999 12 12	704	0.1−	0.3+	2000 01 29	704	0.2−	0.4+
1997 04 29	704	0.4−	1.5+	1999 12 12	704	0.1+	0.1−	2000 01 29	704	0.2−	0.2+
1997 04 29	704	1.8−	0.4+	1999 12 12	704	0.7+	0.4−	2000 01 29	704	0.2+	0.2+
1998 08 17	704	0.4−	0.6+	1999 12 12	704	0.7+	0.3−	2000 01 30	704	0.1+	0.3−
1998 08 17	704	1.0+	0.4+	1999 12 15	704	0.6+	0.4−	2000 01 30	704	0.0	0.4+
1998 08 17	704	1.0+	0.0	1999 12 15	704	0.7+	0.6+	2000 01 30	704	0.2−	0.3+
1998 08 17	704	1.0−	0.3−	1999 12 15	704	0.1−	0.5−	2000 01 30	704	0.3−	0.8+
1998 08 17	704	0.1−	0.5−	1999 12 15	704	0.6−	0.4−	2000 01 30	704	0.6−	0.3+
1998 08 23	704	1.8−	0.6+	2000 01 02	704	1.4−	0.8+				
1998 08 23	704	0.5+	1.5−	2000 01 02	704	0.4−	0.9−				

1999 XQ₂₀₈ = 1997 UL₂₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	352.19873		(2000.0)	P	Q
<i>n</i>	0.08492421	ω	63.64249	−0.29452467	−0.94524072
<i>a</i>	5.1260367	Ω	44.25719	+0.78917460	−0.32355905
<i>e</i>	0.0518971	<i>i</i>	11.62481	+0.53894217	−0.04277291
<i>P</i>	11.61	<i>H</i>	11.8	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1997 10 26	809	0.2−	0.4−	1999 12 13	704	1.3−	0.8+	2000 01 29	704	0.4−	0.3−
1997 10 26	809	0.3+	0.1+	1999 12 13	704	0.4+	1.5+	2000 01 29	704	0.2+	0.5+
1997 10 28	809	0.1−	0.3+	1999 12 15	704	0.6+	0.4−	2000 01 29	704	0.2+	0.0
1999 12 13	704	0.5+	0.1+	1999 12 15	704	0.0	0.5−				
1999 12 13	704	0.3−	0.3−	1999 12 15	704	0.1+	1.4−				

1999 XO₂₀₉ = 1998 QO₈₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	347.54040		(2000.0)	P	Q
<i>n</i>	0.19959019	ω	180.42478	−0.66795110	−0.72506893
<i>a</i>	2.8998571	Ω	311.49520	+0.68345338	−0.50848752
<i>e</i>	0.2733074	<i>i</i>	12.93630	+0.29450433	−0.46445183
<i>P</i>	4.94	<i>H</i>	13.5	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1998 08 24	704	0.6−	1.8−	1999 11 01	704	0.6−	0.7+	2000 01 25	704	0.2−	0.6+
1998 08 24	704	0.5−	0.0	1999 12 13	704	0.2−	0.8+	2000 01 25	704	0.2−	0.7−
1998 08 24	704	1.1+	1.4+	1999 12 13	704	0.1−	0.5+	2000 01 25	704	1.2+	0.3−
1998 08 24	704	0.3−	0.8+	1999 12 13	704	0.1−	0.1+	2000 01 29	704	0.3+	0.9+
1998 08 27	704	0.6−	0.2+	1999 12 13	704	1.0+	0.4+	2000 01 29	704	0.3−	0.0
1998 08 27	704	0.4+	0.4−	1999 12 13	704	0.3−	0.0	2000 01 29	704	(0.7+	2.4+)
1998 08 27	704	(2.4−	3.5+)	1999 12 15	704	0.1−	0.7+	2000 02 04	704	0.3−	0.7−
1998 08 27	704	0.1+	0.5+	1999 12 15	704	0.1+	0.6+	2000 02 04	704	0.8+	0.3+
1998 08 27	704	(3.3−	0.1−)	1999 12 15	704	0.3−	0.6+	2000 02 04	704	0.2+	0.1−
1999 09 27	704	0.3+	1.0−	1999 12 15	704	0.7−	0.3+	2000 02 11	704	0.1−	0.3−
1999 09 27	704	0.5+	0.7−	1999 12 15	704	0.5−	0.6−	2000 02 11	704	0.2−	0.4−
1999 09 27	704	0.3+	0.4+	1999 12 30	704	0.1+	0.6−	2000 02 11	704	(0.3−	2.9−)
1999 09 27	704	0.1+	1.0−	1999 12 30	704	0.6+	0.3−	2000 02 11	704	0.5−	0.4−
1999 09 27	704	0.6−	0.5−	1999 12 30	704	0.7−	0.5−	2000 02 11	704	0.4+	0.3+
1999 11 01	704	0.1−	0.8−	1999 12 30	704	0.1+	0.2−	2000 02 11	704	0.4−	0.1+
1999 11 01	704	0.1+	0.0	1999 12 30	704	0.1+	0.1−	2000 02 11	704	0.7+	0.5+
1999 11 01	704	0.2−	0.2−	2000 01 25	704	0.6−	0.2−	2000 02 11	704	0.3−	0.0
1999 11 01	704	0.2+	0.2+	2000 01 25	704	0.2−	0.4+	2000 02 11	704	0.7+	0.3+

1999 XW₂₀₉ = 1998 RN₆₇

Id. M. E. Sansaturio

M.P.C. 38614

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	232.57987		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.18907302	ω	241.72304	-0.61507469	+0.78782254
<i>a</i>	3.0064202	Ω	350.12756	-0.64238119	-0.52417606
<i>e</i>	0.0373426	<i>i</i>	10.72882	-0.45719748	-0.32338075
<i>P</i>	5.21	<i>H</i>	13.8	<i>G</i>	0.15
				<i>U</i>	5

Residuals in seconds of arc

1998 09 14	704	0.0	0.4+	1998 09 26	704	1.1-	2.0+	1999 12 13	704	0.1+	0.7+
1998 09 14	704	1.4+	0.8-	1998 09 26	704	1.1-	0.0	1999 12 13	704	0.1+	0.3+
1998 09 14	704	3.0-	0.4+	1998 09 27	704	0.0	0.5-	1999 12 15	704	0.1+	0.0
1998 09 18	704	1.1+	0.9+	1998 09 27	704	0.5+	0.4-	1999 12 15	704	0.8+	0.1-
1998 09 18	704	1.7+	1.9-	1998 09 27	704	0.5-	0.8-	1999 12 15	704	0.4+	0.2-
1998 09 18	704	0.4-	0.7-	1998 09 27	704	0.6+	0.5+	1999 12 30	704	1.3-	0.0
1998 09 18	704	0.4-	0.5+	1998 09 27	704	0.1+	0.2+	1999 12 30	704	0.3+	0.3-
1998 09 26	704	1.3+	0.4+	1999 12 13	704	0.9-	0.6-	1999 12 30	704	0.5+	0.1+
1998 09 26	704	0.2+	0.8+	1999 12 13	704	0.1+	0.1-				
1998 09 26	704	0.6-	0.9-	1999 12 13	704	0.2-	0.2+				

1999 XL₂₁₃ = 1998 KV₅₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	102.48470		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.28144222	ω	214.78461	+0.92258040	+0.35012823
<i>a</i>	2.3060916	Ω	123.91565	-0.29458445	+0.91050831
<i>e</i>	0.1650936	<i>i</i>	11.25973	-0.24912930	+0.21996554
<i>P</i>	3.50	<i>H</i>	15.0	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1997 01 13	566	0.4+	0.7+	1998 06 04	699	1.4+	1.5-	1999 12 15	704	0.1+	0.2+
1997 01 13	566	0.2-	0.4+	1998 06 04	699	0.7+	0.2-	1999 12 15	704	0.3+	0.0
1997 01 13	566	0.0	0.1+	1998 06 04	699	0.4-	0.2+	1999 12 15	704	0.3+	0.3+
1998 05 23	704	1.0-	0.5-	1999 11 05	704	0.7+	0.1-	1999 12 15	704	0.3+	0.4+
1998 05 23	704	0.3-	1.0-	1999 11 05	704	0.9+	0.7-	1999 12 15	704	0.5+	0.0
1998 05 23	704	1.2-	0.7+	1999 11 05	704	1.2+	0.7+	2000 01 07	704	1.2-	0.6+
1998 05 23	704	1.2-	1.2+	1999 11 05	704	1.1+	0.7+	2000 01 07	704	0.4-	0.3-
1998 05 23	704	0.1+	0.2+	1999 12 05	704	0.2+	0.2-	2000 01 07	704	0.0	1.0-
1998 05 26	704	0.2+	0.3+	1999 12 05	704	0.6+	0.1+	2000 01 07	704	0.5-	0.4-
1998 05 26	704	0.2+	0.1+	1999 12 05	704	0.2+	0.1-	2000 01 07	704	0.1+	1.0-
1998 05 26	704	0.4-	0.2-	1999 12 05	704	0.6-	0.1+	2000 01 11	704	(2.2-	0.5+)
1998 06 03	704	0.0	0.1-	1999 12 14	704	0.1+	0.4-	2000 01 11	704	0.7-	0.4-
1998 06 03	704	1.8-	0.7+	1999 12 14	704	1.0-	0.0	2000 01 11	704	0.9-	1.1-
1998 06 03	704	0.9+	1.8-	1999 12 14	704	0.4-	0.0	2000 01 11	704	0.5+	0.2-
1998 06 03	704	(2.2-	1.8+)	1999 12 14	704	0.5-	0.5+	2000 01 11	704	0.1-	0.6-
1998 06 03	704	(2.8-	0.1-)	1999 12 14	704	0.0	0.0				

1999 XZ₂₁₅ = 1989 MO = 1998 QT₇₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	135.71805		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.22832864	ω	44.55022	+0.83524102	+0.51958925
<i>a</i>	2.6511184	Ω	283.33906	-0.54187911	+0.72208544
<i>e</i>	0.2037779	<i>i</i>	10.66050	-0.09348513	+0.45674898
<i>P</i>	4.32	<i>H</i>	14.0	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1989 06 29	808	0.7-	0.9+	1998 08 27	704	0.4+	0.5+	1999 12 16	691	0.0	1.1+
1989 06 29	808	0.1-	1.8+	1998 09 21	699	0.1+	0.1+	1999 12 16	691	0.1-	1.1+
1998 08 19	704	0.9+	0.3-	1998 09 21	699	0.2+	0.3-	1999 12 16	691	0.1-	0.9+
1998 08 19	704	0.0	0.2-	1998 09 21	699	0.2-	0.3-	2000 01 05	704	0.2+	0.2-
1998 08 19	704	0.5-	0.6+	1998 12 09	704	1.8+	1.7-	2000 01 05	704	0.0	0.3-
1998 08 19	704	0.5-	0.9+	1998 12 09	704	0.4-	0.7-	2000 01 05	704	0.6+	0.2-
1998 08 19	704	0.0	0.1+	1998 12 09	704	0.1+	1.8+	2000 01 05	704	0.2-	0.5-
1998 08 24	704	0.2+	0.4-	1998 12 09	704	1.3-	0.2+	2000 01 05	704	0.5+	0.6-
1998 08 24	704	0.7-	0.1+	1998 12 09	704	0.2+	1.5-	2000 02 02	704	0.6+	0.1+
1998 08 24	704	0.1-	0.7+	1999 12 08	704	0.9+	0.6+	2000 02 02	704	0.2-	0.4+

1998 08 24	704	0.4+	1.2-	1999 12 08	704	0.7-	0.1-	2000 02 02	704	1.2+	0.1+
1998 08 24	704	0.4-	0.4-	1999 12 08	704	0.4-	1.0-	2000 02 02	704	0.0	0.1+
1998 08 27	704	0.3-	0.1+	1999 12 08	704	1.0+	0.3-	2000 02 02	704	0.4+	0.4+
1998 08 27	704	0.5-	0.5+	1999 12 13	691	0.1-	0.4+	2000 02 03	704	1.4-	0.1-
1998 08 27	704	0.0	0.5+	1999 12 13	691	0.1-	0.5+	2000 02 03	704	0.4-	1.2+
1998 08 27	704	0.3+	0.8+	1999 12 13	691	0.0	0.6+	2000 02 03	704	0.3-	0.5+

1999 XZ₂₂₀ = 1998 SE₁₀₀

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	327.98308		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.28045777	ω	325.90433	-0.97365099	+0.19388663
<i>a</i>	2.3114849	Ω	225.76565	-0.15329378	-0.94621547
<i>e</i>	0.1673584	<i>i</i>	9.64545	-0.16883358	-0.25900631
<i>P</i>	3.51	<i>H</i>	14.3	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 09 26	704	0.4-	1.0-	1999 12 14	704	0.3+	0.1+	2000 01 11	704	0.6-	0.4-
1998 09 26	704	0.3-	0.0	1999 12 14	704	0.8+	0.0	2000 01 11	704	0.4-	0.2+
1998 09 26	704	(2.1+	0.1-)	1999 12 14	704	0.1-	0.1+	2000 01 11	704	0.0	0.0
1998 09 26	704	1.0+	1.2-	1999 12 14	704	1.3-	0.1-	2000 01 11	704	0.5-	1.1-
1998 09 26	704	0.1+	0.0	1999 12 16	704	1.6-	0.6-	2000 01 11	704	1.2-	0.4-
1998 09 27	704	0.4+	0.1+	1999 12 16	704	0.5+	0.5+	2000 02 08	704	0.2-	0.0
1998 09 27	704	1.4-	0.5+	1999 12 16	704	0.6+	0.0	2000 02 08	704	0.3-	0.2-
1998 09 27	704	(3.5-	0.4-)	1999 12 16	704	0.7+	0.7-	2000 02 08	704	0.3-	0.2+
1998 10 11	699	0.6+	0.2+	1999 12 16	704	0.7+	0.5-	2000 02 08	704	0.1+	0.5-
1998 10 11	699	0.4-	0.9+	2000 01 07	699	1.4+	1.0+	2000 02 08	704	0.2-	0.1-
1998 10 11	699	0.4+	0.2+	2000 01 07	699	1.5+	0.8+				
1999 12 14	704	1.1-	0.3+	2000 01 07	699	1.1+	1.1+				

1999 XC₂₂₁ = 1976 YP₄ = 1989 UZ₇ = 1998 VC₁₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	135.07949		(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.22262981	ω	124.22898	+0.98490588	-0.00327930
<i>a</i>	2.6961693	Ω	236.54376	-0.04674995	+0.95762272
<i>e</i>	0.1826588	<i>i</i>	11.97174	+0.16665787	+0.28800690
<i>P</i>	4.43	<i>H</i>	12.8	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1976 12 18	095	(5.1-	1.6+)	1999 01 11	704	0.9-	0.0	1999 12 14	704	0.1-	0.0
1976 12 20	095	0.2+	0.6-	1999 01 11	704	1.4+	1.8+	1999 12 16	704	0.8-	0.5-
1989 10 24	095	(0.9-	5.3+)	1999 01 11	704	0.8-	1.9+	1999 12 16	704	1.1-	0.7-
1989 10 24	095	0.9-	2.0+	1999 01 11	704	(1.4+	2.4+)	1999 12 16	704	0.9-	1.3-
1989 10 26	095	(0.9-	3.2+)	1999 01 11	704	0.9-	0.5+	1999 12 16	704	1.7-	0.4-
1989 10 26	095	(1.7-	3.5+)	1999 02 02	699	0.2-	1.2+	1999 12 16	704	1.0-	0.7-
1998 11 10	704	0.8+	0.4-	1999 02 02	699	0.0	0.1+	2000 01 07	699	0.9+	0.5+
1998 11 10	704	1.6+	0.5-	1999 02 02	699	0.3+	0.1+	2000 01 07	699	1.4+	0.9+
1998 11 10	704	(1.4+	2.4-)	1999 02 04	704	0.5+	0.4+	2000 01 07	699	0.6+	0.7+
1998 11 10	704	0.1+	0.9-	1999 02 04	704	0.0	0.1+	2000 01 11	704	0.3-	0.1+
1998 11 10	704	0.9-	1.0-	1999 02 04	704	0.4-	1.4+	2000 01 11	704	0.2+	0.4+
1998 11 11	704	0.4+	0.1+	1999 02 04	704	(2.2-	0.3-)	2000 01 11	704	0.4+	0.3-
1998 11 11	704	0.1-	0.5+	1999 02 04	704	0.0	1.5-	2000 01 11	704	0.1-	0.3-
1998 11 11	704	0.1+	0.9-	1999 02 20	699	0.3-	0.3-	2000 01 11	704	0.2-	0.8-
1998 11 11	704	0.0	0.4-	1999 02 20	699	0.1-	0.9+	2000 02 08	704	0.4+	0.5+
1998 11 11	704	0.5+	0.6-	1999 02 20	699	0.2-	0.2-	2000 02 08	704	0.3+	0.0
1998 12 08	699	0.4-	0.4-	1999 12 14	704	0.4-	0.3-	2000 02 08	704	0.3+	0.7+
1998 12 08	699	0.4-	0.4-	1999 12 14	704	0.4+	0.1+	2000 02 08	704	0.3+	0.5+
1998 12 08	699	0.5-	0.4-	1999 12 14	704	0.6+	0.1-	2000 02 08	704	0.1+	0.0

1999 XD₂₂₁ = 1998 VF<

M.P.C. 38615

Williams

Williams

Williams

Williams

Williams

M	243.24633		(2000.0)		P		Q
n	0.29651626	ω	324.43797		-0.31934996		+0.94226684
a	2.2272572	Ω	286.75145		-0.84328724		-0.33107031
e	0.1006986	i	6.03902		-0.43229877		-0.05025578
P	3.32	H	15.9	G	0.15	U	4
Residuals in seconds of arc							
1998 08 17	704 1.6-	0.8-	1998 09 14 704	1.8-	0.6-	1999 12 17 691	0.2+ 0.3-
1998 08 17	704 0.1-	0.1+	1998 09 14 704	0.6+	0.9-	1999 12 17 691	0.3+ 0.4-
1998 08 17	704 1.6+	0.1-	1998 09 14 704	0.9+	0.6+	2000 01 05 704	0.9+ 0.4-
1998 08 17	704 (1.1-	2.0-)	1998 09 18 704	1.0+	0.1-	2000 01 05 704	0.1+ 0.2+
1998 08 17	704 (0.2-	3.0+)	1998 09 18 704	0.9+	0.3-	2000 01 05 704	0.1- 0.1+
1998 08 27	704 1.7+	1.6+	1998 09 18 704	1.5-	0.4-	2000 01 05 704	0.3- 0.3+
1998 08 27	704 0.5-	0.1+	1998 09 18 704	0.1+	0.5-	2000 01 07 691	0.1- 0.2+
1998 08 27	704 0.8-	1.0+	1999 12 15 691	0.1+	0.1+	2000 01 07 691	0.1- 0.2+
1998 08 27	704 1.3-	0.2+	1999 12 15 691	1.0-	0.3+	2000 01 07 691	0.1- 0.2+

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1998 08 27 704 0.2+ 0.3+ 1999 12 15 691 0.2- 0.2+
1998 09 14 704 0.6+ 0.0 1999 12 17 691 0.4+ 0.4-

1999 XQ₂₂₈ = 1993 FY₃₆

Id. G. V. Williams, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	278.78153		(2000.0)	P		Q	
<i>n</i>	0.26191486	ω	146.52021	-0.77605131		+0.62973772	
<i>a</i>	2.4193347	Ω	72.54846	-0.58622627		-0.70025635	
<i>e</i>	0.1420189	<i>i</i>	2.05901	-0.23255778		-0.33626100	
<i>P</i>	3.76	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1993 03 19	809	0.1+	0.2+	2000 01 03	704	0.2-	0.3-	2000 01 30	704	0.2-	0.5+
1993 03 20	809	0.2+	0.3-	2000 01 03	704	0.3-	0.0	2000 01 30	704	0.3+	0.4-
1993 03 24	809	0.7-	0.5-	2000 01 03	704	0.6+	0.5-	2000 01 30	704	0.1-	0.3+
1993 04 21	413	0.3+	0.4+	2000 01 03	704	0.2-	0.2-	2000 01 31	704	0.0	0.6-
1999 12 14	691	1.5+	0.2+	2000 01 04	704	0.3+	1.5+	2000 01 31	704	0.1+	0.1-
1999 12 14	691	0.4-	0.8-	2000 01 04	704	0.6-	0.0	2000 01 31	704	0.6-	0.6-
1999 12 14	691	0.1-	0.4-	2000 01 04	704	0.1+	0.5+	2000 02 11	704	0.1+	0.1-
1999 12 18	691	0.3+	0.3-	2000 01 04	704	1.1-	0.6+	2000 02 11	704	0.4-	0.1+
1999 12 18	691	0.1-	0.8-	2000 01 04	704	0.9-	0.6+	2000 02 11	704	0.6+	0.2-
1999 12 18	691	0.5+	0.4-	2000 01 30	704	0.3+	0.3+	2000 02 11	704	0.3-	0.5+
2000 01 03	704	0.4+	0.2-	2000 01 30	704	0.2+	0.2-	2000 02 11	704	0.0	0.9+

1999 XH₂₂₉ = 1993 RX₁₆ = 1998 QH₄₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>	330.26621		(2000.0)	P		Q	
<i>n</i>	0.19137456	ω	313.74321	-0.69517990		-0.71883421	
<i>a</i>	2.9822673	Ω	180.31071	+0.71320037		-0.68946574	
<i>e</i>	0.1592884	<i>i</i>	16.17670	+0.08983393		-0.08896271	
<i>P</i>	5.15	<i>H</i>	13.3	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1993 09 15	809	(3.9+ 0.6-)	1999 10 31	703	0.2+	0.8+	1999 12 16	699	1.1+	1.1+
1993 09 15	809	1.7+ 1.7-	1999 12 03	704	1.0-	0.4+	1999 12 16	699	0.8+	1.3+
1993 09 15	809	(1.5+ 2.5-)	1999 12 03	704	1.2-	0.0	2000 01 07	699	0.8+	0.4-
1993 09 22	809	0.4- 0.1+	1999 12 03	704	1.0-	0.6+	2000 01 07	699	0.6+	0.3-
1993 09 22	809	0.0 0.2-	1999 12 03	704	0.5-	0.1+	2000 01 07	699	0.2+	0.4-
1993 09 22	809	1.0- 1.2-	1999 12 03	704	0.6-	0.5+	2000 01 08	699	0.2+	0.2+
1998 08 17	704	0.4- 0.6+	1999 12 08	699	0.4-	0.6+	2000 01 08	699	0.7+	0.0
1998 08 17	704	0.4- 1.1-	1999 12 08	699	0.9+	0.9+	2000 01 08	699	(4.2+ 1.7-)	
1998 08 17	704	0.5+ 1.1+	1999 12 08	699	0.3+	0.1+	2000 01 09	704	0.4+	0.8-
1998 08 17	704	0.0 0.1-	1999 12 14	703	0.3-	0.9+	2000 01 09	704	0.5+	1.7-
1998 08 17	704	1.0- 1.7+	1999 12 14	703	0.8+	0.3+	2000 01 09	704	(0.5+ 2.3-)	
1998 08 23	704	1.9+ 0.8+	1999 12 14	703	0.0	0.3+	2000 01 09	704	(0.1- 3.1-)	
1998 08 23	704	1.1- 0.4-	1999 12 14	703	0.2-	0.7-	2000 02 06	704	0.7+	1.0-
1998 08 23	704	0.6+ 1.8-	1999 12 16	704	1.3-	0.6-	2000 02 06	704	1.0+	0.4-
1998 08 23	704	0.2- 0.7+	1999 12 16	704	1.3-	0.2-	2000 02 06	704	0.6+	1.2-
1999 10 31	703	0.2+ 0.2-	1999 12 16	704	0.9-	0.3-	2000 02 06	704	0.7+	0.9-
1999 10 31	703	0.2- 0.1+	1999 12 16	704	0.8-	0.4-	2000 02 06	704	0.4+	0.6-
1999 10 31	703	0.1- 0.9+	1999 12 16	699	0.4-	1.2+				

1999 XJ₂₃₀ = 1998 HS₉₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	79.77796		(2000.0)	P		Q	
<i>n</i>	0.29987050	ω	350.54201	+0.98169827		+0.19042912	
<i>a</i>	2.2106172	Ω	358.47448	-0.16862077		+0.86355492	
<i>e</i>	0.1029721	<i>i</i>	4.93661	-0.08851855		+0.46691504	
<i>P</i>	3.29	<i>H</i>	15.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 04 21	704	(1.0- 2.2+)	1999 10 03	704	1.4+	0.5-	1999 11 11	703	0.2-	0.1+	
1998 04 21	704	0.1+	0.2-	1999 10 03	704	0.6-	0.7+	1999 11 11	703	0.2+	0.4+

1998 04 21	704	0.2-	0.2+	1999 10 03	704	0.4-	1.1-	1999 11 14	703	0.3+	0.4-
1998 04 21	704	(1.5-	3.4+)	1999 10 03	704	0.7+	0.4-	1999 11 14	703	0.3+	0.1+
1998 04 21	704	0.3+	1.0+	1999 10 03	704	0.0	0.3-	1999 11 14	703	0.1+	0.0
1998 04 22	704	0.2+	0.1+	1999 11 03	704	(3.2-	0.2+)	1999 11 14	703	0.6-	0.7+
1998 04 22	704	0.2+	0.8-	1999 11 03	704	0.4-	0.4+	1999 12 07	699	0.3+	0.2+
1998 04 22	704	0.5+	1.2-	1999 11 03	704	0.7-	0.3-	1999 12 07	699	0.0	1.7+
1998 04 22	704	0.5-	1.8-	1999 11 03	704	0.0	1.3-	1999 12 07	699	0.4+	0.6+
1998 05 01	704	0.7+	0.6-	1999 11 09	699	0.3-	0.0	1999 12 08	704	1.1+	0.7-
1998 05 01	704	1.6+	0.6-	1999 11 09	699	1.8-	0.5+	1999 12 08	704	0.4-	0.4+
1998 05 01	704	0.8-	0.5+	1999 11 09	699	0.7+	0.0	1999 12 08	704	0.1-	1.5-
1998 05 01	704	1.3-	0.5+	1999 11 11	703	0.4+	0.2+	1999 12 08	704	0.4+	0.8-
1998 05 01	704	1.2-	1.6+	1999 11 11	703	0.1-	1.0+	1999 12 08	704	0.1-	0.8-

1999 YY₂ = 1996 TV₄₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>	119.06585		(2000.0)	P		Q	
<i>n</i>	0.08263236	ω	167.12045	+0.94673333		+0.31962968	
<i>a</i>	5.2203860	Ω	173.80503	-0.31814644		+0.94720818	
<i>e</i>	0.1518447	<i>i</i>	21.27304	-0.04978803		+0.02517000	
<i>P</i>	11.93	<i>H</i>	10.4	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1996 10 07	809	0.2+	0.7-	1998 12 19	704	0.3-	0.9+	1999 12 19	704	0.1-	0.0
1996 10 07	809	0.2+	0.6-	1998 12 19	704	0.0	0.8+	1999 12 19	704	0.8-	0.8+
1996 10 07	809	0.0	0.2-	1998 12 19	704	0.9+	0.6+	2000 01 09	704	0.8-	0.3-
1996 10 08	809	0.4+	0.6-	1998 12 19	704	0.2+	0.2+	2000 01 09	704	0.4-	1.1-
1996 10 08	809	0.1-	0.8-	1999 12 16	704	0.6+	0.8-	2000 01 09	704	0.1-	1.4-
1996 10 08	809	0.9+	0.4-	1999 12 16	704	0.1-	0.4-	2000 02 05	704	0.6+	0.0
1996 10 10	809	0.4-	0.3+	1999 12 16	704	0.7+	0.5-	2000 02 05	704	0.3-	0.7+
1996 10 10	809	0.0	0.5+	1999 12 16	704	0.3-	0.4-	2000 02 05	704	0.2+	0.0
1996 10 10	809	1.1-	0.3-	1999 12 16	704	0.1-	0.6-	2000 02 06	704	(2.2+	1.3+)
1996 10 12	809	(2.3-	0.1-)	1999 12 18	704	0.3-	0.6+	2000 02 06	704	1.3+	0.4+
1997 11 19	327	0.1-	0.9+	1999 12 18	704	0.2-	0.3-	2000 02 06	704	0.4+	0.5+
1997 11 19	327	0.0	0.8+	1999 12 18	704	0.3+	0.5-	2000 02 06	704	0.2+	0.1+
1997 11 19	327	0.3-	0.2-	1999 12 18	704	0.5-	0.4-				
1998 12 19	704	0.5-	0.9+	1999 12 19	704	0.1-	1.0-				

1999 YS₄ = 1995 WN₃₇

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	270.12384		(2000.0)	P		Q	
<i>n</i>	0.27076044	ω	115.36816	-0.83076560		+0.54725027	
<i>a</i>	2.3663514	Ω	97.96415	-0.54045753		-0.74933918	
<i>e</i>	0.0690021	<i>i</i>	5.89491	-0.13316976		-0.37283767	
<i>P</i>	3.64	<i>H</i>	15.6	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1995 11 22	691	0.2+	0.2+	1999 12 28	734	0.3-	0.4-	2000 01 03	704	0.4+	0.1-
1995 11 22	691	0.2+	0.3+	1999 12 28	734	0.4-	0.3+	2000 01 03	704	0.4+	0.1+
1995 11 22	691	0.1+	0.3+	1999 12 29	734	1.3+	1.1-	2000 01 03	704	1.0+	0.1-
1995 11 30	691	0.3-	0.4-	1999 12 29	734	0.6+	1.0-	2000 01 04	704	0.4+	0.6-
1995 11 30	691	0.2+	0.2-	1999 12 29	734	0.0	1.1+	2000 01 04	704	0.0	0.8+
1995 11 30	691	0.4-	0.3-	1999 12 31	734	0.1-	0.1+	2000 01 04	704	0.1-	0.7+
1999 12 28	734	1.0-	1.0+	1999 12 31	734	0.2-	0.1+	2000 01 04	704	0.1+	0.5+
1999 12 28	734	1.4-	0.3-	1999 12 31	734	0.0	0.5-	2000 01 08	734	0.1+	1.2-
1999 12 28	734	0.2-	0.4+	2000 01 03	704	0.1+	0.6+	2000 01 08	734	0.4-	0.2-
1999 12 28	734	0.2-	0.3-	2000 01 03	704	0.1-	0.3+				

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1999 YC₆ = 1999 OX₂ = 1992 AB₅ = 1992 BP₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	13.91937		(2000.0)		P		Q
<i>n</i>	0.23051990	ω	96.80583		+0.45033123		-0.84891705
<i>a</i>	2.6342911	Ω	322.14522		+0.53071332		+0.50368117
<i>e</i>	0.2259281	<i>i</i>	26.79739		+0.71801473		+0.16014094
<i>P</i>	4.28	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1992 01 03	033	0.7-	0.5+	1999 07 23	704	0.1-	0.0	1999 12 30	704	0.5+	0.2+
1992 01 03	033	0.9+	1.5+	1999 09 24	704	1.0-	0.9+	1999 12 30	704	0.4+	0.0
1992 01 27	691	0.1+	0.5-	1999 09 24	704	0.2+	0.1-	1999 12 30	704	0.7-	0.9+
1992 01 27	691	0.1+	0.8-	1999 09 24	704	0.2+	0.2+	1999 12 30	704	1.2+	0.4-
1992 01 27	691	0.1-	0.5-	1999 09 24	704	0.4+	0.5+	1999 12 31	704	0.5+	0.1+
1992 02 05	691	0.1+	0.1+	1999 09 24	704	0.8+	0.6+	1999 12 31	704	0.3+	0.3+
1992 02 05	691	0.2-	0.1+	1999 10 30	704	0.5-	0.1-	1999 12 31	704	0.8+	0.7-
1992 02 05	691	0.3+	0.0	1999 10 30	704	0.2-	0.2-	1999 12 31	704	0.1+	0.5+
1999 07 22	704	0.2+	0.4-	1999 10 30	704	0.7-	0.0	1999 12 31	704	0.3+	0.1-
1999 07 22	704	0.4+	0.6+	1999 10 30	704	0.6-	0.2-	2000 01 27	704	0.4-	0.8+
1999 07 22	704	0.1+	0.2-	1999 10 30	704	1.0-	0.5-	2000 01 27	704	0.9-	0.4-
1999 07 22	704	0.1+	0.2-	1999 12 17	704	0.4+	0.3+	2000 01 27	704	0.2-	0.1+
1999 07 23	704	0.0	0.1-	1999 12 17	704	0.1-	0.6-	2000 01 27	704	0.2+	0.2-
1999 07 23	704	0.5+	0.1-	1999 12 17	704	0.3+	0.4-				
1999 07 23	704	0.2-	0.0	1999 12 17	704	0.0	0.9-				

1999 YX₇ = 1995 UL₂₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	70.82140		(2000.0)		P		Q
<i>n</i>	0.26538116	ω	142.35892		+0.97494500		-0.22229980
<i>a</i>	2.3982217	Ω	230.48719		+0.20146671		+0.89778560
<i>e</i>	0.1824614	<i>i</i>	0.59896		+0.09430485		+0.38021549
<i>P</i>	3.71	<i>H</i>	17.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1995 10 19	691	0.1-	0.0	1995 10 28	691	0.0	0.1-	1999 12 31	691	0.1+	0.2+
1995 10 19	691	0.1+	0.1-	1999 12 27	691	0.0	0.1-	1999 12 31	691	0.1-	0.2+
1995 10 28	691	0.1-	0.1+	1999 12 27	691	0.0	0.3-	1999 12 31	691	0.0	0.2+
1995 10 28	691	0.1+	0.1+	1999 12 27	691	0.0	0.1-				

1999 YB₈ = 1998 QX₁₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	282.07683		(2000.0)		P		Q
<i>n</i>	0.29213272	ω	293.95023		-0.97320073		+0.22639341
<i>a</i>	2.2494823	Ω	259.15438		-0.19322643		-0.90016005
<i>e</i>	0.0971371	<i>i</i>	2.35332		-0.12467510		-0.37209932
<i>P</i>	3.37	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 17	704	0.3+	1.0-	1999 11 16	704	0.1+	0.1+	1999 12 31	691	0.5+	0.3-
1998 08 17	704	1.4+	0.3+	1999 11 16	704	0.2+	0.0	2000 01 03	704	1.2+	0.3+
1998 08 17	704	0.1-	0.8+	1999 11 16	704	0.3+	0.3+	2000 01 03	704	0.3+	0.2+
1998 08 17	704	0.3-	1.1+	1999 11 16	704	0.1-	0.0	2000 01 03	704	0.4+	1.7+
1998 08 17	704	0.3+	0.1+	1999 11 16	704	0.0	0.3-	2000 01 03	704	(2.4+	0.5+)
1998 08 19	566	0.5-	0.5-	1999 12 10	704	0.2+	0.4+	2000 01 05	704	0.4+	0.4-
1998 08 19	566	0.3-	0.3-	1999 12 10	704	0.6-	0.0	2000 01 05	704	0.3+	0.1+
1998 08 19	566	1.0-	0.1-	1999 12 10	704	0.1+	0.6+	2000 01 05	704	0.5+	0.0
1998 08 23	704	0.7-	1.6-	1999 12 27	691	0.9-	0.3-	2000 01 05	704	0.6+	0.2-
1998 08 23	704	0.3-	0.6+	1999 12 27	691	0.9-	0.5-	2000 01 05	704	0.2+	0.6-
1998 08 23	704	1.5+	0.5+	1999 12 27	691	1.1-	0.4-	2000 01 07	691	0.2-	0.0
1998 08 23	704	0.3-	0.1-	1999 12 31	691	0.6+	0.3-	2000 01 07	691	1.6-	0.9+
1998 08 23	704	(2.9-	1.3-)	1999 12 31	691	0.1-	1.6-	2000 01 07	691	0.3-	0.1+

1999 YD₈ = 1997 EQ₃₃ = 1998 QC₅₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	204.06248		(2000.0)		P		Q
<i>n</i>	0.30153067	ω	179.86258		+0.25399904		+0.96304215
<i>a</i>	2.2024956	Ω	104.85111		-0.88748120		+0.26890368
<i>e</i>	0.1783809	<i>i</i>	5.32079		-0.38452777		+0.01551207
<i>P</i>	3.27	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1997 03 04	704	1.2-	0.9-	1998 08 28	699	0.2+	0.3-	2000 01 04	704	0.0	0.4-
1997 03 04	704	0.6-	0.8-	1998 08 28	699	0.2-	0.5+	2000 01 04	704	0.5-	0.5-
1997 03 05	704	0.1+	0.3-	1999 12 27	691	0.2-	0.0	2000 01 30	704	0.3-	0.1-
1997 03 05	704	0.4+	0.4-	1999 12 27	691	0.1+	0.1-	2000 01 30	704	0.1-	1.9+
1997 03 06	704	0.4+	0.1-	1999 12 27	691	0.2-	0.1-	2000 01 30	704	0.4+	0.4+
1997 03 06	704	0.8+	1.7+	1999 12 31	691	0.1-	0.1+	2000 01 30	704	0.7+	0.1+
1998 08 19	699	0.2+	0.1+	1999 12 31	691	0.1-	0.1+	2000 01 31	704	0.1-	0.2+
1998 08 19	699	0.1-	0.1+	1999 12 31	691	0.1-	0.1+	2000 01 31	704	0.3-	0.1+
1998 08 19	699	0.3+	0.1-	2000 01 04	704	0.6+	0.8-	2000 01 31	704	0.1+	0.3-
1998 08 28	699	0.3-	0.5-	2000 01 04	704	0.0	0.2-				

1999 YT₈ = 1998 RU₄₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	93.46843		(2000.0)		P		Q
<i>n</i>	0.18399249	ω	44.75307		+0.99441912		-0.02230516
<i>a</i>	3.0615121	Ω	316.21061		-0.03150666		+0.87000850
<i>e</i>	0.1069777	<i>i</i>	8.56961		+0.10068736		+0.49253192
<i>P</i>	5.36	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 14	704	0.8+	1.1-	1999 12 30	684	0.4+	0.0	2000 01 04	704	0.9-	0.3+
1998 09 14	704	0.3-	0.9-	1999 12 31	684	0.3-	0.2-	2000 01 04	704	0.6-	0.0
1998 09 14	704	0.3+	0.5-	1999 12 31	684	0.1+	0.4+	2000 01 07	739	1.4+	1.7-
1998 09 14	704	0.4+	1.1-	1999 12 31	849	0.0	1.3+	2000 01 07	739	1.6+	1.0-
1998 09 18	704	0.2+	0.7+	1999 12 31	849	0.4+	0.5+	2000 01 07	739	0.1-	0.2-
1998 09 18	704	0.1+	0.8+	1999 12 31	849	0.7+	1.4+	2000 01 11	695	0.5-	0.5-
1998 09 18	704	0.6-	0.3+	1999 12 31	849	0.5+	1.6+	2000 01 11	695	0.3-	0.1+
1998 09 18	704	1.5-	1.0+	1999 12 31	849	0.8+	1.4+	2000 01 12	649	1.3-	1.8-
1998 09 18	704	0.5-	0.0	2000 01 01	849	(2.5-	0.6+)	2000 01 12	649	1.2-	1.0-
1998 10 15	699	0.0	0.8+	2000 01 01	849	0.5+	0.2+	2000 01 12	649	(4.3+	3.9-)
1998 10 15	699	0.9+	0.1+	2000 01 01	849	0.8+	0.2+	2000 01 29	704	0.4-	0.4+
1998 10 15	699	0.3+	0.0	2000 01 01	849	1.4-	0.5+	2000 01 29	704	0.9+	0.3+
1999 12 12	704	0.4-	0.4-	2000 01 02	704	0.3-	0.2-	2000 01 29	704	0.5-	0.1+
1999 12 12	704	0.4-	0.1+	2000 01 02	704	0.2+	0.1-	2000 01 29	704	(2.3+	1.2-)
1999 12 12	704	0.1+	0.1-	2000 01 02	704	0.2-	0.5+	2000 01 30	704	0.2+	0.1+
1999 12 12	704	0.1+	0.1+	2000 01 02	704	0.8+	0.2+	2000 01 30	704	0.4+	0.3-
1999 12 12	704	0.1-	0.6-	2000 01 02	704	0.5+	0.6-	2000 01 30	704	0.2-	0.0
1999 12 12	704	0.3+	0.2-	2000 01 03	849	0.7-	1.0+	2000 01 30	704	0.1-	0.2+
1999 12 12	704	0.4-	0.6-	2000 01 03	849	(1.1+	2.6+)	2000 02 02	704	0.6+	0.8-
1999 12 12	704	1.0+	0.1+	2000 01 03	849	0.1+	0.0	2000 02 02	704	0.5+	0.3-
1999 12 12	704	0.5-	0.3-	2000 01 03	849	1.5-	0.5+	2000 02 02	704	0.5-	0.0
1999 12 12	704	0.7+	0.1+	2000 01 04	704	0.4-	0.5-	2000 02 02	704	0.2-	0.3+
1999 12 30	684	0.5+	0.2-	2000 01 04	704	0.6-	0.5-				

1999 YD₉ = 1998 OL₁₀

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	102.97634		(2000.0)		P		Q
<i>n</i>	0.23373008	ω	64.78783		+0.99866070		+0.02430607
<i>a</i>	2.6101150	Ω	293.79155		-0.04112705		+0.90854589
<i>e</i>	0.1068694	<i>i</i>	2.86109		+0.03139058		+0.41707743
<i>P</i>	4.22	<i>H</i>	15.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 07 26	809	0.1−	0.4−	1998 08 17	704	0.2+	0.2−	2000 01 04	704	0.5−	0.7+
1998 07 26	809	1.2−	1.5−	1999 12 29	734	0.8−	0.1−	2000 01 04	704	0.5+	0.5+
1998 07 26	809	1.6−	0.8−	1999 12 29	734	1.1−	0.1−	2000 01 04	704	1.1+	1.1+
1998 07 27	809	1.6+	0.4+	1999 12 29	734	1.1−	0.1−	2000 01 14	734	0.8−	0.6−
1998 07 27	809	1.7+	0.5+	1999 12 31	734	0.2+	0.1−	2000 01 14	734	0.4+	0.5−
1998 07 27	809	1.0+	0.6−	1999 12 31	734	1.4+	0.1+	2000 01 14	734	0.1+	0.1−
1998 08 17	704	0.7−	0.2−	2000 01 03	734	0.3+	0.1+	2000 02 05	734	0.1+	0.5+
1998 08 17	704	1.7−	0.7+	2000 01 03	734	0.0	0.3+	2000 02 05	734	0.0	1.5−
1998 08 17	704	0.1+	1.5+	2000 01 04	704	0.0	1.4−	2000 02 05	734	0.2+	0.0
1998 08 17	704	0.9+	0.1+	2000 01 04	704	0.0	0.6+				

1999 YF₉ = 1992 DF₉

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		Williams		<i>P</i>		<i>Q</i>	
<i>n</i>	182.41185	<i>ω</i>	3.86558	+0.63032457	+0.76508638				
<i>a</i>	2.5960869	<i>Ω</i>	305.26168	−0.71652454	+0.50806491				
<i>e</i>	0.1122693	<i>i</i>	9.27898	−0.29880348	+0.39561709				
<i>P</i>	4.18	<i>H</i>	13.3	<i>G</i>	0.15	<i>U</i>	3		

Residuals in seconds of arc

1992 02 29	809	0.3−	0.8−	1999 12 15	703	0.1+	1.0+	2000 01 28	691	0.2+	0.6+
1992 03 03	809(20.5−	2.3−)		1999 12 31	120	0.4+	0.5−	2000 01 28	691	0.0	0.6+
1992 03 05	809	0.0	0.4+	1999 12 31	120	0.3−	0.1−	2000 01 28	691	0.1+	0.4+
1998 08 29	704	(0.2+	2.7−)	2000 01 01	120	0.2+	0.0	2000 01 30	704	0.0	0.4+
1998 08 29	704	1.7+	0.6−	2000 01 01	120	0.1−	0.2+	2000 01 30	704	0.2−	1.3+
1998 08 29	704	0.2+	1.5−	2000 01 02	120	(7.5−	0.4−)	2000 01 30	704	1.2+	1.5+
1998 08 29	704	0.7−	0.8+	2000 01 02	120	0.0	0.5−	2000 02 02	704	0.1+	0.2+
1998 08 29	704	0.5−	1.1+	2000 01 02	120	1.4−	0.8−	2000 02 02	704	0.7+	0.3+
1998 09 20	699	0.1+	0.5+	2000 01 04	120	0.2+	0.4−	2000 02 02	704	(3.2+	1.0+)
1998 09 20	699	0.3+	0.5+	2000 01 04	120	0.6−	0.6−	2000 02 02	704	0.2+	0.3+
1998 09 20	699	0.1+	0.5+	2000 01 04	704	0.6−	0.5−	2000 02 03	704	0.3+	0.3−
1998 10 29	699	0.2+	0.2−	2000 01 04	704	0.3−	0.3−	2000 02 03	704	0.3+	0.2+
1998 10 29	699	0.2+	0.1−	2000 01 04	704	0.8−	0.3−	2000 02 03	704	0.0	0.4+
1998 10 29	699	0.9−	0.2−	2000 01 04	704	0.2−	0.6−	2000 02 03	704	0.4+	0.9+
1999 01 08	704	0.3+	0.5−	2000 01 04	704	1.3−	0.8−	2000 02 03	704	0.5+	0.0
1999 01 08	704	0.9−	1.0+	2000 01 06	704	0.6−	0.2−	2000 02 08	049	0.7+	0.6−
1999 01 08	704	0.2−	1.8−	2000 01 06	704	0.3−	0.2−	2000 02 08	049	0.6+	0.7−
1999 01 08	704	(3.7−	0.1−)	2000 01 06	704	0.8−	0.4−	2000 02 08	049	0.8+	0.9−
1999 11 16	704	0.3+	0.3−	2000 01 06	704	0.5−	0.4−	2000 02 09	049	0.8+	0.1−
1999 11 16	704	0.3+	0.5−	2000 01 16	120	0.1+	0.0	2000 02 09	049	0.8+	0.0
1999 11 16	704	0.2+	0.4+	2000 01 16	120	1.2−	0.4+	2000 02 09	049	0.7+	0.2+
1999 11 16	704	1.0+	0.4+	2000 01 16	120	0.7−	0.4−	2000 02 12	691	0.3−	0.2−
1999 12 15	703	0.0	0.2+	2000 01 27	691	0.6+	0.2−	2000 02 12	691	0.4−	0.2−
1999 12 15	703	0.8−	1.1+	2000 01 27	691	0.7+	0.0	2000 02 12	691	0.6−	0.2−
1999 12 15	703	0.7−	1.4+	2000 01 27	691	0.7+	0.0				

1999 YO₉ = 1998 MU₃₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		Williams		<i>P</i>		<i>Q</i>	
<i>n</i>	91.48716	<i>ω</i>	14.00076	+0.89338725	−0.44891693				
<i>a</i>	2.2945678	<i>Ω</i>	12.72056	+0.40382977	+0.78453731				
<i>e</i>	0.1360531	<i>i</i>	4.75230	+0.19692824	+0.42775553				
<i>P</i>	3.48	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	4		

Residuals in seconds of arc

1998 06 24	704	1.4+	0.3−	2000 01 03	704	0.1−	0.0	2000 01 10	411	0.3+	0.6−
1998 06 24	704	0.2−	0.1+	2000 01 03	704	0.1−	0.3+	2000 01 10	411	0.8+	0.4+
1998 06 24	704	0.9−	0.2−	2000 01 03	704	0.9−	0.5−	2000 01 28	411	0.4−	0.6−
1998 06 24	704	0.4−	0.2−	2000 01 03	704	0.7−	0.5+	2000 01 28	411	0.2−	0.6−
1998 06 24	704	0.3−	0.2−	2000 01 03	704	0.1+	1.0+	2000 01 30	704	0.0	0.0
1998 06 26	704	0.3+	0.2+	2000 01 04	704	0.1−	0.1+	2000 01 30	704	0.0	0.1−
1998 06 26	704	(2.7−	0.4+)	2000 01 04	704	0.3−	0.2−	2000 01 30	704	0.4+	0.1−
1998 06 26	704	(1.1+	2.6+)	2000 01 04	704	0.2+	0.0	2000 01 30	704	0.6+	0.9+
1998 06 26	704	0.1+	0.5+	2000 01 04	704	0.4+	0.1+	2000 01 30	704	0.7+	0.5+

1999 12 31	411	0.2−	0.3−	2000 01 04	704	0.3+	0.2−	2000 02 11	704	0.1−	0.1+
1999 12 31	411	1.2−	1.3−	2000 01 06	699	0.2+	0.3+	2000 02 11	704	0.3+	0.0
2000 01 01	411	1.5+	0.1+	2000 01 06	699	0.1+	0.2+	2000 02 11	704	0.2−	0.2−
2000 01 01	411	0.2−	0.4−	2000 01 06	699	0.6−	0.6+	2000 02 11	704	0.8−	0.2−

1999 YP₉ = 1987 YW₄ = 1998 RV₃₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	143.37923	<i>ω</i>	336.57959	+0.93378493	+0.35778009		
<i>a</i>	2.4604125	<i>Ω</i>	2.48205	−0.30122003	+0.79536169		
<i>e</i>	0.1412005	<i>i</i>	8.30405	−0.19316366	+0.48927823		
<i>P</i>	3.86	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1987 12 23	010	0.2−	1.5−	1998 09 18	704	0.1+	0.6−	2000 01 03	704	0.4−	0.6−
1987 12 23	010	0.2+	2.0+	1998 09 18	704	0.1+	0.5−	2000 01 03	704	0.2−	0.6−
1998 09 14	704	0.1−	0.6+	1999 12 31	411	1.3−	0.3+	2000 01 06	699	1.0+	0.6+
1998 09 14	704	0.3−	0.9+	1999 12 31	411	0.5−	0.6+	2000 01 06	699	1.1+	1.2+
1998 09 14	704	0.1−	0.3−	2000 01 01	411	0.4−	0.5−	2000 01 06	699	0.6+	1.1+
1998 09 14	704	0.2−	0.1−	2000 01 01	411	0.4+	0.5+	2000 01 10	411	0.8−	0.4−
1998 09 18	704	0.0	0.4−	2000 01 03	704	0.7−	0.8−	2000 01 10	411	0.5+	0.5−
1998 09 18	704	0.2+	0.1+	2000 01 03	704	0.0	0.7−	2000 01 28	411	(2.5−	0.7+)
1998 09 18	704	0.4+	0.0	2000 01 03	704	0.4+	0.3−	2000 01 28	411	0.1+	0.5−

1999 YU₉ = 1995 EQ₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	128.61558	<i>ω</i>	14.33118	+0.99690202	+0.02903913		
<i>a</i>	3.0862624	<i>Ω</i>	343.47418	−0.06774794	+0.78915118		
<i>e</i>	0.0555698	<i>i</i>	14.89076	+0.03995715	+0.61351214		
<i>P</i>	5.42	<i>H</i>	12.6	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1995 03 04	033	0.2−	0.2−	1998 12 24	699	0.1−	0.6+	2000 01 02	704	0.2−	0.2−
1995 03 04	033	0.0	0.5+	1998 12 24	699	0.1+	0.7+	2000 01 02	704	0.0	0.3−
1995 03 23	033	0.3−	0.4−	1999 01 09	699	1.0−	0.5+	2000 01 02	704	0.2+	0.6−
1995 03 23	033	0.1+	0.5−	1999 01 09	699	0.5−	0.9−	2000 01 02	704	0.3+	0.5−
1997 08 02	566	0.0	0.1+	1999 01 09	699	0.3+	0.4−	2000 01 10	699	0.1+	0.1+
1997 08 02	566	0.1+	0.1+	1999 11 09	703	0.8+	0.8+	2000 01 10	699	0.7+	0.3+
1997 08 02	566	0.4−	0.3+	1999 11 09	703	0.7+	1.3+	2000 01 10	699	0.6+	0.3+
1998 11 14	704	0.2−	0.1+	1999 11 09	703	0.8+	0.1−	2000 01 10	411	0.1−	0.2−
1998 11 14	704	0.2+	0.7+	1999 11 09	703	0.4+	0.8+	2000 01 10	411	1.4−	0.8−
1998 11 14	704	0.2+	0.0	1999 12 15	704	1.0+	0.6−	2000 01 28	411	0.6−	1.4+
1998 11 14	704	0.3−	0.0	1999 12 15	704	0.2+	0.2−	2000 01 28	411	0.1+	0.8+
1998 11 14	704	(1.4+	2.7−)	1999 12 15	704	1.6+	0.1−	2000 01 29	704	0.0	0.2+
1998 11 16	704	0.0	0.1+	1999 12 15	704	1.6−	0.9−	2000 01 29	704	0.0	0.6+
1998 11 16	704	0.2+	0.4−	1999 12 31	411	0.4−	0.2−	2000 01 29	704	0.2+	0.4+
1998 11 16	704	0.2+	0.4−	1999 12 31	411	1.2−	0.1−	2000 01 29	704	0.1+	0.1+
1998 11 16	704	0.3+	0.8−	2000 01 01	411	0.4−	0.3+	2000 01 29	704	0.2−	0.2+
1998 11 16	704	0.6+	0.6−	2000 01 01	411	0.5−	1.0−				
1998 12 24	699	(3.6+	1.0−)	2000 01 02	704	0.1+	0.3−				

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1998 08 17	704	0.1+	1.1+	2000 01 02	691	0.4−	0.2−	2000 01 06	704	0.7−	0.3−
1998 08 17	704	0.7−	1.6+	2000 01 02	691	0.1−	0.0	2000 01 06	704	0.2+	1.2−
1998 08 23	704	0.1+	0.5+	2000 01 02	691	0.2−	0.0	2000 01 11	691	0.3+	0.1−
1998 08 23	704	(1.8−	2.6+)	2000 01 05	704	0.7+	1.1+	2000 01 11	691	0.2+	0.0
1998 08 23	704	0.5+	1.4−	2000 01 05	704	0.7+	0.8+	2000 01 11	691	0.2+	0.1−
1998 08 23	704	1.1−	1.2−	2000 01 05	704	0.3+	0.7+				
1998 08 23	704	0.1+	1.4−	2000 01 05	704	1.0+	0.3+				

1999 YN₁₂ = 1998 WW₂₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	42.49196		(2000.0)		P	Q	
n	0.08500692	ω	347.44279		+0.62084126	−0.78205313	
a	5.1227112	Ω	64.15355		+0.72436523	+0.54579824	
e	0.0963836	i	3.45940		+0.29975180	+0.30082750	
P	11.59	H	11.8	G	0.15	U	3

Residuals in seconds of arc

1997 10 26	809	0.0	0.1−	1998 11 21	704	0.3+	1.0+	2000 01 03	704	1.3−	0.1−
1997 10 26	809	1.5−	1.5−	1998 11 21	704	0.4−	0.4+	2000 01 03	704	0.5−	0.4−
1997 10 30	704	0.2−	0.3−	1998 11 21	704	(1.6−	2.5+)	2000 01 03	704	0.9−	0.4+
1997 10 30	704	0.0	1.8+	1998 11 21	704	(2.3−	3.3+)	2000 01 03	704	0.5+	0.9−
1997 10 30	704	2.0+	0.1−	1999 11 16	704	0.3+	1.0−	2000 01 06	104	0.3−	0.1−
1997 10 30	704	0.1+	0.4−	1999 11 16	704	0.6+	0.2−	2000 01 06	104	0.5−	0.2−
1998 10 18	699	0.3+	0.4−	1999 11 16	704	0.4−	0.4−	2000 01 15	104	0.3+	0.3+
1998 10 18	699	0.8+	1.8−	1999 11 16	704	0.3+	0.1−	2000 01 16	104	0.5−	0.0
1998 10 18	699	0.2+	0.0	1999 11 16	704	0.0	0.7−	2000 01 16	104	0.2−	0.5+
1998 11 18	704	1.1+	0.5+	1999 12 30	104	(2.1+	0.5+)	2000 02 03	104	0.6+	0.4+
1998 11 18	704	1.3−	0.6+	1999 12 30	104	0.5+	0.3+	2000 02 03	104	0.7+	0.3+
1998 11 18	704	0.4−	0.6+	1999 12 31	104	0.2+	0.5+	2000 02 03	104	0.4+	0.2+
1998 11 18	704	1.1−	0.7+	1999 12 31	104	0.2−	0.1−	2000 02 03	104	0.5+	0.0

1999 YD₁₃ = 1993 UA₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	23.04341		(2000.0)		$\mathbf{P}$		$\mathbf{Q}$
n	0.17158531	ω	315.27838		+0.56579676		−0.81395741
a	3.2073718	Ω	99.83048		+0.78898159		+0.48803571
e	0.1618918	i	7.68184		+0.23954559		+0.31511026
P	5.74	H	13.5	G	0.15	U	3

Residuals in seconds of arc

1993 10 10	809	(2.4+	0.7−)	1999 11 04	704	1.1−	0.6−	1999 12 30	699	0.1+	0.5+
1993 10 10	809	1.6+	0.1+	1999 12 03	699	0.0	0.3+	1999 12 30	699	0.6−	1.2+
1993 10 10	809	1.1+	0.7−	1999 12 03	699	1.2−	0.2+	1999 12 31	699	0.0	0.2+
1993 10 20	809	0.9+	0.9−	1999 12 03	699	0.7+	1.1+	1999 12 31	699	0.1+	0.5+
1993 10 20	809	0.5+	1.0−	1999 12 06	704	0.2−	0.7−	1999 12 31	699	0.0	0.2+
1993 10 20	809	0.2+	1.0−	1999 12 06	704	0.2+	0.5−	2000 01 05	704	1.6+	0.2+
1993 10 21	809	0.5−	0.4−	1999 12 06	704	0.0	0.7−	2000 01 05	704	1.7+	1.4+
1993 10 21	809	1.0−	0.2−	1999 12 06	704	0.4+	1.3−	2000 01 05	704	1.4+	0.6+
1993 10 21	809	1.5−	0.5+	1999 12 06	704	0.6+	0.8−	2000 01 05	704	1.6+	0.7+
1998 08 17	704	0.2−	1.1+	1999 12 13	699	0.7+	0.8+	2000 01 11	691	0.1−	0.0
1998 08 17	704	0.1−	0.1+	1999 12 13	699	0.5+	0.4+	2000 01 11	691	0.2−	0.1+
1998 08 17	704	0.8−	2.0+	1999 12 13	699	0.5+	0.6+	2000 01 11	691	0.2−	0.0
1998 08 17	704	0.3+	0.0	1999 12 14	704	0.3+	0.3+	2000 02 03	704	1.3−	0.8−
1998 08 17	704	(4.1−	0.4+)	1999 12 14	704	0.2+	0.4+	2000 02 03	704	0.8−	0.2−
1999 11 04	704	0.6−	0.2−	1999 12 14	704	0.2−	0.2+	2000 02 03	704	1.2−	0.3+
1999 11 04	704	1.1−	0.4−	1999 12 14	704	0.1+	0.1+	2000 02 03	704	1.3−	0.6−
1999 11 04	704	0.8−	0.1−	1999 12 14	704	0.6−	0.3−	2000 02 03	704	1.0−	0.6+
1999 11 04	704	0.6−	0.0	1999 12 30	699	0.3+	0.7+				

1999 YU₁₃ = 1998 TS₃₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	346.80567		(2000.0)		P		Q
n	0.18143847	ω	48.68629		−0.86096341		−0.50426191
a	3.0901754	Ω	100.93165		+0.44400573		−0.80908561
e	0.1163402	i	3.90097		+0.24819532		−0.30182843
P	5.43	H	13.9	G	0.15	U	3

Residuals in seconds of arc

1998 10 14	699	0.6−	0.0	1999 12 31	120	0.8−	0.9−	2000 01 06	704	0.3−	0.4−
1998 10 14	699	0.9−	0.8−	2000 01 01	120	0.7+	0.3−	2000 01 24	120	0.5+	0.2−
1998 10 14	699	0.4+	0.2+	2000 01 01	120	1.5−	0.2−	2000 01 24	120	0.1+	0.3+
1998 10 20	699	0.0	1.1+	2000 01 02	120	0.3−	0.3+	2000 01 30	704	0.2+	0.6+
1998 10 20	699	0.6+	0.2+	2000 01 02	120	0.8−	0.5+	2000 01 30	704	0.1−	0.3+
1998 10 20	699	0.3+	0.1−	2000 01 02	120	0.3+	0.7+	2000 01 30	704	0.5−	0.2+
1999 11 16	704	0.1−	0.8−	2000 01 04	704	0.1+	0.4−	2000 01 30	704	0.6+	1.0+
1999 11 16	704	0.0	0.1−	2000 01 04	704	0.4−	0.5−	2000 02 03	704	0.1−	0.6+
1999 11 16	704	1.0+	1.1−	2000 01 04	704	1.0+	0.1−	2000 02 03	704	0.2+	0.3+
1999 11 16	704	(0.4+	2.4−)	2000 01 04	704	0.1−	0.4−	2000 02 03	704	0.5+	1.1+
1999 11 16	704	0.6−	0.9−	2000 01 04	704	0.2−	0.8−	2000 02 03	704	0.3−	0.9+
1999 12 15	703	1.4+	0.9+	2000 01 05	699	0.5+	0.7+	2000 02 03	704	0.4+	0.1−
1999 12 15	703	0.2+	0.2+	2000 01 05	699	0.1+	0.5+	2000 02 11	704	0.0	0.0
1999 12 15	703	0.1−	0.1−	2000 01 05	699	0.5+	0.5+	2000 02 11	704	0.3+	0.6−
1999 12 15	703	0.9−	0.9+	2000 01 06	704	0.3−	0.7−	2000 02 11	704	0.3−	0.4−
1999 12 31	120	0.0	0.4−	2000 01 06	704	0.2−	1.0−	2000 02 11	704	0.1−	0.1−
1999 12 31	120	0.0	0.0	2000 01 06	704	0.4−	0.5−				

1999 YX₁₃ = 1951 GA = 1955 FE = 1989 TC₂ = 1996 BR₁₇ = 1998 XH₂₉

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	329.58908		(2000.0)		P		Q
n	0.24072477	ω	257.93309		−0.75459672		+0.65380523
a	2.5593059	Ω	322.85503		−0.56029136		−0.68630226
e	0.2354618	i	5.30980		−0.34155142		−0.31863447
P	4.09	H	13.0	G	0.15	U	2

Residuals in seconds of arc

1951 04 05	078	(23.5−	10.5−)	Y	1998 12 14	704	0.1−	0.7−	1999 12 31	678	0.4−	0.9−
1951 04 08	711	(3.5−	3.2−)	Y	1998 12 14	704	0.0	0.2−	1999 12 31	678	0.7−	0.0
1955 03 23	760	1.7−	0.7−		1998 12 14	704	0.3−	0.1−	2000 01 03	678	0.4−	0.5−
1955 03 23	760	1.5+	0.0		1998 12 14	704	0.1+	1.1+	2000 01 03	678	1.0−	0.6−
1989 10 04	046	(2.6+	2.0−)		1998 12 14	704	0.6−	1.5+	2000 01 05	704	0.9−	0.5−
1989 10 04	046	0.8+	1.8−		1998 12 17	704	0.4−	0.0	2000 01 05	704	0.3−	0.3+
1989 10 05	046	0.6−	0.0		1998 12 17	704	1.0+	0.1+	2000 01 05	704	0.8−	0.1+
1989 10 05	046	1.0+	1.0+		1998 12 17	704	0.1−	0.2+	2000 01 05	704	0.6−	0.4+
1992 04 04	675	(2.1+	1.0−)		1998 12 17	704	1.0+	1.0+	2000 01 11	678	1.0−	0.1+
1992 04 04	675	(2.0−	22.1+)		1999 01 06	699	0.0	1.3−	2000 01 11	678	0.4−	0.2−
1996 01 30	809	0.9−	0.4+		1999 01 06	699	0.6−	0.2−	2000 02 02	704	0.3+	1.6+
1996 01 31	809	0.2−	1.1+		1999 01 06	699	0.2+	0.5+	2000 02 02	704	1.3+	0.3+
1997 10 28	704	(2.1+	2.2−)		1999 11 05	703	0.4−	0.1+	2000 02 02	704	0.8+	1.2−
1997 10 28	704	2.0−	1.8−		1999 11 05	703	0.2−	0.2−	2000 02 08	704	0.8+	1.5+
1997 10 28	704	1.7+	1.8−		1999 11 05	703	1.0−	0.1−	2000 02 08	704	0.8+	0.7−
1997 10 28	704	(0.6−	3.3−)		1999 11 05	703	0.8+	0.5+	2000 02 08	704	(2.2+	0.2−)
1997 10 30	704	(0.5+	2.3+)		1999 12 09	703	0.2−	0.2−	2000 02 08	704	0.9+	1.8−
1997 10 30	704	0.3+	0.1+		1999 12 09	703	0.1+	0.1−	2000 02 14	106	0.2+	0.4−
1997 10 30	704	0.4+	0.8+		1999 12 09	703	0.2−	0.1−	2000 02 14	106	0.2+	0.2−
1997 10 30	704	(1.0−	2.2−)		1999 12 09	703	(1.4+	3.6−)	2000 02 14	106	0.0	0.6−

1999 YJ₁₄ = 1992 EH₁₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.24115961	ω	350.66545	-0.29189828	-0.95632415		
<i>a</i>	2.5562285	Ω	116.30489	+0.87863522	-0.27450796		
<i>e</i>	0.1726728	<i>i</i>	0.98919	+0.37788298	-0.10044646		
<i>P</i>	4.09	<i>H</i>	15.9	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1992 02 29	809	1.1-	0.6+	2000 01 09	691	0.1-	0.3-	2000 02 05	704	0.3-	0.3+
1992 03 06	809	1.2+	0.5-	2000 01 11	120	1.3-	1.0-	2000 02 05	704	0.1+	0.2-
1992 03 08	809	0.3-	0.2+	2000 01 12	120	0.8+	0.6+	2000 02 05	704	0.1+	0.7+
1992 03 09	809	0.2+	0.4+	2000 01 12	691	0.7-	0.2-	2000 02 05	704	1.6+	0.5+
1992 03 11	691	0.1-	0.4-	2000 01 12	691	0.7-	0.1-	2000 02 05	704	(2.2+	0.2+)
1992 03 11	691	0.3-	0.7-	2000 01 12	691	0.6-	0.1-	2000 02 06	704	0.2-	0.2-
1992 03 11	691	0.2+	0.2-	2000 01 30	703	0.4+	0.1-	2000 02 06	704	0.1+	0.1+
1999 12 31	691	0.6+	0.1+	2000 01 30	703	0.6+	0.4-	2000 02 06	704	0.2-	0.3+
1999 12 31	691	0.7+	0.1+	2000 01 30	703	0.5-	0.5+	2000 02 06	704	0.2-	0.8+
1999 12 31	691	0.5+	0.1-	2000 01 30	703	1.8-	0.8-	2000 02 08	704	0.1-	0.6+
2000 01 03	691	0.5-	0.0	2000 02 03	704	0.1-	0.1+	2000 02 08	704	0.1-	0.2+
2000 01 03	691	0.2-	0.0	2000 02 03	704	0.4+	0.2-	2000 02 08	704	1.4-	0.7+
2000 01 03	691	0.4-	0.0	2000 02 03	704	0.2-	0.2+	2000 02 08	704	0.5-	0.3-
2000 01 04	704	1.3-	0.4-	2000 02 03	704	0.0	0.0	2000 02 11	704	0.3-	1.7+
2000 01 04	704	0.6-	0.3+	2000 02 03	704	0.4+	0.4+	2000 02 11	704	0.4+	0.0
2000 01 04	704	0.4-	1.9+	2000 02 03	704	0.3+	0.2+	2000 02 11	704	0.4-	0.9-
2000 01 04	704	0.1+	0.9+	2000 02 03	704	0.3+	0.7+	2000 02 11	704	0.4+	0.1-
2000 01 04	704	0.2+	0.8+	2000 02 03	704	0.2+	0.0	2000 02 11	704	0.5-	0.4-
2000 01 06	704	0.8+	0.7-	2000 02 03	704	0.6+	0.5+	2000 02 11	704	0.0	0.8+
2000 01 06	704	1.0+	1.6-	2000 02 03	704	0.5+	0.0	2000 02 11	704	1.5-	1.6-
2000 01 06	704	0.5+	1.7-	2000 02 05	704	0.3+	0.0	2000 02 11	704	0.6+	0.8+
2000 01 09	691	0.3-	0.1+	2000 02 05	704	0.2+	0.9-	2000 02 11	704	0.1+	1.2-
2000 01 09	691	0.8+	0.9-	2000 02 05	704	1.7+	0.3+	2000 02 11	704	0.6+	0.0

1999 YJ₁₆ = 1991 PW₂₁ = 1998 UF₄₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.30063327	ω	312.42872	-0.14701231	+0.98675168		
<i>a</i>	2.2068764	Ω	308.98768	-0.87962233	-0.16214855		
<i>e</i>	0.1394416	<i>i</i>	5.06468	-0.45238472	-0.00538292		
<i>P</i>	3.28	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1991 08 10	675	0.5+	0.3-	1999 12 05	703	(5.6-	1.2-)	2000 02 02	704	0.1+	0.3-
1991 08 10	675	0.2+	0.6-	1999 12 05	703	1.8-	1.3-	2000 02 05	704	0.0	0.2+
1997 01 18	599	0.5+	1.3+	1999 12 05	703	0.1+	0.8+	2000 02 05	704	0.1-	0.2+
1997 01 18	599	0.6-	0.7+	1999 12 05	703	(3.6-	2.5+)	2000 02 05	704	0.4+	0.4-
1998 10 28	704	0.3+	0.9+	1999 12 31	691	0.2-	0.4-	2000 02 06	704	0.6+	0.2-
1998 10 28	704	1.8-	0.9-	1999 12 31	691	0.3-	0.5-	2000 02 06	704	0.4+	0.1+
1998 10 28	704	1.1+	0.7-	1999 12 31	691	0.2-	0.3-	2000 02 06	704	0.7+	0.4+
1998 10 28	704	0.1+	0.4+	2000 01 05	691	0.5-	0.2+	2000 02 06	704	0.0	0.1-
1998 10 29	704	1.4+	0.7+	2000 01 05	691	0.3-	0.1-	2000 02 06	704	0.5+	0.2+
1998 10 29	704	1.1-	0.7+	2000 01 05	691	0.3-	0.1-	2000 02 12	704	1.9-	1.5+
1998 10 29	704	1.3-	1.1-	2000 02 02	703	0.2-	0.3+	2000 02 12	704	0.8+	0.6+
1998 10 29	704	0.1-	0.4-	2000 02 02	703	0.2+	0.1+	2000 02 12	704	1.0+	0.5-
1998 10 29	704	0.7-	0.4+	2000 02 02	703	0.6-	0.2-	2000 02 12	704	0.1-	0.9-
1998 11 11	704	0.5+	0.3+	2000 02 02	703	0.1-	0.1-	2000 02 16	704	0.8+	0.2-
1998 11 11	704	0.5-	0.4+	2000 02 02	704	0.2+	0.4+	2000 02 16	704	0.5-	0.3-
1998 11 11	704	1.0+	0.5-	2000 02 02	704	0.3-	0.2-	2000 02 16	704	0.0	0.1-
1998 11 11	704	(2.5-	0.7+)	2000 02 02	704	0.6+	0.8-	2000 02 16	704	0.4+	0.7-
1998 11 11	704	0.7+	0.6+	2000 02 02	704	0.2-	0.1-	2000 02 16	704	0.4-	0.0

1999 YG₁₈ = 1998 MR₁₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.24251745	ω	229.47580	+0.69917781	-0.71429016		
<i>a</i>	2.5466781	Ω	175.75659	+0.71415522	+0.69977891		
<i>e</i>	0.1691307	<i>i</i>	24.47779	-0.03365590	+0.00995156		
<i>P</i>	4.06	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 06 23	704	0.7+	0.1-	1999 11 10	704	0.2-	0.3-	1999 12 31	704	0.4+	0.2+
1998 06 23	704	1.4-	1.3+	1999 11 10	704	0.3-	0.5-	1999 12 31	704	0.5+	0.0
1998 06 23	704	1.4+	1.8-	1999 11 10	704	0.2+	0.6-	1999 12 31	704	0.3-	0.1+
1998 06 27	704	1.2+	0.2+	1999 12 01	704	0.4+	0.4+	1999 12 31	704	0.3+	0.1+
1998 06 27	704	(2.7+	1.3+)	1999 12 01	704	0.1+	0.6+	1999 12 31	704	(1.0+	2.1+)
1998 06 27	704	1.2-	0.2+	1999 12 01	704	0.1-	0.2-	2000 01 10	704	0.0	0.9-
1998 06 27	704	0.5-	0.1-	1999 12 01	704	0.4-	0.5+	2000 01 10	704	0.6-	1.8-
1998 06 27	704	0.1-	0.4+	1999 12 17	699	0.4+	0.4+	2000 01 10	704	(0.3+	2.8-)
1999 10 08	704	0.5-	0.0	1999 12 17	699	0.6-	1.2+	2000 01 10	704	(0.3-	2.3-)
1999 10 08	704	0.1+	0.4+	1999 12 17	699	0.6+	0.1+	2000 01 10	704	0.5-	1.6-
1999 10 08	704	0.2+	0.2-	1999 12 18	704	0.8-	0.2+	2000 02 10	704	0.2-	0.4+
1999 10 08	704	0.1+	0.7+	1999 12 18	704	0.4+	0.3+	2000 02 10	704	0.6-	0.6+
1999 10 08	704	0.1-	0.1-	1999 12 18	704	0.4-	0.7+	2000 02 10	704	0.0	0.2-
1999 11 10	704	0.4-	0.0	1999 12 18	704	0.7+	0.0	2000 02 10	704	0.5+	0.9+
1999 11 10	704	0.5+	1.4-	1999 12 18	704	0.7+	0.1+				

2000 AD₁ = 1996 BM₁

Id. G. V. Williams, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26610268	ω	301.37599	-0.48982383	+0.86758530		
<i>a</i>	2.3938846	Ω	299.05768	-0.76282383	-0.47417280		
<i>e</i>	0.0950207	<i>i</i>	5.63550	-0.42210475	-0.14985295		
<i>P</i>	3.70	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1996 01 24	709	0.3+	0.1-	2000 01 03	691	0.4-	0.1-	2000 01 30	703	0.6+	0.6+
1996 01 24	709	0.2+	0.1+	2000 01 04	704	0.7+	0.2+	2000 01 30	703	0.1-	0.7+
1996 01 24	709	0.4-	0.1+	2000 01 04	704	0.3+	0.8-	2000 02 02	704	1.8+	0.2+
1996 01 25	709	0.7-	0.1+	2000 01 04	704	0.0	0.1-	2000 02 02	704	0.0	0.0
1996 01 25	709	0.2+	0.2+	2000 01 04	704	0.7-	0.3-	2000 02 02	704	0.5+	0.3+
1996 01 25	709	0.1+	0.0	2000 01 04	704	0.4+	0.7+	2000 02 03	704	0.2-	0.1+
1996 01 25	709	0.2-	0.1-	2000 01 06	704	0.1+	0.2-	2000 02 03	704	0.1-	0.8+
1996 01 27	709	0.0	0.0	2000 01 06	704	0.3-	0.4-	2000 02 03	704	0.6-	0.4+
1996 01 27	709	0.1+	0.0	2000 01 06	704	0.2+	0.0	2000 02 03	704	0.3-	0.4+
1996 01 27	709	0.4+	0.0	2000 01 06	704	0.0	0.3-	2000 02 03	704	0.4+	0.2+
2000 01 02	691	0.5-	0.2-	2000 01 26	691	0.2-	0.1-	2000 02 06	704	0.1+	0.1-
2000 01 02	691	0.5-	0.0	2000 01 26	691	0.3-	0.1-	2000 02 06	704	0.4-	0.8-
2000 01 02	691	0.6-	0.0	2000 01 26	691	0.3-	0.3-	2000 02 06	704	0.1-	0.3-
2000 01 03	691	0.5-	0.0	2000 01 30	703	0.2-	1.0+	2000 02 06	704	0.5+	1.3-
2000 01 03	691	0.5-	0.2-	2000 01 30	703	0.9+	0.7+	2000 02 06	704	0.3-	1.3-

2000 AR₁ = 1998 RA₂₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.27147345	ω	209.90488	-0.75157136	-0.65103608		
<i>a</i>	2.3622062	Ω	289.08202	+0.62532880	-0.65187318		
<i>e</i>	0.0565923	<i>i</i>	6.45627	+0.21001044	-0.38886165		
<i>P</i>	3.63	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 08 17	704	0.9+	1.1-	1999 12 07	704	0.2+	0.1-	2000 01 06

2000 FEB. 22

M.P.C. 38621

1998 09 14	704	0.5−	0.1−	1999 12 18	699	0.1−	2.0+	2000 01 25	120	0.3+	0.2+
1998 09 14	704	0.2+	0.2+	2000 01 02	120	(2.6+	0.4+)	2000 01 27	120	0.5+	0.1−
1998 09 18	699	1.3+	1.3+	2000 01 02	120	1.7+	0.5−	2000 01 27	120	0.6−	0.4−
1998 09 18	699	0.9−	0.1−	2000 01 02	120	0.1+	1.2−	2000 01 30	120	0.2−	0.2−
1998 09 18	704	(0.5+	2.1−)	2000 01 03	120	0.1−	0.8+	2000 01 30	120	0.1+	0.4−
1998 09 18	699	0.8−	0.4+	2000 01 04	120	1.5−	0.3+	2000 02 02	704	0.1−	0.2+
1998 09 18	704	(2.8−	2.8−)	2000 01 05	704	0.5+	0.0	2000 02 02	704	0.0	0.3+
1998 09 18	704	0.5+	1.2−	2000 01 05	704	0.2+	0.1+	2000 02 02	704	0.1−	0.2+
1998 09 18	704	0.8−	0.4+	2000 01 05	704	0.3+	0.6−	2000 02 02	704	0.0	0.0
1999 11 16	704	0.3−	0.4−	2000 01 05	704	0.4+	0.3−	2000 02 02	704	0.0	0.3+
1999 11 16	704	1.5−	0.5−	2000 01 05	120	0.1+	0.1−	2000 02 03	704	0.0	0.1+
1999 11 16	704	0.2+	0.3−	2000 01 05	120	1.0+	0.5+	2000 02 03	704	0.0	0.3+
1999 12 05	699	0.4+	0.5+	2000 01 06	704	0.7+	0.5−	2000 02 03	704	0.0	0.7+
1999 12 05	699	1.3−	0.5+	2000 01 06	704	0.4+	0.2+	2000 02 03	704	0.2+	0.6+
1999 12 05	699	0.9−	0.3+	2000 01 06	704	0.4+	0.5−	2000 02 03	704	0.0	0.7+

2000 AB₂ = 1998 MF₃₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	87.71885		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.25355002	ω	258.44016	+0.95627922	−0.26964634
a	2.4722570	Ω	117.11685	+0.29231335	+0.89332863
e	0.1900676	i	7.30856	−0.00910850	+0.35952026
P	3.89	H	14.1	G 0.15	U 4

Residuals in seconds of arc

1998 06 24	704	0.0	0.8−	1999 12 18	699	0.7−	0.9+	2000 01 11	143	0.1−	0.2−
1998 06 24	704	0.4−	0.0	1999 12 18	699	0.4−	1.0+	2000 01 11	143	0.9+	0.3−
1998 06 24	704	0.5+	0.8+	1999 12 30	699	0.3+	0.5+	2000 01 11	143	0.8+	0.4−
1998 06 24	704	0.5−	0.5−	1999 12 30	699	0.6−	1.2+	2000 01 11	143	0.1+	0.2−
1998 06 26	809	(2.7+	2.4+)	1999 12 30	699	0.1+	0.4+	2000 01 11	143	0.7+	0.9−
1998 06 26	809	1.6+	1.4+	2000 01 02	143	0.6+	0.8−	2000 01 11	143	1.1+	0.4+
1998 06 26	809	(2.7+	1.7+)	2000 01 02	143	1.0+	0.7−	2000 01 25	143	0.1+	0.5−
1998 06 26	704	0.9+	0.7−	2000 01 02	143	0.3−	0.8−	2000 01 25	143	0.2−	0.3+
1998 06 26	704	0.9−	0.0	2000 01 03	143	0.1−	0.1−	2000 01 25	143	0.8+	0.3−
1998 06 26	704	(2.5−	1.5+)	2000 01 03	143	0.1+	0.6−	2000 01 25	143	0.4+	0.9−
1998 06 26	704	(0.2+	2.3+)	2000 01 03	143	0.2−	0.5−	2000 01 26	143	0.4−	0.1−
1998 06 26	704	1.8−	0.5−	2000 01 03	143	0.5−	0.3−	2000 01 26	143	0.1−	0.2−
1998 06 27	809	(3.4+	2.5+)	2000 01 03	143	0.3+	0.2+	2000 01 26	143	0.2−	0.2−
1998 06 27	809	(3.4+	2.7+)	2000 01 03	143	0.3+	0.5+	2000 01 26	143	0.1+	0.6−
1998 06 27	809	(4.7+	1.8+)	2000 01 05	704	0.5−	0.1−	2000 01 30	704	0.1−	0.2+
1998 07 26	704	0.5+	1.0−	2000 01 05	704	1.0−	0.3−	2000 01 30	704	0.5−	0.1+
1998 07 26	704	(2.5+	0.4+)	2000 01 05	704	0.8−	0.5−	2000 01 30	704	0.2+	0.4+
1998 07 26	704	0.2+	0.9−	2000 01 05	704	0.6−	0.4−	2000 01 30	704	0.5−	0.6+
1998 07 26	704	0.2+	0.9−	2000 01 05	704	0.1+	0.2+	2000 01 30	704	0.7−	0.7−
1998 07 26	704	0.2−	0.1+	2000 01 05	143	0.2−	0.3−	2000 01 31	704	0.2+	0.8+
1999 12 08	704	0.3+	0.7−	2000 01 05	143	0.3+	0.1+	2000 01 31	704	0.1−	0.2+
1999 12 08	704	0.4+	1.1+	2000 01 06	704	0.3+	1.0−	2000 01 31	704	0.4−	1.2+
1999 12 08	704	0.2+	0.0	2000 01 06	704	0.3−	0.3+	2000 02 11	704	0.7−	1.0+
1999 12 08	704	0.4−	0.4+	2000 01 06	704	0.1+	0.7−	2000 02 11	704	0.5+	0.2+
1999 12 08	704	(0.6+	2.2+)	2000 01 10	143	0.5−	1.0−	2000 02 11	704	0.9+	0.1−
1999 12 18	699	0.5−	0.4+	2000 01 10	143	0.0	0.6−				

2000 AE₂ = 1992 AE₅ = 1994 TP₁₆ = 1998 SL₁₃₄ = 1998 VC₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	310.57067		(2000.0)	P	Q
n	0.24346469	ω	166.83760	−0.96469966	+0.25846279
a	2.5400683	Ω	28.29720	−0.25024531	−0.83990740
e	0.1035075	i	6.11690	−0.08204792	−0.47723426
P	4.05	H	14.0	G	0.15
				U	3

Residuals in seconds of arc

1992 01 03	033	0.3+	0.3−	1998 09 27	704	1.2−	1.3−	2000 01 03	704	0.3−	0.5−
1992 01 03	033	0.3+	0.9+	1998 09 27	704	0.1−	0.5−	2000 01 03	704	0.3+	0.5+
1994 10 05	033	0.4+	1.1−	1998 09 27	704	1.1−	0.4−	2000 01 03	411	1.5−	1.8+
1994 10 06	033	0.1+	0.5−	1998 09 27	704	(2.3−	3.2−)	2000 01 03	411	(1.9−	2.6+)
1994 10 07	033	0.3+	1.2+	1998 11 10	704	1.2+	1.2+	2000 01 04	411	1.1+	0.1−

1994 10 10	033	0.0	0.7−	1998 11 10	704	0.5+	0.9+	2000 01 04	411	0.5−	0.3−
1994 10 12	691	0.7−	0.4+	1998 11 10	704	0.9+	1.6+	2000 01 06	699	0.5+	0.9+
1994 10 12	691	0.7−	0.0	1998 11 11	704	0.2+	0.4−	2000 01 06	699	1.8+	0.2−
1994 10 12	691	(2.6−	0.1−)	1998 11 11	704	0.0	1.0+	2000 01 06	699	0.6+	0.0
1998 09 26	704	1.4−	0.5−	1998 11 11	704	0.3−	0.4−	2000 01 10	411	0.2−	1.0−
1998 09 26	704	1.4+	0.8−	1998 11 11	704	0.7−	1.6+	2000 01 10	411	0.7+	0.1−
1998 09 26	704	0.5−	0.8−	1998 11 11	704	(1.5−	2.2+)	2000 01 28	411	1.6−	0.5−
1998 09 26	704	0.6+	1.1+	2000 01 03	704	0.4+	0.1−	2000 01 28	411	1.6−	1.0−
1998 09 26	704	0.8+	0.4+	2000 01 03	704	0.2−	0.2−				
1998 09 27	704	0.2+	2.0−	2000 01 03	704	0.2+	0.4−				

2000 AF₂ = 1995 QJ₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	91.02770		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.30073933	ω	347.06021	+0.87559606	−0.47488849
a	2.2063576	Ω	41.66704	+0.45418431	+0.74708287
e	0.1442433	i	7.64035	+0.16446325	+0.46513235
P	3.28	H	14.3	G 0.15	U 6

Residuals in seconds of arc

1995 08 24	905	0.4−	0.7+	2000 01 03	411	0.3+	1.4+	2000 01 10	411	0.8+	1.1−
1995 08 24	905	0.7−	0.2−	2000 01 03	411	0.0	1.1+	2000 01 10	411	0.6+	0.3−
1995 08 26	905	0.3+	1.0−	2000 01 04	411	0.2−	1.1−	2000 01 28	411	0.6−	0.2+
1995 08 26	905	0.7+	0.5+	2000 01 04	411	1.0−	0.4−	2000 01 28	411	0.0	0.3+

2000 AJ₂ = 1971 TO₂ = 1990 JH

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	99.69138		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.25300671	ω	47.14347	+0.94567705	−0.30469666
a	2.4757951	Ω	330.06327	+0.18992045	+0.80080928
e	0.1165683	i	13.13188	+0.26386575	+0.51562045
P	3.90	H	13.4	G 0.15	U 2

Residuals in seconds of arc

1971 10 13	095	0.2−	0.3+	2000 01 02	704	0.3−	0.2+	2000 01 29	704	0.2+	0.7+
1990 05 03	413	1.0−	0.5+	2000 01 02	704	0.6−	0.1+	2000 01 29	704	0.1+	1.1+
1990 05 04	413	0.6+	0.2+	2000 01 03	411	0.5−	0.3+	2000 01 29	704	0.1−	1.4+
1999 12 15	704	1.7+	0.0	2000 01 03	411	0.3−	0.1−	2000 01 29	704	0.2+	1.6+
1999 12 15	704	0.5+	0.2−	2000 01 04	411	0.6+	1.0−	2000 02 11	704	0.3+	0.1+
1999 12 15	704	0.1+	0.1−	2000 01 04	411	0.1+	0.2−	2000 02 11	704	0.1−	0.4−
1999 12 15	704	0.5+	0.2−	2000 01 10	411	0.5−	0.9−	2000 02 11	704	0.4+	0.4−
1999 12 15	704	0.5−	0.2+	2000 01 10	411	0.5−	1.2−	2000 02 11	704	1.4+	0.8−
2000 01 02	704	0.3−	0.1+	2000 01 28	411	0.4−	0.3−	2000 02 11	704	0.0	0.7−
2000 01 02	704	0.4−	0.0	2000 01 28	411	0.8−	0.0				
2000 01 02	704	0.5−	0.0	2000 01 29	704	0.2+	0.9+				

2000 AK₂ = 1994 TT₁

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

$\dot{M}$	45.58850		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.21899208	ω	79.23157	+0.59564115	−0.80007160
a	2.7259451	Ω	333.80180	+0.65921643	+0.53768430
e	0.3229496	i	9.30646	+0.45896113	+0.26604703
P	4.50	H	14.2	G 0.15	U 4

Residuals in seconds of arc

1994 10 06	596	1.7−	0.7+	1994 10 11	596	(0.9−	2.6+)	2000 01 06	699	(2.7+	0.7+)
1994 10 06	596	0.4−	0.2−	1994 10 11	596	0.3−	1.5+	2000 01 06	699	0.1+	0.6+
1994 10 06	596	1.1+	1.2−	1994 10 12	596	(1.9+	2.2−)	2000 01 06	699	0.8+	0.2+
1994 10 07	589	0.1−	1.4+	1994 10 12	596	0.3+	1.0−	2000 01 10	411	0.8+	0.4−
1994 10 07	589	0.2−	1.8+	2000 01 03	704	0.1−	0.0	2000 01 10	411	0.5−	0.3−
1994 10 08	596	0.7+	0.7+	2000 01 03	704	0.3−	0.1−	2000 01 28	411	1.1−	0.1−
1994 10 08	596	0.6+	1.3−	2000 01 03	704	0.2−	0.3+	2000 01 28	411	0.7−	0.7+
1994 10 09	596	(1.4+	3.1+)	2000 01 03	704	0.1+	0.3+	2000 02 11	704	0.1−	0.0

1994 10 09	596	0.4+	0.2-	2000 01 03	704	0.2-	0.2+	2000 02 11	704	0.4+	0.4+
1994 10 09	596	1.0+	1.5-	2000 01 03	411	0.2-	0.2+	2000 02 11	704	0.3+	0.2-
1994 10 10	596	(2.5-	0.6+)	2000 01 03	411	0.4+	0.2-	2000 02 11	704	0.9+	0.8-
1994 10 10	596	0.9-	0.1-	2000 01 04	411	1.1+	0.1-	2000 02 11	704	0.3-	0.5+
1994 10 10	596	0.6-	0.5-	2000 01 04	411	1.0-	1.4-				

2000 AL₂ = 1978 WS₇ = 1995 BM₁₆ = 1996 KN₆ = 1998 XM₆₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

<i>M</i>	228.65983		(2000.0)	P	Q		
<i>n</i>	0.19699679	ω	216.73008	+0.13315295	+0.98663277		
<i>a</i>	2.9252520	Ω	61.09657	-0.88187480	+0.16120417		
<i>e</i>	0.1216929	<i>i</i>	6.16055	-0.45229097	-0.02385375		
<i>P</i>	5.00	<i>H</i>	12.9	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1978 11 29	675	0.4-	1.1+	1998 12 14	704	(0.4-	2.5+)	2000 01 04	704	0.1+	0.3-
1978 11 30	675	0.0	1.5+	1998 12 14	704	(4.0-	1.2+)	2000 01 04	704	0.4-	0.2-
1995 01 31	033	0.2-	0.4+	1998 12 17	704	0.6+	1.6-	2000 01 04	704	0.0	0.1-
1995 01 31	033	0.4-	0.2-	1998 12 17	704	0.3-	0.2-	2000 01 04	704	0.7+	0.2+
1995 02 03	033	0.5-	0.1+	1998 12 17	704	0.8+	1.1+	2000 01 04	704	0.1+	0.2-
1996 05 19	809	1.4-	0.1-	1998 12 17	704	0.4+	0.2-	2000 01 04	411	0.5+	0.8-
1996 05 19	809	0.8-	0.1-	1998 12 17	704	0.2+	0.2-	2000 01 04	411	0.2-	0.4-
1996 05 19	809	0.6-	0.4-	2000 01 03	704	0.2+	0.0	2000 01 06	699	0.0	0.0
1996 05 22	809	2.0+	1.7+	2000 01 03	704	0.7-	0.1+	2000 01 06	699	0.2-	1.0-
1996 05 22	809	(2.0+	2.5+)	2000 01 03	704	0.1+	0.8+	2000 01 06	699	0.5-	0.6+
1996 05 22	809	2.1+	1.7+	2000 01 03	704	0.3+	0.4+	2000 01 10	411	(2.3-	0.1+)
1998 12 14	704	1.5-	1.2+	2000 01 03	704	0.0	0.4+	2000 01 10	411	0.7-	0.6+
1998 12 14	704	0.3-	0.1-	2000 01 03	411	1.0+	0.5-	2000 01 28	411	0.7-	0.1+
1998 12 14	704	0.5-	1.1+	2000 01 03	411	1.0+	1.3-	2000 01 28	411	0.2+	0.0

2000 AM₂ = 1973 UE₁ = 1989 CM₄ = 1991 RL₃₅

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	88.64364		(2000.0)	P	Q		
<i>n</i>	0.27144510	ω	0.87789	+0.79205955	-0.60776827		
<i>a</i>	2.3623707	Ω	36.74764	+0.55948810	+0.68535481		
<i>e</i>	0.1034022	<i>i</i>	5.47571	+0.24416130	+0.40113155		
<i>P</i>	3.63	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1973 10 26	095	0.2-	0.2-	1991 09 13	675	0.0	0.1+	2000 01 04	411	0.7-	0.8+
1989 02 01	033	0.1+	0.4+	1991 09 16	675	0.2-	0.3-	2000 01 10	411	0.1-	0.8+
1989 02 01	033	0.6+	1.5-	1991 09 16	675	0.4+	0.4+	2000 01 10	411	0.3+	0.8+
1989 02 02	033	0.7-	0.4+	2000 01 03	411	1.4-	1.4-	2000 01 28	411	0.3-	0.2+
1989 02 02	033	0.7+	0.3+	2000 01 03	411	0.5+	0.2-	2000 01 28	411	0.1+	0.2-
1991 09 13	675	0.1-	0.1+	2000 01 04	411	0.9+	0.0				

2000 AN₂ = 1998 RC₃₇

Id. G. V. Williams, S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	56.84064		(2000.0)	P	Q		
<i>n</i>	0.22907631	ω	96.10327	+0.33186302	-0.93763750		
<i>a</i>	2.6453467	Ω	333.77153	+0.74614004	+0.32801164		
<i>e</i>	0.1027597	<i>i</i>	13.53774	+0.57718453	+0.11508380		
<i>P</i>	4.30	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 08 17	704	0.1-	0.4-	2000 01 03	704	0.7+	0.8-	2000 02 03	704	0.4+	0.1+
1998 08 17	704	0.3+	0.5-	2000 01 03	704	1.0+	0.3-	2000 02 03	704	0.4+	0.1-
1998 08 17	704	1.5-	0.5-	2000 01 03	704	1.3+	0.2-	2000 02 08	704	0.5-	0.1-
1998 08 17	704	0.9+	0.7-	2000 01 03	704	0.9+	0.9-	2000 02 08	704	0.6-	0.3+
1998 08 17	704	1.1-	0.9+	2000 01 03	704	(0.8+	2.1-)	2000 02 08	704	0.2+	0.0
1998 09 14	704	0.1+	0.7-	2000 01 03	411	0.3-	0.6-	2000 02 08	704	0.7-	0.7+
1998 09 14	704	0.1-	0.5-	2000 01 03	411	1.0-	0.8-	2000 02 08	704	0.1+	0.4+
1998 09 14	704	0.3-	0.7-	2000 01 04	411	1.5-	1.2-	2000 02 10	704	0.0	0.2-

1998 09 14	704	1.1-	0.1-	2000 01 04	411	(1.3-	2.2-)	2000 02 10	704	0.3-	0.4+
1998 09 16	699	1.0+	0.0	2000 01 10	411	0.8-	0.1-	2000 02 10	704	0.2-	0.4-
1998 09 16	699	0.5+	1.7+	2000 01 10	411	0.7-	1.1-	2000 02 10	704	0.4+	0.1+
1998 09 16	699	0.3+	1.6+	2000 01 28	411	0.0	0.3-	2000 02 10	704	0.3+	0.5+
1998 09 18	704	0.2-	0.6-	2000 01 28	411	0.2+	0.4-	2000 02 11	704	0.2-	0.1+
1998 09 18	704	0.1-	0.4+	2000 02 02	704	0.5+	0.1+	2000 02 11	704	0.2-	0.1+
1998 09 18	704	0.9+	0.8+	2000 02 02	704	0.2+	0.6+	2000 02 11	704	0.4+	0.1+
1998 09 18	704	0.4+	0.1+	2000 02 02	704	0.3+	0.4+	2000 02 11	704	0.3-	0.2+
1998 09 18	704	0.7-	0.1-	2000 02 02	704	0.5+	0.4+	2000 02 11	704	0.4+	0.1+
1999 11 11	703	1.4-	0.1-	2000 02 02	704	1.2+	0.9+	2000 02 11	704	0.2-	0.5-
1999 11 11	703	0.3+	0.4-	2000 02 03	704	0.1-	0.0	2000 02 11	704	0.6-	0.4+
1999 11 11	703	1.3-	0.0	2000 02 03	704	0.3+	0.3+	2000 02 11	704	0.2-	0.3+
1999 11 11	703	0.2+	1.6+	2000 02 03	704	0.2+	0.5+	2000 02 11	704	0.2+	0.9+

2000 AP₂ = 1984 SN₃ = 1984 UN₃ = 1991 RF₂₃ = 1997 GA₂₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

<i>M</i>	107.95534		(2000.0)	P	Q		
<i>n</i>	0.27532000	ω	343.94588	+0.95205777	-0.29746911		
<i>a</i>	2.3401528	Ω	33.62655	+0.29294478	+0.81925362		
<i>e</i>	0.1176297	<i>i</i>	7.40804	+0.08814392	+0.49024038		
<i>P</i>	3.58	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1984 09 28	688	1.1+	1.1-	1997 04 05	704	0.5-	0.6+	2000 01 04	411	0.2+	0.3+
1984 09 28	688	(0.1+	3.8-)	1997 04 05	704	0.6+	0.5+	2000 01 10	411	0.0	0.0
1984 10 18	801	1.2-	1.2+	1997 04 07	704	0.2+	0.6+	2000 01 10	411	0.9+	0.4+
1991 09 15	675	0.2+	0.5+	1997 04 07	704	0.6+	0.0	2000 01 28	411	0.3-	0.4+
1991 09 15	675	0.6-	0.2-	2000 01 03	411	0.7-	1.1-	2000 01 28	411	0.2+	1.1+
1991 09 17	675	0.6+	0.5+	2000 01 03	411	0.4-	0.5-				
1991 09 17	675	1.0-	0.9+	2000 01 04	411	0.3+	0.1-				

2000 AQ₂ = 1998 XY₃₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Nakano

<i>M</i>	195.59112		(2000.0)	P	Q		
<i>n</i>	0.271298661	ω	262.13782	+0.52923338	+0.83931811		
<i>a</i>	3.1900272	Ω	40.62086	-0.68362092	+0.50859511		
<i>e</i>	0.1245270	<i>i</i>	11.00901	-0.50256787	+0.19203157		
<i>P</i>	5.70	<i>H</i>	12.4	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 12 14	704	0.2+	0.5+	1998 12 17	704	0.6+	0.1+	2000 01 04	411	0.3-	1.1-
1998 12 14	704	1.5-	0.7+	1998 12 17	704	0.6-	0.6-	2000 01 04	411	0.1-	0.6-
1998 12 14	704	0.5+	0.5-	1998 12 17	704	0.3-	0.7+	2000 01 10	411	0.9+	0.2-
1998 12 14	704	0.2+	0.9-	1998 12 17	704	0.4+	0.3+	2000 01 10	411	0.4-	0.2-
1998 12 14	704	0.3+	0.2-	2000 01 03	411	0.5+	1.9+	2000 01 28	411	0.9-	0.6+
1998 12 17	704	0.1+	0.1+	2000 01 03	411	0.3-	0.3+	2000 01 28	411	0.7+	0.5-

2000 AX₂ = 1981 UV₂₄ = 1998 ST₁₁₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	31.04045		(2000.0)	P	Q		
<i>n</i>	0.16947985	ω	338.30554	+0.07171590	-0.99638787		
<i>a</i>	3.2338808	Ω	107.55887	+0.92199022	+0.04882952		
<i>e</i>	0.1508524	<i>i</i>	2.73394	+0.38051395	+0.06947581		
<i>P</i>	5.82	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1981 10 24	675	0.8-	0.6+	2000 01 02	104	0.5+	0.8-	2000 01 30	704	0.6+	0.2-
1981 10 25	675	0.6+	0.3+	2000 01 02	104	0.2+	0.3-	2000 01 30	704	0.2+	0.6+
1998 09 26	704	1.2-	0.3+	2000 01 04	704	0.2-	0.9-	2000 01 30	704	0.1+	0.2-
1998 09 26	704	0.3-	0.5-	2000 01 04	704	0.1-	1.1-	2000 01 30	704	0.6+	1.0-
1998 09 26	704	0.5+	0.4+	2000 01 04	704	0.3-	0.7-	2000 02 03	704	0.0	0.0
1998 09 26	704	0.5+	0.1-	2000 01 04	704	0.1+	1.1-	2000 02 03	704	0.3+	0.3+
1998 09 26	704	0.3+	0.0	2000 01 04	704	0.2-	1.5-	2000 02 03	704	0.9+	0.1-
1998 09 27	704	0.0	0.3-	2000 01 06	704	1.2-	0.4-	2000 02 03	704	0.8+	0.3+
1998 09 27	704	0.8+	1.3-	2000 01 06	704	0.3-	0.8-	2000 02 07	691	0.2+	0.1-

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1998 09 27	704	0.3−	0.1−	2000 01 06	704	0.1−	0.9−	2000 02 07	691	0.3+	0.1−
1998 09 27	704	0.6+	0.3+	2000 01 06	704	0.5−	0.7−	2000 02 07	691	0.4+	0.0
1998 09 27	704	0.7−	0.9+	2000 01 15	104	0.3+	0.4+	2000 02 07	703	0.6−	0.4+
1999 11 16	704	0.3−	0.1−	2000 01 15	104	0.5−	0.0	2000 02 07	703	0.2+	0.3+
1999 11 16	704	0.8+	0.2+	2000 01 25	120	0.0	0.2+	2000 02 07	703	0.9−	0.4+
1999 11 16	704	0.5+	0.5+	2000 01 25	120	0.1+	1.1+	2000 02 07	703	0.7−	0.5−
1999 11 16	704	0.4−	0.4+	2000 01 25	120	0.5−	0.4+	2000 02 11	704	0.1+	0.1−
1999 11 16	704	0.2+	0.4+	2000 01 26	108	0.1−	0.5+	2000 02 11	704	0.1−	0.4+
1999 12 18	699	0.4−	1.2+	2000 01 26	108	0.2+	1.1+	2000 02 11	704	0.0	0.6+
1999 12 18	699	(0.3+	2.4+)	2000 01 29	691	0.1−	0.2+	2000 02 11	704	0.1−	1.1+
1999 12 18	699	(0.1+	2.8+)	2000 01 29	691	0.2−	0.1+	2000 02 11	704	0.6−	0.5+
2000 01 01	104	0.1+	0.7−	2000 01 29	691	0.3−	0.0				
2000 01 01	104	0.3+	0.0	2000 01 30	704	0.1+	0.5+				

2000 AA₃ = 1991 NQ₃

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	147.00997		(2000.0)	P	Q
n	0.28549345	ω	231.17774	+0.88432727	+0.45232652
a	2.2842236	Ω	101.65309	−0.38336681	+0.84487346
e	0.1495077	i	6.77926	−0.26644917	+0.28563885
P	3.45	H	15.4	G 0.15	U 4

Residuals in seconds of arc

1991 07 06	809	1.0−	1.3+	1998 08 23	704	0.9+	0.6−	2000 01 07	587	0.2−	0.0
1991 07 06	809	0.9−	1.0+	1998 08 23	704	1.0+	0.7+	2000 01 07	587	0.1+	0.1+
1991 07 06	809	0.5−	1.0+	1998 08 23	704	1.1+	2.0+	2000 01 15	104	0.0	0.2+
1991 07 07	809	1.0+	1.8−	1998 08 23	704	(0.2+	2.6+)	2000 01 15	104	0.6+	0.7+
1991 07 07	809	1.5+	1.7−	1998 08 23	704	(5.0−	1.6+)	2000 01 15	104	0.5+	0.1−
1998 08 17	704	0.6−	1.8+	2000 01 02	104	0.3+	0.1−	2000 02 04	104	0.1+	0.1+
1998 08 17	704	0.5−	0.3−	2000 01 03	104	(2.3+	0.3+)	2000 02 04	104	0.6+	0.2−
1998 08 17	704	0.1+	0.2+	2000 01 04	104	0.3−	0.3+	2000 02 04	104	0.2+	0.2+
1998 08 17	704	0.2+	1.1−	2000 01 04	104	0.2−	0.1+	2000 02 07	703	0.0	0.4−
1998 08 17	704	0.1+	1.0−	2000 01 05	587	0.3−	0.1+	2000 02 07	703	0.6−	0.2−
1998 08 19	566	0.5−	0.4−	2000 01 05	587	0.8−	1.4−	2000 02 07	703	1.3+	1.3+
1998 08 19	566	0.7−	0.8−	2000 01 05	587	0.1+	0.4+	2000 02 07	703	0.5−	0.1+
1998 08 19	566	0.9−	0.4−	2000 01 07	587	0.9−	1.2−				

2000 AB₃ = 1998 QZ₁₀₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	307.67356		(2000.0)	P	Q		
n	0.28496315	ω	92.37289	-0.95167023	$+0.28418092$		
a	2.2870566	Ω	104.15438	-0.30711281	-0.87766487		
e	0.1270772	i	6.89876	-0.00234342	-0.38593469		
P	3.46	H	14.3	G	0.15	U	4

Residuals in seconds of arc

1998 08 26	809	0.5−	0.6+	1999 12 18	699	0.1+	0.6+	2000 01 10	104	0.7+	0.3−
1998 08 26	809	0.2−	0.5+	1999 12 18	699	0.4−	0.6+	2000 01 26	108	0.1+	0.7−
1998 08 26	809	0.6−	1.3+	2000 01 03	104	0.5+	0.1−	2000 01 26	108	0.6+	0.5−
1998 08 27	809	0.3+	0.4−	2000 01 03	104	0.1+	0.4+	2000 01 26	108	0.3+	0.5−
1998 08 27	809	0.1−	0.2−	2000 01 03	104	0.1−	0.0	2000 01 30	704	0.1+	0.5+
1998 08 27	809	0.1+	0.4+	2000 01 03	104	0.0	0.0	2000 01 30	704	0.1+	0.0
1999 11 16	704	0.6+	0.4−	2000 01 03	104	0.4+	0.0	2000 01 30	704	0.0	0.7+
1999 11 16	704	0.7+	0.9−	2000 01 04	704	0.6−	0.0	2000 01 30	704	0.2−	0.1−
1999 11 16	704	1.2+	0.9−	2000 01 04	704	0.7−	0.6−	2000 01 30	704	1.1−	0.5+
1999 11 16	704	1.2+	1.1−	2000 01 04	704	0.9−	0.5−	2000 01 31	704	0.1+	0.4+
1999 11 16	704	0.4+	0.5−	2000 01 04	704	0.1+	0.3−	2000 01 31	704	0.3+	0.5+
1999 12 05	699	0.5−	0.8+	2000 01 04	704	0.6−	0.5+	2000 01 31	704	0.2+	0.5+
1999 12 05	699	0.0	0.7+	2000 01 06	704	0.4−	0.4−	2000 02 07	703	0.6+	0.6+
1999 12 05	699	0.6−	0.7+	2000 01 06	704	0.9−	0.7−	2000 02 07	703	0.1+	0.6+
1999 12 07	704	0.5+	1.9−	2000 01 06	704	0.7−	0.6−	2000 02 07	703	0.1+	1.0+
1999 12 07	704	(1.2+	3.1−)	2000 01 06	704	0.8−	0.4−	2000 02 07	703	0.3+	0.4+
1999 12 07	704	0.2+	1.2−	2000 01 06	704	1.1−	0.4−	2000 02 11	704	1.2+	0.3+
1999 12 07	704	0.3+	0.5+	2000 01 10	104	0.2−	0.1−	2000 02 11	704	0.1−	1.4+
1999 12 18	699	0.6−	0.4+	2000 01 10	104	0.2+	0.4−	2000 02 11	704	0.1−	1.1+

2000 AR₄ = 1980 WD₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	108.75397		(2000.0)	P	Q
n	0.21372002	ω	272.36074	+0.97198319	−0.17789896
a	2.7705921	Ω	97.91541	+0.22378834	+0.90028672
e	0.0901774	i	8.92276	−0.07188502	+0.39728552
P	4.61	H	13.9	G 0.15	U 3

Residuals in seconds of arc

1980 11 29	675	0.5+	0.2+	1999 12 07	704	1.0+	1.3−	2000 01 15	120	0.3+	0.2−
1980 12 01	675	0.5−	0.3−	1999 12 07	704	0.6+	0.6−	2000 01 30	704	0.2−	0.1+
1998 09 27	699	0.1−	0.5+	1999 12 18	699	0.3−	0.7−	2000 01 30	704	0.0	0.3+
1998 09 27	699	0.1−	0.2+	1999 12 18	699	1.0−	0.9+	2000 01 30	704	0.0	0.9+
1998 09 27	699	0.3−	0.3+	1999 12 18	699	0.1+	0.7+	2000 01 31	704	0.0	0.4+
1998 10 18	699	0.3+	0.2−	2000 01 02	120	0.5+	0.1−	2000 01 31	704	0.1+	0.3+
1998 10 18	699	0.1+	0.5−	2000 01 02	120	0.3−	0.5+	2000 01 31	704	0.0	0.7+
1998 10 18	699	0.0	0.2+	2000 01 04	704	0.0	0.3−	2000 02 07	703	1.2−	0.7+
1999 11 11	703	0.1+	0.0	2000 01 04	704	0.3−	0.1−	2000 02 07	703	0.4−	0.6+
1999 11 11	703	0.2+	0.5+	2000 01 04	704	0.3−	0.1−	2000 02 07	703	0.2−	0.5+
1999 11 11	703	0.1+	1.1+	2000 01 04	704	0.1+	0.7−	2000 02 07	703	1.3−	0.6+
1999 11 11	703	0.7−	0.8+	2000 01 04	704	0.1+	0.1−	2000 02 11	704	0.1+	0.7−
1999 11 16	704	1.1+	1.3−	2000 01 04	120	0.1−	0.3+	2000 02 11	704	1.0+	0.4−
1999 11 16	704	0.9−	0.2−	2000 01 05	120	0.0	1.4+	2000 02 11	704	0.5+	0.5−
1999 11 16	704	1.1+	0.4−	2000 01 05	120	0.4+	0.2+	2000 02 11	704	0.2+	0.7−
1999 11 16	704	0.3+	1.6−	2000 01 05	120	(0.7+	2.7+)	2000 02 11	704	0.5−	0.6−
1999 12 07	704	0.0	1.3−	2000 01 15	120	0.1+	0.2+				

2000 AV₄ = 1995 DP₁₃ = 1997 TO₂₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	262.44920		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.18015438	ω	20.27779	-0.55334570	$+0.83290876$
a	3.1048419	Ω	216.12681	-0.76618229	-0.51294660
e	0.1125158	i	0.82197	-0.32676175	-0.20772285
P	5.47	H	13.2	G 0.15	U 1

Residuals in seconds of arc

1995 02 22	033	0.5−	0.3−	2000 01 04	732	1.5−	0.2−	2000 01 16	615	0.2+	0.4−
1995 02 23	033	0.1+	0.6−	2000 01 04	732	0.5−	0.1+	2000 01 17	615	0.9+	0.3−
1995 02 24	033	0.3+	0.7+	2000 01 04	732	0.8−	0.4+	2000 01 17	615	0.6+	0.2−
1997 10 03	691	0.1+	0.2+	2000 01 04	732	0.2−	0.1+	2000 01 18	732	0.9+	0.2+
1997 10 03	691	0.2+	0.0	2000 01 04	732	0.1+	0.3+	2000 01 18	732	0.4+	0.9+
1997 10 03	691	0.4+	0.1+	2000 01 04	732	1.3−	0.2+	2000 01 18	732	0.1+	0.2+
1997 10 09	691	0.4−	0.2+	2000 01 04	732	0.9−	0.1+	2000 01 19	732	0.3+	0.3−
1997 10 09	691	0.2−	0.0	2000 01 05	732	1.4−	0.4−	2000 01 19	732	0.9−	0.1+
1997 10 09	691	0.4−	0.7+	2000 01 05	732	0.3−	1.2+	2000 01 19	732	0.1−	0.3−
1998 11 18	704	0.4+	0.5+	2000 01 05	732	0.4−	0.5+	2000 01 27	732	0.7−	0.3+
1998 11 18	704	0.9−	0.1−	2000 01 05	732	0.9−	0.4−	2000 01 27	732	0.2−	0.6+
1998 11 18	704	0.0	0.6−	2000 01 05	704	0.7+	0.2+	2000 01 27	732	0.1−	0.4+
1998 11 18	704	(5.6−	0.5+)	2000 01 05	704	0.8+	0.6−	2000 01 29	732	1.3−	0.1−
1998 11 19	699	0.5−	0.3−	2000 01 05	704	1.4+	0.6+	2000 01 29	732	0.4+	0.4+
1998 11 19	699	1.1−	0.2+	2000 01 05	704	1.3+	0.0	2000 01 29	732	0.2+	0.1+
1998 11 19	699	1.7+	0.6−	2000 01 05	704	1.1+	0.4+	2000 02 02	704	0.5+	0.7+
1998 11 21	704	0.2+	1.2−	2000 01 06	732	0.0	1.0−	2000 02 02	704	1.1+	0.0
1998 11 21	704	0.2+	1.0+	2000 01 06	732	0.7−	0.2−	2000 02 02	704	1.6+	0.2+
1998 11 21	704	(1.5−	2.2+)	2000 01 06	732	0.4−	0.0	2000 02 02	704	0.5+	0.3+
1998 11 21	704	(5.9−	3.1+)	2000 01 06	704	0.2−	0.8−	2000 02 02	704	0.9+	1.1+
2000 01 04	732	0.6−	0.4−	2000 01 06	704	0.1−	0.3−	2000 02 03	704	0.8+	0.0
2000 01 04	732	0.7−	0.1+	2000 01 06	704	0.5+	0.4−	2000 02 03	704	0.3+	0.3+
2000 01 04	732	0.1−	0.8−	2000 01 06	704	1.0+	0.3+	2000 02 03	704	0.3+	0.3−
2000 01 04	732	0.0	0.1−	2000 01 06	704	0.5−	0.5−	2000 02 03	704	0.2+	0.2−
2000 01 04	732	0.3+	0.5+	2000 01 07	732	1.2−	0.0	2000 02 03	704	0.1+	0.0
2000 01 04	732	1.0+	0.9+	2000 01 07	732	0.3−	0.5−	2000 02 07	732	0.4−	0.3−
2000 01 04	732	0.7−	0.0	2000 01 07	732	0.4−	0.2−	2000 02 07	732	0.6+	0.6−
2000 01 04	732	0.6−	0.4+	2000 01 15	615	0.8+	0.7+	2000 02 07	732	1.1−	0.5−
2000 01 04	732	0.9−	0.1−	2000 01 15	615	0.8+	0.1−	2000 02 09	732	0.2+	1.1−

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2000 01 04	732	0.4−	0.1−	2000 01 16	615	0.2+	0.1+	2000 02 09	732	0.1−	0.2−
2000 01 04	732	0.0	0.4+	2000 01 16	615	0.5+	0.6−	2000 02 09	732	0.0	0.4+

2000 AD₅ = 1998 XF₆₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	169.28009		(2000.0)		P		Q
n	0.23795101	ω	7.72868		+0.65328292		+0.73568901
a	2.5791564	Ω	303.25809		−0.70557765		+0.50592759
e	0.1728063	i	12.34912		−0.27455711		+0.45033205
P	4.14	H	13.3	G	0.15	U	3

Residuals in seconds of arc

1998 09 19	699	0.5+	0.2+	1999 12 07	704	0.4+	0.7−	2000 01 08	897	0.6−	0.1+
1998 09 19	699	0.3+	0.3−	1999 12 07	704	0.2+	1.0+	2000 01 11	704	0.0	0.2−
1998 09 19	699	0.0	0.4−	1999 12 07	704	0.3+	0.2−	2000 01 11	704	0.6+	0.1+
1998 10 29	699	0.3+	1.3+	1999 12 07	704	1.0−	0.7−	2000 01 11	704	0.4−	0.5+
1998 10 29	699	0.3−	1.4+	1999 12 08	704	1.2+	0.0	2000 01 11	704	0.0	0.7+
1998 10 29	699	0.2−	1.1+	1999 12 08	704	0.2−	1.1+	2000 01 11	704	0.3+	0.6+
1998 11 16	566	0.1+	1.2−	1999 12 08	704	0.5−	0.9−	2000 01 13	691	0.1+	0.4−
1998 11 16	566	0.4+	1.1−	1999 12 08	704	(2.2−	1.8−)	2000 01 13	691	0.1+	0.2−
1998 11 16	566	0.0	1.0−	2000 01 03	704	0.2−	0.1+	2000 01 13	691	0.2+	0.3−
1998 11 21	699	0.0	0.8+	2000 01 03	704	0.1+	1.2−	2000 01 30	704	0.3−	0.3+
1998 11 21	699	0.7−	0.2+	2000 01 03	704	0.4−	1.3−	2000 01 30	704	0.3+	0.2−
1998 11 21	699	0.9+	0.1+	2000 01 03	704	0.0	0.5−	2000 01 30	704	0.4+	0.7+
1998 12 09	704	0.5−	0.2+	2000 01 03	704	1.0+	0.3−	2000 01 30	704	0.1−	0.8+
1998 12 09	704	0.7−	0.6+	2000 01 03	897	0.9−	0.1+	2000 01 30	704	0.2+	1.4+
1998 12 09	704	1.6−	1.0−	2000 01 03	897	0.4−	0.1+	2000 01 31	704	0.3+	0.0
1998 12 09	704	(2.2−	0.3−)	2000 01 03	897	0.7−	0.7+	2000 01 31	704	0.5+	0.5+
1998 12 09	704	1.3+	0.2−	2000 01 04	704	0.6−	0.5−	2000 01 31	704	0.1−	0.4−
1998 12 11	704	0.6+	1.1+	2000 01 04	704	0.7−	0.5−	2000 02 07	703	0.0	0.6+
1998 12 11	704	0.3−	0.6−	2000 01 04	704	0.5−	0.2−	2000 02 07	703	0.1+	0.6+
1998 12 11	704	1.1−	0.2−	2000 01 04	704	0.3−	0.2−	2000 02 07	703	0.6+	1.1+
1998 12 11	704	1.0+	0.5+	2000 01 04	704	0.0	0.3−	2000 02 07	703	0.7−	0.4+
1998 12 11	704	0.4−	0.7−	2000 01 04	897	0.1−	0.6−	2000 02 11	704	0.0	0.1+
1999 01 08	704	0.6+	0.1+	2000 01 04	897	0.5−	0.3−	2000 02 11	704	0.4+	0.4−
1999 01 08	704	(1.5+	2.4−)	2000 01 04	897	0.0	0.7−	2000 02 11	704	0.3+	0.2−
1999 01 08	704	0.9−	1.5−	2000 01 08	691	0.0	0.2−	2000 02 11	704	0.2+	0.4+
1999 01 08	704	0.4−	0.2+	2000 01 08	691	0.1+	0.2−	2000 02 11	704	0.4+	0.1+
1999 01 08	704	(2.7−	0.3+)	2000 01 08	691	0.0	0.2−				
1999 12 07	704	1.2+	0.3−	2000 01 08	897	0.6−	0.2+				

2000 AF₅ = 1997 LQ₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

$\dot{M}$	16.06475		(2000.0)		P		Q
n	0.21751820	ω	318.79756		+0.20424291		−0.97556564
a	2.7382450	Ω	119.27201		+0.92071047		+0.16334172
e	0.1456799	i	5.32617		+0.33253130		+0.14693936
P	4.53	H	13.7	G	0.15	U	1

Residuals in seconds of arc

1949 11 19	675	1.1+	0.8−	1998 08 23	704	(4.9−	2.2+)	2000 01 05	428	0.9+	0.4−
1949 11 19	675	0.8−	0.4−	1999 11 04	704	0.1+	0.1+	2000 01 05	428	1.1−	0.3−
1997 06 05	691	0.6−	0.4+	1999 11 04	704	0.1+	0.4+	2000 01 06	704	0.3+	0.2+
1997 06 05	691	0.5−	0.4+	1999 11 04	704	0.2−	0.2−	2000 01 06	704	0.2+	0.6+
1997 06 05	691	0.7−	0.2−	1999 11 04	704	0.0	0.0	2000 01 06	704	0.1−	0.4+
1997 06 08	809	1.6+	1.1+	1999 11 04	704	0.6−	0.3+	2000 01 06	704	0.3−	0.3+
1997 06 08	809	0.2+	0.9+	1999 12 06	704	0.1−	0.2−	2000 01 06	704	0.3−	0.3+
1997 06 08	809	1.7+	0.7+	1999 12 06	704	0.1−	0.0	2000 01 08	428	0.9−	0.2+
1997 06 09	809	(2.7+	1.7+)	1999 12 06	704	0.0	0.3−	2000 01 14	428	0.9−	0.8+
1997 06 09	809	(2.2+	1.6+)	1999 12 06	704	0.2−	0.1+	2000 01 14	428	1.2−	0.7+
1997 06 09	809	1.6+	1.7+	1999 12 06	704	0.1−	0.1+	2000 01 26	428	0.3−	0.2+
1997 06 10	691	0.5−	0.7+	1999 12 14	704	0.1−	0.0	2000 02 02	704	0.3+	0.5+
1997 06 10	691	0.7−	0.2+	1999 12 14	704	0.0	0.1+	2000 02 02	704	0.2+	0.4+
1997 06 10	691	0.4−	0.4+	1999 12 14	704	0.0	0.2+	2000 02 02	704	0.3+	0.3−
1998 08 17	704	(2.1+	1.2−)	1999 12 14	704	0.2−	0.1+	2000 02 02	704	0.4+	0.5−
1998 08 17	704	0.5−	0.4−	1999 12 14	704	0.2−	0.4+	2000 02 02	704	0.6+	0.3+

1998 08 17	704	1.2+	0.8+	2000 01 03	428	0.3+	0.1−	2000 02 02	428	0.5+	0.5−
1998 08 17	704	1.0−	0.9−	2000 01 03	428	0.6+	0.2−	2000 02 03	704	0.2−	0.9+
1998 08 17	704	0.2+	1.2+	2000 01 05	704	0.7+	0.1+	2000 02 03	704	0.1+	0.3+
1998 08 23	704	1.3−	1.7+	2000 01 05	704	0.3+	0.1−	2000 02 03	704	0.6+	0.8+
1998 08 23	704	0.3−	0.9+	2000 01 05	704	0.1+	0.5+	2000 02 03	704	0.5+	1.5+
1998 08 23	704	0.1−	0.3−	2000 01 05	704	0.1+	0.2+	2000 02 04	428	0.5−	0.9+
1998 08 23	704	1.1+	1.1+	2000 01 05	704	0.3−	0.5+	2000 02 05	428	0.6−	0.3+

2000 AO₅ = 1973 GK = 1981 WA₃ = 1989 AX₆ = 1990 KU₂ = 1997 UR₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	280.21069		(2000.0)		P		Q
n	0.17846762	ω	119.58629		−0.60348476		+0.79645340
a	3.1243746	Ω	113.24387		−0.74524468		−0.54628977
e	0.1890932	i	2.38997		−0.28357805		−0.25928645
P	5.52	H	12.6	G	0.15	U	1

Residuals in seconds of arc

1973 04 10	805	0.3−	0.3+	1998 11 20	699	0.4−	0.8+	2000 01 28	691	0.1+	0.1−
1981 11 24	033	0.9+	0.5+	1998 11 24	704	(6.6−	0.1−)	2000 01 28	691	0.1+	0.1+
1981 11 24	033	0.2−	1.0+	1998 11 24	704	0.5+	1.0−	2000 01 28	691	0.2+	0.0
1989 01 11	033	0.3−	1.0−	1998 11 24	704	1.2+	1.6−	2000 01 30	704	0.3+	1.0+
1989 01 11	033	0.3−	0.7−	1998 11 24	704	0.3−	1.0−	2000 01 30	704	1.6−	0.3−
1989 01 14	033	0.1+	0.3+	2000 01 04	704	0.1+	0.3+	2000 01 30	704	0.5+	0.4+
1990 05 17	095	(1.3−	2.5−)	2000 01 04	704	0.1−	0.2−	2000 01 30	704	0.6+	0.9+
1990 05 17	095	(1.4−	2.3−)	2000 01 04	704	0.1+	0.1+	2000 01 30	704	0.5−	0.8+
1996 07 22	566	0.3+	0.6+	2000 01 04	704	0.0	0.2+	2000 02 03	704	0.1−	0.5+
1996 07 22	566	0.1+	1.1+	2000 01 04	704	0.4−	0.2+	2000 02 03	704	0.3+	0.5+
1996 07 22	566	0.2+	1.1+	2000 01 05	120	0.3−	0.3+	2000 02 03	704	0.5+	0.6+
1997 10 19	327	0.2+	0.2+	2000 01 05	120	0.3+	0.1−	2000 02 03	704	0.2+	0.2+
1997 10 19	327	0.3+	0.1−	2000 01 05	120	0.8−	0.2−	2000 02 03	704	0.0	0.1+
1997 10 19	327	0.4−	1.0−	2000 01 05	120	0.4+	0.2+	2000 02 07	703	0.6+	0.8+
1997 10 21	327	0.5−	0.2+	2000 01 05	120	1.1−	0.1−	2000 02 07	703	0.7+	0.8+
1997 10 21	327	0.2−	0.2−	2000 01 05	120	(2.5+	0.4−)	2000 02 07	703	(0.1−	2.7+)
1997 10 21	327	0.3−	0.1−	2000 01 06	704	0.9−	0.7−	2000 02 07	703	0.2−	0.3+
1997 10 30	704	0.1+	1.1−	2000 01 06	704	0.6−	0.0	2000 02 11	704	0.5+	0.0
1997 10 30	704	(3.0+	1.9−)	2000 01 06	704	0.2−	0.5−	2000 02 11	704	0.2+	0.8−
1997 10 30	704	1.2−	0.8+	2000 01 06	704	0.4−	1.0−	2000 02 11	704	0.7+	0.3−
1997 10 30	704	(2.9+	0.7−)	2000 01 16	120	0.3−	0.4+	2000 02 11	704	0.9+	0.0
1998 11 20	699	0.7+	1.7+	2000 01 16	120	0.5+	0.2+	2000 02 11	704	0.4+	0.5−
1998 11 20	699	0.7−	1.3+	2000 01 16	120	0.4−	0.1−				

2000 AK₆ = 1998 UW₄₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	166.32922		(2000.0)		P		Q	
n	0.19685346	ω	331.56247		+0.70685067		+0.70733529	
a	2.9266717	Ω	343.41416		−0.64478249		+0.64066364	
e	0.0760504	i	1.25234		−0.29089117		+0.29870869	
P	5.01	H	13.9		G	0.15	U	5

Residuals in seconds of arc

1998 10 19	699	0.1−	0.3+	1998 11 11	704

2000 FEB. 22

M.P.C. 38625

2000 AM₆ = 1998 SL₁₃₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	42.08094	(2000.0)	P		Q	
<i>n</i>	0.20204197	ω	342.93439	+0.14120120	-0.98812871	
<i>a</i>	2.8763495	Ω	98.91672	+0.91529227	+0.10700585	
<i>e</i>	0.0099912	<i>i</i>	3.51274	+0.37722974	+0.11023343	
<i>P</i>	4.88	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i> 3

Residuals in seconds of arc

1998 09 18	699	0.2+	0.6+	1999 11 16	704	0.3+	1.1-	2000 01 07	684	0.4-	0.1+
1998 09 18	699	0.1-	0.0	1999 12 30	699	1.0+	0.2-	2000 01 07	684	0.3-	0.2+
1998 09 18	699	0.3-	0.0	1999 12 30	699	0.9+	0.6+	2000 01 11	684	0.1+	0.1+
1998 09 26	704	0.1+	1.2-	1999 12 30	699	0.9+	0.2-	2000 01 11	684	0.1+	0.1+
1998 09 26	704	0.8+	1.1-	2000 01 02	691	0.2+	0.0	2000 01 11	691	0.2-	0.2-
1998 09 26	704	0.9+	1.7-	2000 01 02	691	0.4+	0.0	2000 01 11	691	0.2-	0.3-
1998 09 26	704	1.3+	1.7-	2000 01 02	691	0.4+	0.0	2000 01 11	691	0.5-	0.4-
1998 09 26	704	1.7-	1.0-	2000 01 04	704	0.9-	0.5+	2000 01 30	704	0.1+	0.3+
1998 09 27	704	0.1-	0.0	2000 01 04	704	0.7-	0.1-	2000 01 30	704	0.0	0.1+
1998 09 27	704	0.4+	1.0+	2000 01 04	704	0.1+	1.1-	2000 01 30	684	0.2+	0.6-
1998 09 27	704	0.1-	1.3+	2000 01 04	684	0.1-	0.5+	2000 01 30	684	0.3-	0.6-
1998 09 27	704	0.5-	0.1+	2000 01 04	704	0.7-	0.5+	2000 01 30	704	0.3-	0.2-
1998 09 27	704	0.1+	0.1-	2000 01 04	684	1.0-	0.1+	2000 01 30	704	0.1+	0.0
1998 10 11	699	0.1+	0.8+	2000 01 06	704	0.4-	0.3+	2000 01 31	704	0.5+	0.4+
1998 10 11	699	0.0	1.2+	2000 01 06	684	0.4-	0.1-	2000 01 31	704	0.5+	0.3+
1998 10 11	699	0.0	0.9+	2000 01 06	684	0.5-	0.0	2000 01 31	704	0.4+	0.2+
1998 11 10	704	1.3+	1.2+	2000 01 06	704	0.1-	0.8+	2000 01 31	704	0.3-	0.2+
1998 11 10	704	1.2-	0.7+	2000 01 06	704	0.2-	0.8+	2000 02 11	704	0.3+	0.0
1998 11 10	704	1.4-	0.6-	2000 01 06	704	0.8+	1.3+	2000 02 11	704	0.1+	0.1+
1998 11 10	704	0.2-	0.2+	2000 01 06	691	0.1+	0.5-	2000 02 11	704	0.3+	0.3-
1999 11 16	704	0.1+	1.5-	2000 01 06	691	0.1-	0.3-	2000 02 11	704	0.1+	0.8+
1999 11 16	704	0.4-	1.6-	2000 01 06	691	0.1-	0.6-	2000 02 11	704	0.2+	0.3+

2000 AN₆ = 1998 XB₈₅

Id. B. G. Marsden

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	3.36395	(2000.0)	P		Q	
<i>n</i>	0.08352599	ω	4.65282	-0.45529928	-0.86221213	
<i>a</i>	5.1830845	Ω	112.57287	+0.80891533	-0.50477354	
<i>e</i>	0.0312957	<i>i</i>	13.91248	+0.37196580	+0.04235467	
<i>P</i>	11.80	<i>H</i>	11.2	<i>G</i>	0.15	<i>U</i> 4

Residuals in seconds of arc

1998 12 15	704	0.2-	0.1+	2000 01 06	704	0.3+	0.1+	2000 01 30	684	0.1+	0.3-
1998 12 15	704	0.5+	0.7-	2000 01 06	704	0.9+	1.1-	2000 01 30	704	0.3+	0.1-
1998 12 15	704	0.0	1.3-	2000 01 06	684	0.5-	0.3+	2000 01 30	684	0.4+	0.6-
1998 12 15	704	1.4-	1.0-	2000 01 06	684	0.4-	0.2+	2000 01 30	704	0.2+	0.2-
1998 12 15	704	0.7+	1.0+	2000 01 07	684	0.1+	0.2+	2000 02 07	703	0.6-	0.3+
1998 12 22	704	0.8-	1.4+	2000 01 07	684	0.2-	0.5+	2000 02 07	703	0.2+	0.4+
1998 12 22	704	1.6+	0.1+	2000 01 11	684	0.0	0.2-	2000 02 07	703	0.1-	0.0
1998 12 22	704	0.4-	1.2+	2000 01 11	684	0.2-	0.2-	2000 02 07	703	0.1-	0.8+
1998 12 22	704	0.5+	1.4-	2000 01 11	691	0.1+	0.5-	2000 02 11	704	0.4+	0.9+
1998 12 22	704	0.5-	0.6+	2000 01 11	691	0.1+	0.4-	2000 02 11	704	0.1-	0.7+
2000 01 04	684	0.3-	0.7+	2000 01 11	691	0.1+	0.5-	2000 02 11	704	0.1-	0.1+
2000 01 04	684	0.2-	0.5+	2000 01 30	704	0.4+	0.0	2000 02 11	704	0.2-	0.5-
2000 01 06	704	0.0	0.2+	2000 01 30	704	0.0	0.1+	2000 02 11	704	0.5-	1.4-

2000 AT₇ = 1996 VL₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	209.38040	(2000.0)	P		Q	
<i>n</i>	0.27625557	ω	206.33559	-0.14721115	+0.98260899	
<i>a</i>	2.3348663	Ω	55.39991	-0.88149651	-0.07843262	
<i>e</i>	0.0881733	<i>i</i>	7.90274	-0.44865663	-0.16830895	
<i>P</i>	3.57	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i> 3

Residuals in seconds of arc

1996 11 13	599	0.5-	0.3-	2000 01 02	704	0.2+	0.4+	2000 01 29	704	0.0	0.0
1996 11 13	599	0.4+	0.5+	2000 01 02	704	0.1+	0.3-	2000 01 29	704	0.1-	0.1+
1996 11 14	599	0.3+	0.4-	2000 01 02	704	0.2-	0.3-	2000 01 29	704	0.3+	0.8+
1996 11 14	599	0.3-	0.1+	2000 01 02	704	0.3-	0.1+	2000 01 30	704	0.3-	0.2-
1998 08 20	699	0.2+	0.0	2000 01 04	704	0.1-	0.7-	2000 01 30	704	0.1+	0.1-
1998 08 20	699	0.2-	0.3+	2000 01 04	704	0.2-	0.1-	2000 01 30	704	0.7+	0.2-
1998 08 20	699	0.0	0.4-	2000 01 04	704	0.2-	0.1+	2000 01 30	704	0.9+	0.4-
1999 12 15	704	0.3-	0.3-	2000 01 04	704	0.9+	0.4+	2000 01 30	704	0.6-	0.1+
1999 12 15	704	0.7-	0.1+	2000 01 29	704	0.0	0.0				
1999 12 15	704	0.1-	0.1+	2000 01 29	704	0.1+	0.6+				

2000 AE₈ = 1998 RK₅₀

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	286.98672	(2000.0)	P		Q	
<i>n</i>	0.26635556	ω	191.01437	-0.93022317	+0.36662556	
<i>a</i>	2.3923692	Ω	10.53810	-0.32950658	-0.81462971	
<i>e</i>	0.1489514	<i>i</i>	5.15992	-0.16158670	-0.44940420	
<i>P</i>	3.70	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i> 5

Residuals in seconds of arc

1998 09 14	704	1.4+	0.8+	1998 09 18	704	1.5-	0.1-	2000 01 04	704	0.1+	1.1+
1998 09 14	704	(0.7+ 2.3+)		1999 12 12	704	0.5-	0.2+	2000 01 04	704	0.1+	1.1+
1998 09 14	704	0.7-	0.7-	1999 12 12	704	0.4+	0.4-	2000 01 04	704	0.5+	0.5+
1998 09 14	704	0.8+	0.9+	1999 12 12	704	0.1-	0.2+	2000 01 25	704	0.1+	0.1-
1998 09 17	699	0.8+	0.9+	1999 12 12	704	0.2-	0.0	2000 01 25	704	0.5+	0.3+
1998 09 17	699	1.0-	0.1-	1999 12 12	704	0.0	0.2-	2000 01 25	704	0.1+	0.7+
1998 09 17	699	0.3+	0.2-	2000 01 02	704	0.2-	0.1+	2000 01 29	704	0.3+	0.1+
1998 09 18	704	1.4+	1.7-	2000 01 02	704	0.3-	0.9-	2000 01 29	704	0.1-	1.1-
1998 09 18	704	0.2-	1.1+	2000 01 02	704	0.0	0.2-	2000 01 29	704	0.5-	0.6-
1998 09 18	704	1.8-	0.3+	2000 01 02	704	0.2-	0.6-	2000 01 29	704	0.4-	0.1-
1998 09 18	704	0.7+	1.2-	2000 01 04	704	0.2+	0.2+	2000 01 29	704	0.2+	0.3-

2000 AQ₉ = 1993 FK₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	7.01310	(2000.0)	P		Q	
<i>n</i>	0.26708022	ω	89.47323	-0.45835209	-0.88813922	
<i>a</i>	2.3880398	Ω	27.88505	+0.78429110	-0.42191285	
<i>e</i>	0.1508606	<i>i</i>	4.10714	+0.41809190	-0.18220391	
<i>P</i>	3.69	<i>H</i>	15.4	<i>G</i>	0.15	<i>U</i> 3

Residuals in seconds of arc

1993 03 17	809	0.8-	1.0+	1999 12 10	704	0.1-	0.1+	2000 01 04	704	0.2-	0.4-
1993 03 18	809	0.7+	0.4-	1999 12 10	704	0.2+	0.3-	2000 01 04	704	0.0	0.4+
1993 03 23	809	0.4+	0.3-	1999 12 10	704	0.2+	0.1-	2000 01 04	704	0.5-	0.0
1993 03 23	691	0.6-	0.7-	1999 12 31	699	0.2-	0.0	2000 01 29	704	0.0	0.4+
1993 03 23	691	0.4-	0.7-	1999 12 31	699	0.5-	0.1+	2000 01 29	704	0.2-	0.9+
1999 11 16	704	0.1-	0.1+	1999 12 31	699	0.2-	0.5+	2000 01 29	704	0.2-	0.9+
1999 11 16	704	0.1-	0.7-	2000 01 02	704	0.3-	0.1+	2000 01 29	704	0.1+	1.3+
1999 11 16	704	0.9-	0.1-	2000 01 02	704	0.4-	0.5-	2000 01 29	704	0.2-	1.2+
1999 11 16	704	1.1+	0.9-	2000 01 02	704	0.6-	0.4-	2000 01 30	704	0.1+	0.5+
1999 11 16	704	0.5-	0.3-	2000 01 02	704	0.7+	1.2-	2000 01 30	704	0.3+	0.3+
1999 12 10	704	0.8+	0.1+	2000 01 04	704	0.1-	0.2-	2000 01 30	704	0.7+	1.6-
1999 12 10	704	0.7+	1.0-	2000 01 04	704	0.3+	0.5+				

2000 AR₉ = 1995 UX₁₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	315.03056	(2000.0)	P		Q	
<i>n</i>	0.29278793	ω	165.99579	-0.99933464	-0.03135157	
<i>a</i>	2.2461251	Ω	12.25321	+0.01874333	-0.87980003	
<i>e</i>	0.0962391	<i>i</i>	5.03796	+0.03128831	-0.47430896	
<i>P</i>	3.37	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i> 3

Residuals in seconds of arc

1995 10 17	691	0.1+	0.1+	1999 12 10	704	0.1-	0.7+	2000 01 06	678	0.7+	0.1-
1995 10 17	691	0.1+	0.2-	1999 12 10	704	0.4-	0.3+	2000 01 06	678	1.2-	0.4+
1995 10 17	691	0.1-	0.1+	1999 12 31	699	1.1+	0.2+	2000 01 29	704	0.1-	0.2-
1995 10 22	691	0.1+	0.3-	1999 12 31	699	0.7+	0.3-	2000 01 29	704	0.1-	0.1+
1995 10 22	691	0.0	0.3-	1999 12 31	699	0.2+	0.6+	2000 01 29	704	0.1+	0.2-
1995 10 22	691	0.2+	0.1-	2000 01 02	704	0.6+	0.2+	2000 01 29	704	0.1+	0.5-
1998 08 17	704	0.2-	1.2+	2000 01 02	704	0.3-	0.5-	2000 01 29	704	0.7+	0.9-
1998 08 17	704	0.5-	0.8-	2000 01 02	704	0.3-	0.1+	2000 01 30	704	0.1+	0.2+
1998 08 17	704	1.0-	0.2-	2000 01 02	704	0.5+	0.7+	2000 01 30	704	0.4-	0.1+
1998 08 17	704	1.0+	1.0+	2000 01 02	704	0.2-	0.6+	2000 01 30	704	0.4+	0.3+
1998 08 17	704	(3.9-	0.0)	2000 01 04	704	0.6-	0.4-	2000 01 30	704	0.3+	0.1+
1999 12 03	699	0.7+	0.1-	2000 01 04	704	0.7+	0.2-	2000 02 11	704	0.4-	0.3+
1999 12 03	699	0.1+	0.4-	2000 01 04	704	0.2-	0.5-	2000 02 11	704	0.1-	0.4+
1999 12 03	699	0.3+	0.4+	2000 01 04	704	1.5-	0.9-	2000 02 11	704	0.1+	0.6+
1999 12 10	704	0.0	0.2-	2000 01 04	704	0.1-	0.8-	2000 02 11	704	0.3-	1.1+
1999 12 10	704	0.2+	0.5-	2000 01 05	678	0.2-	0.1-	2000 02 11	704	0.5-	0.0
1999 12 10	704	0.0	0.6+	2000 01 05	678	0.6-	0.2-				

2000 AR₁₄ = 1993 FS₇₃

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	352.81152		(2000.0)	<i>P</i>		<i>Q</i>
<i>n</i>	0.26160573	ω	205.20459	-0.53255509	-0.84593876	
<i>a</i>	2.4212402	Ω	276.98489	+0.78121935	-0.47864306	
<i>e</i>	0.1647278	<i>i</i>	1.60478	+0.32570141	-0.23513492	
<i>P</i>	3.77	<i>H</i>	15.8	<i>G</i>	0.15	<i>U</i> 4

Residuals in seconds of arc

1993 03 21	809	0.5-	0.3+	1999 12 07	704	0.0	1.0+	2000 01 04	704	0.5-	0.2+
1993 03 21	809	0.1+	0.4+	2000 01 03	704	0.8+	0.1-	2000 01 04	704	0.0	0.3-
1993 03 22	809	0.4+	0.5-	2000 01 03	704	0.6-	1.1-	2000 01 04	691	0.4-	1.3-
1997 05 07	704	0.0	0.4+	2000 01 03	704	0.3+	0.8-	2000 01 09	691	1.1-	0.5-
1997 05 07	704	0.7+	0.0	2000 01 03	704	0.3+	0.9-	2000 01 09	691	0.6+	0.1+
1997 05 07	704	0.1-	0.7-	2000 01 04	704	0.4-	0.8+	2000 01 09	691	0.2+	0.3+
1997 05 07	704	0.6-	0.4+	2000 01 04	691	0.1+	0.4+	2000 01 13	691	0.1-	0.7+
1999 12 07	704	0.1-	1.3+	2000 01 04	704	0.2-	0.7-	2000 01 13	691	0.0	0.3+
1999 12 07	704	0.6+	0.0	2000 01 04	691	0.5+	0.2+	2000 01 13	691	0.1-	0.4+

2000 AS₁₆ = 1993 FG₂₆ = 1997 HC₁₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	353.98116		(2000.0)	<i>P</i>		<i>Q</i>
<i>n</i>	0.26162141	ω	147.81545	-0.53343753	-0.84565441	
<i>a</i>	2.4211435	Ω	334.40948	+0.76710578	-0.47486493	
<i>e</i>	0.1279931	<i>i</i>	2.34753	+0.35636094	-0.24366354	
<i>P</i>	3.77	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i> 3

Residuals in seconds of arc

1993 03 21	809	0.7-	0.1-	1997 05 01	704	0.4+	0.4-	2000 01 04	704	0.1+	0.0
1993 03 22	809	0.3+	0.8-	1997 05 01	704	0.2-	0.5-	2000 01 30	704	0.4+	1.2+
1993 03 26	809	(5.0-	2.7-)	2000 01 03	704	0.4+	0.5+	2000 01 30	704	0.7+	0.8+
1997 04 30	704	0.5+	0.1-	2000 01 03	704	0.5-	0.1-	2000 01 30	704	0.0	0.8+
1997 04 30	704	0.5+	0.2-	2000 01 03	704	0.2-	0.1+	2000 01 30	704	0.3+	0.0
1997 04 30	704	0.2+	0.4+	2000 01 03	704	0.5-	0.1-	2000 01 30	704	0.8-	0.3-
1997 04 30	704	0.5-	0.3-	2000 01 03	704	0.0	0.4-	2000 01 31	704	0.4+	0.8-
1997 04 30	704	0.4+	0.5+	2000 01 04	704	0.0	0.6+	2000 01 31	704	1.2-	0.0
1997 05 01	704	0.3+	0.1-	2000 01 04	704	0.3+	0.1-	2000 01 31	704	0.1-	1.0-
1997 05 01	704	0.3-	1.2+	2000 01 04	704	0.1+	0.2+	2000 01 31	704	0.5-	0.9-
1997 05 01	704	0.7-	0.9+	2000 01 04	704	0.9+	0.2+				

2000 AO₁₇ = 1993 ND

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	229.22377		(2000.0)	<i>P</i>		<i>Q</i>
<i>n</i>	0.22736240	ω	150.07721	-0.35322875	+0.90903012	
<i>a</i>	2.6586242	Ω	98.47113	-0.89657779	-0.26143044	
<i>e</i>	0.1483882	<i>i</i>	12.91811	-0.26716608	-0.32452790	
<i>P</i>	4.33	<i>H</i>	12.9	<i>G</i>	0.15	<i>U</i> 2

Residuals in seconds of arc

1993 07 15	675	0.3+	0.3-	2000 01 04	704	0.3-	0.2-	2000 01 25	704	0.3-	0.1-
1993 07 15	675	1.1+	0.1-	2000 01 04	704	0.1+	0.1+	2000 01 25	704	0.0	0.1-
1993 07 20	675	0.8-	0.6-	2000 01 04	704	0.6-	0.2+	2000 01 25	704	0.3-	0.3-
1993 07 20	675	0.5-	0.0	2000 01 04	704	0.1-	0.6+	2000 01 30	704	0.4+	0.1+
1998 11 16	566	0.0	0.3+	2000 01 04	704	0.0	0.7+	2000 01 30	704	0.0	0.7+
1998 11 16	566	0.3-	0.2+	2000 01 05	704	0.1+	0.0	2000 01 30	704	0.2-	0.3-
1998 11 16	566	0.1+	0.0	2000 01 05	704	0.0	0.0	2000 01 30	704	0.5-	0.2+
1999 12 08	704	0.1-	0.2-	2000 01 05	704	0.0	0.1+	2000 01 30	704	0.2-	0.5+
1999 12 08	704	0.0	0.7-	2000 01 05	704	0.2-	0.0	2000 01 31	704	0.4-	0.0
1999 12 08	704	1.1-	0.8-	2000 01 05	704	0.0	0.2-	2000 01 31	704	0.4-	0.3-
1999 12 08	704	0.7+	0.9-	2000 01 08	704	0.2-	0.2+	2000 01 31	704	0.5-	0.4+
1999 12 08	704	(2.1-	0.9-)	2000 01 08	704	0.1+	0.5-	2000 01 31	704	0.1-	0.3+
2000 01 03	704	0.2-	0.3-	2000 01 08	704	0.4+	0.4+	2000 02 11	704	1.7+	1.0-
2000 01 03	704	0.0	0.4+	2000 01 08	704	1.1+	1.6+	2000 02 11	704	0.1+	0.3+
2000 01 03	704	0.4-	0.1+	2000 01 08	704	0.4+	0.3-	2000 02 11	704	0.7+	0.5-
2000 01 03	704	0.1-	0.3-	2000 01 25	704	0.3+	0.1-	2000 02 11	704	0.3+	0.4-
2000 01 03	704	0.2+	0.2-	2000 01 25	704	0.1+	0.0	2000 02 11	704	0.4-	0.3-

2000 AS₁₇ = 1998 QF₇₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	62.99307		(2000.0)	<i>P</i>		<i>Q</i>
<i>n</i>	0.19225496	ω	114.92421	+0.81429457	-0.56115827	
<i>a</i>	2.9731558	Ω	279.54000	+0.46333758	+0.78240237	
<i>e</i>	0.1041147	<i>i</i>	8.65544	+0.34963215	+0.27008874	
<i>P</i>	5.13	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i> 3

Residuals in seconds of arc

1998 08 24	704	0.1+	0.3-	1998 10 11	699	0.4-	1.0-	2000 01 03	704	1.3-	0.2-
1998 08 24	704	1.1+	1.0+	1999 11 16	704	0.7+	0.5+	2000 01 03	704	0.3-	0.0
1998 08 24	704	1.1-	1.1+	1999 11 16	704	0.3+	0.3+	2000 01 04	704	0.1-	0.3+
1998 08 24	704	(2.6+	1.4+)	1999 11 16	704	0.5+	0.3-	2000 01 04	704	0.1-	0.0
1998 08 27	704	0.2-	0.2-	1999 11 16	704	0.3+	0.0	2000 01 04	704	0.2+	0.1-
1998 08 27	704	0.4+	0.3-	1999 11 16	704	0.5-	0.1+	2000 01 04	704	0.0	0.0
1998 08 27	704	0.5-	0.4+	1999 12 07	704	0.5-	0.8-	2000 01 04	704	0.2+	0.0
1998 08 27	704	0.3-	0.3+	1999 12 07	704	0.2+	0.3-	2000 02 02	704	0.4+	0.0
1998 08 27	704	0.4-	0.4+	1999 12 07	704	0.2-	0.3+	2000 02 02	704	0.1-	0.2+
1998 09 21	699	0.1-	0.6-	1999 12 07	704	0.1+	0.3+	2000 02 02	704	0.4+	0.1+
1998 09 21	699	1.4+	0.4+	1999 12 07	704	0.6-	0.1-	2000 02 02	704	0.2+	0.0
1998 09 21	699	0.2-	0.3-	2000 01 03	704	0.1+	0.1-	2000 02 02	704	0.2+	0.1+
1998 10 11	699	0.1+	0.1-	2000 01 03	704	0.1-	0.2-				
1998 10 11	699	0.1-	0.7-	2000 01 03	704	0.3+	0.3+				

2000 AW₁₇ = 1995 UB₅₀

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	87.82177		(2000.0)	<i>P</i>		<i>Q</i>
<i>n</i>	0.27745457	ω	19.17816	+0.99326336	-0.11579092	
<i>a</i>	2.3281348	Ω	347.46853	+0.10341460	+0.90332018	
<i>e</i>	0.1630420	<i>i</i>	1.19150	+0.05228110	+0.41304373	
<i>P</i>	3.55	<i>H</i>	15.9	<i>G</i>	0.15	<i>U</i> 6

Residuals in seconds of arc

1995 10 16	691	0.2-	0.2+	2000 01 03	704	0.8+	0.4-	2000 01 04	704	1.3-	0.6+
1995 10 16	691	0.3-	0.8+	2000 01 03	704	0.8+	1.0-	2000 01 04	704	1.7-	0.9+
1995 10 21	691	0.4+	0.4-	2000 01 03	704	0.4+	1.0-	2000 01 06	704	0.6+	0.5+
1995 10 21	691	0.3+	0.6-	2000 01 03	704	0.1+	0.1-	2000 01 06	704	0.9+	0.7+

2000 FEB. 22

M.P.C. 38627

1995 10 21 691 0.1− 0.0 2000 01 04 704 1.5− 0.4+ 2000 01 06 704 0.8+ 0.5−
 2000 01 03 704 1.4+ 0.7− 2000 01 04 704 1.2− 0.6+

2000 AZ₂₂ = 1984 EG₁ = 1995 DY₁₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M 329.54239 (2000.0) **P** **Q**
n 0.17892140 ω 129.59401 −0.85998757 −0.51027264
a 3.1190897 Ω 19.72672 +0.46203261 −0.78402650
e 0.1116418 *i* 1.11595 +0.21667313 −0.35344629
P 5.51 *H* 13.8 *G* 0.15 *U* 4

Residuals in seconds of arc

1984 03 02 801 0.2+ 0.5+ 2000 01 03 704 0.5+ 0.3+ 2000 01 04 704 0.3− 0.1−
 1995 02 22 033 0.3+ 0.6− 2000 01 03 704 1.0− 0.0 2000 01 30 704 0.2+ 0.9+
 1995 02 23 033 0.1+ 0.9− 2000 01 03 704 0.0 0.1+ 2000 01 30 704 0.3+ 0.1−
 1995 02 24 033 0.6− 1.1+ 2000 01 03 704 0.1− 0.6− 2000 01 30 704 0.0 1.6−
 1999 12 07 704 1.0+ 0.2+ 2000 01 04 704 1.0− 0.3− 2000 01 31 704 0.0 0.7+
 1999 12 07 704 0.3+ 0.3+ 2000 01 04 704 0.1− 0.2− 2000 01 31 704 0.1− 0.3−
 1999 12 07 704 0.8+ 0.0 2000 01 04 704 0.1− 0.1+ 2000 01 31 704 0.0 0.2+
 1999 12 07 704 0.3+ 0.3+ 2000 01 04 704 0.5− 0.0 2000 01 31 704 0.0 0.3+

2000 AC₂₃ = 1997 LU₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M 76.54111 (2000.0) **P** **Q**
n 0.21733245 ω 304.61153 +0.88743136 −0.43836835
a 2.7398051 Ω 81.76216 +0.45582371 +0.78868259
e 0.0811983 *i* 8.27701 +0.06848601 +0.43106028
P 4.54 *H* 14.2 *G* 0.15 *U* 4

Residuals in seconds of arc

1997 06 08 809 0.3+ 0.7+ 2000 01 03 704 0.7− 0.2− 2000 01 30 704 0.3− 0.0
 1997 06 08 809 0.3+ 1.4+ 2000 01 04 704 0.5− 0.1− 2000 01 30 704 0.5− 0.0
 1997 06 08 809 1.3+ 1.1+ 2000 01 04 704 0.5+ 0.8− 2000 01 30 704 0.4+ 0.6+
 1997 06 09 809 0.5− 0.4− 2000 01 04 704 0.1+ 0.5− 2000 01 30 704 0.4− 0.5+
 1997 06 09 809 0.1− 1.4− 2000 01 04 704 0.2+ 0.3+ 2000 01 31 704 0.3− 0.6−
 1997 06 09 809 1.3− 1.5− 2000 01 08 704 0.7+ 0.5+ 2000 01 31 704 0.3+ 0.2+
 2000 01 03 704 0.4− 0.4− 2000 01 08 704 1.2+ 2.0+ 2000 01 31 704 0.1− 0.8−
 2000 01 03 704 0.3+ 0.3− 2000 01 08 704 1.3− 0.5+ 2000 01 31 704 0.3+ 0.6−
 2000 01 03 704 0.0 0.7− 2000 01 08 704 (0.0 2.2+)
 2000 01 03 704 0.2− 0.1+ 2000 01 30 704 0.7+ 0.1+

2000 AO₂₃ = 1996 LY₁ = 1998 UQ₄₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M 257.30045 (2000.0) **P** **Q**
n 0.17623969 ω 182.02599 −0.75815446 +0.65153035
a 3.1506506 Ω 38.67401 −0.59766588 −0.67797238
e 0.0701121 *i* 2.44392 −0.26076295 −0.34038456
P 5.59 *H* 13.0 *G* 0.15 *U* 4

Residuals in seconds of arc

1996 06 12 566 0.5− 0.5− 1998 10 29 704 1.2+ 0.2− 2000 01 04 704 0.1+ 0.4−
 1996 06 12 566 0.3− 0.6− 1998 10 29 704 0.0 0.8− 2000 01 30 704 0.2− 0.2+
 1996 06 12 566 0.6− 0.5− 1998 10 29 704 0.6+ 0.4− 2000 01 30 704 0.0 0.9+
 1996 06 22 566 0.1− 0.9− 2000 01 03 704 0.5− 0.8− 2000 01 30 704 0.0 0.4−
 1996 06 22 566 0.1+ 0.8− 2000 01 03 704 0.3− 0.3− 2000 01 30 704 0.4+ 0.5+
 1996 06 22 566 0.1+ 1.3− 2000 01 03 704 0.4− 0.3− 2000 01 30 704 0.4+ 0.1−
 1998 10 28 704 0.1+ 0.2+ 2000 01 03 704 0.1+ 0.0 2000 01 31 704 0.3− 0.2−
 1998 10 28 704 0.4− 0.8− 2000 01 03 704 0.6− 0.6− 2000 01 31 704 0.2+ 0.4+
 1998 10 28 704 0.3− 1.2− 2000 01 04 704 0.1− 0.2− 2000 01 31 704 0.4+ 0.2−
 1998 10 28 704 1.1+ 1.3+ 2000 01 04 704 0.3− 0.2− 2000 01 31 704 0.9+ 0.1−
 1998 10 29 704 0.2+ 0.1+ 2000 01 04 704 0.1− 0.2−
 1998 10 29 704 1.3− 1.0− 2000 01 04 704 0.3+ 0.6−

2000 AL₂₄ = 1998 RS₅₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M 125.97622 (2000.0) **P** **Q**
n 0.22563291 ω 272.91456 +0.94307174 +0.32853215
a 2.6721925 Ω 67.91021 −0.27861147 +0.86542078
e 0.0806499 *i* 3.20416 −0.18163520 +0.37830346
P 4.37 *H* 14.4 *G* 0.15 *U* 4

Residuals in seconds of arc

1997 05 07 704 0.4+ 0.2+ 1998 09 14 704 0.2+ 0.4+ 2000 01 04 704 0.4+ 0.4−
 1997 05 07 704 0.3− 0.3− 1998 09 18 704 (1.6− 2.5+) 2000 01 04 704 0.3+ 0.6−
 1997 05 07 704 0.4+ 1.0− 1998 09 18 704 0.9− 1.4+ 2000 01 04 704 0.0 0.5−
 1997 05 07 704 0.5− 0.8+ 1998 09 18 704 0.3− 0.2+ 2000 01 04 704 0.1− 0.6−
 1998 08 23 704 0.2+ 2.0− 1998 09 18 704 1.3+ 1.1− 2000 01 25 704 0.6− 0.7+
 1998 08 23 704 0.4− 0.3+ 1999 12 07 704 (0.9− 2.3+) 2000 01 25 704 0.0 0.0
 1998 08 23 704 0.6− 1.0− 1999 12 07 704 0.6− 0.5− 2000 01 25 704 0.4− 0.8+
 1998 08 23 704 0.6− 0.8− 1999 12 07 704 0.0 0.4+ 2000 01 25 704 0.3− 1.2+
 1998 08 30 699 0.4+ 0.7+ 2000 01 03 704 0.0 0.4− 2000 01 30 704 0.5+ 0.2+
 1998 08 30 699 0.2+ 1.4+ 2000 01 03 704 0.4+ 1.3− 2000 01 30 704 0.0 0.1−
 1998 08 30 699 0.1+ 0.7+ 2000 01 03 704 0.2+ 0.4+ 2000 01 30 704 0.3+ 0.7+
 1998 09 14 704 0.1+ 0.3+ 2000 01 03 704 0.1+ 0.2− 2000 01 30 704 0.4− 1.2+
 1998 09 14 704 0.2− 0.6− 2000 01 03 704 0.0 0.4−
 1998 09 14 704 0.4+ 0.3+ 2000 01 04 704 0.2− 0.4−

2000 AE₂₅ = 1999 XT₈₄ = 1987 UX₆ = 1989 CV₅ = 1998 RG₃₀

Id. G. V. Williams (d, *MPC* 38194; unpublished), M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M 61.06701 (2000.0) **P** **Q**
n 0.17207851 ω 278.50008 +0.84321037 −0.53756688
a 3.2012404 Ω 114.01818 +0.49503810 +0.77336607
e 0.1931011 *i* 0.26693 +0.20960329 +0.33604578
P 5.73 *H* 13.5 *G* 0.15 *U* 1

Residuals in seconds of arc

1987 10 27 095 0.6+ 1.9− 1998 09 18 704 0.3− 0.8+ 2000 01 08 704 0.4+ 0.3+
 1989 02 02 033 0.7− 0.5+ 1998 09 18 704 1.0− 0.1+ 2000 01 08 704 0.1+ 0.0
 1989 02 04 033 0.1+ 0.5+ 1998 09 18 704 0.5− 0.3+ 2000 01 08 704 0.2− 0.4+
 1992 07 24 809 (3.8+ 0.7−) 1998 09 18 704 0.9− 0.8+ 2000 01 08 704 0.0 0.1+
 1992 07 24 809 1.5+ 1.5− 1999 12 07 704 1.2− 0.4− 2000 01 08 691 0.4− 0.2−
 1992 07 24 809 0.5+ 0.5− 1999 12 07 704 0.7+ 0.3− 2000 01 08 691 0.5− 0.2−
 1998 08 17 704 0.9− 0.2− 1999 12 07 704 0.7+ 0.3+ 2000 01 08 691 0.4− 0.3−
 1998 08 17 704 0.7+ 0.8− 1999 12 07 704 0.7+ 0.4− 2000 01 14 691 0.1+ 0.0
 1998 08 17 704 0.4+ 0.1− 1999 12 08 704 1.5+ 0.2− 2000 01 14 691 0.0 0.0
 1998 08 17 704 0.5− 0.9+ 1999 12 08 704 0.8+ 0.5+ 2000 01 14 691 0.1− 0.1+
 1998 08 17 704 0.7+ 1.9+ 1999 12 08 704 0.4+ 0.2+ 2000 01 25 704 0.1− 0.8+
 1998 08 23 704 1.7+ 0.2− 1999 12 08 704 0.5+ 0.9+ 2000 01 25 704 0.6− 0.2+
 1998 08 23 704 0.7− 1.8+ 1999 12 08 704 0.2+ 0.7+ 2000 01 25 704 0.2+ 0.3−
 1998 08 23 704 1.7+ 0.3+ 2000 01 03 704 0.1+ 0.1− 2000 01 25 704 0.1− 0.1−
 1998 08 23 704 0.3− 0.1+ 2000 01 03 704 0.6− 0.2+ 2000 01 25 704 0.3− 0.2−
 1998 08 23 704 (5.0− 1.8+) 2000 01 03 704 0.3− 0.2− 2000 01 31 704 0.1− 0.5+
 1998 09 14 704 0.7− 0.3+ 2000 01 03 704 0.7− 0.4− 2000 01 31 704 0.1− 0.1−
 1998 09 14 704 0.8− 1.5− 2000 01 03 704 0.4− 0.5− 2000 01 31 704 1.2+ 0.2−
 1998 09 14 704 0.1− 1.0− 2000 01 04 704 0.3− 0.3+ 2000 02 02 704 (2.3+ 0.4+)
 1998 09 14 704 0.8− 0.3− 2000 01 04 704 0.2− 0.3+ 2000 02 02 704 0.1− 0.3−
 1998 09 18 699 0.3+ 0.4+ 2000 01 04 704 0.3− 0.3− 2000 02 02 704 0.3+ 0.3−
 1998 09 18 699 0.1+ 0.4+ 2000 01 04 704 0.1− 0.2− 2000 02 02 704 0.5+ 0.1−
 1998 09 18 704 0.1+ 0.3− 2000 01 04 704 0.6− 0.4− 2000 02 02 704 0.7+ 0.4−
 1998 09 18 699 0.8− 0.7− 2000 01 08 704 0.0 0.0

2000 AF₂₅ = 1994 RD₂₂ = 1998 SR₉₇
Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	275.92584	ω	182.14750	-0.79732878	+0.60333108		
<i>a</i>	2.4203139	Ω	34.97753	-0.55332307	-0.72008483		
<i>e</i>	0.1426143	<i>i</i>	1.60693	-0.24104023	-0.34273817		
<i>P</i>	3.77	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1994 09 05	809	0.3+	0.2+	1998 10 24	691	0.7-	0.5-	2000 01 04	704	0.0	0.4-
1994 09 05	809	0.1+	1.0-	1998 10 24	691	0.7-	0.5-	2000 01 04	704	0.5-	0.5+
1994 09 05	809	0.7-	0.4-	1998 10 24	691	0.7-	0.8-	2000 01 04	704	0.1+	1.0-
1994 09 06	809	0.7+	0.6+	1998 10 28	691	0.1+	0.2+	2000 01 25	704	0.2+	0.3+
1994 09 06	809	0.4-	0.3+	1998 10 28	691	0.2+	0.1-	2000 01 25	704	0.0	0.3+
1994 09 06	809	0.3-	0.8+	1998 10 28	691	0.4+	0.1-	2000 01 25	704	0.6+	0.6+
1998 09 26	704	0.2-	0.1+	1999 12 07	704	0.3-	0.5+	2000 01 25	704	0.9-	0.4-
1998 09 26	704	0.4+	1.2-	1999 12 07	704	0.5-	0.0	2000 01 25	704	0.1+	0.5-
1998 09 26	704	(0.9+	2.1-)	1999 12 07	704	0.1+	0.1-	2000 01 30	704	0.4+	0.0
1998 09 26	704	0.5+	1.0+	2000 01 03	704	0.1-	0.5+	2000 01 30	704	0.1-	0.2-
1998 09 26	704	(2.3-	0.1-)	2000 01 03	704	0.1-	0.3-	2000 01 30	704	0.3+	0.1-
1998 09 27	704	0.8+	0.6+	2000 01 03	704	0.5-	0.1-	2000 01 30	704	0.1+	0.2-
1998 09 27	704	0.3-	1.0+	2000 01 03	704	0.2-	0.2+	2000 01 30	704	0.2+	0.4+
1998 09 27	704	0.4+	0.6+	2000 01 03	704	0.1+	0.3+	2000 01 31	704	1.0+	0.8+
1998 09 27	704	0.9+	0.2+	2000 01 04	704	0.2+	0.0	2000 01 31	704	0.1-	0.2+
1998 09 27	704	1.0-	1.0-	2000 01 04	704	0.2+	0.2-	2000 01 31	704	0.2-	0.5-

2000 AR₂₅ = 1986 WA₁₁ = 1998 XQ₆₇

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	96.05000	ω	7.70092	+0.98720511	-0.15944295		
<i>a</i>	5.1816177	Ω	1.47812	+0.14184561	+0.87237125		
<i>e</i>	0.0312434	<i>i</i>	4.45462	+0.07284155	+0.46211075		
<i>P</i>	11.80	<i>H</i>	10.3	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc											
1986 11 30	381	0.7+	0.1+	1999 09 18	703	0.4+	0.1-	2000 01 03	704	0.5+	0.6+
1986 11 30	381	1.0+	0.4-	1999 09 18	703	0.5-	0.5+	2000 01 03	704	0.3-	0.5-
1986 12 01	381	2.1-	0.2+	1999 09 18	703	0.5-	1.4+	2000 01 04	704	0.2-	0.4-
1986 12 01	381	0.6+	0.8-	1999 09 18	703	0.1-	0.6+	2000 01 04	704	0.1-	0.5-
1997 10 30	566	0.2-	0.6+	1999 12 10	704	0.4+	0.1-	2000 01 04	704	0.2-	0.3-
1997 10 30	566	0.2-	0.2+	1999 12 10	704	0.4+	1.1+	2000 01 04	704	0.2+	0.1-
1997 10 30	566	0.2-	0.6+	1999 12 10	704	1.2+	0.1-	2000 01 04	704	0.3+	1.0+
1998 12 14	704	0.6-	0.3-	1999 12 10	704	1.0+	0.3+	2000 01 30	704	0.3-	0.3+
1998 12 14	704	0.2-	0.5+	1999 12 10	704	0.5+	0.4+	2000 01 30	704	0.0	0.3+
1998 12 14	704	0.4+	0.0	1999 12 15	704	0.3+	0.5-	2000 01 30	704	0.6-	0.1-
1998 12 14	704	(0.6-	2.2+)	1999 12 15	704	0.5-	0.2+	2000 01 30	704	0.5-	0.1+
1998 12 14	704	(2.3-	1.8+)	1999 12 15	704	0.1-	0.2+	2000 01 30	704	0.9-	0.1-
1998 12 17	704	0.0	1.0-	1999 12 15	704	0.3-	0.3+	2000 01 31	704	0.2+	0.4+
1998 12 17	704	(0.4+	2.4-)	1999 12 15	704	0.4-	0.4+	2000 01 31	704	0.3+	0.6-
1998 12 17	704	1.3+	0.7+	2000 01 03	704	0.1+	0.8-	2000 01 31	704	0.4-	0.0
1998 12 17	704	(1.6-	2.2-)	2000 01 03	704	0.4+	0.7-	2000 01 31	704	0.2+	0.2-
1998 12 17	704	0.4-	1.9-	2000 01 03	704	0.4-	0.4-				

2000 AO₂₆ = 1998 RQ₇₈

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	154.40904	ω	238.64883	+0.71490263	+0.69515165		
<i>a</i>	2.7541751	Ω	77.19082	-0.61241025	+0.67450484		
<i>e</i>	0.0999415	<i>i</i>	4.43214	-0.33744320	+0.24861095		
<i>P</i>	4.57	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 09 14	704	0.7-	0.5+	1998 09 26	704	0.1-	0.2-	2000 01 03	704	0.1-	0.5-
1998 09 14	704	0.4-	0.9-	1998 09 26	704	0.6-	0.2+	2000 01 04	704	0.2-	0.0
1998 09 14	704	0.1-	1.2+	1998 09 27	704	0.4-	0.2+	2000 01 04	704	0.4-	0.2+
1998 09 18	704	0.3+	1.7-	1998 09 27	704	0.1+	0.7+	2000 01 04	704	0.0	0.5-
1998 09 18	704	0.1+	1.0-	1998 09 27	704	0.2+	1.8+	2000 01 04	704	0.0	0.4-
1998 09 18	704	0.6+	0.9+	1998 09 27	704	0.0	0.8+	2000 01 04	704	0.1-	0.0
1998 09 18	704	0.8+	0.4+	1998 09 27	704	0.2+	1.3-	2000 01 08	704	0.4+	1.3+
1998 09 18	704	0.5+	0.1-	2000 01 03	704	0.3-	0.0	2000 01 08	704	0.9-	0.1-
1998 09 26	704	0.6-	0.2-	2000 01 03	704	1.1+	0.4-	2000 01 08	704	0.1-	0.2+
1998 09 26	704	0.2+	1.3-	2000 01 03	704	0.9-	0.0	2000 01 08	704	1.4+	0.3+

2000 AW₂₆ = 1998 QC₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	93.58792	ω	51.26387	+0.99375316	+0.06137815		
<i>a</i>	2.7967093	Ω	305.02604	-0.09735396	+0.88508781		
<i>e</i>	0.2416434	<i>i</i>	6.53556	+0.05456068	+0.46135918		
<i>P</i>	4.68	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc											
1998 08 17	704	0.1-	0.9-	2000 01 03	704	0.7+	0.7-	2000 01 29	819	0.1-	0.6-
1998 08 17	704	0.5-	0.6+	2000 01 03	704	0.9+	0.0	2000 01 29	819	0.1-	0.4-
1998 08 17	704	0.2+	0.1+	2000 01 03	704	0.4-	0.3+	2000 01 29	819	0.2-	0.0
1998 08 17	704	1.1-	0.6-	2000 01 04	704	0.3-	0.1-	2000 01 29	819	0.3-	0.0
1998 08 17	704	0.1-	0.2-	2000 01 04	704	0.9+	0.1+	2000 01 30	819	0.1+	0.1-
1998 08 23	704	1.0+	0.5-	2000 01 04	704	0.2-	0.0	2000 01 30	819	0.3+	0.5+
1998 08 23	704	0.3+	0.8-	2000 01 04	704	0.5+	0.5-	2000 01 30	819	1.3+	0.1-
1998 08 23	704	0.3-	0.0	2000 01 04	704	0.0	0.3-	2000 01 30	819	0.6-	0.1-
1998 08 23	704	0.8-	0.2+	2000 01 07	704	0.4-	0.6+	2000 01 30	819	0.5-	0.1-
1998 08 27	699	0.5+	0.5+	2000 01 07	704	0.7-	0.8+	2000 01 30	819	0.2-	0.1-
1998 08 27	699	0.8+	0.1+	2000 01 07	704	0.5-	0.1+	2000 01 30	819	0.7+	0.6-
1998 08 27	699	0.3+	1.1+	2000 01 07	704	0.1+	0.0	2000 01 30	819	0.2-	0.5-
2000 01 03	704	0.1+	0.7+	2000 01 07	704	0.4-	0.7+				
2000 01 03	704	0.4-	0.4+	2000 01 29	819	0.1+	0.4-				

2000 AB₂₉ = 1998 OM₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	147.82128	ω	4.09548	+0.76683710	+0.63721680		
<i>a</i>	2.4272393	Ω	316.00247	-0.59197919	+0.65585954		
<i>e</i>	0.2115707	<i>i</i>	6.35714	-0.24803528	+0.40472584		
<i>P</i>	3.78	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc											
1998 07 04	699	0.2-	0.7-	1998 12 09	704	0.7+	0.2-	2000 01 04	704	0.0	0.7-
1998 07 04	699	0.1-	0.7-	1998 12 09	704	0.8-	0.8+	2000 01 04	704	0.4-	1.0-
1998 07 04	699	0.5-	0.8-	1998 12 09	704	1.0-	0.8-	2000 01 04	704	0.0	0.2-
1998 07 24	566	0.2-	1.0-	1998 12 09	704	0.0	2.0+	2000 01 04	704	0.5-	0.4-
1998 07 24	566	0.2-	1.0-	1998 12 11	699	1.3-	0.2+	2000 01 04	704	0.0	0.1-
1998 07 24	566	0.2+	1.2-	1998 12 11	699	0.2-	0.2-	2000 01 08	704	0.3-	0.8+
1998 07 26	809	1.7+	0.5+	1998 12 11	699	0.9-	0.5+	2000 01 08	704	0.2+	0.2+
1998 07 26	809	0.7+	1.1+	1999 12 03	699	0.2+	0.3-	2000 01 08	704	0.6+	0.4-
1998 07 26	809	0.8+	0.4+	1999 12 03	699	0.1-	0.0	2000 01 08	704	0.4+	0.3-
1998 07 27	809	0.0	0.2+	1999 12 03	699	0.0	1.5+	2000 01 08	704	0.2+	0.6-
1998 07 27	809	0.1+	0.3+	1999 12 10	704	0.6-	0.0	2000 01 30	704	0.1+	0.4+
1998 07 27	809	0.2+	0.2-	1999 12 10	704	0.6-	1.3-	2000 01 30	704	0.6-	0.6+
1998 08 17	704	0.6-	1.0-	1999 12 10	704	0.8-	0.6-	2000 01 30	704	0.6-	0.1+

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M.P.C. 38629

2000 AH₂₉ = 1981 JD₁ = 1994 YA₄ = 1998 UV₃₄ = 1999 XZ₂₁₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	306.74543		(2000.0)		P		Q
<i>n</i>	0.19718118	ω	224.70021	−0.99878968	−0.04725165		
<i>a</i>	2.9234280	Ω	312.58630	+0.04869935	−0.91113374		
<i>e</i>	0.0378595	<i>i</i>	1.06267	+0.00689519	−0.40939296		
<i>P</i>	5.00	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1981 05 02	474	0.9+	0.1+	1999 12 13	691	0.6+	0.2+	2000 01 04	704	0.3−	0.2−
1981 05 02	474	0.6−	0.8+	1999 12 13	691	0.5+	0.5−	2000 01 04	704	0.4−	0.3+
1981 05 03	474	0.3−	0.8+	1999 12 13	691	0.6+	0.6−	2000 01 04	704	0.8−	0.4−
1981 05 03	474	0.7+	0.3+	1999 12 16	691	0.0	0.3−	2000 01 13	113	0.9+	0.4−
1994 12 31	691	0.4+	1.4−	1999 12 16	691	0.2−	0.0	2000 01 13	113	0.6−	0.3+
1994 12 31	691	0.9+	0.4−	1999 12 16	691	0.1−	0.0	2000 01 13	113	1.4+	0.5+
1994 12 31	691	0.4+	0.2−	2000 01 03	704	0.2+	0.4+	2000 01 30	704	0.2+	0.4+
1995 01 09	691	1.0−	0.1−	2000 01 03	704	0.5−	0.5−	2000 01 30	704	0.4+	0.5+
1995 01 09	691	0.5−	0.5+	2000 01 03	704	0.8−	0.4−	2000 01 30	704	0.5+	0.1+
1995 01 09	691	0.8−	0.3−	2000 01 03	704	0.1+	0.1−	2000 01 30	704	0.3+	0.3+
1998 10 28	704	1.5+	0.1−	2000 01 03	704	0.7−	0.2+	2000 01 31	704	0.6+	0.3+
1998 10 28	704	0.9+	0.5−	2000 01 04	704	0.5−	0.0	2000 01 31	704	0.2+	0.8+
1998 10 28	704	0.8+	1.9+	2000 01 04	704	1.0−	0.6−	2000 01 31	704	0.6+	0.7+
1998 10 28	704	0.4−	0.2−	2000 01 04	704	0.8−	0.1−	2000 02 11	704	0.2−	0.1+
1998 10 28	704	0.4−	0.2−	2000 01 04	704	0.2−	0.3+	2000 02 11	704	0.5+	0.5+
1998 10 29	704	0.4−	0.2−	2000 01 04	704	0.3−	0.1+	2000 02 11	704	0.6+	0.5+
1998 10 29	704	1.4−	0.3+	2000 01 04	704	0.6−	0.1+	2000 02 11	704	0.9+	0.2+
1998 10 29	704	1.7−	1.5+	2000 01 04	704	0.5−	0.0				

2000 AT₂₉ = 1981 XM = 1996 AV₁₃ = 1998 SE₁₀₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	153.45284		(2000.0)		P		Q
<i>n</i>	0.22561332	ω	277.27360	+0.81806366	+0.57221621		
<i>a</i>	2.6723473	Ω	47.84144	−0.49211231	+0.74844853		
<i>e</i>	0.0598565	<i>i</i>	4.47176	−0.29765303	+0.33525127		
<i>P</i>	4.37	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1981 12 04	511	0.4+	1.1−	1998 09 26	704	0.0	0.4+	2000 01 03	704	0.8+	1.4−
1981 12 04	511	0.5−	0.6+	1998 09 26	704	0.5−	0.7−	2000 01 03	704	0.8−	0.0
1996 01 15	691	0.3+	0.1−	1998 09 26	704	0.5−	1.0−	2000 01 04	704	0.3−	0.4+
1996 01 15	691	0.6−	0.4−	1998 09 27	704	0.0	1.8+	2000 01 04	704	0.3+	0.3−
1996 01 15	691	0.0	0.1−	1998 09 27	704	0.6−	0.7+	2000 01 04	704	0.0	0.2−
1996 01 24	691	0.3+	0.2−	1998 09 27	704	0.4−	1.3+	2000 01 04	704	0.0	0.3+
1996 01 24	691	0.4+	0.3−	1998 09 27	704	0.2+	0.9−	2000 01 04	704	0.2+	0.3−
1996 01 24	691	0.6+	0.4−	1999 12 08	703	0.7−	0.2+	2000 01 30	704	0.1+	0.3+
1997 05 30	552	0.5−	0.8+	1999 12 08	703	0.3+	1.6+	2000 01 30	704	0.7−	0.5+
1997 05 30	552	0.2+	0.3+	1999 12 08	703	0.6−	0.7+	2000 01 30	704	0.8−	0.6+
1998 09 17	699	0.1+	0.3+	1999 12 08	703	0.8−	0.7−	2000 02 11	704	0.3−	0.6+
1998 09 17	699	0.8+	0.1+	1999 12 15	704	1.2+	0.5−	2000 02 11	704	1.0+	0.5+
1998 09 17	699	0.7+	0.0	1999 12 15	704	0.4−	0.1+	2000 02 11	704	0.4−	0.1+
1998 09 26	704	0.5+	0.3−	1999 12 15	704	1.1−	0.2−	2000 02 11	704	1.3+	1.4+
1998 09 26	704	0.1−	0.5−	2000 01 03	704	0.1−	1.3−	2000 02 11	704	0.4+	0.6+

2000 AD₃₀ = 1998 QY₁₅

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	11.02144		(2000.0)		P		Q
<i>n</i>	0.17563676	ω	161.43727	−0.31873764	−0.94497842		
<i>a</i>	3.1578568	Ω	307.08381	+0.85752270	−0.25439669		
<i>e</i>	0.2153062	<i>i</i>	5.29610	+0.40380829	−0.20566504		
<i>P</i>	5.61	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 18	621	0.3+	0.3+	2000 01 03	704	0.0	0.1−	2000 01 04	704	0.5−	0.3−
1998 08 18	621	0.3−	0.0	2000 01 03	704	0.6−	0.4−	2000 01 30	704	0.5+	0.3−

1998 08 18	621	0.1−	0.4+	2000 01 03	704	0.5+	0.1+	2000 01 30	704	0.1−	0.2+
1998 08 20	621	0.0	0.3+	2000 01 03	704	0.2+	0.3+	2000 01 30	704	0.1−	0.9+
1998 08 20	621	0.6+	0.1+	2000 01 03	704	0.6+	0.2−	2000 01 30	704	0.4−	1.0−
1998 08 20	621	0.2−	0.0	2000 01 04	704	0.7−	0.2−	2000 01 31	704	0.7−	0.2+
1998 08 20	621	0.3−	0.2+	2000 01 04	704	0.6+	0.5+	2000 01 31	704	0.1+	0.1+
1998 08 20	621	0.6−	0.3−	2000 01 04	704	0.1−	0.5+	2000 01 31	704	0.8+	0.0
1998 08 20	621	0.5+	1.0−	2000 01 04	704	0.0	0.3−				

2000 AK₃₀ = 1980 TP₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	94.99373		(2000.0)		P		Q
<i>n</i>	0.26737559	ω	309.28033	+0.98944921	−0.14131558		
<i>a</i>	2.3862808	Ω	58.86550	+0.14174594	+0.89861870		
<i>e</i>	0.1994761	<i>i</i>	2.13850	+0.02997251	+0.41534846		
<i>P</i>	3.69	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1980 10 09	675	0.2−	0.3−	2000 01 04	704	0.7+	0.4−	2000 01 30	704	0.3−	0.5+
1980 10 10	675	0.4+	0.4+	2000 01 04	704	0.4−	0.3−	2000 01 30	704	0.0	0.4−
2000 01 03	704	0.0	0.4+	2000 01 04	704	0.2−	0.3+	2000 01 30	704	0.3+	0.5+
2000 01 03	704	0.3+	0.2−	2000 01 04	704	0.3+	0.6+	2000 01 31	704	0.1−	0.2−
2000 01 03	704	0.0	0.2−	2000 01 04	704	0.5−	0.3−	2000 01 31	704	0.1+	0.3−
2000 01 03	704	0.3−	0.5−	2000 01 30	704	0.1+	0.1−	2000 01 31	704	0.5−	0.4+
2000 01 03	704	0.1−	0.4+	2000 01 30	704	0.6+	0.2−				

2000 AM₃₀ = 1998 UH₄₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	288.90312		(2000.0)		P		Q
<i>n</i>	0.21476083	ω	118.79273	−0.89031113	+0.44904257		
<i>a</i>	2.7616332	Ω	87.97789	−0.43968412	−0.80461672		
<i>e</i>	0.0974389	<i>i</i>	4.33518	−0.11842287	−0.38852633		
<i>P</i>	4.59	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 10 28	704	(1.5+	2.5−)	2000 01 03	704	0.2−	0.7−	2000 01 31	704	0.1−	0.0
1998 10 28	704	0.4+	1.2+	2000 01 04	704	0.1+	0.7+	2000 01 31	704	0.0	0.1−
1998 10 28	704	0.8−	0.4+	2000 01 04	704	0.4+	0.1−	2000 01 31	704	0.1−	0.2−
1998 10 28	704	0.1+	0.2−	2000 01 04	704	0.1+	0.1−	2000 01 31	704	0.1−	0.2−
1998 10 29	704	1.7−	0.5−	2000 01 04	704	0.2+	0.1+	2000 02 11	704	0.3−	0.4−
1998 10 29	704	1.2+	0.4−	2000 01 04	704	0.6+	0.3−	2000 02 11	704	0.5+	0.0
1998 10 29	704	0.9+	0.4−	2000 01 30	704	0.2+	0.1+	2000 02 11	704	0.2+	0.4−
2000 01 03	704	0.6−	0.7+	2000 01 30	704	0.2+	0.1+	2000 02 11	704	0.3−	0.7+
2000 01 03	704	0.0	0.3+	2000 01 30	704	0.4−	0.4+	2000 02 11	704	0.1+	1.2+
2000 01 03	704	0.3−	0.0	2000 01 30	704	0.1+	0.8−				
2000 01 03	704	0.1−	0.0	2000 01 30	704	0.1−	1.0−				

2000 AC₃₁ = 1993 FB₄₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	328.88948		(2000.0)		P		Q
<i>n</i>	0.26723688	ω	141.75282	−0.97549736	−0.21911626		
<i>a</i>	2.3871064	Ω	25.61102	+0.18887577	−0.88024959		
<i>e</i>	0.1147097	<i>i</i>	2.62852	+0.11283107	−0.42089039		
<i>P</i>	3.69	<i>H</i>	15.5	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1993 03 19	809	0.2−	0.1−	2000 01 04	704	1.4−	0.3+	2000 01 30	704	0.1+	0.3−
1993 03 20	809	0.3+	0.4+	2000 01 04	704	0.1−	0.8+	2000 01 31	704	0.2+	0.1+
1993 03 24	809	0.1+	0.0	2000 01 04	049	1.5+	0.2−	2000 01 31	704	0.5−	0.2−
2000 01 03	704	1.5−	1.1−	2000 01 05	049	0.8+	0.3+	2000 01 31	704	0.0	0.1−
2000 01 03	704	0.6−	0.4+	2000 01 05	049	1.6+	0.6+	2000 01 31	704	0.5−	1.2−
2000 01 03	704	0.3−	0.2−	2000 01 09	049	0.4+	0.7+	2000 02 11	704	0.3+	0.1+
2000 01 03	704	0.8+	0.6+	2000 01 09	049	0.6+	0.5+	2000 02 11	704	0.4+	0.1−
2000 01 03	704	0.5−	0.1+	2000 01 09	049	0.2−	0.7+	2000 02 11	704	0.8−	0.1+
2000 01 04	704	0.3−	0.8−	2000 01 30	704	0.1−	0.1+	2000 02 11	704	0.3−	0.2−

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2000 01 04 704 0.2- 0.0 2000 01 30 704 0.1+ 0.4-
 2000 01 04 704 0.3- 0.2- 2000 01 30 704 0.8+ 0.3-

2000 AE₃₁ = 1993 FW₄₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	340.68542		(2000.0)	P	Q
<i>n</i>	0.26796138	ω	140.86241	-0.91792044	-0.39655835
<i>a</i>	2.3828017	Ω	15.78895	+0.35120552	-0.82709262
<i>e</i>	0.1525739	<i>i</i>	2.69380	+0.18459887	-0.39832055
<i>P</i>	3.68	<i>H</i>	14.6	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1993 03 19	809	1.0- 0.4+	2000 01 03 704 0.2- 0.0	2000 01 30 704 0.2+ 0.5+
1993 03 20	809	0.4- 0.1-	2000 01 03 704 0.0 0.0	2000 01 31 704 0.2- 0.1+
1993 03 24	809	1.3+ 0.7-	2000 01 04 704 0.4- 0.0	2000 01 31 704 0.2- 0.3+
1999 11 16	704	0.4- 0.1-	2000 01 04 704 0.1+ 0.2+	2000 01 31 704 0.0 0.3+
1999 11 16	704	0.8+ 0.9-	2000 01 04 704 0.2- 0.1-	2000 01 31 704 0.2+ 0.5+
1999 11 16	704	0.4- 0.5+	2000 01 04 704 0.2- 0.2-	2000 02 11 704 0.5+ 0.2+
1999 11 16	704	0.2+ 0.3-	2000 01 04 704 1.0+ 0.5-	2000 02 11 704 0.2+ 0.5-
1999 11 16	704	0.1- 0.1+	2000 01 30 704 0.0 0.1+	2000 02 11 704 0.2+ 0.5-
2000 01 03	704	0.9- 0.5-	2000 01 30 704 0.3- 0.1+	2000 02 11 704 0.4+ 0.5+
2000 01 03	704	0.1- 0.1-	2000 01 30 704 0.2- 0.3+	2000 02 11 704 0.3- 0.5-
2000 01 03	704	0.3+ 0.2-	2000 01 30 704 0.1+ 0.5+	

2000 AO₃₁ = 1993 HL₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	326.21915		(2000.0)	P	Q
<i>n</i>	0.26693398	ω	81.31164	-0.98000543	-0.07629339
<i>a</i>	2.3889119	Ω	94.16458	+0.00104296	-0.92552270
<i>e</i>	0.1562246	<i>i</i>	10.61735	+0.19896799	-0.37092728
<i>P</i>	3.69	<i>H</i>	14.8	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1993 04 25	385	0.8- 0.3-	2000 01 03 704 0.4+ 0.4-	2000 01 29 704 0.0 0.5-
1993 04 25	385	1.2- 0.2-	2000 01 03 704 0.3+ 0.6-	2000 01 29 704 0.1- 0.2-
1993 04 25	385	0.7- 0.3+	2000 01 03 704 0.1+ 0.9-	2000 01 29 704 0.4- 0.1+
1993 04 27	385	0.8+ 0.3-	2000 01 04 704 0.1- 0.9-	2000 01 29 704 0.3+ 0.1+
1993 04 27	385	0.8+ 0.3-	2000 01 04 704 0.4+ 1.0-	2000 01 30 704 0.1- 0.1+
1993 04 27	385	1.1+ 0.5+	2000 01 04 704 0.2+ 0.9-	2000 01 30 704 0.2- 0.2-
1997 05 30	910	1.0- 0.1-	2000 01 04 704 0.1+ 0.8-	2000 01 30 704 0.0 0.2+
1997 05 30	910	0.3+ 0.1-	2000 01 04 704 0.1- 0.5-	2000 01 30 704 0.0 0.1+
1997 05 30	910	0.7+ 0.1+	2000 01 06 176 0.5- 0.4+	2000 01 30 704 0.6- 0.1-
1999 12 07	704	0.9+ 0.1-	2000 01 06 176 0.5+ 1.2+	2000 02 11 704 0.3- 0.2+
1999 12 07	704	0.0 0.1-	2000 01 07 176 1.0+ 1.7+	2000 02 11 704 0.1- 0.4+
1999 12 07	704	0.1+ 0.7+	2000 01 07 176 0.8- 0.2+	2000 02 11 704 0.0 0.5+
1999 12 07	704	0.4+ 0.7+	2000 01 08 176 1.4- 0.3+	2000 02 11 704 0.1- 0.6+
2000 01 03	704	0.4+ 1.1-	2000 01 08 176 0.4- 1.3+	2000 02 11 704 0.0 0.7+
2000 01 03	704	0.0 1.1-	2000 01 29 704 0.1+ 0.1+	

2000 AR₃₁ = 1991 OE

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	176.59687		(2000.0)	P	Q
<i>n</i>	0.28638011	ω	225.44136	+0.59054724	+0.79435492
<i>a</i>	2.2795064	Ω	81.27727	-0.69359453	+0.58975171
<i>e</i>	0.1482591	<i>i</i>	8.27837	-0.41252949	+0.14557878
<i>P</i>	3.44	<i>H</i>	14.3	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1991 07 13	675	1.2- 0.9-	1999 12 15 704 0.3+ 0.2-	2000 01 29 704 0.3+ 0.1+
1991 07 13	675	0.3- 0.2-	1999 12 15 704 0.4+ 0.2-	2000 01 29 704 0.3+ 0.1-
1991 07 16	675	0.3+ 0.4-	2000 01 03 704 1.1- 0.2-	2000 01 29 704 0.0 0.4+
1991 07 16	675	1.5+ 0.3-	2000 01 03 704 1.4- 0.5+	2000 01 29 704 0.2- 1.3+
1998 08 20	699	0.2- 0.4+	2000 01 03 704 0.4- 0.5+	2000 01 30 704 0.4+ 0.1+
1998 08 20	699	0.0 0.1+	2000 01 03 704 0.9- 0.1+	2000 01 30 704 0.2+ 0.6-
1998 08 20	699	0.1- 0.2+	2000 01 03 704 0.4+ 0.0	2000 01 30 704 0.3- 0.1+

1999 11 16	704	0.3+ 0.3+	2000 01 04 704 0.1+ 0.3-	2000 01 30 704 0.4+ 0.9+
1999 11 16	704	0.5- 0.8+	2000 01 04 704 0.1+ 0.0	2000 02 11 704 0.6+ 0.1+
1999 11 16	704	0.2+ 0.7-	2000 01 04 704 0.0 0.9-	2000 02 11 704 1.1+ 1.2+
1999 12 15	704	0.3+ 0.9-	2000 01 04 704 0.1+ 0.1-	2000 02 11 704 0.7+ 0.5+
1999 12 15	704	0.2+ 0.8-	2000 01 04 704 0.6- 1.1-	2000 02 11 704 0.4+ 0.5-
1999 12 15	704	0.9- 0.5-	2000 01 29 704 0.3+ 0.7+	2000 02 11 704 0.9- 1.7-

2000 AS₃₁ = 1983 RU₄ = 1987 ST₁₄ = 1987 UE₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	147.53362		(2000.0)	P	Q
<i>n</i>	0.26302983	ω	342.48703	+0.78840573	+0.61368421
<i>a</i>	2.4124929	Ω	339.47726	-0.54888157	+0.67057386
<i>e</i>	0.2575805	<i>i</i>	6.96654	-0.27775064	+0.41680018
<i>P</i>	3.75	<i>H</i>	13.6	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1983 09 02	095	(1.7- 2.7+)	1998 08 17 704 0.0 0.4+	2000 01 03 704 0.5- 0.3+
1983 09 04	095	0.2- 0.0	1998 09 13 699 0.2+ 0.2-	2000 01 03 704 0.0 0.8+
1983 09 06	095	0.0 0.6-	1998 09 13 699 0.3+ 0.5-	2000 01 03 704 0.1- 0.1+
1987 09 23	095	(2.9+ 1.3+)	1998 09 13 699 0.8+ 0.3-	2000 01 03 704 0.1+ 1.0+
1987 10 25	095	1.8+ 1.6-	1998 11 06 699 0.1- 0.1+	2000 01 04 704 0.4- 0.5+
1997 04 03	566	0.5+ 0.1+	1998 11 06 699 0.3+ 0.4-	2000 01 04 704 0.3+ 0.2+
1997 04 03	566	0.1+ 0.2+	1998 11 06 699 0.8+ 0.3+	2000 01 04 704 0.5+ 0.3+
1997 04 03	566	0.1+ 0.1+	1998 12 09 704 0.5- 1.4+	2000 01 04 704 0.1- 0.6-
1997 04 28	704	0.4- 0.2-	1998 12 09 704 0.7+ 0.1-	2000 01 04 704 0.6+ 0.3-
1997 04 28	704	0.1+ 0.3-	1998 12 09 704 0.6+ 0.1+	2000 01 30 704 0.4+ 1.2+
1997 04 28	704	1.7- 0.3-	1998 12 09 704 (3.5- 1.5+)	2000 01 30 704 0.1- 0.9+
1997 04 28	704	1.6- 1.6-	1998 12 09 704 1.4- 0.3+	2000 01 30 704 0.1- 0.5+
1998 06 29	704	1.0- 0.2+	1998 12 11 699 1.5- 0.6-	2000 01 30 704 0.0 1.2+
1998 06 29	704	(2.0- 2.2+)	1998 12 11 699 0.7- 0.5-	2000 01 31 704 0.5+ 0.2+
1998 06 29	704	(2.9+ 0.4-)	1998 12 11 699 1.1- 1.0-	2000 01 31 704 0.6+ 0.2-
1998 06 29	704	0.9- 1.6+	1999 12 10 704 0.4+ 0.1+	2000 01 31 704 0.2+ 0.4+
1998 06 29	704	1.8+ 2.0+	1999 12 10 704 1.0+ 0.2+	2000 01 31 704 0.1- 0.4-
1998 08 17	704	0.4- 0.0	1999 12 10 704 0.1+ 0.6-	2000 02 11 704 0.4- 0.4+
1998 08 17	704	0.6- 0.0	1999 12 10 704 0.8+ 0.0	2000 02 11 704 1.0- 0.1-
1998 08 17	704	0.5- 0.8+	1999 12 10 704 0.2- 1.0-	2000 02 11 704 1.0+ 0.1+
1998 08 17	704	0.1- 0.5-	2000 01 03 704 0.4- 0.5-	2000 02 11 704 0.7- 0.1+

2000 AU₃₁ = 1996 RS₃₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	85.20084		(2000.0)	P	Q
<i>n</i>	0.08530801	ω	341.58720	+0.95261608	-0.29515753
<i>a</i>	5.1106506	Ω	35.84358	+0.29246742	+0.82238514
<i>e</i>	0.1463788	<i>i</i>	7.21225	+0.08357872	+0.48637919
<i>P</i>	11.55	<i>H</i>	11.2	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1996 09 15	809	0.6- 0.4+	2000 01 03 704 0.2- 0.1+	2000 01 29 704 0.3+ 0.2+
1996 09 16	809	0.6+ 0.4-	2000 01 03 704 0.4- 0.4+	2000 01 29 704 1.2+ 1.3+
1999 12 15	704	0.5+ 0.0	2000 01 04 704 0.5- 0.5-	2000 02 11 704 0.0 0.1-
1999 12 15	704	0.6+ 0.3-	2000 01 04 704 0.5+ 0.6-	2000 02 11 704 0.2- 0.8-
1999 12 15	704	0.1- 0.4+	2000 01 04 704 0.1+ 0.5-	2000 02 11 704 0.5- 0.4-
1999 12 15	704	1.4- 0.7+	2000 01 04 704 0.1- 0.9-	2000 02 11 704 0.0 0.4+
2000 01 03	704	0.5- 1.2-	2000 01 04 704 0.9+ 0.2+	2000 02 11 704 0.8- 0.4+
2000 01 03	704	0.1+ 0.2+	2000 01 29 704 0.3- 0.3+	
2000 01 03	704	0.2- 0.6+	2000 01 29 704 0.7+ 0.0	

2000 AJ₃₂ = 1998 MB₃₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	96.09053		(2000.0)	P	Q
<i>n</i>	0.26424486	ω	288.64108	+0.96783817	-0.21872948
<i>a</i>	2.4050919	Ω	84.13967	+0.25075191	+0.87863045
<i>e</i>	0.1719608	<i>i</i>	7.17716	-0.02031647	+0.42445959
<i>P</i>	3.73	<i>H</i>	14.7	<i>G</i> 0.15	<i>U</i> 4

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Residuals in seconds of arc

1998 06 24	704	0.1+	0.2-	1999 11 16	704	0.8-	0.5+	2000 01 30	704	0.3-	0.3-
1998 06 24	704	0.0	0.6-	2000 01 03	704	0.4+	0.5+	2000 01 30	704	0.4+	0.6-
1998 06 24	704	0.4+	0.7-	2000 01 03	704	0.4+	0.1-	2000 01 30	704	0.8-	0.5+
1998 06 26	704	1.1-	0.1+	2000 01 03	704	0.2+	0.4-	2000 01 30	704	0.3-	0.1+
1998 06 26	704	0.3+	0.3-	2000 01 03	704	0.2+	0.4+	2000 01 31	704	0.2-	0.4-
1998 06 26	704	0.4-	0.6+	2000 01 03	704	0.8+	0.8+	2000 01 31	704	0.3+	0.2-
1998 06 26	704	1.3-	1.5+	2000 01 04	704	0.1+	0.1+	2000 01 31	704	0.3-	0.5-
1998 07 03	699	1.0+	0.0	2000 01 04	704	0.5-	0.3-	2000 02 11	704	0.2+	0.2-
1998 07 03	699	0.2+	0.4-	2000 01 04	704	0.2-	0.2-	2000 02 11	704	0.5-	0.5+
1998 07 03	699	0.7+	0.2+	2000 01 04	704	0.3-	0.1-	2000 02 11	704	0.2+	0.0
1999 11 16	704	0.5+	0.1-	2000 01 04	704	0.3-	0.7-	2000 02 11	704	0.9+	0.4+
1999 11 16	704	0.2+	0.0	2000 01 30	704	0.1-	0.7+	2000 02 11	704	(2.7+	1.0+)

2000 AN₃₂ = 1992 SR₁₀ = 1996 MT₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	255.70618		(2000.0)	P	Q
n	0.18047871	ω	181.60336	-0.55897364	+0.82831733
a	3.1011211	Ω	54.41350	-0.76024267	-0.49369813
e	0.0573172	i	2.67346	-0.33102802	-0.26486328
P	5.46	H	14.1	G 0.15	U 4

Residuals in seconds of arc

1992 09 27	691	0.2-	0.1-	2000 01 02	104	0.4-	0.8-	2000 01 07	104	0.4-	0.6-
1992 09 27	691	0.1-	0.2-	2000 01 03	104	0.6-	0.4+	2000 01 27	704	0.4-	0.5+
1992 09 27	691	0.4+	0.1-	2000 01 03	104	0.2+	0.1+	2000 01 27	704	0.3+	0.4+
1992 10 02	691	0.1-	0.3+	2000 01 03	104	1.5+	1.0-	2000 01 27	704	0.3+	1.1+
1992 10 02	691	0.1-	0.2-	2000 01 03	704	1.6+	0.7-	2000 01 27	704	0.0	0.2+
1992 10 02	691	0.2+	0.1-	2000 01 03	704	0.8+	1.1-	2000 01 27	704	0.8+	0.8+
1996 06 22	684	0.1+	0.6+	2000 01 03	704	0.0	0.7+	2000 01 30	704	0.3+	0.9+
1996 06 22	684	0.2-	1.1+	2000 01 03	704	0.7-	0.1+	2000 01 30	704	0.1-	0.2+
1996 06 22	684	0.1+	0.4-	2000 01 03	704	0.1+	0.6+	2000 01 30	704	0.3+	0.4-
1996 06 24	684	0.5+	0.4-	2000 01 04	704	1.1-	0.9-	2000 01 30	704	1.5+	0.5+
1996 06 24	684	0.2-	1.6-	2000 01 04	704	0.3+	0.1-	2000 02 07	703	0.1+	0.5-
1996 06 24	684	0.4-	0.1-	2000 01 04	704	0.3-	0.7-	2000 02 07	703	0.7-	0.3+
2000 01 01	104	1.2-	1.3+	2000 01 04	704	0.2+	1.0-	2000 02 07	703	0.1+	0.1+
2000 01 01	104	0.5-	1.4+	2000 01 04	704	1.7-	0.4-	2000 02 07	703	0.1-	1.4-
2000 01 01	104	0.5-	0.8-	2000 01 07	104	0.3+	0.6+				

2000 AY₃₂ = 1984 BV₃

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	35.66196		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.18403357	ω	129.96317	+0.11284123	-0.98446868
a	3.0610565	Ω	313.00608	+0.84633011	+0.16614596
e	0.1262809	i	10.59781	+0.52056911	-0.05671806
P	5.36	H	13.5	G 0.15	U 4

Residuals in seconds of arc

1984 01 25	675	0.1-	0.1+	2000 01 06	704	0.5-	0.5-	2000 02 02	704	0.2+	0.3+
1984 01 26	675	0.2+	0.1+	2000 01 06	704	0.3-	0.6-	2000 02 03	704	0.4+	0.2-
2000 01 03	704	1.2+	0.7+	2000 01 06	704	0.2-	0.3-	2000 02 03	704	0.5+	0.5-
2000 01 03	704	0.8-	1.0+	2000 01 30	704	0.1+	0.0	2000 02 03	704	0.2+	0.0
2000 01 03	704	0.3+	0.1-	2000 01 30	704	0.0	0.1-	2000 02 03	704	0.2+	0.0
2000 01 03	704	0.2+	0.1+	2000 01 30	704	0.2-	0.5-	2000 02 06	704	0.3+	0.4+
2000 01 03	704	0.5+	0.2+	2000 01 30	704	0.8+	0.3-	2000 02 06	704	0.5-	0.9+
2000 01 04	704	0.1+	0.3-	2000 01 31	704	1.1-	0.5+	2000 02 06	704	0.1+	0.0
2000 01 04	704	0.0	0.1+	2000 01 31	704	0.1+	0.2-	2000 02 06	704	0.6-	0.4-
2000 01 04	704	0.0	0.1+	2000 01 31	704	0.1+	0.2+	2000 02 06	704	0.1+	0.1-
2000 01 04	704	0.5-	0.2-	2000 02 02	704	0.2+	0.9+	2000 02 07	703	0.0	0.1-
2000 01 04	704	0.0	0.0	2000 02 02	704	0.2-	0.0	2000 02 07	703	1.3-	0.6-
2000 01 06	704	0.2+	0.4-	2000 02 02	704	0.1+	0.3+	2000 02 07	703	0.2-	0.7-
2000 01 06	704	0.0	0.3-	2000 02 02	704	0.5+	0.4+	2000 02 07	703	0.1-	0.2+

2000 AZ₃₂ = 1982 BK₁₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	30.19696		(2000.0)	P	Q
n	0.27256474	ω	136.10255	-0.07496604	-0.99393150
a	2.3558968	Ω	318.00312	+0.87851025	-0.02763375
e	0.1176924	i	6.91015	+0.47180488	-0.10647320
P	3.62	H	14.5	G 0.15	U 3

Residuals in seconds of arc

1982 01 30	675	0.1+	0.3-	2000 01 03	704	0.4+	0.2+	2000 01 30	704	0.2+	0.6+
1982 01 31	675	0.2-	0.1-	2000 01 04	704	0.3-	0.3-	2000 01 30	704	0.3+	0.4+
1998 08 17	704	0.4-	0.6-	2000 01 04	704	0.3-	0.2-	2000 01 30	704	0.0	0.7+
1998 08 17	704	0.1-	0.4+	2000 01 04	704	0.8-	0.5-	2000 01 30	704	0.6+	0.2-
1998 08 17	704	1.4-	1.7+	2000 01 04	704	0.0	0.6+	2000 01 30	704	0.6+	0.4+
1998 08 17	704	1.3-	1.6+	2000 01 04	704	0.1+	0.1+	2000 01 30	704	0.3+	0.4+
1998 08 17	704	0.4+	0.2+	2000 01 06	704	0.3-	0.6+	2000 01 30	704	0.1+	0.7+
1998 08 23	704	(7.7+	2.1+)	2000 01 06	704	0.5-	0.2-	2000 01 31	704	0.2-	0.1+
1998 08 23	704	0.7+	0.8-	2000 01 06	704	0.1-	0.4-	2000 01 31	704	0.1+	0.1+
1998 08 23	704	0.8-	0.7+	2000 01 06	704	0.3-	0.3-	2000 01 31	704	0.3+	0.7-
1998 08 23	704	0.8+	1.8-	2000 01 06	704	0.1+	0.6-	2000 02 01	691	0.2+	0.5-
1998 08 23	704	(3.6-	0.8-)	2000 01 27	704	0.1-	0.3+	2000 02 01	691	0.2+	0.6-
1998 08 27	699	0.2+	0.6+	2000 01 27	704	0.2+	0.2+	2000 02 01	691	0.2+	0.8-
1998 08 27	699	0.0	1.1+	2000 01 27	704	0.4+	0.0	2000 02 07	703	0.0	0.2+
1998 08 27	699	0.7+	0.5-	2000 01 27	704	0.2+	0.2-	2000 02 07	703	0.0	0.2-
1999 11 16	704	0.8-	0.6+	2000 01 27	704	0.6+	0.0	2000 02 07	703	0.6-	0.1+
1999 11 16	704	0.3-	0.4-	2000 01 29	704	0.1+	0.3+	2000 02 07	703	0.2-	0.1+
1999 11 16	704	0.4-	0.1+	2000 01 29	704	0.2+	0.3+	2000 02 11	704	0.0	0.0
1999 11 16	704	0.2-	0.7-	2000 01 29	704	0.1+	0.2+	2000 02 11	704	0.0	0.2+
1999 11 16	704	0.6+	0.9-	2000 01 29	704	0.4+	0.4+	2000 02 11	704	0.1-	0.4+
2000 01 03	704	0.2-	0.0	2000 01 29	704	0.0	0.8+	2000 02 11	704	0.0	0.5+
2000 01 03	704	0.3-	0.2-	2000 01 30	704	0.1+	0.3+	2000 02 11	704	(0.9-	2.5+)
2000 01 03	704	0.1+	0.1-	2000 01 30	704	0.2-	0.1+				
2000 01 03	704	0.3-	0.2-	2000 01 30	704	0.0	0.3+				

2000 AG₃₃ = 1998 QZ₅₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	358.49320		(2000.0)	P	Q
n	0.22260353	ω	168.12993	-0.65210969	-0.74740587
a	2.6963816	Ω	322.36356	+0.67743594	-0.49924243
e	0.1188173	i	12.00691	+0.34034321	-0.43833944
P	4.43	H	13.9	G 0.15	U 3

Residuals in seconds of arc

1998 08 20	699	0.5-	0.0	1999 11 16	703	0.2+	0.4+	2000 01 30	704	1.3-	0.0
1998 08 20	699	0.0	0.7-	2000 01 03	704	0.2+	0.9-	2000 01 31	704	0.4+	0.3+
1998 08 20	699	1.1+	0.1-	2000 01 03	704	0.2+	0.1+	2000 01 31	704	0.1+	0.1+
1998 08 27	704	0.1+	0.2-	2000 01 03	704	0.0	0.4-	2000 01 31	704	0.2+	0.2+
1998 08 27	699	1.0-	0.6+	2000 01 03	704	0.1-	0.5-	2000 01 31	704	0.2-	0.3-
1998 08 27	704	0.3+	1.0-	2000 01 03	704	0.4+	0.3-	2000 02 07	703	0.4+	0.1+
1998 08 27	704	0.6-	1.0+	2000 01 04	704	0.0	0.2-	2000 02 07	703	0.1-	0.2+
1998 08 27	699	0.2-	0.9-	2000 01 04	704	0.3-	0.2-	2000 02 07	703	0.3-	0.3+
1998 08 27	704	0.4+	1.1+	2000 01 04	704	0.1+	0.5-	2000 02 07	703	0.1-	0.2+
1998 08 27	699	0.6-	0.4+	2000 01 04	704	0.1+	0.3-	2000 02 11	704	0.2+	0.2+
1998 08 27	704	1.0+	0.2-	2000 01 04	704	0.2+	0.5-	2000 02 11	704	0.0	0.5+
1999 11 16	703	0.4-	0.7+	2000 01 30	704	0.2+	0.1-	2000 02 11	704	0.1-	0.2+
1999 11 16	703	0.1-	0.1+	2000 01 30	704	0.2+	0.5-	2000 02 11	704	0.0	0.4+
1999 11 16	703	0.2-	1.1+	2000 01 30	704	0.3-	0.6-	2000 02 11	704	0.0	0.9+

2000 AS₃₃ = 1976 SF₁₁ = 1987 QG₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26374930	ω	41.32471	+0.99027450	+0.08388406		
<i>a</i>	2.4081036	Ω	313.49450	-0.12794540	+0.86244452		
<i>e</i>	0.2377065	<i>i</i>	8.80102	+0.05464778	+0.49915220		
<i>P</i>	3.74	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1976 09 23	033	1.5-	2.2+	1999 12 15	703	0.4-	0.4+	2000 01 30	704	0.0	0.3+
1976 09 24	033	0.6+	0.1+	1999 12 15	703	0.3-	0.4+	2000 01 30	704	0.2-	0.1+
1987 08 21	046	(0.3-	3.3-)	1999 12 15	704	0.8+	0.1-	2000 01 30	704	0.6+	1.5-
1987 08 21	046	(2.7+	4.4-)	1999 12 15	703	0.9-	0.0	2000 01 30	704	0.5-	0.2-
1987 08 22	809	0.1-	0.0	1999 12 15	704	0.2-	0.1+	2000 01 30	704	0.3-	0.5-
1987 08 22	809	0.6+	0.8-	1999 12 15	703	0.8+	0.1+	2000 02 02	704	0.9+	0.5-
1987 08 22	809	0.3-	0.0	1999 12 15	704	0.6-	0.2-	2000 02 02	704	0.4-	0.7+
1987 08 22	046	(4.3+	2.1+)	1999 12 15	704	1.2-	0.4+	2000 02 02	704	0.6+	0.0
1987 08 22	046	(5.0+	1.6+)	2000 01 03	704	0.5+	1.2+	2000 02 02	704	0.1+	1.1+
1987 08 24	809	1.6-	0.1+	2000 01 03	704	0.9-	0.2-	2000 02 02	704	0.2+	1.2+
1987 08 24	809	1.7+	0.7+	2000 01 03	704	0.3-	0.4-	2000 02 03	704	0.0	0.7-
1987 08 24	809	(2.9+	2.8+)	2000 01 03	704	1.3+	1.0-	2000 02 03	704	0.2+	0.7+
1987 08 25	809	0.7-	0.1-	2000 01 03	704	0.1+	0.5+	2000 02 03	704	0.1+	0.7+
1987 08 25	809	0.8-	0.6+	2000 01 04	704	0.1-	0.6-	2000 02 03	704	0.4-	0.5+
1987 08 25	809	(3.2-	0.0)	2000 01 04	704	0.2-	0.3-	2000 02 06	704	0.1+	0.5-
1987 08 26	809	0.9+	0.5-	2000 01 04	704	0.4-	0.2-	2000 02 06	704	0.5-	0.4-
1987 08 26	809	1.2+	1.0-	2000 01 04	704	0.5-	0.4-	2000 02 06	704	0.4+	0.8+
1987 08 26	809	0.7+	1.9-	2000 01 04	704	0.2-	0.0	2000 02 06	704	0.8+	0.0
1987 09 25	095	0.1-	0.9+	2000 01 29	704	0.7+	0.0	2000 02 11	704	0.2-	0.3+
1998 06 24	704	0.8-	1.2+	2000 01 29	704	0.2-	0.2+	2000 02 11	704	0.1-	0.5-
1998 06 24	704	1.0+	1.5+	2000 01 29	704	0.9-	0.6-	2000 02 11	704	0.8+	0.1-
1998 06 24	704	1.0-	0.4+	2000 01 29	704	0.5-	0.9-	2000 02 11	704	0.7+	0.5+
1998 06 24	704	0.0	0.8-	2000 01 30	704	0.6+	0.3-				
1998 06 24	704	(2.7-	1.9-)	2000 01 30	704	0.1-	0.1+				

2000 AV₃₃ = 1995 XO

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26018391	ω	44.54907	-0.50322750	-0.86267235		
<i>a</i>	2.4300530	Ω	75.72615	+0.77756943	-0.47756751		
<i>e</i>	0.1587813	<i>i</i>	2.99179	+0.37702501	-0.16651030		
<i>P</i>	3.79	<i>H</i>	15.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1995 11 30	327	0.3-	0.0	1995 12 31	327	0.1-	0.1+	2000 01 05	120	0.1+	0.3+
1995 11 30	327	0.7-	0.2+	2000 01 03	704	0.7-	1.1-	2000 01 06	120	0.7-	0.1+
1995 11 30	327	0.3-	0.4+	2000 01 03	704	0.9+	0.9-	2000 01 06	120	1.4-	0.3+
1995 12 12	817	0.8-	0.1+	2000 01 03	704	0.8+	0.6-	2000 01 08	106	0.1-	0.8+
1995 12 12	817	0.1+	0.1-	2000 01 03	704	0.3+	0.8-	2000 01 08	106	0.4-	0.5+
1995 12 12	817	0.3+	0.1+	2000 01 03	704	0.1-	0.4-	2000 01 31	704	0.2-	1.1+
1995 12 13	817	0.3+	0.2+	2000 01 04	704	0.0	0.4-	2000 01 31	704	0.4+	0.7+
1995 12 13	817	0.5+	0.2+	2000 01 04	704	0.3+	0.1-	2000 01 31	704	0.0	0.1+
1995 12 13	817	0.6+	0.2+	2000 01 04	704	0.4+	0.2-	2000 02 11	704	1.1+	0.0
1995 12 23	817	0.5+	0.2-	2000 01 04	704	0.4+	0.9-	2000 02 11	704	0.8-	0.5+
1995 12 23	817	0.0	0.2-	2000 01 04	704	0.4+	0.3-	2000 02 11	704	0.4-	0.3+
1995 12 31	327	0.2-	0.2-	2000 01 05	120	0.5-	0.3+				

2000 AG₃₄ = 1997 GQ₁₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.29405684	ω	121.16941	-0.48020860	-0.87715117		
<i>a</i>	2.2396588	Ω	357.52603	+0.78509980	-0.42861545		
<i>e</i>	0.1324810	<i>i</i>	3.12209	+0.39117516	-0.21655167		
<i>P</i>	3.35	<i>H</i>	16.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 04 03	704	0.7+	0.7-	2000 01 03	704	0.3+	0.8-	2000 01 05	699	0.3+	1.3+
1997 04 03	704	0.0	0.2-	2000 01 03	704	0.6+	0.5-	2000 01 05	699	0.3+	0.4+
1997 04 05	704	0.9-	0.7-	2000 01 03	704	0.1-	0.3-	2000 01 05	699	0.4-	1.1+
1997 04 05	704	0.0	1.2+	2000 01 03	704	0.6+	0.9-	2000 02 11	704	0.3+	0.4+
1997 04 07	704	0.0	0.0	2000 01 04	704	0.3+	0.1-	2000 02 11	704	1.0+	0.1-
1997 04 07	704	0.1+	0.3+	2000 01 04	704	1.1-	0.2-	2000 02 11	704	0.2+	0.2-
2000 01 03	704	0.8-	0.1+	2000 01 04	704	0.2-	0.2-	2000 02 11	704	1.3-	0.1+

2000 AJ₃₄ = 1999 XJ₁₇₆ = 1975 HG = 1998 VZ₁₂

Id. M. E. Sansaturio, G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26767892	ω	229.28842	+0.18168707	+0.98080635		
<i>a</i>	2.3844777	Ω	51.32163	-0.87267196	+0.19399104		
<i>e</i>	0.2221246	<i>i</i>	5.20136	-0.45324768	+0.01965656		
<i>P</i>	3.68	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1975 04 20	805	0.4+	0.8+	1999 12 10	704	1.2+	0.7-	2000 01 08	704	0.4-	0.8-
1998 10 20	699	0.5-	1.3+	1999 12 10	704	1.2+	0.3-	2000 01 08	704	0.7+	0.3-
1998 10 20	699	0.5+	0.3-	1999 12 15	704	0.6+	0.3-	2000 01 30	704	0.0	0.1-
1998 10 20	699	0.1+	0.5+	1999 12 15	704	0.7+	0.1+	2000 01 30	704	0.1-	0.3+
1998 11 10	704	0.0	0.5-	1999 12 15	704	0.2-	1.1-	2000 01 30	704	0.4-	0.5+
1998 11 10	704	0.3+	0.5-	1999 12 15	704	0.5-	0.1+	2000 01 31	704	0.3-	0.7+
1998 11 10	704	0.8-	0.8-	2000 01 03	704	0.7-	0.7+	2000 01 31	704	0.6-	0.5+
1998 11 10	704	0.1+	0.3+	2000 01 03	704	0.4+	1.6+	2000 01 31	704	0.4+	0.3-
1998 11 10	704	1.2-	0.8-	2000 01 03	704	0.8-	0.8+	2000 02 07	703	1.0-	0.1-
1998 11 11	704	0.1-	0.7-	2000 01 03	704	0.3-	0.1-	2000 02 07	703	0.5-	1.4+
1998 11 11	704	0.3+	0.3-	2000 01 03	704	0.9+	0.3-	2000 02 07	703	0.3-	0.5+
1998 11 11	704	0.7+	0.1+	2000 01 04	704	0.2-	0.2+	2000 02 07	703	0.2+	0.2+
1998 11 11	704	0.5-	0.2+	2000 01 04	704	0.3-	0.4+	2000 02 11	704	0.2-	0.0
1998 11 11	704	0.1+	0.9+	2000 01 04	704	0.1-	0.6-	2000 02 11	704	0.0	0.3-
1998 11 14	699	0.1+	0.7+	2000 01 04	704	0.6-	0.2+	2000 02 11	704	0.4-	0.3-
1998 11 14	699	0.2+	0.3+	2000 01 04	704	1.2-	0.6-	2000 02 11	704	0.8-	0.1-
1998 11 14	699	0.2+	0.6+	2000 01 08	704	0.4+	0.5-	2000 02 11	704	1.2+	0.4-
1999 12 10	704	1.4+	0.5-	2000 01 08	704	0.9+	1.1-				

2000 AY₃₆ = 1995 OF₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.29772603	ω	127.11802	+0.04167488	-0.99811013		
<i>a</i>	2.2212197	Ω	320.42022	+0.89273617	+0.05749487		
<i>e</i>	0.1374234	<i>i</i>	4.06435	+0.44864835	-0.02169098		
<i>P</i>	3.31	<i>H</i>	16.5	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1995 07 27	691	0.5-	0.2-	2000 01 03	704	0.3-	0.1+	2000 01 08	704	0.0	0.7-
1995 07 27	691	0.3-	1.3+	2000 01 03	704	0.4+	0.2+	2000 01 08	704	0.4-	0.5-
1995 07 27	691	0.1-	0.4-	2000 01 04	704	0.2+	0.4-	2000 01 08	704	0.1+	0.2-
1995 08 03	691	0.4+	0.3+	2000 01 04	704	0.1-	0.1-	2000 01 30	704	0.5-	0.5+
1995 08 03	691	0.2+	0.5-	2000 01 04	704	0.1-	0.6+	2000 01 30	704	0.1-	0.3-
1995 08 03	691	0.4+	0.6-	2000 01 04	704	0.2+	0.1-	2000 01 30	704	0.1-	0.0
2000 01 03	704	0.0	0.5+	2000 01 04	704	0.5-	1.0+	2000 01 30	704	0.3+	0.4-
2000 01 03	704	0.1-	0.1-	2000 01 08	704	0.8+	0.2-				

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M.P.C. 38633

2000 AZ₃₇ = 1998 RU₂₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	96.01671		(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.22716400	ω	14.13413	+0.95785373	−0.28725285		
<i>a</i>	2.6601719	Ω	2.56076	+0.26035159	+0.86602915		
<i>e</i>	0.1019901	<i>i</i>	1.83110	+0.12138075	+0.40924236		
<i>P</i>	4.34	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 09 14	704	0.6+	0.1+	1998 09 18	704	0.1−	0.7+	2000 01 30	704	0.2−	0.2−
1998 09 14	704	0.6−	0.9+	2000 01 03	704	0.3−	1.1−	2000 01 30	704	0.4−	0.9−
1998 09 14	704	0.6−	0.6−	2000 01 03	704	0.5−	1.0−	2000 01 30	704	0.3+	0.5+
1998 09 14	704	0.2+	0.5−	2000 01 03	704	1.0−	0.0	2000 01 31	704	0.1−	0.7+
1998 09 18	704	(1.2−	3.0−)	2000 01 04	704	1.1+	0.1+	2000 01 31	704	0.1−	0.2+
1998 09 18	704	0.5−	0.1+	2000 01 04	704	0.2+	1.1+	2000 01 31	704	0.2+	0.2−
1998 09 18	704	0.2+	1.2−	2000 01 04	704	0.8+	1.5+				
1998 09 18	704	0.9+	0.3+	2000 01 30	704	0.1+	0.6−				

2000 AN₃₈ = 1977 RF₁₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	82.69582		(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.27521628	ω	30.38877	+0.95294167	−0.30309692		
<i>a</i>	2.3407407	Ω	347.25089	+0.27251348	+0.86494603		
<i>e</i>	0.2388003	<i>i</i>	1.52373	+0.13281034	+0.40000078		
<i>P</i>	3.58	<i>H</i>	15.6	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1977 09 09	675	0.1−	0.4−	2000 01 04	691	0.3−	0.2−	2000 01 11	691	0.1−	0.7−
1977 09 10	675	0.1+	0.4+	2000 01 04	691	0.4−	0.0	2000 01 11	691	0.1+	0.4−
2000 01 03	704	0.6+	1.4+	2000 01 04	691	1.6−	0.8+	2000 01 11	704	0.1+	0.9−
2000 01 03	704	0.6−	0.0	2000 01 05	691	0.1−	0.2+	2000 01 11	691	0.1+	0.4−
2000 01 03	704	1.2+	0.0	2000 01 05	691	1.1+	0.0	2000 01 30	704	0.0	0.4−
2000 01 03	704	0.0	0.8+	2000 01 08	691	0.1+	0.2−	2000 01 30	704	0.6+	0.0
2000 01 04	704	0.0	0.4−	2000 01 08	691	0.1+	0.4−	2000 01 30	704	0.6−	0.7−
2000 01 04	704	0.3−	0.5−	2000 01 08	691	0.1+	0.3−	2000 01 31	704	0.0	0.9+
2000 01 04	704	0.2+	0.1−	2000 01 11	704	0.1−	0.2+	2000 01 31	704	0.3+	0.7+
2000 01 04	704	0.2+	0.5−	2000 01 11	704	0.4−	0.6+	2000 01 31	704	0.3+	0.1−
2000 01 04	704	0.2+	0.4+	2000 01 11	704	0.3−	0.3+	2000 01 31	704	0.4−	0.1+

2000 AW₃₈ = 1998 RN₂₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	276.23608		(2000.0)	Spahr		<i>P</i>	<i>Q</i>
<i>n</i>	0.30524248	ω	172.22748	−0.72657199	+0.68460103		
<i>a</i>	2.1846041	Ω	51.14798	−0.63436082	−0.63570888		
<i>e</i>	0.0832797	<i>i</i>	4.30319	−0.26396874	−0.35664500		
<i>P</i>	3.23	<i>H</i>	15.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 14	704	(2.5−	1.4−)	2000 01 03	704	0.4−	0.8−	2000 01 30	704	0.3−	0.1+
1998 09 14	704	(0.3−	3.8−)	2000 01 03	704	0.4−	0.4+	2000 01 30	704	0.3+	0.0
1998 09 14	704	0.7−	1.0−	2000 01 04	704	0.3+	0.3+	2000 01 31	704	0.1−	0.7+
1998 09 14	704	1.3−	0.7+	2000 01 04	704	0.7−	0.1−	2000 01 31	704	0.6+	0.3+
1998 09 18	704	0.8+	0.8−	2000 01 04	704	0.1−	0.1−	2000 01 31	704	0.4−	0.3+
1998 09 18	704	(1.4−	2.1+)	2000 01 04	704	1.0+	0.4+	2000 02 07	703	0.4+	1.5−
1998 09 18	704	0.9+	0.6+	2000 01 04	704	0.5−	0.0	2000 02 07	703	0.4−	0.7+
1998 09 18	704	0.3+	0.6+	2000 01 30	704	0.2+	0.4+	2000 02 07	703	0.4−	0.1+
2000 01 03	704	0.5+	0.7−	2000 01 30	704	0.1−	0.1+	2000 02 07	703	0.0	0.7−
2000 01 03	704	0.3+	0.2+	2000 01 30	704	0.0	0.0				

2000 AM₄₀ = 1998 NM₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	84.38352		(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.30894503	ω	20.88770	+0.78226154	−0.62262715		
<i>a</i>	2.1671147	Ω	17.66595	+0.56176264	+0.69114432		
<i>e</i>	0.0877028	<i>i</i>	3.78977	+0.26923897	+0.36695362		
<i>P</i>	3.19	<i>H</i>	15.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 07 14	428	0.3+	0.0	2000 01 04	704	0.4−	0.3−	2000 01 31	704	0.5+	0.7−
1998 07 14	428	0.3−	0.6+	2000 01 04	704	0.5+	0.0	2000 01 31	704	0.4+	0.0
1998 07 15	428	0.4+	0.1+	2000 01 04	704	0.5−	0.0	2000 02 11	704	0.8−	0.4+
1998 07 20	428	0.5−	0.7−	2000 01 04	704	0.3+	0.4−	2000 02 11	704	0.0	0.4−
2000 01 03	704	0.6−	0.3−	2000 01 30	704	0.2−	0.3+	2000 02 11	704	0.1−	0.1+
2000 01 03	704	0.2−	0.5+	2000 01 30	704	0.0	0.5+	2000 02 11	704	0.6−	0.5+
2000 01 03	704	0.1−	1.2+	2000 01 30	704	0.5+	0.4−				
2000 01 04	704	0.0	0.2−	2000 01 31	704	1.1+	0.9−				

2000 AR₄₁ = 1991 TC₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	41.60638		(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.27100805	ω	93.35687	−0.00367266	−0.99997515		
<i>a</i>	2.3649098	Ω	356.83475	+0.86875118	−0.00021032		
<i>e</i>	0.0840978	<i>i</i>	6.25693	+0.49523520	−0.00704687		
<i>P</i>	3.64	<i>H</i>	15.4	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1991 10 02	033	1.4−	0.2+	2000 01 04	704	1.8−	0.1−	2000 02 05	704	0.3+	0.2−
1991 10 03	033	0.0	0.9+	2000 01 04	704	0.1+	0.1−	2000 02 11	704	0.0	0.1−
1991 10 04	033	0.2−	0.0	2000 01 04	704	0.0	0.0	2000 02 11	704	0.1+	0.1+
1991 10 09	033	0.5+	0.2−	2000 01 04	704	0.3−	0.6−	2000 02 11	704	0.4+	0.1−
1991 10 09	033	0.5+	0.1+	2000 01 04	704	0.9−	0.0	2000 02 11	704	0.1+	0.4+
1998 11 09	910	0.2+	0.1−	2000 01 30	704	0.6−	0.3−	2000 02 11	704	0.2−	0.1+
1998 11 09	910	0.0	0.3−	2000 01 30	704	0.3+	0.1+	2000 02 11	704	0.7+	0.4+
1998 11 09	910	0.0	0.3−	2000 01 30	704	0.5−	0.7−	2000 02 11	704	0.2+	0.8+
2000 01 03	704	0.5+	0.2+	2000 01 30	704	0.1−	0.4−	2000 02 11	704	0.1+	0.0
2000 01 03	704	0.1+	0.7−	2000 02 05	704	0.5+	0.7+	2000 02 11	704	0.8+	0.1−
2000 01 03	704	0.2−	0.2−	2000 02 05	704	0.4+	1.4+	2000 02 11	704	(2.3+	0.2+)
2000 01 03	704	0.4+	0.4+	2000 02 05	704	0.5+	0.2+				
2000 01 03	704	0.7−	1.1−	2000 02 05	704	0.3−	0.4+				

2000 AS₄₁ = 1993 FB₅₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	342.85489		(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.26845528	ω	107.68439	−0.93228966	−0.35546936		
<i>a</i>	2.3798783	Ω	51.54672	+0.29096804	−0.84690385		
<i>e</i>	0.0808488	<i>i</i>	4.90169	+0.21488041	−0.39546858		
<i>P</i>	3.67	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1993 03 17	809	0.1−	1.0+	2000 01 03	704	0.4−	0.0	2000 01 05	699	0.2+	1.7+
1993 03 18	809	0.7+	0.1−	2000 01 03	704	0.8+	1.8−	2000 02 05	704	0.3−	0.5−
1993 03 23	809	0.4−	0.5−	2000 01 03	704	0.1−	0.0	2000 02 05	704	0.2+	0.3+
1998 09 29	704	0.8+	0.6−	2000 01 03	704	0.9+	0.2−	2000 02 05	704	0.5−	0.5+
1998 09 29	704	0.6−	1.5−	2000 01 03	704	0.5+	0.2−	2000 02 05	704	0.3−	0.3−
1998 09 29	704	0.5+	1.9+	2000 01 04	704	0.3+	0.3−	2000 02 11	704	0.0	0.0
1998 09 29	704	0.1+	0.0	2000 01 04	704	0.1−	0.7−	2000 02 11	704	0.6−	0.4+
1998 09 29	704	(2.3−	2.6+)	2000 01 04	704	0.4−	0.2−	2000 02 11	704	0.3−	0.6+
1998 09 29	704	0.8+	0.9−	2000 01 04	704	0.0	0.1−	2000 02 11	704	0.0	0.3+
1998 09 29	704	0.1+	1.2+	2000 01 04	704	0.3−	0.3+	2000 02 11	704	0.2+	0.1+
1998 09 29	704	2.0−	0.6+	2000 01 05	699	0.3+	0.0				
1998 09 29	704	(2.8−	1.2+)	2000 01 05	699	0.1−	0.1+				

2000 AL₄₃ = 1978 VJ₉

Id. B. G. Marsden

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	106.99027		(2000.0)	P	Q
<i>n</i>	0.23992655	ω	306.72944	+0.99365266	-0.08673954
<i>a</i>	2.5649791	Ω	58.35047	+0.10943188	+0.89284104
<i>e</i>	0.1900465	<i>i</i>	4.82673	-0.02605850	+0.44194020
<i>P</i>	4.11	<i>H</i>	15.0	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1978 11 05	675	0.5-	0.2+	2000 01 07	046	0.4+	1.4+	2000 01 13	046	0.1-	0.3+
1978 11 06	675	(4.0+	1.1-)	2000 01 09	046	0.1-	0.9-	2000 01 13	046	0.4-	0.4-
1978 11 08	675	0.5+	0.2-	2000 01 09	046	0.3-	0.1-	2000 01 13	046	0.4-	0.4-
2000 01 06	046	0.4+	0.3+	2000 01 12	046	0.3-	0.1-	2000 01 25	046	0.4-	0.4-
2000 01 06	046	0.1+	0.2+	2000 01 12	046	0.9+	0.6-	2000 01 25	046	0.1+	0.6+
2000 01 06	046	0.5+	0.1-	2000 01 12	046	0.2-	0.0	2000 01 25	046	0.1+	1.1-
2000 01 06	046	0.0	0.0	2000 01 13	046	0.2-	0.1-	2000 02 03	046	0.0	0.3+
2000 01 07	046	0.4-	1.2+	2000 01 13	046	0.3+	0.6-	2000 02 03	046	0.1-	0.7+
2000 01 07	046	0.1+	0.4-	2000 01 13	046	0.1-	0.5+	2000 02 03	046	0.4+	0.3+
2000 01 07	046	0.2-	0.1-	2000 01 13	046	0.1-	0.2-				

2000 AM₄₃ = 1991 RH₁₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	75.23721		(2000.0)	P	Q
<i>n</i>	0.26134361	ω	210.52697	+0.97983835	-0.19767594
<i>a</i>	2.4228589	Ω	160.80959	+0.19646070	+0.92690068
<i>e</i>	0.1201224	<i>i</i>	5.06154	+0.03633189	+0.31902875
<i>P</i>	3.77	<i>H</i>	14.3	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1991 09 11	675	1.0-	1.0+	1999 12 06	704	0.0	0.1+	2000 01 05	106	0.0	0.5+
1991 09 11	675	1.1-	0.3-	1999 12 06	704	0.3+	0.3-	2000 01 05	106	0.2-	0.5+
1991 09 15	675	1.5+	1.7-	1999 12 06	704	0.6-	0.1-	2000 01 05	106	0.0	0.1+
1991 09 15	675	0.0	0.8+	1999 12 06	704	0.3+	0.5-	2000 01 07	704	0.3-	0.3-
1991 09 17	675	0.9+	1.6-	1999 12 14	704	0.7+	0.6-	2000 01 07	704	0.4-	0.2-
1991 09 17	675	(3.3-	3.5+)	1999 12 14	704	0.0	1.1-	2000 01 07	704	0.0	0.1+
1991 10 01	691	0.0	0.4+	1999 12 14	704	0.5+	0.9-	2000 01 07	704	0.4+	0.3+
1991 10 01	691	0.1-	0.4+	1999 12 14	704	0.8+	1.2-	2000 01 07	704	0.5+	0.4+
1991 10 01	691	0.0	0.3+	1999 12 14	704	0.4+	0.1-	2000 02 02	704	1.2-	0.9+
1997 04 02	704	0.7+	1.2-	2000 01 04	106	0.3-	0.4+	2000 02 02	704	1.0-	1.1+
1997 04 02	704	1.0-	0.8-	2000 01 04	106	0.1-	0.1+	2000 02 02	704	0.4-	1.1+
1997 04 02	704	0.1-	1.1-	2000 01 04	106	0.8+	0.2-	2000 02 02	704	0.1-	0.3+
1997 04 02	704	0.4-	0.1+	2000 01 05	704	0.2+	0.3+	2000 02 02	704	0.1-	1.1+
1999 11 04	704	(3.4+	0.8-)	2000 01 05	704	0.1-	0.0	2000 02 03	704	0.8-	0.2+
1999 11 04	704	0.1-	0.5-	2000 01 05	704	0.2+	0.3+	2000 02 03	704	1.9-	1.1+
1999 11 04	704	0.2+	1.5-	2000 01 05	704	0.0	0.2-	2000 02 03	704	0.8+	0.5-
1999 12 06	704	0.1-	0.3-	2000 01 05	704	0.1+	0.5+	2000 02 03	704	(0.5+	2.1+)

2000 AF₄₅ = 1998 XX₃₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	185.79048		(2000.0)	P	Q
<i>n</i>	0.18091857	ω	63.55987	+0.82843359	+0.53154983
<i>a</i>	3.0960927	Ω	263.85302	-0.55596930	+0.74229913
<i>e</i>	0.0887647	<i>i</i>	10.22543	-0.06779324	+0.40797890
<i>P</i>	5.45	<i>H</i>	12.6	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 12 14	704	0.5+	0.7+	1999 12 14	704	0.2-	0.0	2000 01 11	704	0.5-	0.4-
1998 12 14	704	0.8+	0.3-	1999 12 14	704	0.7-	1.3-	2000 01 11	704	0.5-	0.3+
1998 12 14	704	0.2+	1.0-	1999 12 14	704	0.2-	0.1+	2000 01 28	461	0.1+	0.4-
1998 12 14	704	0.6-	1.3-	1999 12 14	704	0.3+	0.4-	2000 01 28	461	0.0	0.5-
1998 12 14	704	0.9-	1.4-	2000 01 01	461	0.2+	0.5+	2000 01 28	461	0.3+	0.5-
1998 12 16	704	0.6+	0.0	2000 01 01	461	0.1-	0.1-	2000 02 08	704	0.2-	0.2-
1998 12 16	704	0.2-	0.5-	2000 01 01	461	0.5+	0.2+	2000 02 08	704	0.2-	0.2+
1998 12 16	704	0.4+	0.3+	2000 01 02	461	0.2+	0.1+	2000 02 08	704	0.0	0.1-
1998 12 16	704	0.8-	0.4+	2000 01 07	699	1.1+	0.1+	2000 02 08	704	0.3+	0.7+

1998 12 17	704	0.0	0.2+	2000 01 07	699	0.4+	1.0+	2000 02 10	704	0.2-	0.0
1998 12 17	704	0.0	0.1-	2000 01 07	699	0.3+	0.3+	2000 02 10	704	0.0	0.2+
1998 12 17	704	0.3-	0.3+	2000 01 11	704	0.1+	0.6+	2000 02 10	704	0.2-	0.2-
1998 12 17	704	0.5+	0.6-	2000 01 11	704	0.7+	0.2-	2000 02 10	704	0.6+	0.4-
1998 12 17	704	0.4-	0.5+	2000 01 11	704	0.1+	0.5-	2000 02 11	704	0.2+	0.5+
1998 12 22	704	0.9+	0.4-	2000 01 11	704	0.4-	0.1-	2000 02 11	704	0.5-	0.0
1998 12 22	704	0.7-	0.1+	2000 01 11	704	0.8-	0.2-	2000 02 11	704	0.0	0.4-
1998 12 22	704	0.2+	0.0	2000 01 11	704	0.1-	0.2+	2000 02 11	704	0.1-	0.3-
1998 12 22	704	0.1+	1.4+	2000 01 11	704	0.6-	0.2+	2000 02 11	704	0.1+	1.0+
1998 12 22	704	0.2-	1.7+	2000 01 11	704	0.0	0.2-				

2000 AP₄₇ = 1998 VQ₁₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	114.37623		(2000.0)	P	Q
<i>n</i>	0.19688674	ω	42.41574	+0.96459378	-0.26352790
<i>a</i>	2.9263420	Ω	332.85838	+0.23532977	+0.87810199
<i>e</i>	0.1068818	<i>i</i>	1.32865	+0.11907454	+0.39936192
<i>P</i>	5.01	<i>H</i>	14.0	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1998 10 16	691	0.5-	0.4-	2000 01 04	704	0.2-	0.5-	2000 02 03	704	0.3+	0.1+
1998 10 16	691	0.3-	0.7-	2000 01 04	704	0.1-	0.0	2000 02 03	704	0.0	0.5+
1998 10 16	691	0.4-	0.6-	2000 01 04	704	0.8-	1.4-	2000 02 03	704	0.3+	0.5+
1998 10 19	699	0.9+	0.1-	2000 01 04	704	0.3+	1.4-	2000 02 03	704	0.5+	0.9+
1998 10 19	699	0.0	0.3+	2000 01 05	704	1.1+	1.0+	2000 02 10	691	0.1-	0.2-
1998 10 19	699	0.8+	0.4+	2000 01 05	704	0.5-	0.1+	2000 02 10	691	0.3-	0.2-
1998 11 10	704	0.1+	0.3+	2000 01 05	704	0.1-	0.4+	2000 02 10	691	0.2-	0.3-
1998 11 10	704	0.2+	1.0+	2000 01 06	704	0.3-	0.6+	2000 02 11	704	0.4-	0.3+
1998 11 10	704	0.7+	0.2+	2000 01 06	704	1.0-	0.3-	2000 02 11	704	0.2+	0.3-
1998 11 10	704	0.6+	1.1+	2000 01 06	704	0.3-	0.4+	2000 02 11	704	0.3+	0.6+
1998 11 10	704	(3.1-	2.3+)	2000 01 06	704	0.4+	0.3+	2000 02 11	704	0.2+	0.4+
1998 11 11	704	0.5-	0.0	2000 01 06	704	0.5-	0.5+	2000 02 11	704	0.0	0.7+
1998 11 11	704	0.5+	0.3+	2000 01 06	704	(0.5+	2.1+)	2000 02 14	691	0.0	0.5-
1998 11 11	704	0.4-	0.1+	2000 01 29	691	0.2+	0.1-	2000 02 14	691	0.4-	0.3-
1998 11 11	704	1.6-	1.5-	2000 01 29	691	0.2+	0.4-	2000 02 14	691	0.3-	0.3-
1998 11 11	704	0.3-	0.3-	2000 01 29	691	0.2+	0.3-				
2000 01 04	704	0.6+	1.0-	2000 02 03	704	0.3+	0.0				

2000 AV₄₇ = 1994 NE₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	13.53404		(2000.0)	P	Q
<i>n</i>	0.28201466	ω	16.56340	-0.61775446	-0.78128481
<i>a</i>	2.3029699	Ω	111.67831	+0.71014709	-0.60303671
<i>e</i>	0.1500598	<i>i</i>	5.51409	+0.33774330	-0.16106140
<i>P</i>	3.49	<i>H</i>	15.2	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1994 07 11	809	1.2-	0.7+	2000 01 04	704	0.4+	0.6+	2000 02 03	704	0.0	0.1-
1994 07 11	809	1.0-	0.7+	2000 01 05	704	0.5+	0.4+	2000 02 03	704	0.6-	0.5-
1994 07 11	809	0.2+	0.8+	2000 01 05	704	0.9+	0.6+	2000 02 03	704	0.4-	0.1-
1994 07 12	809	0.4+	0.6+	2000 01 05	704	0.6+	0.6+	2000 02 03	704	0.6-	0.1-
1994 07 12	809	(1.3+	2.4+)	2000 01 05	704	0.4+	0.9+	2000 02 03	704	0.7-	0.8-
1994 07 12	809	1.4+	1.4+	2000 01 05	704	0.3+	1.6+	2000 02 08	049	(1.5-	2.3-)
1999 12 07	704	0.1+	0.4+	2000 01 06	704	1.4+	0.0	2000 02 08	049	(1.0-	2.5-)
1999 12 07	704	1.4-	0.6+	2000 01 06	704	0.0	0.0	2000 02 09	049	(0.7+	2.6-)
1999 12 07	704	0.0	0.5+	2000 01 06	704	0.9+	0.9+	2000 02 11	704	0.3-	0.5-
1999 12 07	704	0.6-	0.7-	2000 01 06	704	0.1-	0.4+	2000 02 11	704	0.3-	0.3-
1999 12 07	704	1.2-	0.5+	2000 01 30	704	0.6-	0.4-	2000 02 11	704	0.6+	0.4-
2000 01 04	704	0.2-	0.0	2000 01 30	704	0.0	0.7-	2000 02 11	704	0.0	0.6-
2000 01 04	704	0.4+	0.4+	2000 01 30	704	0.1-	0.1-	2000 02 11	704	0.4-	0.3+
2000 01 04	704	0.7+	0.2+	2000 01 30	704	0.4+	0.8+				
2000 01 04	704	0.6+	0.5+	2000 01 30	704	0.1-	0.8-				

2000 FEB. 22

M.P.C. 38635

2000 AY₄₇ = 1991 RJ₃₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	116.97964		(2000.0)	P	Q
<i>n</i>	0.27673341	ω	243.31313	+0.97776281	-0.14642878
<i>a</i>	2.3321778	Ω	124.74727	+0.18571756	+0.93710546
<i>e</i>	0.2079827	<i>i</i>	10.52766	-0.09741086	+0.31684693
<i>P</i>	3.56	<i>H</i>	14.5	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1991 09 14	675	0.2-	0.0	1998 08 23	704	1.7-	1.0+	2000 01 07	704	0.5+	0.9+
1991 09 14	675	0.5-	0.1-	1998 08 23	704	(4.2-	3.3-)	2000 02 03	704	1.0+	0.9-
1991 09 15	675	0.8+	0.5+	2000 01 04	704	0.0	0.1+	2000 02 03	704	0.0	0.3+
1991 09 15	675	0.2-	0.6-	2000 01 04	704	0.3-	0.1+	2000 02 03	704	1.6+	0.0
1998 08 17	704	0.1+	0.2-	2000 01 04	704	0.1-	0.4+	2000 02 03	704	1.0+	1.0-
1998 08 17	704	1.2+	0.6-	2000 01 04	704	0.6-	0.4-	2000 02 03	704	1.0+	0.8-
1998 08 17	704	1.0+	0.7-	2000 01 04	704	0.2-	0.1-	2000 02 05	704	0.2-	0.8-
1998 08 17	704	0.5-	0.3-	2000 01 05	704	0.0	0.2+	2000 02 05	704	0.9-	0.2-
1998 08 17	704	0.6-	0.2+	2000 01 05	704	0.5-	0.3-	2000 02 05	704	0.2-	0.1+
1998 08 21	566	0.0	0.0	2000 01 05	704	0.8-	0.1-	2000 02 05	704	0.1-	0.7-
1998 08 21	566	0.1-	0.0	2000 01 05	704	0.2-	0.4-	2000 02 11	704	0.6-	0.3+
1998 08 21	566	0.2-	0.2-	2000 01 07	704	0.1-	0.3+	2000 02 11	704	0.0	0.7+
1998 08 23	704	0.8+	0.4-	2000 01 07	704	0.4-	0.0	2000 02 11	704	0.3-	0.2-
1998 08 23	704	(2.4+	1.8-)	2000 01 07	704	0.8-	0.1+	2000 02 11	704	0.8+	0.3+
1998 08 23	704	0.1-	0.3+	2000 01 07	704	1.0-	0.1+	2000 02 11	704	0.8+	0.9+

2000 AH₄₈ = 1996 BN₁₆ = 1998 QD₈₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	94.10690		(2000.0)	P	Q
<i>n</i>	0.23466856	ω	88.72005	+0.93223723	-0.27733592
<i>a</i>	2.6031515	Ω	287.34295	+0.14880296	+0.87931440
<i>e</i>	0.1346378	<i>i</i>	14.09252	+0.32983545	+0.38715755
<i>P</i>	4.20	<i>H</i>	14.7	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1996 01 24	691	0.4-	0.1-	1998 08 27	704	0.1-	0.5-	2000 01 05	143	1.5-	0.6+
1996 01 24	691	0.2+	0.1-	1998 08 27	704	0.9-	0.5+	2000 01 05	143	0.5-	0.7+
1996 01 24	691	0.2-	0.1+	1998 09 18	699	0.6+	0.4-	2000 01 05	143	0.5+	0.2+
1996 01 29	691	0.1-	0.3-	1998 09 18	699	0.2+	1.2-	2000 01 06	143	0.4-	0.0
1996 01 29	691	0.2-	0.7-	1998 09 18	699	0.5+	1.1+	2000 01 06	143	0.4+	1.1-
1996 01 29	691	0.1+	0.0	2000 01 04	143	1.6-	0.2-	2000 01 11	143	0.5+	0.0
1998 08 02	699	0.9+	0.8-	2000 01 04	143	0.2+	0.8+	2000 01 11	143	0.1-	0.2+
1998 08 02	699	1.2-	0.5+	2000 01 04	143	0.8+	0.1-	2000 01 26	143	0.9-	0.4-
1998 08 02	699	0.9+	0.4-	2000 01 05	704	0.3-	0.0	2000 01 27	143	1.3-	0.2-
1998 08 24	704	1.6-	0.6+	2000 01 05	704	0.4-	0.8-	2000 01 27	143	0.0	0.2+
1998 08 24	704	(2.7-	2.0+)	2000 01 05	704	1.0+	0.7-	2000 02 03	704	0.4+	1.6+
1998 08 24	704	1.4+	1.1+	2000 01 05	704	0.6+	0.1-	2000 02 03	704	0.3-	0.2-
1998 08 24	704	(4.3-	0.1-)	2000 01 05	143	0.5-	0.1-	2000 02 03	704	1.1+	0.3+
1998 08 27	704	0.8+	0.4-	2000 01 05	143	0.3+	0.4+	2000 02 03	704	1.4+	0.6+
1998 08 27	704	1.2-	0.3-	2000 01 05	143	0.4+	0.3+	2000 02 03	704	0.5+	1.0-

2000 AK₄₈ = 1998 SE₁₀₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	13.68873		(2000.0)	P	Q
<i>n</i>	0.19048598	ω	357.54202	-0.34995032	-0.93466978
<i>a</i>	2.9915347	Ω	112.93666	+0.86062474	-0.34720387
<i>e</i>	0.1561346	<i>i</i>	3.90183	+0.36994570	-0.07643216
<i>P</i>	5.17	<i>H</i>	14.7	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1993 10 11	809	0.6+	1.4-	2000 01 05	120	(2.2+	0.2-)	2000 01 30	704	0.3-	0.4+
1993 10 11	809	0.6+	0.2+	2000 01 06	704	0.2+	0.9-	2000 01 30	704	0.2+	0.1+
1993 10 11	809	0.7+	0.0	2000 01 06	704	0.6+	0.8-	2000 01 30	704	0.5-	0.2+
1993 10 20	809	0.6+	0.8-	2000 01 06	704	0.2-	1.4-	2000 01 30	704	1.2+	1.5+
1993 10 20	809	0.7+	1.4-	2000 01 06	684	1.2+	0.5-	2000 02 03	704	1.5+	1.0+

1993 10 20	809	1.1-	1.9-	2000 01 06	684	1.0+	0.4-	2000 02 03	704	0.1+	1.0-
1998 09 26	704	0.8-	0.2-	2000 01 07	684	0.5+	0.4-	2000 02 03	704	0.8+	0.8+
1998 09 26	704	0.8-	0.8+	2000 01 07	684	0.2+	0.5-	2000 02 03	704	0.6+	0.6-
1998 09 26	704	0.2+	0.3+	2000 01 15	120	0.2+	1.0+	2000 02 07	703	0.8-	0.5-
1998 09 26	704	(2.5-	0.4-)	2000 01 15	120	0.2-	0.9+	2000 02 07	703	0.3-	0.0
1998 09 27	704	0.2-	1.5+	2000 01 24	120	1.4-	0.4+	2000 02 07	703	0.9-	1.0+
1998 09 27	704	0.8-	1.7+	2000 01 24	120	1.0-	0.6+	2000 02 07	703	1.0-	0.6-
1998 09 27	704	0.3+	1.0+	2000 01 24	120	0.5-	0.6+	2000 02 11	704	0.3-	0.1-
1998 09 27	704	0.2-	0.9+	2000 01 28	691	0.4-	0.5-	2000 02 11	704	0.7+	0.7-
2000 01 04	704	(0.4+	2.4+)	2000 01 28	691	0.3-	0.4-	2000 02 11	704	0.4-	0.1+
2000 01 04	704	(2.9+	2.6+)	2000 01 28	691	0.3-	0.2+	2000 02 11	704	0.9+	0.7-
2000 01 04	704	0.4-	0.8+	2000 01 29	691	0.6-	0.2-	2000 02 11	704	0.4-	0.4+
2000 01 04	704	1.2+	1.2+	2000 01 29	691	0.7-	0.8-				
2000 01 05	120	0.9+	1.2+	2000 01 29	691	0.9-	0.1-				

2000 AH₄₉ = 1992 SE₂₅ = 1997 ER₄₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	72.85450		(2000.0)	P	Q
<i>n</i>	0.29995689	ω	106.37719	+0.84356315	-0.53256183
<i>a</i>	2.2101928	Ω	285.84901	+0.46121217	+0.78438603
<i>e</i>	0.1714286	<i>i</i>	4.12100	+0.27510824	+0.31798813
<i>P</i>	3.29	<i>H</i>	15.8	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1992 09 30	675	0.6-	0.5-	2000 01 05	704	0.3-	0.2+	2000 01 09	704	0.6-	0.6-
1992 09 30	675	0.8+	1.0+	2000 01 05	704	0.5+	1.3+	2000 02 02	704	0.7+	0.5+
1992 10 03	675	0.2-	0.5-	2000 01 05	704	0.4+	1.2+	2000 02 02	704	0.3+	0.6-
1992 10 03	675	(5.2-	0.4+)	2000 01 07	704	0.3+	0.1-	2000 02 02	704	0.2-	0.5-
1997 03 11	704	1.4+	0.5+	2000 01 07	704	1.0-	0.9-	2000 02 02	704	0.5-	0.5-
1997 03 11	704	0.8-	0.1-	2000 01 07	704	0.0	0.1+	2000 02 03	704	0.1-	0.3-
1997 03 12	704	0.4+	0.4-	2000 01 07	704	0.2+	0.2-	2000 02 03	704	0.5+	0.1-
1997 03 12	704	0.9-	0.5+	2000 01 07	704	0.2+	0.0	2000 02 03	704	0.2+	0.7-
2000 01 05	704	0.3-	0.6-	2000 01 09	704	0.2-	0.8+				
2000 01 05	704	0.2-	0.1-	2000 01 09	704	0.2+	0.5+				

2000 AW₄₉ = 1998 SH₁₅₈

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	168.01961		(2000.0)	P	Q
<i>n</i>	0.19528554	ω	359.11090	+0.49650727	+0.86783390
<i>a</i>	2.9423161	Ω	300.65808	-0.79627100	+0.44683859
<i>e</i>	0.0639117	<i>i</i>	1.23698	-0.34559083	+0.21725469
<i>P</i>	5.05	<i>H</i>	14.5	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1993 10 12	809	(1.6-	3.1+)	1998 09 27	704	0.2+	0.6-	2000 01 06	557	0.1+	0.1-
1993 10 12	809	0.8-	1.7+	1998 09 27	704	0.6+	0.6-	2000 01 11	557	0.8+	0.2-
1993 10 12	809	0.2-	1.2+	2000 01 04	704	0.2+	1.5-	2000 01 11	557	0.7-	0.2+
1993 10 22	809	(3.5+	0.1+)	2000 01 04	704	0.4+	0.2-	2000 02 01	557	0.8-	0.2-
1993 10 22	809	0.4-	0.2+	2000 01 04	704	0.5-	0.5-	2000 02 01	557	0.4+	0.6+
1993 10 22	809	(6.2-	1.0+)	2000 01 05	557	0.1-	0.4+	2000 02 03	557	0.2+	0.3+
1998 09 26	704	(0.6-	2.9-)	2000 01 06	557	0.0	0.2+	2000 02 03	557	0.3-	0.5+
1998 09 26	704	(1.0-	3.5-)	2000 01 06	557	0.7-	0.3+	2000 02 05	557	0.2+	0.0
1998 09 26	704	1.0+	1.7-	2000 01 06	557	0.4+	0.3+	2000 02 05	557	0.2+	0.4+
1998 09 27	704	0.6-	0.2-	2000 01 06	557	0.2-	0.1+	2000 02 05	557	0.4+	1.0-

2000 AC₅₀ = 1998 VH₂₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	337.69574		(2000.0)	P	Q
<i>n</i>	0.17511722	ω	208.09002	-0.97039905	-0.23620400
<i>a</i>	3.1640996	Ω	318.14846	+0.23329798	-0.86295420
<i>e</i>	0.1327393	<i>i</i>	4.32638	+0.06243180	-0.44667406
<i>P</i>	5.63	<i>H</i>	13.4	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1998 11 10	704	1.2+	0.3-	2000 01 05	120	0.2+	0.6-	2000 01 30	704	0.3+	0.2+
1998 11 10	704	0.8-	0.8+	2000 01 05	120	0.5+	0.6-	2000 01 30	704	0.4+	0.2+
1998 11 10	704	0.2+	0.2+	2000 01 06	704	0.7+	1.1-	2000 01 30	704	0.1+	0.3+
1998 11 11	704	0.4-	0.2-	2000 01 06	704	0.0	0.6-	2000 01 30	704	0.0	0.3+
1998 11 11	704	0.6-	0.5+	2000 01 06	704	0.0	0.2-	2000 02 03	704	0.2+	0.5+
1998 11 11	704	(3.8-	1.4+)	2000 01 06	704	0.4-	0.4+	2000 02 03	704	0.1-	0.0
1999 11 16	704	1.2-	0.5+	2000 01 07	120	0.1+	1.2-	2000 02 03	704	0.0	0.6+
1999 11 16	704	0.3-	0.6-	2000 01 07	120	0.6-	0.0	2000 02 03	704	0.7+	0.8+
1999 11 16	704	0.2-	1.0-	2000 01 11	120	0.2-	1.2-	2000 02 03	704	0.6+	0.8+
2000 01 04	704	0.3-	0.0	2000 01 11	120	0.8-	0.6-	2000 02 11	704	0.1+	0.2+
2000 01 04	704	0.1+	0.6-	2000 01 30	703	0.4+	0.6+	2000 02 11	704	0.1+	0.3+
2000 01 04	704	0.3-	0.1+	2000 01 30	703	0.2+	0.5+	2000 02 11	704	0.3-	0.0
2000 01 04	704	0.3-	0.2-	2000 01 30	703	0.2+	0.7+	2000 02 11	704	0.3-	0.6+
2000 01 04	704	0.1-	0.1-	2000 01 30	703	0.1-	0.2+	2000 02 11	704	0.2-	0.3+

2000 AN₅₀ = 1991 GV₉ = 1998 VQ₂₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.20212271	ω	348.41266	+0.36899144	+0.92928760		
<i>a</i>	2.8755834	Ω	303.23877	-0.85116091	+0.33076452		
<i>e</i>	0.0328001	<i>i</i>	1.12545	-0.37332348	+0.16437577		
<i>P</i>	4.88	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1991 04 10	809	0.1-	0.2-	1998 11 18	704	1.0-	1.0-	2000 01 07	704	0.2-	0.1+
1991 04 10	809	0.8+	0.7+	1998 11 18	704	(5.3-	1.8-)	2000 01 15	120	0.5-	0.3+
1991 04 10	809	0.3+	1.0-	1998 12 16	699	0.2-	0.0	2000 01 15	120	0.0	0.1-
1991 04 19	809	0.3+	0.6+	1998 12 16	699	0.2+	0.6+	2000 01 15	120	1.2-	0.1+
1991 04 19	809	0.0	1.1+	1998 12 16	699	0.3+	0.2+	2000 01 16	120	0.7+	0.4+
1991 04 19	809	0.9-	0.6+	1999 01 19	910	0.3-	0.2+	2000 01 16	120	0.4+	0.6-
1996 05 13	566	0.5+	0.2-	1999 01 19	910	0.4-	0.0	2000 01 28	691	0.2-	0.2-
1996 05 13	566	0.6+	0.0	1999 01 19	910	0.3-	0.1+	2000 01 28	691	0.2-	0.2-
1996 05 13	566	0.1-	0.5-	1999 11 16	704	0.3+	0.0	2000 01 28	691	0.4-	0.2-
1997 09 02	566	0.4-	0.9+	1999 11 16	704	1.2+	0.2-	2000 02 02	704	0.2+	0.4+
1997 09 02	566	0.5-	1.0+	1999 11 16	704	1.6+	0.6+	2000 02 02	704	0.2+	0.9+
1997 09 02	566	0.4-	0.7+	1999 11 16	704	1.0+	0.8+	2000 02 02	704	0.2+	0.6+
1998 10 19	699	0.1-	0.3+	1999 12 04	703	1.0+	0.4+	2000 02 02	704	0.3+	0.8+
1998 10 19	699	0.6+	0.1-	1999 12 04	703	0.7+	0.5+	2000 02 02	704	0.2+	0.5+
1998 10 19	699	0.6+	0.6-	1999 12 04	703	1.5+	0.9+	2000 02 03	704	0.1-	0.5+
1998 11 10	704	0.2+	0.2+	1999 12 04	703	0.9+	0.9+	2000 02 03	704	0.8-	0.2-
1998 11 10	704	0.8+	0.2+	2000 01 05	704	0.1-	0.5-	2000 02 03	704	0.2-	0.1-
1998 11 10	704	0.2+	0.4+	2000 01 05	704	0.6+	0.2+	2000 02 03	704	0.5-	0.2+
1998 11 10	704	0.8+	0.7+	2000 01 05	704	0.3-	0.5-	2000 02 03	704	0.8-	0.1-
1998 11 10	704	1.9-	0.4+	2000 01 05	704	0.6+	0.2-	2000 02 11	704	0.2-	0.3+
1998 11 11	704	0.5-	0.1+	2000 01 05	704	0.2+	0.3+	2000 02 11	704	0.3-	0.1+
1998 11 11	704	0.7-	0.1-	2000 01 06	120	1.9-	1.0-	2000 02 11	704	0.3-	0.4+
1998 11 11	704	0.1+	0.6-	2000 01 06	120	1.1-	0.5-	2000 02 11	704	0.2+	0.3+
1998 11 14	376	0.6+	0.3-	2000 01 07	120	0.3+	0.1-	2000 02 11	704	0.8-	0.3-
1998 11 14	376	0.3+	0.2-	2000 01 07	120	0.3-	0.0	2000 02 12	691	0.1-	0.7-
1998 11 17	376	0.1-	0.6+	2000 01 07	704	0.4+	0.3-	2000 02 12	691	0.3-	0.7-
1998 11 17	376	0.2+	0.0	2000 01 07	704	0.1-	0.4-	2000 02 12	691	0.0	0.8-
1998 11 18	704	0.5+	0.5+	2000 01 07	704	0.2+	0.5+				
1998 11 18	704	0.2+	1.1-	2000 01 07	704	0.3+	0.1-				

2000 AS₅₀ = 1963 SA₁ = 1992 EY

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				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22652587	ω	185.91660	+0.82773012	+0.54977802		
<i>a</i>	2.6651655	Ω	140.05394	-0.50738730	+0.81877273		
<i>e</i>	0.1245554	<i>i</i>	10.07133	-0.23962674	+0.16539451		
<i>P</i>	4.35	<i>H</i>	12.6	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1963 09 27	760	0.2-	0.7-	1999 10 20	704	0.1+	0.3-	2000 01 07	704	0.2+	0.4-
1963 09 27	760	0.5+	0.1-	1999 10 20	704	0.5-	0.1-	2000 01 07	704	0.4+	0.7-

1992 03 07	372	0.3-	0.7-	1999 10 20	704	0.1+	0.4-	2000 01 07	704	0.2+	0.6-
1992 03 07	372	1.7+	0.7+	1999 10 20	704	0.6-	0.0	2000 01 07	704	0.1+	1.1-
1992 03 10	372	1.2-	0.4-	1999 12 31	699	0.1-	1.0+	2000 01 07	704	0.2+	0.8-
1992 03 10	372	0.5-	0.1+	1999 12 31	699	0.1+	1.0+	2000 02 02	704	0.9-	0.8+
1998 09 21	699	0.9-	0.1-	1999 12 31	699	0.1+	1.2+	2000 02 02	704	0.7-	0.5+
1998 09 21	699	0.5-	0.3+	2000 01 05	704	0.2+	0.7-	2000 02 02	704	0.4-	1.0+
1998 09 21	699	0.5-	0.8+	2000 01 05	704	0.7+	1.0-	2000 02 02	704	0.4-	1.1+
1998 10 18	699	0.2+	0.5-	2000 01 05	678	0.8+	0.8-	2000 02 03	704	0.2-	0.8+
1998 10 18	699	0.9+	0.2-	2000 01 05	704	0.5+	1.2-	2000 02 03	704	0.1-	0.8+
1998 10 18	699	0.4+	0.0	2000 01 05	678	0.8+	0.6+	2000 02 03	704	0.2-	1.1+
1998 11 13	704	1.6+	1.1+	2000 01 05	704	0.6+	0.8-	2000 02 03	704	0.1+	0.9+
1998 11 13	704	(1.2+	4.6+)	2000 01 05	704	0.3+	1.2-	2000 02 03	704	0.6-	0.8+
1998 11 13	704	(0.3+	4.9+)	2000 01 06	678	0.3-	1.3-				
1998 11 13	704	1.6-	0.2-	2000 01 06	678	0.7-	0.6-				

2000 AU₅₀ = 1995 BZ₁₃ = 1998 VQ₁₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.19389560	ω	52.04948	+0.96984812	+0.23438275		
<i>a</i>	2.9563606	Ω	294.30647	-0.24020803	+0.87304177		
<i>e</i>	0.0668004	<i>i</i>	4.20203	-0.04116701	+0.42762459		
<i>P</i>	5.08	<i>H</i>	12.8	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1993 10 20	675	0.5-	0.4-	1999 01 08	699	1.2+	0.7-	2000 01 05	704	0.2+	0.5+
1993 10 20	675	0.0	0.7+	1999 01 08	699	0.4+	0.2-	2000 01 06	704	(2.5-	0.2+)
1995 01 31	691	0.2+	0.7-	1999 01 08	699	0.4-	0.3-	2000 01 06	678	0.6+	1.7-
1995 01 31	691	0.0	0.7-	1999 11 16	704	0.1-	0.2-	2000 01 06	704	0.4-	0.5+
1995 02 07	691	0.1+	0.7-	1999 11 16	704	0.3+	0.1-	2000 01 06	678	0.3-	0.7-
1995 02 07	691	0.4-	0.6-	1999 11 16	704	0.1+	0.5-	2000 01 06	704	1.0-	1.0+
1995 02 07	691	0.4-	0.4-	1999 11 16	704	0.0	0.9-	2000 01 06	704	0.9-	1.2+
1998 11 10	704	0.1+	0.0	1999 11 16	704	0.4-	1.0-	2000 01 06	704	0.6-	0.5+
1998 11 10	704	0.0	0.3+	1999 12 31	699	1.3+	0.4-	2000 02 02	704	0.2+	0.6+
1998 11 10	704	0.8+	0.5+	1999 12 31	699	0.8+	0.0	2000 02 02	704	0.1-	0.4+
1998 11 10	704	0.1-	0.7+	1999 12 31	699	0.4+	0.1+	2000 02 02	704	0.3+	0.3+
1998 11 10	704	0.6-	1.1+	2000 01 03	691	0.3-	0.2-	2000 02 02	704	0.5+	0.4+
1998 11 11	704	0.4-	0.7+	2000 01 03	691	0.3-	0.2-	2000 02 02	704	0.4+	0.4+
1998 11 11	704	0.1+	0.6-	2000 01 03	691	0.3-	0.3-	2000 02 03	704	0.4+	0.8+
1998 11 11	704	0.3-	0.8-	2000 01 05	678	1.0-	0.0	2000 02 03	704	0.2+	0.1-
1998 11 11	704	0.6+	1.5-	2000 01 05	678	0.3-	0.8+	2000 02 03	704	0.7+	0.3+
1998 11 11	704	0.4-	1.2-	2000 01 05	704	0.1+	0.1+	2000 02 03	704	0.6+	0.3+
1998 11 15	699	0.3-	0.7+	2000 01 05	704	0.3-	0.3+	2000 02 03	704	0.5+	0.2+
1998 11 15	699	0.3+	0.5+	2000 01 05	704	0.3-	0.4-				
1998 11 15	699	0.0	0.3+	2000 01 05	704	0.4-	0.3+				

2000 AV₅₀ = 1997 LZ₁₅ = 1998 OK₇

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M		(2000.0)		P	Q
n	0.22693862	ω	228.89344	+0.57502958	-0.81811443
a	2.6619329	Ω	186.01235	+0.76536611	+0.54028591
e	0.1972461	i	2.98502	+0.28906003	+0.19692614
P	4.34	H	14.0	G 0.15	U 3

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M.P.C. 38637

1998 07 27	809	1.3–	1.4–	2000 01 05	678	0.1+	0.0	2000 02 03	704	0.3+	0.2+
1998 08 17	704	0.5–	0.5–	2000 01 05	704	0.4+	0.0	2000 02 03	704	0.4+	0.4+
1998 08 17	704	1.4+	0.5–	2000 01 06	678	0.9–	0.4–	2000 02 03	704	0.3+	0.3+
1998 08 17	704	0.9+	0.5–	2000 01 06	678	0.1+	0.2+	2000 02 03	704	0.5+	0.5+
1998 08 17	704	0.1–	0.3+	2000 01 07	704	0.1–	0.1–				
1998 08 17	704	0.3+	0.5–	2000 01 07	704	0.2–	0.4–				

2000 AS₅₂ = 1991 TW₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>				Williams			
20.03246				(2000.0)			
				<i>P</i>		<i>Q</i>	
<i>n</i>	0.25302951	<i>ω</i>	133.00198	+0.54149506		−0.83946370	
<i>a</i>	2.4756463	<i>Ω</i>	284.15895	+0.75698812		+0.51047531	
<i>e</i>	0.1609938	<i>i</i>	2.69842	+0.36572133		+0.18632138	
<i>P</i>	3.90	<i>H</i>	15.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1991 10 04	033	0.5+	0.3–	1999 11 11	703	0.4–	0.1–	1999 12 04	703	0.1–	0.2–
1991 10 04	033	0.4+	0.0	1999 11 11	703	0.4+	0.1–	1999 12 04	703	0.8–	0.7+
1991 10 05	033	0.8–	0.1+	1999 11 14	704	0.1–	0.1–	1999 12 04	703	0.5–	0.3–
1999 10 29	703	0.8–	0.5–	1999 11 14	704	0.2+	0.0	1999 12 08	704	0.3+	0.1+
1999 10 29	703	0.2+	0.4+	1999 11 14	704	0.4+	0.8–	1999 12 08	704	0.6+	1.0–
1999 10 29	703	1.0+	0.1–	1999 11 14	704	0.2–	0.3–	1999 12 08	704	0.6+	0.4–
1999 10 29	703	1.4–	0.9+	1999 11 14	703	0.0	0.1+	1999 12 08	704	0.4+	1.0–
1999 11 03	704	0.1–	0.6+	1999 11 14	703	0.6–	0.4+	1999 12 08	704	0.4–	1.2–
1999 11 03	704	0.1+	0.6+	1999 11 14	704	0.5+	0.7–	2000 01 04	704	0.1–	0.3–
1999 11 03	704	0.1–	0.4+	1999 11 14	703	0.0	0.0	2000 01 04	704	0.3–	0.2+
1999 11 03	704	0.1+	0.4+	1999 11 14	703	0.1+	0.5–	2000 01 04	704	0.4–	0.7+
1999 11 03	704	0.2+	1.2+	1999 11 16	704	0.3+	0.3–	2000 01 04	704	1.0–	0.4+
1999 11 09	699	0.3–	0.9+	1999 11 16	704	0.2+	0.5–	2000 01 06	704	0.1–	0.2–
1999 11 09	699	0.1+	0.0	1999 11 16	704	0.8+	0.0	2000 01 06	704	0.1–	0.2+
1999 11 09	699	0.3–	0.3+	1999 11 16	704	0.5+	0.2–	2000 01 06	704	1.2+	0.6+
1999 11 11	703	0.1+	0.1–	1999 11 16	704	0.5+	0.4–	2000 01 06	704	0.4+	1.0+
1999 11 11	703	0.4–	0.0	1999 12 04	703	0.8–	0.6–	2000 01 06	704	0.1–	0.3+

2000 AY₅₂ = 1993 BH₁₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>				Williams			
2.24468				(2000.0)			
				<i>P</i>		<i>Q</i>	
<i>n</i>	0.26430566	<i>ω</i>	158.80388	+0.11246548		−0.99144266	
<i>a</i>	2.4047231	<i>Ω</i>	284.69126	+0.90152328		+0.12986070	
<i>e</i>	0.1571237	<i>i</i>	3.92896	+0.41786037		−0.01332830	
<i>P</i>	3.73	<i>H</i>	15.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1993 01 23	809	0.6–	0.5–	1999 11 14	703	0.1+	0.2+	1999 12 08	704	0.4+	1.2–
1993 01 28	809	0.2+	0.4+	1999 11 14	703	0.1–	0.4–	1999 12 08	704	0.3–	0.4–
1993 01 28	809	0.0	0.8–	1999 11 14	703	0.2–	0.3–	1999 12 08	704	0.2+	0.7–
1999 11 03	704	0.1–	0.2+	1999 11 16	704	0.1+	0.2–	1999 12 08	704	0.2+	0.6–
1999 11 03	704	0.1+	0.3–	1999 11 16	704	0.8–	0.6–	2000 01 04	704	0.4–	0.8+
1999 11 03	704	0.1+	0.3–	1999 11 16	704	0.7+	0.5–	2000 01 04	704	0.4–	1.1+
1999 11 03	704	0.2+	0.1–	1999 11 16	704	0.1+	0.1–	2000 01 04	704	1.0–	1.0–
1999 11 03	704	1.0+	0.4–	1999 11 16	704	0.1+	0.2–	2000 01 06	704	0.4+	0.1+
1999 11 13	703	0.2–	0.1–	1999 12 05	703	0.6–	0.5+	2000 01 06	704	0.9+	1.2+
1999 11 13	703	0.2+	0.1+	1999 12 05	703	0.5–	0.7+	2000 01 06	704	0.3–	0.0
1999 11 13	703	0.2+	0.0	1999 12 05	703	0.3–	0.8+	2000 01 06	704	0.2+	0.4+
1999 11 13	703	0.4–	0.2+	1999 12 05	703	0.4–	0.5+	2000 01 06	704	0.8+	1.4+
1999 11 14	703	0.1–	0.0	1999 12 08	704	0.0	0.0				

2000 AR₅₃ = 1993 BN₁₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>				Williams			
80.92429				(2000.0)			
				<i>P</i>		<i>Q</i>	
<i>n</i>	0.27598406	<i>ω</i>	265.60094	+0.92743919		−0.33814059	
<i>a</i>	2.3363974	<i>Ω</i>	114.09692	+0.37288628		+0.86868960	
<i>e</i>	0.2300865	<i>i</i>	10.07816	−0.02850219		+0.36199354	
<i>P</i>	3.57	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1993 01 22	691	0.0	0.2–	2000 01 04	704	0.8–	0.7+	2000 01 31	704	0.0	0.0
1993 01 22	691	0.2+	0.1+	2000 01 06	704	0.3+	0.6–	2000 01 31	704	0.4+	0.2–
1993 01 22	691	0.7–	0.2+	2000 01 06	704	0.1+	0.2+	2000 02 04	120	1.1–	0.2+
1993 01 26	691	0.2+	0.2–	2000 01 06	704	1.6+	0.1–	2000 02 04	120	0.9–	0.6+
1993 01 26	691	0.0	0.1–	2000 01 07	691	0.1–	1.5–	2000 02 04	504	0.0	0.4–
1993 01 26	691	0.2+	0.2+	2000 01 07	691	0.2–	0.6–	2000 02 04	504	0.3+	0.9–
1999 12 05	699	0.2–	0.0	2000 01 07	691	0.2–	0.4–	2000 02 04	504	0.5+	1.3+
1999 12 05	699	0.5–	0.2–	2000 01 27	120	1.2–	0.1–	2000 02 04	504	0.4–	0.1–
1999 12 05	699	0.3+	0.3+	2000 01 27	120	0.4–	0.5+	2000 02 04	504	1.5+	0.5–
1999 12 18	699	0.3–	0.8+	2000 01 30	704	0.2–	0.1–	2000 02 05	504	0.0	0.3+
1999 12 18	699	0.0	0.3–	2000 01 30	704	0.2–	0.1–	2000 02 11	704	0.4–	0.5–
1999 12 18	699	0.5+	0.6+	2000 01 30	704	0.0	0.1–	2000 02 11	704	0.5+	0.7+
2000 01 04	704	0.1+	0.2+	2000 01 30	704	0.5+	0.3–	2000 02 11	704	0.2–	0.3+
2000 01 04	704	0.4+	0.1+	2000 01 31	704	0.4+	0.4+	2000 02 11	704	0.0	0.4+
2000 01 04	704	0.2+	0.1–	2000 01 31	704	0.1+	0.3+	2000 02 11	704	0.7–	0.7–

2000 AT₅₃ = 1998 SA₁₆₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>				Spahr			
214.95462				(2000.0)			
				<i>P</i>		<i>Q</i>	
<i>n</i>	0.21252976	<i>ω</i>	327.99150	+0.03540710		+0.99817887	
<i>a</i>	2.7809267	<i>Ω</i>	303.99385	−0.90403930		+0.01116050	
<i>e</i>	0.0300137	<i>i</i>	3.37706	−0.42598038		+0.05928228	
<i>P</i>	4.64	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 07 02	704	(1.1–	2.4+)	1998 09 27	704	1.1+	0.7–	2000 01 10	691	0.5–	0.1–
1997 07 02	704	0.3+	1.2+	1998 09 27	704	1.8–	1.7+	2000 01 30	704	0.8–	0.4+
1997 07 02	704	0.2+	0.9+	2000 01 04	704	1.4+	0.5+	2000 01 30	704	0.0	0.2+
1997 07 02	704	0.4–	1.3+	2000 01 04	704	1.1+	0.3–	2000 01 30	704	0.4–	1.1+
1997 07 02	704	0.7–	1.3+	2000 01 04	704	1.0+	0.3–	2000 01 30	704	0.0	1.2+
1998 09 26	704	0.5–	0.5+	2000 01 04	704	0.9+	0.2–	2000 02 03	704	0.7+	1.5–
1998 09 26	704	0.3+	1.0–	2000 01 06	704	0.1–	0.7+	2000 02 03	704	0.6+	0.2+
1998 09 26	704	(0.2+	2.8–)	2000 01 06	704	0.7–	0.7+	2000 02 03	704	1.0–	1.2+
1998 09 26	704	0.4+	0.3+	2000 01 06	704	0.9–	1.2+	2000 02 03	704	0.2+	0.1+
1998 09 27	704	0.8–	0.9+	2000 01 10	691	0.0	0.1–				
1998 09 27	704	0.9+	0.5–	2000 01 10	691	0.2–	0.1–				

2000 AU₅₃ = 1994 PU₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	76.88002		(2000.0)	P	Q
n	0.23360056	ω	76.85656	+0.91803482	−0.39622336
a	2.6110797	Ω	306.48380	+0.35627772	+0.84071593
e	0.2276394	i	1.05493	+0.17400648	+0.36905796
P	4.22	H	15.1	G 0.15	U 5

2000 AW₅₃ = 1992 EM₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	8.35343		(2000.0)		P		Q
<i>n</i>	0.23998591	ω	4.97344	−0.48703550	−0.86939094		
<i>a</i>	2.5645562	Ω	114.19421	+0.79812642	−0.48181410		
<i>e</i>	0.1321226	<i>i</i>	5.24604	+0.35466975	−0.10961097		
<i>P</i>	4.11	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1992 03 01	809	0.4+	0.9+	2000 01 06	704	0.3−	0.2−	2000 01 30	704	0.0	0.3+
1992 03 04	809	0.3−	0.3−	2000 01 07	691	0.5+	0.7+	2000 01 30	704	0.6+	1.0+
1992 03 06	809	0.2−	0.8−	2000 01 07	691	0.6+	0.6+	2000 01 31	704	0.2−	0.2+
2000 01 04	704	0.1−	0.4−	2000 01 07	691	0.6+	0.7+	2000 01 31	704	0.0	0.8+
2000 01 04	704	0.6−	0.6−	2000 01 07	691	0.8−	0.6−	2000 01 31	704	0.0	0.6+
2000 01 04	704	0.3+	0.7−	2000 01 07	691	0.5−	0.7−	2000 02 11	704	0.3−	0.2−
2000 01 06	704	0.7+	0.6+	2000 01 07	691	0.7−	0.7−	2000 02 11	704	0.0	0.1−
2000 01 06	704	0.0	0.2−	2000 01 30	704	0.3+	0.4+	2000 02 11	704	0.7−	0.6−
2000 01 06	704	0.2−	0.3−	2000 01 30	704	0.7+	0.2−	2000 02 11	704	1.0−	0.3−
2000 01 06	704	0.5+	0.1−	2000 01 30	704	0.5+	0.0				

2000 AC₅₄ = 1998 QO₄₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	312.74974		(2000.0)		P		Q
<i>n</i>	0.29921842	ω	75.21552	−0.99068587	+0.08048650		
<i>a</i>	2.2138278	Ω	109.30695	−0.11511061	−0.92591264		
<i>e</i>	0.0771571	<i>i</i>	6.68315	+0.07273963	−0.36906327		
<i>P</i>	3.29	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 17	704	0.3−	0.2−	1999 12 07	704	0.7−	0.3+	2000 01 10	691	0.1+	0.4−
1998 08 17	704	0.5+	0.5−	1999 12 07	704	0.2+	0.0	2000 01 10	691	0.1+	0.4−
1998 08 17	704	0.0	0.2−	1999 12 07	704	1.1+	1.9+	2000 01 11	691	0.7−	0.9−
1998 08 17	704	0.5+	0.2+	2000 01 04	704	0.2−	0.1−	2000 01 11	691	1.3−	0.7−
1998 08 17	704	0.8−	0.8+	2000 01 04	704	0.5−	0.0	2000 01 11	691	0.8−	1.0−
1998 08 23	704	0.2−	0.6+	2000 01 04	704	0.0	0.2+	2000 01 30	704	1.5−	0.1+
1998 08 23	704	0.3+	0.3+	2000 01 04	704	0.3+	0.5+	2000 01 30	704	0.0	0.0
1998 08 23	704	1.6+	0.1+	2000 01 04	704	0.2+	0.3+	2000 01 30	704	0.0	0.1+
1998 08 23	704	0.4−	1.7−	2000 01 06	704	0.4−	0.5+	2000 01 30	704	0.4−	1.0+
1998 08 23	704	0.9−	0.0	2000 01 06	704	0.2+	0.0	2000 01 30	704	0.0	0.4+
1998 09 22	699	0.2−	1.4+	2000 01 06	704	0.5+	0.1−	2000 01 31	704	0.2+	0.3+
1998 09 22	699	0.1+	0.4+	2000 01 06	704	0.2+	0.4+	2000 01 31	704	0.2+	0.0
1998 09 22	699	0.1−	1.1−	2000 01 06	704	0.3+	0.2+	2000 01 31	704	0.3+	0.2+
1999 12 05	699	0.6+	0.4−	2000 01 07	691	0.2+	0.5−	2000 02 11	704	0.1−	0.8−
1999 12 05	699	0.1+	0.7+	2000 01 07	691	0.0	1.0−	2000 02 11	704	0.5+	0.3+
1999 12 05	699	0.0	0.0	2000 01 07	691	0.3+	0.1−	2000 02 11	704	0.6+	0.4+
1999 12 07	704	0.0	1.6−	2000 01 10	691	0.2+	0.5−	2000 02 11	704	0.8+	0.7+

2000 AO₅₄ = 1996 BL

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	84.38926		(2000.0)		P		Q
<i>n</i>	0.26022286	ω	282.47970	+0.94149787	−0.33253367		
<i>a</i>	2.4298106	Ω	96.96281	+0.32666980	+0.86045468		
<i>e</i>	0.2155537	<i>i</i>	3.16479	+0.08287707	+0.38605584		
<i>P</i>	3.79	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1994 06 08	809	0.1−	0.1+	1996 01 18	566	0.4−	0.8+	2000 01 06	704	0.1+	0.3−
1994 06 08	809	0.4−	1.6+	1999 11 16	704	0.5+	0.3+	2000 01 11	691	0.4−	0.8−
1994 06 08	809	0.9+	1.5+	1999 11 16	704	0.7−	0.4+	2000 01 11	691	0.2−	0.8−
1994 06 09	809	(7.8+ 2.5+)		1999 11 16	704	0.1+	0.4+	2000 01 11	691	0.4−	1.0−
1994 06 09	809	(0.5+ 2.9+)		2000 01 04	704	0.6−	0.6−	2000 01 30	704	0.3+	0.5−
1994 06 09	809	(3.1− 0.7+)		2000 01 04	704	1.0−	0.8−	2000 01 30	704	0.1−	0.2−
1996 01 16	566	0.4+	0.8+	2000 01 04	704	0.1−	1.6+	2000 01 30	704	0.5+	1.3+
1996 01 16	566	0.3+	0.6+	2000 01 04	704	0.1−	0.4−	2000 02 11	704	0.2−	0.6+
1996 01 16	566	0.4−	0.6+	2000 01 04	704	0.4+	0.2−	2000 02 11	704	0.5+	0.0

1996 01 18	566	0.3−	1.0+	2000 01 06	704	0.3−	0.1+	2000 02 11	704	0.5+	0.4−
1996 01 18	566	0.2−	1.1+	2000 01 06	704	0.3+	0.4+	2000 02 11	704	0.7+	0.9−

2000 AT₅₄ = 2000 AP₂₀₅ = 2000 BU₁₀ = 1998 UP₂₇

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	209.10308		(2000.0)		P		Q
<i>n</i>	0.22517715	ω	177.52102	+0.24994401	+0.96181157		
<i>a</i>	2.6757971	Ω	106.93647	−0.89035587	+0.27358416		
<i>e</i>	0.1554890	<i>i</i>	6.69718	−0.38051861	−0.00837862		
<i>P</i>	4.38	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 10 14	699	(1.2− 2.5+)		2000 01 04	704	0.1+	0.5+	2000 01 16	159	0.4−	0.1+
1998 10 14	699	0.6+	0.8+	2000 01 06	704	1.1−	0.2−	2000 01 29	704	0.3+	0.1−
1998 10 14	699	0.1−	1.6+	2000 01 06	704	1.0+	0.3−	2000 01 29	704	0.6+	0.1+
1998 10 18	809	0.9+	0.5+	2000 01 06	704	0.6−	1.0−	2000 01 29	704	0.0	0.1+
1998 10 18	809	0.8+	1.4+	2000 01 06	704	0.0	0.4−	2000 01 29	704	0.2−	0.3+
1998 10 18	809	0.2+	0.6+	2000 01 13	159	0.0	0.4+	2000 01 30	704	0.5−	0.0
1998 10 19	809	0.7−	1.5−	2000 01 13	159	1.0+	0.2+	2000 01 30	704	0.6+	0.1+
1998 10 19	809	1.0−	1.7−	2000 01 13	159	0.7+	0.2+	2000 01 30	704	0.7+	0.2+
1998 10 19	809	0.7−	1.6−	2000 01 13	159	0.7+	0.4+	2000 01 30	704	0.3−	0.2+
2000 01 04	704	0.6−	0.3−	2000 01 16	159	0.3+	0.0	2000 01 30	704	0.7−	1.1−
2000 01 04	704	0.7−	0.2+	2000 01 16	159	0.3−	0.4−	2000 01 30	704	0.1+	0.2+
2000 01 04	704	0.6+	0.1+	2000 01 16	159	1.1−	0.5+				

2000 AV₅₄ = 1997 JJ

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	45.37925		(2000.0)		P		Q
<i>n</i>	0.26242945	ω	328.59986	+0.23752658	−0.96346114		
<i>a</i>	2.4161710	Ω	107.41160	+0.91595127	+0.17971398		
<i>e</i>	0.1067022	<i>i</i>	7.45420	+0.32344148	+0.19860897		
<i>P</i>	3.76	<i>H</i>	15.9	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1997 05 02	691	0.5+	0.1+	2000 01 04	704	0.2+	0.9+	2000 01 27	704	0.7+	0.2+
1997 05 02	691	0.7+	0.1+	2000 01 04	704	0.3−	0.3+	2000 01 27	704	0.2+	0.3−
1997 05 02	691	0.6+	0.5+	2000 01 04	704	0.4−	0.6+	2000 01 29	704	0.3+	1.3+
1997 05 03	691	0.3−	0.3+	2000 01 04	704	0.2−	0.4−	2000 01 29	704	1.3−	0.1−
1997 05 03	691	0.3−	0.2−	2000 01 06	704	0.8−	1.7−	2000 01 29	704	0.2−	1.5+
1997 05 03	691	0.5−	0.1+	2000 01 06	704	0.3−	0.1−	2000 01 29	704	0.5+	0.5+
1997 05 10	691	0.3−	0.5−	2000 01 06	704	0.4+	0.3−	2000 02 11	704	1.7−	1.2−
1997 05 10	691	0.3−	0.1+	2000 01 27	704	0.0	0.3−	2000 02 11	704	0.5+	0.5−
1997 05 10	691	0.2−	0.4−	2000 01 27	704	0.6+	0.5+	2000 02 11	704	1.5+	0.9−
2000 01 04	704	0.1+	0.1−	2000 01 27	704	0.2+	0.0				

2000 AW₅₄ = 1998 MV₃₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	30.18366		(2000.0)		P		Q
<i>n</i>	0.29152836	ω	344.84702	−0.07246082	−0.99227238		
<i>a</i>	2.2525901	Ω	109.22742	+0.92580413	−0.10448199		
<i>e</i>	0.1313140	<i>i</i>	6.12354	+0.37099346	+0.06692567		
<i>P</i>	3.38	<i>H</i>	15.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 06 27	691	1.2−	0.2−	2000 01 27	704	0.0	0.1−	2000 01 31	704	1.6+	1.9+
1998 06 27	691	1.1−	0.4−	2000 01 27	704	0.6+	0.8+	2000 02 01	691	0.3+	0.7−
1998 06 27	691	0.5−	0.3+	2000 01 27	704	0.2+	0.4+	2000 02 01	691	0.3+	0.8−
1998 07 03	691	1.0+	0.2+	2000 01 27	704	0.2−	1.0+	2000 02 01	691	0.2+	0.7−
1998 07 03	691	1.0+	0.7+	2000 01 30	704	1.2−	0.3+	2000 02 07	703	0.4−	0.0
1998 07 03	691	0.6+	0.3+	2000 01 30	704	0.5−	0.6+	2000 02 07	703	0.2+	0.3+
2000 01 04	704	0.4+	0.3+	2000 01 30	704	0.2−	0.7+	2000 02 07	703	0.1−	0.3−
2000 01 04	704	0.1+	0.3−	2000 01 30	704	0.4−	0.2+	2000 02 07	703	0.6−	0.2+
2000 01 04	704	0.3−	0.5−	2000 01 30	704	0.1−	0.1−	2000 02 11	704	0.2+	0.4−
2000 01 04	704	0.1+	0.1+	2000 01 30	704	0.0	0.1−	2000 02 11	704	0.5+	1.7−

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2000 01 06	704	0.1−	0.2−	2000 01 30	704	0.2+	0.7+	2000 02 11	704	0.2+	0.0
2000 01 06	704	0.3+	0.3−	2000 01 30	704	0.7−	0.2−	2000 02 11	704	0.0	0.7−
2000 01 06	704	0.4−	0.4−	2000 01 31	704	0.0	0.2+				
2000 01 27	704	0.2+	0.2−	2000 01 31	704	0.1−	0.5+				

2000 AA₅₅ = 1998 SO₁₂₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	39.50928		(2000.0)	P	Q
<i>n</i>	0.17382671	ω	322.92562	+0.23468646	−0.96603854
<i>a</i>	3.1797407	Ω	113.27422	+0.91770460	+0.18350698
<i>e</i>	0.1510136	<i>i</i>	6.75979	+0.32053165	+0.18191954
<i>P</i>	5.67	<i>H</i>	14.0	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1998 09 26	704	0.6−	0.9−	2000 01 04	704	0.1−	0.0	2000 01 30	704	0.9+	0.8+
1998 09 26	704	0.0	0.2−	2000 01 04	704	0.4−	0.1+	2000 01 31	704	0.5−	0.0
1998 09 26	704	0.1+	0.3−	2000 01 04	704	0.1−	0.1−	2000 01 31	704	0.1+	1.1+
1998 09 26	704	0.5−	0.2+	2000 01 04	704	0.3−	0.0	2000 01 31	704	0.2−	0.5+
1998 09 26	704	0.8−	1.1−	2000 01 06	704	0.2−	0.3−	2000 02 11	704	0.8+	0.6−
1998 09 27	704	1.6+	1.3+	2000 01 06	704	0.0	0.1−	2000 02 11	704	0.2+	0.6−
1998 09 27	704	(1.2−	2.6+)	2000 01 06	704	0.5+	0.0	2000 02 11	704	0.4−	0.3−
1998 09 27	704	0.5+	0.1+	2000 01 06	704	0.1+	0.8−	2000 02 11	704	0.2−	0.6−
1998 09 27	704	0.3−	1.0+	2000 01 30	704	0.0	0.5+				
2000 01 04	704	0.7+	0.3+	2000 01 30	704	0.9−	0.1+				

2000 AG₅₅ = 1997 XW₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	41.02189		(2000.0)	P	Q
<i>n</i>	0.08608433	ω	339.14215	+0.13714167	−0.98383432
<i>a</i>	5.0798785	Ω	102.83479	+0.92472194	+0.08548404
<i>e</i>	0.0269230	<i>i</i>	6.78320	+0.35507958	+0.15736111
<i>P</i>	11.45	<i>H</i>	11.3	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1997 12 04	809	0.2+	0.0	2000 01 06	704	1.1−	0.7+	2000 01 31	704	0.7−	0.6−
1997 12 04	809	0.6+	0.3+	2000 01 06	704	0.4+	0.5−	2000 01 31	704	0.1+	0.5−
1997 12 05	809	1.3−	0.1−	2000 01 06	704	0.1−	0.1−	2000 01 31	704	0.2+	0.4+
1997 12 05	809	0.5+	0.2−	2000 01 06	704	0.4−	0.3+	2000 02 11	704	0.1+	0.6−
2000 01 04	704	0.4+	0.4+	2000 01 30	704	0.6+	0.6−	2000 02 11	704	0.1−	1.1+
2000 01 04	704	0.2+	0.1−	2000 01 30	704	1.0+	1.0−	2000 02 11	704	1.0−	1.0+
2000 01 04	704	0.1−	0.1−	2000 01 30	704	0.4+	0.2+				

2000 AJ₅₅ = 1995 BS₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	54.49023		(2000.0)	P	Q
<i>n</i>	0.19471459	ω	126.12484	+0.40237331	−0.89871044
<i>a</i>	2.9480650	Ω	299.25527	+0.76253926	+0.43443214
<i>e</i>	0.0913054	<i>i</i>	11.53089	+0.50658622	+0.05990202
<i>P</i>	5.06	<i>H</i>	12.9	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1995 01 31	905	(3.1−	0.9+)	1998 12 09	704	0.9+	0.2+	2000 01 06	704	0.5+	1.4−
1995 01 31	905	0.5+	0.3−	1999 11 11	703	(0.8−	2.3+)	2000 01 06	704	0.3+	0.7−
1995 02 02	905	(2.9−	0.9−)	1999 11 11	703	0.0	0.4+	2000 01 06	704	0.6+	1.3−
1995 02 02	905	0.0	1.2−	1999 11 11	703	1.1+	0.3+	2000 01 06	704	0.6+	0.6−
1995 02 03	691	0.3−	0.1−	1999 11 11	703	0.1+	0.4−	2000 01 06	704	0.9+	0.6−
1995 02 03	691	0.6−	0.2+	1999 11 16	704	0.2−	0.5−	2000 01 07	732	0.1−	0.2+
1995 02 03	691	0.7−	0.0	1999 11 16	704	0.1−	0.2+	2000 01 07	732	0.6−	0.3−
1995 02 06	905	0.6−	0.4+	1999 11 16	704	0.0	0.2−	2000 01 07	732	0.1−	0.2+
1995 02 06	905	1.0+	0.7−	1999 11 16	704	0.2+	0.0	2000 01 08	732	0.8−	0.2−
1998 09 19	699	0.1−	0.5−	1999 11 16	704	0.5+	0.5+	2000 01 08	732	1.0−	0.1−
1998 09 19	699	0.4−	0.7+	1999 12 05	699	1.6+	1.3+	2000 02 02	704	0.2−	0.5+
1998 09 19	699	0.0	0.6−	1999 12 05	699	1.2+	1.9+	2000 02 02	704	0.4+	0.1+
1998 12 09	704	1.7−	0.7+	1999 12 05	699	0.7+	1.7+	2000 02 02	704	0.1−	0.0
1998 12 09	704	0.9−	0.6+	1999 12 30	699	0.0	0.1−	2000 02 02	704	0.2−	0.1−

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1998 12 09	704	(1.6−	2.6−)	1999 12 30	699	0.0	0.4+	2000 02 02	704	0.2+	0.0
1998 12 09	704	0.8+	0.8+	1999 12 30	699	0.1+	0.5+	2000 02 03	704	0.7−	0.5+
1998 12 09	704	0.5+	1.7−	2000 01 04	704	0.2−	0.3−	2000 02 03	704	0.3−	0.4+
1998 12 09	704	0.9+	0.9−	2000 01 04	704	0.1−	0.3−	2000 02 03	704	0.5−	0.2−
1998 12 09	704	1.7−	0.7−	2000 01 04	704	0.2−	0.5−	2000 02 03	704	0.2−	0.3+
1998 12 09	704	0.9+	0.1+	2000 01 04	704	0.6−	0.0	2000 02 03	704	0.5−	0.2+
1998 12 09	704	1.7+	0.3+	2000 01 04	704	0.5−	0.0				

2000 AV₅₅ = 1950 TZ₁ = 1976 UQ₂₀ = 1980 WJ₁ = 1991 UM₂= 1998 MO₃₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	125.81821		(2000.0)	P	Q
<i>n</i>	0.26566528	ω	245.06914	+0.97033090	+0.23522910
<i>a</i>	2.3965115	Ω	101.28611	−0.19613729	+0.90102326
<i>e</i>	0.2073299	<i>i</i>	3.26798	−0.14137933	+0.36445076
<i>P</i>	3.71	<i>H</i>	13.8	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1950 10 15	024	(0.2−	4.3−)	1998 06 24	699	0.5+	0.1+	2000 01 06	704	0.7+	1.0+
1976 10 23	808	0.2+	1.4+	1998 07 02	699	0.3−	0.9+	2000 01 06	704	0.5+	0.1+
1976 10 23	808	1.4−	0.9+	1998 07 02	699	0.5−	0.8+	2000 01 30	704	1.6+	0.8+
1980 11 30	095	0.4+	0.4−	1998 07 02	699	0.1+	0.7+	2000 01 30	704	0.5−	0.3+
1991 10 29	400	0.2+	0.6−	1999 11 16	704	0.2−	0.0	2000 01 30	704	0.6−	0.2−
1991 10 29	400	0.9+	1.1−	1999 11 16	704	0.3−	1.1−	2000 01 31	704	0.2+	0.2+
1991 10 31	400	0.3+	1.4+	1999 11 16	704	0.3−	0.1−	2000 01 31	704	0.2−	0.1+
1991 10 31	400	0.8−	0.1+	1999 11 16	704	0.4−	0.2−	2000 01 31	704	0.0	0.1+
1991 11 02	400	1.0−	1.2+	2000 01 04	704	0.1−	0.7−	2000 02 11	704	0.4−	0.3+
1991 11 02	400	0.4−	1.4−	2000 01 04	704	0.4−	0.1−	2000 02 11	704	0.1−	0.2+
1991 11 04	400	1.0+	0.4+	2000 01 04	704	0.3−	0.0	2000 02 11	704	0.4+	0.3+
1991 11 04	400	0.4+	1.3−	2000 01 04	704	0.1+	0.3+	2000 02 11	704	0.3+	0.8+
1998 06 24	699	0.0	0.3+	2000 01 04	704	0.1+	1.1+	2000 02 11	704	0.1+	1.0+
1998 06 24	699	0.4−	0.2+	2000 01 06	704	0.0	0.4+				

2000 AY₅₅ = 1998 RE₄₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	224.10192		(2000.0)	P	Q
<i>n</i>	0.29537561	ω	314.80559	+0.06671778	+0.99721653
<i>a</i>	2.2329875	Ω	318.98548	−0.90052759	+0.04581678
<i>e</i>	0.0979746	<i>i</i>	2.90734	−0.42964962	+0.05882187
<i>P</i>	3.34	<i>H</i>	15.0	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 08 23	704	0.3−	0.3−	1998 09 18	704	0.3−	0.0	2000 02 03	704	0.7−	0.1−
1998 08 23	704	0.9−	1.6+	2000 01 04	704	0.6−	0.6−	2000 02 03	704	0.1+	0.2+
1998 08 23	704	(0.9−	2.1+)	2000 01 04	704	0.7+	0.6−	2000 02 03	704	0.5−	1.5+
1998 08 23	704	0.3+	1.2+	2000 01 04	704	0.1+	0.8−	2000 02 03	704	0.3+	1.2+
1998 08 23	704	(5.1−	0.0)	2000 01 04	704	0.6−	0.3−	2000 02 11	704	0.2−	1.5+
1998 09 14	704	0.7+	0.1−	2000 01 04	704	0.5−	0.4+	2000 02 11	704	1.1+	0.3−
1998 09 14	704	0.2−	1.3−	2000 01 06	704	0.1−	0.1−	2000 02 11	704	0.7−	0.4+
1998 09 14	704	0.3+	0.3+	2000 01 06	704	0.8+	1.1−	2000 02 11	704	1.1−	0.3−
1998 09 14	704	0.4+	0.5−	2000 01 06	704	0.8−	0.4+	2000 02 11	704	0.3−	0.4−
1998 09 18	704	0.4−	0.2+	2000 01 30	704	0.4+	0.0	2000 02 14	691	0.5+	0.2−
1998 09 18	704	0.3−	0.2+	2000 01 30	704	0.4+	0.4+	2000 02 14	691	0.5+	0.4−
1998 09 18	704	0.2−	0.8−	2000 01 30	704	1.0+	0.2+	2000 02 14	691	0.2+	0.4−
1998 09 18	704	0.6+	0.1+	2000 02 03	704	0.0	0.2+				

2000 AA₅₆ = 1994 TL₁₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	304.65534		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.25421881	ω	250.49706	-0.92640119	+0.37531448
a	2.4679191	Ω	311.53401	-0.32849312	-0.84494065
e	0.1358430	i	2.32209	-0.18404649	-0.38107000
P	3.88	H	15.0	G 0.15	U 4

Residuals in seconds of arc

1994 10 09	691	0.3−	0.6+	2000 01 04	704	0.7−	0.1−	2000 02 03	704	1.2+	0.3−
1994 10 09	691	0.2+	0.4+	2000 01 04	704	0.3−	0.4−	2000 02 03	704	0.2−	0.2−
1994 10 09	691	0.2+	0.3+	2000 01 04	704	0.8−	0.2+	2000 02 03	704	0.4+	1.0+
1994 10 10	691	0.1−	0.2+	2000 01 04	704	0.7+	0.1+	2000 02 03	704	0.9+	0.4+
1994 10 10	691	0.2+	0.0	2000 01 04	704	0.1+	0.3−	2000 02 03	704	0.2−	0.6−
1994 10 10	691	0.1−	0.2−	2000 01 06	704	0.2−	0.4−	2000 02 11	704	0.3−	0.5+
1994 10 10	691	0.0	0.1−	2000 01 06	704	0.3−	0.4−	2000 02 11	704	0.4−	0.2−
1994 10 10	691	0.2−	0.3−	2000 01 06	704	0.2−	0.2−	2000 02 11	704	0.6−	0.4+
1994 10 10	691	0.4−	0.0	2000 01 06	704	0.7+	0.9+	2000 02 11	704	0.7−	0.9−
1994 10 11	691	0.2+	0.2−	2000 01 30	704	0.3+	0.2+	2000 02 11	704	0.4+	0.2−
1994 10 11	691	0.2+	0.0	2000 01 30	704	0.0	0.7+				
1994 10 11	691	0.1+	0.6−	2000 01 30	704	0.1+	0.2−				

2000 AC₅₆ = 1991 RG₁₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	87.54595		(2000.0)		P		Q
<i>n</i>	0.26659416	ω	69.31862	+0.94715918			−0.32007383
<i>a</i>	2.3909416	Ω	309.34266	+0.28324886			+0.86535107
<i>e</i>	0.2268658	<i>i</i>	1.55817	+0.15053096			+0.38564267
<i>P</i>	3.70	<i>H</i>	15.0	<i>G</i>	0.15		<i>U</i> 4

Residuals in seconds of arc

1991 09 11	675	1.5+	0.6+	2000 01 06	704	0.7−	0.0	2000 02 03	704	0.2−	0.0
1991 09 11	675	1.0−	0.2−	2000 01 06	704	0.4+	0.6−	2000 02 11	691	0.4−	0.2−
1991 09 15	691	0.3−	0.2+	2000 01 06	704	0.4+	0.3+	2000 02 11	691	0.2−	0.1−
1991 09 15	691	0.3+	0.1−	2000 01 06	704	0.2+	0.0	2000 02 11	691	0.1−	0.4+
1991 09 15	691	0.3−	0.3+	2000 01 30	704	0.0	0.3+	2000 02 11	704	0.1+	0.8+
1991 09 15	675	0.7−	0.1+	2000 01 30	704	0.1−	0.2+	2000 02 11	704	0.5−	0.2+
1991 09 15	675	0.5+	0.8−	2000 01 30	704	0.7−	0.6−	2000 02 11	704	0.1−	0.8−
2000 01 04	704	0.1−	0.4+	2000 02 03	704	0.1−	0.3+	2000 02 11	704	0.2−	0.1+
2000 01 04	704	0.8−	0.7−	2000 02 03	704	0.3+	0.2−	2000 02 11	704	1.3+	0.2−
2000 01 04	704	0.4+	0.0	2000 02 03	704	0.2+	0.2+				
2000 01 04	704	0.6+	0.4+	2000 02 03	704	0.3+	0.3−				

2000 AE₅₆ = 1975 AC = 1998 SN₈₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	280.09040		(2000.0)		P		Q
<i>n</i>	0.28046393	ω	285.97491	−0.74562055			+0.66490795
<i>a</i>	2.3114511	Ω	295.72319	−0.59112251			−0.69054142
<i>e</i>	0.0763780	<i>i</i>	2.80768	−0.30761043			−0.28469276
<i>P</i>	3.51	<i>H</i>	14.6	<i>G</i>	0.15		<i>U</i> 4

Residuals in seconds of arc

1975 01 07	695	0.8−	0.6−	1998 09 27	704	1.0+	0.2+	2000 02 02	704	0.7−	0.1−
1975 01 07	695	0.8+	0.2+	2000 01 04	704	0.1+	0.7+	2000 02 02	704	0.0	0.3−
1998 09 26	704	0.3+	0.7+	2000 01 04	704	0.2−	0.1+	2000 02 02	704	0.0	0.4−
1998 09 26	704	0.4+	0.0	2000 01 04	704	0.2+	0.4+	2000 02 02	704	0.2−	0.2+
1998 09 26	704	1.5−	0.5+	2000 01 04	704	0.0	0.4−	2000 02 02	704	0.2−	0.3−
1998 09 26	704	1.2−	1.0−	2000 01 04	704	0.0	0.1−	2000 02 03	704	0.5−	0.0
1998 09 27	704	0.2+	0.7+	2000 01 06	704	0.4+	0.2−	2000 02 03	704	0.1+	0.0
1998 09 27	704	(0.3+	2.4+)	2000 01 06	704	0.4+	0.2−	2000 02 03	704	0.0	0.2+
1998 09 27	704	0.5+	0.3+	2000 01 06	704	0.4+	0.3+	2000 02 03	704	0.1+	0.1−
1998 09 27	704	0.3+	1.4−	2000 01 06	704	0.3+	0.2+	2000 02 03	704	0.0	0.3+

2000 AF₅₆ = 1981 TC = 1981 TT₃ = 1991 KS₂ = 1991 LO₆ = 1996 FO₁₉ = 1998 VN₂₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	118.28689		(2000.0)		P		Q
<i>n</i>	0.17622622	ω	207.67442	+0.99534837			+0.09539794
<i>a</i>	3.1508110	Ω	146.84293	−0.08322561			+0.92174065
<i>e</i>	0.1893251	<i>i</i>	1.40891	−0.04852948			+0.37589015
<i>P</i>	5.59	<i>H</i>	13.1	<i>G</i>	0.15		<i>U</i> 1

Residuals in seconds of arc

1981 10 04	801	1.9−	2.1+	1998 11 11	704	0.0	0.1+	2000 01 04	704	0.3−	1.3−
1981 10 07	095	1.6+	0.9−	1998 11 11	704	0.8+	0.0	2000 01 04	704	0.6−	0.3−
1991 05 18	809	1.3−	0.1+	1998 11 11	704	1.3+	0.6−	2000 01 06	704	1.3−	0.1−
1991 05 18	809	(2.2−	0.0)	1998 11 11	704	0.3+	0.9−	2000 01 06	704	0.1−	0.9+
1991 05 18	809	1.8−	0.7+	1998 11 11	704	0.0	1.0−	2000 01 06	704	0.1−	0.2−
1991 06 06	809	1.4+	0.7−	1998 11 11	699	0.3+	0.2+	2000 01 30	704	0.1−	0.6+
1991 06 06	809	0.3+	0.4−	1998 11 11	699	0.4+	0.2+	2000 01 30	704	1.1−	1.0+
1991 06 06	809	0.0	0.0	1998 11 11	699	0.1−	0.4+	2000 01 30	704	0.4−	1.0+
1996 03 24	809	0.9+	0.9+	1998 11 24	699	0.2−	0.2−	2000 02 02	704	0.5+	0.2+
1996 03 24	809	1.2−	0.3+	1998 11 24	699	0.2−	0.1+	2000 02 02	704	0.2+	0.6+
1996 03 24	809	1.0−	0.7−	1998 11 24	699	0.3+	0.8+	2000 02 02	704	0.5+	0.5−
1996 03 26	809	1.6+	0.6−	1998 12 08	704	1.0+	1.2−	2000 02 02	704	1.9+	0.0
1996 03 26	809	0.9+	0.4−	1998 12 08	704	0.1−	0.6−	2000 02 02	704	0.2+	0.4−
1996 03 26	809	0.3+	0.8−	1998 12 08	704	0.3+	0.3+	2000 02 08	704	0.8+	0.6+
1998 10 18	699	1.2−	0.6−	1998 12 08	704	(2.2−	1.0+)	2000 02 08	704	0.5+	0.2−
1998 10 18	699	0.7−	1.0−	1998 12 08	704	(3.6−	2.7−)	2000 02 08	704	0.2−	0.1+
1998 10 18	699	0.4−	0.1−	1998 12 08	699	0.3+	0.4−	2000 02 08	704	0.7+	0.2+
1998 11 10	704	0.5+	0.2+	1998 12 08	699	0.2+	0.5+	2000 02 08	704	0.2+	0.5+
1998 11 10	704	0.3−	0.2+	1998 12 08	699	0.0	0.1+	2000 02 12	691	0.1−	0.4−
1998 11 10	704	0.5−	0.6+	2000 01 04	704	0.5−	0.3+	2000 02 12	691	0.2−	0.5−
1998 11 10	704	0.1−	0.4+	2000 01 04	704	0.6−	0.3−	2000 02 12	691	0.3−	0.5−
1998 11 10	704	1.1−	0.7+	2000 01 04	704	0.7−	0.2−				

2000 AG₅₆ = 1998 QO₃₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	154.41714		(2000.0)		P		Q
<i>n</i>	0.27843633	ω	211.90968	+0.87048608			+0.48150797
<i>a</i>	2.3226590	Ω	118.97474	−0.42350948			+0.83834558
<i>e</i>	0.1421267	<i>i</i>	6.69557	−0.25078618			+0.25559101
<i>P</i>	3.54	<i>H</i>	14.7	<i>G</i>	0.15		<i>U</i> 4

Residuals in seconds of arc

1998 07 31	699	0.1+	0.2+	2000 01 04	704	0.1+	0.1−	2000 02 05	704	0.9+	0.3+
1998 07 31	699	0.2−	0.3+	2000 01 04	704	0.3−	0.4+	2000 02 05	704	0.2−	1.2−
1998 07 31	699	0.3+	0.8+	2000 01 06	704	0.2+	0.2+	2000 02 05	704	0.2+	0.7−
1998 08 17	704	0.1+	0.0	2000 01 06	704	0.2−	0.1−	2000 02 05	704	0.0	0.5+
1998 08 17	704	0.1+	0.4+	2000 01 06	704	0.1−	0.2−	2000 02 07	703	0.5+	0.3−
1998 08 17	704	0.4−	0.5+	2000 01 06	704	0.4−	1.1−	2000 02 07	703	1.1+	0.3+
1998 08 17	704	0.4−	0.5−	2000 01 30	704	0.0	0.2−	2000 02 07	703	0.3−	0.4−
1998 08 17	704	0.5+	0.4−	2000 01 30	704	0.7−	0.6+	2000 02 07	703	1.0+	1.1+
1998 08 23	704	0.2−	0.2+	2000 01 30	704	0.3+	0.6+	2000 02 11	704	1.4+	0.1+
1998 08 23	704	0.6−	1.0−	2000 01 30	704	0.4+	0.8+	2000 02 11	704	0.6+	0.4−
1998 08 23	704	0.2+	0.2−	2000 01 30	704	1.1−	0.8−	2000 02 11	704	0.3+	0.4+
1998 08 23	704	0.2+	0.6−	2000 01 30	704	1.3+	1.2+	2000 02 11	704	0.4+	0.3+
1998 09 24	699	0.5−	0.7+	2000 02 03	704	0.5−	0.9−	2000 02 14	691	0.8−	0.1−
1998 09 24	699	0.2−	0.0	2000 02 03	704	0.7−	0.4−	2000 02 14	691	1.2−	0.5+
1998 09 24	699	1.1+	0.2+	2000 02 03	704	0.3−	0.2+	2000 02 14	691	0.9−	0.2+
2000 01 04	704	0.3−	0.4−	2000 02 03	704	0.2−	0.3−				
2000 01 04	704	0.2−	0.5+	2000 02 03	704	0.5−	0.4−				

2000 AJ₅₆ = 1998 SO₇₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	320.60856		(2000.0)		P		Q
<i>n</i>	0.22080245	ω	77.90854	−0.99679799			−0.05511513
<i>a</i>	2.7110246	Ω	98.91156	+0.02832501			−0.92090423
<i>e</i>	0.0724297	<i>i</i>	3.36173	+0.07477602			−0.38587269
<i>P</i>	4.46	<i>H</i>	14.4	<i>G</i>	0.15		<i>U</i> 4

Residuals in seconds of arc

1998 09 21	809	0.0	0.5−	2000 01 04	704	0.2−	0.2+	2000 02 08	704

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2000 01 04	704	0.2−	0.6+	2000 01 09	704	0.2−	0.3+	2000 02 11	704	0.6+	0.7+
2000 01 04	704	0.1+	0.4−	2000 01 30	704	0.2+	0.2−	2000 02 11	704	0.2+	0.3+
2000 01 04	704	0.1+	0.1+	2000 01 30	704	0.3−	1.1+	2000 02 11	704	0.4+	0.2−
2000 01 04	704	1.0+	0.1+	2000 01 30	704	1.0−	1.5−				

2000 AM₅₆ = 1998 SX₁₅₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	307.14485		(2000.0)	<i>P</i>		<i>Q</i>	
<i>n</i>	0.27737257	<i>ω</i>	251.76916	−0.91368577		+0.40201115	
<i>a</i>	2.3285937	<i>Ω</i>	311.88786	−0.33597193		−0.82978173	
<i>e</i>	0.1645960	<i>i</i>	4.60048	−0.22869450		−0.38710375	
<i>P</i>	3.55	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 26	704	0.2+	0.1−	2000 01 05	699	0.7+	0.0	2000 02 03	704	0.6+	0.7+
1998 09 26	704	1.5−	0.2−	2000 01 05	699	0.2+	0.5+	2000 02 03	704	0.2+	0.2+
1998 09 26	704	0.5−	0.1−	2000 01 05	699	0.2+	0.9+	2000 02 03	704	0.8+	0.0
1998 09 26	704	0.2+	0.2−	2000 01 06	704	0.5−	0.4−	2000 02 03	704	0.2+	0.1+
1998 09 27	704	1.1−	0.1−	2000 01 06	704	0.3+	0.6−	2000 02 11	704	0.3+	0.3+
1998 09 27	704	0.7+	0.3+	2000 01 06	704	0.1−	0.5−	2000 02 11	704	0.2−	0.3−
1998 09 27	704	1.9+	0.6+	2000 01 06	704	0.6−	0.1−	2000 02 11	704	1.1−	0.8−
2000 01 04	704	0.1−	0.3−	2000 01 30	704	0.2+	0.5+	2000 02 11	704	0.6−	0.8−
2000 01 04	704	0.6−	0.5−	2000 01 30	704	0.1+	0.6+	2000 02 11	704	0.4−	1.2−
2000 01 04	704	0.3−	0.0	2000 01 30	704	0.5+	0.1+	2000 02 12	691	0.4−	0.3+
2000 01 04	704	0.2−	0.2+	2000 01 30	704	1.0+	0.6+	2000 02 12	691	0.2−	0.4+
2000 01 04	704	0.6−	0.6−	2000 02 03	704	0.5+	0.3+	2000 02 12	691	0.2−	0.3+

2000 AR₅₆ = 1991 KJ₁ = 1998 UB₂₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	134.28956		(2000.0)	<i>P</i>		<i>Q</i>	
<i>n</i>	0.18513063	<i>ω</i>	242.41828	+0.97459395		+0.18060961	
<i>a</i>	3.0489516	<i>Ω</i>	106.92779	−0.12308334		+0.92597657	
<i>e</i>	0.0766133	<i>i</i>	7.95895	−0.18712862		+0.33158343	
<i>P</i>	5.32	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1991 05 17	809	0.2−	0.2+	1998 11 13	704	0.7+	0.6−	2000 01 30	704	0.4−	0.3−
1991 05 17	809	0.4+	0.8+	1998 11 19	699	0.6+	1.1+	2000 01 30	704	0.9+	0.1+
1991 05 17	809	0.1+	0.2+	1998 11 19	699	0.1+	0.9+	2000 01 30	704	0.1−	0.4+
1998 10 12	699	0.7−	0.9+	1998 11 19	699	0.5−	0.9+	2000 02 05	704	0.1+	0.9+
1998 10 12	699	0.3+	1.1+	1998 12 11	699	0.5+	1.8+	2000 02 05	704	0.5+	0.1−
1998 10 12	699	0.1+	0.4+	1998 12 11	699	1.7+	0.8+	2000 02 05	704	0.7+	0.1+
1998 10 18	809	1.0−	0.6−	1998 12 11	699	0.8+	0.5+	2000 02 05	704	0.3+	1.0+
1998 10 18	809	0.8−	1.3−	2000 01 04	704	0.7+	0.0	2000 02 06	704	0.0	0.0
1998 10 18	809	(2.0−	1.2−)	2000 01 04	704	0.5+	1.2−	2000 02 06	704	0.1−	0.3+
1998 10 19	809	0.2+	1.2−	2000 01 04	704	0.6−	0.7−	2000 02 06	704	0.1−	0.4+
1998 10 19	809	1.1−	1.3−	2000 01 04	704	1.0−	0.0	2000 02 06	704	0.2−	0.1−
1998 10 19	809	1.0−	1.1−	2000 01 04	704	0.3−	1.2−	2000 02 11	704	0.2+	1.2+
1998 11 13	704	(1.0+	2.2+)	2000 01 06	704	0.3−	0.6−	2000 02 11	704	0.2+	0.5+
1998 11 13	704	0.1−	0.5−	2000 01 06	704	0.5+	0.7+	2000 02 11	704	0.6−	0.2−
1998 11 13	704	(2.2+	0.5+)	2000 01 06	704	0.5−	1.1−				
1998 11 13	704	(0.4+	2.5−)	2000 01 06	704	0.4−	0.0				

2000 AP₅₇ = 1994 SF₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	345.26081		(2000.0)	<i>P</i>		<i>Q</i>	
<i>n</i>	0.24537995	<i>ω</i>	59.84082	−0.90154259		−0.43267859	
<i>a</i>	2.5268337	<i>Ω</i>	94.52134	+0.39587614		−0.82779299	
<i>e</i>	0.1286602	<i>i</i>	0.18348	+0.17465118		−0.35713862	
<i>P</i>	4.02	<i>H</i>	15.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1994 09 28	691	0.2+	0.4−	2000 01 04	704	0.2+	0.2−	2000 01 30	704	(0.4+	2.2+)
1994 09 28	691	0.0	0.1+	2000 01 04	704	0.5+	0.1−	2000 02 03	704	0.9−	0.6+
1994 09 28	691	0.4+	0.5−	2000 01 06	704	0.4−	0.4+	2000 02 03	704	0.2+	1.1+

1994 10 04	691	0.5+	0.2−	2000 01 06	704	0.3−	0.3+	2000 02 03	704	0.3−	0.1+
1994 10 04	691	0.3−	0.6+	2000 01 06	704	0.2−	0.9+	2000 02 03	704	0.1+	0.6+
1994 10 04	691	0.7−	0.1+	2000 01 28	691	0.1+	0.6−	2000 02 03	704	0.4+	0.1+
1996 01 18	327	0.2+	0.7−	2000 01 28	691	0.2+	0.5−	2000 02 08	691	0.2−	0.8−
1996 01 18	327	0.1+	0.2−	2000 01 28	691	0.2+	0.5−	2000 02 08	691	0.2−	0.7−
1996 01 18	327	0.3−	0.6+	2000 01 30	704	0.0	0.0	2000 02 08	691	0.2−	0.8−
2000 01 04	704	0.4+	0.5+	2000 01 30	704	0.1+	0.6−				
2000 01 04	704	0.0	0.3−	2000 01 30	704	0.5+	0.7+				

2000 AQ₅₇ = 1998 SB₈₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	252.75534		(2000.0)	<i>P</i>		<i>Q</i>	
<i>n</i>	0.27982584	<i>ω</i>	312.38483	−0.33044312		+0.94017443	
<i>a</i>	2.3149636	<i>Ω</i>	298.14410	−0.83595685		−0.33234124	
<i>e</i>	0.0920582	<i>i</i>	5.39743	−0.43815920		−0.07497558	
<i>P</i>	3.52	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 26	704	0.3−	0.6+	1999 12 31	699	(0.7+	3.0+)	2000 02 03	704	0.5+	0.1−
1998 09 26	704	0.3+	1.1−	1999 12 31	699	0.8+	1.2+	2000 02 03	704	0.3+	1.0+
1998 09 26	704	(0.4−	2.2−)	1999 12 31	699	0.5+	0.2+	2000 02 03	704	0.2−	0.7+
1998 09 26	704	(0.6+	2.1−)	2000 01 04	704	0.1−	0.2−	2000 02 03	704	0.7+	0.4+
1998 09 26	704	0.3−	0.5−	2000 01 04	704	0.1−	0.6−	2000 02 06	704	0.6−	0.5+
1998 09 27	704	0.3−	0.8−	2000 01 04	704	0.3−	0.4−	2000 02 06	704	0.4−	0.2−
1998 09 27	704	0.0	0.3−	2000 01 04	704	0.2+	0.4+	2000 02 06	704	0.3−	0.7+
1998 09 27	704	0.6−	0.6+	2000 01 06	704	0.5−	0.6−	2000 02 06	704	1.5−	0.1+
1998 09 27	704	0.3−	0.8−	2000 01 06	704	0.5−	0.2+	2000 02 06	704	0.4−	0.5+
1998 09 29	704	0.2+	1.0+	2000 01 06	704	0.8−	0.3−	2000 02 08	704	0.7+	0.3−
1998 09 29	704	(2.5+	1.3+)	2000 01 06	704	0.1−	0.6−	2000 02 08	691	0.1−	2.0−
1998 09 29	704	1.5+	0.9+	2000 02 02	704	0.1−	0.1+	2000 02 08	704	0.2+	0.1+
1998 09 29	704	0.5+	1.6+	2000 02 02	704	0.0	0.5+	2000 02 08	704	0.7+	0.8+
1998 09 29	704	(2.4+	0.3+)	2000 02 02	704	0.3+	0.4−	2000 02 08	691	0.4−	1.8−
1998 10 14	699	0.1+	0.1+	2000 02 02	704	0.0	0.4+	2000 02 08	704	0.2−	0.4+
1998 10 14	699	0.1−	0.3−	2000 02 02	704	1.8+	0.8+	2000 02 08	691	0.3−	1.9−
1998 10 14	699	0.5−	0.8−	2000 02 03	704	0.4−	0.2+	2000 02 08	704	0.3+	0.4+

2000 AS₅₇ = 1998 OE₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	39.17769		(2000.0)	<i>P</i>		<i>Q</i>	
<i>n</i>	0.26896917	<i>ω</i>	134.77158	+0.02732614		−0.99675892	
<i>a</i>	2.3768460	<i>Ω</i>	313.50153	+0.88516271		+0.05929794	
<i>e</i>	0.0870147	<i>i</i>	5.98753	+0.46447848		−0.05436367	
<i>P</i>	3.66	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 07 26	809	0.3+	1.6+	2000 01 04	704	0.0	0.3−	2000 02 05	704	0.4−	0.2+
1998 07 26	809	0.2−	0.9+	2000 01 04	704	0.2−	0.4−	2000 02 07	703	0.1+	0.9+
1998 07 26	809	0.0	1.7+	2000 01 05	699	0.2−	0.4+	2000 02 07	703	0.3+	0.7+
1998 07 27	809	0.6+	1.4+	2000 01 05	699	0.0	0.1−	2000 02 07	703	0.0	0.4−
1998 07 27	809	0.4+	0.2+	2000 01 05	699	0.3+	0.7+	2000 02 07	703	0.2+	0.4+
1998 07 27	809	0.2+	1.8+	2000 01 06	704	0.6−	1.1−	2000 02 10	691	0.1+	0.7+
1998 08 17	704	2.0−	0.2+	2000 01 06	704	0.3+	1.2−	2000 02 10	691	0.3+	0.5+
1998 08 17	704	(2.3−	0.7−)	2000 01 06	704	0.2−	0.3−	2000 02 10	691	0.4+	0.5+
1998 08 17	704	1.1−	1.8−	2000 01 06	704	0.1+	0.4−	2000 02 11	704	0.2+	0.0
1998 08 17	704	(2.5−	1.6+)	2000 01 30	704	0.2+	0.7+	2000 02 11	704	0.1+	0.1+
1998 08 17	704	1.0−	0.1−	2000 01 30	704	0.1−	0.3+	2000 02 11	704	0.4+	0.2−
1999 11 16	704	0.2+	0.3−	2000 01 30	704	0.2+	0.7+	2000 02 11	704	0.3−	0.2−
1999 11 16	704	0.4−	0.1−	2000 01 30	704	0.5+	0.9+	2000 02 12	691	0.1+	0.2+
1999 11 16	704	0.4−	0.7−	2000 01 30	704	0.0	1.0+	2000 02 12	691	0.1+	0.2+
1999 11 16	704	1.5−	1.1−	2000 02 05	704	0.2−	0.2+	2000 02 12	691	0.0	0.1+
2000 01 04	704	0.1−	0.2−	2000 02 05	704	0.3+	0.5+	2000 02 12	691	0.0	0.7+
2000 01 04	704	0.0	0.7−	2000 02 05	704	0.5+	0.1+	2000 02 12	691	0.1+	0.7+
2000 01 04	704	0.0	0.2−	2000 02 05	704	0.1−	0.2+	2000 02 12	691	0.1+	0.7+

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2000 AU₅₇ = 1976 DE₁ = 1998 XE₇₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	43.36089		(2000.0)	P		Q	
<i>n</i>	0.08108718	ω	123.19696	+0.15126403	−0.98342694		
<i>a</i>	5.2864959	Ω	317.74038	+0.85024453	+0.18101674		
<i>e</i>	0.0601564	<i>i</i>	8.54762	+0.50418591	−0.01021721		
<i>P</i>	12.15	<i>H</i>	11.1	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1976 02 27	033	0.6−	0.4+	1998 12 17	704	0.1−	0.1+	2000 02 03	704	0.1−	1.2−
1976 03 01	033	1.0+	0.1+	2000 01 04	704	0.1−	0.8−	2000 02 03	704	0.2+	0.3−
1976 03 02	033	0.1+	0.3+	2000 01 04	704	0.1−	1.6−	2000 02 03	704	0.1−	0.7+
1976 03 03	033	0.3+	0.1−	2000 01 04	704	1.0+	0.8−	2000 02 03	704	0.2−	1.2+
1976 03 03	033	(4.1+	0.2+)	2000 01 04	704	0.1+	0.6−	2000 02 07	703	0.2−	0.3+
1998 12 14	704	0.1−	0.8−	2000 01 04	704	0.0	0.2−	2000 02 07	703	0.5−	0.8+
1998 12 14	704	0.6+	0.2−	2000 01 05	699	1.8+	0.4+	2000 02 07	703	0.7−	1.3+
1998 12 14	704	0.5−	1.1+	2000 01 05	699	0.6+	0.1+	2000 02 07	703	(2.3−	1.4+)
1998 12 17	704	1.1−	1.3+	2000 01 05	699	0.7−	1.3+	2000 02 11	704	0.0	0.2−
1998 12 17	704	(1.4+	2.6−)	2000 01 06	704	0.6+	1.4−	2000 02 11	704	0.3−	0.0
1998 12 17	704	0.5+	1.4−	2000 01 06	704	0.2−	0.8−	2000 02 11	704	0.7−	0.2−
1998 12 17	704	0.9+	0.1−	2000 01 06	704	0.1−	0.8+	2000 02 11	704	0.8−	0.0

2000 AW₅₇ = 1987 XJ₁ = 1992 SV₂₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	84.00090		(2000.0)	P		Q	
<i>n</i>	0.17587425	ω	90.63844	+0.72828331	−0.67283302		
<i>a</i>	3.1550134	Ω	311.65749	+0.53892066	+0.67951694		
<i>e</i>	0.0439791	<i>i</i>	10.02015	+0.42328235	+0.29249352		
<i>P</i>	5.60	<i>H</i>	12.9	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1987 12 12	054	1.1+	1.0+	1998 11 16	704	0.7+	0.4+	2000 01 06	704	0.5−	0.3−
1987 12 12	054	0.2+	1.3+	1998 11 16	704	0.7+	0.3+	2000 01 30	691	0.4+	0.0
1992 09 28	399	1.2−	0.8+	1999 01 08	699	0.1−	0.5+	2000 01 30	691	0.4+	0.1+
1992 09 28	399	0.6−	1.1−	1999 01 08	699	0.1−	0.5+	2000 01 30	691	0.5+	0.1+
1992 09 29	675	1.0−	0.9−	1999 01 08	699	0.8−	0.0	2000 02 01	691	0.1+	0.1+
1992 09 29	675	0.1+	0.1−	1999 12 05	699	(1.6−	3.8+)	2000 02 01	691	0.5+	0.5−
1992 10 04	675	0.1+	0.4−	1999 12 05	699	0.3−	1.9+	2000 02 01	691	0.0	0.1+
1992 10 04	675	0.3+	1.2−	1999 12 05	699	1.1+	0.7+	2000 02 03	704	0.2−	0.8+
1997 09 02	566	0.1−	1.2+	1999 12 15	703	0.0	0.5+	2000 02 03	704	0.1−	0.4+
1997 09 02	566	0.1+	1.3+	1999 12 15	703	0.1+	0.5+	2000 02 03	704	0.1+	0.2+
1997 09 02	566	0.2−	1.2+	1999 12 15	703	0.1−	0.5+	2000 02 03	704	0.1+	0.2+
1998 10 01	699	0.0	0.6−	1999 12 15	703	0.2−	0.9+	2000 02 03	704	0.2−	0.1+
1998 10 01	699	0.3+	0.7+	2000 01 04	704	0.1−	0.4−	2000 02 07	703	0.3−	0.7+
1998 10 01	699	0.1−	0.8+	2000 01 04	704	0.0	0.5−	2000 02 07	703	0.1+	0.4+
1998 11 14	704	0.0	0.7+	2000 01 04	704	0.1−	0.4−	2000 02 07	703	0.3+	0.7+
1998 11 14	704	0.4+	0.4−	2000 01 04	704	0.2+	0.3−	2000 02 07	703	0.1−	0.1−
1998 11 14	704	1.0+	1.7−	2000 01 04	704	0.3−	0.6−	2000 02 11	704	0.1−	0.0
1998 11 14	704	0.5+	1.5−	2000 01 06	704	0.2+	0.4−	2000 02 11	704	0.0	0.2−
1998 11 14	704	(0.4+	3.0−)	2000 01 06	704	0.5−	0.7−	2000 02 11	704	0.0	0.2+
1998 11 16	704	0.1−	0.6+	2000 01 06	704	0.2−	0.5−	2000 02 11	704	0.1+	0.2−
1998 11 16	704	0.7−	1.1−	2000 01 06	704	0.5−	1.1−	2000 02 11	704	0.6−	0.3−

2000 AJ₅₈ = 2000 AB₁₅₁ = 2000 AY₂₄₅ = 1995 DU₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	336.58515		(2000.0)	P		Q	
<i>n</i>	0.18810258	ω	169.30966	−0.96849215	−0.24903799		
<i>a</i>	3.0167515	Ω	356.26839	+0.22647521	−0.87779745		
<i>e</i>	0.1390285	<i>i</i>	1.53215	+0.10359501	−0.40920865		
<i>P</i>	5.24	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1995 02 22	033	0.0	1.0−	2000 01 06	704	0.1+	0.0	2000 01 30	704	0.1−	0.1+
1995 02 23	033	0.6−	0.1−	2000 01 06	704	0.3+	0.3−	2000 02 03	704	0.3−	0.6+
1995 02 24	033	0.5+	1.1+	2000 01 06	704	0.6−	0.2−	2000 02 03	704	0.1−	0.6+

2000 01 04	704	0.0	0.3−	2000 01 06	704	0.1+	0.4+	2000 02 03	704	0.1+	0.3+
2000 01 04	704	0.1−	0.5−	2000 01 07	104	0.2−	0.1−	2000 02 03	704	0.2+	0.7+
2000 01 04	704	0.1+	0.2+	2000 01 07	104	0.1+	0.6−	2000 02 03	704	0.1+	0.5+
2000 01 04	704	0.1+	0.1+	2000 01 27	120	0.4−	1.3−	2000 02 09	120	0.3+	0.2+
2000 01 04	704	0.2+	0.3+	2000 01 27	120	0.1+	1.2−	2000 02 09	120	0.4−	0.5+
2000 01 05	699	0.2+	0.5+	2000 01 29	691	0.1−	0.6−	2000 02 11	704	0.2+	0.2+
2000 01 05	699	0.3+	1.5+	2000 01 29	691	0.0	0.6−	2000 02 11	704	0.1+	0.2+
2000 01 05	699	0.4+	0.8+	2000 01 29	691	0.1+	0.6−	2000 02 11	704	0.0	0.5−
2000 01 06	104	0.1−	0.3−	2000 01 30	704	0.6+	0.5+				
2000 01 06	104	1.0−	0.5−	2000 01 30	704	0.2−	0.4−				

2000 AM₅₈ = 1991 RC₁₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	77.00341		(2000.0)	P		Q	
<i>n</i>	0.26654576	ω	287.64572	+0.82775250	−0.55791206		
<i>a</i>	2.3912310	Ω	106.30467	+0.53548032	+0.75372632		
<i>e</i>	0.2113290	<i>i</i>	3.56411	+0.16759065	+0.34731940		
<i>P</i>	3.70	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1991 09 15	675	0.6+	0.5−	2000 01 04	704	0.7−	0.7−	2000 01 30	704	0.2−	0.4−
1991 09 15	675	0.1−	0.1−	2000 01 04	704	0.1−	1.3−	2000 02 03	704	0.3−	0.1+
1991 09 17	675	0.0	0.6−	2000 01 05	699	0.6+	0.0	2000 02 03	704	0.1−	0.3+
1991 09 17	675	0.4−	1.0+	2000 01 05	699	0.4+	0.9+	2000 02 03	704	0.2−	0.3+
1999 11 16	704	0.7+	0.8+	2000 01 05	699	1.2+	0.2+	2000 02 03	704	0.5−	0.3+
1999 11 16	704	0.0	0.1+	2000 01 06	704	0.2+	1.6+	2000 02 03	704	0.0	0.7+
1999 11 16	704	0.7−	0.9+	2000 01 06	704	0.1−	0.1−	2000 02 11	704	0.0	0.1+
1999 11 16	704	0.0	0.4−	2000 01 06	704	0.4−	0.4−	2000 02 11	704	0.9+	0.2−
1999 11 16	704	0.3+	0.7+	2000 01 06	704	0.3−	0.8−	2000 02 11	704	0.3+	0.1+
2000 01 04	704	0.3−	0.4−	2000 01 06	704	0.5−	0.3−	2000 02 11	704	0.7+	0.2+
2000 01 04	704	0.0	0.7−	2000 01 30	704	0.1−	0.2+				
2000 01 04	704	0.1+	0.6−	2000 01 30	704	0.7−	0.5−				

2000 AO₅₈ = 1997 EF₁₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	79.59459		(2000.0)	P		Q	
<i>n</i>	0.30806666	ω	75.35745	+0.76354177	−0.64447791		
<i>a</i>	2.1712321	Ω	324.74195	+0.56206608	+0.69425736		
<i>e</i>	0.1381150	<i>i</i>	4.03776	+0.31793976	+0.32039809		
<i>P</i>	3.20	<i>H</i>	15.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 03 03	691	0.0	0.3−	2000 01 05	699	0.7−	1.2+	2000 01 30	704	0.0	0.0
1997 03 03	691	0.2+	0.2−	2000 01 05	699	0.6+	0.4+	2000 02 03	704	0.0	0.3+
1997 03 03	691	0.1+	0.2−	2000 01 05	699	0.7+	0.7−	2000 02 03	704	0.6+	0.1+
1997 03 11	691	0.1−	0.2+	2000 01 06	704	0.1+	0.1+	2000 02 03	704	0.3+	0.6+
1997 03 11	691	0.2−	0.3+	2000 01 06	704	0.1−	0.6−	2000 02 03	704	0.3+	0.6+
1997 03 11	691	0.1−	0.2+	2000 01 06	704	0.1−	0.1−	2000 02 03	704	0.2+	0.5+
2000 01 04	704	0.2+	0.1+	2000 01 06	704	0.1+	0.1+	2000 02 11	704	0.0	0.2−
2000 01 04	704	0.8−	0.5−	2000 01 24	120	0.6+	1.0+	2000 02 11	704	0.2+	0.9−
2000 01 04	704	0.1+	0.2−	2000 01 24	120	0.8−	0.1+	2000 02 11	704	0.8−	0.4+
2000 01 04	704	0.1+	0.6−	2000 01 30	704	0.5−	0.0	2000 02 11	704	0.7+	0.2−
2000 01 04	704	0.2−	0.4−	2000 01 30	704	0.0	0.2+	2000 02 11	704	0.8−	1.6−

2000 AU₅₈ = 1998 SC₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	281.13202		(2000.0)	P	Q
n	0.26408424	ω	167.70096	-0.62559631	+0.77852463
a	2.4060671	Ω	63.55096	-0.72044559	-0.55179119
e	0.1657853	i	3.21968	-0.29931156	-0.29904162
P	3.73	H	15.0	G 0.15	U 4

2000 FEB. 22

M.P.C. 38643

1998 09 24	557	0.0	0.6+	2000 01 06	704	0.4+	0.1−	2000 02 07	703	0.3+	0.1+
1998 09 24	557	0.2−	0.1+	2000 02 02	704	0.2−	0.2−	2000 02 07	703	0.7−	0.4+
1998 09 24	557	0.3+	0.5+	2000 02 02	704	0.4+	0.0	2000 02 07	703	0.7+	0.2+
1998 09 24	557	0.2+	0.1−	2000 02 02	704	0.3+	0.0	2000 02 07	703	0.6−	0.4+
2000 01 04	704	0.2−	0.4+	2000 02 02	704	0.0	0.5+	2000 02 11	704	(2.4−	0.1−)
2000 01 04	704	0.2−	0.3+	2000 02 02	704	0.4−	0.3+	2000 02 11	704	0.4+	0.5−
2000 01 04	704	0.3+	0.1−	2000 02 03	704	0.3+	0.6+	2000 02 11	704	0.6−	0.2−
2000 01 04	704	0.0	0.0	2000 02 03	704	0.5+	0.3+	2000 02 11	704	0.8+	1.5−
2000 01 06	704	0.2−	0.1−	2000 02 03	704	0.2−	0.2−				

2000 AQ₅₉ = 1998 SV₁₅₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	251.23134		(2000.0)	P	Q
<i>n</i>	0.27644821	ω	313.09385	−0.22290333	+0.97243248
<i>a</i>	2.3337815	Ω	303.90505	−0.86872308	−0.23001979
<i>e</i>	0.1213186	<i>i</i>	4.73267	−0.44230569	−0.03828784
<i>P</i>	3.57	<i>H</i>	15.0	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 26	704	0.5−	1.0−	2000 01 04	691	0.5+	1.1+	2000 01 30	703	0.4−	0.2+
1998 09 26	704	(0.7−	2.7−)	2000 01 04	691	0.7+	1.0+	2000 01 30	703	0.4−	0.2+
1998 09 26	704	1.2+	1.4−	2000 01 06	704	0.8−	0.2−	2000 01 30	703	0.7−	0.5+
1998 09 26	704	(0.2+	3.0−)	2000 01 06	704	0.3−	0.6−	2000 01 30	703	1.0−	0.2+
1998 09 27	704	0.2+	1.1+	2000 01 06	704	0.6+	0.1+	2000 02 02	704	0.4+	0.2+
1998 09 27	704	0.9−	0.0	2000 01 06	704	0.1+	0.8−	2000 02 02	704	1.5+	0.4−
1998 09 27	704	0.1+	1.2+	2000 01 11	691	0.0	0.2+	2000 02 02	704	0.6+	1.2−
2000 01 04	704	0.0	0.5−	2000 01 11	691	0.0	0.2+	2000 02 02	704	0.8+	0.1−
2000 01 04	704	0.1+	0.1−	2000 01 11	691	0.1+	0.1+	2000 02 03	704	0.6+	0.2+
2000 01 04	704	0.9−	0.8−	2000 01 27	120	0.1−	0.0	2000 02 03	704	(2.2+	1.2−)
2000 01 04	704	0.4+	0.5−	2000 01 27	120	(2.8−	0.0)	2000 02 03	704	0.5−	0.1+
2000 01 04	691	0.4+	1.2+	2000 01 27	120	1.0−	0.3−	2000 02 03	704	0.5−	0.1+

2000 AZ₅₉ = 1996 HY₁₄ = 1998 VH₂₅Id. G. V. Williams; 1993 TB₂₆ = 1996 HY₁₄ (*MPC* 32232) is invalid

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	166.04534		(2000.0)	P	Q
<i>n</i>	0.19322540	ω	245.04922	+0.84524346	+0.53222664
<i>a</i>	2.9631927	Ω	82.76167	−0.47120574	+0.78462581
<i>e</i>	0.0309735	<i>i</i>	2.76994	−0.25204889	+0.31795776
<i>P</i>	5.10	<i>H</i>	13.7	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1996 04 17	809	0.5+	0.6−	1998 11 11	704	0.2+	0.5−	2000 01 06	704	1.0+	0.6−
1996 04 17	809	0.0	1.5−	1998 11 11	704	0.5−	0.4−	2000 01 30	704	0.1−	0.3+
1996 04 17	809	0.3−	0.6−	1998 11 11	704	0.8−	0.1+	2000 01 30	704	1.2−	0.9+
1996 04 18	809	1.4+	0.7+	1998 11 24	699	1.0+	0.6+	2000 01 30	704	0.1−	0.6+
1996 04 18	809	0.5+	0.5+	1998 11 24	699	0.2−	0.5−	2000 02 03	704	0.2−	0.7+
1996 04 18	809	0.9+	0.4−	1998 11 24	699	(0.7−	2.1+)	2000 02 03	704	0.2−	0.1−
1996 05 22	809	1.6−	1.1−	1998 12 08	704	0.8+	0.7−	2000 02 03	704	0.1+	0.2−
1996 05 22	809	1.7−	1.3−	1998 12 08	704	1.1+	0.9+	2000 02 03	704	0.3−	0.0
1996 05 22	809	1.5−	0.0	1998 12 08	704	(3.4+	1.6+)	2000 02 03	704	0.3−	0.2−
1998 10 18	699	1.0+	0.6−	1998 12 08	704	1.2+	0.1+	2000 02 07	703	0.7+	0.8+
1998 10 18	699	0.3+	0.4−	1998 12 08	704	(4.3−	0.8+)	2000 02 07	703	0.4+	1.1+
1998 10 18	699	1.4+	0.6−	2000 01 04	704	0.0	0.1−	2000 02 07	703	(3.1−	0.5−)
1998 11 10	704	0.4−	0.6−	2000 01 04	704	0.2−	1.5−	2000 02 07	703	0.0	1.8+
1998 11 10	704	0.7−	0.7−	2000 01 04	704	0.5−	0.0	2000 02 11	704	0.2+	0.3−
1998 11 10	704	1.0−	0.3−	2000 01 04	704	0.3+	1.5−	2000 02 11	704	0.1−	0.3−
1998 11 10	704	1.1−	0.6+	2000 01 04	704	0.4−	1.0−	2000 02 11	704	0.4+	0.8+
1998 11 10	704	0.9−	0.3−	2000 01 06	704	0.3+	0.6−	2000 02 11	704	0.2+	0.0
1998 11 11	704	0.2+	0.6−	2000 01 06	704	0.3+	0.4−				
1998 11 11	704	(0.4−	2.4+)	2000 01 06	704	0.6−	0.3−				

2000 AY₆₀ = 1998 SO₁₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	60.86942		(2000.0)	P	Q
<i>n</i>	0.22790804	ω	61.06935	+0.35515478	−0.93479633
<i>a</i>	2.6543791	Ω	8.13169	+0.84602292	+0.31933914
<i>e</i>	0.0633738	<i>i</i>	1.85238	+0.39763086	+0.15549384
<i>P</i>	4.32	<i>H</i>	14.7	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1998 09 17	691	0.4+	0.3−	1998 10 24	691	0.0	0.2+	2000 01 30	704	0.3−	0.4+
1998 09 17	691	0.3+	0.4−	1998 10 24	691	0.1+	0.1+	2000 02 03	704	0.0	0.0
1998 09 17	691	0.5+	0.2−	1998 10 29	691	0.9−	0.6+	2000 02 03	704	0.0	0.5+
1998 09 24	691	1.1+	0.3−	1998 10 29	691	0.6−	0.4+	2000 02 03	704	0.1+	0.2+
1998 09 24	691	0.6+	0.1−	1998 10 29	691	0.5−	0.4+	2000 02 03	704	0.5+	0.6+
1998 09 25	699	0.4+	0.1+	2000 01 04	704	0.1−	0.2−	2000 02 03	704	0.3−	0.9+
1998 09 25	699	1.2+	0.4+	2000 01 04	704	0.3−	0.4−	2000 02 08	704	0.0	0.5+
1998 09 25	699	0.1+	0.4−	2000 01 04	704	0.9−	0.6−	2000 02 08	704	0.7+	0.2−
1998 09 26	704	0.3−	1.5+	2000 01 04	704	0.5−	0.2−	2000 02 08	704	0.5+	0.6+
1998 09 26	704	0.6−	1.9−	2000 01 04	704	0.1+	2.0−	2000 02 08	704	0.8+	0.4+
1998 09 26	704	0.6−	0.7+	2000 01 06	704	0.1+	0.5−	2000 02 08	704	1.4+	0.8+
1998 09 27	704	0.9+	0.4−	2000 01 06	704	0.9−	1.3−	2000 02 11	704	0.5−	0.3−
1998 09 27	704	0.8−	0.1+	2000 01 06	704	0.4−	0.4−	2000 02 11	704	0.3+	0.8+
1998 09 27	704	1.2−	0.1+	2000 01 06	704	0.5+	0.5+	2000 02 11	704	0.2+	0.0
1998 09 27	704	0.8−	0.1−	2000 01 30	704	0.7−	0.3−	2000 02 11	704	0.1+	0.8+
1998 10 24	691	0.1+	0.2+	2000 01 30	704	0.7−	0.6−				

2000 AR₆₁ = 1993 TF₄₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	12.25812		(2000.0)	P	Q
<i>n</i>	0.19896330	ω	14.15913	−0.55491854	−0.82395926
<i>a</i>	2.9059451	Ω	109.66418	+0.75091593	−0.55545194
<i>e</i>	0.0396172	<i>i</i>	6.99632	+0.35803727	−0.11209045
<i>P</i>	4.95	<i>H</i>	14.0	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1993 10 11	809	(1.2−	4.3+)	2000 01 04	704	0.9+	1.0−	2000 02 03	704	0.2+	0.1−
1993 10 11	809	(2.0−	4.1+)	2000 01 04	704	0.4−	1.2+	2000 02 03	704	0.5+	0.6−
1993 10 11	809	(1.9−	3.3+)	2000 01 04	704	0.6−	0.2+	2000 02 03	704	0.4−	0.3−
1993 10 21	809	0.1−	1.5+	2000 01 04	704	0.7−	0.2+	2000 02 03	704	0.2−	0.3−
1993 10 21	809	0.8−	0.2−	2000 01 06	704	0.5+	0.0	2000 02 03	704	0.7+	0.8−
1993 10 21	809	0.1+	1.0+	2000 01 06	704	0.0	0.1−	2000 02 11	704	0.2+	0.6−
1998 11 11	704	0.5+	0.2+	2000 01 06	704	0.2+	1.2+	2000 02 11	704	0.3+	0.5−
1998 11 11	704	0.9+	0.5−	2000 01 06	704	0.0	0.1+	2000 02 11	704	0.1−	0.2+
1998 11 11	704	1.1+	0.7−	2000 01 30	704	0.0	0.7+	2000 02 11	704	0.5−	0.4+
1998 11 11	704	1.5−	1.4−	2000 01 30	704	0.6−	1.1+	2000 02 11	704	0.0	0.9+
2000 01 04	704	0.9+	1.2−	2000 01 30	704	0.9−	0.1−				

2000 AW₆₁ = 1993 PB₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	126.40985		(2000.0)	P	Q
<i>n</i>	0.21115059	ω	48.39072	+0.99363452	+0.06744591
<i>a</i>	2.7930230	Ω	307.54553	−0.10158077	+0.88270336
<i>e</i>	0.1873237	<i>i</i>	6.53453	+0.04870091	+0.46506541
<i>P</i>	4.67	<i>H</i>	13.6	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1993 08 15	010	0.8+	1.2−	2000 01 06	704	0.2−	0.3+	2000 02 03	704	0.6+	0.1+
1993 08 15	010	0.0	0.4−	2000 01 06	704	0.0	1.0+	2000 02 03	704	0.5−	0.9−
1993 08 16	010	(1.0+	2.2−)	2000 01 13	691	0.5−	0.4−	2000 02 03	704	0.4+	0.0
1993 08 16	010	(0.2+	2.4−)	2000 01 13	691	0.7−	0.3−	2000 02 03	704	0.1+	0.1+
1993 08 16	010	0.8+	1.6−	2000 01 13	691	0.6−	0.3−	2000 02 03	704	0.7+	0.3−
1993 08 19	010	(3.6−	2.7−)	2000 01 26	691	0.3−	0.2−	2000 02 03	704	0.2+	0.2+
1993 08 19	010	(3.6−	2.4−)	2000 01 26	691	0.3−	0.3−	2000 02 03	704	0.1−	0.3−
1993 08 20	010	(3.5−	2.0−)	2000 01 26	691	0.2−	0.2−	2000 02 03	704	1.2+	0.1−
1998 10 29	699	0.1−	0.3+	2000 01 29	691	0.8−	0.5−	2000 02 03	704	0.3+	0.7−

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1998 10 29	699	0.3−	0.2+	2000 01 29	691	0.8−	0.5−	2000 02 03	704	0.9+	0.8+
1998 10 29	699	0.1−	0.6+	2000 01 29	691	1.0−	0.4−	2000 02 05	704	0.4+	1.0+
1999 11 16	704	(1.5−	2.2−)	2000 01 30	703	0.4−	0.1−	2000 02 05	704	0.1−	0.2+
1999 11 16	704	1.0−	0.5−	2000 01 30	703	0.2+	0.4+	2000 02 05	704	0.1−	0.1−
1999 11 16	704	0.4+	0.4−	2000 01 30	703	0.3−	0.1+	2000 02 05	704	0.0	0.1+
1999 11 16	704	0.4+	0.5+	2000 01 30	703	0.6−	0.5+	2000 02 05	704	0.2+	0.7−
2000 01 04	704	0.0	0.1−	2000 01 31	704	0.5−	0.2−	2000 02 05	704	0.4−	0.4+
2000 01 04	704	0.7−	0.4+	2000 01 31	704	0.4−	0.2+	2000 02 05	704	0.2−	0.4−
2000 01 04	704	0.0	0.2−	2000 01 31	704	0.3−	0.7+	2000 02 05	704	0.8+	0.7−
2000 01 04	704	0.2−	0.5+	2000 02 02	704	0.5−	0.2−	2000 02 07	691	0.4+	0.6−
2000 01 04	704	0.1+	0.4−	2000 02 02	704	0.0	0.3+	2000 02 07	691	0.3+	0.7−
2000 01 06	704	0.5−	0.5+	2000 02 02	704	0.3+	0.2−	2000 02 07	691	0.4+	0.6−
2000 01 06	704	0.7+	0.5+	2000 02 02	704	0.6+	0.0				
2000 01 06	704	0.9−	0.2−	2000 02 02	704	1.7+	0.2−				

2000 AA₆₂ = 1999 AY₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	234.10472	(2000.0)	
<i>n</i>	0.22669868	ω	153.24807
<i>a</i>	2.6638109	Ω	122.76465
<i>e</i>	0.1556174	<i>i</i>	14.94356
<i>P</i>	4.35	<i>H</i>	13.1

Residuals in seconds of arc

1998 11 13	704	0.4+	0.9−	2000 01 06	704	0.6+	0.3−	2000 02 05	704	0.4+	0.5+
1998 11 13	704	0.3−	0.1−	2000 01 06	704	0.4−	0.4−	2000 02 05	704	0.2−	1.1+
1998 11 13	704	1.1−	1.2+	2000 01 06	704	0.6+	0.1−	2000 02 05	704	0.2+	0.1+
1998 11 13	704	1.2−	0.5−	2000 01 06	704	0.5−	0.4−	2000 02 05	704	0.3+	0.5+
1998 11 13	704	(5.2−	2.6−)	2000 01 09	704	0.3+	0.1−	2000 02 05	704	0.2−	0.5+
1999 01 09	327	0.4+	0.0	2000 01 09	704	0.4+	1.4−	2000 02 05	704	0.5−	0.2−
1999 01 09	327	0.5+	0.0	2000 01 09	704	0.4+	0.1−	2000 02 05	704	0.1+	0.3+
1999 01 09	327	0.3−	0.1+	2000 01 30	704	0.3−	1.0+	2000 02 05	704	0.3−	0.1−
1999 01 10	327	1.1+	0.1+	2000 01 30	704	0.3+	0.0	2000 02 05	704	0.1+	0.2+
1999 01 10	327	0.4+	0.5+	2000 01 30	704	0.2−	0.8−	2000 02 05	704	0.7−	0.0
1999 01 10	327	0.4+	0.1−	2000 01 30	704	0.1−	0.2+	2000 02 11	704	0.0	0.1+
2000 01 04	704	0.0	0.0	2000 01 30	704	0.2−	0.2+	2000 02 11	704	0.1+	0.0
2000 01 04	704	0.5−	0.1−	2000 02 03	704	0.1−	0.1−	2000 02 11	704	0.6−	0.1−
2000 01 04	704	0.4+	0.2−	2000 02 03	704	0.1+	0.2−	2000 02 11	704	0.1−	0.6−
2000 01 04	704	0.1+	0.5+	2000 02 03	704	0.2−	0.2+	2000 02 11	704	0.2−	0.8−
2000 01 04	704	0.4+	0.3+	2000 02 03	704	0.1−	0.2+				
2000 01 06	704	1.1+	0.1+	2000 02 03	704	0.3−	0.1−				

2000 AB₆₂ = 1998 RY₃₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	48.43308	(2000.0)	
<i>n</i>	0.18909988	ω	324.54311
<i>a</i>	3.0061354	Ω	102.02749
<i>e</i>	0.2330338	<i>i</i>	2.49371
<i>P</i>	5.21	<i>H</i>	14.9

Residuals in seconds of arc

1998 09 14	704	0.2−	0.5+	2000 01 06	704	0.3+	0.7+	2000 02 03	704	0.2−	0.7+
1998 09 14	704	0.5+	0.9−	2000 01 11	691	0.2+	0.2−	2000 02 03	704	0.0	0.6+
1998 09 14	704	1.7−	0.5+	2000 01 11	691	0.2+	0.1−	2000 02 03	704	0.2−	0.5+
1998 09 14	704	1.7−	0.2+	2000 01 11	691	0.4+	0.2−	2000 02 05	704	0.4+	0.1+
1998 09 18	704	1.2+	1.2−	2000 01 30	703	0.4+	0.4+	2000 02 05	704	0.5−	0.3−
1998 09 18	704	1.5+	0.2+	2000 01 30	703	0.1+	0.4+	2000 02 05	704	0.0	0.5−
1998 09 18	704	1.4+	0.4−	2000 01 30	703	0.4−	0.5+	2000 02 05	704	0.4−	0.2−
1998 09 18	704	1.1−	1.1+	2000 01 30	704	0.4+	0.0	2000 02 05	704	0.1−	0.3+
2000 01 04	704	0.3−	0.5−	2000 01 30	703	0.3−	0.7+	2000 02 05	704	0.3−	0.7−
2000 01 04	704	0.6−	0.1−	2000 01 30	704	0.3−	0.6−	2000 02 05	704	0.9−	1.3−
2000 01 04	704	0.9−	0.1+	2000 01 30	704	0.2+	1.0−	2000 02 08	049	(0.4−	2.7−)
2000 01 04	704	0.4+	0.9+	2000 01 30	704	0.5−	0.6−	2000 02 08	049	(0.2+	3.1−)
2000 01 05	691	0.2−	0.0	2000 01 31	704	0.1+	0.3+	2000 02 08	049	(0.9+	3.2−)
2000 01 05	691	0.1+	0.1−	2000 01 31	704	0.4−	1.4−	2000 02 11	704	0.1+	0.4+
2000 01 05	691	0.2−	0.1−	2000 01 31	704	0.2−	0.5−	2000 02 11	704	0.4+	0.9+

2000 01 06	704	0.9+	0.4−	2000 01 31	704	0.6+	0.9−	2000 02 11	704	0.1−	1.0+
2000 01 06	704	0.2+	0.4+	2000 02 03	704	0.3−	0.5−	2000 02 11	704	0.8+	1.0+
2000 01 06	704	0.6+	0.2+	2000 02 03	704	0.2−	0.7−	2000 02 11	704	0.8+	1.1+

2000 AW₆₂ = 1977 DK₂ = 1994 SH₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	308.56693	(2000.0)	
<i>n</i>	0.25613375	ω	168.52796
<i>a</i>	2.4556031	Ω	32.94996
<i>e</i>	0.1214642	<i>i</i>	3.47558
<i>P</i>	3.85	<i>H</i>	15.4

Residuals in seconds of arc

1977 02 18	381	0.3−	0.0	2000 01 04	704	0.1+	0.0	2000 02 02	858	0.3+	0.2−
1977 02 18	381	0.7+	1.3−	2000 01 04	704	0.6−	0.9+	2000 02 02	858	0.3+	0.1−
1977 02 19	381	1.2−	0.7−	2000 01 04	704	0.8−	1.2+	2000 02 03	858	0.1−	0.4−
1977 02 19	381	(1.5−	13.2−)	2000 01 06	704	0.9−	0.3−	2000 02 03	858	0.1+	0.3−
1994 09 29	691	0.2+	0.4−	2000 01 06	704	0.3+	0.7+	2000 02 03	858	0.1+	0.0
1994 09 29	691	0.1+	0.4−	2000 01 06	704	0.5+	0.6+	2000 02 11	704	0.2+	0.9+
1994 09 29	691	0.0	0.0	2000 01 06	704	1.0−	0.1+	2000 02 11	704	0.7+	0.1+
1994 10 06	691	0.3+	0.1+	2000 01 30	858	0.5−	0.0	2000 02 11	704	0.3+	0.8−
1994 10 06	691	0.3−	0.3−	2000 01 30	858	0.1+	0.1−	2000 02 11	704	0.0	0.4−
1994 10 06	691	0.3+	0.1−	2000 01 30	858	0.2+	0.5+	2000 02 11	704	0.7+	0.4−
2000 01 04	704	0.1+	0.2−	2000 02 02	858	0.1+	0.1−				

2000 AE₆₃ = 1998 RK₃₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	43.66695	(2000.0)	
<i>n</i>	0.19226713	ω	101.79263
<i>a</i>	2.9730304	Ω	331.75136
<i>e</i>	0.2202757	<i>i</i>	9.59584
<i>P</i>	5.13	<i>H</i>	14.6

Residuals in seconds of arc

1998 09 14	704	0.2−	0.4+	2000 01 04	704	0.0	1.1−	2000 02 02	704	0.1−	0.3+
1998 09 14	704	1.1+	1.1−	2000 01 04	704	0.3−	0.3−	2000 02 02	704	0.0	0.1−
1998 09 14	704	0.7−	1.9+	2000 01 06	704	0.4−	0.3+	2000 02 02	704	0.1−	0.5−
1998 09 14	704	0.3−	0.5+	2000 01 06	704	0.3+	0.3−	2000 02 03	704	0.1+	0.3+
1998 09 18	704	1.1+	0.8+	2000 01 06	704	0.2−	0.1−	2000 02 03	704	0.0	0.3+
1998 09 18	704	1.6−	1.7−	2000 01 06	699	0.8+	1.0+	2000 02 03	704	0.6−	0.5+
1998 09 18	704	0.2−	0.0	2000 01 06	704	0.6+	0.6−	2000 02 03	704	0.1−	0.3+
1998 09 18	704	0.8+	0.8−	2000 01 06	704	0.1−	0.2−	2000 02 11	704	0.4+	0.1−
1998 09 18	704	(2.3−	0.9+)	2000 01 06	699	0.3−	1.4+	2000 02 11	704	0.2+	0.2+
2000 01 04	704	0.6−	0.1+	2000 01 06	699	(3.4−	0.2−)	2000 02 11	704	0.1+	0.6−
2000 01 04	704	0.1+	0.4+	2000 02 02	704	0.2+	0.2+	2000 02 11	704	0.3−	0.3−
2000 01 04	704	0.1+	0.9−	2000 02 02	704	0.0	0.2−				

2000 AJ₆₃ = 1978 UY₂ = 1995 QR₄ = 1997 EW₁₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	94.86187	(2000.0)	
<i>n</i>	0.28818098	ω	37.88508
<i>a</i>	2.2699999	Ω	346.68710
<i>e</i>	0.1738152	<i>i</i>	5.33603
<i>P</i>	3.42	<i>H</i>	15.2

Residuals in seconds of arc

1978 10 26	675	0.2+	1.3−	2000 01 04	704	0.3−	0.4−	2000 02 03	704	0.6−	0.1+
1978 10 27	675	0.6+	0.9−	2000 01 06	704	0.3+	0.4−	2000 02 03	704	0.0	0.2+
1995 08 20	691	0.0	0.2+	2000 01 06	704	0.1+	1.1−	2000 02 03	704	0.2−	0.5+
1995 08 20	691	0.1+	0.1−	2000 01 06	704	1.2+	0.4−	2000 02 05	704	0.3+	0.4+
1995 08 20	691	0.1+	0.2+	2000 01 06	704	0.7+	0.3−	2000 02 05	704	0.5+	0.0
1995 08 28	691	0.2−	0.3+	2000 01 06	704	0.5+	0.2−	2000 02 05	704	0.0	0.1−
1995 08 28	691	0.4−	0.3+	2000 01 30	704	0.5+	0.1−	2000 02 05	704	0.3−	0.0
1997 03 05	691	0.2−	0.6−	2000 01 30	704	0.8+	1.4+	2000 02 05	704	0.7−	0.4+
1997 03 05	691	0.1+	0.5−	2000 01 30	704	1.2+	0.3+	2000 02 05	704	1.0−	1.4+

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1997 03 05	691	0.1+	0.6−	2000 01 30	704	0.6−	0.5+	2000 02 05	704	0.2+	0.1+
1997 03 10	691	0.4−	0.6−	2000 02 02	704	0.6−	0.9+	2000 02 05	704	0.5+	0.3+
1997 03 10	691	0.6−	0.5−	2000 02 02	704	0.3+	0.2+	2000 02 05	704	0.6−	0.1−
1997 03 10	691	0.7−	0.4−	2000 02 02	704	0.3+	0.0	2000 02 11	704	0.7−	0.6−
2000 01 04	704	0.6−	0.2−	2000 02 02	704	0.5+	0.2+	2000 02 11	704	0.0	0.4−
2000 01 04	704	0.1+	0.9−	2000 02 02	704	0.3+	0.2+	2000 02 11	704	0.4−	0.0
2000 01 04	704	0.1−	0.6−	2000 02 03	704	0.2+	0.4+	2000 02 11	704	0.1+	0.8−
2000 01 04	704	0.5+	0.4+	2000 02 03	704	0.3−	0.5+	2000 02 11	704	0.2−	0.6+

2000 AT₆₃ = 1998 QF₁₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	71.96557		(2000.0)	P	Q
<i>n</i>	0.24346910	<i>ω</i>	92.95579	+0.68998667	−0.70773930
<i>a</i>	2.5400376	<i>Ω</i>	312.16116	+0.55574170	+0.65230328
<i>e</i>	0.1941765	<i>i</i>	11.81186	+0.46375593	+0.27130337
<i>P</i>	4.05	<i>H</i>	14.2	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1996 01 14	327	1.7−	1.0−	1999 12 04	703	0.5+	0.7+	2000 01 30	691	0.3−	0.4−
1996 01 14	327	0.6−	1.4−	1999 12 08	704	1.1+	0.8+	2000 01 30	703	0.2−	0.4+
1996 01 14	327	0.1−	1.3−	1999 12 08	704	1.0+	0.2+	2000 01 30	703	0.1−	1.0+
1998 07 03	699	0.6−	0.2+	1999 12 08	704	0.4+	0.2+	2000 01 30	703	0.4−	0.3+
1998 07 03	699	0.8−	0.4+	1999 12 08	704	0.9+	0.3+	2000 01 30	704	0.0	0.6+
1998 07 03	699	0.3−	0.8+	1999 12 08	704	0.8+	0.3−	2000 01 30	703	0.3−	0.3+
1998 08 17	704	0.2+	0.3+	1999 12 09	699	0.8+	1.0+	2000 01 30	704	0.3−	0.9+
1998 08 17	704	0.1+	1.1+	1999 12 09	699	1.0−	1.4+	2000 01 30	704	0.2+	0.5+
1998 08 17	704	0.4+	0.5+	1999 12 09	699	0.4−	0.6+	2000 01 30	704	0.4+	0.6+
1998 08 17	704	0.2+	0.1+	2000 01 04	704	0.2−	0.0	2000 01 30	704	0.3−	0.3+
1998 08 23	704	1.3−	0.0	2000 01 04	704	1.3+	0.0	2000 01 31	704	0.2+	0.2+
1998 08 23	704	0.1+	1.0+	2000 01 04	704	0.6−	0.0	2000 01 31	704	0.7+	0.8+
1998 08 23	704	1.4−	0.7+	2000 01 04	704	0.2−	0.0	2000 01 31	704	0.7+	0.3−
1998 08 23	704	0.4−	0.3+	2000 01 06	704	1.4−	0.1+	2000 01 31	704	0.2+	0.0
1998 08 23	704	1.3+	1.0+	2000 01 06	704	0.1+	0.0	2000 02 03	704	0.2+	0.3+
1998 09 14	699	0.3+	0.4−	2000 01 06	704	0.7−	0.3+	2000 02 03	704	0.7+	0.4+
1998 09 14	699	0.2+	1.5−	2000 01 06	704	0.5−	0.3+	2000 02 03	704	0.6+	0.3+
1998 09 14	699	0.3−	0.7−	2000 01 06	704	0.7−	0.3+	2000 02 03	704	0.7+	0.2+
1999 11 16	704	0.7−	0.7−	2000 01 11	691	0.3−	0.2−	2000 02 03	704	0.5+	0.0
1999 11 16	704	0.5−	0.5−	2000 01 11	691	0.3−	0.2−	2000 02 05	704	0.4+	0.1+
1999 11 16	704	0.5−	1.1−	2000 01 11	691	0.1−	0.0	2000 02 05	704	0.6+	0.2+
1999 11 16	704	0.5−	1.0−	2000 01 29	691	0.2−	0.3−	2000 02 05	704	0.6+	0.1+
1999 11 16	704	0.3−	0.8−	2000 01 29	691	0.0	0.4−	2000 02 05	704	0.5+	0.1+
1999 12 04	703	(2.2+	0.2−)	2000 01 29	691	0.2−	0.7−	2000 02 05	704	1.5+	0.8+
1999 12 04	703	0.3+	0.5+	2000 01 30	691	0.3−	0.6−				
1999 12 04	703	0.4+	0.1+	2000 01 30	691	0.4−	0.5−				

2000 AX₆₃ = 1995 DU₂ = 1998 XK₂₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	195.41356		(2000.0)	P	Q
<i>n</i>	0.19079806	<i>ω</i>	350.78284	+0.58664210	+0.80215207
<i>a</i>	2.9882716	<i>Ω</i>	315.03623	−0.73261700	+0.46704789
<i>e</i>	0.0945186	<i>i</i>	9.06759	−0.34514256	+0.37204612
<i>P</i>	5.17	<i>H</i>	12.5	<i>G</i>	0.15
				<i>U</i>	1

Residuals in seconds of arc

1995 02 28	596	0.4+	0.6−	1998 12 19	704	0.9+	0.2−	2000 02 03	704	0.2−	0.5+
1995 02 28	596	1.1+	0.9−	1998 12 19	704	0.7−	0.2+	2000 02 03	704	0.2−	0.5+
1995 03 06	596	1.1+	0.7+	1998 12 19	704	0.7−	0.4−	2000 02 03	704	0.1−	0.8+
1995 03 06	596	0.0	1.6−	1998 12 19	704	0.2+	0.1−	2000 02 03	704	0.5−	0.4+
1995 03 06	596	0.1+	0.0	1998 12 19	704	1.3+	1.7−	2000 02 05	704	0.0	0.4−
1995 03 06	596	0.2−	0.0	1998 12 19	704	0.9−	0.5−	2000 02 05	704	0.1−	0.1+
1995 03 07	596	0.2−	0.1−	1998 12 19	704	0.8−	0.3−	2000 02 05	704	0.1+	0.4+
1995 03 07	596	1.1−	0.0	1999 11 16	704	0.4+	0.2+	2000 02 06	704	0.2+	0.4−
1995 03 07	596	1.3−	0.1−	1999 11 16	704	0.3−	0.1−	2000 02 06	704	0.0	0.3+
1995 03 09	596	1.0−	0.2−	1999 11 16	704	0.5+	0.7+	2000 02 06	704	0.2−	0.3+
1995 03 09	596	0.3−	0.1−	1999 11 16	704	0.4−	0.3+	2000 02 06	704	0.0	0.0
1995 03 09	596	0.0	0.1+	1999 11 16	704	0.0	0.4−	2000 02 06	704	0.0	0.1−

1997 08 30	566	0.7−	0.5+	2000 01 04	704	0.4+	0.5−	2000 02 08	704	0.2−	0.6+
1997 08 30	566	0.3−	0.9+	2000 01 04	704	0.6+	0.1+	2000 02 08	704	0.0	0.4+
1997 08 30	566	0.2−	0.6+	2000 01 04	704	0.7+	0.5+	2000 02 08	704	0.2−	0.1+
1998 11 16	704	1.2−	0.6+	2000 01 04	704	0.2+	1.2+	2000 02 08	704	0.0	0.3−
1998 11 16	704	0.8+	1.0−	2000 01 04	704	0.8+	0.8+	2000 02 08	704	0.5+	0.3+
1998 11 16	704	(2.7+	1.7+)	2000 01 06	704	1.2+	0.8+	2000 02 10	691	0.4−	0.5−
1998 11 16	704	0.5+	0.5+	2000 01 06	704	0.1+	0.0	2000 02 10	691	0.6−	0.3−
1998 11 16	704	0.6+	0.8+	2000 01 06	704	0.3+	0.3+	2000 02 10	691	0.3−	0.5−
1998 12 14	704	0.7−	0.1+	2000 01 06	704	1.3+	0.2+	2000 02 11	704	0.1−	0.1−
1998 12 14	704	0.7+	0.7−	2000 01 06	704	1.2+	0.6−	2000 02 11	704	0.1+	0.4+
1998 12 14	704	(2.0−	2.1−)	2000 01 16	691	0.2−	0.2−	2000 02 11	704	0.2−	0.0
1998 12 14	704	1.0+	0.8−	2000 01 16	691	0.3−	0.3−	2000 02 11	704	0.4+	0.3+
1998 12 14	704	0.9+	1.0−	2000 01 16	691	0.4−	0.2−	2000 02 11	704	0.1−	0.1−
1998 12 17	704	(1.8−	2.2+)	2000 01 29	691	0.1−	0.1−	2000 02 11	704	0.3+	0.1+
1998 12 17	704	0.2+	0.2−	2000 01 29	691	0.2−	0.1−	2000 02 11	704	0.0	0.1−
1998 12 17	704	0.5−	0.5+	2000 01 29	691	0.1−	0.2−	2000 02 11	704	0.4+	0.8+
1998 12 17	704	0.5−	0.6+	2000 01 30	691	0.5−	0.1−	2000 02 11	704	0.1−	0.4−
1998 12 17	704	1.2−	0.1−	2000 01 30	691	0.3−	0.1−	2000 02 11	704	0.5+	0.7+
1998 12 19	704	0.2−	1.3+	2000 01 30	691	0.4−	0.1−				
1998 12 19	704	1.0+	0.3+	2000 02 03	704	0.0	0.0				

2000 AZ₆₃ = 1992 EH₂₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	39.02338		(2000.0)	P	Q
<i>n</i>	0.24257863	<i>ω</i>	124.14687	+0.01595039	−0.99823828
<i>a</i>	2.5462499	<i>Ω</i>	324.80450	+0.88162970	+0.04100324
<i>e</i>	0.1661722	<i>i</i>	5.69036	+0.47167219	−0.04288440
<i>P</i>	4.06	<i>H</i>	14.7	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1992 02 27	675	0.0	1.6+	1999 12 08	704	1.6+	1.0+	2000 01 30	704	0.1−	0.9+
1992 02 27	675	0.5−	0.5−	1999 12 08	704	0.7−	0.9+	2000 01 30	704	0.1+	0.0
1992 02 28	675	0.4−	0.1−	1999 12 08	704	0.2+	0.9+	2000 01 30	704	0.6+	0.9−
1992 02 28	675	1.0+	1.5−	1999 12 08	704	0.0	0.1−	2000 02 03	704	0.5−	0.0
1992 03 02	809	1.5−	0.2−	2000 01 04	704	0.5+	0.1+	2000 02 03	704	0.1−	0.3+
1992 03 04	809	0.9+	0.1−	2000 01 04	704	0.2−	0.6−	2000 02 03	704	0.0	0.3+
1992 03 07	809	(7.6−	8.6−)	2000 01 04	704	0.4+	0.4−	2000 02 03	704	0.3−	0.1+
1999 12 08	704	0.5−	0.8−	2000 01 04	704	0.2+	0.7−	2000 02 03	704	0.3+	0.2+
1999 12 08	704	0.7−	0.6−	2000 01 04	704	0.1−	0.7−	2000 02 11	704	0.3−	0.3+
1999 12 08	704	0.3−	0.2−	2000 01 06	704	0.2−	0.2−	2000 02 11	704	0.3+	0.1−
1999 12 08	704	1.2−	0.3−	2000 01 06	704	0.4+	0.6−	2000 02 11	704	0.4+	0.9+
1999 12 08	704	0.4+	0.7+	2000 01 06	704	0.5−	0.7−	2000 02 11	704	0.1+	0.5+
1999 12 08	704	0.5+	0.1−	2000 01 30	704	0.0	0.4+	2000 02 11	704	0.2−	0.3+

2000 AA₆₄ = 1998 XR₅₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	290.74785		(2000.0)	P	Q
<i>n</i>	0.12286732	<i>ω</i>	97.20449	−0.78236339	+0.61218271
<i>a</i>	4.0072378	<i>Ω</i>	120.61272	−0.61098165	−0.71866178
<i>e</i>	0.0778901	<i>i</i>	7.65411	−0.12086749	−0.3297

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1998 12 22 704 0.6+ 0.1+ 2000 01 04 704 0.0 0.2+ 2000 02 11 704 0.2- 0.4+
 1998 12 22 704 1.4+ 0.7- 2000 01 04 704 0.4- 0.4-
 1998 12 22 704 0.3- 0.3+ 2000 01 04 704 0.7- 0.0

2000 AD₆₄ = 1978 VO₉ = 1998 SE₁₂₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		(2000.0)		Williams		Q	
<i>M</i>	242.57194	<i>P</i>		<i>P</i>		<i>Q</i>	
<i>n</i>	0.28974063	<i>ω</i>	182.03579	-0.00088560	+0.99931077		
<i>a</i>	2.2618464	<i>Ω</i>	87.91487	-0.91695616	+0.01399521		
<i>e</i>	0.1186934	<i>i</i>	2.12819	-0.39898698	-0.03438204		
<i>P</i>	3.40	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1978 11 05	675	0.4+	0.3+	1998 09 27	704	1.0-	0.4-	2000 01 25	120	0.7-	0.3+
1978 11 06	675	1.9-	0.6-	1998 09 27	704	1.0-	0.9-	2000 01 25	120	0.7-	0.5-
1978 11 07	675	1.4+	0.9+	1998 10 10	699	0.3+	0.4+	2000 01 26	120	0.0	0.7-
1978 11 08	675	0.0	0.6+	1998 10 10	699	0.3-	0.8+	2000 01 26	120	0.9-	0.2-
1997 04 06	566	0.1+	0.2-	1998 10 10	699	0.6-	0.5+	2000 01 30	703	0.7-	0.3+
1997 04 06	566	0.1-	0.2-	1998 11 11	699	0.7+	0.5+	2000 01 30	703	0.1+	0.9+
1997 04 06	566	0.3-	0.4-	1998 11 11	699	0.8+	0.2-	2000 01 30	703	0.3-	0.4+
1998 09 18	699	0.2+	1.2+	1998 11 11	699	0.9+	0.1+	2000 01 30	703	0.5+	0.3+
1998 09 18	699	0.2+	0.4-	2000 01 04	704	0.8-	0.0	2000 02 03	704	0.0	0.2+
1998 09 18	699	0.7+	0.8+	2000 01 04	704	0.4-	0.7-	2000 02 03	704	0.3+	0.3+
1998 09 26	704	1.1-	1.3-	2000 01 04	704	0.2-	0.7-	2000 02 03	704	0.0	0.1+
1998 09 26	704	0.7+	0.9-	2000 01 04	704	0.4-	1.9-	2000 02 03	704	0.7-	0.3+
1998 09 26	704	1.1+	0.3-	2000 01 04	704	0.3+	1.5-	2000 02 03	704	0.1+	1.4+
1998 09 26	704	0.2+	0.1-	2000 01 06	704	0.0	0.4-	2000 02 11	704	1.1+	0.1+
1998 09 26	704	0.1+	0.1+	2000 01 06	704	0.3+	0.3-	2000 02 11	704	0.0	0.6+
1998 09 27	704	1.0-	0.7-	2000 01 06	704	0.8+	0.1+	2000 02 11	704	0.7+	0.1-
1998 09 27	704	0.7+	0.0	2000 01 06	704	0.4-	0.1+	2000 02 11	704	1.2+	0.0
1998 09 27	704	0.9-	0.3-	2000 01 25	120	0.6-	0.3+	2000 02 11	704	0.6+	0.1+

2000 AE₆₄ = 1988 PF

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		(2000.0)		Williams		Q	
<i>M</i>	275.54805	<i>P</i>		<i>P</i>		<i>Q</i>	
<i>n</i>	0.22571369	<i>ω</i>	122.40552	-0.30604056	+0.93162182		
<i>a</i>	2.6715549	<i>Ω</i>	128.50161	-0.93575473	-0.25647332		
<i>e</i>	0.2234765	<i>i</i>	14.50492	-0.17522061	-0.25749218		
<i>P</i>	4.37	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1988 08 09	675	(5.0+	0.0)	2000 01 06	704	0.5-	0.9+	2000 01 30	120	0.1+	0.4-
1988 08 11	675	0.5+	0.1+	2000 01 06	704	0.5-	0.6-	2000 01 30	120	0.0	0.6-
1988 09 07	675	0.9-	1.0-	2000 01 06	704	1.2-	0.7+	2000 02 03	704	0.2+	0.0
1988 09 07	675	0.3+	0.8+	2000 01 26	120	0.1-	0.1+	2000 02 03	704	0.1-	0.2-
1999 12 07	704	0.3-	0.4+	2000 01 26	120	0.1+	0.6-	2000 02 03	704	0.2+	0.0
1999 12 07	704	0.1-	0.2-	2000 01 26	120	0.4+	0.0	2000 02 03	704	0.3+	0.1+
1999 12 07	704	0.1-	0.1-	2000 01 27	120	0.7+	0.2-	2000 02 03	704	0.2+	0.2-
1999 12 07	704	1.0+	0.4+	2000 01 27	120	0.0	0.6-	2000 02 11	704	0.5+	0.5+
1999 12 07	704	0.3+	0.7+	2000 01 30	703	0.3-	0.7+	2000 02 11	704	(3.8+	0.1+)
2000 01 04	704	0.2-	0.4-	2000 01 30	703	0.3-	0.2+	2000 02 11	704	(1.0-	2.4+)
2000 01 04	704	0.2+	0.7-	2000 01 30	703	0.2-	0.2+	2000 02 11	704	0.3+	0.5+
2000 01 04	704	0.1+	0.4-	2000 01 30	704	0.0	0.0	2000 02 11	704	0.3-	0.7+
2000 01 04	704	0.5-	0.7-	2000 01 30	703	0.2-	0.3+	2000 02 11	120	0.1+	0.6-
2000 01 04	704	0.2+	0.1-	2000 01 30	704	0.7+	0.6+	2000 02 11	120	0.0	0.0
2000 01 06	704	0.4+	0.0	2000 01 30	704	0.0	0.1+	2000 02 11	120	0.9-	0.2+
2000 01 06	704	0.3-	0.4+	2000 01 30	704	0.1-	0.9-				

2000 AF₆₄ = 1998 SL₁₂₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		(2000.0)		Williams		Q	
<i>M</i>	287.63858	<i>P</i>		<i>P</i>		<i>Q</i>	
<i>n</i>	0.27611623	<i>ω</i>	105.47984	-0.74511551	+0.66210278		
<i>a</i>	2.3356518	<i>Ω</i>	116.05373	-0.64099359	-0.67775510		
<i>e</i>	0.0639743	<i>i</i>	5.11801	-0.18420125	-0.31979358		
<i>P</i>	3.57	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 26	704	0.2-	0.5+	2000 01 04	704	0.9+	0.1+	2000 01 30	704	0.3+	0.8+
1998 09 26	704	0.5+	0.9-	2000 01 04	704	0.9+	0.4+	2000 01 30	703	0.2+	0.2-
1998 09 26	704	1.3+	0.2-	2000 01 04	704	0.6+	0.0	2000 01 30	704	0.0	0.3-
1998 09 26	704	0.4+	0.6-	2000 01 06	704	0.1-	0.0	2000 01 30	704	0.7+	0.1+
1998 09 26	704	0.8+	1.5+	2000 01 06	704	0.8-	0.1+	2000 01 30	704	0.6+	0.4+
1998 09 27	704	0.0	0.5+	2000 01 06	704	1.0-	0.4-	2000 02 03	704	0.3+	0.5+
1998 09 27	704	0.5-	0.0	2000 01 06	704	0.4-	0.4+	2000 02 03	704	0.0	0.0
1998 09 27	704	0.2+	0.6-	2000 01 06	704	0.7-	0.1+	2000 02 03	704	0.6-	0.0
1998 09 27	704	1.4-	0.9+	2000 01 25	120	0.5-	0.0	2000 02 03	704	0.2-	0.2+
1998 09 27	704	1.2-	1.0-	2000 01 25	120	0.4+	0.8-	2000 02 03	704	0.3-	0.4+
1999 12 07	704	0.3-	0.5-	2000 01 25	120	0.6-	0.9-	2000 02 11	704	0.0	0.3-
1999 12 07	704	1.2+	0.8+	2000 01 26	120	0.3-	0.4-	2000 02 11	704	0.1+	0.2+
1999 12 07	704	0.5-	0.0	2000 01 26	120	0.2-	0.7-	2000 02 11	704	0.3+	0.1-
1999 12 07	704	0.2-	0.3-	2000 01 30	703	0.4-	0.5+	2000 02 11	704	0.5+	0.0
1999 12 07	704	0.2+	0.1-	2000 01 30	703	0.4-	1.0+	2000 02 11	704	0.3+	0.3+
2000 01 04	704	0.3+	1.7-	2000 01 30	703	0.3-	0.5+				

2000 AL₆₄ = 1989 SX₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		(2000.0)		Williams		Q	
<i>M</i>	146.85114	<i>P</i>		<i>P</i>		<i>Q</i>	
<i>n</i>	0.22135576	<i>ω</i>	291.61784	+0.97222640	+0.22848534		
<i>a</i>	2.7065050	<i>Ω</i>	55.20821	-0.18534433	+0.88392154		
<i>e</i>	0.0959181	<i>i</i>	3.53935	-0.14291013	+0.40801612		
<i>P</i>	4.45	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1989 09 26	809	1.6-	0.4+	1998 11 11	704	0.2-	1.3-	2000 02 03	704	0.3+	0.1+
1989 09 26	809	1.1-	1.0+	1998 11 11	704	0.3+	0.2-	2000 02 03	704	0.5-	0.5+
1989 09 26	809	0.7+	0.5+	1998 11 11	704	0.2+	0.3-	2000 02 03	704	0.3+	0.2+
1989 09 28	809	0.1-	0.1-	1999 11 16	704	1.5+	0.8-	2000 02 03	704	0.0	0.4+
1989 09 28	809	0.5-	0.6-	1999 11 16	704	0.8+	0.7+	2000 02 03	704	0.2-	0.2+
1989 09 28	809	0.2+	0.3-	1999 11 16	704	0.3-	0.2+	2000 02 10	704	0.1-	0.6+
1989 09 29	675	0.7+	0.6-	2000 01 04	704	0.1+	0.5-	2000 02 10	704	0.1-	0.1-
1989 09 29	675	0.3+	1.1-	2000 01 04	704	0.5+	0.0	2000 02 10	704	0.1-	0.2+
1989 10 03	809	2.1+	0.4+	2000 01 04	704	1.3-	0.9-	2000 02 10	704	0.1+	0.3+
1989 10 03	809	1.1+	1.0+	2000 01 04	704	0.1-	0.1-	2000 02 10	704	0.1+	0.4+
1989 10 03	809	2.1+	0.8+	2000 01 04	704	0.8-	0.3+	2000 02 11	704	0.3+	0.1+
1989 10 07	809	1.2-	0.1-	2000 01 06	704	0.4-	0.8-	2000 02 11	704	0.3+	0.1-
1989 10 07	809	1.6-	0.3+	2000 01 06	704	0.2-	0.7-	2000 02 11	704	0.8-	0.6+
1989 10 07	809	1.9-	0.3+	2000 01 06	699	0.0	0.2+	2000 02 11	704	0.5-	0.0
1996 03 26	566	0.2+	0.1+	2000 01 06	704	0.2-	0.2-	2000 02 11	704	0.0	0.5+
1996 03 26	566	0.2-	0.1+	2000 01 06	704	0.0	0.3+	2000 02 11	704	0.2+	0.5-
1996 03 26	566	0.2+	0.0	2000 01 06	699	0.1+	0.2-	2000 02 11	704	0.6-	0.2-
1998 10 20	699	0.1-	0.1+	2000 01 06	704	0.3-	0.8-	2000 02 11	704	0.2-	0.4+
1998 10 20	699	0.1-	0.8+	2000 01 06	704	0.1-	0.3-	2000 02 11	704	0.6+	0.2-
1998 10 20	699	0.6-	0.4+	2000 01 06	699	0.3+	0.3-	2000 02 11	704	0.4-	0.6+
1998 11 11	704	0.0	0.2+	2000 01 06	704	0.6+	0.1-				
1998 11 11	704	1.2+	1.1-	2000 01 06	704	1.3+	0.4+				

2000 AN₆₄ = 1998 RL₁₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		(2000.0)		Williams		Q	
<i>M</i>	59.13684	<i>P</i>		<i>P</i>		<i>Q</i>	
<i>n</i>	0.21895618	<i>ω</i>	83.04285	+0.5			

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1998 08 23	704	1.7−	1.4+	2000 01 04	704	0.3−	1.5−	2000 02 03	704	0.5+	0.5+
1998 08 23	704	(1.4+	4.0+)	2000 01 04	704	0.6−	1.2−	2000 02 03	704	0.4+	0.3+
1998 08 23	704	(3.9−	0.7−)	2000 01 04	704	0.1+	1.0+	2000 02 11	704	0.4−	0.3+
1998 09 14	704	0.9−	0.2+	2000 01 04	704	0.4+	0.5−	2000 02 11	704	0.4+	0.8+
1998 09 14	704	1.6+	0.5+	2000 01 06	704	0.4−	1.1−	2000 02 11	704	0.3+	0.0
1998 09 14	704	0.3−	0.4−	2000 01 06	704	0.8−	0.4−	2000 02 11	704	0.1−	0.4+
1998 09 14	704	0.1+	0.8+	2000 01 06	704	1.3−	0.9+	2000 02 11	704	0.1−	0.4+
1998 09 14	704	(0.1+	2.2−)	2000 01 06	704	0.3−	0.8−				
1998 09 18	704	(0.9−	2.5−)	2000 01 06	704	0.1−	0.0				

2000 AR₆₄ = 1996 EU

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	283.94087		(2000.0)		P		Q
<i>n</i>	0.23593639	ω	252.59613	−0.57239149		+0.81882835	
<i>a</i>	2.5938176	Ω	342.27859	−0.68767956		−0.50822663	
<i>e</i>	0.1616410	<i>i</i>	8.20719	−0.44661484		−0.26688167	
<i>P</i>	4.18	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1996 03 15	566	0.6+	0.5+	2000 01 04	704	0.0	0.7+	2000 01 30	704	0.2−	0.4−
1996 03 15	566	1.3+	0.6+	2000 01 04	704	0.5−	0.3−	2000 02 03	704	0.5−	0.5−
1996 03 15	566	1.1+	0.5+	2000 01 06	704	0.0	0.0	2000 02 03	704	0.7−	0.6−
1996 03 17	566	0.1−	0.1−	2000 01 06	704	1.5+	0.5−	2000 02 03	704	0.0	0.2+
1996 03 17	566	0.7−	0.2−	2000 01 06	704	0.1+	0.1−	2000 02 03	704	0.2−	0.1−
1996 03 17	566	0.0	0.2+	2000 01 06	704	0.3+	0.0	2000 02 03	704	0.2+	0.4−
1996 03 17	691	1.0−	0.2−	2000 01 06	704	0.1+	0.8+	2000 02 11	704	0.3+	0.1+
1996 03 17	691	0.4−	0.6−	2000 01 06	704	0.8−	0.8−	2000 02 11	704	0.5−	0.3+
1996 03 17	691	0.5−	0.4−	2000 01 06	704	0.3+	0.3+	2000 02 11	704	0.1−	0.1+
2000 01 04	704	0.4+	0.6+	2000 01 06	704	0.3−	0.3+	2000 02 11	704	0.1+	0.3−
2000 01 04	704	0.5+	0.4+	2000 01 30	704	0.2−	0.5−	2000 02 11	704	0.4−	0.2+
2000 01 04	704	0.6+	0.0	2000 01 30	704	0.0	0.0				

2000 AT₆₄ = 1975 TH = 1983 CY = 1986 RD₁₅ = 1987 YZ₂

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	33.84538		(2000.0)		P		Q
<i>n</i>	0.17444959	ω	120.82842	−0.18452623		−0.98098414	
<i>a</i>	3.1721673	Ω	339.54398	+0.83266179		−0.12351609	
<i>e</i>	0.0853348	<i>i</i>	9.91346	+0.52213449		−0.14971272	
<i>P</i>	5.65	<i>H</i>	12.5	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1975 10 03	095	1.6−	0.1−	1998 11 16	704	(3.9−	1.3−)	2000 01 28	372	0.8+	0.7+
1983 02 15	688	0.1+	2.0−	1999 12 08	704	(0.2−	2.3+)	2000 01 28	372	0.4−	0.2−
1983 02 15	688	0.2−	1.8−	1999 12 08	704	1.1+	1.2+	2000 01 30	704	0.0	0.3+
1983 02 19	688	0.5−	2.1−	1999 12 08	704	(2.1+	0.7−)	2000 01 30	704	0.0	0.1+
1983 02 19	688	(0.2−	2.9−)	2000 01 04	704	0.8+	0.2−	2000 01 30	704	0.1+	0.2+
1986 09 12	095	0.2−	0.8+	2000 01 04	704	0.3+	0.1+	2000 01 30	704	0.2+	0.8+
1987 12 20	010	0.4−	0.4−	2000 01 04	704	0.0	0.5+	2000 01 30	704	0.0	0.6+
1987 12 20	010	0.7+	0.1−	2000 01 04	704	0.6+	0.0	2000 01 30	372	1.3+	0.1−
1987 12 20	010	1.2−	0.5−	2000 01 04	704	0.2−	0.4+	2000 01 31	372	(0.7−	2.0−)
1998 10 03	699	0.1−	0.0	2000 01 04	411	0.7−	0.4+	2000 02 03	704	0.5−	0.0
1998 10 03	699	(2.7−	0.2−)	2000 01 04	411	0.3+	1.2+	2000 02 03	704	0.3−	0.5+
1998 10 03	699	0.5−	0.1−	2000 01 06	704	0.4+	0.0	2000 02 03	704	0.1−	0.1−
1998 11 14	704	0.4+	0.0	2000 01 06	704	0.3+	0.4+	2000 02 03	704	0.3−	0.4+
1998 11 14	704	0.4+	0.1−	2000 01 06	704	0.1−	0.2+	2000 02 03	704	0.1−	0.1−
1998 11 14	704	1.2+	1.1−	2000 01 06	699	0.2+	0.4+	2000 02 11	704	0.1+	0.0
1998 11 14	704	1.1+	0.5−	2000 01 06	704	0.2−	0.1+	2000 02 11	704	0.3−	0.2−
1998 11 14	704	0.4+	0.7−	2000 01 06	699	0.1−	0.5+	2000 02 11	704	0.1−	0.1−
1998 11 16	704	(2.6−	4.9+)	2000 01 06	704	0.8−	0.2+	2000 02 11	704	0.1+	0.1−
1998 11 16	704	0.1+	0.9+	2000 01 06	699	0.2+	0.5+	2000 02 11	704	0.1−	0.1−
1998 11 16	704	0.3+	1.5+	2000 01 07	411	0.0	0.4−				
1998 11 16	704	0.7−	0.1−	2000 01 07	411	0.6−	0.5−				

2000 AC₆₆ = 1998 VD₂₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	74.27734		(2000.0)		P		Q
<i>n</i>	0.18791432	ω	343.21177	+0.46165130		−0.88553482	
<i>a</i>	3.0187661	Ω	79.26880	+0.81982519		+0.40352925	
<i>e</i>	0.0733421	<i>i</i>	3.03504	+0.33876944		+0.23020039	
<i>P</i>	5.24	<i>H</i>	13.1	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1996 06 12	566	0.0	0.1−	1998 12 08	704	1.5−	0.1−	1999 12 06	704	0.9+	0.6−
1996 06 12	566	0.2−	0.3−	1998 12 08	704	1.7−	0.6−	2000 01 04	704	0.1+	0.4+
1996 06 12	566	0.1+	0.0	1998 12 08	699	0.1−	0.4+	2000 01 04	704	0.3+	0.6−
1998 10 18	699	(3.5+	1.6−)	1998 12 08	699	0.2+	0.5+	2000 01 04	704	0.8+	0.5+
1998 10 18	699	(1.3+	2.5−)	1998 12 08	699	0.6−	0.1+	2000 01 04	704	0.3−	0.3−
1998 10 18	699	1.0−	1.4+	1999 01 06	699	0.2+	0.7−	2000 01 04	704	0.2+	0.2−
1998 11 10	704	0.0	0.5+	1999 01 06	699	0.6+	0.4−	2000 01 06	704	0.6+	0.4−
1998 11 10	704	0.2+	0.2+	1999 01 06	699	0.5+	0.6−	2000 01 06	704	0.3−	0.6−
1998 11 10	704	0.2+	0.4+	1999 11 05	703	0.5−	0.1−	2000 01 06	704	0.2+	0.2+
1998 11 10	704	0.7+	0.7+	1999 11 05	703	(0.2−	2.3−)	2000 01 06	704	0.1−	0.6+
1998 11 10	704	1.3−	1.4+	1999 11 05	703	0.1+	0.3+	2000 01 06	704	0.5−	0.2+
1998 11 11	704	0.3+	0.4−	1999 11 05	703	0.4+	1.4+	2000 01 30	704	0.3−	0.4+
1998 11 11	704	0.7+	0.7−	1999 11 16	704	0.1+	0.9+	2000 01 30	704	0.2+	0.1−
1998 11 11	704	0.4+	0.9−	1999 11 16	704	0.4+	0.8−	2000 01 30	704	0.2−	0.2−
1998 11 11	704	0.9+	0.4−	1999 11 16	704	0.8−	0.4−	2000 01 30	704	0.1+	0.3+
1998 11 11	704	0.2+	1.2−	1999 11 16	704	0.7+	0.4+	2000 02 03	704	0.2−	0.4+
1998 11 11	699	0.3+	0.3−	1999 11 16	704	0.6−	0.1−	2000 02 03	704	0.3−	0.2−
1998 11 11	699	0.2+	0.3+	1999 12 04	703	0.3+	0.4−	2000 02 03	704	0.3−	0.0
1998 11 11	699	0.2+	0.5+	1999 12 04	703	0.4−	1.1+	2000 02 03	704	1.0−	0.0
1998 11 24	699	0.5+	0.4+	1999 12 04	703	0.2−	0.4+	2000 02 03	704	0.5−	0.0
1998 11 24	699	0.7+	0.6+	1999 12 04	703	0.1−	0.3−	2000 02 11	704	0.0	0.0
1998 11 24	699	0.2+	0.3+	1999 12 06	704	0.8+	0.2−	2000 02 11	704	0.1+	0.4−
1998 12 08	704	1.2+	1.0−	1999 12 06	704	0.1+	0.3−	2000 02 11	704	0.0	0.1−
1998 12 08	704	0.5−	1.6−	1999 12 06	704	0.6+	0.7−	2000 02 11	704	0.1+	0.6+
1998 12 08	704	1.4−	0.0	1999 12 06	704	0.1−	0.9−	2000 02 11	704	0.1+	0.2+

2000 AD₆₆ = 1981 UD₁₅ = 1988 VG₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	81.10514		(2000.0)		P		Q
<i>n</i>	0.28136283	ω	343.49611	+0.74059700		−0.67189408	
<i>a</i>	2.3065254	Ω	58.72054	+0.61763671		+0.67562241	
<i>e</i>	0.1913408	<i>i</i>	0.57841	+0.26465257		+0.30346779	
<i>P</i>	3.50	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1981 10 23	095	1.5+	2.0−	1999 12 04	703	0.3−	0.3−	2000 01 30	704	0.5−	0.5+
1988 11 02	399	1.1−	1.7+	2000 01 04	704	0.3+	0.2−	2000 01 30	704	0.4−	0.8+
1988 11 02	399	0.5+	0.0	2000 01 04	704	0.2+	0.1−	2000 01 30	704	0.4+	0.6+
1988 11 02	399	(6.3+	3.4+)	2000 01 04	704	0.4−	0.5−	2000 01 30	703	0.3+	0.2+
1988 11 03	327	0.3−	0.2+	2000 01 04	704	0.7−	0.6−	2000 01 30	703	0.1+	0.3+
1988 11 03	327	1.0−	0.5+	2000 01 04	704	1.2−	0.6−	2000 01 30	703	0.5−	0.3+
1988 11 04	046	1.3+	0.9−	2000 01 06	704	0.1+	0.2+	2000 01 30	703	0.1+	0.6+
1988 11 04	046	(2.6+	1.6−)	2000 01 06	704	0.9+	0.2−	2000 02 03	704	0.1+	0.3−
1988 11 05	046	0.2+	1.0−	2000 01 06	704	0.6+	0.1+	2000 02 03	704	0.5−	0.1+
1988 11 11	046	0.0	0.6+	2000 01 06	704	0.7−	0.2+	2000 02 03	704	0.0	0.1−
1988 11 11	046	1.6−	0.7−	2000 01 07	704	0.1+	0.0	2000 02 03	704	0.0	0.4+
1996 02 08	327	0.7+	0.9+	2000 01 07	704	0.0	0.2−	2000 02 03	704	0.0	0.1+
1996 02 08	327	0.6+	1.1+	2000 01 07	704	0.1−	0.1+	2000 02 11	704	0.3−	0.1+
1996 02 08	327	0.5+	1.1+	2000 01 07	704	0.3−	0.4+	2000 02 11	704	0.1−	0.2−
1997 04 03	704	0.6+	0.1−	2000 01 07	704	0.1−	0.3−	2000 02 11	704	0.5+	0.0
1997 04 03	704	0.5−	0.6−	2000 01 28	691	0.2−	0.6−	2000 02 11	704	0.4+	0.1+
1999 12 04	703	0.3+	0.1+	2000 01 28	691	0.1−	0.6−	2000 02 11	704	1.6+	0.6−
1999 12 04	703	0.7−	0.4−	2000 01 28	691	0.1−	0.6−				
1999 12 04	703	0.6−	0.5+	2000 01 30	704	0.1+	0.0				

2000 AZ₆₆ = 1996 LT₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.18631407	ω	207.28468	+0.75746658	+0.62625152		
<i>a</i>	3.0360269	Ω	112.71264	−0.55658350	+0.76716172		
<i>e</i>	0.1291916	<i>i</i>	11.53982	−0.34126118	+0.13882340		
<i>P</i>	5.29	<i>H</i>	12.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1996 06 15	691	0.0	0.1+	2000 01 04	704	0.1−	0.3−	2000 01 29	703	0.1+	0.0
1996 06 15	691	0.0	0.0	2000 01 04	704	0.2+	0.7−	2000 01 29	703	0.2−	1.3+
1996 06 15	691	0.1−	0.0	2000 01 04	704	0.2−	0.5−	2000 01 29	703	0.3+	0.3+
1996 06 20	691	0.1−	0.0	2000 01 04	704	0.7+	0.5+	2000 01 30	703	0.0	0.1−
1996 06 20	691	0.0	0.2−	2000 01 04	704	0.4−	0.1+	2000 01 30	703	0.3+	0.2−
1996 06 20	691	0.1+	0.0	2000 01 06	704	0.5+	0.5−	2000 01 30	703	0.2+	0.0
1999 11 16	704	0.9+	0.5+	2000 01 06	704	0.3−	1.3−	2000 01 30	703	1.4−	0.2−
1999 11 16	704	0.2−	0.4−	2000 01 06	704	0.3+	0.5−	2000 02 06	703	0.3+	0.1+
1999 11 16	704	0.3−	0.5−	2000 01 06	704	0.4+	0.7+	2000 02 06	703	0.1+	0.2+
1999 11 16	704	0.1−	0.3+	2000 01 06	704	0.0	0.5−	2000 02 06	703	1.6−	0.8+
1999 11 16	704	0.4+	0.2−	2000 01 29	703	0.3+	0.2+	2000 02 06	703	0.0	0.7+

2000 AP₆₇ = 1998 SK₉₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.27424114	ω	261.90415	−0.60182640	+0.79838764		
<i>a</i>	2.3462861	Ω	331.06696	−0.71589260	−0.55016785		
<i>e</i>	0.0487478	<i>i</i>	2.31587	−0.35398133	−0.24472948		
<i>P</i>	3.59	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 09 26	704	0.3−	1.6+	2000 01 06	704	0.2−	0.3−	2000 02 03	704	0.6+	0.4+
1998 09 26	704	0.4+	0.0	2000 01 06	704	0.8+	0.3+	2000 02 03	704	0.6+	0.7+
1998 09 26	704	0.4−	0.6−	2000 01 16	120	0.0	0.7+	2000 02 03	704	0.2+	0.5+
1998 09 26	704	0.5−	0.5+	2000 01 17	120	1.5+	0.4−	2000 02 03	704	0.1+	0.2+
1998 09 26	704	0.2+	1.4−	2000 01 17	120	0.9+	0.4−	2000 02 03	704	0.8+	0.1−
1998 09 27	704	0.2+	0.6−	2000 01 25	120	0.3−	0.5−	2000 02 05	704	0.3+	0.3+
1998 09 27	704	0.7+	0.0	2000 01 25	120	1.6−	0.0	2000 02 05	704	0.2−	0.0
1998 09 27	704	0.4−	0.9+	2000 01 25	120	1.3−	0.3−	2000 02 05	704	0.0	0.5+
1998 09 27	704	(3.0−	0.5−)	2000 01 29	691	0.2+	0.3−	2000 02 11	704	0.2+	0.4+
2000 01 04	704	0.6−	0.1−	2000 01 29	691	0.2+	0.3−	2000 02 11	704	0.0	0.1+
2000 01 04	704	0.0	0.2+	2000 01 29	691	0.2+	0.3−	2000 02 11	704	0.1−	0.2+
2000 01 04	704	1.2−	1.4−	2000 01 30	703	0.6+	0.2+	2000 02 11	704	0.7−	0.0
2000 01 04	704	0.1+	0.2−	2000 01 30	703	0.4+	0.0	2000 02 11	704	0.5−	0.0
2000 01 06	704	0.2−	0.2−	2000 01 30	703	0.5−	0.1−				
2000 01 06	704	1.0−	0.4−	2000 01 30	703	0.4+	0.4+				

2000 AD₆₈ = 1999 AO₈

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.18773729	ω	267.80162	+0.95472509	−0.23238985		
<i>a</i>	3.0206635	Ω	105.59535	+0.28459748	+0.89528035		
<i>e</i>	0.1055408	<i>i</i>	11.11783	−0.08662725	+0.38008952		
<i>P</i>	5.25	<i>H</i>	12.2	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 10 19	699	1.0−	0.1+	1999 01 10	699	0.1+	0.4−	2000 01 04	704	0.7−	0.3−
1998 10 19	699	0.8−	1.0+	1999 02 15	699	0.3−	0.2+	2000 01 04	704	0.3−	0.2+
1998 10 19	699	0.3−	0.6+	1999 02 15	699	0.4+	0.2+	2000 01 06	704	0.1+	0.4−
1998 11 13	704	1.0+	0.5+	1999 02 15	699	0.0	0.1+	2000 01 06	704	1.0+	0.5+
1998 11 13	704	0.3+	0.1+	1999 11 16	704	0.6−	0.0	2000 01 06	704	0.4+	0.1+
1998 11 13	704	0.2+	0.5−	1999 11 16	704	0.2−	0.5−	2000 01 06	704	0.5+	0.7+
1998 11 13	704	1.3+	1.2+	1999 11 16	704	0.4+	0.0	2000 01 27	411	0.9−	0.7−
1998 11 13	704	1.1−	0.2−	1999 11 16	704	0.3+	0.3+	2000 01 27	411	0.7−	0.4−
1998 11 16	699	0.1−	0.3−	1999 11 16	704	0.2+	0.2−	2000 01 28	411	0.3−	0.4−

1998 11 16	699	0.1−	0.1+	1999 12 06	704	0.5−	0.0	2000 01 28	411	0.6−	0.1+
1998 11 16	699	0.2−	0.1+	1999 12 06	704	0.4+	0.3−	2000 02 03	704	0.0	0.5+
1998 12 15	704	0.5−	0.3+	1999 12 06	704	0.1+	0.3−	2000 02 03	704	0.2+	0.5+
1998 12 15	704	0.0	0.4−	1999 12 06	704	0.7+	0.6+	2000 02 03	704	0.0	0.2+
1998 12 15	704	1.0+	0.4−	1999 12 06	704	1.1+	0.3+	2000 02 03	704	0.1−	0.4+
1998 12 15	704	0.1−	0.0	1999 12 15	704	0.5+	1.7−	2000 02 03	704	0.1−	0.1+
1998 12 15	704	0.4+	0.2+	1999 12 15	704	0.2−	0.6−	2000 02 06	703	0.1−	0.3+
1999 01 07	699	0.4−	0.7−	1999 12 15	704	0.4+	0.6−	2000 02 06	703	0.1−	0.1+
1999 01 07	699	0.1+	0.4−	1999 12 15	704	0.6+	1.9+	2000 02 06	703	0.4+	0.2+
1999 01 07	699	0.4−	0.5−	2000 01 04	704	0.2−	0.7−	2000 02 06	703	0.5−	0.9+
1999 01 10	699	0.1+	0.4−	2000 01 04	704	0.2+	0.6−				
1999 01 10	699	0.0	0.6−	2000 01 04	704	0.4−	0.3+				

2000 AP₇₀ = 4376 T-1 = 1998 MX₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26676942	ω	327.03162	−0.20577222	−0.97662255		
<i>a</i>	2.3898943	Ω	134.75621	+0.91573669	−0.21457044		
<i>e</i>	0.1668126	<i>i</i>	5.02338	+0.34508564	−0.01295840		
<i>P</i>	3.69	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1971 03 24	675	(4.4+	2.4−)	1999 12 06	704	0.2+	0.1+	2000 01 06	704	0.2−	0.4−
1971 03 26	675	0.2−	0.0	1999 12 14	704	0.5+	0.1−	2000 01 06	704	0.7−	0.3−
1971 03 26	675	0.1−	0.2−	1999 12 14	704	0.5+	0.2−	2000 02 02	704	0.3−	0.3−
1971 03 27	675	0.4−	2.3−	1999 12 14	704	0.5+	0.2−	2000 02 02	704	1.2−	0.1−
1971 04 02	675	0.4+	1.5+	1999 12 14	704	0.2+	0.4−	2000 02 02	704	0.1+	0.3+
1998 06 21	691	0.1+	0.3−	1999 12 14	704	0.0	0.1+	2000 02 02	704	(0.3−	3.1+)
1998 06 21	691	0.4−	0.3+	2000 01 05	704	0.1+	0.2−	2000 02 02	704	0.4+	1.4+
1998 06 21	691	0.3−	0.1+	2000 01 05	704	0.1−	0.4−	2000 02 03	704	0.1−	0.2+
1998 06 25	691	0.1+	0.0	2000 01 05	704	0.2−	0.3−	2000 02 03	704	0.6−	0.4+
1998 06 25	691	0.2+	0.1+	2000 01 05	704	0.4−	0.3−	2000 02 03	704	0.1−	0.9+
1998 06 25	691	0.2+	0.2+	2000 01 05	704	0.4−	0.4−	2000 02 03	704	0.1+	0.8+
1999 12 06	704	0.3+	0.1−	2000 01 06	704	0.0	0.0	2000 02 03	704	0.0	1.5+
1999 12 06	704	0.2+	0.0	2000 01 06	704	0.5−	0.2−				
1999 12 06	704	1.1+	0.5−	2000 01 06	704	0.3−	0.2−				

2000 AS₇₀ = 1971 XE = 1977 CM₂ = 1991 CY₄ = 1998 MH₃₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.21065448	ω	298.25735	+0.52731085	−0.83924440		
<i>a</i>	2.7974065	Ω	119.31334	+0.82312123	+0.46582300		
<i>e</i>	0.2200940	<i>i</i>	8.75438	+0.21074796	+0.28049558		
<i>P</i>	4.68	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1971 12 15	095	0.8+	1.3+	1999 10 20	704	0.2−	0.9−	2000 01 05	704	0.1+	0.0
1977 02 11	675	1.4−	1.3+	1999 10 20	704	0.2+	0.0	2000 01 06	704	0.2+	0.3−
1977 02 12	675	0.8−	0.9+	1999 10 20	704	0.7+	0.3−	2000 01 06	704	0.2−	0.2−
1991 02 09	675	0.7+	1.1−	1999 12 06	704	0.3−	0.4−	2000 01 06	704	0.0	0.7+
1991 02 09	675	1.3+	1.4−	1999 12 06	704	0.3−	0.8−	2000 01 06	704	0.1−	0.7+
1998 06 23	699	0.0	0.5+	1999 12 06	704	0.8−	0.3−	2000 01 06	704	0.6−	0.7+
1998 06 23	699	0.2−	1.0+	1999 12 06	704	0.4−	0.4−	2000 02 02	704	0.2+	0.4−
1998 06 23	699	0.7+	0.9+	1999 12 06	704	0.4−	0.5−	2000 02 02	704	0.3+	0.1−
1998 07 02	699	0.3+	0.1+	1999 12 14	704	0.1−	0.2−	2000 02 02	704	0.1−	0.3+
1998 07 02	699	0.6+	0.1+	1999 12 14	704	0.2−	0.2−	2000 02 02	704	0.0	0.9+
1998 07 02	699	0.1+	0.0	1999 12 14	704	0.0	0.1−	2000 02 02	704	0.4+	0.9+
1998 08 17	704	0.1−	0.1+	1999 12 14	704	0.2+	0.6−	2000 02 03	704	0.3−	0.4−
1998 08 17	704	0.3−	0.3+	1999 12 14	704	0.3−	0.1+	2000 02 03	704	0.4+	0.0
1998 08 17	704	0.3−	1.7+	2000 01 05	704	0.8+	0.0	2000 02 03	704	0.3−	0.3+
1998 08 17	704	0.2+	1.9−	2000 01 05	704	0.2+	0.3+	2000 02 03	704	0.2+	0.2+
1998 08 17	704	1.1−	0.6−	2000 01 05	704	0.0	0.4+	2000 02 03	704	0.7+	1.0+
1999 10 20	704	0.6−	0.6+	2000 01 05	704	0.0	0.2+				

2000 FEB. 22

M.P.C. 38649

2000 AH₇₅ = 1998 MW₃₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	3.70953		(2000.0)		P		Q
n	0.29510676	ω	323.42944		-0.30414176		-0.95088731
a	2.2343435	Ω	144.17552		+0.89566410		-0.30600748
e	0.0892291	i	5.64196		+0.32447436		-0.04661273
P	3.34	H	15.2	G	0.15	U	4

Residuals in seconds of arc

1998 06 26	809	0.2+	0.5-	1999 12 14	704	0.0	0.9-	2000 01 06	704	0.1+	0.2-
1998 06 26	809	0.4+	0.2+	1999 12 14	704	0.0	0.7-	2000 01 06	704	0.0	0.5+
1998 06 26	809	0.6-	0.8+	1999 12 14	704	1.0+	0.9-	2000 02 02	704	0.0	0.0
1998 06 27	809	0.4+	0.7-	1999 12 14	704	0.4+	0.7-	2000 02 02	704	0.1+	0.8+
1998 06 27	809	0.3-	1.0+	2000 01 05	704	0.1-	1.0+	2000 02 02	704	0.3+	0.4+
1998 06 27	809	0.1-	0.0	2000 01 05	704	0.5-	0.2+	2000 02 02	704	0.6+	0.1+
1999 12 06	704	0.3-	0.1-	2000 01 05	704	0.2-	0.0	2000 02 02	704	0.5-	0.1+
1999 12 06	704	0.7-	0.0	2000 01 05	704	0.5-	1.3+	2000 02 03	704	0.7+	1.6-
1999 12 06	704	0.1-	0.3+	2000 01 05	704	0.3-	0.5+	2000 02 03	704	0.3-	0.5-
1999 12 06	704	0.0	0.5+	2000 01 06	704	0.2+	0.4+	2000 02 03	704	0.0	0.2-
1999 12 06	704	0.2-	0.7+	2000 01 06	704	0.1-	0.1+	2000 02 03	704	0.4-	0.4+
1999 12 14	704	0.5+	0.8-	2000 01 06	704	0.3+	0.2-	2000 02 03	704	0.1+	0.1+

2000 AG₇₆ = 1988 AS₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	304.18762		(2000.0)		P		Q
n	0.24157501	ω	58.99135		-0.97889960		-0.04961524
a	2.5532973	Ω	117.50155		-0.01088295		-0.95603973
e	0.1316431	i	12.91355		+0.20405180		-0.28900928
P	4.08	H	13.3	G	0.15	U	3

Residuals in seconds of arc

1988 01 13	046	0.0	0.6+	1999 12 06	704	0.6-	0.4-	2000 01 06	704	0.1+	0.6+
1988 01 14	046	0.5+	0.3+	1999 12 06	704	1.0-	0.9-	2000 01 06	704	0.0	0.1+
1988 01 14	046	(3.6+	0.7-)	1999 12 06	704	1.1-	0.2+	2000 02 02	704	0.1+	0.1+
1988 01 14	046	(3.8+	1.1-)	1999 12 14	704	0.2-	0.3-	2000 02 02	704	0.1-	0.0
1988 01 15	046	0.4-	2.1-	1999 12 14	704	0.1+	0.5-	2000 02 02	704	0.1-	0.1+
1988 01 15	046	0.2-	1.4-	1999 12 14	704	0.0	0.4-	2000 02 02	704	0.0	0.3+
1998 09 22	699	(0.6-	2.9-)	1999 12 14	704	0.5+	0.6-	2000 02 02	704	0.2-	0.1-
1998 09 22	699	0.2+	0.7-	2000 01 05	704	0.2+	0.2+	2000 02 03	704	1.8+	0.2+
1998 09 22	699	0.3+	0.5-	2000 01 05	704	0.2-	0.3-	2000 02 03	704	0.4+	1.2+
1999 10 20	704	0.7+	0.5+	2000 01 05	704	0.3-	0.1-	2000 02 03	704	0.1-	0.7+
1999 10 20	704	0.1+	0.9+	2000 01 05	704	0.2-	0.3-	2000 02 03	704	0.2+	0.1+
1999 10 20	704	0.1+	0.5+	2000 01 05	704	0.4-	0.4-	2000 02 03	704	0.2+	1.1+
1999 10 20	704	0.0	0.6+	2000 01 06	704	0.0	0.2+				

2000 AF₇₇ = 1991 LY₄ = 1998 MM₂₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	103.48383		(2000.0)		P		Q
n	0.28386761	ω	231.45591		+0.98331619		+0.14235765
a	2.2929371	Ω	120.09125		-0.09724173		+0.93749021
e	0.1450951	i	7.52046		-0.15373129		+0.31756324
P	3.47	H	14.7	G	0.15	U	1

Residuals in seconds of arc

1991 06 06	809	(2.2-	3.1-)	1998 06 26	704	0.9-	1.5+	2000 01 05	704	1.1-	0.6-
1991 06 06	809	(2.1-	3.1-)	1998 06 26	704	2.0-	0.3+	2000 01 06	704	0.4+	0.2-
1991 06 06	809	(1.1-	3.1-)	1999 12 06	704	0.5+	0.1+	2000 01 06	704	0.5-	0.3-
1991 06 08	809	0.0	0.9-	1999 12 06	704	1.0+	0.4-	2000 01 06	704	0.1-	0.1-
1991 06 08	809	0.5-	1.1-	1999 12 06	704	0.4-	0.4+	2000 02 02	704	0.8+	0.3+
1991 06 08	809	0.1-	1.3-	1999 12 06	704	0.2-	0.4+	2000 02 02	704	0.0	0.4+
1997 02 04	566	0.4-	0.2+	1999 12 06	704	0.3-	0.4+	2000 02 02	704	0.6+	0.6+
1997 02 04	566	0.3+	0.2+	1999 12 14	704	0.3-	0.2+	2000 02 02	704	0.5+	0.2-
1997 02 04	566	0.0	0.0	1999 12 14	704	0.3-	0.6-	2000 02 02	704	0.5-	0.7+

1998 06 24	704	1.4+	1.7+	1999 12 14	704	0.3+	0.4-	2000 02 03	704	0.1+	0.1+
1998 06 24	704	1.2+	0.9+	2000 01 05	704	0.2+	0.2-	2000 02 03	704	0.2-	0.8+
1998 06 24	704	0.1+	0.0	2000 01 05	704	0.1-	0.3-	2000 02 03	704	0.5-	0.1+
1998 06 24	704	0.4+	1.0-	2000 01 05	704	0.1-	0.3-	2000 02 03	704	0.3+	0.4+
1998 06 26	704	0.3+	0.3+	2000 01 05	704	0.2+	0.6-				

2000 AT₇₈ = 1995 VX₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	334.93019		(2000.0)		P		Q
n	0.28006791	ω	286.59650		-0.89495722		-0.44567903
a	2.3136295	Ω	226.94199		+0.41930455		-0.82448386
e	0.1521862	i	1.61067		+0.15243120		-0.34870699
P	3.52	H	15.7	G	0.15	U	4

Residuals in seconds of arc

1995 11 15	691	0.3-	0.4+	1999 12 08	704	0.1+	0.2+	2000 02 02	704	0.1-	0.3+
1995 11 15	691	0.1-	0.1-	1999 12 08	704	0.8-	0.5+	2000 02 02	704	0.1+	0.5+
1995 11 15	691	0.1-	0.4-	2000 01 05	704	0.7+	1.0-	2000 02 02	704	0.5-	1.0+
1995 11 25	691	0.1+	0.1+	2000 01 05	704	0.2+	0.5-	2000 02 03	704	1.2+	0.1-
1995 11 25	691	0.1+	0.3+	2000 01 05	704	0.5+	0.4-	2000 02 03	704	1.0-	0.7+
1995 11 25	691	0.1+	0.3+	2000 01 06	704	0.2+	0.1-	2000 02 03	704	0.2+	0.4+
1999 12 08	704	0.3-	0.4-	2000 01 06	704	0.2-	1.0-	2000 02 03	704	0.1-	0.2-
1999 12 08	704	0.2+	0.3-	2000 01 06	704	0.1-	0.4-				
1999 12 08	704	0.4-	0.2+	2000 02 02	704	0.4-	0.8+				

2000 AM₇₉ = 1995 UO₄₅

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	107.48240		(2000.0)		P		Q
n	0.28004228	ω	122.46439		+0.98220835		+0.17391777
a	2.3137707	Ω	227.62625		-0.18767038		+0.92274083
e	0.1745530	i	5.50312		+0.00682551		+0.34395054
P	3.52	H	14.3	G	0.15	U	3

Residuals in seconds of arc

1995 10 20	010	(1.2+	2.5+)	1999 12 14	704	0.2-	0.8+	2000 01 06	704	0.9+	0.1-
1995 10 20	010	0.6+	1.6+	1999 12 14	704	0.0	0.4-	2000 01 06	704	0.1-	0.3-
1995 10 20	010	0.7-	1.2+	1999 12 14	704	0.3+	0.1-	2000 02 02	704	0.1-	0.8-
1995 10 23	010	0.1-	1.3-	1999 12 14	704	0.1+	0.2+	2000 02 02	704	0.0	0.3-
1995 10 23	010	0.3+	1.8-	1999 12 14	704	0.0	0.1+	2000 02 02	704	0.2-	0.3+
1995 10 23	010	(0.3-	2.4-)	2000 01 05	704	0.4+	0.1+	2000 02 02	704	0.5-	0.2-
1998 06 26	704	0.8+	1.0+	2000 01 05	704	0.1-	0.2+	2000 02 02	704	0.6-	0.1+
1998 06 26	704	0.6-	1.5-	2000 01 05	704	0.7+	0.1-	2000 02 03	704	0.6-	1.0+
1998 06 26	704	1.2-	0.7-	2000 01 05	704	0.4+	0.4-	2000 02 03	704	0.9-	0.6-
1998 06 26	704	1.1+	1.6+	2000 01 05	704	0.2+	0.1-	2000 02 03	704	0.2-	0.4+
1998 06 26	704	0.1-	1.1-	2000 01 06	704	0.1+	0.3-				

2000 AE₈₀ = 1998 SR₁₆₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	342.77978		(2000.0)		P		Q
n	0.17138055	ω	321.14121		-0.71469640		-0.69938137
a	3.2099261	Ω	174.45718		+0.66198811		-0.68037178
e	0.0854950	i	5.13609		+0.22578929		-0.21899759
P	5.75	H	13.8	G	0.15	U	4

Residuals in seconds of arc

1998 09 26	704	1.7+	0.1-	1999 12 05	704	0.3-	0.1-	2000 01 06	704	0.0	0.2+
1998 09 26	704	0.3+	1.7-	1999 12 05	704	0.7+	0.0	2000 01 06	704	0.3+	0.2-
1998 09 26	704	1.8-	0.5-	1999 12 14	704	(2.2+	0.5+)	2000 02 02	704	0.8-	0.2-
1998 09 26	704	0.9-	1.2+	1999 12 14	704	0.7-	0.2+	2000 02 02	704	0.2-	0.4-
1998 09 27	704	0.3+	0.6-	1999 12 14	704	0.6-	1.1+	2000 02 02	704	1.1+	0.1-
1998 09 27	704	0.2+	0.1-	2000 01 05	704	0.7+	0.7+	2000 02 02	704	0.5-	0.3-

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1998 09 27	704	0.1+	0.4+	2000 01 05	704	0.5+	0.4−	2000 02 03	704	0.1+	0.2+
1998 09 27	704	0.1+	1.2+	2000 01 05	704	0.7+	0.5−	2000 02 03	704	0.5+	0.0
1999 12 05	704	0.4−	0.0	2000 01 05	704	0.1+	0.4−	2000 02 03	704	0.1−	0.2+
1999 12 05	704	0.5−	0.2−	2000 01 05	704	0.0	0.2+	2000 02 03	704	1.3−	0.5+
1999 12 05	704	0.6+	0.2+	2000 01 06	704	0.2−	0.7+	2000 02 03	704	0.2+	0.3−

2000 AH₈₀ = 1998 MV₁₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Spahr					
			P			Q		
<i>M</i>	94.53212	(2000.0)						
<i>n</i>	0.30362867	ω	189.52864	+0.99201705	−0.12608000			
<i>a</i>	2.1923381	Ω	177.71020	+0.11936173	+0.93253166			
<i>e</i>	0.1613830	<i>i</i>	3.51705	+0.04068111	+0.33836153			
<i>P</i>	3.25	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	4	

Residuals in seconds of arc

1998 05 22	704	(2.3+	3.5−)	1998 06 26	704	1.3−	0.1+	2000 01 05	704	0.8+	0.4−
1998 05 22	704	0.3+	0.2−	1999 12 05	704	(2.4+	0.1+)	2000 01 05	704	0.3+	0.2−
1998 05 22	704	0.8−	1.0+	1999 12 05	704	0.6+	0.3−	2000 01 06	704	0.4+	0.1−
1998 05 22	704	1.5+	1.6+	1999 12 05	704	(0.4−	2.3+)	2000 01 06	704	0.3+	0.3−
1998 05 24	704	0.1−	0.5+	1999 12 05	704	0.7−	0.0	2000 01 06	704	1.6+	0.9−
1998 05 24	704	0.1−	0.2−	1999 12 05	704	0.3−	0.6+	2000 01 25	704	0.0	0.2+
1998 05 24	704	(0.1+	2.4+)	1999 12 05	704	0.1+	0.5+	2000 01 25	704	0.1−	0.0
1998 05 24	704	0.0	1.0−	1999 12 05	704	0.6−	0.2−	2000 01 25	704	0.2+	0.1+
1998 05 24	704	0.3−	1.1−	1999 12 06	704	0.7+	0.6−	2000 01 25	704	0.4+	0.3−
1998 06 03	704	0.0	0.1+	1999 12 06	704	0.4+	0.2+	2000 01 25	704	0.4−	0.4−
1998 06 03	704	(0.6−	2.4+)	1999 12 06	704	0.8−	0.0	2000 02 02	704	0.3−	0.2−
1998 06 03	704	0.5+	0.1−	1999 12 06	704	0.5+	1.1−	2000 02 02	704	0.1+	0.3+
1998 06 03	704	1.3−	1.1−	1999 12 06	704	1.4−	0.5+	2000 02 02	704	0.2+	0.2+
1998 06 24	704	(2.2+	1.8−)	1999 12 14	704	0.6+	0.2−	2000 02 02	704	0.4+	0.3+
1998 06 24	704	(3.2+	2.9−)	1999 12 14	704	0.3−	0.2−	2000 02 02	704	0.0	0.4+
1998 06 24	704	0.1+	0.4+	1999 12 14	704	0.6−	0.2+	2000 02 03	704	0.0	1.2−
1998 06 24	704	1.1+	0.1+	1999 12 14	704	1.1−	1.0+	2000 02 03	704	1.3−	0.3−
1998 06 26	704	0.0	0.0	1999 12 14	704	0.4−	1.7+	2000 02 03	704	0.1−	0.1+
1998 06 26	704	0.8+	1.0+	2000 01 05	704	0.5−	0.2+	2000 02 03	704	0.1−	0.4+
1998 06 26	704	0.5−	1.8−	2000 01 05	704	0.3+	0.3−	2000 02 03	704	0.7+	0.8+
1998 06 26	704	0.2+	1.0+	2000 01 05	704	0.4+	0.0				

2000 AU₈₁ = 1997 GX₂₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Spahr					
			P			Q		
<i>M</i>	323.47624	(2000.0)						
<i>n</i>	0.28893618	ω	32.42365	−0.94979664	−0.30305018			
<i>a</i>	2.2660427	Ω	129.73529	+0.26114094	−0.90477561			
<i>e</i>	0.0906630	<i>i</i>	5.80368	+0.17231293	−0.29923516			
<i>P</i>	3.41	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i>	4	

Residuals in seconds of arc

1997 04 06	327	0.2−	0.0	1998 08 17	704	0.0	0.8−	2000 01 06	704	0.0	0.4−
1997 04 06	327	0.2−	0.1−	1998 08 17	704	0.2+	0.2+	2000 01 06	704	0.2−	0.6−
1997 04 06	327	0.2−	0.2−	1998 08 17	704	0.4−	0.5−	2000 01 06	704	0.2−	0.7−
1997 04 13	327	0.2−	0.1+	1999 12 14	704	0.7+	0.6+	2000 02 02	704	0.0	0.4−
1997 04 13	327	0.2−	0.1+	1999 12 14	704	0.1−	1.2+	2000 02 02	704	0.0	0.2+
1997 04 13	327	0.2−	0.2+	1999 12 14	704	0.4+	0.1+	2000 02 02	704	0.3+	0.6−
1997 05 03	327	0.9+	0.1−	1999 12 14	704	0.7+	0.9+	2000 02 02	704	0.5−	0.4+
1997 05 03	327	0.4+	0.1−	2000 01 05	704	0.4−	0.4−	2000 02 03	704	0.0	0.7−
1997 05 03	327	0.2+	0.2+	2000 01 05	704	0.2−	0.0	2000 02 03	704	0.5+	0.0
1998 08 17	704	1.6+	1.6+	2000 01 05	704	0.0	0.4−	2000 02 03	704	0.2−	0.3+
1998 08 17	704	1.2−	1.2−	2000 01 05	704	0.4−	0.1+	2000 02 03	704	0.1−	0.1+

2000 AX₈₁ = 1998 RM₆₉

Id. M. E. Sansaturio

2000 FEB. 22

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Williams					
			P			Q		
<i>M</i>	71.35324	(2000.0)						
<i>n</i>	0.20409838	ω	239.14151	+0.75571541	−0.65479263			
<i>a</i>	2.8569963	Ω	161.75367	+0.61305926	+0.70094434			
<i>e</i>	0.0113723	<i>i</i>	2.17211	+0.23033144	+0.28270770			
<i>P</i>	4.83	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	5	

Residuals in seconds of arc

1998 09 14	704	0.8+	1.5−	1998 09 26	704	1.7+	1.0−	2000 01 06	704	0.3−	0.0
1998 09 14	704	1.2−	1.6−	1998 09 26	704	0.2+	1.2−	2000 01 06	704	0.2+	0.0
1998 09 18	704	0.1−	0.8+	1998 09 27	704	1.0−	0.8−	2000 01 07	704	0.3+	0.0
1998 09 18	704	0.2+	1.4+	1998 09 27	704	0.9−	1.1+	2000 01 07	704	0.3+	1.4+
1998 09 18	704	0.3+	1.4+	1998 09 27	704	1.3+	0.7+	2000 01 07	704	0.4+	0.2+
1998 09 18	704	0.2−	1.5+	1998 09 27	704	0.3+	0.2−	2000 01 07	704	0.4−	0.4−
1998 09 25	699	0.8−	0.1−	1998 09 27	704	0.7−	0.6+	2000 01 09	704	0.5+	0.3−
1998 09 25	699	0.1+	0.5−	2000 01 05	704	0.3−	0.1+	2000 01 09	704	0.6−	0.3+
1998 09 25	699	0.2+	0.2−	2000 01 05	704	0.1−	0.1+	2000 01 09	704	0.0	0.3−
1998 09 26	704	0.4−	1.0+	2000 01 05	704	0.3+	0.7−	2000 01 09	704	0.8−	0.5−
1998 09 26	704	0.7+	0.5−	2000 01 05	704	0.3+	0.0				
1998 09 26	704	0.5−	0.8−	2000 01 06	704	0.2+	0.1+				

2000 AL₈₂ = 1993 FD₆₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Spahr					
			P			Q		
<i>M</i>	1.72874	(2000.0)						
<i>n</i>	0.26584475	ω	342.40554	−0.52454691	−0.85132268			
<i>a</i>	2.3954328	Ω	139.23064	+0.78295922	−0.48697664			
<i>e</i>	0.1687016	<i>i</i>	0.87849	+0.33440304	−0.19520106			
<i>P</i>	3.71	<i>H</i>	15.6	<i>G</i>	0.15	<i>U</i>	6	

Residuals in seconds of arc

1993 03 19	809	0.0	0.2−	2000 01 05	704	0.2+	0.2+	2000 01 25	704	1.1+	1.9+
1993 03 20	809	0.0	0.0	2000 01 06	704	0.3−	0.4−	2000 02 02	704	0.3−	1.0−
2000 01 05	704	0.7−	0.8−	2000 01 06	704	0.2+	0.2−	2000 02 02	704	0.2+	0.3+
2000 01 05	704	0.1−	0.0	2000 01 06	704	0.2+	0.4−	2000 02 02	704	0.5−	0.2−
2000 01 05	704	0.4−	0.5−	2000 01 25	704	0.4−	0.3+				
2000 01 05	704	0.4+	0.3+	2000 01 25	704	0.2+	0.5+				

2000 AN₈₃ = 1995 US₃₆

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			Williams					
			P			Q		
<i>M</i>	58.39308	(2000.0)						
<i>n</i>	0.27609934	ω	296.53597	+0.57563032	−0.81594166			
<i>a</i>	2.3357470	Ω	118.21732	+0.77026920	+0.51899823			
<i>e</i>	0.0811690	<i>i</i>	3.49709	+0.27447241	+0.25471562			
<i>P</i>	3.57	<i>H</i>	15.5	<i>G</i>	0.15	<i>U</i>	4	

Residuals in seconds of arc

1995 10 21	691	0.1+	0.2+	2000 01 05	704	0.1+	0.2+	2000 01 07	704	0.1−	0.3−
1995 10 21	691	0.0	0.3+	2000 01 05	704	0.1−	0.7+	2000 01 26	691	0.1+	0.6−
1995 10 21	691	0.0	0.1+	2000 01 06	704	0.5+	0.1+	2000 01 26	691	0.3+	0.6−
1995 10 26	691	0.4−	0.2−	2000 01 06	704	0.1−	0.6−	2000 01 26	691	0.2+	0.6−
1995 10 26	691	0.4+	0.1−	2000 01 06	704	0.3+	0.0	2000 02 02	704	0.1−	0.1+
1995 10 26	691	0.1−	0.3−	2000 01 07	704	0.0	0.6−	2000 02 02	704	0.1−	1.1+
2000 01 05	704	0.4−	0.6+	2000 01 07	704	0.0	0.5−	2000 02 02	704	0.5+	0.0
2000 01 05	704	0.9−	0.7+	2000 01 07	704	0.0	0.1+	2000 02 02	704	0.6−	0.1−
2000 01 05	704	0.0	0.2+	2000 01 07	704	0.3+	0.1−				

2000

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Spahr

<i>M</i>	6.03472	(2000.0)	P	Q
<i>n</i>	0.17825758	ω	300.56179	-0.35321316
<i>a</i>	3.1268284	Ω	170.12162	+0.86211282
<i>e</i>	0.1192491	<i>i</i>	0.63803	+0.36332073
<i>P</i>	5.53	<i>H</i>	13.9	<i>U</i>
			<i>G</i>	0.15
				4

Residuals in seconds of arc

1998 09 26	704	1.0-	0.2-	1999 12 08	704	0.7+	0.3-	2000 01 06	704	1.4-	0.1-
1998 09 26	704	0.8+	0.0	1999 12 08	704	0.4-	0.7-	2000 01 06	704	0.2-	0.0
1998 09 26	704	0.3+	0.2+	1999 12 08	704	0.4-	0.0	2000 01 07	704	0.2+	0.3+
1998 09 26	704	0.3-	0.5+	1999 12 08	704	0.0	0.2+	2000 01 07	704	0.3+	0.4+
1998 09 26	704	0.3+	0.7+	2000 01 05	704	0.1+	0.0	2000 01 07	704	0.2-	0.1-
1998 09 27	704	0.8+	0.0	2000 01 05	704	0.1-	0.0	2000 01 07	704	0.2+	0.2+
1998 09 27	704	0.4+	1.4-	2000 01 05	704	0.3+	0.1+	2000 01 07	704	0.1-	0.3+
1998 09 27	704	0.7+	0.8-	2000 01 05	704	0.6+	0.1+	2000 01 30	691	0.7+	0.4+
1998 09 27	704	1.0-	0.6+	2000 01 05	704	0.2+	0.3-	2000 01 30	691	0.3-	0.3-
1998 09 27	704	1.1-	0.5+	2000 01 06	704	0.1+	0.0	2000 01 30	691	0.3-	0.2-

2000 AW₈₃ = 1985 UW₃ = 1990 DN₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	40.05978	(2000.0)	P	Q
<i>n</i>	0.28922619	ω	249.48219	+0.27838680
<i>a</i>	2.2645277	Ω	184.35861	+0.89787702
<i>e</i>	0.1279854	<i>i</i>	2.70772	+0.34105374
<i>P</i>	3.41	<i>H</i>	14.4	<i>U</i>
			<i>G</i>	0.15
				1

Residuals in seconds of arc

1985 10 24	049	1.4+	0.3-	1999 12 06	704	0.7-	0.1-	2000 01 06	704	0.0	0.5-
1985 10 24	049	0.7-	1.6-	1999 12 06	704	0.2+	0.3-	2000 01 28	704	0.2+	0.1-
1990 02 24	809	0.5-	1.2-	1999 12 06	704	0.4+	1.5-	2000 01 28	704	0.4-	0.0
1990 02 24	809	0.3+	1.2-	1999 12 06	704	1.6-	0.5+	2000 01 28	704	0.2+	0.9+
1990 02 24	809	0.8+	1.2-	1999 12 14	704	0.1+	0.1-	2000 01 28	704	0.4+	1.0+
1990 02 25	809	(1.5- 2.4+)		1999 12 14	704	0.5-	0.2-	2000 02 02	704	0.3+	0.4+
1990 02 25	809	(1.1- 2.4+)		1999 12 14	704	0.1-	0.2-	2000 02 02	704	0.4-	0.3+
1990 02 25	809	(0.9- 2.6+)		1999 12 14	704	0.1-	0.1-	2000 02 02	704	0.2+	0.0
1990 03 01	809	0.8-	0.1-	1999 12 14	704	0.3-	0.2-	2000 02 02	704	0.2+	0.1-
1990 03 01	809	0.7-	0.3-	2000 01 05	704	0.1+	0.4+	2000 02 02	704	0.3+	0.0
1990 03 01	809	0.5-	0.0	2000 01 05	704	0.2-	0.7+	2000 02 03	704	0.4+	0.3+
1998 07 26	704	0.2+	1.0-	2000 01 05	704	0.1+	0.6+	2000 02 03	704	0.3+	0.1+
1998 07 26	704	(2.8+ 0.2+)		2000 01 05	704	(0.3+ 2.5+)		2000 02 03	704	0.1+	0.1-
1998 07 26	704	0.1-	0.6+	2000 01 05	704	0.6-	1.5+	2000 02 03	704	0.4+	0.2-
1998 07 26	704	0.0	0.8-	2000 01 06	704	0.2+	0.1-	2000 02 03	704	0.1-	0.3-
1999 12 06	704	1.0+	0.2-	2000 01 06	704	0.4+	0.1-				

2000 AN₈₄ = 1998 MB₃₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	91.66442	(2000.0)	P	Q
<i>n</i>	0.22174713	ω	241.86852	+0.96902133
<i>a</i>	2.7033195	Ω	118.52650	+0.08905064
<i>e</i>	0.2756100	<i>i</i>	16.25034	-0.23036415
<i>P</i>	4.44	<i>H</i>	14.3	<i>U</i>
			<i>G</i>	0.15
				4

Residuals in seconds of arc

1998 06 26	809	(2.3- 1.7-)		1998 08 15	704	0.0	0.3-	2000 02 02	704	0.8+	1.1+
1998 06 26	809	(3.1- 1.2-)		2000 01 05	704	0.9-	0.4-	2000 02 02	704	0.2+	0.7+
1998 06 26	809	(2.8- 1.7-)		2000 01 05	704	0.2+	1.0-	2000 02 02	704	0.2-	0.0
1998 06 27	809	0.8-	0.9+	2000 01 05	704	0.2-	0.3-	2000 02 03	704	0.3+	0.2-
1998 06 27	809	1.2-	0.4-	2000 01 05	704	0.1-	0.4-	2000 02 03	704	0.2+	0.0
1998 06 27	809	0.5-	0.5+	2000 01 05	704	0.5+	0.2-	2000 02 03	704	0.1-	0.7+
1998 08 15	704	0.9+	0.4-	2000 01 06	704	0.1+	0.1+	2000 02 03	704	0.5-	0.6+
1998 08 15	704	1.0+	0.9+	2000 01 06	704	1.4-	1.1+	2000 02 03	704	0.9+	0.8+

1998 08 15	704	(0.9+ 3.4+)		2000 01 06	704	0.4+	0.3-
1998 08 15	704	0.9+	1.1+	2000 02 02	704	0.4-	0.5+

2000 AS₈₄ = 1997 NL

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	311.51047	(2000.0)	P	Q
<i>n</i>	0.19498352	ω	271.04503	-0.99890577
<i>a</i>	2.9453537	Ω	268.87529	+0.01985164
<i>e</i>	0.0866033	<i>i</i>	2.67989	-0.04234591
<i>P</i>	5.05	<i>H</i>	14.4	<i>U</i>
			<i>G</i>	0.15
				4

Residuals in seconds of arc

1997 07 01	691	0.6+	0.1+	2000 01 05	704	0.3-	0.5-	2000 02 02	704	0.4+	0.1+
1997 07 01	691	0.4-	0.2+	2000 01 06	704	0.5-	0.6+	2000 02 02	704	0.4-	0.0
1997 07 01	691	0.4-	0.1-	2000 01 06	704	0.2-	0.0	2000 02 02	704	0.7-	1.0-
1997 07 02	691	0.1-	0.2+	2000 01 06	704	0.4-	0.6-	2000 02 03	704	0.7-	0.5+
1997 07 02	691	0.1+	0.1-	2000 01 07	691	0.2-	0.1-	2000 02 03	704	0.5-	0.2-
1997 07 02	691	0.1+	0.3-	2000 01 07	691	0.5-	0.2-	2000 02 03	704	1.2+	0.3+
2000 01 05	704	0.8+	0.5+	2000 01 07	691	0.3-	0.0	2000 02 03	704	0.7+	1.3+
2000 01 05	704	0.6+	0.1+	2000 02 02	704	0.3+	0.5-				
2000 01 05	704	0.9+	0.2+	2000 02 02	704	0.2-	0.5-				

2000 AT₈₄ = 1997 JT₁₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	5.69953	(2000.0)	P	Q
<i>n</i>	0.27466335	ω	287.56752	-0.54547784
<i>a</i>	2.3438811	Ω	195.50047	+0.78162126
<i>e</i>	0.1652097	<i>i</i>	2.00462	+0.30252624
<i>P</i>	3.59	<i>H</i>	14.9	<i>U</i>
			<i>G</i>	0.15
				1

Residuals in seconds of arc

1995 10 28	327	0.1+	0.2-	1997 05 07	704	0.5-	0.5+	2000 01 05	704	0.1-	0.4-
1995 10 28	327	0.0	0.3-	1997 05 07	704	0.1-	0.8+	2000 01 06	704	0.1-	0.0
1995 10 28	327	0.4+	0.6-	1997 05 07	704	0.8-	0.4+	2000 01 06	704	0.1+	0.1+
1995 11 15	327	0.3-	0.4-	1997 05 07	704	0.8-	0.3+	2000 01 06	704	0.1-	0.4-
1995 11 15	327	0.1-	0.1-	1998 08 17	704	0.1-	0.8-	2000 02 02	704	0.0	0.1-
1995 11 15	327	0.2+	0.6+	1998 08 17	704	0.4-	1.7+	2000 02 02	704	0.2-	1.2+
1997 05 03	809	0.7-	0.8-	1998 08 17	704	0.3-	0.2-	2000 02 02	704	0.3+	0.2+
1997 05 03	809	(0.6- 2.4-)		1998 08 17	704	0.4+	0.7+	2000 02 02	704	0.5+	0.3+
1997 05 03	809	(2.9+ 2.3-)		1998 08 17	704	(5.2- 0.6+)		2000 02 03	704	0.0	0.2+
1997 05 04	809	1.0+	0.7-	2000 01 05	704	0.5+	0.6-	2000 02 03	704	0.2-	0.3+
1997 05 04	809	1.0+	2.0-	2000 01 05	704	1.2-	0.6-	2000 02 03	704	0.2+	0.5+
1997 05 04	809	1.0+	0.1-	2000 01 05	704	0.3-	0.5-	2000 02 03	704	0.6+	0.5+
1997 05 07	704	0.5-	0.3+	2000 01 05	704	0.1-	0.4-	2000 02 03	704	0.2+	0.4+

2000 AD₈₅ = 1997 GD₁₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	34.22629	(2000.0)	P	Q
<i>n</i>	0.28462895	ω	278.18846	+0.09573425
<i>a</i>	2.2888465	Ω	166.30337	+0.93059694
<i>e</i>	0.1639104	<i>i</i>	2.66484	+0.35330481
<i>P</i>	3.46	<i>H</i>	15.6	<i>U</i>
			<i>G</i>	0.15
				5

Residuals in seconds of arc

1997 04 03	704	0.8-	0.1+	1999 12 31	699	0.2+	0.1-	2000 02 02	704	0.4-	0.4-
1997 04 03	704	1.4-	0.5-	2000 01 05	704	0.2-	0.2+	2000 02 02	704	0.6-	0.1+
1997 04 05	704	1.1+	0.3-	2000 01 05	704	0.5-	0.0	2000 02 02	704	0.3-	0.5+
1997 04 05	704	0.9-	0.4+	2000 01 05	704	0.1-	0.4+	2000 02 02	704	0.1+	0.2+
1997 04 07	704	0.8+	0.3-	2000 01 05	704	0.3-	0.1-	2000 02 03	704	0.0	0.1-
1997 04 07	704	0.0	0.3+	2000 01 05	704	0.3-	0.3+	2000 02 03	704	0.1+	0.5+
1997 04 07	704	1.6+	0.1+	2000 01 06	704	0.1-	0.4+	2000 02 03	704	0.5+	0.4-
1997 04 07	704	0.5-	0.4+	2000 01 06	704	0.2-	0.1-	2000 02 03	704	1.8+	1.3-
1999 12 31	699	0.5+	0.5-	2000 01 06	704	0.2-	0.2+				
1999 12 31	699	0.5+	0.1+	2000 02 02	704	0.5-	0.0				

2000 AJ₈₅ = 1979 HY₅ = 1998 RA₁₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	25.50612		(2000.0)			P		Q		
<i>n</i>	0.27399707	ω	342.35788			−0.18021258		−0.97695873		
<i>a</i>	2.3476793	Ω	117.89315			+0.91734043		−0.20888143		
<i>e</i>	0.0707978	<i>i</i>	7.43360			+0.35497881		+0.04381990		
<i>P</i>	3.60	<i>H</i>	13.6		<i>G</i>	0.15		<i>U</i>	3	
Residuals in seconds of arc										
1979 04 28	095	0.1−	0.2−	2000 01 05	704	0.3+	0.1−	2000 01 30	704	1.1− 0.8+
1998 09 14	704	1.7+	1.4+	2000 01 05	704	0.4+	0.3−	2000 01 30	704	0.0 0.3+
1998 09 14	704	0.7−	0.1+	2000 01 05	704	0.6+	0.3−	2000 01 30	704	0.3− 0.4+
1998 09 14	704	0.7−	1.5+	2000 01 05	704	0.3+	0.2−	2000 01 31	704	0.4− 0.0
1998 09 14	704	0.1−	0.7+	2000 01 06	704	0.2+	0.1+	2000 01 31	704	0.3− 0.2+
1998 09 14	704	0.8−	0.0	2000 01 06	704	0.1+	0.2−	2000 01 31	704	0.3− 0.1+
1998 09 18	704	0.7+	0.6+	2000 01 06	704	0.4+	0.1−	2000 01 31	704	0.5− 0.2+
1998 09 18	704	0.9+	1.2−	2000 01 07	691	0.1+	0.3−	2000 02 11	704	0.1+ 0.0
1998 09 18	704	0.1−	0.9−	2000 01 07	691	0.1+	0.1−	2000 02 11	704	0.1− 0.2+
1998 09 18	704	0.2+	0.4−	2000 01 07	691	0.1+	0.2−	2000 02 11	704	0.0 0.1−
1998 09 18	704	1.0−	1.7−	2000 01 30	704	0.2+	0.3+	2000 02 11	704	0.3− 0.3−
2000 01 05	704	0.0	0.1−	2000 01 30	704	0.4+	0.3−	2000 02 11	704	0.2− 0.1+

2000 AO₈₅ = 1993 HA₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	47.34814		(2000.0)		P		Q				
<i>n</i>	0.25163301	ω	212.85876		+0.35856520		−0.93335333				
<i>a</i>	2.4847973	Ω	216.13711		+0.86250814		+0.33812934				
<i>e</i>	0.1382964	<i>i</i>	1.63341		+0.35708642		+0.12049947				
<i>P</i>	3.92	<i>H</i>	15.5	<i>G</i>	0.15		<i>U</i>	5			
Residuals in seconds of arc											
1993 04 26	691	0.3−	0.5+	2000 01 05	704	0.5−	0.2+	2000 02 02	704	0.3+	0.1+
1993 04 26	691	0.4+	0.7+	2000 01 05	704	1.1−	0.2−	2000 02 02	704	0.6−	0.1−
1993 04 26	691	0.3−	0.1−	2000 01 05	704	0.7−	0.9+	2000 02 02	704	0.1+	0.2−
1993 04 29	691	0.3−	0.6−	2000 01 06	704	0.5+	0.2+	2000 02 02	704	0.3+	1.2−
1993 04 29	691	0.6+	0.4−	2000 01 06	704	0.1−	0.1−	2000 02 02	704	0.4−	0.5−
1993 04 29	691	0.0	0.1−	2000 01 06	704	0.7−	0.7−	2000 02 03	704	0.6+	0.6+
1999 12 31	699	0.1+	1.5+	2000 01 08	704	0.4−	0.1−	2000 02 03	704	0.1+	0.3+
1999 12 31	699	0.1+	0.7−	2000 01 08	704	0.9+	0.1−	2000 02 03	704	0.1+	0.1+
1999 12 31	699	0.8+	0.4−	2000 01 08	704	0.6+	0.3−	2000 02 03	704	0.4−	0.3+
2000 01 05	704	0.5−	0.5−	2000 01 08	704	0.0	0.2+	2000 02 03	704	0.1−	0.0
2000 01 05	704	0.9+	0.0	2000 01 08	704	0.3+	0.8+				

2000 AP₈₅ = 1992 EO₂₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	294.39543		(2000.0)			P		Q		
<i>n</i>	0.23606970	ω	55.31206			−0.94327393		+0.33096774		
<i>a</i>	2.5928410	Ω	143.99504			−0.31739901		−0.87560766		
<i>e</i>	0.0598668	<i>i</i>	2.56970			−0.09742773		−0.35181184		
<i>P</i>	4.18	<i>H</i>	15.1		<i>G</i>	0.15		<i>U</i>	5	
Residuals in seconds of arc										
1992 03 06	691	0.1+	0.3−	1996 02 12	327	0.0	0.5−	2000 01 06	704	0.2− 0.2+
1992 03 06	691	0.1+	0.1−	1996 02 12	327	0.3−	0.5+	2000 01 06	704	0.1+ 0.5−
1992 03 06	691	0.1+	0.2+	2000 01 05	704	0.3−	0.8−	2000 01 06	704	0.7− 0.7+
1992 03 08	809	0.2−	0.3+	2000 01 05	704	0.4+	0.2+	2000 02 03	704	0.9+ 1.3−
1992 03 09	809	(3.5−	1.4+)	2000 01 05	704	0.7−	0.0	2000 02 03	704	0.1− 0.4+
1996 02 12	327	0.2+	0.3−	2000 01 05	704	0.5+	0.2−	2000 02 03	704	0.1+ 1.6+

2000 AQ₈₅ = 1994 PA₈ = 1994 RC₁₅

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	28.56881		(2000.0)		P		Q				
<i>n</i>	0.25099744	ω	318.94446		−0.11481007		−0.99267732				
<i>a</i>	2.4889902	Ω	137.60856		+0.92534981		−0.12062056				
<i>e</i>	0.0679352	<i>i</i>	3.19324		+0.36131203		−0.00651279				
<i>P</i>	3.93	<i>H</i>	15.2		<i>G</i>	0.15	<i>U</i>	4			
Residuals in seconds of arc											
1994 08 10	809	0.8+	0.1+	1997 05 04	809	0.9−	0.4−	2000 01 08	704	0.1+	0.7−
1994 08 10	809	0.4+	0.5−	2000 01 05	704	0.1−	0.2−	2000 01 08	704	0.4−	0.2+
1994 08 10	809	0.4+	1.0−	2000 01 05	704	0.2+	0.3−	2000 01 08	704	0.6+	0.0
1994 08 11	809	0.1+	1.1+	2000 01 05	704	0.2−	0.6−	2000 02 02	704	0.9−	0.4−
1994 08 11	809	0.2+	1.4+	2000 01 05	704	0.3−	0.1−	2000 02 02	704	0.6+	0.1+
1994 08 11	809	1.0+	0.5−	2000 01 05	704	0.1+	0.4+	2000 02 02	704	0.3−	0.7−
1994 09 03	809	1.6−	1.8−	2000 01 06	704	0.3+	0.1−	2000 02 02	704	0.2−	0.2+
1994 09 03	809	(2.9−	1.8−)	2000 01 06	704	0.0	0.4−	2000 02 03	704	0.2−	0.6−
1994 09 03	809	0.7−	0.5−	2000 01 06	704	0.0	0.1−	2000 02 03	704	0.3−	0.6+
1997 05 04	809	0.9+	0.4+	2000 01 08	704	0.8+	0.1+	2000 02 03	704	0.3−	0.7+
1997 05 04	809	0.3−	1.3−	2000 01 08	704	0.0	0.3−	2000 02 03	704	0.1−	0.5+

2000 AV₈₅ = 1990 QH₁₅ = 1992 ET₂₀ = 1997 LX₁₅

Id. B. G. Marsden

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	35.77410		(2000.0)		P		Q			
n	0.23920235	ω	302.88292		+0.22779944		−0.97157012			
a	2.5701536	Ω	133.80681		+0.92055319		+0.19330732			
e	0.2218399	i	5.12684		+0.31731568		+0.13668866			
P	4.12	H	14.7	G	0.15	U	4			
Residuals in seconds of arc										
1990 08 26	809(59.2−	14.6−)	2000 01 05	704	0.5−	0.2+	2000 01 08	704	1.3−	1.3−
1990 08 26	809(58.8−	14.2−)	2000 01 05	704	0.7−	0.8+	2000 01 29	684	0.0	0.1−
1990 08 26	809(58.3−	14.1−)	2000 01 05	704	0.0	0.6+	2000 01 29	684	0.1+	0.4−
1992 03 02	809	0.2−	2000 01 06	704	0.8−	0.5+	2000 01 30	684	0.2+	0.4−
1992 03 05	809	0.6−	2000 01 06	704	0.7−	0.4−	2000 01 30	684	0.1−	0.6−
1997 06 08	809	(2.7+ 0.5+)	2000 01 06	704	0.4−	0.1+	2000 02 02	704	0.8+	0.3+
1997 06 08	809	1.2+ 0.2+	2000 01 06	704	0.1−	0.6+	2000 02 02	704	0.9+	0.3+
1997 06 08	809	1.1+ 0.5−	2000 01 06	704	0.6−	0.4+	2000 02 02	704	0.8+	0.2+
1997 06 09	809	0.6− 0.7+	2000 01 07	704	0.4−	0.1+	2000 02 02	704	0.7+	0.2+
1997 06 09	809	0.1− 1.7+	2000 01 07	704	0.4−	0.1+	2000 02 02	704	0.8+	0.1+
1997 06 09	809	1.0− 0.3+	2000 01 07	704	0.3−	0.0	2000 02 03	704	0.2+	1.9+
1999 12 31	699	0.3+ 0.3−	2000 01 07	704	0.1+	0.1−	2000 02 03	704	0.2+	0.4+
1999 12 31	699	0.9+ 0.2+	2000 01 07	704	0.4−	0.2−	2000 02 03	704	0.4+	0.0
1999 12 31	699	0.6+ 0.1+	2000 01 08	704	0.2+	0.1+	2000 02 03	704	0.5+	0.1+
2000 01 05	704	0.7− 0.2+	2000 01 08	704	0.3+	0.1+				
2000 01 05	704	0.2− 0.2+	2000 01 08	704	0.1+	0.4−				

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1998 08 27	704	(0.4+ 2.5+)	2000 01 06	704	0.6− 0.5−	2000 02 11	704	0.9+ 0.6+
1999 12 07	704	0.5+ 0.2+	2000 01 06	704	0.1+ 0.1+	2000 02 11	704	0.1− 1.0−
1999 12 07	704	0.4+ 0.0	2000 01 07	704	0.7+ 0.4−	2000 02 11	704	0.1− 0.8−
1999 12 07	704	0.8+ 0.0	2000 01 07	704	0.3− 0.2−	2000 02 11	704	0.7− 0.2−

2000 AH₈₆ = 1998 UE₃₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	329.42799		(2000.0)	P	Q
<i>n</i>	0.17848478	ω	291.74196	−0.98521588	−0.17112316
<i>a</i>	3.1241743	Ω	238.40575	+0.16050701	−0.90535410
<i>e</i>	0.1699024	<i>i</i>	0.54870	+0.05989300	−0.38865258
<i>P</i>	5.52	<i>H</i>	13.5	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1998 10 17	327	0.4− 1.1−	2000 01 05	704	0.3+ 0.6−	2000 02 02	704	0.1+ 0.4+
1998 10 17	327	1.1+ 0.4+	2000 01 05	704	0.2− 0.9−	2000 02 02	704	0.3− 0.2+
1998 10 17	327	0.4+ 1.1+	2000 01 06	704	0.6− 0.1+	2000 02 03	704	0.6− 0.4+
1998 10 20	327	0.4− 0.8−	2000 01 06	704	0.0 0.3−	2000 02 03	704	0.5− 0.3−
1998 10 20	327	0.2− 0.4+	2000 01 06	704	0.3− 0.4−	2000 02 03	704	0.4− 0.8+
1998 10 20	327	0.4− 0.0	2000 01 06	704	0.1+ 0.8−	2000 02 03	704	0.6− 0.5+
1999 12 30	699	0.3+ 1.9+	2000 01 06	704	0.4− 0.1−	2000 02 03	704	0.0 0.7+
1999 12 30	699	1.7+ 1.6+	2000 01 07	691	0.4+ 0.3−	2000 02 10	691	0.6+ 0.7−
1999 12 30	699	0.8− 1.5+	2000 01 07	691	0.3+ 0.3−	2000 02 10	691	1.1+ 1.3−
2000 01 05	704	0.4− 0.5−	2000 01 07	691	0.4+ 0.3−	2000 02 10	691	1.0+ 0.4−
2000 01 05	704	0.2− 0.8−	2000 02 02	704	0.3− 0.2+			
2000 01 05	704	0.0 0.7−	2000 02 02	704	0.7− 0.4+			

2000 AJ₈₆ = 1992 YH₁ = 1998 OT₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	39.00489		(2000.0)	P	Q
<i>n</i>	0.28807120	ω	171.78528	+0.02595416	−0.99876076
<i>a</i>	2.2705766	Ω	276.72005	+0.91472560	+0.04086295
<i>e</i>	0.0328270	<i>i</i>	2.45068	+0.40324119	−0.02841078
<i>P</i>	3.42	<i>H</i>	15.0	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1992 12 18	010	0.3− 1.2−	1998 08 17	704	0.2+ 0.4+	2000 01 06	704	0.7− 0.3−
1992 12 19	010	0.8− 1.0−	1998 08 17	704	0.0 0.1−	2000 01 06	704	0.3− 0.0
1992 12 19	010	0.2+ 0.9−	1998 08 17	704	0.2− 0.9+	2000 01 06	704	0.1+ 0.5+
1992 12 19	010	0.4+ 0.4+	1999 11 16	704	1.1− 0.5−	2000 01 06	704	0.5− 0.0
1992 12 19	010	0.3− 0.3+	1999 11 16	704	0.2− 0.2−	2000 02 02	704	0.1+ 0.8+
1992 12 20	010	0.6+ 0.2−	1999 11 16	704	0.7− 0.2−	2000 02 02	704	0.2+ 0.8+
1998 07 26	809	0.3+ 0.8+	1999 12 30	699	0.3+ 0.2−	2000 02 02	704	0.0 0.5+
1998 07 26	809	0.8− 0.7+	1999 12 30	699	0.9+ 0.8+	2000 02 02	704	0.3+ 0.8+
1998 07 26	809	0.7− 1.0+	1999 12 30	699	0.1+ 0.6+	2000 02 02	704	0.8+ 1.0+
1998 07 27	809	(2.6− 0.2+)	2000 01 05	704	0.3− 0.3−	2000 02 03	704	0.4+ 0.0
1998 07 27	809	(3.5− 0.4+)	2000 01 05	704	0.4− 0.3−	2000 02 03	704	0.3+ 0.6+
1998 07 27	809	(2.9− 0.2−)	2000 01 05	704	0.2− 0.2+	2000 02 03	704	0.7+ 0.7+
1998 08 17	704	0.2+ 1.4+	2000 01 05	704	0.1+ 0.1+	2000 02 03	704	0.8+ 0.7+
1998 08 17	704	1.1− 0.2+	2000 01 05	704	0.3− 0.2+	2000 02 03	704	0.9+ 1.0+

2000 AL₈₆ = 1998 RK₃₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	95.37667		(2000.0)	P	Q
<i>n</i>	0.21157121	ω	80.97583	+0.96962088	−0.23194070
<i>a</i>	2.7893200	Ω	292.40530	+0.17808687	+0.88713591
<i>e</i>	0.1585698	<i>i</i>	4.82171	+0.16769146	+0.39899046
<i>P</i>	4.66	<i>H</i>	14.9	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 08 17	704	(1.7− 2.1−)	1998 09 18	704	1.8− 0.1+	2000 01 07	691	0.3+ 0.0
1998 08 17	704	1.0− 0.4−	1998 09 18	704	1.3− 0.4+	2000 01 07	691	0.2+ 0.1+
1998 08 17	704	0.9− 0.6+	1998 09 18	704	(1.6− 2.3+)	2000 02 02	704	0.4+ 0.1−
1998 08 17	704	0.5+ 1.3−	1998 09 18	704	0.2+ 1.0+	2000 02 02	704	0.0 0.3+

1998 08 17	704	0.7− 0.1+	1998 09 18	704	(2.9− 0.6−)	2000 02 02	704	0.5+ 0.1+
1998 08 23	704	1.0+ 1.9+	2000 01 05	704	0.2− 0.8−	2000 02 02	704	0.0 0.5−
1998 08 23	704	(0.8− 2.0+)	2000 01 05	704	0.5− 1.0−	2000 02 02	704	0.2+ 0.5−
1998 08 23	704	0.2+ 1.5+	2000 01 05	704	0.9− 0.4−	2000 02 03	704	0.1+ 0.9+
1998 08 23	704	(6.9− 1.2+)	2000 01 05	704	0.2+ 0.4−	2000 02 03	704	0.2− 0.2+
1998 09 14	704	1.2+ 0.3+	2000 01 06	704	0.8+ 0.9+	2000 02 03	704	0.1− 0.1+
1998 09 14	704	0.3+ 1.0−	2000 01 06	704	0.5− 1.6+	2000 02 03	704	0.9− 0.3+
1998 09 14	704	0.6+ 1.4−	2000 01 06	704	0.7+ 0.3−			
1998 09 14	704	1.6+ 1.6−	2000 01 07	691	0.2+ 0.0			

2000 AV₈₆ = 1998 QN₃₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	279.89336		(2000.0)	P	Q
<i>n</i>	0.31086610	ω	67.02338	−0.78478390	+0.61900787
<i>a</i>	2.1581774	Ω	151.19244	−0.58941661	−0.73011251
<i>e</i>	0.0631412	<i>i</i>	3.65473	−0.19157841	−0.28942179
<i>P</i>	3.17	<i>H</i>	15.3	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1998 08 17	704	1.0+ 0.6−	1998 08 23	704	0.5− 1.9+	2000 01 06	704	0.0 0.1−
1998 08 17	704	0.6+ 0.0	1999 12 31	699	0.7+ 1.0+	2000 02 02	704	0.1− 1.0−
1998 08 17	704	0.1+ 0.9+	1999 12 31	699	1.1+ 0.3+	2000 02 02	704	0.1− 0.1−
1998 08 17	704	1.0− 0.8−	1999 12 31	699	0.7+ 0.4−	2000 02 02	704	0.2− 0.2−
1998 08 17	704	1.9− 1.0−	2000 01 05	704	0.5− 0.0	2000 02 02	704	0.2− 0.8+
1998 08 23	699	0.5− 0.3−	2000 01 05	704	0.2− 0.2−	2000 02 02	704	0.4+ 0.1+
1998 08 23	704	1.9+ 0.9+	2000 01 05	704	0.1+ 0.1+	2000 02 03	704	0.5− 0.7+
1998 08 23	704	0.9+ 0.3−	2000 01 05	704	0.1− 0.9−	2000 02 03	704	0.3− 0.7+
1998 08 23	699	0.1− 0.1+	2000 01 05	704	0.1+ 0.3−	2000 02 03	704	0.1− 0.0
1998 08 23	704	0.9+ 0.9−	2000 01 06	704	1.1− 0.6−	2000 02 03	704	0.7+ 0.3+
1998 08 23	704	1.6− 0.7+	2000 01 06	704	0.5− 0.3−	2000 02 03	704	0.5+ 0.1+
1998 08 23	699	0.1+ 0.3−	2000 01 06	704	0.5− 0.2+			

2000 AW₈₆ = 1997 GQ₁₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	49.38903		(2000.0)	P	Q
<i>n</i>	0.28005021	ω	250.04925	+0.33282496	−0.94298855
<i>a</i>	2.3137270	Ω	180.51090	+0.88060525	+0.31095382
<i>e</i>	0.1229446	<i>i</i>	2.48957	+0.33728613	+0.11866054
<i>P</i>	3.52	<i>H</i>	14.9	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1997 04 03	704	0.1+ 0.1−	2000 01 05	704	0.0 0.2−	2000 02 02	704	0.4+ 0.1+
1997 04 03	704	0.5− 0.2−	2000 01 05	704	0.2+ 0.6−	2000 02 02	704	0.1− 0.2+
1997 04 05	704	0.2+ 0.1−	2000 01 05	704	0.0 0.1+	2000 02 02	704	0.4− 0.5−
1997 04 05	704	0.9+ 0.2+	2000 01 06	704	0.2+ 0.1+	2000 02 03	704	0.1− 0.5+
1997 04 06	704	0.3− 0.6−	2000 01 06	704	0.0 0.1−	2000 02 03	704	0.1− 0.1+
1997 04 06	704	0.2+ 0.5−	2000 01 06	704	0.2− 0.1−	2000 02 03	704	0.2− 0.0
1997 04 07	704	0.1+ 0.3+	2000 01 06	704	0.0 0.2+	2000 02 03	704	0.3+ 0.0
1997 04 07	704	0.7− 0.9+	2000 01 06	704	0.5− 0.2+	2000 02 03	704	0.7− 0.1+
2000 01 05	704	0.2+ 0.1+	2000 02 02	704	0.6+ 0.2−			
2000 01 05	704	0.1+ 0.4+	2000 02 02	704	0.4+ 0.1−			

2000 AF₈₇ = 1991 EP₃

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	215.86726		(2000.0)	P	Q
<i>n</i>	0.20333314	ω	74.15788	+0.14158434	+0.98981191
<i>a</i>	2.8641600	Ω	203.99715	−0.92180601	+0.12628702
<i>e</i>	0.1184739	<i>i</i>	2.11962	−0.36087056	+0.06575691
<i>P</i>	4.85	<i>H</i>	13.6	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1991 03 11	809	0.9− 0.0	1998 11 11	704	0.3− 1.5−	2000 01 06	704	0.3+ 1.5+
1991 03 11	809	0.4− 0.1−	1998 11 11	699	1.1+ 0.9−	2000 01 06	704	0.5+ 0.1+

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1991 03 11	809	0.0	0.0	1998 11 24	699	0.1−	0.6+	2000 01 06	704	0.6−	0.4−
1991 03 13	809	0.1+	0.2+	1998 11 24	699	0.9+	0.8+	2000 02 02	704	1.0+	0.8+
1991 03 13	809	0.5+	0.1+	1998 11 24	699	0.0	0.8−	2000 02 02	704	0.4−	0.1−
1991 03 13	809	0.9+	0.1+	1999 12 31	699	0.3+	0.9+	2000 02 02	704	0.7−	0.4−
1996 03 18	566	0.2+	0.7−	1999 12 31	699	0.2−	0.5+	2000 02 02	704	0.2−	0.8−
1996 03 18	566	0.7−	0.8−	1999 12 31	699	0.4−	0.7+	2000 02 03	704	1.2+	0.2−
1996 03 18	566	0.2−	0.2−	2000 01 05	704	0.5+	0.5−	2000 02 03	704	0.4−	0.3−
1998 11 11	699	0.1+	0.5−	2000 01 05	704	0.3−	0.1−	2000 02 03	704	0.0	0.1−
1998 11 11	704	0.5−	0.1+	2000 01 05	704	0.4+	0.2+	2000 02 03	704	0.2−	0.2+
1998 11 11	704	0.8−	1.0+	2000 01 05	704	0.0	0.3+	2000 02 03	704	0.1+	0.9−
1998 11 11	699	0.0	0.4−	2000 01 05	704	0.6−	0.2−				

2000 AG₈₇ = 1996 AH₁₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams							
<i>M</i>	98.29262		(2000.0)	P		Q	
<i>n</i>	0.27454704	ω	133.91411	+0.97832028		−0.20560366	
<i>a</i>	2.3445430	Ω	237.96550	+0.18062622		+0.90576796	
<i>e</i>	0.1773057	<i>i</i>	1.67849	+0.10130943		+0.37055572	
<i>P</i>	3.59	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1996 01 12	691	0.2+	0.2−	2000 01 06	704	0.7+	0.8−	2000 02 02	704	0.0	0.5−
1996 01 12	691	0.0	0.1+	2000 01 06	704	0.2+	0.0	2000 02 02	704	1.4+	0.1+
1996 01 12	691	0.2−	0.2−	2000 01 06	704	0.3−	0.6+	2000 02 03	704	1.2+	1.4−
1996 01 24	691	0.1+	0.1−	2000 01 06	704	0.1+	0.4+	2000 02 03	704	0.3−	0.4+
1996 01 24	691	0.3−	0.5+	2000 02 02	704	0.1+	0.3+	2000 02 03	704	0.2−	1.0+
1996 01 24	691	0.1+	0.1+	2000 02 02	704	0.7−	0.0	2000 02 03	704	0.2+	0.5−
2000 01 05	704	0.6+	1.2−	2000 02 02	704	0.5−	0.2+	2000 02 03	704	1.0−	0.2+
2000 01 05	704	0.9−	0.2+	2000 02 02	704	0.5−	0.1+				
2000 01 05	704	0.5−	0.5+	2000 02 02	704	0.3+	0.4+				

2000 AJ₈₇ = 1977 CY₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams							
<i>M</i>	38.71566		(2000.0)	P		Q	
<i>n</i>	0.08322551	ω	319.21447	+0.15337320		−0.96551215	
<i>a</i>	5.1955524	Ω	120.96891	+0.95837690		+0.09345450	
<i>e</i>	0.0671641	<i>i</i>	14.20342	+0.24081190		+0.24300731	
<i>P</i>	11.84	<i>H</i>	11.4	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1977 02 11	675	0.5−	0.4−	2000 01 06	704	0.2+	0.4−	2000 02 11	704	0.4−	0.5+
1977 02 12	675	0.4+	0.8−	2000 01 06	704	0.6−	0.0	2000 02 11	704	0.4−	0.4+
1998 12 22	704	0.8+	1.0−	2000 01 06	704	0.1−	0.6+	2000 02 11	704	0.2−	0.2+
1998 12 22	704	1.2+	0.4−	2000 01 26	691	0.2−	0.0	2000 02 11	704	0.3−	0.7+
1998 12 22	704	0.5−	0.2+	2000 01 26	691	0.1−	0.1−	2000 02 12	691	0.3−	0.1+
1998 12 22	704	1.4−	0.8+	2000 01 26	691	0.2−	0.2−	2000 02 12	691	0.3−	0.1−
2000 01 05	704	0.1−	0.6−	2000 02 03	704	0.3−	0.8+	2000 02 12	691	0.3−	0.2−
2000 01 05	704	0.2−	0.6−	2000 02 03	704	0.3+	0.2+	2000 02 14	691	0.1−	0.4−
2000 01 05	704	0.6+	0.4−	2000 02 03	704	0.1−	0.0	2000 02 14	691	0.3−	0.3−
2000 01 05	704	0.6+	0.1+	2000 02 03	704	2.0+	0.5+	2000 02 14	691	0.2−	0.3−
2000 01 05	704	0.1−	0.3+	2000 02 03	704	0.2+	0.5+				
2000 01 06	704	0.4+	0.1+	2000 02 11	704	0.2+	0.0				

2000 AR₈₇ = 1998 SS₁₂₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr							
<i>M</i>	26.51067		(2000.0)	P		Q	
<i>n</i>	0.17097815	ω	301.76292	−0.07418492		−0.99672024	
<i>a</i>	3.2149604	Ω	152.43622	+0.93695981		−0.08076527	
<i>e</i>	0.1378704	<i>i</i>	4.00660	+0.34147169		+0.00507275	
<i>P</i>	5.76	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 26	704	0.3+	0.7+	1999 12 31	699	0.1+	0.4−	2000 02 02	704	0.0	0.2−
1998 09 26	704	(3.0+	0.1−)	1999 12 31	699	1.4+	0.5+	2000 02 02	704	0.4+	0.1−

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1998 09 26	704	0.4+	1.2−	2000 01 05	704	0.1+	0.3+	2000 02 02	704	0.1+	0.4−
1998 09 26	704	0.4+	0.5−	2000 01 05	704	0.6−	0.0	2000 02 02	704	0.1−	0.4+
1998 09 27	704	0.7−	0.9+	2000 01 05	704	0.3−	0.2−	2000 02 02	704	0.3+	0.3−
1998 09 27	704	0.2−	1.8+	2000 01 05	704	0.4−	0.4−	2000 02 03	704	0.3−	0.3−
1998 09 27	704	(2.6+	0.2+)	2000 01 05	704	0.4−	0.4+	2000 02 03	704	0.5+	0.8−
1998 09 27	704	0.1−	1.3−	2000 01 06	704	0.1−	0.1+	2000 02 03	704	0.3−	0.4+
1998 09 27	704	0.0	0.4−	2000 01 06	704	0.0	0.1−	2000 02 03	704	0.3−	0.3+
1999 12 31	699	0.6−	0.2−	2000 01 06	704	0.6+	0.1−	2000 02 03	704	0.1−	1.1+

2000 AT₈₇ = 3062 P-L = 1998 MJ₃₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr							
<i>M</i>	130.41427		(2000.0)	P		Q	
<i>n</i>	0.30847496	ω	83.39050	+0.99061207		+0.10412972	
<i>a</i>	2.1693158	Ω	270.60641	−0.13098924		+0.90839101	
<i>e</i>	0.0779461	<i>i</i>	5.08166	+0.03910947		+0.40494786	
<i>P</i>	3.20	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1960 09 24	675	0.1+	0.0	1998 06 27	809	(0.8−	3.0+)	2000 01 05	704	0.3+	0.1−
1960 09 25	675	1.5−	0.7−	1998 06 27	809	(0.8−	2.5+)	2000 01 06	704	0.4+	0.4−
1960 09 26	675	0.5+	0.6+	1998 06 27	809	(0.1−	3.0+)	2000 01 06	704	0.1−	0.2+
1960 09 27	675	0.5+	0.5−	1998 07 26	704	0.7+	0.5−	2000 01 06	704	0.1+	0.0
1960 09 28	675	1.3+	0.9+	1998 07 26	704	0.6+	0.8−	2000 02 02	704	0.3+	0.2−
1960 09 29	675	1.3−	0.4+	1998 07 26	704	0.8+	0.8−	2000 02 02	704	0.5+	0.2+
1960 09 29	675	0.2−	0.4+	1998 07 26	704	0.1−	0.8−	2000 02 02	704	0.1+	0.5−
1998 06 24	704	1.5−	0.5−	1999 12 07	704	1.2−	0.7+	2000 02 02	704	0.1+	0.5+
1998 06 24	704	0.8+	1.9+	1999 12 07	704	0.0	0.8−	2000 02 02	704	0.3+	1.1+
1998 06 24	704	1.6−	0.5+	1999 12 07	704	0.8−	1.1−	2000 02 03	704	0.3−	0.4+
1998 06 24	704	(1.0+	2.4+)	2000 01 05	704	0.7+	0.6+	2000 02 03	704	0.1+	0.2+
1998 06 26	809	0.3−	0.8+	2000 01 05	704	0.1−	0.1+	2000 02 03	704	0.2+	0.5+
1998 06 26	809	0.2−	0.2+	2000 01 05	704	0.3−	0.7−	2000 02 03	704	0.3+	0.2−
1998 06 26	809	0.4+	0.4+	2000 01 05	704	0.1−	0.2−	2000 02 03	704	0.7−	0.3+

2000 AU₈₇ = 1976 SQ₉ = 1992 SG₁₇

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr							
<i>M</i>	103.50403		(2000.0)	P		Q	
<i>n</i>	0.30738117	ω	183.15430	+0.96947881		−0.24501390	
<i>a</i>	2.1744590	Ω	191.04054	+0.22594760		+0.90693664	
<i>e</i>	0.1244029	<i>i</i>	2.66064	+0.09517627		+0.34268662	
<i>P</i>	3.21	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1976 09 29	095	0.7+	2.0−	1999 12 31	699	0.2+	0.5+	2000 02 02	704	0.3+	0.4+
1992 09 21	033	0.3−	0.8+	2000 01 05	704	1.0−	0.8−	2000 02 02	704	0.2+	0.1+
1992 09 21	033	0.1−	0.5+	2000 01 05	704	0.4−	1.1−	2000 02 02	704	0.2+	0.0
1992 09 22	033	0.6−	0.5+	2000 01 05	704	0.2−	0.2−	2000 02 02	704	0.0	0.4+
1992 09 24	033	0.2+	0.6+	2000 01 05	704	0.8−	0.3−	2000 02 03	704	0.0	0.1−
1992 09 24	033	0.2−	0.9+	2000 01 05	704	0.2−	0.9−	2000 02 03	704	0.3+	0.0
1992 09 26	033	0.3+	0.1−	2000 01 06	704	0.2−	0.2+	2000 02 03	704	0.0	0.2+
1992 09 27	033	0.2+	0.6−	2000 01 06	704	0.1−	0.4−	2000 02 03	704	0.4+	0.2+
1992 09 28	033	0.3−	0.3−	2000 01 06	704	0.1+	0.5+	2000 02 03	704	0.4+	0.2+
1999 12 31	699	0.5+	1.1+	2000 01 06	704	0.4−	0.3+				
1999 12 31	699	0.7+	0.4+	2000 02 02	704	0.2+	0.1+				

2000 AV₈₇ = 1996 JP₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	239.64100		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.19250309	ω	127.17428	-0.26003838	$+0.95309985$
a	2.9706005	Ω	127.03517	-0.93597991	-0.20938316
e	0.0646426	i	11.18584	-0.23732181	-0.21853916
P	5.12	H	13.2	G 0.15	U 4

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Residuals in seconds of arc

1996 05 13	566	0.4+	0.4+	2000 01 05	704	0.2-	0.6-	2000 02 02	704	0.8+	0.4+
1996 05 13	566	0.2-	0.4+	2000 01 05	704	0.0	0.4-	2000 02 02	704	0.6+	0.5-
1996 05 13	566	0.1-	0.1+	2000 01 05	704	0.1-	0.3-	2000 02 02	704	0.3+	1.2+
1996 05 19	566	0.1+	0.2-	2000 01 06	704	0.1-	0.1-	2000 02 02	704	0.5+	0.7+
1996 05 19	566	0.3-	0.5-	2000 01 06	704	0.3+	0.8-	2000 02 02	704	1.0+	1.2+
1996 05 19	566	0.1+	0.1-	2000 01 06	704	0.3-	0.8-	2000 02 03	704	0.5+	0.4+
1999 12 05	699	0.1-	0.4+	2000 01 06	704	0.1+	0.0	2000 02 03	704	0.0	0.1-
1999 12 05	699	1.0-	1.6+	2000 01 08	684	0.3+	0.5-	2000 02 03	704	0.2-	0.2-
1999 12 05	699	0.5+	0.2+	2000 01 08	684	0.1+	0.3-	2000 02 03	704	0.8+	0.0
1999 12 31	699	0.3-	0.0	2000 01 09	684	0.2-	0.2-	2000 02 03	704	0.3+	0.2-
1999 12 31	699	0.2-	0.2+	2000 01 09	684	0.5-	0.3-	2000 02 11	691	0.4-	0.0
1999 12 31	699	0.4+	0.1+	2000 01 27	691	1.0-	0.1-	2000 02 11	691	0.3-	0.1-
2000 01 05	704	0.0	0.0	2000 01 27	691	0.9-	0.3+	2000 02 11	691	0.3-	1.1-
2000 01 05	704	0.1+	0.1-	2000 01 27	691	0.5-	0.1+				

2000 AX₈₇ = 1998 QE₇₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	65.33244		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.17938424	ω	99.73258	+0.79891407	-0.55724957
a	3.1137221	Ω	294.46725	+0.40646684	+0.77756848
e	0.2561311	i	14.39594	+0.44330690	+0.29130770
P	5.49	H	13.9	G 0.15	U 3

Residuals in seconds of arc

1998 08 19	704	0.7-	0.3+	1998 12 09	704	1.6-	1.9-	1999 12 30	699	1.1+	1.2+
1998 08 19	704	1.8+	0.5+	1998 12 09	704	0.1+	0.2+	1999 12 30	699	0.0	0.7+
1998 08 19	704	1.1-	1.2-	1998 12 09	704	(4.8-	0.0)	2000 01 05	704	0.1+	0.0
1998 08 19	704	(0.4-	3.2-)	1999 11 16	704	0.0	0.9-	2000 01 05	704	0.4-	0.5-
1998 08 24	704	0.8-	0.4+	1999 11 16	704	0.6+	0.2+	2000 01 05	704	0.2+	0.3+
1998 08 24	704	0.8+	0.7+	1999 11 16	704	0.8-	0.7-	2000 01 05	704	0.2+	0.7+
1998 08 24	704	0.4+	0.0	1999 11 16	704	1.1-	1.4-	2000 01 05	704	0.9+	0.3-
1998 08 24	704	0.9-	0.7+	1999 11 16	704	0.2-	1.3-	2000 01 06	704	0.2+	0.7+
1998 08 24	704	0.9-	0.3-	1999 12 05	699	0.2-	0.1-	2000 01 06	704	0.5+	0.0
1998 08 27	704	0.4-	0.5+	1999 12 05	699	0.2-	0.6-	2000 01 06	704	0.4+	0.3+
1998 08 27	704	0.3+	0.0	1999 12 05	699	(0.3+	3.0+)	2000 02 02	704	0.2-	0.6+
1998 08 27	704	0.1+	1.1+	1999 12 07	704	0.3+	0.1+	2000 02 02	704	0.2-	0.7-
1998 08 27	704	0.0	1.0+	1999 12 07	704	0.1+	1.1-	2000 02 02	704	1.7+	0.3+
1998 08 27	704	0.1-	0.7+	1999 12 07	704	0.1-	0.1+	2000 02 02	704	0.8+	0.9-
1998 09 19	699	0.2+	0.0	1999 12 07	704	0.6-	1.1-	2000 02 03	704	0.2-	0.1+
1998 09 19	699	0.6-	0.2+	1999 12 07	704	0.8-	1.0-	2000 02 03	704	0.3-	0.1+
1998 09 19	699	0.9+	0.5-	1999 12 15	703	0.9-	1.0+	2000 02 03	704	0.7-	0.2+
1998 10 18	699	0.3+	0.2-	1999 12 15	703	0.3+	0.5+	2000 02 03	704	0.2-	0.4+
1998 10 18	699	0.0	1.0-	1999 12 15	703	0.1+	1.7+	2000 02 03	704	0.6-	0.9+
1998 10 18	699	0.0	0.9-	1999 12 15	703	0.3-	0.8+				
1998 12 09	704	1.0+	0.6+	1999 12 30	699	0.8+	0.5+				

2000 AC₈₈ = 1993 FT₃₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	14.94990		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.26705702	ω	323.46374	-0.42206978	-0.90610721
a	2.3881781	Ω	151.46900	+0.84536172	-0.40483445
e	0.1190834	i	3.45140	+0.32744566	-0.12279573
P	3.69	H	15.3	G 0.15	U 4

Residuals in seconds of arc

1993 03 19	809	0.6-	0.1-	2000 01 05	704	0.1+	0.3+	2000 02 02	704	0.5+	0.6+
1993 03 20	809	0.5-	1.3-	2000 01 05	704	0.4+	0.2-	2000 02 02	704	0.6+	0.4-
1993 03 24	809	0.0	1.5-	2000 01 05	704	0.6-	0.1-	2000 02 02	704	0.1-	0.3+
1997 05 04	809	0.8+	0.5+	2000 01 05	704	0.5-	0.2-	2000 02 02	704	0.1+	0.8+
1997 05 04	809	0.6-	1.2+	2000 01 05	704	0.1-	0.2+	2000 02 03	704	0.5+	0.4+
1997 05 04	809	0.4+	0.9+	2000 01 06	704	0.7-	0.2+	2000 02 03	704	0.2+	0.5+
1999 12 31	699	0.1+	0.1+	2000 01 06	704	0.5-	0.4+	2000 02 03	704	0.1+	0.2-
1999 12 31	699	0.9-	0.1-	2000 01 06	704	0.9-	0.0	2000 02 03	704	0.5+	0.4+
1999 12 31	699	0.5+	0.1-	2000 02 02	704	0.4+	0.1+	2000 02 03	704	0.5+	0.1+

2000 AE₈₈ = 1998 RC₄₅

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	187.55828		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.27667685	ω	151.52318	+0.55234628	+0.83335451
a	2.3324956	Ω	151.98981	-0.77299238	+0.52137278
e	0.1123782	i	2.54203	-0.31208390	+0.18355023
P	3.56	H	14.2	G 0.15	U 4

Residuals in seconds of arc

1998 08 23	704	(2.3+	0.9-)	1998 12 08	704	1.3+	1.0-	2000 01 06	704	0.0	0.3+
1998 08 23	704	0.0	0.8-	1998 12 08	704	1.1-	1.2+	2000 01 27	691	0.8-	0.7-
1998 08 23	704	1.1+	0.1+	1998 12 08	704	0.8-	1.5+	2000 01 27	691	1.0-	0.5-
1998 08 23	704	0.8+	0.5+	1998 12 08	704	(4.4-	2.0-)	2000 01 27	691	1.1-	0.6-
1998 08 23	704	0.9-	1.9-	1999 12 31	699	1.0+	0.4+	2000 02 02	704	0.1-	0.2+
1998 09 14	704	0.1-	0.2-	1999 12 31	699	0.8+	1.2+	2000 02 02	704	0.3+	0.2+
1998 09 14	704	0.2-	0.3-	1999 12 31	699	0.4+	0.5+	2000 02 02	704	0.9+	0.7-
1998 09 14	704	0.2+	0.2+	2000 01 05	704	0.2+	0.5-	2000 02 02	704	0.2+	0.0
1998 09 14	704	0.1-	0.0	2000 01 05	704	0.1-	0.5+	2000 02 02	704	0.3-	1.1-
1998 09 18	704	0.1+	1.1-	2000 01 05	704	0.0	0.1-	2000 02 03	704	0.4+	0.3+
1998 09 18	704	0.6-	0.1+	2000 01 05	704	0.1-	0.2-	2000 02 03	704	0.2+	0.1+
1998 09 18	704	0.4+	1.2+	2000 01 05	704	0.5-	0.2-	2000 02 03	704	0.2+	0.2-
1998 09 18	704	0.1+	0.2+	2000 01 06	704	0.3-	0.2-	2000 02 03	704	0.0	0.2-
1998 09 18	704	0.1-	0.1+	2000 01 06	704	0.3-	0.5+	2000 02 03	704	0.1+	0.5-

2000 AG₈₈ = 1998 QW₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	123.53414		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$		
n	0.26376251	ω	106.36762	+0.98498779	+0.17087534		
a	2.4080232	Ω	243.79915	-0.16696858	+0.90702263		
e	0.1857821	i	1.56525	-0.04382414	+0.38485266		
P	3.74	H	14.7	G	0.15	U	4

Residuals in seconds of arc

1998 08 17	704	0.7+	0.4+	2000 01 05	704	0.2-	0.5-	2000 02 02	704	0.1+	0.6+
1998 08 17	704	0.4+	0.2+	2000 01 05	704	0.9+	0.7-	2000 02 02	704	0.2-	0.3-
1998 08 17	704	0.8+	0.0	2000 01 05	704	0.2-	0.9-	2000 02 02	704	0.6+	1.1+
1998 08 17	704	0.8+	0.4-	2000 01 05	704	0.9+	1.1+	2000 02 03	704	0.2-	0.3+
1998 08 17	704	(2.7+	0.9-)	2000 01 05	704	0.6-	0.7-	2000 02 03	704	1.0+	0.6+
1998 08 23	704	0.9-	0.2+	2000 01 06	704	0.3+	0.9-	2000 02 03	704	0.3+	0.1+
1998 08 23	704	(1.9+	2.2+)	2000 01 06	704	0.9-	0.9-	2000 02 03	704	0.7-	0.4-
1998 08 23	704	0.0	0.3-	2000 01 06	704	0.6-	0.1+	2000 02 03	704	0.7+	0.6+
1998 08 23	704	1.3-	1.3+	2000 01 06	704	0.1+	0.8+				
1998 08 23	704	0.9-	0.8-	2000 02 02	704	0.9-	0.9+				

2000 AJ₈₈ = 1996 EH₉ = 1997 MF₂ = 1998 RZ₃₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	81.91796		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$		
n	0.22708142	ω	247.81251	+0.80114827	-0.59728451		
a	2.6608169	Ω	148.82630	+0.57234961	+0.74632458		
e	0.1092108	i	4.16389	+0.17486385	+0.29368492		
P	4.34	H	15.0	G	0.15	U	1

Residuals in seconds of arc

1996 03 12	691	0.8+	0.1-	1998 09 14	704	(1.1-	2.5+)	2000 01 06	704	1.0-	1.4+
1996 03 12	691	0.5+	0.1-	1998 09 14	704	0.1+	0.2+	2000 01 06	704	0.1-	0.3+
1996 03 12	691	0.3+	0.1-	1998 09 18	704	0.5-	1.5-	2000 02 02	704	0.7-	0.7-
1996 03 17	691	1.0-	0.3-	1998 09 18	704	0.2-	1.0-	2000 02 02	704	0.9+	0.1+
1996 03 17	691	0.4-	0.1-	1998 09 18	704	0.2+	0.6-	2000 02 02	704	0.4+	1.4-
1996 03 17	691	0.4-	0.0	1998 09 18	704	0.7+	0.3+	2000 02 02	704	0.0	0.6-
1997 06 26	691	0.3+	0.8+	1998 09 18	704	1.1+	1.3+	2000 02 02	704	0.6+	0.

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1997 07 02	691	0.0	0.7+	2000 01 05	704	0.4−	0.4−	2000 02 03	704	0.2+	0.3+
1998 09 14	704	0.5−	0.3−	2000 01 06	704	0.3+	1.1+				
1998 09 14	704	0.7−	1.3+	2000 01 06	704	0.2−	1.1+				

2000 AK₈₈ = 1998 MV₃₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	126.74258		(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.28032426	ω	205.84683	+0.97989513	+0.19297564		
<i>a</i>	2.3122188	Ω	142.91465	−0.16537159	+0.92763280		
<i>e</i>	0.1863231	<i>i</i>	4.81877	−0.11161435	+0.31977773		
<i>P</i>	3.52	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 06 24	704	0.8−	0.2+	2000 01 05	704	0.4+	0.3−	2000 02 02	704	0.2+	0.7−
1998 06 24	704	0.3−	0.5−	2000 01 05	704	0.8−	0.8+	2000 02 02	704	0.5+	0.6+
1998 06 24	704	0.1−	0.0	2000 01 05	704	0.0	1.1−	2000 02 02	704	0.6−	0.1−
1998 06 26	809	1.1+	0.5−	2000 01 05	704	0.4+	0.7+	2000 02 02	704	0.1+	0.3+
1998 06 26	809	0.5+	0.4−	2000 01 05	704	1.0−	0.3−	2000 02 03	704	0.6−	0.3−
1998 06 26	809	0.0	0.2−	2000 01 06	704	0.2+	0.0	2000 02 03	704	0.3+	0.0
1998 06 26	704	0.9−	0.4−	2000 01 06	704	1.5+	0.5−	2000 02 03	704	0.0	0.3+
1998 06 26	704	0.7+	0.8+	2000 01 06	704	0.1+	0.5−	2000 02 03	704	0.1−	0.8+
1998 06 26	704	0.1−	0.7+	2000 01 06	704	0.9−	1.0+	2000 02 03	704	0.1−	0.5−
1998 06 26	704	0.1−	0.3+	2000 02 02	704	0.4+	0.3−				

2000 AL₈₈ = 1998 QB₆₃

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	10.05623		(2000.0)	Spahr		<i>P</i>	<i>Q</i>
<i>n</i>	0.28273721	ω	213.78646	−0.54082620	−0.83799824		
<i>a</i>	2.2990446	Ω	269.05338	+0.78689107	−0.47358304		
<i>e</i>	0.0782975	<i>i</i>	4.16201	+0.29716909	−0.27106836		
<i>P</i>	3.49	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 07 29	327	0.2−	0.1+	1998 08 31	327	0.2+	0.3−	2000 02 02	704	0.0	0.2−
1998 07 29	327	0.4−	0.2+	1998 08 31	327	0.2−	0.1+	2000 02 02	704	0.1−	0.0
1998 07 29	327	0.0	0.4+	1999 12 31	699	(2.7−	0.4+)	2000 02 02	704	0.0	0.1−
1998 08 17	704	2.0+	0.1+	1999 12 31	699	0.8−	0.1+	2000 02 02	704	0.1+	0.2−
1998 08 17	704	(2.2+	3.0−)	1999 12 31	699	0.3−	0.3+	2000 02 03	704	0.4−	0.5−
1998 08 17	704	(2.3+	0.2−)	2000 01 05	704	0.0	0.2+	2000 02 03	704	0.4+	0.3−
1998 08 17	704	2.0−	0.4+	2000 01 05	704	0.2+	0.2+	2000 02 03	704	0.5−	0.3+
1998 08 23	704	0.5+	0.0	2000 01 05	704	0.5+	0.2−	2000 02 03	704	0.3−	0.4−
1998 08 23	704	1.9−	1.2+	2000 01 05	704	0.3+	0.1−	2000 02 03	704	0.0	0.2−
1998 08 23	704	0.5+	0.2+	2000 01 05	704	0.1−	0.4−	2000 02 03	704	0.1−	0.1+
1998 08 23	704	(4.4−	1.0−)	2000 01 06	704	0.2+	0.2+	2000 02 03	704	0.1−	0.7+
1998 08 30	327	0.6+	0.4−	2000 01 06	704	0.1+	0.2−	2000 02 03	704	0.0	0.1−
1998 08 30	327	0.2+	0.5−	2000 01 06	704	0.1−	0.2−	2000 02 03	704	0.2+	0.9+
1998 08 30	327	0.2−	0.8−	2000 01 06	704	0.1+	0.3+	2000 02 03	704	0.2+	0.2+
1998 08 31	327	0.4+	0.4−	2000 02 02	704	0.4+	0.2−				

2000 AN₈₈ = 1992 UN₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	95.14323		(2000.0)	Spahr		<i>P</i>	<i>Q</i>
<i>n</i>	0.30363517	ω	201.10551	+0.88461098	−0.46631677		
<i>a</i>	2.1923068	Ω	186.69310	+0.43200781	+0.82228771		
<i>e</i>	0.0918546	<i>i</i>	1.70917	+0.17559231	+0.32617724		
<i>P</i>	3.25	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1992 10 19	399	1.5−	0.7−	2000 01 05	704	0.1+	0.3+	2000 01 06	704	0.2−	0.2+
1992 10 19	399	(2.7−	2.5−)	2000 01 05	704	0.2−	0.1−	2000 02 02	704	0.1+	0.4−
1992 10 22	399	(2.2+	0.5−)	2000 01 05	704	0.1+	0.5−	2000 02 02	704	0.2+	0.3−
1992 10 22	399	1.6+	0.5+	2000 01 05	704	0.3+	0.2+	2000 02 02	704	0.1−	0.4−
1999 12 31	699	0.4+	0.6+	2000 01 06	704	0.4+	0.1+	2000 02 02	704	0.1−	0.4−

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1999 12 31	699	0.1−	0.1+	2000 01 06	704	0.1+	0.0	2000 02 02	704	0.4−	0.3−
1999 12 31	699	0.3−	0.8+	2000 01 06	704	0.4−	0.1+				

2000 AO₈₈ = 1994 NU₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	207.36925		(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.27349437	ω	163.04916	+0.32688017	+0.93906843		
<i>a</i>	2.3505552	Ω	125.90658	−0.88159013	+0.34351707		
<i>e</i>	0.1388403	<i>i</i>	7.54123	−0.34051168	+0.01210410		
<i>P</i>	3.60	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1994 07 04	010	0.9−	0.4−	1998 11 15	699	0.2+	0.1+	2000 01 30	704	0.2−	0.5+
1994 07 04	010	0.4−	1.2−	1998 11 15	699	0.2+	0.2−	2000 01 30	704	0.3−	0.1+
1994 07 04	010	0.1−	0.4+	1998 12 18	699	0.5+	0.9+	2000 01 30	704	0.3+	0.5−
1994 07 05	010	0.4+	1.1+	1998 12 18	699	0.3−	0.3+	2000 02 03	704	0.4+	0.4+
1994 07 05	010	0.7+	1.1+	1998 12 18	699	1.0−	0.8+	2000 02 03	704	0.5+	0.5+
1994 07 05	010	0.6−	0.9+	2000 01 05	704	0.4+	0.1−	2000 02 03	704	0.6+	0.4+
1994 07 08	010	1.7+	1.4+	2000 01 05	704	0.2+	0.0	2000 02 03	704	0.3+	0.5+
1994 07 08	010	0.2−	0.9+	2000 01 05	704	0.1−	0.2+	2000 02 03	704	0.2+	0.7+
1994 07 08	010	0.9+	1.0+	2000 01 05	704	0.3+	0.1+	2000 02 11	704	0.1+	0.1+
1994 07 14	010	(2.2−	0.6−)	2000 01 05	704	0.2−	0.1+	2000 02 11	704	0.4−	0.4+
1994 07 14	010	1.9−	0.4−	2000 01 06	704	0.4+	0.2−	2000 02 11	704	0.3+	0.2+
1994 07 14	010	0.0	0.3−	2000 01 06	704	0.2+	0.0	2000 02 11	704	0.0	0.5+
1998 09 21	699	0.2+	0.3−	2000 01 06	704	0.2+	0.8+	2000 02 11	704	(0.4+	2.5−)
1998 09 21	699	0.0	0.1−	2000 01 06	704	0.3−	0.2−	2000 02 11	704	0.5−	0.9+
1998 09 21	699	0.5+	0.0	2000 01 06	704	0.1−	0.1+	2000 02 11	704	0.8−	0.4+
1998 10 18	699	0.1−	0.2−	2000 01 28	691	0.1+	0.7−	2000 02 11	704	0.8−	0.5+
1998 10 18	699	0.3−	0.4−	2000 01 28	691	0.3+	1.1−	2000 02 12	691	0.4−	0.3+
1998 10 18	699	0.1+	0.2−	2000 01 28	691	0.0	0.7−	2000 02 12	691	0.3−	0.2+
1998 11 15	699	0.6−	0.8+	2000 01 30	704	0.3+	0.5+	2000 02 12	691	0.1−	0.4+

2000 AR₈₈ = 1995 WC₁₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	23.82843		(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.27830947	ω	174.78291	−0.25853932	−0.96518097		
<i>a</i>	2.3233647	Ω	290.19594	+0.88474787	−0.22005727		
<i>e</i>	0.1144487	<i>i</i>	2.42979	+0.38778683	−0.14142313		
<i>P</i>	3.54	<i>H</i>	16.2	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1995 11 17	691	0.7+	0.1−	2000 01 05	704	0.7+	0.6−	2000 02 02	704	0.3+	0.4−
1995 11 17	691	0.0	0.2−	2000 01 05	704	0.9+	0.6+	2000 02 03	704	0.3−	0.1−
1995 11 17	691	0.1+	0.3−	2000 01 06	704	1.2−	1.1−	2000 02 03	704	0.6−	0.5−
1995 11 23	691	0.3−	0.2+	2000 01 06	704	0.0	0.6−	2000 02 03	704	0.2+	0.3+
1995 11 23	691	0.2−	0.5+	2000 01 06	704	0.9−	0.2+	2000 02 03	704	0.1+	0.6+
1995 11 23	691	0.5−	0.2+	2000 01 06	704	0.1−	0.8−	2000 02 03	704	0.5−	0.3+
2000 01 05	704	1.1−	0.8+	2000 02 02	704	0.9+	1.0+				
2000 01 05	704	0.6+	0.1−	2000 02 02	704	0.8+	0.4+				

2000 AW₈₈ = 1998 RQ₄₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	302.15312		(2000.0)	Spahr		<i>P</i>	<i>Q</i>
<i>n</i>	0.28098237	ω	63.19409	−0.95121898	+0.29539170		
<i>a</i>	2.3086070	Ω	133.83783	−0.30821854	−0.89719281		
<i>e</i>	0.0553327	<i>i</i>	7.09000	−0.01355640	−0.32831207		
<i>P</i>	3.51	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 14	704	1.4+	1.6−	1998 09 27	704	1.5+	1.0+	2000 01 06	704	0.5−	0.2−
1998 09 14	704	0.6+	0.5−	1998 09 27	704	0.0	0.1−	2000 01 06	704	0.5−	0.0
1998 09 14	704	1.0+	1.1−	1998 09 27	704	0.7+	1.0−	2000 01 06	704	0.4−	0.4+
1998 09 14	704	0.7+	0.8−	1998 09 27	704	0.1−	0.3+	2000 02 02	704	0.3−	0.2−

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1998 09 18	704	0.9+	0.7+	1999 12 31	699	0.7+	0.1+	2000 02 02	704	0.3+	0.1-
1998 09 18	704	1.2-	1.7+	1999 12 31	699	0.9+	0.8+	2000 02 02	704	0.2+	0.1-
1998 09 18	704	0.5-	0.3+	2000 01 05	704	0.2-	0.6-	2000 02 02	704	0.4+	0.0
1998 09 26	704	(4.1-	1.5+)	2000 01 05	704	0.7-	0.4-	2000 02 03	704	0.2+	0.4+
1998 09 26	704	0.7-	1.1+	2000 01 05	704	0.3-	0.4-	2000 02 03	704	0.3+	0.4-
1998 09 26	704	0.8-	0.8+	2000 01 05	704	0.2+	0.8+	2000 02 03	704	0.0	0.2-
1998 09 26	704	1.7-	0.5+	2000 01 05	704	0.7+	0.6+	2000 02 03	704	0.2-	0.1+
1998 09 27	704	0.8-	0.2-	2000 01 06	704	0.6-	0.2-	2000 02 03	704	0.8-	0.3-

2000 AZ₈₈ = 1996 JQ₁₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	46.76694	(2000.0)		<i>P</i>	<i>Q</i>		
<i>n</i>	0.18811485	ω	305.95072	+0.20447001	-0.96831710		
<i>a</i>	3.0166203	Ω	131.59279	+0.94846897	+0.15976348		
<i>e</i>	0.0872618	<i>i</i>	11.05184	+0.24207152	+0.19193132		
<i>P</i>	5.24	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1992 07 30	809	(1.5+	2.5-)	2000 01 05	704	0.3+	0.6-	2000 02 03	704	0.1-	0.1+
1992 07 30	809	0.0	1.1-	2000 01 06	704	0.4+	0.2+	2000 02 03	704	0.2+	0.3+
1992 07 30	809	0.3+	1.5-	2000 01 06	704	0.3+	0.4-	2000 02 03	704	0.0	0.1+
1996 05 14	691	0.4+	0.1-	2000 01 06	704	0.9+	0.7+	2000 02 03	704	0.3+	0.2-
1996 05 14	691	0.5+	0.0	2000 01 06	704	0.8+	0.2-	2000 02 06	704	0.6+	0.6-
1996 05 14	691	0.2+	0.1-	2000 01 07	704	0.4+	0.1-	2000 02 06	704	0.2-	0.5+
1996 05 21	691	0.7-	0.3+	2000 01 07	704	0.9+	0.3+	2000 02 06	704	0.4-	0.1+
1996 05 21	691	0.3-	0.2-	2000 01 07	704	0.1-	0.4-	2000 02 06	704	0.4+	0.2-
1996 05 21	691	0.2-	0.2-	2000 01 07	704	0.2+	0.1-	2000 02 08	704	0.4-	0.2-
1999 12 31	699	0.9-	0.0	2000 01 07	704	0.3+	0.1-	2000 02 08	704	0.7-	0.1-
1999 12 31	699	0.4-	0.8+	2000 02 02	704	0.4-	0.0	2000 02 08	704	0.6-	0.4-
1999 12 31	699	0.8-	0.4+	2000 02 02	704	0.3-	0.2-	2000 02 08	704	0.4-	0.9-
2000 01 05	704	0.8+	0.3-	2000 02 02	704	0.8-	0.4+	2000 02 10	691	0.2-	0.6-
2000 01 05	704	0.1+	0.3-	2000 02 02	704	0.0	0.2-	2000 02 10	691	0.2-	0.5-
2000 01 05	704	0.4+	0.3+	2000 02 02	704	0.3-	0.2+	2000 02 10	691	0.1-	0.6-
2000 01 05	704	0.1-	0.5-	2000 02 03	704	0.1-	0.6+				

2000 AA₈₉ = 1998 RD₆₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>	99.28888	(2000.0)		<i>P</i>	<i>Q</i>		
<i>n</i>	0.21609252	ω	153.72315	+0.92584983	-0.37689688		
<i>a</i>	2.7502757	Ω	228.44629	+0.33994152	+0.86234859		
<i>e</i>	0.0956841	<i>i</i>	2.09844	+0.16505107	+0.33808822		
<i>P</i>	4.56	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1996 03 20	566	0.3-	1.1-	1998 09 26	704	0.8+	1.1-	2000 01 05	704	0.6+	0.0
1996 03 20	566	0.5-	1.0-	1998 09 26	704	0.0	0.8-	2000 01 06	704	0.2+	0.3+
1996 03 20	566	0.7-	1.4-	1998 09 27	704	1.5+	0.5+	2000 01 06	704	0.9+	0.3+
1998 08 02	699	0.7-	0.4-	1998 09 27	704	0.3-	0.3-	2000 01 06	704	0.1-	0.3+
1998 08 02	699	0.9+	0.2-	1998 09 27	704	0.8+	1.4+	2000 01 06	704	1.0+	0.1-
1998 08 02	699	0.5-	0.9-	1998 09 27	704	0.8-	0.4-	2000 01 07	704	0.1+	0.3+
1998 09 14	704	0.1-	0.2+	1998 09 27	704	0.7+	0.3-	2000 01 07	704	0.3+	0.3+
1998 09 14	704	0.2-	0.6-	1998 10 19	699	0.4+	0.1+	2000 01 07	704	0.1+	0.4+
1998 09 14	704	0.2+	0.2-	1998 10 19	699	0.4+	0.3+	2000 01 07	704	0.2-	0.8+
1998 09 15	699	0.3-	0.5+	1998 10 19	699	0.4+	0.1+	2000 01 07	704	0.1+	0.0
1998 09 15	699	0.3+	0.1-	1998 12 08	699	0.3-	0.4+	2000 02 02	704	0.3-	0.1-
1998 09 15	699	0.4-	0.3+	1998 12 08	699	0.2+	0.0	2000 02 02	704	0.5-	0.7-
1998 09 18	704	0.3-	0.3-	1998 12 08	699	0.3+	0.8-	2000 02 02	704	0.3-	0.7-
1998 09 18	704	0.7-	0.2+	1999 12 31	699	0.8+	0.7+	2000 02 02	704	0.7-	0.1+
1998 09 18	704	1.3-	0.3+	1999 12 31	699	0.3+	0.4-	2000 02 02	704	0.5-	0.4-
1998 09 18	704	0.0	0.1+	1999 12 31	699	0.4-	0.2+	2000 02 03	704	0.2-	0.7-
1998 09 18	704	0.1-	0.2-	2000 01 05	704	0.7+	0.0	2000 02 03	704	0.4-	0.1+
1998 09 26	704	0.2+	0.1-	2000 01 05	704	0.3+	0.4+	2000 02 03	704	0.7-	0.2-
1998 09 26	704	0.7+	0.5-	2000 01 05	704	0.7+	0.0	2000 02 03	704	1.1-	0.0
1998 09 26	704	0.2-	0.8-	2000 01 05	704	0.6+	0.6-	2000 02 03	704	0.9-	0.0

M.P.C. 38657

2000 AH₈₉ = 1994 GX₁ = 1998 MW₃₅

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>	92.66752	(2000.0)		<i>P</i>	<i>Q</i>		
<i>n</i>	0.30514989	ω	238.26082	+0.85790559	-0.51274907		
<i>a</i>	2.1850459	Ω	152.54489	+0.49228138	+0.80189700		
<i>e</i>	0.0954497	<i>i</i>	4.09956	+0.14716333	+0.30667508		
<i>P</i>	3.23	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1994 04 02	691	0.1+	0.4+	1998 07 21	704	(0.7+	2.2-)	2000 01 07	704	0.0	0.3-
1994 04 02	691	0.2-	0.3-	1998 07 21	704	0.2+	1.6+	2000 01 07	704	0.1+	0.5-
1994 04 02	691	0.3+	0.2-	1998 07 21	704	1.0-	0.9-	2000 01 07	704	0.0	0.3-
1994 04 03	691	0.6-	0.1-	1998 08 15	704	(0.1+	2.6-)	2000 01 07	704	0.0	0.4-
1994 04 03	691	0.0	0.3-	1998 08 15	704	0.4-	0.4-	2000 01 07	704	0.0	0.9-
1994 04 03	691	0.1+	0.4-	1998 08 15	704	0.8-	1.7+	2000 02 02	704	0.1-	0.7+
1998 06 24	704	0.6+	0.2+	1998 08 15	704	(4.3-	0.7-)	2000 02 02	704	0.6-	0.5+
1998 06 24	704	0.0	0.1-	2000 01 05	704	0.7+	0.0	2000 02 02	704	0.1-	1.3+
1998 06 24	704	1.5-	1.2+	2000 01 05	704	0.3+	0.7-	2000 02 02	704	0.6-	0.5+
1998 06 24	704	(4.9-	0.7+)	2000 01 05	704	0.5+	0.7-	2000 02 02	704	0.0	0.3+
1998 06 26	704	1.4+	0.6-	2000 01 05	704	0.9+	0.2-	2000 02 03	704	0.3-	0.9+
1998 06 26	704	1.3+	0.0	2000 01 05	704	0.1+	0.2+	2000 02 03	704	0.3-	0.6+
1998 06 26	704	0.4-	1.0-	2000 01 06	704	0.4+	0.2-	2000 02 03	704	0.1-	0.4+
1998 06 26	704	1.1+	1.4+	2000 01 06	704	0.3-	0.2+	2000 02 03	704	0.2-	0.5+
1998 07 21	704	0.6-	0.8-	2000 01 06	704	0.5+	0.5+	2000 02 03	704	0.4-	0.0

2000 AJ₈₉ = 1991 PU₁₇ = 1998 OD

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>	128.63075	(2000.0)		<i>P</i>	<i>Q</i>		
<i>n</i>	0.27787043	ω	183.93563	+0.98098107	+0.19334527		
<i>a</i>	2.3258114	Ω	164.88344	-0.17624402	+0.92423811		
<i>e</i>	0.1939288	<i>i</i>	3.76822	-0.08132760	+0.32924387		
<i>P</i>	3.55	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1991 08 05	675	1.5-	0.1+	1998 08 17	704	0.8+	0.1-	2000 01 06	704	0.3+	0.5-
1991 08 05	675	0.6-	0.4-	1998 08 17	704	0.1-	0.7-	2000 01 07	704	0.5-	1.0-
1991 08 07	675	1.8+	0.7+	1999 12 15	703	0.7-	1.4+	2000 01 07	704	0.8+	0.8-
1991 08 07	675	0.1+	0.4+	1999 12 15	703	1.8-	1.1+	2000 01 07	704	0.7+	0.4-
1998 06 26	704	1.0+	0.6-	1999 12 15	703	0.8-	0.9-	2000 02 02	704	0.3-	0.7+
1998 06 26	704	1.0-	0.4+	1999 12 15	703	0.2+	1.0+	2000 02 02	704	0.9-	0.5-
1998 06 26	704	1.2+	0.0	1999 12 31	699	0.5-	0.8+	2000 02 02	704	0.2-	0.6+
1998 06 26	704	0.3+	0.7-	1999 12 31	699	0.0	0.1+	2000 02 02	704	0.7-	0.8+
1998 07 17	910	0.5-	0.4+	1999 12 31	699	0.2+	0.3-	2000 02 02	704	0.9-	0.8+
1998 07 18	910	0.6-	0.5+	2000 01 05	704	0.5+	0.2+	2000 02 03	704	1.4+	0.8+
1998 07 18	910	0.6-	0.4+	2000 01 05	704	0.4+	0.7-	2000 02 03	704	0.9+	1.4+
1998 07 19	910	0.0	0.4+	2000 01 05	704	0.9+	0.8-	2000 02 03	704	0.1-	0.2+
1998 07 19	910	0.0	0.3+	2000 01 05	704	0.6+	0.4-	2000 02 03	704	1.0+	0.1+
1998 07 19	910	0.2-	0.4+	2000 01 05	704	0.3-	0.0	2000 02 03	704	0.8-	0.2-
1998 08 17	704	0.5-	0.1-	2000 01 06	704	0.5+	0.3-				
1998 08 17	704	0.3+	0.2+	2000 01 06	704	0.0	0.8-				

Residuals in seconds of arc

1997 09 29	691	0.1−	0.5−	2000 01 05	704	0.0	0.3−	2000 02 02	704	0.1−	0.7+
1997 09 29	691	0.4−	0.2−	2000 01 05	704	0.1+	0.2+	2000 02 02	704	0.1−	0.7+
1997 09 29	691	0.1+	0.0	2000 01 05	704	0.1−	0.7−	2000 02 02	704	0.8−	0.6+
1997 10 05	691	0.2+	0.2+	2000 01 05	704	0.2−	0.7+	2000 02 03	704	0.2+	0.2+
1997 10 05	691	0.2+	0.1−	2000 01 06	704	0.1+	0.1−	2000 02 03	704	0.3+	0.1−
1997 10 05	691	0.1−	0.7+	2000 01 06	704	0.8−	0.7−	2000 02 03	704	0.3+	0.3−
1999 12 31	699	0.0	0.6−	2000 01 06	704	0.2+	0.4+	2000 02 03	704	0.2+	0.8−
1999 12 31	699	0.7+	0.1−	2000 01 06	704	0.3+	0.1+	2000 02 03	704	0.1−	1.1−
1999 12 31	699	0.2−	0.2+	2000 02 02	704	0.0	0.5+				
2000 01 05	704	0.1−	0.3−	2000 02 02	704	0.2+	0.7+				

2000 AO₈₉ = 1998 VW₃₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	8.28975		(2000.0)	P	Q
<i>n</i>	0.17603067	ω	321.47493	−0.55576686	−0.83120659
<i>a</i>	3.1531441	Ω	162.27319	+0.77426918	−0.52401199
<i>e</i>	0.0404699	<i>i</i>	2.78467	+0.30270521	−0.18576072
<i>P</i>	5.60	<i>H</i>	13.2	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 11 10	704	0.7+	0.4−	2000 01 06	704	0.0	0.2−	2000 02 05	704	0.1−	0.0
1998 11 10	704	1.1−	0.3−	2000 01 06	704	0.5−	0.4−	2000 02 05	704	0.2−	0.3+
1998 11 10	704	0.2−	0.2−	2000 01 06	704	0.1−	0.2−	2000 02 06	704	0.1+	0.3−
1998 11 10	704	0.1+	1.4+	2000 02 02	704	0.0	0.6+	2000 02 06	704	0.9−	0.1−
1998 11 10	704	1.2−	0.1+	2000 02 02	704	0.1−	0.6−	2000 02 06	704	0.1−	0.0
1998 11 11	704	0.6+	0.3−	2000 02 02	704	0.5+	0.8−	2000 02 06	704	0.2+	0.1−
1998 11 11	704	0.3+	1.2+	2000 02 02	704	0.1−	0.9−	2000 02 06	704	0.3+	0.3+
1998 11 11	704	0.5+	1.3−	2000 02 02	704	0.4+	1.0−	2000 02 06	704	0.0	0.5+
1998 11 11	704	1.2+	0.8−	2000 02 03	704	0.3−	0.4+	2000 02 06	704	0.3−	0.2−
1998 11 11	704	0.9−	0.5+	2000 02 03	704	0.0	0.7−	2000 02 06	704	0.6−	0.4−
1999 12 31	699	0.6+	1.3+	2000 02 03	704	0.1−	0.5−	2000 02 06	704	0.1+	0.2−
1999 12 31	699	1.0+	0.1+	2000 02 03	704	0.1+	0.4−	2000 02 06	704	0.0	0.5+
1999 12 31	699	0.1−	0.2+	2000 02 03	704	0.1+	0.7−	2000 02 12	704	1.0+	0.3−
2000 01 05	704	0.4+	0.5+	2000 02 05	704	0.4−	0.0	2000 02 12	704	0.0	0.9+
2000 01 05	704	0.3−	0.0	2000 02 05	704	0.1−	0.1+	2000 02 12	704	0.7+	0.8+
2000 01 05	704	0.1−	0.1−	2000 02 05	704	0.1+	0.2+	2000 02 12	704	0.5+	0.6+
2000 01 05	704	0.3−	0.6−	2000 02 05	704	0.2−	0.2+	2000 02 12	704	0.2−	0.8+
2000 01 05	704	0.2−	0.1+	2000 02 05	704	0.1−	0.2+				
2000 01 06	704	0.1−	0.2−	2000 02 05	704	0.2−	0.3+				

2000 AQ₈₉ = 1987 QV₃ = 1987 SW₂₆ = 1998 QD₅₃Id. T. B. Spahr; 1987 QV₃ = 1987 UL₂ (*MPC* 15384) is invalid

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	176.10829		(2000.0)	P	Q
<i>n</i>	0.26748637	ω	15.54509	+0.71225493	+0.69633956
<i>a</i>	2.3856219	Ω	299.97247	−0.65438274	+0.61320827
<i>e</i>	0.1498028	<i>i</i>	5.85315	−0.25392152	+0.37294349
<i>P</i>	3.68	<i>H</i>	13.9	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1987 08 30	010	0.1−	1.5−	1998 09 25	699	0.3+	0.3+	2000 01 05	704	0.2−	0.3+
1987 08 30	010	1.5+	0.7−	1998 10 15	699	0.4−	1.3+	2000 01 05	704	0.4+	0.1−
1987 08 30	010	1.4+	0.2+	1998 10 15	699	0.3−	1.2+	2000 01 05	704	0.6−	0.8−
1987 09 26	095	1.7−	0.1−	1998 10 15	699	0.1−	0.9+	2000 01 06	704	0.5+	1.1+
1998 06 29	704	1.0+	1.4+	1998 12 09	704	(2.4+	1.6+)	2000 01 06	704	0.2−	0.2−
1998 06 29	704	1.3−	1.3−	1998 12 09	704	0.9−	0.1+	2000 01 06	704	0.5−	0.2−
1998 06 29	704	0.7−	2.0+	1998 12 09	704	0.5+	1.3−	2000 01 06	704	0.0	0.3−
1998 06 29	704	1.7−	0.0	1998 12 09	704	0.8+	1.1+	2000 01 06	704	0.2−	0.3+
1998 08 20	699	0.0	0.6−	1998 12 24	699	(2.6−	0.1−)	2000 02 02	732	0.2+	0.2−
1998 08 20	699	0.0	0.2−	1998 12 24	699	0.7−	0.6−	2000 02 02	732	1.4+	0.9−
1998 08 20	699	0.2+	0.2+	1998 12 24	699	0.3−	0.5−	2000 02 02	732	0.6−	0.5+
1998 08 27	699	0.3+	0.5−	1999 12 31	699	0.5+	1.4+	2000 02 07	732	0.5−	0.3−
1998 08 27	699	0.0	0.3−	1999 12 31	699	0.5−	0.6+	2000 02 07	732	0.9+	1.0−
1998 08 27	699	0.3−	0.3−	1999 12 31	699	0.8+	0.2+	2000 02 07	732	0.6−	0.2+

1998 09 25	699	0.3+	0.8−	2000 01 05	704	0.2+	0.3−
1998 09 25	699	0.8+	0.1+	2000 01 05	704	0.7−	0.6+

2000 AY₈₉ = 1998 RD₃₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	49.11266		(2000.0)	P	Q
<i>n</i>	0.20205957	ω	214.35167	+0.50560486	−0.86221564
<i>a</i>	2.8761825	Ω	205.31839	+0.80685302	+0.48517512
<i>e</i>	0.1063739	<i>i</i>	4.12855	+0.30553548	+0.14556544
<i>P</i>	4.88	<i>H</i>	14.5	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1998 08 17	704	0.5+	0.8+	1998 09 18	704	(2.4−	0.7+)	2000 01 06	704	1.3+	0.7+
1998 08 17	704	0.7+	0.3+	1999 12 14	704	0.2−	0.0	2000 02 02	704	1.8+	0.1−
1998 08 17	704	1.1+	0.1−	1999 12 14	704	0.7−	0.3−	2000 02 02	704	0.2−	0.3+
1998 08 17	704	1.0−	0.4−	1999 12 14	704	0.0	0.3−	2000 02 02	704	0.5−	0.0
1998 08 17	704	(6.3−	0.7−)	1999 12 14	704	0.1+	0.6−	2000 02 02	704	0.2+	0.3+
1998 09 14	704	0.3−	1.2+	1999 12 14	704	0.6−	0.5−	2000 02 02	704	0.1−	1.3+
1998 09 14	704	(1.4+	3.0+)	2000 01 05	704	0.6−	0.8−	2000 02 03	704	0.4−	0.4+
1998 09 14	704	(0.4+	2.4+)	2000 01 05	704	0.1+	0.5−	2000 02 03	704	0.4−	0.2+
1998 09 14	704	1.2+	1.0+	2000 01 05	704	0.0	0.2+	2000 02 03	704	0.5+	0.7+
1998 09 18	704	0.9−	1.5−	2000 01 05	704	0.0	0.8−	2000 02 03	704	0.2+	0.1+
1998 09 18	704	0.6−	0.1−	2000 01 06	704	0.4−	0.1+				
1998 09 18	704	0.8−	0.6−	2000 01 06	704	0.2−	0.2+				

2000 AZ₈₉ = 1998 OE₁₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	340.95542		(2000.0)	P	Q
<i>n</i>	0.28145648	ω	10.22484	−0.81986739	−0.56590837
<i>a</i>	2.3060137	Ω	134.94208	+0.51624951	−0.79635670
<i>e</i>	0.0610214	<i>i</i>	7.05843	+0.24759625	−0.21345662
<i>P</i>	3.50	<i>H</i>	14.8	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 07 26	809	1.0+	0.0	1998 08 23	704	(4.4−	0.5+)	2000 01 06	704	0.5−	0.3−
1998 07 26	809	0.9+	1.0−	1999 12 06	704	1.0+	0.8−	2000 01 06	704	0.8−	0.1−
1998 07 26	809	0.3+	0.3+	1999 12 06	704	0.4−	1.5−	2000 01 06	704	0.8−	0.0
1998 07 27	809	1.0+	0.0	1999 12 06	704	0.2+	1.2+	2000 02 02	704	0.3+	0.1−
1998 07 27	809	0.7+	0.8−	1999 12 06	704	1.1+	0.2−	2000 02 02	704	0.5+	0.4+
1998 07 27	809	0.3+	0.2+	1999 12 06	704	0.2+	1.6+	2000 02 02	704	0.2+	0.2+
1998 08 17	704	1.3+	1.6−	1999 12 14	704	0.2−	0.6+	2000 02 02	704	0.2+	0.3+
1998 08 17	704	1.9−	0.1−	1999 12 14	704	0.1−	0.2+	2000 02 02	704	0.7+	0.8+
1998 08 17	704	(1.5+	2.4−)	1999 12 14	704	0.2−	0.2+	2000 02 03	704	0.4+	0.0
1998 08 17	704	1.6−	1.6−	1999 12 14	704	0.1+	0.6+	2000 02 03	704	0.2−	0.5−
1998 08 17	704	0.6−	1.2+	1999 12 14	704	0.1−	0.4+	2000 02 03	704	0.2+	0.4−
1998 08 23	704	(2.3−	0.0)	2000 01 05	704	0.4−	0.4−	2000 02 03	704	0.1+	1.2−
1998 08 23	704	1.3−	1.4+	2000 01 05	704	0.0	0.2−	2000 02 03	704	0.4−	0.7−
1998 08 23	704	0.9−	0.1−	2000 01 05	704	0.2−	0.5−				
1998 08 23	704	1.4+	1.0+	2000 01 05	704	0.4−	0.4−				

2000 AM₉₀ = 1987 SQ₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	118.64610		(2000.0)	P	Q
<i>n</i>	0.26223069	ω	141.91783	+0.98666495	+0.16205827
<i>a</i>	2.4173918	Ω	208.76668	−0.15598926	+0.91492274
<i>e</i>	0.2081042	<i>i</i>	1.80353	−0.04647183	+0.36966673
<i>P</i>	3.76	<i>H</i>	14.3	<i>G</i> 0.15	<i>U</i> 6

Residuals in seconds of arc

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2000 FEB. 22

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2000 01 05	704	0.2−	0.5−	2000 02 02	704	0.9+	0.6+	2000 02 03	704	0.6+	0.1+
2000 01 05	704	0.3+	0.8+	2000 02 02	704	0.0	1.0−				
2000 01 05	704	0.1−	0.2+	2000 02 02	704	0.1−	0.7−				

2000 AR₉₀ = 1998 RX₄₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	9.69692		(2000.0)	P	Q
<i>n</i>	0.24280794	ω	213.73882	−0.50589960	−0.86076393
<i>a</i>	2.5446465	Ω	266.71055	+0.80331633	−0.44642899
<i>e</i>	0.0893572	<i>i</i>	3.22326	+0.31424268	−0.24451301
<i>P</i>	4.06	<i>H</i>	15.0	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 09 14	704	0.7−	0.0	2000 01 05	704	0.2+	0.5−	2000 02 02	704	0.5+	0.5−
1998 09 14	704	1.2+	0.4+	2000 01 05	704	0.8+	0.6−	2000 02 03	704	0.0	0.4+
1998 09 14	704	1.5−	0.7−	2000 01 05	704	0.2+	0.3−	2000 02 03	704	0.1−	0.6−
1998 09 18	704	0.7−	0.2−	2000 01 06	704	0.8+	0.2−	2000 02 03	704	0.2−	0.3+
1998 09 18	704	0.5−	0.7+	2000 01 06	704	0.3+	0.0	2000 02 03	704	0.7+	0.6+
1998 09 18	704	1.9+	1.0−	2000 01 06	704	0.7−	0.7−	2000 02 03	704	0.3−	0.4+
1998 09 18	704	0.3+	0.9+	2000 01 06	704	0.6−	0.0	2000 02 10	704	0.1+	0.3+
1999 12 31	699	0.0	0.4+	2000 01 06	704	0.3−	0.8−	2000 02 10	704	0.5−	0.4−
1999 12 31	699	0.1−	1.0+	2000 02 02	704	0.3−	0.2+	2000 02 10	704	0.0	0.3+
1999 12 31	699	0.9−	0.7+	2000 02 02	704	0.5−	0.8−	2000 02 10	704	0.1+	0.2+
2000 01 05	704	0.2+	0.5+	2000 02 02	704	0.4+	0.2+				

2000 AS₉₀ = 1998 MG₂₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	114.30125		(2000.0)	P	Q
<i>n</i>	0.28368588	ω	72.34831	+0.99563219	−0.00025961
<i>a</i>	2.2939163	Ω	287.58694	−0.03943080	+0.90526406
<i>e</i>	0.1600995	<i>i</i>	5.62055	+0.08462710	+0.42484929
<i>P</i>	3.47	<i>H</i>	14.5	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 06 24	704	0.6−	0.2+	1999 11 16	704	0.4−	0.3−	2000 01 24	120	1.2+	0.3−
1998 06 24	704	0.4−	1.0−	1999 11 16	704	0.7−	0.9−	2000 01 25	120	1.1−	0.3−
1998 06 24	704	0.0	0.1+	1999 11 16	704	1.5−	1.2−	2000 01 25	120	0.8+	0.1+
1998 06 24	704	0.3+	1.1−	1999 12 30	699	0.4+	0.7−	2000 01 25	120	1.0−	0.2−
1998 06 24	704	0.0	0.5−	1999 12 30	699	0.6−	0.1−	2000 01 27	120	0.0	0.7−
1998 06 26	704	0.1+	0.1+	1999 12 30	699	0.8+	0.4−	2000 01 27	120	0.2−	0.4−
1998 06 26	704	0.3−	0.5+	2000 01 05	704	1.3−	0.5+	2000 02 02	704	0.4−	0.3+
1998 06 26	704	0.8+	0.3−	2000 01 05	704	0.6+	0.9−	2000 02 02	704	0.4+	0.1+
1998 07 21	704	0.7+	0.4−	2000 01 05	704	0.4+	0.9−	2000 02 02	704	0.4−	0.3−
1998 07 21	704	(0.8+	2.4+)	2000 01 05	704	0.4+	0.1−	2000 02 02	704	0.1−	0.4+
1998 07 21	704	(3.8+	4.2+)	2000 01 06	704	1.0−	0.2+	2000 02 02	704	0.2+	0.6+
1998 07 21	704	(0.4−	4.1+)	2000 01 06	704	0.3−	0.2−	2000 02 03	704	0.5−	0.2+
1999 11 11	703	0.1−	0.5+	2000 01 06	704	0.0	0.2−	2000 02 03	704	0.9+	1.0+
1999 11 11	703	1.1−	1.3+	2000 01 06	704	0.0	0.5−	2000 02 03	704	0.1+	0.4+
1999 11 11	703	1.7+	0.2−	2000 01 24	120	0.3−	0.9−	2000 02 03	704	0.6+	0.6+
1999 11 11	703	0.1−	0.1−	2000 01 24	120	0.3+	0.3−	2000 02 03	704	0.6+	0.9+

2000 AT₉₀ = 1998 QY₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	141.40991		(2000.0)	P	Q
<i>n</i>	0.28231821	ω	50.21654	+0.92864018	+0.35664489
<i>a</i>	2.3013188	Ω	288.67232	−0.36472832	+0.82736690
<i>e</i>	0.1547731	<i>i</i>	6.18915	−0.06782829	+0.43389910
<i>P</i>	3.49	<i>H</i>	14.5	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1998 07 03	699	0.6−	1.1+	1998 08 23	704	0.2−	1.0−	2000 02 02	704	0.4−	0.2−
1998 07 03	699	0.4−	0.4+	2000 01 05	704	0.2−	0.3+	2000 02 02	704	0.0	0.5−
1998 07 03	699	0.5−	0.7+	2000 01 05	704	0.6+	0.9+	2000 02 02	704	0.2+	0.2+
1998 08 17	704	0.4−	0.4+	2000 01 05	704	0.4−	0.0	2000 02 03	704	0.6−	0.7−
1998 08 17	704	0.5−	0.1−	2000 01 05	704	0.4+	0.6+	2000 02 03	704	0.2+	0.0

1998 08 17	704	(4.0−	1.5+)	2000 01 06	704	0.5+	0.2+	2000 02 03	704	0.3−	0.0
1998 08 17	704	0.1+	0.1−	2000 01 06	704	0.6+	0.4+	2000 02 03	704	0.7−	0.3−
1998 08 17	704	0.6+	0.3−	2000 01 06	704	0.0	0.2+	2000 02 03	704	0.2+	0.1−
1998 08 23	704	0.3+	1.0+	2000 01 06	704	0.5+	0.3+	2000 02 10	704	0.9−	0.3+
1998 08 23	704	0.0	0.0	2000 02 02	704	0.2+	0.3−	2000 02 10	704	0.3+	0.4+
1998 08 23	704	0.6+	0.0	2000 02 02	704	0.1−	0.4−	2000 02 10	704	0.9+	1.3+

2000 AE₉₁ = 1971 UZ₃ = 1995 OY₄

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	99.13915		(2000.0)	P	Q
<i>n</i>	0.28606650	ω	213.31951	+0.98813954	+0.14016285
<i>a</i>	2.2811721	Ω	138.47936	−0.11189450	+0.93697652
<i>e</i>	0.2645704	<i>i</i>	5.42980	−0.10516597	+0.32004589
<i>P</i>	3.45	<i>H</i>	15.6	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1971 10 22	805	0.1−	1.5+	2000 01 05	704	0.5−	0.3+	2000 01 07	704	0.5+	0.5−
1971 10 22	805	0.4−	0.1−	2000 01 05	704	0.2−	0.2+	2000 01 09	704	0.1−	0.0
1971 10 22	805	0.5+	1.4−	2000 01 05	704	0.2+	0.5+	2000 01 09	704	0.1+	0.8−
1995 07 22	691	0.1+	0.3−	2000 01 06	704	0.3−	0.4+	2000 01 09	704	0.4+	0.1+
1995 07 22	691	0.0	0.0	2000 01 06	704	0.3+	0.5+	2000 01 09	704	0.5−	0.1−
1995 07 22	691	0.3−	0.0	2000 01 06	704	0.0	0.2−	2000 01 10	704	0.0	0.8−
1995 08 01	691	0.0	0.1−	2000 01 07	704	0.2+	0.5+	2000 01 10	704	0.1+	0.3+
1995 08 01	691	0.2+	0.3+	2000 01 07	704	0.0	0.3+	2000 01 10	704	0.2−	0.8−
1995 08 01	691	0.1+	0.2−	2000 01 07	704	0.0	0.1−				

2000 AH₉₁ = 1997 GO₄₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	315.24228		(2000.0)	P	Q
<i>n</i>	0.27810502	ω	17.03362	−0.99954565	−0.01349747
<i>a</i>	2.3245033	Ω	162.12805	−0.00417934	−0.94755769
<i>e</i>	0.1202005	<i>i</i>	5.03806	+0.02985023	−0.31929962
<i>P</i>	3.54	<i>H</i>	14.7	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1994 07 08	010	1.1−	2.9+	1997 04 10	809	0.6+	0.6+	2000 02 02	704	0.5+	0.7+
1994 07 08	010	1.4−	2.8+	1999 12 14	704	0.3+	2.4−	2000 02 02	704	0.5+	1.1+
1994 07 08	010	0.9+	4.0+	1999 12 14	704	1.5−	0.1−	2000 02 02	704	0.6+	0.6+
1997 04 07	809	0.2−	1.4−	1999 12 14	704	0.6−	0.7+	2000 02 02	704	0.3+	0.6+
1997 04 07	809	0.5−	0.9−	1999 12 14	704	0.7−	1.8+	2000 02 02	704	0.2+	0.8+
1997 04 07	809	1.3−	1.3−	2000 01 05	704	0.1+	0.2+	2000 02 03	704	0.1−	0.7+
1997 04 09	809	0.2−	0.4+	2000 01 05	704	0.1+	0.1−	2000 02 03	704	0.9+	1.1+
1997 04 09	809	0.6−	0.1−	2000 01 05	704	1.5−	0.0	2000 02 03	704	0.4+	0.7+
1997 04 09	809	0.8−	0.3+	2000 01 06	704	0.2+	0.9+	2000 02 03	704	0.2+	0.7+
1997 04 10	809	1.7+	1.1+	2000 01 06	704	0.3+	0.2+	2000 02 03	704	0.3+	1.1+
1997 04 10	809	1.5+	1.1+	2000 01 06	704	0.1+	0.8+				

2000 AP₉₁ = 1998 SZ₁₆₁

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Williams

<i>M</i>	268.65268		(2000.0)	P	Q
<i>n</i>	0.28929822	ω	111.50601	−0.44216355	+0.89266742
<i>a</i>	2.2641518	Ω	131.94543	−0.86026788	−0.39449862
<i>e</i>	0.1527207	<i>i</i>	6.74718	−0.25383179	−0.21798100
<i>P</i>	3.41	<i>H</i>	14.7	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 09 26	704	0.6−	0.5−	2000 01 06	704	0.0	0.2−	2000 02 02	704	1.0+	0.4+
1998 09 26	704	0.6+	0.8+	2000 01 06	704	0.4+	0.8−	2000 02 03	704	0.1−	0.3+
1998 09 26	704	0.9+	0.4−	2000 01 06	704	0.7+	0.5+	2000 02 03	704	0.0	0.6+
1998 09 26	704	0.6−	0.6−	2000 01 06	704	0.2−	0.3−	2000 02 03	704	0.4+	0.1−
1998 09 26	704	1.1−	1.0−	2000 01 26	120	0.7−	0.7−	2000 02 03	704	0.2+	0.6−
1998 09 27	704	1.2+	0.1+	2000 01 26	120	0.5−	0.4+	2000 02 05	704	0.2+	0.9+
1998 09 27	704	0.5+	1.9+	2000 01 26	120	1.1−	0.4+	2000 02 05	704	0.1+	0.6−

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1998 09 27	704	1.0−	0.3−	2000 01 27	120	(6.4−	1.0+)	2000 02 05	704	0.5+	0.6+
1999 12 31	699	0.1+	0.2+	2000 01 27	120	1.8−	0.8−	2000 02 05	704	0.4+	0.3+
1999 12 31	699	0.1−	0.2+	2000 01 30	120	1.0−	0.3−	2000 02 05	704	0.5−	0.1+
1999 12 31	699	0.5+	0.4+	2000 01 30	120	0.4+	0.0	2000 02 12	691	0.1−	0.5−
2000 01 05	704	0.5−	0.2−	2000 02 02	704	0.2+	0.3+	2000 02 12	691	0.0	0.6−
2000 01 05	704	0.3−	0.2+	2000 02 02	704	0.4+	0.4+	2000 02 12	691	0.0	0.6−
2000 01 05	704	0.2+	0.4−	2000 02 02	704	0.3+	0.4+				
2000 01 05	704	0.3+	0.6−	2000 02 02	704	0.6+	0.4+				

2000 AR₉₁ = 1993 FX₄₈ = 1993 HU₈

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>	43.30208		(2000.0)	P		Q	
<i>n</i>	0.26730352	<i>ω</i>	241.79620	+0.18522365		−0.98268836	
<i>a</i>	2.3867097	<i>Ω</i>	197.53097	+0.90616691		+0.17236181	
<i>e</i>	0.1603422	<i>i</i>	0.75574	+0.38020223		+0.06793374	
<i>P</i>	3.69	<i>H</i>	15.4	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1993 03 19	809	1.4+	1.5−	1999 12 31	699	0.0	0.2−	2000 02 02	704	0.1−	0.4+
1993 03 20	809	0.0	0.2−	1999 12 31	699	0.0	1.5+	2000 02 02	704	0.6−	0.1−
1993 03 24	809	0.1−	0.1+	2000 01 05	704	0.4−	0.6−	2000 02 02	704	0.2−	0.2−
1993 04 17	413	1.5−	1.4+	2000 01 05	704	0.2+	1.4−	2000 02 02	704	0.2−	0.5+
1997 04 30	704	0.0	0.1+	2000 01 05	704	0.0	0.3−	2000 02 03	704	0.8+	0.1+
1997 04 30	704	0.7−	0.9+	2000 01 05	704	0.3+	1.0−	2000 02 03	704	0.5−	0.4+
1997 04 30	704	0.5+	0.8−	2000 01 06	704	0.3−	0.3+	2000 02 03	704	0.2−	0.0
1997 04 30	704	0.3+	0.3−	2000 01 06	704	0.3+	0.1+	2000 02 03	704	0.3−	0.2+
1997 04 30	704	0.1−	0.1+	2000 01 06	704	0.2+	0.1−	2000 02 03	704	0.0	0.5+
1999 12 31	699	1.2+	0.3−	2000 02 02	704	0.2−	0.2+				

2000 AS₉₁ = 1979 OA₄ = 1994 AG₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	239.31154		(2000.0)	P		Q	
<i>n</i>	0.17009958	<i>ω</i>	317.86976	−0.22402148		+0.96963283	
<i>a</i>	3.2260213	<i>Ω</i>	298.96715	−0.86157144		−0.24409383	
<i>e</i>	0.0227458	<i>i</i>	6.43896	−0.45553160		−0.01517856	
<i>P</i>	5.79	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1979 07 24	675	0.1−	1.5+	2000 01 05	704	0.3+	0.0	2000 02 02	704	0.7+	0.2+
1979 07 24	413	0.4−	0.1+	2000 01 05	704	0.9−	1.2+	2000 02 02	704	0.4−	0.2−
1994 01 05	691	0.6+	0.0	2000 01 05	704	1.4+	0.0	2000 02 03	704	0.0	0.9−
1994 01 05	691	0.3+	0.0	2000 01 06	704	0.5−	0.1+	2000 02 03	704	0.4+	0.0
1994 01 05	691	0.1−	0.3+	2000 01 06	704	0.5−	0.1+	2000 02 03	704	0.2+	0.9+
1994 01 17	691	0.1−	0.2+	2000 01 06	704	0.7−	0.5+	2000 02 03	704	0.2+	0.1−
1994 01 17	691	0.2−	0.1+	2000 01 06	704	1.1−	0.4+	2000 02 03	704	0.6+	0.3−
1994 01 17	691	0.2−	0.3+	2000 02 02	704	0.9+	1.2−				
2000 01 05	704	0.3−	0.3+	2000 02 02	704	0.2−	0.2+				

2000 AE₉₂ = 1981 UN₂₇ = 1998 SH₇₆Id. G. V. Williams (*MPC* 37997), M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	36.20744		(2000.0)	P		Q	
<i>n</i>	0.22739500	<i>ω</i>	195.32120	−0.08402909		−0.99070767	
<i>a</i>	2.6583701	<i>Ω</i>	259.58761	+0.92528580		−0.03774152	
<i>e</i>	0.1897850	<i>i</i>	6.24249	+0.36984496		−0.13066710	
<i>P</i>	4.33	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1981 10 24	675	0.8+	0.1+	1999 12 05	704	0.3+	0.5+	2000 01 08	704	0.5−	0.6−
1981 10 25	675	0.5+	0.1+	1999 12 05	704	0.1+	0.4−	2000 01 08	704	0.4−	0.7−
1981 10 26	675	1.2−	0.4−	1999 12 05	704	0.0	0.1−	2000 01 08	704	0.6−	0.1−
1998 08 27	704	0.4−	0.2−	1999 12 05	704	0.0	0.1+	2000 01 08	704	0.4+	0.6−
1998 08 27	704	0.1−	1.9+	1999 12 14	704	0.3+	0.1+	2000 01 08	704	1.0−	1.1+
1998 08 27	704	(2.6−	0.8+)	1999 12 14	704	0.4−	0.9+	2000 01 08	704	0.4−	0.3+

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1998 08 27	704	0.9+	0.1−	1999 12 14	704	1.2−	1.2+	2000 01 08	704	0.0	0.1−
1998 08 27	704	0.5−	1.1−	2000 01 05	704	0.5+	0.2−	2000 01 08	704	0.0	0.5−
1998 08 30	699	1.3+	0.2+	2000 01 05	704	0.1−	0.2−	2000 01 10	704	0.1+	0.3+
1998 08 30	699	1.1+	0.7+	2000 01 05	704	0.4+	0.0	2000 01 10	704	0.2+	0.0
1998 08 30	699	0.3+	0.6+	2000 01 05	704	0.5+	0.0	2000 01 10	704	0.2−	0.1−
1998 09 19	704	0.2−	0.1+	2000 01 05	704	0.3−	0.5−	2000 01 10	704	0.1−	0.5+
1998 09 19	704	1.1−	0.6−	2000 01 06	704	0.3+	0.1+	2000 01 10	704	0.2−	0.2−
1998 09 19	704	1.4−	1.0+	2000 01 06	704	0.1−	0.0	2000 02 05	704	0.1−	0.8+
1998 09 19	704	1.8−	0.0	2000 01 06	704	0.2−	0.3−	2000 02 05	704	0.4+	0.6+
1998 09 19	704	0.2−	0.3−	2000 01 06	704	0.1+	0.4−	2000 02 05	704	0.5+	0.4+
1998 09 23	704	0.6+	0.1+	2000 01 06	704	1.1−	0.2+	2000 02 06	704	0.3+	0.5−
1998 09 23	704	(3.0+	0.1+)	2000 01 07	704	0.0	0.2−	2000 02 06	704	0.7+	0.1+
1998 09 23	704	0.7+	0.2−	2000 01 07	704	0.0	0.0	2000 02 06	704	0.6+	0.0
1999 11 05	703	1.2−	0.3+	2000 01 07	704	0.6−	0.2−	2000 02 06	704	0.8+	0.1−
1999 11 05	703	0.3−	0.4−	2000 01 07	704	0.5−	0.5−	2000 02 06	704	0.9+	0.3+
1999 11 05	703	(0.1+	2.2+)	2000 01 07	704	0.4−	0.1−	2000 02 13	704	0.1+	0.1−
1999 11 05	703	1.2+	0.9−	2000 01 08	704	0.0	0.4+	2000 02 13	704	1.2+	1.1+
1999 12 05	704	0.2−	0.9−	2000 01 08	704	0.4−	0.1+	2000 02 13	704	0.3+	0.8+

2000 AK₉₄ = 1991 LE₄ = 1995 BT₁₆

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				Williams			
<i>M</i>	195.18803		(2000.0)	P		Q	
<i>n</i>	0.18344411	<i>ω</i>	186.51170	+0.20600752		+0.96123847	
<i>a</i>	3.0676104	<i>Ω</i>	95.48978	−0.88929340		+0.26204502	
<i>e</i>	0.0594016	<i>i</i>	10.60849	−0.40831133		−0.08574965	
<i>P</i>	5.37	<i>H</i>	12.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1991 06 06	809	1.5+	0.2+	2000 01 04	704	0.1−	0.3−	2000 01 30	704	0.6+	0.3−
1991 06 06	809	0.0	0.0	2000 01 04	704	0.3+	0.7−	2000 01 30	704	0.7+	0.1−
1991 06 06	809	0.1+	0.1−	2000 01 04	704	0.4+	0.8−	2000 01 31	704	0.3−	0.5−
1991 06 08	809	0.3−	0.2−	2000 01 07	704	0.4+	0.1+	2000 01 31	704	0.3−	0.0
1991 06 08	809	0.5−	0.3−	2000 01 07	704	0.1−	0.1+	2000 01 31	704	0.9−	0.3+
1991 06 08	809	0.9−	0.0	2000 01 07	704	0.2+	0.0	2000 02 11	704	0.1−	0.9−
1995 01 31	033	0.1+	0.5+	2000 01 07	704	0.3+	0.1−	2000 02 11	704	0.3−	0.4+
1995 01 31	033	0.4−	0.2+	2000 01 07	704	0.5+	0.2−	2000 02 11	704	0.3−	0.6−
1995 02 03	033	0.5+	0.0	2000 01 30	704	0.1−	0.5+	2000 02 11	704	0.8−	0.3−
2000 01 04	704	0.7+	1.2+	2000 01 30	704	0.3−	0.4+	2000 02 11	704	1.6−	0.2−
2000 01 04	704	0.3+	0.8+	2000 01 30	704	0.6+	0.0				

2000 AY₉₄ = 1983 CG₅ = 1998 VF₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	16.13498		(2000.0)	P		Q	
<i>n</i>	0.17394695	<i>ω</i>	316.47296	−0.49109637		−0.87109603	
<i>a</i>	3.1782753	<i>Ω</i>	162.93847	+0.80291941		−0.45443560	
<i>e</i>	0.1221836	<i>i</i>	0.78278	+0.33785319		−0.18622567	
<i>P</i>	5.67	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1983 02 14	381	0.0	0.1−	2000 01 04	704	0.7−	0.3−	2000 02 05	704	0.2+	0.3+
1998 08 24	910	0.8−	0.5+	2000 01 07	704	0.2−	0.3−	2000 02 06	704	0.1−	0.1−
1998 08 24	910	0.7−	0.9+	2000 01 07	704	0.1+	0.5−	2000 02 06	704	0.5+	0.4+
1998 08 24	910	1.0−	0.8+	2000 01 07	704	0.3−	0.9−	2000 02 06	704	0.4−	0.1+
1998 09 24	910	1.9+	0.1−	2000 01 07	704	0.9−	0.7−	2000 02 06	704	0.3+	0.1−
1998 09 24	910	1.3+	0.1+	2000 01 07	704	0.1−	1.6−	2000 02 06	704	0.2+	0.2−
1998 09 24	910	1.5+	0.1+	2000 01 26	691	0.2−	0.0	2000 02 07	691	0.2−	0.5−
1998 11 10	704	0.1+	0.2+	2000 01 26	691	0.4−	0.0	2000 02 07	691	0.1−	0.5−
1998 11 10	704	0.4−	0.0	2000 01 26	691	0.2−	0.1+	2000 02 07	691	0.1−	0.5−
1998 11 10	704	0.9−	1.1−	2000 01 30	703	1.1−	0.2+	2000 02 08	704	0.3+	0.3+
1998 11 10	704	0.0	0.9−	2000 01 30	703	0.6−	0.3+	2000 02 08	704	0.5+	0.1−
1998 11 10	704 (2.8−	0.6−)		2000 01 30	703	0.2−	0.5+	2000 02 08	704	0.0	0.3+
1998 11 11	704	0.1−	1.1−	2000 01 30	703	0.1−	0.4+	2000 02 08	704	0.0	0.6−
1998 11 11	704	0.3−	0.5−	2000 02 01	691	0.3+	0.4−	2000 02 08	704	0.6−	0.6−
1998 11 11	704	1.2+	0.3+	2000 02 01	691	0.1+	0.4−	2000 02 10	691	0.3−	0.3−
1998 11 11	704	0.7+	0.5−	2000 02 01	691	0.2+	0.4−	2000 02 10	691	0.7−	0.3−
1998 11 11	704	1.2−	0.3−	2000 02 02	704	0.3+	0.6+	2000 02 10	691	0.8−	0.5−

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1998 11 14	699	0.1−	0.5+	2000 02 02	704	0.2−	0.1+	2000 02 11	704	0.9+	0.7+
1998 11 14	699	1.0−	0.8+	2000 02 02	704	0.1−	0.1+	2000 02 11	704	0.6+	0.6+
1998 11 14	699	0.6−	1.3+	2000 02 02	704	0.5+	0.2−	2000 02 11	704	0.3+	0.6−
1999 12 06	704	0.3−	0.0	2000 02 02	704	0.3+	0.3+	2000 02 11	704	0.5+	0.5+
1999 12 06	704	0.0	0.3−	2000 02 03	704	0.3+	1.0+	2000 02 11	704	0.2+	0.1+
1999 12 06	704	0.2−	0.2−	2000 02 03	704	0.5+	0.5+	2000 02 11	704	0.8+	0.4+
1999 12 06	704	0.1−	0.1−	2000 02 03	704	0.4+	0.3+	2000 02 11	704	0.1+	0.2+
2000 01 04	704	0.5−	0.5−	2000 02 03	704	0.4−	0.8+	2000 02 11	704	0.3+	0.3+
2000 01 04	704	0.4−	0.4−	2000 02 03	704	0.0	0.4+	2000 02 11	704	0.4+	0.6−
2000 01 04	704	0.4+	0.6+	2000 02 05	704	0.2+	0.2+	2000 02 11	704	0.2+	0.8+
2000 01 04	704	0.2+	1.4+	2000 02 05	704	0.1+	0.3+				

2000 AB₉₅ = 1989 ED₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26520241	ω	219.28382	−0.96565570		−0.24570570	
<i>a</i>	2.3992992	Ω	306.28941	+0.25687610		−0.85396438	
<i>e</i>	0.0686916	<i>i</i>	6.01655	+0.03903518		−0.45866497	
<i>P</i>	3.72	<i>H</i>	15.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1989 03 02	413	1.2−	0.5+	2000 01 07	704	0.3−	0.6+	2000 02 01	703	0.4−	0.1+
1989 03 02	413	(3.8+	2.0−)	2000 01 07	704	0.3+	0.4−	2000 02 01	703	0.2−	0.1−
1989 03 04	413	1.2+	0.5−	2000 01 07	704	0.6−	0.2+	2000 02 04	704	0.5+	0.4+
2000 01 04	704	0.9+	0.6+	2000 01 07	704	0.3−	0.3−	2000 02 04	704	0.2+	0.3−
2000 01 04	704	0.5+	0.0	2000 01 07	704	0.1−	0.5−	2000 02 04	704	0.2−	0.6−
2000 01 04	704	0.1+	0.1−	2000 01 30	703	0.6−	1.8+	2000 02 04	704	1.0+	0.2−
2000 01 04	704	0.6−	0.6+	2000 01 30	703	0.1−	0.2+	2000 02 04	704	0.4+	0.6−
2000 01 04	704	0.5+	0.4−	2000 01 30	703	0.3−	0.2−	2000 02 05	725	1.1−	0.1−
2000 01 05	704	0.2+	1.2+	2000 01 30	703	0.4+	0.7+	2000 02 05	725	0.2−	0.4−
2000 01 05	704	0.5+	0.5−	2000 02 01	703	0.7+	0.3−	2000 02 05	725	0.1−	0.4−
2000 01 05	704	1.3−	1.4−	2000 02 01	703	0.3+	0.2+				

2000 AC₉₅ = 1978 PJ₁ = 1998 QD₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.29574757	ω	30.66110	+0.95056509		+0.29817120	
<i>a</i>	2.2311148	Ω	311.72989	−0.30323688		+0.83117401	
<i>e</i>	0.1888262	<i>i</i>	6.67274	−0.06688351		+0.46930128	
<i>P</i>	3.33	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1978 08 08	095	0.2−	0.4+	1998 12 09	704	(2.9−	1.2+)	2000 02 01	691	0.2−	0.4−
1998 07 03	699	0.5−	0.1+	1999 12 06	704	0.1+	0.5+	2000 02 03	704	0.2+	0.5+
1998 07 03	699	0.2−	0.2+	1999 12 06	704	1.0−	1.0+	2000 02 03	704	0.4+	0.1+
1998 07 03	699	0.7−	0.1−	1999 12 06	704	0.1−	0.3−	2000 02 03	704	0.4+	0.5+
1998 07 24	566	0.5−	0.3+	2000 01 04	704	0.2−	0.6+	2000 02 03	704	0.3+	0.7+
1998 07 24	566	0.3−	0.3+	2000 01 04	704	0.3+	0.6+	2000 02 03	704	0.3+	0.7+
1998 07 24	566	0.5−	0.1+	2000 01 04	704	0.3+	0.2+	2000 02 04	120	0.1−	0.1+
1998 08 17	704	0.7−	0.1−	2000 01 04	704	0.5+	0.3−	2000 02 04	120	0.8−	0.1+
1998 08 17	704	0.2−	0.6+	2000 01 04	704	0.3+	1.1−	2000 02 07	691	0.3−	0.2−
1998 08 17	704	0.5+	1.7−	2000 01 07	704	0.7−	0.1+	2000 02 07	691	0.3−	0.2−
1998 08 17	704	1.0+	1.2−	2000 01 07	704	0.2+	0.0	2000 02 07	691	0.3−	0.3−
1998 08 17	704	1.8+	0.0	2000 01 07	704	0.4+	0.4−	2000 02 08	704	0.5+	0.8−
1998 08 23	704	0.1−	0.3+	2000 01 07	704	0.0	0.5+	2000 02 08	704	0.3+	0.3+
1998 08 23	704	0.4+	0.5+	2000 01 07	704	0.1+	0.4+	2000 02 08	704	0.2+	0.2+
1998 08 23	704	0.1+	1.1+	2000 01 26	120	1.5+	0.2−	2000 02 08	704	0.2−	0.4−
1998 08 23	704	0.5−	0.0	2000 01 26	120	0.4−	0.0	2000 02 08	704	0.8+	0.8+
1998 08 23	704	0.1+	0.6+	2000 01 26	120	1.1−	0.7−	2000 02 11	704	0.5+	0.2+
1998 10 20	699	0.6−	0.3+	2000 01 27	120	0.3−	0.1+	2000 02 11	704	0.5+	0.9+
1998 10 20	699	1.0−	0.2+	2000 01 27	120	0.8−	0.1+	2000 02 11	704	0.4−	0.1+
1998 10 20	699	0.1+	0.2+	2000 01 30	120	0.5−	0.7−	2000 02 11	704	0.6−	0.1+
1998 12 09	704	0.6−	1.7−	2000 01 30	120	0.0	0.5−	2000 02 11	704	0.7+	0.1+
1998 12 09	704	1.3+	0.1+	2000 02 01	691	0.0	0.4−				
1998 12 09	704	0.1−	1.1+	2000 02 01	691	0.4+	0.1−				

2000 AJ₉₅ = 1982 DL₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.21694499	ω	148.34467	+0.03789130		+0.99680548	
<i>a</i>	2.7430662	Ω	123.73727	−0.93356833		+0.06040466	
<i>e</i>	0.0783209	<i>i</i>	4.84987	−0.35639082		−0.05225056	
<i>P</i>	4.54	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1982 02 20	033	0.1+	0.2−	1998 11 24	704	0.6+	1.2+	2000 01 30	703	0.4+	0.6+
1982 02 20	033	0.1−	0.2+	1998 11 24	704	0.8+	0.2+	2000 01 30	703	0.6−	0.3+
1982 02 20	033	0.2−	0.5−	1998 11 24	704	1.6+	0.5−	2000 01 30	703	0.5−	1.0+
1982 02 21	033	0.0	0.7−	1998 11 24	704	0.1−	1.0+	2000 01 30	703	0.4−	1.0+
1982 02 21	033	0.3−	0.3−	1998 11 24	704	(4.5−	2.5+)	2000 02 03	704	0.4+	0.2+
1997 07 01	910	0.2+	0.1−	2000 01 04	704	0.8−	1.4−	2000 02 03	704	0.3−	0.7+
1997 07 01	910	0.1−	0.0	2000 01 04	704	0.6−	0.3−	2000 02 03	704	0.2+	0.9+
1997 07 01	910	0.1−	0.1−	2000 01 04	704	0.6−	0.1+	2000 02 03	704	0.2+	0.5+
1998 11 21	704	1.3−	1.4−	2000 01 04	704	0.2−	0.3−	2000 02 10	120	0.7+	0.2−
1998 11 21	704	1.8−	0.3−	2000 01 04	704	0.4−	0.5−	2000 02 10	120	0.7+	0.1+
1998 11 21	704	0.2−	0.6−	2000 01 07	704	0.5−	1.2−	2000 02 10	120	0.5+	0.1+
1998 11 21	704	(5.1−	1.7−)	2000 01 07	704	0.5−	0.6−	2000 02 11	120	1.6+	0.1+
1998 11 23	699	0.3+	0.6+	2000 01 07	704	0.3+	0.1−	2000 02 11	120	0.9+	0.2−
1998 11 23	699	0.2+	0.2−	2000 01 07	704	0.5−	0.2+				
1998 11 23	699	(0.8+	2.4+)	2000 01 07	704	0.2−	0.1−				

2000 AO₉₅ = 1998 RM₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.30818004	ω	258.01818	+0.99500990		+0.09530286	
<i>a</i>	2.1706995	Ω	96.50782	−0.07599809		+0.91574370	
<i>e</i>	0.0694634	<i>i</i>	1.70379	−0.06469471		+0.39029584	
<i>P</i>	3.20	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1997 04 29	704	0.4−	0.5+	1998 09 24	699	0.5−	0.4+	2000 01 07	704	0.2+	0.5−
1997 04 29	704	0.1−	0.5+	1998 09 24	699	0.1−	1.2+	2000 01 30	704	0.4+	0.4+
1997 04 29	704	0.7+	0.3+	1998 09 24	699	0.1−	1.4+	2000 01 30	704	0.2+	0.5+
1997 04 29	704	0.2+	0.2+	1998 10 17	699	0.0	0.4−	2000 01 30	704	0.0	0.5+
1997 04 29	704	0.4+	0.4+	1998 10 17	699	0.6+	0.3−	2000 01 30	704	0.6−	0.3+
1998 08 17	704	0.6−	0.5+	1998 10 17	699	1.1−	0.1−	2000 01 30	704	0.7+	1.1+
1998 08 17	704	0.8−	0.3+	1999 11 16	704	0.6−	0.8−	2000 02 03	704	0.1−	0.5+
1998 08 17	704	0.3+	0.3+	1999 11 16	704	0.1−	0.5−	2000 02 03	704	0.1+	0.5+
1998 08 17	704	1.0−	0.6+	1999 11 16	704	0.0	0.5−	2000 02 03	704	0.0	0.3+
1998 08 17	704	0.3−	0.6+	1999 11 16	704	0.7+	0.7−	2000 02 03	704	0.5−	0.4+
1998 08 22	566	0.0	0.9−	2000 01 04	704	0.8+	0.6−	2000 02 03	704	0.2−	0.5+
1998 08 22	566	0.4+	0.8−	2000 01 04	704	0.5+	0.1+	2000 02 10	120	0.3−	0.3−
1998 08 22	566	0.5+	0.9−	2000 01 04	704	0.3+	0.8−	2000 02 10	120	0.8−	0.0
1998 09 13	699	1.0+	0.3+	2000 01 04	704	0.5+	0.2−	2000 02 11	704	0.2−	0.3+
1998 09 13	699	0.3+	0.4+	2000 01 04	704	1.1+	0.8+	2000 02 11	704	0.0	0.5+
1998 09 13	699	1.3−	0.4+	2000 01 07	704	0.2+	0.3−	2000 02 11	704	0.3−	0.5+
1998 09 14	699	0.4+	1.4+	2000 01 07	704	0.2−	0.1−	2000 02 11	704	0.1+	0.7+
1998 09 14	699	0.0	0.7+	2000 01 07	704	0.3+	0.0	2000 02 11	704	0.1+	0.9+
1998 09 14	699	0.5+	1.0+	2000 01 07	704	0.4−	0.1−				

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1996 03 19	691	0.3+	0.5-	2000 01 04	704	0.2-	0.7-	2000 02 03	704	0.0	0.4+
1996 03 20	691	1.3-	0.2-	2000 01 04	704	0.5-	0.3-	2000 02 03	704	0.1-	1.8+
1996 03 20	691	1.1-	0.2+	2000 01 04	704	0.6-	0.2-	2000 02 08	704	0.3+	0.0
1996 03 20	691	1.2-	0.2-	2000 01 07	704	0.2-	0.8-	2000 02 08	704	0.1+	0.0
1996 03 23	691	0.9+	0.5+	2000 01 07	704	0.2-	0.0	2000 02 08	704	0.3+	0.1-
1996 03 23	691	0.6+	0.2-	2000 01 07	704	0.8-	0.0	2000 02 08	704	0.2-	0.8-
1996 03 23	691	0.5+	0.2-	2000 01 07	704	0.4-	0.3-	2000 02 08	704	0.5-	0.1-
1998 11 11	704	0.6+	0.1-	2000 01 07	704	0.7-	0.6-	2000 02 11	704	0.4+	0.5+
1998 11 11	699	1.5-	1.0-	2000 01 30	704	0.8+	0.5-	2000 02 11	704	0.5+	0.1+
1998 11 11	704	0.1+	0.7+	2000 01 30	704	1.0-	0.2+	2000 02 11	704	0.4+	0.1-
1998 11 11	699	0.0	1.8-	2000 01 30	704	0.3+	0.6+	2000 02 11	704	0.4+	0.1+
1998 11 11	704	1.0+	0.9+	2000 01 30	704	0.6+	0.2+	2000 02 11	704	0.5+	1.0+
1998 11 11	699	0.1+	0.4+	2000 02 03	704	0.3+	0.2-				

2000 AS₉₅ = 1982 UQ₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	92.39028	(2000.0)		P	Q		
<i>n</i>	0.18475720	ω	276.23556	+0.73072516	-0.66621742		
<i>a</i>	3.0530585	Ω	125.65528	+0.67610404	+0.67605347		
<i>e</i>	0.0969114	<i>i</i>	10.56504	+0.09446726	+0.31481115		
<i>P</i>	5.33	<i>H</i>	12.9	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1982 10 18	807	1.2+	2.5-	1999 02 04	704	0.5+	1.1-	2000 01 07	704	0.0	0.3-
1982 10 20	695	0.2-	0.2-	1999 02 04	704	(1.6-	2.7+)	2000 01 07	704	0.2+	0.1-
1982 10 21	807	(1.5+	2.5-)	1999 02 04	704	0.8+	2.0+	2000 01 07	704	0.0	0.0
1982 10 22	695	0.6+	2.4-	1999 02 04	704	0.4-	1.8+	2000 01 07	704	0.1-	0.1-
1982 10 25	807	(0.4-	2.9-)	1999 11 16	704	0.2-	0.8-	2000 01 07	704	0.3-	0.4+
1982 10 26	695	(1.0-	3.7-)	1999 11 16	704	0.5-	0.8-	2000 01 30	704	0.2+	0.5-
1998 11 13	704	0.6+	0.2+	1999 11 16	704	0.5-	0.6-	2000 01 30	704	0.2-	0.4+
1998 11 13	704	0.6-	0.7+	1999 11 16	704	0.5-	1.0-	2000 01 30	704	0.1+	0.2-
1998 11 13	704	0.0	1.1+	1999 12 04	703	0.6+	0.2-	2000 01 30	704	0.4+	0.1-
1998 11 13	704	0.4+	0.4+	1999 12 04	703	0.0	0.3+	2000 02 03	704	0.2+	0.2-
1998 11 13	704	1.5-	0.5-	1999 12 04	703	0.0	1.5+	2000 02 03	704	0.0	0.1-
1998 11 19	699	0.2+	0.4+	1999 12 04	703	0.1+	0.1+	2000 02 03	704	0.0	0.1-
1998 11 19	699	0.2-	0.4+	1999 12 06	704	0.1+	0.7-	2000 02 03	704	0.2-	0.2-
1998 11 19	699	0.3-	0.3+	1999 12 06	704	0.3-	1.0-	2000 02 03	704	0.1+	0.0
1998 12 14	699	0.0	0.8+	1999 12 06	704	0.0	0.1+	2000 02 11	704	0.0	0.0
1998 12 14	699	0.2+	0.3+	1999 12 06	704	1.1+	0.1+	2000 02 11	704	0.2+	0.5+
1998 12 14	699	0.0	0.6+	2000 01 04	704	0.2-	0.1-	2000 02 11	704	0.0	0.0
1999 01 17	699	1.0+	0.1-	2000 01 04	704	0.0	0.1-	2000 02 11	704	0.1-	0.7+
1999 01 17	699	0.5-	0.3-	2000 01 04	704	0.2+	0.1+	2000 02 11	704	0.5-	0.7+
1999 01 17	699	0.2-	0.0	2000 01 04	704	0.5-	0.2-				
1999 02 04	704	1.7-	0.7-	2000 01 04	704	0.2+	0.3+				

2000 AT₉₅ = 1998 VJ₁₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	51.66236	(2000.0)		P	Q		
<i>n</i>	0.19632894	ω	344.56395	+0.02643223	-0.99802214		
<i>a</i>	2.9318821	Ω	103.89583	+0.92326995	+0.00249887		
<i>e</i>	0.0604667	<i>i</i>	3.36841	+0.38324136	+0.06281373		
<i>P</i>	5.02	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 11 10	704	0.3+	0.2-	2000 01 04	704	0.1-	0.2-	2000 01 30	703	0.5-	0.3+
1998 11 10	704	0.6-	1.0-	2000 01 04	704	0.4+	0.3-	2000 01 30	703	1.6-	0.3-
1998 11 10	704	0.6+	1.7-	2000 01 04	704	0.1+	0.2+	2000 02 03	704	0.6+	0.0
1998 11 10	704	(1.6+	2.3-)	2000 01 07	704	0.4-	0.3+	2000 02 03	704	0.3+	0.2-
1998 11 10	704	1.6-	0.3+	2000 01 07	704	0.1+	0.2-	2000 02 03	704	0.2+	0.6+
1998 11 11	704	0.0	1.1+	2000 01 07	704	0.1+	0.1+	2000 02 03	704	0.4+	0.0
1998 11 11	704	1.3+	0.6+	2000 01 07	704	0.1-	0.6-	2000 02 03	704	0.8+	0.9+
1998 11 11	704	0.2+	0.3-	2000 01 07	704	0.1-	0.7+	2000 02 11	704	0.3+	0.3+
1998 11 11	704	0.6-	0.5+	2000 01 30	704	0.5+	1.0-	2000 02 11	704	0.2+	0.5+
1998 11 14	699	0.2+	0.3-	2000 01 30	704	0.1+	0.6-	2000 02 11	704	0.1-	0.1+
1998 11 14	699	0.3-	1.3+	2000 01 30	704	0.2-	0.1-	2000 02 11	704	0.5-	0.6-

1998 11 14	699	0.5+	0.1-	2000 01 30	703	0.6-	0.1-	2000 02 11	704	0.1+	0.3+
2000 01 04	704	0.2+	0.4-	2000 01 30	703	0.3-	0.2+				

2000 AW₉₅ = 1998 XK₉₇ = 1999 AR₂₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	47.40870	(2000.0)		P	Q		
<i>n</i>	0.20255945	ω	87.95322	-0.13496987	-0.99083727		
<i>a</i>	2.8714486	Ω	9.80784	+0.89711139	-0.12432641		
<i>e</i>	0.0177662	<i>i</i>	1.66969	+0.42068313	-0.05276784		
<i>P</i>	4.87	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 10 18	699	0.6+	0.4-	1998 12 09	120	0.4+	0.9+	2000 01 30	704	0.5+	0.3+
1998 10 18	699	0.2-	0.8-	1998 12 09	120	0.9+	0.1-	2000 02 04	704	0.6+	0.8-
1998 10 18	699	0.0	0.1+	1999 01 13	910	0.1+	0.2+	2000 02 04	704	0.0	0.6+
1998 11 10	699	0.3+	0.1-	1999 01 13	910	0.3-	0.2-	2000 02 04	704	0.3+	0.1-
1998 11 10	699	0.2+	1.9+	1999 01 13	910	0.2+	0.2+	2000 02 04	704	0.6-	0.1-
1998 11 10	699	0.7-	1.5+	1999 01 14	910	0.3-	0.2+	2000 02 07	691	0.2+	0.1+
1998 11 10	910	0.1-	0.0	1999 01 14	910	0.4-	0.3+	2000 02 07	691	0.1+	0.1+
1998 11 10	910	0.3+	0.1+	1999 01 14	910	0.4-	0.4+	2000 02 07	691	0.2+	0.1+
1998 11 11	910	0.2+	0.1-	2000 01 04	704	0.3+	1.3-	2000 02 08	704	0.2+	0.1+
1998 11 11	704	0.8-	0.4+	2000 01 04	704	0.5+	1.0-	2000 02 08	704	0.2+	0.1+
1998 11 11	704	0.0	0.6-	2000 01 04	704	0.2-	0.2-	2000 02 08	704	0.2-	0.0
1998 11 11	704	(0.7+	2.5-)	2000 01 04	704	0.2+	0.8-	2000 02 08	704	0.3+	0.4+
1998 11 11	704	0.5+	0.0	2000 01 04	704	0.1-	0.3-	2000 02 08	704	0.1+	0.4+
1998 11 11	704	0.1-	1.2-	2000 01 07	704	0.3-	0.3-	2000 02 11	704	0.2-	0.5+
1998 11 16	566	0.2-	0.5-	2000 01 07	704	0.8-	0.4-	2000 02 11	704	0.1-	0.4+
1998 11 16	566	0.1-	0.3-	2000 01 07	704	0.3-	0.1+	2000 02 11	704	0.1+	0.5+
1998 11 16	566	0.3-	0.2-	2000 01 07	704	1.0-	0.3-	2000 02 11	704	0.4-	0.3+
1998 11 20	699	0.2-	0.4-	2000 01 07	704	0.3-	0.8-	2000 02 11	704	0.1-	0.6+
1998 11 20	699	0.2-	0.5-	2000 01 30	704	0.0	0.2+	2000 02 12	120	0.7+	0.1-
1998 11 20	699	0.0	0.1+	2000 01 30	704	0.2-	0.3+	2000 02 12	120	0.3-	0.4+
1998 12 09	120	0.2+	0.1-	2000 01 30	704	0.4+	0.1+				

2000 AX₉₅ = 1992 OT₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	101.92644	(2000.0)		P	Q		
<i>n</i>	0.19111378	ω	264.97762	+0.82058213	-0.55357587		
<i>a</i>	2.9849797	Ω	128.55666	+0.56937868	+0.77026739		
<i>e</i>	0.1023219	<i>i</i>	10.47135	+0.04952664	+0.31661003		
<i>P</i>	5.16	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1992 07 26	809	0.7-	0.4-	2000 01 07	704	0.5-	0.5-	2000 02 03	704	0.1+	0.2-
1992 07 26	809	0.6-	0.5+	2000 01 07	704	0.2-	0.4+	2000 02 03	704	0.4+	0.3+
1992 07 26	809	0.3-	0.3+	2000 01 07	704	0.5-	0.3-	2000 02 03	704	0.6-	0.4+
1992 07 30	809	0.8+	0.9-	2000 01 07	704	0.2-	0.2-	2000 02 03	704	0.1-	0.6+
1992 07 30	809	0.2+	0.3+	2000 01 30	704	0.2-	0.7+	2000 02 11	704	0.8+	0.3-
1992 07 30	809	0.7+	0.1-	2000 01 30	704	0.2-	0.4+	2000 02 11	704	0.1+	0.4-
2000 01 04	704	0.3+	0.1-	2000 01 30	704	0.1-	0.4+	2000 02 11	704	0.5+	0.6-
2000 01 04	704	0.9-	0.1-	2000 01 30	703	0.9-	0.3-	2000 02 11	704	0.6+	0.5-
2000 01 04	704	0.5+	0.2+	2000 01 30	703	0.0	0.5+	2000 02 11	704	0.7+	0.5-
2000 01 04	704	0.7+	0.4+	2000 01 30	703	0.5-	0.6+	2000 02 15	747	0.1+	0.3-
2000 01 04	704	0.3+	0.1-	2000 01 30	703	0.6-	0.2+	2000 02 15	747	0.4+	0.3+
2000 01 07	704	0.5-	0.9-	2000 02 03	704	0.0	0.2-	2000 02 15	747	0.2+	0.3-

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Residuals in seconds of arc

1978 11 30	675	0.4−	0.0	1998 12 17	704	0.3+	0.2+	2000 01 13	046	0.3−	0.2+
1978 12 01	675	0.3+	0.2+	1999 11 16	704	0.2+	0.8+	2000 01 13	046	0.3−	0.5+
1996 04 17	809	0.5−	1.2+	1999 11 16	704	0.5−	0.3+	2000 01 14	046	0.3−	0.3+
1996 04 17	809	0.1+	0.0	1999 11 16	704	0.8−	0.3+	2000 01 14	046	0.0	0.1+
1996 04 17	809	0.5−	0.4+	1999 11 16	704	0.7−	0.2+	2000 01 14	046	0.0	0.0
1996 04 18	809	0.1+	1.0+	1999 11 16	704	0.3+	0.2−	2000 01 14	046	0.1+	0.3+
1996 04 18	809	1.2+	0.7+	2000 01 04	704	0.3+	1.1−	2000 01 14	046	0.2+	0.0
1996 04 18	809	0.9+	0.2+	2000 01 04	704	0.5−	0.2+	2000 02 04	704	1.3+	0.3+
1998 12 11	699	0.5−	0.7+	2000 01 04	704	0.2+	1.0−	2000 02 04	704	0.2−	0.5−
1998 12 11	699	0.7−	1.0+	2000 01 04	704	1.0+	0.3+	2000 02 04	704	0.0	0.6−
1998 12 11	699	0.6−	0.7+	2000 01 04	704	0.6−	0.1+	2000 02 04	704	0.0	0.9−
1998 12 14	704	0.2+	1.0+	2000 01 07	704	0.7−	0.2−	2000 02 04	704	0.7+	1.0−
1998 12 14	704	0.1+	0.6+	2000 01 07	704	0.0	0.1−	2000 02 11	704	0.1+	0.5+
1998 12 14	704	0.1−	0.4+	2000 01 07	704	0.3+	0.2+	2000 02 11	704	0.5+	0.0
1998 12 14	704	0.0	0.7+	2000 01 07	704	0.9+	0.2−	2000 02 11	704	0.1−	0.1+
1998 12 17	704	0.1−	0.7−	2000 01 07	704	0.6−	0.1−	2000 02 11	704	0.4−	0.2−
1998 12 17	704	0.1−	0.3−	2000 01 13	046	0.2−	0.2−	2000 02 11	704	0.4−	0.1−
1998 12 17	704	0.1−	0.3−	2000 01 13	046	0.4−	0.0				
1998 12 17	704	0.8+	0.8−	2000 01 13	046	0.2−	0.3+				

2000 AO₉₆ = 1980 RO₇ = 1980 TQ₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Williams			
<i>M</i>	155.30082	(2000.0)	<i>P</i>	<i>Q</i>		
<i>n</i>	0.22344980	<i>ω</i> 15.83193	+0.98029014	+0.17377198		
<i>a</i>	2.6895693	<i>Ω</i> 333.59798	−0.19630574	+0.80315802		
<i>e</i>	0.1800978	<i>i</i> 12.20305	−0.02225533	+0.56986007		
<i>P</i>	4.41	<i>H</i> 13.2	<i>G</i> 0.15	<i>U</i> 3		

Residuals in seconds of arc

1980 09 13	675	0.2+	0.3+	1999 01 08	704	0.1+	0.8−	2000 02 02	703	0.5−	0.2+
1980 09 14	675	0.1+	0.3+	1999 01 08	704	0.6+	1.0−	2000 02 02	703	0.9−	0.9+
1980 10 13	095	0.7−	0.0	1999 01 14	699	0.4+	0.9+	2000 02 02	703	0.0	0.1−
1998 11 14	704	0.6+	0.7−	1999 01 14	699	0.1+	1.1+	2000 02 04	704	0.2+	0.0
1998 11 14	704	0.6−	0.6−	1999 01 14	699	0.8+	0.9+	2000 02 04	704	0.2−	0.5−
1998 11 14	704	0.2+	0.0	2000 01 04	704	0.6+	0.2−	2000 02 04	704	0.6−	0.4−
1998 11 14	704	0.2−	0.7−	2000 01 04	704	0.3+	0.7−	2000 02 04	704	0.6+	0.6−
1998 11 14	704	(5.8−	0.5−)	2000 01 04	704	0.4+	0.3+	2000 02 04	704	0.0	0.0
1998 11 16	704	1.1+	0.2+	2000 01 04	704	0.4−	1.5+	2000 02 11	704	0.5+	0.6−
1998 11 16	704	0.4−	1.2−	2000 01 07	704	0.4+	0.5−	2000 02 11	704	0.4+	0.1−
1998 11 16	704	0.1+	0.7−	2000 01 07	704	0.5+	0.2+	2000 02 11	704	0.2−	0.1+
1998 11 16	704	1.1−	0.4+	2000 01 07	704	0.3+	0.8+	2000 02 11	704	0.2+	0.0
1998 11 16	704	1.0−	0.6+	2000 01 07	704	0.3−	0.4+	2000 02 11	704	0.3−	0.0
1999 01 08	704	(0.9−	2.1+)	2000 01 07	704	0.3+	0.7−				
1999 01 08	704	0.5−	1.6+	2000 02 02	703	0.8−	0.1+				

2000 AP₉₆ = 1991 RH₃₇ = 1993 BA₅ = 1998 QZ₄₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Williams			
<i>M</i>	56.65138	(2000.0)	<i>P</i>	<i>Q</i>		
<i>n</i>	0.28539100	<i>ω</i> 322.88685	+0.01111430	−0.99388023		
<i>a</i>	2.2847702	<i>Ω</i> 126.21631	+0.94701595	−0.02482014		
<i>e</i>	0.0778976	<i>i</i> 7.82927	+0.32099419	+0.10763855		
<i>P</i>	3.45	<i>H</i> 14.4	<i>G</i> 0.15	<i>U</i> 2		

Residuals in seconds of arc

1991 09 15	675	1.1+	1.6−	1998 08 23	704	1.8+	1.2+	2000 01 05	699	0.0	0.5+
1991 09 15	675	0.2+	0.6−	1998 08 23	704	1.3−	1.2+	2000 01 05	699	0.3+	0.2+
1993 01 27	010	0.0	0.1−	1998 08 23	704	0.7+	1.6+	2000 01 05	699	0.4−	0.1+
1993 01 27	010	0.5−	0.4+	1999 11 16	704	0.3+	1.1−	2000 01 07	704	0.1−	0.6−
1993 01 27	010	0.6−	0.3+	1999 11 16	704	0.2+	0.5−	2000 01 07	704	0.1+	0.1+
1993 01 28	010	0.1−	0.7+	1999 11 16	704	0.7+	1.4−	2000 01 07	704	0.5+	0.5+
1993 01 28	010	0.7+	0.4+	1999 11 16	704	0.3−	0.6−	2000 01 07	704	0.3+	0.3+
1993 01 28	010	0.0	0.7−	1999 12 05	704	1.0−	0.8+	2000 01 07	704	0.3−	1.4+
1998 08 17	704	0.1+	0.1−	1999 12 05	704	0.2+	0.3−	2000 02 11	704	0.4+	0.1+
1998 08 17	704	0.9−	0.4−	1999 12 05	704	0.8+	0.2+	2000 02 11	704	0.5−	1.3+

1998 08 17	704	0.6−	0.2+	1999 12 05	704	1.3+	1.2−	2000 02 11	704	0.1−	0.9+
1998 08 17	704	0.4−	0.7−	2000 01 04	704	0.1−	0.8−	2000 02 11	704	0.0	1.1+
1998 08 17	704	0.3−	1.3+	2000 01 04	704	0.4+	0.8−	2000 02 11	704	0.4−	0.5−
1998 08 23	704	1.3−	0.3+	2000 01 04	704	0.1+	0.4−				
1998 08 23	704	(2.2+	2.6+)	2000 01 04	704	0.3−	0.2+				

2000 AR₉₆ = 1998 SS₁₄₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Williams			
<i>M</i>	1.41221	(2000.0)	<i>P</i>	<i>Q</i>		
<i>n</i>	0.27385098	<i>ω</i> 175.67979	−0.89127458	−0.45203073		
<i>a</i>	2.3485142	<i>Ω</i> 337.33799	+0.41319317	−0.77682619		
<i>e</i>	0.1503137	<i>i</i> 5.36508	+0.18681816	−0.43841680		
<i>P</i>	3.60	<i>H</i> 14.6	<i>G</i> 0.15	<i>U</i> 4		

Residuals in seconds of arc

1998 09 26	704	0.4+	0.6+	1998 09 27	704	0.4−	1.9−	2000 01 07	704	0.5−	0.1−
1998 09 26	704	(1.1−	3.4−)	1999 12 06	704	1.4+	0.2−	2000 01 07	704	0.0	0.4+
1998 09 26	704	0.5+	1.3+	1999 12 06	704	0.7+	0.3+	2000 01 07	704	0.7−	0.6+
1998 09 26	704	(2.7−	0.8−)	1999 12 06	704	1.5−	0.4−	2000 01 07	704	0.6−	0.5−
1998 09 27	704	0.6+	0.6−	1999 12 06	704	0.4−	1.0+	2000 01 07	704	0.6−	0.5−
1998 09 27	704	0.8+	0.4+	2000 01 04	704	0.2+	0.2−	2000 02 05	739	0.2+	0.0
1998 09 27	704	0.5−	0.7+	2000 01 04	704	0.4+	0.8−	2000 02 05	739	0.3+	0.2−
1998 09 27	704	0.0	0.8+	2000 01 04	704	0.1+	0.6−	2000 02 05	739	0.2−	0.3−
1998 09 27	704	1.1+	1.8+	2000 01 04	704	0.2+	0.0	2000 02 11	704	0.2+	0.0
1998 09 27	704	0.7+	0.3−	2000 01 04	704	0.2+	0.0	2000 02 11	704	0.2−	0.0
1998 09 27	704	0.2+	1.7−	2000 01 05	699	0.6+	0.9+	2000 02 11	704	0.0	0.4+
1998 09 27	704	1.4−	0.4−	2000 01 05	699	0.1+	0.2−	2000 02 11	704	0.2+	0.1−
1998 09 27	704	1.9−	0.6−	2000 01 05	699	0.1−	0.2−	2000 02 11	704	0.1−	0.6+

2000 AW₉₆ = 1998 SH₁₁₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

			Williams			
<i>M</i>	340.70072	(2000.0)	<i>P</i>	<i>Q</i>		
<i>n</i>	0.28774054	<i>ω</i> 54.93970	−0.99810362	+0.02313152		
<i>a</i>	2.2723158	<i>Ω</i> 126.31919	−0.04209302	−0.93265470		
<i>e</i>	0.1225006	<i>i</i> 4.05987	+0.04491485	−0.36002797		
<i>P</i>	3.43	<i>H</i> 14.9	<i>G</i> 0.15	<i>U</i> 3		

Residuals in seconds of arc

1997 06 24	910	0.3+	1.3+	1998 09 27	704	(0.3+ 2.2+)	2000 02 01	703	0.4+	0.6+
1997 06 24	910	0.4+	1.2+	1999 12 05	703	1.3+ 0.7+	2000 02 01	703	0.2−	0.4+
1997 06 24	910	0.1+	1.2+	1999 12 05	703	0.0 0.2+	2000 02 01	703	0.2+	0.1+
1998 09 25	327	1.5−	0.6+	1999 12 05	703	0.1+ 0.2−	2000 02 04	704	0.1−	0.3+
1998 09 25	327	1.1−	0.4+	1999 12 05	703	0.5+ 0.7−	2000 02 04	704	0.6−	0.2+
1998 09 25	327	1.3−	0.2+	2000 01 04	704	0.9− 0.4−	2000 02 04	704	1.3+	0.9+
1998 09 26	704	0.0	1.2+	2000 01 04	704	0.2− 0.4−	2000 02 04	704	0.2+	1.2+
1998 09 26	704	0.0	0.1−	2000 01 04	704	0.2− 0.6−	2000 02 04	704	0.2−	0.9+
1998 09 26	704	0.1+	1.4+	2000 01 04	704	0.0 0.8−	2000 02 11	704	0.2+	0.4+
1998 09 26	704	0.1+	0.5+	2000 01 07	704	1.1− 0.1−	2000 02 11	704	0.0	0.5+
1998 09 26	704	0.1+	0.2+	2000 01 07	704	0.3+ 0.0	2000 02 11	704	0.5+	0.3+
1998 09 27	704	1.5+	0.1+	2000 01 07	704	0.5− 0.4−	2000 02 11	704	0.5+	0.8+
1998 09 27	704	(2.4+ 1.7+)		2000 01 07	704	1.1+ 0.2+				
1998 09 27	704	0.3−	1.6+	2000 02 01	703	0.2− 0.3+				

1997 04 12	809	0.2+	0.6-	2000 01 04	704	0.3+	0.8-	2000 02 04	120	0.1-	0.2+
1997 04 12	809	0.2-	0.1+	2000 01 05	699	0.8+	0.2+	2000 02 08	865	0.5-	0.7+
1997 04 12	809	0.8-	0.6+	2000 01 05	699	0.9+	0.2+	2000 02 08	865	0.1-	0.3+
1998 08 17	704	0.2+	0.0	2000 01 05	699	0.3+	1.3-	2000 02 08	865	1.3-	1.1+
1998 08 17	704	(2.6-	0.4+)	2000 01 07	704	0.4-	0.3+	2000 02 09	865	(4.4-	1.3+)
1998 08 17	704	0.1-	0.8+	2000 01 07	704	0.6+	0.2-	2000 02 09	865	1.4-	0.2-
1998 08 17	704	0.3-	0.4+	2000 01 07	704	0.3+	0.6-	2000 02 09	865	0.1+	0.3-
1998 08 23	704	0.7+	0.5+	2000 01 07	704	0.0	0.9+	2000 02 09	865	1.3-	0.8-
1998 08 23	704	(2.5-	0.3+)	2000 01 07	704	0.5+	1.3-	2000 02 09	865	0.6-	0.3+
1998 08 23	704	0.6-	0.6-	2000 02 04	120	0.1-	0.2+	2000 02 09	865	0.3+	0.2+
1998 08 23	704	0.1+	0.1+	2000 02 04	120	0.1-	0.4+	2000 02 11	704	1.2+	0.8+
1998 09 21	699	0.8+	0.0	2000 02 04	704	0.1-	0.0	2000 02 11	704	0.7+	0.5-
1998 09 21	699	0.1+	1.4+	2000 02 04	704	0.1-	0.2+	2000 02 11	704	0.4-	0.4-
1998 09 21	699	0.9+	0.5+	2000 02 04	704	0.7+	1.2+	2000 02 11	704	0.2-	0.4-
1998 11 19	910	1.5-	1.6-	2000 02 04	704	0.1-	0.0	2000 02 11	704	0.1+	0.5-
1998 11 19	910	0.9-	0.9-	2000 02 04	704	0.1+	0.3-				
1998 11 19	910	0.8-	0.9-	2000 02 04	704	0.0	0.5+				

2000 AC₉₇ = 1991 AZ₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	82.37133		(2000.0)		P		Q
<i>n</i>	0.22796152	ω	282.60223	+0.57781587	-0.80084773		
<i>a</i>	2.6539639	Ω	130.95646	+0.80609796	+0.52977750		
<i>e</i>	0.1849745	<i>i</i>	12.02900	+0.12780803	+0.27924668		
<i>P</i>	4.32	<i>H</i>	13.1	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1991 01 11	675	0.5-	0.1-	2000 01 04	704	0.4+	0.6-	2000 02 04	704	0.0	0.2-
1991 01 11	675	1.2+	0.2-	2000 01 04	704	0.9+	0.8-	2000 02 04	704	0.4-	0.5-
1991 01 15	675	0.9+	0.1-	2000 01 05	699	0.8+	0.3+	2000 02 04	704	0.5-	0.0
1991 01 15	675	1.5-	0.4-	2000 01 05	699	0.3+	0.7+	2000 02 04	704	0.0	0.9-
1999 11 16	704	0.4-	0.7+	2000 01 05	699	0.4+	0.2+	2000 02 04	704	0.3-	0.0
1999 11 16	704	0.4-	0.2+	2000 01 07	704	1.4-	0.2-	2000 02 04	704	0.3-	1.1-
1999 11 16	704	0.1+	0.0	2000 01 07	704	0.7+	0.2+	2000 02 04	704	(1.0-	2.9-)
1999 11 16	704	0.9+	0.2+	2000 01 07	704	0.7-	1.3+	2000 02 11	704	0.6-	0.1-
1999 11 16	704	0.0	0.2-	2000 01 10	699	0.2+	0.1+	2000 02 11	704	0.3-	0.4+
1999 12 05	699	1.4-	1.4+	2000 01 10	699	1.1+	0.1+	2000 02 11	704	0.1+	0.2-
1999 12 05	699	0.5-	0.5+	2000 01 10	699	0.7+	0.7+	2000 02 11	704	0.1+	0.6+
1999 12 05	699	0.2-	0.2+	2000 02 04	704	0.1+	0.0	2000 02 11	704	0.3-	0.7+
2000 01 04	704	0.0	0.7-	2000 02 04	704	0.2-	0.2-				
2000 01 04	704	0.5+	0.6-	2000 02 04	704	0.6+	0.8-				

**2000 AR₉₇ = 1942 VT = 1962 WC₂ = 1962 XR = 1972 VO₁ = 1972 XD₂
= 1972 YB₁ = 1975 VU₅ = 1983 AA₅ = 1987 FS₁**

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	84.30245		(2000.0)		P		Q
<i>n</i>	0.29681434	ω	3.70529	+0.51368712	-0.85476155		
<i>a</i>	2.2257658	Ω	55.39943	+0.78484310	+0.43319171		
<i>e</i>	0.1393991	<i>i</i>	5.17309	+0.34662206	+0.28588047		
<i>P</i>	3.32	<i>H</i>	12.8	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1942 11 05	062	1.3-	0.1-	1999 11 16	704	0.1+	0.0	2000 01 10	699	0.3+	0.2+
1942 11 05	062	0.7+	0.1-	1999 11 16	704	0.1+	0.2-	2000 01 10	699	0.4+	0.2+
1942 12 11	062	0.3+	0.9+	1999 11 16	704	0.3-	0.1+	2000 01 10	699	0.3+	0.3+
1962 11 30	760	(3.1+	68.8-)	1999 11 16	704	(1.3-	2.1+)	2000 02 04	704	1.4+	0.6-
1962 12 02	760	(16.6+	35.2-)	X 1999 11 16	704	0.1+	0.1-	2000 02 04	704	0.5+	0.8+
1972 11 09	095	(0.6+	7.0-)	1999 12 17	699	0.3-	0.1-	2000 02 04	704	0.7+	0.3+
1972 12 01	095	(10.8-	7.5+)	1999 12 17	699	0.4+	0.3+	2000 02 04	704	0.9+	0.4+
1972 12 30	095	1.3+	1.6+	1999 12 17	699	0.0	0.6+	2000 02 04	704	1.7-	0.3+
1975 11 05	095	(3.1-	0.1-)	2000 01 04	704	0.7-	1.3-	2000 02 11	704	0.1+	0.4+
1983 01 14	095	1.8-	0.9-	2000 01 04	704	0.4-	0.3-	2000 02 11	704	0.3-	0.5+
1987 03 22	033	0.4-	0.3+	2000 01 04	704	0.4-	0.1+	2000 02 11	704	0.4+	0.2+
1987 03 23	033	0.3-	0.1+	2000 01 04	704	0.1+	0.3+	2000 02 11	704	0.4-	0.8+
1998 07 04	699	0.2-	0.7+	2000 01 04	704	1.1+	0.7-	2000 02 11	704	0.2-	0.5+
1998 07 04	699	0.2-	0.6+	2000 01 07	704	1.3-	0.7-	2000 02 14	106	0.1+	0.3+

1998 07 04	699	0.2-	0.7+	2000 01 07	704	0.2+	0.7-	2000 02 14	106	0.0	0.6+
1998 07 31	699	0.1-	0.3+	2000 01 07	704	0.0	0.9-	2000 02 14	106	0.3-	0.5+
1998 07 31	699	0.0	0.3+	2000 01 07	704	0.0	0.7-				
1998 07 31	699	0.2-	0.3+	2000 01 07	704	1.3+	0.6-				

2000 AY₉₇ = 1993 RP₁₆ = 1998 VC₁₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	32.87441		(2000.0)		P		Q
<i>n</i>	0.21554906	ω	120.58523	-0.53845565	-0.84263607		
<i>a</i>	2.7548966	Ω	2.01839	+0.71009164	-0.45723633		
<i>e</i>	0.0996107	<i>i</i>	8.94102	+0.45369084	-0.28442818		
<i>P</i>	4.57	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1993 09 15	809	0.5+	0.5-	1998 11 11	704	0.2+	0.0	2000 01 07	704	0.6+	0.5-
1993 09 15	809	(0.7-	2.4-)	1998 11 11	704	0.1-	0.4-	2000 02 04	704	0.2+	0.3+
1993 09 15	809	1.5-	1.6-	1998 11 11	704	1.7+	0.2+	2000 02 04	704	0.4-	0.3-
1993 09 22	809	0.0	0.8+	2000 01 04	704	0.1-	0.1+	2000 02 04	704	0.3+	0.1+
1993 09 22	809	1.3+	0.1+	2000 01 04	704	0.5-	0.1+	2000 02 04	704	0.2-	0.2+
1993 09 22	809	0.5+	0.2-	2000 01 04	704	0.2+	0.1+	2000 02 04	704	0.0	0.5-
1998 11 10	704	0.9-	0.3-	2000 01 04	704	0.2-	0.2+	2000 02 11	704	0.2-	0.3-
1998 11 10	704	1.2-	0.4+	2000 01 04	704	0.1-	0.1+	2000 02 11	704	0.1-	0.5-
1998 11 10	704	0.7+	0.1+	2000 01 07	704	0.4-	0.5+	2000 02 11	704	0.3-	0.2-
1998 11 10	704	0.1-	0.4-	2000 01 07	704	0.3-	0.9+	2000 02 11	704	0.2-	0.3-
1998 11 11	704	0.6-	0.8+	2000 01 07	704	0.3+	0.4-	2000 02 11	704	0.6+	0.5-

2000 AF₉₈ = 1996 EQ₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	80.91584		(2000.0)		P		Q
<i>n</i>	0.24083569	ω	83.04812	+0.17351322	-0.98479467		
<i>a</i>	2.5585200	Ω	356.92045	+0.82930570	+0.15077347		
<i>e</i>	0.0244161	<i>i</i>	9.12735	+0.53117344	+0.08629496		
<i>P</i>	4.09	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1996 03 15	566	0.2+	0.8-	1996 03 26	566	0.4-	0.5-	2000 01 07	704	0.1+	0.7-
1996 03 15	566	0.4+	1.0-	1999 01 08	699	0.2+	0.2+	2000 02 06	704	0.3+	0.2+
1996 03 15	566	0.1+	0.7-	1999 01 08	699	0.6+	1.0-	2000 02 06	704	0.6+	0.7-
1996 03 18	566	0.6+	0.1+	1999 01 08	699	0.6-	0.3+	2000 02 06	704	0.0	0.1-
1996 03 18	566	0.8+	0.1+	2000 01 04	704	0.1+	1.1-	2000 02 06	704	0.4+	1.1+
1996 03 18	566	0.5+	0.4+	2000 01 04	704	0.2-	0.9-	2000 02 06	704	0.5-	0.3-
1996 03 19	566	0.9-	0.0	2000 01 04	704	0.8+	0.1-	2000 02 11	704	0.2+	0.8+
1996 03 19	566	0.9-	0.3+	2000 01 04	704	0.1+	0.1+	2000 02 11	704	0.3+	1.0+
1996 03 19	566	1.3-	0.5+	2000 01 07	704	1.3-	0.4+	2000 02 11	704	0.3+	0.5+
1996 03 26	566	0.4-	0.0	2000 01 07	704	0.0	0.6-	2000 02 11	704	0.5+	1.0+
1996 03 26	566	0.1-	0.4-	2000 01 07	704	0.5-	0.4-	2000 02 11	704	0.1-	1.1+

2000 AL₉₉ = 1998 MQ₂₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	65.43049		(2000.0)		P		Q
<i>n</i>	0.17832700	ω	151.50956	+0.94125060	+0.33740473		
<i>a</i>	3.1260169	Ω	188.80756	-0.32488058	+0.89309620		
<i>e</i>	0.1740802	<i>i</i>	5.37008	-0.09219497	+0.29755206		
<i>P</i>	5.53	<i>H</i>	13.3	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1997 04 01	809	0.2-	1.6-	1999 10 20	704	0.3+	0.7-	1999 12 08	699	0.3+	0.2+
1997 04 01	809	0.4-	1.6-	1999 10 20	704	0.3-	0.9-	1999 12 08	699	0.3-	0.2+
1997 04 01	809	1.0-	2.0-	1999 10 20	704	0.2+	0.3-	2000 01 05	704	0.5-	0.1+
1998 06 24	704	0.9-	0.4+	1999 11 05	704	0.1-	0.0	2000 01 05	704	0.4-	0.3+
1998 06 24	704	0.0	1.5+	1999 11 05	704	0.4-	0.1+	2000 01 05	704	0.2+	0.5+
1998 06 24	704	1.4+	1.9-	1999 11 05	704	0.3+	0.1-	2000 01 05	704	0.1+	0.4+
1998 06 26	704	1.2+	0.5-	1999 11 05	704	0.0	1.6-	2000 01 05	704	0.5+	0.6+
1998 06 26	704	0.4+	0.2+	1999 11 05	704	0.1-	1.5-	2000 01 06	699	1.2+	0.4+
1998 06 26	704	0.8+	1.2-	1999 11 13	699	0.4-	0.1+	2000 01 06	699	0.4-	1.6+

2000 FEB. 22

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1998 06 26	704	1.0−	0.9+	1999 11 13	699	0.7−	0.9+	2000 01 06	699	0.4−	0.3+
1999 10 03	704	0.1+	0.1−	1999 11 13	699	0.3−	0.3+	2000 01 07	704	0.5−	0.9−
1999 10 03	704	0.1+	1.0−	1999 12 05	704	0.5+	0.2−	2000 01 07	704	0.1+	0.2+
1999 10 03	704	0.1−	0.6−	1999 12 05	704	0.2+	0.1+	2000 01 07	704	0.0	0.2−
1999 10 03	704	0.4+	0.6−	1999 12 05	704	0.1−	0.3+	2000 01 07	704	1.2+	0.0
1999 10 03	704	0.4+	1.2−	1999 12 05	704	0.6+	0.4−	2000 01 07	704	0.7+	0.0
1999 10 20	704	0.7−	0.1−	1999 12 05	704	0.3−	0.5−				
1999 10 20	704	0.2−	0.3−	1999 12 08	699	0.1+	0.2+				

2000 AX₁₀₅ = 1998 QO₁₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr							
<i>M</i>	220.45070		(2000.0)	P		Q	
<i>n</i>	0.28533802	ω	99.79867	−0.30295424		+0.95146860	
<i>a</i>	2.2850530	Ω	152.37850	−0.91371281		−0.27386433	
<i>e</i>	0.0687856	<i>i</i>	6.70034	−0.27082767		−0.14037744	
<i>P</i>	3.45	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 17	704	0.9−	0.5−	1998 09 09	046	0.4+	1.0+	2000 01 07	704	0.2−	1.1−
1998 08 17	704	0.3−	1.8−	1998 09 09	046	0.8+	0.3−	2000 01 07	704	0.1+	0.1−
1998 08 17	704	0.7−	0.2−	1998 09 09	046	0.3+	0.4+	2000 01 07	704	0.1+	0.1−
1998 08 17	704	0.3−	0.7+	1998 09 09	046	0.2+	0.4+	2000 01 07	704	0.5+	0.3−
1998 08 23	704	(2.0+ 2.2+)		2000 01 05	704	0.1+	0.2−	2000 02 03	704	0.4+	1.3+
1998 08 23	704	1.4−	0.5+	2000 01 05	704	0.5−	0.4−	2000 02 03	704	0.2+	0.4+
1998 08 23	704	0.7+	0.3+	2000 01 05	704	0.1−	0.1+	2000 02 03	704	0.2−	0.7+
1998 08 23	704	0.8+	0.5−	2000 01 05	704	0.5+	0.3−	2000 02 03	704	0.4−	0.4+
1998 09 09	046	0.6+	0.5+	2000 01 05	704	0.2+	0.4−	2000 02 03	704	1.0−	0.3+

2000 AP₁₀₆ = 1993 HQ₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr							
<i>M</i>	315.63043		(2000.0)	P		Q	
<i>n</i>	0.25571213	ω	2.52240	−0.94362046		−0.32833556	
<i>a</i>	2.4583016	Ω	158.16459	+0.30169540		−0.90540057	
<i>e</i>	0.0660641	<i>i</i>	6.50619	+0.13623626		−0.26915714	
<i>P</i>	3.85	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1993 04 21	691	0.1−	0.3−	1998 09 12	426	0.2−	0.3−	2000 01 07	704	0.1+	0.6−
1993 04 21	691	0.1−	0.5−	1999 12 06	704	0.6−	0.0	2000 01 07	704	0.6+	0.1−
1993 04 21	691	0.0	0.4−	1999 12 06	704	0.7+	0.3+	2000 01 07	704	0.1+	0.2−
1993 04 22	691	0.0	0.0	1999 12 06	704	0.2+	0.0	2000 02 02	704	0.4−	0.6+
1993 04 22	691	0.2−	0.1−	1999 12 14	704	0.3+	0.1+	2000 02 02	704	0.1+	0.1−
1993 04 22	691	0.0	0.3−	1999 12 14	704	0.0	0.1−	2000 02 02	704	0.8−	0.6+
1998 08 17	704	0.3+	0.4−	1999 12 14	704	0.0	0.3+	2000 02 02	704	0.2+	0.3−
1998 08 17	704	1.3−	0.2−	1999 12 14	704	0.4−	0.1−	2000 02 02	704	0.3−	0.3+
1998 08 17	704	0.2−	0.0	2000 01 05	704	0.3−	0.4−	2000 02 03	704	0.4−	0.6−
1998 08 17	704	0.1−	0.8−	2000 01 05	704	0.1+	0.3+	2000 02 03	704	0.2−	0.2−
1998 08 17	704	1.2+	0.0	2000 01 05	704	0.6+	0.6−	2000 02 03	704	0.5−	0.4+
1998 09 12	426	1.1+	0.1+	2000 01 07	704	0.5+	0.2−				
1998 09 12	426	0.3−	0.2−	2000 01 07	704	0.0	0.7−				

2000 AB₁₀₇ = 1989 AH₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams							
<i>M</i>	335.06143		(2000.0)	P		Q	
<i>n</i>	0.17331819	ω	12.30301	−0.66661630		−0.70353015	
<i>a</i>	3.1859573	Ω	120.09251	+0.65749468		−0.71064819	
<i>e</i>	0.0375444	<i>i</i>	16.53964	+0.35117439		−0.00494699	
<i>P</i>	5.69	<i>H</i>	12.8	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1989 01 04	413	0.6−	0.7+	1998 09 27	699	0.4+	0.1−	2000 01 05	704	0.3+	1.0−
1989 01 04	413	0.1−	0.7−	1999 10 20	704	0.2−	0.0	2000 01 05	704	0.1+	1.2−
1989 01 08	675	0.9+	0.7−	1999 10 20	704	0.2+	0.4+	2000 01 07	704	0.5+	0.0

1989 01 08	675	0.3+	0.1+	1999 10 20	704	0.5+	0.1−	2000 01 07	704	0.2−	0.2+
1989 01 10	413	0.2+	0.5+	1999 10 20	704	0.5+	0.9−	2000 01 07	704	0.4+	0.6−
1989 01 10	413	0.6−	0.8+	1999 12 06	704	0.4+	0.2+	2000 01 07	704	0.3+	0.5−
1989 01 13	413	(5.0− 0.3−)		1999 12 06	704	0.1−	0.0	2000 01 07	704	0.0	0.4−
1989 01 13	413	(5.7+ 4.3−)		1999 12 06	704	0.3+	0.4+	2000 02 02	704	0.2−	1.2+
1997 08 02	566	0.2−	0.3−	1999 12 06	704	0.3−	0.2+	2000 02 02	704	0.1−	0.7+
1997 08 02	566	0.2−	0.0	1999 12 06	704	0.2−	0.2−	2000 02 02	704	0.3−	0.4+
1997 08 02	566	0.5+	0.3−	1999 12 14	704	(0.2+ 2.4+)		2000 02 02	704	0.3−	0.3+
1997 08 02	566	0.1+	0.0	1999 12 14	704	0.1+	0.3−	2000 02 03	704	0.1−	0.0
1997 08 02	566	0.2−	1.0−	1999 12 14	704	0.3−	0.3+	2000 02 03	704	0.1−	0.2+
1997 08 02	566	0.3−	0.6−	2000 01 05	704	0.2−	0.4−	2000 02 03	704	0.2−	0.2+
1998 09 27	699	1.7−	0.9+	2000 01 05	704	0.0	1.1−	2000 02 03	704	0.1−	0.3+
1998 09 27	699	0.9+	1.0+	2000 01 05	704	0.1+	1.1−				

2000 AF₁₀₈ = 1998 RW₃₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr							
<i>M</i>	70.87683		(2000.0)	P		Q	
<i>n</i>	0.19706938	ω	210.02929	+0.85253568		−0.52266836	
<i>a</i>	2.9245336	Ω	181.48290	+0.48571283		+0.79284271	
<i>e</i>	0.1055543	<i>i</i>	1.84260	+0.19304391		+0.31339787	
<i>P</i>	5.00	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 09 14	704	1.6+	0.7+	1998 09 23	120	0.1+	1.4−	2000 01 05	704	0.2−	0.8+
1998 09 14	704	1.7+	1.7−	1998 09 23	120	0.9+	1.8+	2000 01 07	704	0.3+	0.1−
1998 09 14	704	0.7−	0.7+	1998 09 23	120	0.7+	0.2+	2000 01 07	704	0.2+	0.2+
1998 09 14	704	0.8+	0.8+	1999 12 08	704	0.5−	0.1+	2000 01 07	704	0.1+	0.3+
1998 09 18	704	1.2−	0.2−	1999 12 08	704	0.9+	1.1+	2000 01 07	704	0.1+	0.1+
1998 09 18	704	1.2−	0.4−	1999 12 08	704	0.3−	0.1−	2000 01 09	704	0.4+	0.6−
1998 09 18	704	1.0−	0.2−	2000 01 05	704	0.8+	0.6−	2000 01 09	704	1.2−	0.4−
1998 09 18	704	0.8−	0.5−	2000 01 05	704	0.9−	0.3+	2000 01 09	704	0.0	1.9−
1998 09 18	704	1.6−	0.5−	2000 01 05	704	0.3+	0.2+	2000 01 09	704	0.1+	0.2−
1998 09 23	120	1.0+	0.5+	2000 01 05	704	0.1+	1.0+				

2000 AF₁₁₀ = 1988 VS₁₁ = 1998 MF₂₅

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr							
<i>M</i>	135.69290		(2000.0)	P		Q	
<i>n</i>	0.28220835	ω	104.37801	+0.82138403		+0.56821698	
<i>a</i>	2.3019160	Ω	221.02841	−0.54808728		+0.76224020	
<i>e</i>	0.2219601	<i>i</i>	4.33126	−0.15788795		+0.31003121	
<i>P</i>	3.49	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1988 11 03	327	1.4+	0.5−	1999 12 06	704	0.9−	0.4−	2000 01 07	704	0.2+	0.6−
1988 11 03	327	0.8−	0.6−	1999 12 06	704	0.1−	0.3+	2000 01 07	704	0.2+	0.6+
1988 11 04	327	0.6−	1.2+	1999 12 06	704	0.1−	0.1+	2000 01 07	704	0.2+	0.8+
1998 06 24	704	1.4−	0.1+	1999 12 06	704	0.3+	0.2−	2000 01 07	704	(1.1+ 2.3+)	
1998 06 24	704	1.5+	0.9−	1999 12 06	704	0.9−	1.0−	2000 02 02	704	0.2−	0.2−
1998 06 24	704	0.5+	1.2−	1999 12 14	704	(1.5+ 2.8+)		2000 02 02	704	0.6+	0.7−
1998 06 24	704	0.8−	0.2+	1999 12 14	704	0.9−	0.7+	2000 02 02	704	0.3+	0.3−
1998 06 26	704	1.7−	0.1−	1999 12 14	704	0.6−	0.2+	2000 02 02	704	0.6−	0.3+
1998 06 26	704	0.6+	0.6+	2000 01 05	704	0.9+	0.5−	2000 02 03	704	0.2−	0.4+
1998 06 26	704	(0.6− 2.4+)		2000 01 05	704	0.5+	0.5−	2000 02 03	704	0.5+	0.1−
1998 06 26	704	1.4+	0.3−	2000 01 05	704	0.8+	0.0	2000 02 03	704	0.2+	0.4+
1998 06 26	704	0.0	1.5+	2000 01 07	704	0.5−	0.2+	2000 02 03	704	0.0	0.5+

2000 AS₁₁₀ = 1994 RN₁₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	298.39940		(2000.0)	P	Q
<i>n</i>	0.26104707	ω	20.64199	-0.96178523	+0.27370426
<i>a</i>	2.4246934	Ω	175.22432	-0.26205682	-0.91232001
<i>e</i>	0.1421331	<i>i</i>	5.11735	-0.07934347	-0.30456228
<i>P</i>	3.78	<i>H</i>	14.5	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1994 09 05	809	0.5-	0.1+	2000 01 05	704	0.9-	0.0	2000 01 07	704	0.3+	0.6-
1994 09 05	809	0.1-	0.0	2000 01 05	704	0.2-	0.7-	2000 01 28	704	1.2-	0.8+
1994 09 05	809	1.2-	0.8-	2000 01 05	704	0.6-	0.4-	2000 01 28	704	0.1-	0.4+
1994 09 06	809	1.3+	0.9+	2000 01 05	704	0.1-	0.1-	2000 01 28	704	0.0	1.0+
1994 09 06	809	0.8+	0.8+	2000 01 05	704	0.4+	0.1+	2000 01 28	704	1.1+	1.5+
1994 09 06	809	0.6-	0.1+	2000 01 07	704	0.1+	0.3+	2000 01 29	704	0.3-	0.2+
1999 12 14	704	(2.5-	1.9-)	2000 01 07	704	0.2-	0.1-	2000 01 29	704	0.4+	0.9+
1999 12 14	704	0.5+	0.9-	2000 01 07	704	0.4+	0.7-	2000 01 29	704	0.1-	0.8+
1999 12 14	704	0.1+	1.8-	2000 01 07	704	0.5+	0.8-	2000 01 29	704	0.2-	1.2+

2000 AA₁₁₁ = 1998 UD₄₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	186.35327		(2000.0)	P	Q
<i>n</i>	0.19563099	ω	107.79673	+0.34875564	+0.93721267
<i>a</i>	2.9388513	Ω	182.61571	-0.87096669	+0.32355752
<i>e</i>	0.0871084	<i>i</i>	1.73984	-0.34610189	+0.13016510
<i>P</i>	5.04	<i>H</i>	13.4	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1998 10 28	704	0.1-	0.5+	1999 12 08	704	0.3+	0.2-	2000 01 07	704	0.1+	0.5+
1998 10 28	704	1.0-	0.6+	1999 12 08	704	0.8+	1.1+	2000 02 02	704	0.3-	0.5-
1998 10 28	704	0.2+	0.8+	2000 01 05	704	0.2+	0.0	2000 02 02	704	0.4+	0.3+
1998 10 28	704	0.6-	1.0+	2000 01 05	704	0.4+	0.1+	2000 02 02	704	0.5+	0.3-
1998 10 29	704	0.2-	1.0-	2000 01 05	704	0.6-	0.3-	2000 02 02	704	0.2-	0.0
1998 10 29	704	0.5+	0.4+	2000 01 05	704	0.4-	0.1-	2000 02 02	704	0.5-	1.6+
1998 10 29	704	0.7+	0.6-	2000 01 07	704	0.1-	0.1-	2000 02 03	704	0.1-	0.3-
1998 10 29	704	0.6+	1.4-	2000 01 07	704	0.1+	0.4-	2000 02 03	704	0.6-	0.1+
1999 12 08	704	0.9-	1.1-	2000 01 07	704	0.1-	0.1+	2000 02 03	704	0.5+	0.4-
1999 12 08	704	0.3-	1.0-	2000 01 07	704	0.3+	0.2+	2000 02 03	704	0.3+	0.4+

2000 AJ₁₁₁ = 1976 UF₁₃ = 1998 SJ₁₂₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	346.30000		(2000.0)	P	Q
<i>n</i>	0.17862853	ω	327.10261	-0.72752979	-0.68578077
<i>a</i>	3.1224980	Ω	169.52642	+0.65096169	-0.69926219
<i>e</i>	0.1275032	<i>i</i>	6.35721	+0.21667782	-0.20183440
<i>P</i>	5.52	<i>H</i>	13.4	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1976 10 22	381	0.4+	0.4+	1998 11 10	704	0.1-	1.2+	2000 01 07	704	0.5+	0.4-
1976 10 22	381	0.4-	0.4-	1999 12 06	704	0.9+	0.1-	2000 01 07	704	(2.8+	0.2+)
1998 09 26	704	0.5-	1.4-	1999 12 06	704	0.3+	0.4-	2000 01 07	704	1.5-	1.0+
1998 09 26	704	0.4-	0.3-	1999 12 06	704	0.1-	1.3+	2000 01 07	704	0.0	0.1+
1998 09 26	704	0.2-	1.3-	1999 12 06	704	0.3+	0.8-	2000 01 07	704	0.5-	0.0
1998 09 26	704	0.0	0.5-	1999 12 14	704	0.4-	0.4-	2000 02 02	704	0.7+	0.2+
1998 09 26	704	0.0	0.8-	1999 12 14	704	0.2-	0.1-	2000 02 02	704	1.2+	1.1+
1998 09 27	704	1.1-	0.2-	1999 12 14	704	0.0	0.2-	2000 02 02	704	0.3-	0.0
1998 09 27	704	0.3+	0.7+	1999 12 14	704	0.1+	0.3+	2000 02 02	704	0.3+	0.2-
1998 09 27	704	0.9+	1.7+	1999 12 14	704	0.5-	0.0	2000 02 03	704	0.2-	0.4+
1998 09 27	704	(2.5-	1.4+)	2000 01 05	704	0.2+	0.2-	2000 02 03	704	0.1+	0.1+
1998 09 27	704	0.8-	0.8+	2000 01 05	704	0.4-	0.7-	2000 02 03	704	0.2+	0.4+
1998 11 10	704	1.6+	0.9-	2000 01 05	704	0.4-	0.7-	2000 02 03	704	0.3+	0.2+
1998 11 10	704	(0.8+	2.2+)	2000 01 05	704	0.1+	0.4-	2000 02 03	704	0.1-	0.1+
1998 11 10	704	0.4+	1.4+	2000 01 05	704	0.5-	0.5-				

2000 AC₁₁₂ = 1997 LG₃

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	314.41534		(2000.0)	P	Q
<i>n</i>	0.27431011	ω	18.30006	-0.99208857	+0.12516250
<i>a</i>	2.3458929	Ω	168.87662	-0.12055865	-0.92824912
<i>e</i>	0.1757366	<i>i</i>	2.89016	-0.03501265	-0.35026835
<i>P</i>	3.59	<i>H</i>	15.5	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1997 05 04	809	1.1+	1.1-	1997 06 10	691	0.8-	0.1+	2000 01 07	704	0.0	0.3-
1997 05 04	809	0.8+	1.0-	1997 06 10	691	0.4-	0.3+	2000 01 07	704	0.0	0.6+
1997 05 04	809	0.4+	0.4-	1997 06 10	691	0.7-	0.4-	2000 01 07	704	0.0	0.1+
1997 06 05	691	1.0-	0.2-	1999 12 14	704	0.5+	0.4-	2000 02 02	704	0.2-	0.5+
1997 06 05	691	1.2-	0.1-	1999 12 14	704	0.6+	0.3+	2000 02 02	704	0.3-	0.4-
1997 06 05	691	0.9-	0.0	1999 12 14	704	0.1-	1.1+	2000 02 02	704	0.4-	0.5-
1997 06 08	809	0.8+	1.6+	1999 12 14	704	0.0	0.5+	2000 02 02	704	0.4+	0.2+
1997 06 08	809	(0.3+	2.3+)	2000 01 05	704	0.4+	0.4+	2000 02 03	704	0.6+	0.6+
1997 06 08	809	0.5+	1.3+	2000 01 05	704	0.0	0.4-	2000 02 03	704	0.2-	0.7-
1997 06 09	809	1.5+	0.4+	2000 01 05	704	0.1+	0.2+	2000 02 03	704	0.1-	0.1-
1997 06 09	809	0.8+	0.5+	2000 01 05	704	0.4-	0.9+	2000 02 03	704	0.4-	0.6-
1997 06 09	809	0.7-	0.1+	2000 01 07	704	0.1-	0.1-	2000 02 03	704	0.3-	0.5-

2000 AT₁₁₂ = 1995 BZ₁₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	82.12087		(2000.0)	P	Q
<i>n</i>	0.18735093	ω	246.16231	+0.91015605	-0.39381933
<i>a</i>	3.0248150	Ω	136.72410	+0.41420017	+0.87061134
<i>e</i>	0.1222731	<i>i</i>	10.80739	-0.00736051	+0.29485967
<i>P</i>	5.26	<i>H</i>	12.7	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1995 01 30	033	0.0	0.4+	1999 12 06	704	0.4-	0.1+	2000 01 07	704	0.5-	0.4-
1995 01 31	033	0.3-	0.5+	1999 12 14	704	0.4-	0.3-	2000 01 07	704	0.3-	0.1-
1995 02 03	033	0.3+	0.5+	1999 12 14	704	0.3-	0.6-	2000 01 08	428	1.1+	0.9-
1998 09 24	699	0.0	0.2+	1999 12 14	704	0.2+	0.2+	2000 01 08	428	1.7-	0.1+
1998 09 24	699	0.4-	0.2+	1999 12 14	704	0.2-	0.4+	2000 01 10	428	0.4-	0.4+
1998 09 24	699	0.1+	0.6+	1999 12 14	704	0.1+	0.2+	2000 01 10	428	1.2+	0.2-
1999 10 20	704	1.1+	0.3-	2000 01 05	704	0.2-	0.0	2000 01 10	428	0.8+	0.4+
1999 10 20	704	0.3+	0.3+	2000 01 05	704	0.4-	0.1-	2000 02 02	704	0.5+	0.3+
1999 10 20	704	0.1+	0.5-	2000 01 05	704	0.0	0.1-	2000 02 02	704	0.8-	0.2+
1999 10 20	704	0.1-	0.7-	2000 01 05	704	0.1-	0.2-	2000 02 02	704	0.4+	0.5+
1999 12 06	704	1.1+	0.3-	2000 01 05	704	0.1+	0.3-	2000 02 02	704	0.1+	0.6+
1999 12 06	704	0.3-	0.5-	2000 01 07	704	0.1-	0.4-	2000 02 02	704	0.6+	0.8+
1999 12 06	704	0.4-	0.1+	2000 01 07	704	0.4-	0.3-				
1999 12 06	704	0.3+	0.4+	2000 01 07	704	0.4-	0.2-				

2000 AX₁₁₂ = 1995 BX₁₁ = 1997 SD₁₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	209.17271		(2000.0)	P	Q
<i>n</i>	0.17369265	ω	131.63651	+0.07160260	+0.98876411
<i>a</i>	3.1813767	Ω	141.86430	-0.96662454	+0.10123264
<i>e</i>	0.1293955	<i>i</i>	12.26846	-0.24598795	-0.10998861
<i>P</i>	5.67	<i>H</i>	13.1	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1995 01 29	691	0.4-	0.0	1998 11 13	704	1.4-	0.9+	2000 01 07	704	0.4+	0.8-
1995 01 29	691	0.3-	0.2+	1999 12 14	704	0.2-	0.7+	2000 01 09	704	0.2+	1.0+
1995 01 29	691	0.5-	0.4-	1999 12 14	704	0.4-	0.2-	2000 01 09	704	0.3+	1.0-
1995 02 07	691	0.0	0.3-	1999 12 14	704	0.1+	0.5-	2000 01 09	704	0.7-	0.7-
1995 02 07	691	0.4+	0.4-	1999 12 14	704	0.7-	0.9-	2000 02 02	704	0.0	0.0
1995 02 07	691	0.4+	0.8-	2000 01 05	704	0.9-	0.0	2000 02 02	704	0.4-	1.6+
1997 09 30	700	0.0	0.5-	2000 01 05	704	0.5-	0.1+	2000 02 02	704	1.1+	1.3+
1997 09 30	700	0.8-	0.5+	2000 01 05	704	0.6-	0.1+	2000 02 02	704	1.3+	1.0+

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1997 10 01	700	0.5+	1.0-	2000 01 05	704	0.1-	0.5-	2000 02 03	704	0.6+	0.6-
1997 10 01	700	0.5+	0.5-	2000 01 05	704	0.1+	1.0-	2000 02 03	704	1.0+	0.1+
1997 10 01	700	0.1+	0.3-	2000 01 07	704	0.5-	0.7-	2000 02 03	704	0.7+	0.1-
1998 11 13	704	0.2-	1.1-	2000 01 07	704	1.0-	0.4-	2000 02 03	704	0.1+	0.4+
1998 11 13	704	0.2-	0.3+	2000 01 07	704	0.6-	0.5-	2000 02 03	704	0.5+	1.5+
1998 11 13	704	1.5+	0.6+	2000 01 07	704	0.1-	0.2+				

2000 AB₁₁₃ = 1985 DF₃ = 1987 QD₂

Id. G. V. Williams, S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.19041763	ω	179.28434	+0.77061853	+0.62379998		
<i>a</i>	2.9922505	Ω	141.10974	-0.58573587	+0.77393618		
<i>e</i>	0.1040419	<i>i</i>	11.99346	-0.25111866	+0.10907053		
<i>P</i>	5.18	<i>H</i>	12.0	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1985 02 20	675	0.3-	2.2-	1987 08 27	809	0.3-	0.1-	1999 12 14	704	0.2+	0.5+
1985 02 22	675	(0.1-	3.6-)	1987 08 27	809	0.3-	0.9+	2000 01 05	704	0.1-	0.4-
1987 08 21	809	1.0-	1.5-	1987 08 27	809	0.4+	0.9+	2000 01 05	704	0.0	0.4-
1987 08 21	809	0.8-	1.4-	1987 08 28	809	0.2+	1.9+	2000 01 05	704	0.3+	0.5-
1987 08 21	809	1.4-	0.6-	1987 08 28	809	(0.5+	3.1+)	2000 01 05	704	0.1-	0.5-
1987 08 22	809	0.9+	0.5-	1987 08 28	809	0.3-	2.5+	2000 01 05	704	0.7+	0.7-
1987 08 22	809	0.5+	0.5-	1987 08 29	809	(6.0-	5.1+)	2000 01 07	704	0.2-	0.2-
1987 08 22	809	0.5+	0.8-	1987 08 29	809	(6.7-	3.0+)	2000 01 07	704	0.1-	0.2-
1987 08 24	809	1.0-	1.4-	1987 08 29	809	(5.9-	3.0+)	2000 01 07	704	0.2-	0.2-
1987 08 24	809	1.0+	0.5-	1999 10 20	704	0.3-	0.2+	2000 01 07	704	0.0	0.3-
1987 08 24	809	1.5+	0.4+	1999 10 20	704	0.3+	0.5-	2000 01 07	704	0.2-	0.0
1987 08 24	809	2.3+	1.5-	1999 10 20	704	0.7+	0.2-	2000 02 02	704	0.2+	0.1-
1987 08 25	809	0.1-	0.3-	1999 10 20	704	0.2-	0.4-	2000 02 02	704	0.4+	0.3+
1987 08 25	809	0.2-	0.6-	1999 10 20	704	0.1+	0.4-	2000 02 02	704	0.1+	0.4+
1987 08 25	809	0.3-	0.3-	1999 12 06	704	0.7+	0.2+	2000 02 02	704	0.1+	0.1+
1987 08 25	809	0.0	0.2+	1999 12 06	704	0.5-	0.2+	2000 02 02	704	0.4-	0.3-
1987 08 25	809	0.5+	0.4+	1999 12 06	704	0.2+	0.7+	2000 02 03	704	0.1+	0.4+
1987 08 25	809	1.0+	0.5-	1999 12 06	704	0.2+	0.3+	2000 02 03	704	0.0	0.4+
1987 08 25	809	0.3+	0.5+	1999 12 06	704	0.8-	0.7+	2000 02 03	704	0.3-	0.6+
1987 08 25	809	0.7+	1.5+	1999 12 14	704	0.2-	0.4-	2000 02 03	704	0.1-	0.4+
1987 08 26	809	1.1-	0.3-	1999 12 14	704	0.1-	0.2-	2000 02 03	704	0.2+	0.4+
1987 08 26	809	1.5-	0.7-	1999 12 14	704	0.2-	0.3-				
1987 08 26	809	1.4-	0.4+	1999 12 14	704	0.5-	0.0				

2000 AM₁₁₃ = 1998 SW₁₆₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.18258767	ω	214.81259	+0.98782214	+0.08837817		
<i>a</i>	3.0771954	Ω	139.51456	-0.05372875	+0.96614633		
<i>e</i>	0.1951800	<i>i</i>	11.37476	-0.14601587	+0.24238518		
<i>P</i>	5.40	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 09 21	699	0.0	0.1+	1999 01 20	910	0.3+	0.6-	2000 02 02	704	0.9-	0.8+
1998 09 21	699	0.2-	0.1-	2000 01 05	704	0.1-	0.4-	2000 02 02	704	0.5+	0.9+
1998 09 21	699	0.2+	0.1+	2000 01 05	704	0.5-	0.4-	2000 02 02	704	0.4+	0.2+
1998 09 27	699	0.4-	0.3+	2000 01 05	704	0.4+	0.7-	2000 02 02	704	0.2-	0.2+
1998 09 27	699	0.4-	0.4+	2000 01 05	704	0.4+	1.0-	2000 02 02	704	0.2-	0.4-
1998 09 27	699	0.1-	0.2+	2000 01 05	704	1.0-	0.5-	2000 02 03	704	0.0	0.6+
1998 10 18	699	0.1-	0.3+	2000 01 07	704	0.1+	0.0	2000 02 03	704	0.1-	1.0+
1998 10 18	699	0.2+	0.2-	2000 01 07	704	0.4+	1.2-	2000 02 03	704	0.5-	0.9+
1998 10 18	699	0.1-	0.0	2000 01 07	704	0.1+	0.3+	2000 02 03	704	0.4+	0.7+
1999 01 20	910	0.7+	0.4-	2000 01 07	704	0.4+	0.1+	2000 02 03	704	0.0	0.4+
1999 01 20	910	0.3+	0.5-	2000 01 07	704	0.2+	0.6-				

2000 AC₁₁₄ = 1998 QF₆₁

Id. G. V. Williams

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.19705503	ω	240.16398	+0.53498610	-0.84484942		
<i>a</i>	2.9246756	Ω	177.48009	+0.80554866	+0.50851710		
<i>e</i>	0.2250461	<i>i</i>	5.73814	+0.25471794	+0.16625226		
<i>P</i>	5.00	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 08 17	704	0.5+	0.5-	1999 12 14	704	0.4-	0.6-	2000 01 07	704	0.3-	0.7-
1998 08 17	704	0.2+	0.3-	1999 12 14	704	0.3-	0.3-	2000 01 07	704	0.5-	1.0-
1998 08 17	704	0.1-	0.1+	1999 12 14	704	0.0	0.2-	2000 02 02	704	0.0	0.4+
1998 08 17	704	0.5+	0.3-	1999 12 14	704	0.2-	0.6-	2000 02 02	704	0.1+	0.8+
1998 08 17	704	0.3-	1.2-	1999 12 14	703	0.2-	0.4+	2000 02 02	704	0.0	0.6+
1998 08 23	699	1.1+	0.9+	1999 12 14	703	0.2+	0.3+	2000 02 02	704	0.4+	0.7+
1998 08 23	699	0.0	1.4+	1999 12 14	703	0.0	0.8+	2000 02 02	704	0.1+	0.8+
1998 08 23	699	0.1-	0.1+	1999 12 14	703	0.3+	0.3+	2000 02 04	704	0.0	0.4+
1998 08 30	699	0.4-	0.2+	2000 01 05	704	0.1-	0.6-	2000 02 04	704	0.1-	0.8+
1998 08 30	699	0.7-	0.1+	2000 01 05	704	0.2+	0.5-	2000 02 04	704	0.3+	0.7+
1998 08 30	699	1.0-	0.1+	2000 01 05	704	0.1+	0.1-	2000 02 04	704	(0.5-	2.4-)
1999 11 12	703	0.1-	0.1+	2000 01 05	704	0.1+	0.1-	2000 02 04	704	0.1+	1.2-
1999 11 12	703	0.5+	0.3+	2000 01 05	704	0.3-	0.4+	2000 02 06	704	0.3-	0.3+
1999 11 12	703	0.3+	0.2+	2000 01 07	704	0.1-	0.2-	2000 02 06	704	0.5+	0.3+
1999 11 12	703	(6.7+	1.6+)	2000 01 07	704	0.2+	1.1-	2000 02 06	704	0.3+	0.0
1999 12 14	704	0.6+	0.2+	2000 01 07	704	1.1-	0.8-				

2000 AO₁₁₄ = 1996 AK₁₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.23630098	ω	202.07212	+0.90344922	+0.39581736		
<i>a</i>	2.5911489	Ω	133.51142	-0.35151965	+0.90382842		
<i>e</i>	0.1944300	<i>i</i>	13.12186	-0.24538426	+0.16255093		
<i>P</i>	4.17	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1995 12 20	566	1.3+	0.0	1998 08 17	704	0.8+	0.5-	2000 01 07	704	0.3+	0.3+
1995 12 20	566	1.0+	0.1+	1998 08 17	704	0.4+	0.2-	2000 01 07	704	0.2+	0.0
1995 12 20	566	0.9+	0.2+	1998 08 17	704	0.1-	0.3-	2000 02 02	704	0.5+	0.1-
1996 01 13	691	0.2-	0.3+	1998 08 28	699	0.5-	0.5+	2000 02 02	704	0.1+	0.1-
1996 01 13	691	0.1-	0.3+	1998 08 28	699	0.9-	0.3+	2000 02 02	704	0.4-	0.6-
1996 01 13	691	0.2-	0.2+	1998 08 28	699	0.6-	0.6+	2000 02 02	704	0.4+	0.3+
1996 01 20	691	0.3+	0.5-	2000 01 05	704	0.1-	0.7-	2000 02 02	704	0.0	0.8-
1996 01 20	691	0.7-	0.5+	2000 01 05	704	0.2-	0.4-	2000 02 03	704	0.0	1.0-
1996 01 20	691	0.5-	0.1-	2000 01 05	704	0.1-	0.5-	2000 02 03	704	0.8+	0.2-
1996 01 26	691	0.3-	0.0	2000 01 05	704	0.3+	1.2+	2000 02 03	704	(0.2-	2.2-)
1996 01 26	691	0.5-	0.0	2000 01 05	704	0.9-	0.6-	2000 02 03	704	0.9-	0.3+
1996 01 26	691	0.6-	0.1-	2000 01 07	704	1.0+	0.3+	2000 02 03	704	0.4+	0.1-
1998 08 17	704	0.4+	0.1-	2000 01 07	704	0.7-	0.4+				
1998 08 17	704	0.7+	0.3-	2000 01 07	704	0.4-	1.1+				

2000 AJ₁₁₅ = 1998 SY₁₅₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	292.03583	(2000.0)		P		Q	
n	0.27902964	ω	65.35345	-0.81298682	+0.57876539		
a	2.3193653	Ω	149.89067	-0.56961900	-0.76774164		
e	0.1816344	i	7.31803	-0.12077512	-0.27496070		
P	3.53	H	14.8	G	0.15	U	4

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1998 09 27	704	(0.9+ 3.4+)	2000 01 07	704	0.0	1.0-	2000 02 03	704	0.3+ 0.1-
1998 09 27	704	(2.8- 2.0+)	2000 01 07	704	0.0	1.1-	2000 02 03	704	0.2+ 0.3-
1999 12 14	704	(0.3+ 2.2+)	2000 01 07	704	0.2-	0.4-	2000 02 03	704	0.5+ 0.3-
1999 12 14	704	0.4+ 1.4+	2000 01 07	704	0.7-	0.7-			
1999 12 14	704	0.6+ 0.4+	2000 02 02	704	0.6-	0.8+			

2000 AK₁₁₅ = 1993 FU₄₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	340.91499	(2000.0)	P	Q
<i>n</i>	0.26505928	ω	333.17007	-0.87804569
<i>a</i>	2.4001628	Ω	178.23140	+0.45293373
<i>e</i>	0.0948203	<i>i</i>	4.87633	+0.15455356
<i>P</i>	3.72	<i>H</i>	14.6	<i>G</i> 0.15 <i>U</i> 4

Residuals in seconds of arc

1993 03 19	809	0.8- 0.9+	1999 12 14	704	0.0	0.4-	2000 02 02	704	(0.1+ 2.2+)
1993 03 20	809	0.6+ 0.2-	1999 12 14	703	0.2-	0.8+	2000 02 02	704	0.0 0.6+
1993 03 24	809	1.6+ 0.7-	1999 12 14	703	0.1+ 1.0+		2000 02 02	704	0.3- 0.0
1993 04 21	413	(4.2- 4.9+)	1999 12 14	703	0.8+ 0.5+		2000 02 02	704	0.4+ 0.3+
1993 04 29	691	0.5- 0.1+	2000 01 05	704	0.1- 0.1+		2000 02 02	704	0.2+ 0.4-
1993 04 29	691	0.4- 0.2-	2000 01 05	704	0.2- 0.2-		2000 02 02	704	(2.1+ 0.5-)
1993 04 29	691	0.8- 0.1-	2000 01 05	704	0.3- 0.3-		2000 02 02	704	0.0 0.5-
1998 08 17	704	(1.8+ 2.3-)	2000 01 05	704	0.4- 0.1+		2000 02 02	704	0.5+ 0.7+
1998 08 17	704	0.1+ 0.3-	2000 01 05	704	0.2+ 0.9-		2000 02 03	704	0.0 0.0
1998 08 17	704	(2.1+ 2.8-)	2000 01 07	704	0.1- 0.2-		2000 02 03	704	0.2+ 0.2-
1998 08 17	704	0.3+ 0.6-	2000 01 07	704	0.4- 0.2-		2000 02 03	704	0.1+ 0.2-
1999 12 14	704	0.9- 0.9+	2000 01 07	704	0.1- 0.7-		2000 02 03	704	0.1+ 0.7-
1999 12 14	704	0.3+ 0.2-	2000 01 07	704	0.3- 0.0		2000 02 03	704	0.2+ 0.8-
1999 12 14	704	0.0 0.0	2000 01 07	704	0.2- 0.2-				
1999 12 14	703	0.3+ 0.6+	2000 02 02	704	0.1+ 0.3+				

2000 AJ₁₁₆ = 1998 UN₃₃

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	256.23629	(2000.0)	P	Q
<i>n</i>	0.26960625	ω	350.34273	-0.38485454
<i>a</i>	2.3731002	Ω	256.95422	-0.83889609
<i>e</i>	0.1584924	<i>i</i>	6.65322	-0.38489002
<i>P</i>	3.66	<i>H</i>	13.9	<i>G</i> 0.15 <i>U</i> 4

Residuals in seconds of arc

1998 10 12	699	0.6- 0.1-	1999 12 06	704	0.3- 0.1-	2000 01 05	704	0.3- 0.4+
1998 10 12	699	0.5- 0.0	1999 12 06	704	0.1- 0.8+	2000 01 05	704	0.8- 0.9+
1998 10 12	699	1.0- 0.2+	1999 12 06	704	0.2+ 0.5-	2000 01 07	704	0.8+ 1.0-
1998 10 28	704	0.9+ 0.0	1999 12 06	704	0.6+ 0.2-	2000 01 07	704	1.4+ 0.5-
1998 10 28	704	1.0- 0.5+	1999 12 06	704	0.1+ 1.2-	2000 01 07	704	0.1+ 0.2+
1998 10 28	704	0.3+ 1.0-	1999 12 14	704	0.8+ 0.4+	2000 01 07	704	0.2+ 0.8+
1998 10 28	704	0.5+ 0.5-	1999 12 14	704	0.6+ 0.6-	2000 02 02	704	0.4- 0.2-
1998 10 28	704	1.1+ 0.4+	1999 12 14	704	0.1- 0.2-	2000 02 02	704	1.2- 0.5-
1998 10 29	704	0.7- 0.7-	1999 12 14	704	0.6+ 0.4-	2000 02 02	704	0.0 0.4-
1998 10 29	704	0.0 0.8+	1999 12 14	704	1.5- 1.1-	2000 02 02	704	0.2+ 0.1+
1998 10 29	704	0.8+ 0.8+	1999 12 31	699	0.6- 0.4+	2000 02 04	704	0.8+ 0.6+
1998 10 29	704	1.0- 0.4-	1999 12 31	699	0.2- 1.0+	2000 02 04	704	0.4+ 0.5-
1998 10 29	704	1.2+ 0.1-	1999 12 31	699	1.1+ 0.8+	2000 02 04	704	0.5- 0.5-
1999 12 05	699	0.8- 0.2-	2000 01 05	704	0.3- 0.1+	2000 02 04	704	0.1- 0.1-
1999 12 05	699	0.5+ 0.3+	2000 01 05	704	0.3- 0.4+			
1999 12 05	699	0.2+ 0.8+	2000 01 05	704	0.7- 0.1+			

2000 AM₁₁₆ = 1984 SR₆ = 1997 EW₅₆ = 1998 RK₂₅

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	222.30262	(2000.0)	P	Q
<i>n</i>	0.27944062	ω	101.40368	-0.02464058
<i>a</i>	2.3170906	Ω	167.14647	-0.94487604
<i>e</i>	0.0365497	<i>i</i>	4.46378	-0.32649980
<i>P</i>	3.53	<i>H</i>	14.4	<i>G</i> 0.15 <i>U</i> 1

Residuals in seconds of arc

1984 09 27	809	1.7+ 1.3+	1998 08 23	704	1.6- 0.5-	1999 12 14	704	0.7+ 0.4-
1984 09 27	809	2.0+ 1.2+	1998 08 23	704	(3.6- 0.4-)	2000 01 05	704	0.4- 0.2+
1984 09 27	809	2.0+ 1.3+	1998 08 23	704	1.2- 0.2-	2000 01 05	704	0.5- 0.3+
1984 09 28	809	2.0- 0.9-	1998 08 23	704	(6.6- 0.3+)	2000 01 05	704	0.5- 0.4+
1984 09 28	809	1.7- 0.8-	1998 09 14	704	0.7+ 0.1+	2000 01 05	704	0.1- 0.3+
1984 09 28	809	1.5- 0.8-	1998 09 14	704	0.0 0.4-	2000 01 05	704	0.5- 0.0
1984 09 29	809	0.6- 0.3+	1998 09 14	704	0.7+ 0.4-	2000 01 07	704	0.1+ 0.1-
1984 09 29	809	0.5- 0.4+	1998 09 14	704	0.1- 0.8-	2000 01 07	704	0.0 0.0
1984 09 29	809	0.4- 0.9+	1998 09 14	704	0.1+ 0.9-	2000 01 07	704	0.4+ 0.0
1997 03 10	809	0.7+ 1.5+	1998 09 18	704	0.8+ 1.2+	2000 01 07	704	0.2+ 0.3+
1997 03 10	809	1.0+ 1.5+	1998 09 18	704	0.2- 0.4-	2000 01 07	704	0.3+ 0.4+
1997 03 10	809	1.0+ 2.0+	1998 09 18	699	0.5- 1.4+	2000 02 02	704	0.0 0.4+
1997 03 11	809	0.2+ 1.1+	1998 09 18	704	0.6- 0.6+	2000 02 02	704	0.1+ 0.1-
1997 03 11	809	(0.2- 2.1+)	1998 09 18	699	0.0 1.1+	2000 02 02	704	0.4- 0.3+
1997 03 11	809	0.2- 1.4+	1998 09 18	704	0.1+ 0.9+	2000 02 02	704	0.2- 0.2+
1998 08 17	704	0.0 0.5+	1998 09 18	704	0.3+ 1.2+	2000 02 02	704	0.1- 0.1-
1998 08 17	704	0.4+ 0.1+	1998 09 18	699	0.1- 1.2+	2000 02 03	704	0.6+ 0.4+
1998 08 17	704	0.8+ 0.5+	1999 12 14	704	0.6+ 1.1-	2000 02 03	704	0.0 0.0
1998 08 17	704	0.3- 1.0+	1999 12 14	704	0.2+ 0.1-	2000 02 03	704	0.2- 0.4+
1998 08 17	704	0.2+ 0.8+	1999 12 14	704	0.2+ 0.7-	2000 02 03	704	0.2- 0.7+
1998 08 23	704	1.8- 1.2-	1999 12 14	704	0.4+ 0.4-	2000 02 03	704	0.1- 1.0+

2000 AX₁₁₆ = 1998 OA₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	57.19013	(2000.0)	P	Q
<i>n</i>	0.29132163	ω	244.20785	+0.50543757
<i>a</i>	2.2536556	Ω	175.40996	+0.82187507
<i>e</i>	0.1343119	<i>i</i>	5.46984	+0.26278172
<i>P</i>	3.38	<i>H</i>	14.5	<i>G</i> 0.15 <i>U</i> 4

Residuals in seconds of arc

1998 06 26	704	0.4- 0.2-	1999 12 14	704	0.5+ 0.2+	2000 01 09	704	0.8- 0.5-
1998 06 26	704	0.0 1.5+	1999 12 14	704	0.2- 0.1-	2000 01 09	704	0.1- 0.3+
1998 06 26	704	0.5- 0.4+	1999 12 14	704	1.3- 0.0	2000 01 09	704	0.2- 0.3-
1998 06 26	704	0.9+ 0.1+	2000 01 05	704	0.2- 0.4+	2000 01 09	704	0.2+ 0.7+
1998 07 21	704	1.0+ 0.0	2000 01 05	704	0.3- 0.2+	2000 02 02	704	0.5+ 0.4+
1998 07 21	704	1.1+ 0.6+	2000 01 05	704	0.0 0.3+	2000 02 02	704	0.3+ 0.0
1998 07 21	704	0.6+ 0.6-	2000 01 05	704	0.0 0.5+	2000 02 02	704	0.7+ 0.1+
1998 07 26	704	0.4+ 1.0-	2000 01 05	704	0.0 0.5+	2000 02 02	704	0.1+ 0.1+
1998 07 26	704	1.4- 1.3-	2000 01 07	704	0.1+ 0.3-	2000 02 02	704	0.5+ 0.1-
1998 07 26	704	(2.4- 1.7-)	2000 01 07	704	0.6- 0.5-	2000 02 04	704	0.6- 0.4-
1998 07 26	704	1.7- 0.2+	2000 01 07	704	0.1- 0.1-	2000 02 04	704	0.3- 0.4-
1999 12 14	704	1.5+ 0.3+	2000 01 07	704	0.0 0.6-	2000 02 04	704	0.1- 0.2+
1999 12 14	704	0.6+ 0.0	2000 01 07	704	0.0 0.6-	2000 02 04	704	0.1+ 0.7-

2000 AF₁₁₇ = 1995 UV₄₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	113.12068	(2000.0)	P	Q
<i>n</i>	0.27695524	ω	176.76979	+0.99703279
<i>a</i>	2.3309323	Ω	178.81080	-0.07271180
<i>e</i>	0.1946313	<i>i</i>	5.84432	-0.02527071
<i>P</i>	3.56	<i>H</i>	14.3	<i>G</i> 0.15 <i>U</i> 3

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Residuals in seconds of arc

1995 10 30	372	0.2+	0.2+	1999 12 14	704	0.4+	0.3-	2000 01 09	704	0.0	0.3-
1995 10 30	372	0.3+	1.5+	1999 12 14	704	0.2+	0.3+	2000 01 09	704	0.1-	0.1+
1995 10 31	372	0.5-	1.1-	2000 01 05	704	0.5-	0.7-	2000 01 09	704	0.2-	0.8-
1995 10 31	372	0.1-	0.0	2000 01 05	704	0.3-	0.1+	2000 01 09	704	0.4+	0.6-
1998 06 25	704	0.7+	0.3-	2000 01 05	704	0.3-	0.3+	2000 02 02	704	(0.3-	2.9+)
1998 06 25	704	0.5+	0.1+	2000 01 05	704	0.5-	0.4-	2000 02 02	704	0.2-	0.5+
1998 06 25	704	1.7-	0.4-	2000 01 05	704	0.2-	0.6-	2000 02 02	704	0.3-	0.7+
1998 06 25	704	0.5+	0.9+	2000 01 07	704	0.5-	0.0	2000 02 02	704	0.1-	0.6+
1999 12 14	704	0.4+	0.0	2000 01 07	704	0.1-	0.1-	2000 02 04	704	0.4+	0.8+
1999 12 14	704	0.0	1.0-	2000 01 07	704	0.0	0.0	2000 02 04	704	0.8+	0.9+
1999 12 14	704	0.3-	0.0	2000 01 07	704	1.2+	0.3+	2000 02 04	704	0.1-	0.2+

2000 AJ₁₁₇ = 1998 SL₈₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	326.09721		(2000.0)	P	Q
<i>n</i>	0.25371109	ω	15.60291	-0.98525431	-0.16529338
<i>a</i>	2.4712106	Ω	154.75439	+0.14379899	-0.93990726
<i>e</i>	0.0920696	<i>i</i>	5.94605	+0.09271350	-0.29875146
<i>P</i>	3.88	<i>H</i>	15.1	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 09 26	704	0.8-	0.4+	2000 01 05	704	0.1-	0.3+	2000 02 06	704	0.1-	0.3+
1998 09 26	704	0.6+	1.2+	2000 01 07	704	0.1+	0.1+	2000 02 06	704	0.5-	0.3-
1998 09 26	704	1.4+	0.5+	2000 01 07	704	0.3-	0.0	2000 02 06	704	0.4-	0.6+
1998 09 27	704	1.8+	1.5-	2000 01 07	704	0.4-	0.5-	2000 02 06	704	0.5+	1.0+
1998 09 27	704	0.5-	0.7-	2000 01 07	704	0.1+	1.2-	2000 02 06	704	0.6-	0.5-
1998 09 27	704	0.8+	1.0+	2000 02 02	704	0.9+	0.1-	2000 02 08	704	0.1+	0.2-
1998 09 27	704	1.8-	0.0	2000 02 02	704	0.2+	0.7+	2000 02 08	704	0.0	0.1-
1998 09 27	704	1.6-	0.9-	2000 02 02	704	1.1+	0.7-	2000 02 08	704	0.9-	0.4+
1999 12 31	699	1.1+	0.6+	2000 02 02	704	1.8-	0.8-	2000 02 08	704	0.6-	0.5-
1999 12 31	699	0.9+	1.0+	2000 02 02	704	0.1-	0.1-	2000 02 08	704	0.4-	0.3-
1999 12 31	699	0.0	1.0+	2000 02 03	704	0.6+	1.5+	2000 02 11	704	0.9+	1.1+
2000 01 05	704	0.4-	1.0-	2000 02 03	704	0.4+	0.4+	2000 02 11	704	0.3+	0.1-
2000 01 05	704	0.6-	0.3-	2000 02 03	704	0.1-	0.2+	2000 02 11	704	0.3+	0.0
2000 01 05	704	0.5-	0.4-	2000 02 03	704	0.1+	0.3-	2000 02 11	704	0.0	0.5-
2000 01 05	704	0.3-	0.3-	2000 02 03	704	0.1+	0.5-	2000 02 11	704	0.3+	0.7-

2000 AK₁₁₇ = 1998 RC₄₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	48.91732		(2000.0)	P	Q
<i>n</i>	0.22632612	ω	219.76273	+0.28242873	-0.95839633
<i>a</i>	2.6667334	Ω	213.89072	+0.89792339	+0.27928849
<i>e</i>	0.0682833	<i>i</i>	4.25353	+0.33759088	+0.05894410
<i>P</i>	4.35	<i>H</i>	14.2	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1998 09 14	704	0.6-	0.7-	1998 09 18	704	0.4-	1.1+	2000 01 07	704	0.0	0.1-
1998 09 14	704	0.8-	0.8-	1999 12 14	704	0.6+	0.1-	2000 01 07	704	0.1-	0.1+
1998 09 14	704	0.4+	1.1+	1999 12 14	704	0.5-	0.1+	2000 01 07	704	0.1+	0.1+
1998 09 14	704	(1.2-	2.4+)	1999 12 14	704	0.6-	0.1-	2000 02 02	704	1.0-	0.4-
1998 09 16	699	0.5+	0.2+	1999 12 14	704	0.1-	0.0	2000 02 02	704	0.0	0.0
1998 09 16	699	0.7+	0.1+	1999 12 14	704	0.3+	0.3+	2000 02 02	704	0.6+	0.1-
1998 09 16	699	0.3-	0.6+	2000 01 05	704	0.2+	0.2-	2000 02 02	704	0.3+	0.7-
1998 09 18	704	0.9-	0.2-	2000 01 05	704	0.1-	0.5-	2000 02 02	704	1.5-	0.6+
1998 09 18	704	0.5+	1.2-	2000 01 05	704	0.5-	0.0	2000 02 04	704	0.3+	0.6+
1998 09 18	704	0.7+	0.5-	2000 01 05	704	0.7+	0.2+	2000 02 04	704	0.5+	0.2+
1998 09 18	704	0.1+	0.4+	2000 01 07	704	0.1+	0.0	2000 02 04	704	0.7+	0.3+

2000 AP₁₁₇ = 1978 WW₂ = 1998 QZ₃

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	82.86146		(2000.0)	P	Q
<i>n</i>	0.23925979	ω	132.43549	+0.86476878	-0.49278206
<i>a</i>	2.5697423	Ω	257.30157	+0.42673741	+0.82258119
<i>e</i>	0.1465690	<i>i</i>	5.68568	+0.26470764	+0.28377110
<i>P</i>	4.12	<i>H</i>	14.7	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1978 11 29	675	0.2-	0.1+	1998 08 20	104	0.2+	0.5-	2000 01 07	704	0.7+	0.1-
1978 11 30	675	0.2+	0.1-	1998 08 20	104	0.5+	0.3-	2000 01 07	704	1.1-	0.2-
1998 07 31	699	0.2+	0.5+	1998 08 23	104	0.5-	0.1+	2000 01 07	704	1.0-	0.9+
1998 07 31	699	0.7-	0.0	1998 08 23	104	1.1-	0.3+	2000 02 02	704	0.5-	0.1+
1998 07 31	699	0.2+	0.3+	1998 08 23	104	1.1-	0.2+	2000 02 02	704	0.3-	0.7+
1998 08 17	704	0.7+	0.1+	1998 08 23	104	0.7-	0.4-	2000 02 02	704	0.0	0.1+
1998 08 17	704	0.3+	0.3+	2000 01 05	704	0.4+	0.1-	2000 02 02	704	0.2-	0.7+
1998 08 17	704	0.9+	0.5-	2000 01 05	704	0.3+	0.3-	2000 02 02	704	0.2-	0.3+
1998 08 17	704	0.9+	0.1+	2000 01 05	704	0.1-	0.1-	2000 02 04	704	0.8+	0.5-
1998 08 17	704	0.2-	0.2-	2000 01 05	704	0.2+	0.3-	2000 02 04	704	0.2+	0.6-
1998 08 20	104	0.2+	0.2+	2000 01 05	704	0.1-	0.1-	2000 02 04	704	1.1+	0.5-

2000 AQ₁₁₇ = 1975 XR₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	58.59339		(2000.0)	P	Q
<i>n</i>	0.16918905	ω	276.37516	+0.55802338	-0.82084058
<i>a</i>	3.2375853	Ω	138.92087	+0.81562367	+0.51550062
<i>e</i>	0.1299253	<i>i</i>	10.68043	+0.15286571	+0.24592653
<i>P</i>	5.83	<i>H</i>	12.7	<i>G</i>	0.15
				<i>U</i>	2

Residuals in seconds of arc

1975 12 06	809	0.1+	0.1-	1999 10 20	704	0.1+	1.1-	2000 01 07	704	0.2-	1.2-
1975 12 06	809	0.1+	0.2-	1999 11 08	699	0.9+	0.6+	2000 01 07	704	0.1+	0.6-
1975 12 07	809	0.4+	0.3-	1999 11 08	699	0.5+	1.7+	2000 01 07	704	0.2+	0.6-
1975 12 07	809	0.2+	0.5-	1999 11 08	699	0.0	0.2-	2000 02 02	704	0.1-	0.3+
1993 12 16	675	1.0-	0.9-	1999 12 14	704	0.5+	0.0	2000 02 02	704	0.1-	0.4+
1993 12 16	675	0.6-	0.3-	1999 12 14	704	0.7+	1.4+	2000 02 02	704	0.1+	0.0
1998 09 21	699	0.3-	0.5+	1999 12 14	704	0.2-	0.4+	2000 02 02	704	0.2+	0.5+
1998 09 21	699	0.4+	0.1-	1999 12 14	704	0.7-	0.8+	2000 02 02	704	0.2+	0.1+
1998 09 21	699	0.1+	0.2-	1999 12 14	704	1.2-	1.2+	2000 02 03	704	0.3+	0.5+
1998 10 18	699	0.0	0.3+	1999 12 31	699	0.0	1.0+	2000 02 03	704	0.4-	0.3+
1998 10 18	699	0.1+	0.1-	1999 12 31	699	1.1+	1.3+	2000 02 03	704	0.2-	0.5+
1998 10 18	699	0.0	0.2+	1999 12 31	699	1.8-	0.3-	2000 02 03	704	0.4-	0.3+
1998 11 13	704	1.0+	0.6+	2000 01 05	704	0.4+	0.8-	2000 02 03	704	0.2-	0.5+
1998 11 13	704	1.8-	0.9+	2000 01 05	704	0.7+	0.5-	2000 02 10	704	0.3+	0.2-
1998 11 13	704	0.1-	0.2-	2000 01 05	704	0.0	0.6-	2000 02 10	704	0.2+	0.3+
1998 11 13	704	(2.7-	1.9-)	2000 01 05	704	0.3+	0.4-	2000 02 10	704	0.6+	0.3+
1999 10 20	704	0.2+	0.9-	2000 01 05	704	0.7+	1.0-	2000 02 10	704	0.3+	0.5+
1999 10 20	704	0.1-	0.8-	2000 01 07	704	0.3+	1.0-	2000 02 10	704	0.3-	0.0
1999 10 20	704	0.1-	0.5-	2000 01 07	704	0.4-	0.9-				

2000 AV₁₁₇ = 1978 EQ₇ = 1998 WV₂₁

Id. G. V. Williams, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	278.40153		(2000.0)	P	Q
<i>n</i>	0.17677325	ω	352.43672	-0.73915383	+0.67055603
<i>a</i>	3.1443076	Ω	229.87451	-0.61354304	-0.70910627
<i>e</i>	0.1203982	<i>i</i>	4.74824	-0.27787867	-0.21799748
<i>P</i>	5.58	<i>H</i>	13.0	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1978 03 05	095	0.3+	0.7+	1998 11 25	699	0.4-	0.6-	2000 01 05	704	0.2+	0.0
1998 11 10	699	0.8+	0.1-	1998 11 25	699	0.2-	0.3-	2000 01 07	704	0.5-	0.7-
1998 11 10	699	0.6+	0.3-	1998 11 25	699	1.1-	1.0-	2000 01 07	704	0.3-	0.8-
1998 11 10	699	0.0	1.8-	1998 12 16	910	0.2+	0.8+	2000 01 07	704	0.5-	0.6-
1998 11 18	704	0.1+	0.6+	1998 12 16	910	0.1+	0.5+	2000 01 07	704	0.1-	0.2+
1998 11 18	704	0.2-	0.6-	1998 12 16	910	0.2+	0.5+	2000 01 07	704	0.7+	0.7-

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1998 11 18	704	0.4−	0.0	1999 12 14	704	0.2−	0.1+	2000 02 02	704	0.0	0.3+
1998 11 18	704	1.5−	1.2+	1999 12 14	704	0.5−	0.1+	2000 02 02	704	0.4+	0.1+
1998 11 19	910	0.8+	0.3+	1999 12 14	704	0.1+	0.8+	2000 02 02	704	0.6+	0.5+
1998 11 19	910	0.7+	0.4+	1999 12 14	704	0.8+	0.7+	2000 02 02	704	0.0	0.2+
1998 11 19	910	0.5+	0.5+	1999 12 14	704	(0.8+	2.1+)	2000 02 02	704	0.1+	0.2+
1998 11 21	704	0.5−	0.9−	2000 01 05	704	0.2−	0.3−	2000 02 04	704	0.2−	0.4−
1998 11 21	704	(0.6+	2.4−)	2000 01 05	704	0.2−	0.6−	2000 02 04	704	0.1−	0.3+
1998 11 21	704	0.1+	1.6+	2000 01 05	704	0.3−	0.4−	2000 02 04	704	0.3−	0.3+
1998 11 21	704	(3.3−	0.0)	2000 01 05	704	0.1+	0.4−				

2000 AX₁₁₇ = 1998 OP₁₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	95.42838		(2000.0)	P	Q
n	0.24131313	ω	237.51896	+0.94623112	−0.29623798
a	2.5551442	Ω	139.29195	+0.32044649	+0.91334844
e	0.1482442	i	11.49388	−0.04427996	+0.27935226
P	4.08	H	14.8	G 0.15	U 4

Residuals in seconds of arc

1998 07 26	809	0.7−	0.1+	1998 08 17	704	1.4+	1.5−	2000 02 02	704	1.0−	0.0
1998 07 26	809	0.5−	0.5+	2000 01 05	704	0.5−	0.4+	2000 02 02	704	0.1+	0.1+
1998 07 26	809	0.7−	0.4+	2000 01 05	704	0.4−	1.3−	2000 02 02	704	0.4+	0.5+
1998 07 27	809	0.3+	0.1+	2000 01 05	704	0.3+	0.7−	2000 02 02	704	0.3+	0.7+
1998 07 27	809	0.3+	0.1+	2000 01 05	704	0.3+	0.7−	2000 02 02	704	0.9+	0.5+
1998 07 27	809	0.3+	0.4−	2000 01 07	704	0.2−	0.3+	2000 02 03	704	0.5+	0.3−
1998 08 17	704	1.1+	0.0	2000 01 07	704	0.5+	1.1−	2000 02 03	704	0.1−	0.0
1998 08 17	704	1.0−	0.8+	2000 01 07	704	0.0	0.4+	2000 02 03	704	0.1+	0.1+
1998 08 17	704	0.9−	1.3+	2000 01 07	704	0.4−	0.2+	2000 02 03	704	0.4−	0.1+
1998 08 17	704	0.2+	0.7−	2000 01 07	704	0.8−	0.9+	2000 02 03	704	0.3+	0.5+

2000 AL₁₁₈ = 1993 KG₃ = 1998 SM₁₂₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	236.36069		(2000.0)	$\mathbf{P}$		$\mathbf{Q}$	
n	0.24619938	ω	45.36786	−0.17000443		+0.98361349	
a	2.5212239	Ω	214.97444	−0.93118007		−0.18027867	
e	0.0793776	i	6.01086	−0.32249368		+0.00202562	
P	4.00	H	14.2	G	0.15	U	3

Residuals in seconds of arc

1993 05 27	010	0.7−	0.7−	1998 10 11	699	0.2−	1.0−	2000 01 05	704	0.1−	0.7−
1993 05 27	010	1.0−	0.6−	1998 10 11	699	0.4−	0.3−	2000 01 07	704	0.7+	0.1−
1993 05 28	010	0.9−	0.5+	1998 10 11	699	0.1+	1.0−	2000 01 07	704	0.1+	0.0
1993 05 29	010	(4.1+	0.3−)	1998 11 10	704	0.0	0.8+	2000 01 07	704	0.7+	0.6−
1993 05 29	010	1.4+	0.9−	1998 11 10	704	0.3+	0.3−	2000 01 07	704	0.1+	0.1+
1993 05 29	010	1.1+	0.5+	1998 11 10	704	0.4−	1.2−	2000 01 07	704	0.7+	0.3−
1998 09 26	704	0.1+	0.8+	1998 11 10	704	0.6−	0.4−	2000 02 02	704	0.4−	0.1+
1998 09 26	704	0.4+	0.9−	1999 12 14	704	0.3−	0.4+	2000 02 02	704	0.8−	0.5+
1998 09 26	704	0.0	0.8−	1999 12 14	704	0.5+	0.6−	2000 02 02	704	0.3−	0.2+
1998 09 26	704	0.1−	0.5+	1999 12 14	704	0.8−	0.4+	2000 02 02	704	0.5−	0.3+
1998 09 26	704	1.3−	1.9+	1999 12 14	704	0.2−	0.7−	2000 02 02	704	0.4−	0.3+
1998 09 27	704	0.1+	0.0	1999 12 14	704	0.2−	1.2−	2000 02 04	704	0.1−	0.1−
1998 09 27	704	0.9+	0.9+	2000 01 05	704	0.5+	0.7−	2000 02 04	704	0.6−	0.3+
1998 09 27	704	1.3+	0.6+	2000 01 05	704	0.2+	0.2−	2000 02 04	704	0.4+	1.7+
1998 09 27	704	0.9−	1.2+	2000 01 05	704	0.2+	0.8−	2000 02 04	704	0.5−	0.9+
1998 09 27	704	0.8+	1.2−	2000 01 05	704	0.0	0.7−	2000 02 04	704	0.8+	0.7+

2000 FEB. 22

2000 AT₁₁₈ = 1994 RX₁₆ = 1998 SK₂₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	353.23325		(2000.0)	P	Q
n	0.25578368	ω	342.75714	−0.79190338	−0.60986236
a	2.4578431	Ω	159.56842	+0.57018714	−0.75661810
e	0.1305984	i	5.08393	+0.21857645	−0.23579005
P	3.85	H	14.4	G 0.15	U 4

Residuals in seconds of arc

1994 09 03	809	0.2+	1.2+	2000 01 05	704	0.0	0.4−	2000 02 02	704	0.1+	0.4+
1994 09 03	809	0.4−	0.4+	2000 01 05	704	0.1−	0.7−	2000 02 02	704	0.1+	0.5+
1994 09 03	809	0.6−	1.2+	2000 01 05	704	0.1+	0.4−	2000 02 02	704	0.4+	0.4+
1994 09 04	809	(2.8−	0.7−)	2000 01 05	704	0.2+	0.5−	2000 02 02	704	0.6−	0.1+
1994 09 04	809	(4.8−	3.1−)	2000 01 05	704	0.1+	0.7−	2000 02 02	704	0.3−	1.1+
1994 09 04	809	(4.9−	1.5−)	2000 01 07	704	0.1+	0.6−	2000 02 03	704	0.1+	0.7+
1998 09 24	684	0.3+	0.2+	2000 01 07	704	0.2+	0.5−	2000 02 03	704	0.1−	0.4+
1998 09 24	684	0.4+	0.6+	2000 01 07	704	0.3+	0.4−	2000 02 03	704	0.1−	0.8+
1998 09 25	684	0.2−	0.8−	2000 01 07	704	0.3+	0.5−	2000 02 03	704	0.2−	1.0+
1998 09 25	684	0.2−	0.8−	2000 01 07	704	0.2−	0.5−	2000 02 03	704	0.4−	1.0+

2000 AW₁₁₈ = 1995 WA₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	55.41562		(2000.0)	P	Q
n	0.26506818	ω	172.28622	+0.58018430	−0.81289199
a	2.4001091	Ω	242.23643	+0.74416961	+0.55447009
e	0.2090981	i	3.29886	+0.33105552	+0.17824013
P	3.72	H	15.4	G 0.15	U 5

Residuals in seconds of arc

1995 11 16	399	(2.4−	3.8+)	1999 12 07	704	0.6+	0.5+	2000 01 07	704	0.4+	1.5−
1995 11 16	399	(2.5−	5.0+)	1999 12 07	704	0.8−	0.6+	2000 02 02	704	0.0	0.3+
1995 11 17	399	1.5+	0.1−	1999 12 07	704	0.4−	0.5−	2000 02 02	704	0.3−	0.5+
1995 11 17	399	0.6+	1.4−	2000 01 05	704	0.7−	0.3+	2000 02 02	704	0.2+	0.6+
1995 11 21	691	0.3−	0.6+	2000 01 05	704	0.7−	0.7−	2000 02 02	704	0.0	0.3+
1995 11 21	691	0.6−	0.3+	2000 01 05	704	0.0	1.0−	2000 02 02	704	0.1+	0.7+
1995 11 21	691	0.2−	0.5+	2000 01 05	704	0.2−	0.3−	2000 02 03	704	0.1+	0.9+
1995 11 21	399	1.9−	0.8−	2000 01 05	704	0.3−	0.2+	2000 02 03	704	0.1−	0.3+
1995 11 21	399	(1.4−	2.5−)	2000 01 07	704	0.6+	0.8−	2000 02 03	704	0.1+	0.4+
1995 11 27	691	0.2+	0.6+	2000 01 07	704	0.4+	0.8−	2000 02 03	704	0.5+	0.7+
1995 11 27	691	0.2+	0.7+	2000 01 07	704	0.1+	1.2−	2000 02 03	704	0.2−	1.1+
1995 11 27	691	0.2+	0.5+	2000 01 07	704	0.3+	1.0−				

2000 AB₁₁₉ = 1987 FT₁ = 1997 EM₅₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	345.91051		(2000.0)	P	Q
n	0.29452490	ω	353.82662	−0.87420177	−0.48469056
a	2.2372853	Ω	157.11021	+0.44863345	−0.82918192
e	0.0944293	i	4.28937	+0.18573987	−0.27844640
P	3.35	H	14.9	G 0.15	U 2

Residuals in seconds of arc

1987 03 22	033	0.4+	0.6+	1998 08 17	704	1.4−	0.9+	2000 01 07	704	0.2+	0.1+
1987 03 23	033	0.1−	0.3+	1998 08 17	704	0.2−	0.6−	2000 02 02	704	0.1−	0.3+
1997 03 10	809	0.8+	0.8+	2000 01 05	704	0.0	0.7−	2000 02 02	704	0.5−	0.3+
1997 03 10	809	0.3+	1.5+	2000 01 05	704	0.1+	0.8−	2000 02 02	704	0.5−	0.7+
1997 03 10	809	0.2+	1.6+	2000 01 05	704	0.5−	0.6−	2000 02 02	704	0.4−	0.5+
1997 03 11	809	0.4−	1.2−	2000 01 05	704	0.0	0.2−	2000 02 02	704	0.2−	0.6+
1997 03 11	809	0.5−	1.5−	2000 01 05	704	0.1+	0.1+	2000 02 03	704	0.4+	0.7+
1997 03 11	809	0.3−	1.3−	2000 01 07	704	0.1+	0.5−	2000 02 03	704	0.0	0.6+
1998 08 17	704	0.5+	0.9+	2000 01 07	704	0.1+	0.1−	2000 02 03	704	0.3+	0.8+
1998 08 17	704	0.6+	0.7+	2000 01 07	704	0.3+	0.5−	2000 02 03	704	0.1+	0.3+
1998 08 17	704	0.5−	1.3+	2000 01 07	704	0.4+	0.3−	2000 02 03	704	0.2+	0.7+

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2000 AD₁₁₉ = 1998 QU₅₅

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 267.83315 (2000.0)			<i>P</i>			<i>Q</i>		
<i>n</i> 0.24263302 ω 53.43485			−0.51408590			+0.85772184		
<i>a</i> 2.5458693 Ω 185.63668			−0.80341988			−0.48371647		
<i>e</i> 0.1490772 <i>i</i> 3.13912			−0.30038672			−0.17415975		
<i>P</i> 4.06	<i>H</i> 14.5		<i>G</i> 0.15			<i>U</i> 4		

Residuals in seconds of arc

1998 08 26	910	0.8+	0.4−	1999 12 31	699	0.4−	1.1+	2000 01 07	704	0.0	1.3−
1998 08 26	910	0.6+	0.2−	1999 12 31	699	0.2+	0.4+	2000 02 02	704	0.4+	0.1−
1998 08 26	910	0.3+	0.2−	1999 12 31	699	1.1+	1.1+	2000 02 02	704	0.4+	0.2−
1998 08 31	910	0.8−	0.1+	2000 01 05	704	0.2−	0.4−	2000 02 02	704	0.3+	0.2+
1998 08 31	910	0.9−	0.2−	2000 01 05	704	0.4+	0.0	2000 02 02	704	0.2−	0.6+
1998 08 31	910	0.8−	0.6−	2000 01 05	704	0.7−	0.2+	2000 02 02	704	0.1+	0.5+
1998 09 16	910	0.4−	0.4+	2000 01 05	704	0.5−	0.2+	2000 02 03	704	0.4+	0.2−
1998 09 16	910	0.3−	0.6+	2000 01 05	704	0.1−	0.3−	2000 02 03	704	0.3−	0.1−
1998 09 16	910	0.5−	0.5+	2000 01 07	704	0.1−	0.4−	2000 02 03	704	0.6−	0.1+
1998 09 22	910	0.6+	0.1+	2000 01 07	704	0.3+	0.7−	2000 02 03	704	0.4−	0.3+
1998 09 22	910	0.6+	0.1−	2000 01 07	704	0.2−	1.1−	2000 02 03	704	0.2−	0.6+
1998 09 22	910	0.5+	0.1−	2000 01 07	704	0.1+	0.7−				

2000 AF₁₁₉ = 1984 BG₅ = 1992 OZ₄ = 1997 NS₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 59.72749 (2000.0)			<i>P</i>			<i>Q</i>		
<i>n</i> 0.18427650 ω 286.21693			+0.47929075			−0.86598283		
<i>a</i> 3.0583657 Ω 134.24057			+0.86195172			+0.43384008		
<i>e</i> 0.0953689 <i>i</i> 11.48673			+0.16528646			+0.24870973		
<i>P</i> 5.35	<i>H</i> 13.0		<i>G</i> 0.15			<i>U</i> 1		

Residuals in seconds of arc

1984 01 25	675	1.5+	0.1−	1998 11 13	704	0.1+	0.2+	2000 01 05	704	0.2−	0.3−
1984 01 26	675	1.1−	1.3+	1998 11 13	704	0.0	0.4+	2000 01 07	704	0.1−	0.2+
1992 07 26	809	0.6−	1.0+	1998 11 13	704	0.1−	0.3−	2000 01 07	704	0.0	0.2+
1992 07 26	809	0.8−	0.3+	1998 12 18	699	0.2−	0.2−	2000 01 07	704	0.2−	0.3+
1992 07 26	809	1.2−	1.5+	1998 12 18	699	0.1−	0.7+	2000 01 07	704	0.2+	0.5+
1992 07 30	809	(0.8− 2.5+)		1998 12 18	699	0.2+	1.0−	2000 01 07	704	0.2+	0.3−
1992 07 30	809	(1.4− 2.4+)		1999 12 14	704	1.2+	0.5+	2000 02 02	704	0.1+	0.3+
1992 07 30	809	0.8+	1.3+	1999 12 14	704	0.8+	0.3−	2000 02 02	704	0.1+	0.0
1997 07 10	327	0.4+	0.0	1999 12 14	704	1.2+	0.8+	2000 02 02	704	0.7−	0.0
1997 07 10	327	0.2−	0.4+	1999 12 14	704	0.6+	0.9+	2000 02 02	704	0.5−	0.1+
1997 07 10	327	0.4+	0.3+	1999 12 14	704	(0.2− 2.6+)		2000 02 02	704	0.4−	0.5−
1997 07 11	327	0.4+	0.1+	1999 12 31	699	0.4−	0.3+	2000 02 03	704	0.4+	0.4+
1997 07 11	327	0.3+	0.6−	1999 12 31	699	0.1−	0.1+	2000 02 03	704	0.1−	0.4+
1997 07 11	327	0.2−	0.6+	1999 12 31	699	0.3−	0.4+	2000 02 03	704	0.1+	0.0
1998 10 18	699	0.4+	0.3−	2000 01 05	704	0.2−	0.1+	2000 02 03	704	0.3−	0.1+
1998 10 18	699	0.1−	0.1−	2000 01 05	704	0.4−	0.1−	2000 02 03	704	0.5−	0.3−
1998 10 18	699	0.3+	0.7−	2000 01 05	704	0.1−	0.0				
1998 11 13	704	0.1+	0.1+	2000 01 05	704	0.2−	0.1−				

2000 AK₁₁₉ = 1955 QD = 1959 NE = 1973 YX₁ = 1988 HN = 1989 RW₃
= 1993 MQ

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 204.58954 (2000.0)			<i>P</i>			<i>Q</i>		
<i>n</i> 0.23301017 ω 20.30069			+0.34615486			+0.91407212		
<i>a</i> 2.6154884 Ω 270.43080			−0.88729103			+0.24579953		
<i>e</i> 0.1506629 <i>i</i> 12.19908			−0.30478097			+0.32257519		
<i>P</i> 4.23	<i>H</i> 12.3		<i>G</i> 0.15			<i>U</i> 1		

Residuals in seconds of arc

1955 08 20	760	0.4−	0.0	1998 11 16	704	0.1−	0.2+	1999 12 14	704	0.0	1.0−
1955 08 20	760	0.4−	0.4+	1998 11 16	704	0.5−	0.5−	1999 12 14	704	0.4+	1.6−

1959 07 08	760	0.4−	2.4+	1998 11 16	704	0.3+	1.0+	1999 12 14	704	(2.7−	0.5−)
1973 12 20	095	(1.6+	3.0+)	1998 11 16	704	0.1−	0.2+	2000 01 05	704	0.1−	0.2−
1973 12 21	095	2.0+	1.7−	1998 12 09	704	0.8+	1.2+	2000 01 05	704	0.2−	0.3−
1988 04 19	413	0.2+	0.6+	1998 12 09	704	(2.4−	2.4+)	2000 01 05	704	0.6−	0.2−
1988 04 19	413	0.1+	0.7−	1998 12 09	704	0.8+	0.7+	2000 01 05	704	0.2+	1.5+
1989 09 04	095	1.3−	1.7−	1998 12 09	704	0.9+	0.4−	2000 01 05	704	1.6−	0.7+
1989 09 04	095	0.3−	0.5+	1998 12 09	704	(1.7−	2.7−)	2000 01 07	704	0.1+	0.1−
1993 06 18	675	1.5+	0.1+	1999 11 08	703	0.5−	0.2+	2000 01 07	704	0.2−	0.2+
1993 06 20	675	0.5+	0.3+	1999 11 08	703	0.2+	0.3+	2000 01 07	704	0.0	0.1+
1998 10 01	699	0.6−	0.0	1999 11 08	703	0.1+	0.3+	2000 01 07	704	0.2−	1.2−
1998 10 01	699	0.5−	0.1−	1999 11 08	703	0.4−	0.1−	2000 01 07	704	0.5−	0.0
1998 10 01	699	0.4−	0.3+	1999 12 06	704	0.5+	0.7+	2000 02 04	704	0.1+	0.2+
1998 11 14	704	0.3+	0.4−	1999 12 06	704	1.5+	0.6+	2000 02 04	704	0.4−	0.3+
1998 11 14	704	0.1+	0.7−	1999 12 06	704	0.1+	0.2+	2000 02 04	704	0.3−	1.3+
1998 11 14	704	0.5−	0.8+	1999 12 06	704	1.1+	0.0	2000 02 04	704	0.0	0.7+
1998 11 14	704	0.1−	0.1+	1999 12 06	704	1.0−	1.5−	2000 02 04	704	0.1−	0.8+
1998 11 14	704	0.6−	1.3+	1999 12 14	704	0.9+	0.9+				
1998 11 16	704	0.3+	0.9−	1999 12 14	704	0.8+	1.0+				

2000 AN₁₁₉ = 1993 FA₈₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 61.68906 (2000.0)			<i>P</i>			<i>Q</i>		
<i>n</i> 0.26414805 ω 245.02943			+0.52636352			−0.85017210		
<i>a</i> 2.4056795 Ω 173.17215			+0.81241824			+0.49865268		
<i>e</i> 0.1180923 <i>i</i> 5.88990			+0.25083470			+0.16897604		
<i>P</i> 3.73	<i>H</i> 14.8		<i>G</i> 0.15			<i>U</i> 3		

Residuals in seconds of arc

1993 03 19	809	0.1+	0.4−	2000 01 04	699	0.3+	0.3+	2000 02 02	704	0.0	0.2+
1993 03 20	809	(0.9− 2.7−)		2000 01 04	699	0.1−	0.1+	2000 02 02	704	0.2−	0.2+
1993 03 23	809	0.9+	1.5+	2000 01 04	699	(2.2+ 0.4+)		2000 02 02	704	0.8+	1.1+
1993 03 23	691	0.0	0.1−	2000 01 05	704	0.3+	0.2−	2000 02 02	704	0.2−	0.6+
1993 03 23	691	0.6−	0.3−	2000 01 05	704	0.2−	0.1−	2000 02 02	704	0.1−	0.7+
1993 03 23	691	0.5−	0.8−	2000 01 05	704	0.1−	0.8−	2000 02 04	704	0.2+	0.1+
1998 08 17	704	1.4+	0.8−	2000 01 07	704	0.6−	0.2−	2000 02 04	704	0.4−	0.6+
1998 08 17	704	0.3+	0.9+	2000 01 07	704	0.0	0.2−	2000 02 04	704	1.3+	1.1−
1998 08 17	704	0.8−	0.1−	2000 01 07	704	0.8−	0.1−				
1998 08 17	704	1.0−	0.6+	2000 01 07	704	0.3−	0.5−				

2000 AU₁₁₉ = 1998 RV₃₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 327.96963 (2000.0)			<i>P</i>			<i>Q</i>		
<i>n</i> 0.27730474 ω 351.62902			−0.98405802			−0.17781023		
<i>a</i> 2.3289733 Ω 178.11702			+0.16893070			−0.94094121		
<i>e</i> 0.0612737 <i>i</i> 6.38010			+0.05560780			−0.28812005		
<i>P</i> 3.55	<i>H</i> 15.6		<i>G</i> 0.15			<i>U</i> 6		

Residuals in seconds of arc

1998 09 14	704	1.7+	0.9−	2000 01 05	704	0.3−	0.1−	2000 02 02	704	0.1+	0.6+
1998 09 14	704	1.3−	1.7+	2000 01 05	704	1.2+	0.4−	2000 02 02	704	0.1−	0.2+
1998 09 14	704	1.1+	0.1−	2000 01 07	704	0.2−	0.2+	2000 02 02	704	0.4−	0.3+
1998 09 14	704	0.8+	0.4+	2000 01 07	704	0.4−	0.6−	2000 02 04	704	0.1−	0.1+
1998 09 18	704	0.2−	0.1−	2000 01 07	704	0.4−	1.4+	2000 02 04	704	0.8+	0.3−
1998 09 18	704	0.3−	0.4+	2000 01 07	704	0.5+	0.6+	2000 02 04	704	0.4−	0.9−
1998 09 18	704	1.9−	1.4−	2000 01 07	704	1.1−	0.1+	2000 02 04	704	0.1+	1.0+
2000 01 05	704	0.0	0.2−	2000 02 02	704	0.4+	0.1−	2000 02 04	704	0.2+	1.4−
2000 01 05	704	0.3+	0.6−	2000 02 02	704	0.2−	0.2+				

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	241.87579		(2000.0)	P	Q
<i>n</i>	0.26955203	ω	96.18864	-0.20328198	+0.97848025
<i>a</i>	2.3734184	Ω	161.96429	-0.93746228	-0.18407342
<i>e</i>	0.0886476	<i>i</i>	6.56454	-0.28256134	-0.09323824
<i>P</i>	3.66	<i>H</i>	14.8	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1997 04 07	809	1.2+	0.6-	1998 09 26	704	0.6+	0.9+	2000 01 07	704	0.3+	0.2+
1997 04 07	809	0.9+	1.4-	1998 09 26	704	0.2-	1.0-	2000 01 07	704	0.1-	0.5-
1997 04 07	809	0.6+	1.0-	1998 09 27	704	0.9-	0.5-	2000 01 07	704	0.5-	0.4+
1997 04 08	809	0.2-	0.5-	1998 09 27	704	0.8-	0.3-	2000 01 07	704	0.4-	0.6-
1997 04 08	809	0.9+	0.8+	1998 09 27	704	0.9-	0.3-	2000 02 02	704	0.6+	0.1+
1997 04 08	809	0.5+	0.2+	1998 09 27	704	0.1-	0.3-	2000 02 02	704	0.4+	0.2+
1997 04 09	809	0.5-	0.5+	1998 09 27	704	0.2+	0.4+	2000 02 02	704	0.6+	1.2+
1997 04 09	809	1.8-	1.4+	2000 01 05	704	0.2+	0.9-	2000 02 02	704	0.0	0.2+
1997 04 09	809	1.6-	0.2+	2000 01 05	704	0.5+	0.5+	2000 02 02	704	0.2-	0.1+
1998 09 26	704	1.0+	0.4+	2000 01 05	704	0.3-	0.1+	2000 02 04	704	0.1-	0.4+
1998 09 26	704	0.2-	0.0	2000 01 05	704	0.4+	1.2-	2000 02 04	704	0.0	0.2+
1998 09 26	704	1.3+	0.7+	2000 01 07	704	1.7-	0.5-	2000 02 04	704	0.3+	0.0

2000 AK₁₂₀ = 4312 T-2 = 1998 UE₂₀

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	83.82955		(2000.0)	P	Q
<i>n</i>	0.16055326	ω	245.53043	+0.78088211	-0.62313124
<i>a</i>	3.3526634	Ω	152.95020	+0.60240414	+0.73255765
<i>e</i>	0.0723760	<i>i</i>	5.54445	+0.16532506	+0.27398312
<i>P</i>	6.14	<i>H</i>	13.3	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1973 09 29	675	0.2-	0.9-	1998 11 14	699	0.0	0.1+	2000 01 07	704	0.7-	0.9-
1973 09 29	675	0.1+	1.6-	1998 11 14	699	0.5-	0.2-	2000 01 07	704	0.1+	0.8-
1973 09 30	675	1.0+	0.3-	1998 11 15	120	0.4-	0.2-	2000 01 07	704	0.3-	0.9-
1973 09 30	675	0.6+	0.2+	1998 11 15	120	0.2-	0.3+	2000 01 07	704	0.1-	1.5-
1973 10 04	675	0.6-	0.1-	1998 11 16	566	1.0-	0.9-	2000 02 02	704	0.5+	0.1+
1973 10 04	675	0.4-	0.3+	1998 11 16	566	0.9-	0.6-	2000 02 02	704	0.0	0.0
1973 10 05	675	1.1+	0.3+	1998 11 16	566	1.0-	0.6-	2000 02 02	704	0.0	0.9+
1973 10 05	675	0.6-	0.8-	1998 12 11	699	0.3+	0.8+	2000 02 02	704	0.3+	1.1+
1998 10 28	120	0.2-	0.5+	1998 12 11	699	0.9+	0.4+	2000 02 02	704	0.3+	0.5+
1998 10 28	120	1.3-	0.1+	1998 12 11	699	0.8+	0.4+	2000 02 03	704	0.4-	0.2-
1998 10 29	120	0.5+	0.5-	2000 01 05	704	0.3+	0.7+	2000 02 03	704	0.3-	0.0
1998 10 29	120	1.8+	0.2+	2000 01 05	704	0.2-	0.1-	2000 02 03	704	0.1+	0.1-
1998 11 11	704	0.1+	1.3+	2000 01 05	704	0.2+	0.6+	2000 02 03	704	0.2-	0.6-
1998 11 11	704	0.6+	1.4+	2000 01 05	704	0.4+	0.4-	2000 02 03	704	0.9-	0.4+
1998 11 11	704	(2.1+	2.4+)	2000 01 05	704	0.3+	0.3-				
1998 11 14	699	0.4-	0.8+	2000 01 07	704	0.1+	0.9-				

2000 AO₁₂₀ = 1986 RB₄ = 1998 SY₁₃₃

Id. G. V. Williams, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	37.54084		(2000.0)	P	Q
<i>n</i>	0.17148221	ω	240.12935	+0.09045824	-0.99532297
<i>a</i>	3.2086573	Ω	204.74928	+0.93938049	+0.09658067
<i>e</i>	0.1278544	<i>i</i>	4.64518	+0.33072891	-0.00208882
<i>P</i>	5.75	<i>H</i>	14.2	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1986 09 01	675	(11.0-	1.5-)	1998 09 27	704	0.2-	0.8+	2000 01 07	704	0.1+	0.4-
1986 09 01	675	(9.2+	0.2-)	1998 10 28	704	0.6-	0.8-	2000 01 07	704	0.7-	0.6+
1986 09 06	675	0.2+	0.5-	1998 10 28	704	0.0	1.7-	2000 01 07	704	0.2-	0.3-
1986 09 06	675	(4.1+	1.8+)	1998 10 28	704	0.5-	0.8-	2000 01 07	704	0.5-	0.6-
1998 09 26	704	0.2+	0.7+	1998 10 28	704	2.0-	0.2+	2000 02 02	704	0.2-	0.2-
1998 09 26	704	1.5+	0.5+	1998 10 29	704	1.1+	0.9+	2000 02 02	704	0.3-	0.2+
1998 09 26	704	0.5+	0.6-	1998 10 29	704	0.6-	0.5+	2000 02 02	704	0.3-	0.6+

1998 09 26	704	0.4-	0.3+	1998 10 29	704	0.7+	1.1-	2000 02 02	704	0.1+	0.1-
1998 09 26	704	1.4-	0.3+	2000 01 05	704	0.1+	0.0	2000 02 04	704	0.5+	0.4+
1998 09 27	704	0.9+	0.1-	2000 01 05	704	0.5+	0.4+	2000 02 04	704	0.6+	0.0
1998 09 27	704	0.2-	0.1+	2000 01 05	704	0.4+	1.4+	2000 02 04	704	1.2+	1.6-
1998 09 27	704	0.7+	0.3+	2000 01 05	704	0.2-	0.2+	2000 02 04	704	0.4-	0.1+
1998 09 27	704	0.4+	0.6+	2000 01 05	704	0.7-	0.7-				

2000 AT₁₂₀ = 1987 DT₄ = 1998 QT₁₀₇ = 1998 RH₁₇

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	88.67888		(2000.0)	P	Q
<i>n</i>	0.22743857	ω	172.61534	+0.91302801	-0.40532220
<i>a</i>	2.6580305	Ω	211.42110	+0.36960743	+0.86955162
<i>e</i>	0.1723250	<i>i</i>	5.03546	+0.17254045	+0.28212389
<i>P</i>	4.33	<i>H</i>	14.2	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1987 02 28	010	0.1+	0.4+	1998 09 14	704	0.5+	0.5-	2000 01 07	704	1.0+	0.2-
1987 02 28	010	(0.6-	3.5-)	1998 09 14	704	0.1+	1.6-	2000 01 07	704	0.7-	0.5-
1987 02 28	010	(2.4-	4.5-)	1998 09 14	704	0.0	1.5-	2000 01 07	704	0.1-	0.4-
1998 08 17	704	0.6+	1.5+	1998 09 18	704	0.6+	0.2-	2000 01 07	704	0.3-	0.2-
1998 08 17	704	(1.2+	2.7+)	1998 09 18	704	1.2-	0.1+	2000 01 07	704	0.9+	0.0
1998 08 17	704	0.5+	0.0	1998 09 18	704	0.9-	0.6+	2000 02 02	704	0.6-	0.2-
1998 08 17	704	0.4+	0.7+	1998 09 18	704	0.9-	0.6+	2000 02 02	704	0.3-	0.1+
1998 08 17	704	1.6+	1.0+	1998 09 18	704	0.1-	0.2+	2000 02 02	704	0.1-	1.0+
1998 08 31	327	0.2-	0.5+	2000 01 05	704	0.1-	0.2-	2000 02 02	704	0.2+	0.4+
1998 08 31	327	0.2-	0.4+	2000 01 05	704	0.0	0.1-	2000 02 02	704	0.3+	0.5+
1998 08 31	327	0.1-	0.4+	2000 01 05	704	0.1+	0.5-	2000 02 04	704	0.4-	0.1+
1998 09 14	704	0.7-	0.2-	2000 01 05	704	0.1+	0.1-	2000 02 04	704	0.0	0.2-
1998 09 14	704	0.2-	1.0-	2000 01 05	704	0.3+	0.2+	2000 02 04	704	0.3-	0.9+

2000 AV₁₂₀ = 1989 ES₄ = 1998 XR₂₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	263.63238		(2000.0)	P	Q
<i>n</i>	0.17647610	ω	350.21522	-0.57294653	+0.81389070
<i>a</i>	3.1478361	Ω	244.76746	-0.74456524	-0.56609479
<i>e</i>	0.0612342	<i>i</i>	6.12454	-0.34257100	-0.13083813
<i>P</i>	5.58	<i>H</i>	13.4	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1989 03 02	809	0.3+	1.6-	1999 11 08	703	1.3+	0.5-	2000 01 07	704	0.4+	0.2+
1989 03 02	809	1.4-	0.6-	1999 11 08	703	0.0	0.2+	2000 01 07	704	0.5-	0.5-
1989 03 02	809	1.5-	1.2-	1999 11 08	703	1.3-	1.7-	2000 02 02	704	0.1-	0.1-
1989 03 03	809	0.5+	1.0+	2000 01 04	699	0.7+	0.5+	2000 02 02	704	0.3-	0.4+
1989 03 03	809	0.9+	0.3+	2000 01 04	699	0.3+	0.5+	2000 02 02	704	1.0+	1.3+
1989 03 03	809	0.4+	0.0	2000 01 04	699	0.0	0.3-	2000 02 02	704	0.0	0.5+
1998 12 11	691	0.4-	0.1+	2000 01 05	704	0.1+	0.1-	2000 02 02	704	0.0	0.6+
1998 12 11	691	0.5-	0.8-	2000 01 05	704	0.6-	0.4+	2000 02 04	704	0.4-	0.1+
1998 12 11	691	1.0-	0.5+	2000 01 05	704	0.1-	0.4-	2000 02 04	704	0.1+	0.2-
1998 12 14	691	0.8+	0.1+	2000 01 05	704	0.4+	0.1-	2000 02 04	704	0.1-	0.5+
1998 12 14	691	0.6+	0.0	2000 01 05	704	0.6+	0.3-	2000 02 04	704	0.8-	0.1+
1998 12 14	691	0.6+	0.3-	2000 01 07	704	0.1+	0.0	2000 02 04	704	(2.9+	1.7+)
1999 11 08	703	0.4-	0.7+	2000 01 07	704	0.1+	0.1-				

2000 AB₁₂₁ = 1988 VM₆ = 1997 NJ₁₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	81.60078		(2000.0)	P	Q
<i>n</i>	0.19022790	ω	129.19586	+0.74795710	-0.64205485
<i>a</i>	2.9942398	Ω	271.42666	+0.54519541	+0.73891094
<i>e</i>	0.0971664	<i>i</i>	9.69217	+0.37857911	+0.20439224
<i>P</i>	5.18	<i>H</i>	12.7	<i>G</i> 0.15	<i>U</i> 1

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Residuals in seconds of arc

1988 11 03	033	0.2−	0.3+	1999 11 08	703	0.0	0.9+	2000 01 07	704	0.3−	0.2+
1988 11 04	033	0.1−	0.0	1999 11 08	703	0.0	0.5−	2000 01 07	704	0.2−	0.3+
1988 11 04	033	0.3+	0.8+	1999 12 06	704	0.3+	0.3+	2000 01 07	704	0.5−	0.5+
1997 07 12	327	0.2−	0.3−	1999 12 06	704	1.3+	0.2−	2000 01 07	704	0.4−	0.1+
1997 07 12	327	0.3−	0.0	1999 12 06	704	0.3−	0.4−	2000 02 02	704	0.1−	0.0
1997 07 12	327	0.1−	0.3+	1999 12 06	704	0.2+	0.7+	2000 02 02	704	0.1−	0.0
1997 07 13	327	0.4+	0.4+	1999 12 06	704	0.0	1.1−	2000 02 02	704	0.1−	0.2+
1997 07 13	327	0.1−	0.3+	1999 12 14	704	0.9+	0.0	2000 02 02	704	0.1−	0.6+
1998 09 20	699	0.8+	0.6+	1999 12 14	704	0.2+	0.2−	2000 02 02	704	0.2+	0.7+
1998 09 20	699	0.3+	0.3−	1999 12 14	704	0.4+	1.1−	2000 02 04	704	0.3+	0.3−
1998 09 20	699	0.3+	0.4+	1999 12 14	704	1.0+	0.6−	2000 02 04	704	0.3−	0.3−
1999 01 05	699	0.2−	0.7+	1999 12 14	704	0.4−	1.5−	2000 02 04	704	0.0	0.1−
1999 01 05	699	0.1+	0.2+	2000 01 04	699	0.4−	0.3+	2000 02 04	704	0.5−	0.2−
1999 01 05	699	0.8−	0.2+	2000 01 04	699	0.3+	0.2+	2000 02 04	704	0.8+	0.7−
1999 01 08	704	0.9−	1.3−	2000 01 04	699	0.2+	0.2−	2000 02 05	704	0.4−	0.3−
1999 01 08	704	0.2−	1.5−	2000 01 05	704	0.2+	0.0	2000 02 05	704	0.0	0.2+
1999 01 08	704	(0.1−	2.1−)	2000 01 05	704	0.0	0.0	2000 02 05	704	0.6−	0.6+
1999 01 08	704	0.3+	0.2−	2000 01 05	704	0.2−	0.1−	2000 02 05	704	0.1−	0.7+
1999 01 08	704	(5.5−	0.6−)	2000 01 05	704	0.1+	0.1−	2000 02 05	704	0.2−	0.7+
1999 11 08	703	0.1−	0.9+	2000 01 05	704	0.1−	0.1−				
1999 11 08	703	(1.9−	2.3−)	2000 01 07	704	0.1−	0.3+				

2000 AK₁₂₁ = 1980 DD = 1980 DY₃ = 1990 VN

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	152.24903		(2000.0)	P	Q
<i>n</i>	0.24200169	ω	193.68407	+0.87097902	+0.47716933
<i>a</i>	2.5502952	Ω	137.16993	−0.43302073	+0.85809983
<i>e</i>	0.1968427	<i>i</i>	9.91594	−0.23213916	+0.18966843
<i>P</i>	4.07	<i>H</i>	13.4	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1980 02 16	801	0.4+	0.3+	1999 12 15	703	0.1+	0.4−	2000 02 02	704	0.1−	0.1+
1980 02 20	095	0.6−	1.2−	2000 01 05	704	0.4+	0.4−	2000 02 02	704	0.3+	0.2+
1990 11 08	413	1.6−	0.1+	2000 01 05	704	1.2+	0.4−	2000 02 02	704	0.3−	0.1−
1990 11 09	413	0.2−	0.1+	2000 01 05	704	0.0	1.5+	2000 02 02	704	0.0	0.4+
1990 11 09	413	1.4+	1.0+	2000 01 05	704	0.3+	0.2−	2000 02 02	704	0.0	0.0
1998 12 18	699	0.4+	0.6−	2000 01 05	704	0.6−	0.9+	2000 02 03	704	0.2+	0.4+
1998 12 18	699	0.4+	0.5−	2000 01 07	704	0.2−	0.0	2000 02 03	704	0.0	0.2+
1998 12 18	699	0.3−	0.8−	2000 01 07	704	0.2−	0.8−	2000 02 03	704	0.0	0.4+
1999 12 15	703	0.2+	0.0	2000 01 07	704	0.5−	0.3−	2000 02 03	704	0.2+	0.4+
1999 12 15	703	0.5+	0.0	2000 01 07	704	0.7−	0.8−	2000 02 03	704	0.2+	0.3+
1999 12 15	703	0.2−	0.5−	2000 01 07	704	0.4−	0.4−				

2000 AL₁₂₁ = 1978 UX₃ = 1985 YE₁ = 1998 MX₄₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	89.76963		(2000.0)	P	Q
<i>n</i>	0.28805380	ω	162.83269	+0.87011985	−0.49206747
<i>a</i>	2.2706680	Ω	226.67678	+0.44760314	+0.81244051
<i>e</i>	0.1394004	<i>i</i>	2.17323	+0.20625926	+0.31274593
<i>P</i>	3.42	<i>H</i>	14.4	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1978 10 28	675	0.1+	0.4−	1998 06 26	704	0.2+	0.3−	2000 01 07	704	(1.6+	2.1+)
1978 10 29	675	0.2+	0.4−	1998 06 26	704	1.0−	0.7+	2000 01 07	704	0.2−	0.1+
1985 12 17	010	0.7−	1.2+	1998 06 26	704	1.0+	1.3+	2000 02 02	704	1.5−	0.2−
1985 12 17	010	0.5+	0.2+	1998 06 27	809	(0.1−	2.8−)	2000 02 02	704	0.0	0.1−
1985 12 19	010(29.9+	3.8+)		1998 06 27	809	(0.6+	3.1−)	2000 02 02	704	0.4+	0.1−
1998 06 24	704	0.4+	0.7−	1998 06 27	809	(0.3+	3.0−)	2000 02 02	704	0.1+	0.2−
1998 06 24	704	0.5−	0.1+	2000 01 05	704	0.2+	0.1+	2000 02 02	704	0.0	0.6−
1998 06 24	704	0.6+	0.6+	2000 01 05	704	0.3−	0.2+	2000 02 03	704	0.2+	0.2−
1998 06 24	704	0.3−	0.7+	2000 01 05	704	0.1−	0.3+	2000 02 03	704	0.1+	0.1−
1998 06 24	704	(1.3−	2.7+)	2000 01 05	704	0.3−	0.4+	2000 02 03	704	0.3+	0.2+
1998 06 26	809	(0.8−	3.5−)	2000 01 05	704	0.1+	0.3+	2000 02 03	704	0.1+	0.1−
1998 06 26	809	(0.7−	3.8−)	2000 01 07	704	0.0	0.2−	2000 02 03	704	0.2+	0.3+

1998 06 26	809	(0.2−	3.3−)	2000 01 07	704	0.1+	0.3+
1998 06 26	704	0.7−	1.4−	2000 01 07	704	0.7+	0.1−

2000 AS₁₂₂ = 1997 HM₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	6.58357		(2000.0)	P	Q
<i>n</i>	0.26704519	ω	241.12229	−0.51504801	−0.85154485
<i>a</i>	2.3882487	Ω	240.20362	+0.82050364	−0.45672521
<i>e</i>	0.0646649	<i>i</i>	6.48183	+0.24799059	−0.25743632
<i>P</i>	3.69	<i>H</i>	15.3	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1997 04 30	704	0.8+	0.7−	1998 08 19	704	0.1+	1.0+	2000 01 07	704	0.2−	0.6−
1997 04 30	704	0.1−	0.2−	1998 08 19	704	1.2+	0.4−	2000 01 07	704	0.1+	0.3+
1997 04 30	704	0.3+	0.2+	1998 08 19	704	(4.7−	2.9+)	2000 01 07	704	0.3−	0.1−
1997 04 30	704	0.0	0.6+	1999 12 31	699	0.8+	0.4+	2000 02 06	704	0.2+	0.3+
1997 04 30	704	0.3−	1.3−	1999 12 31	699	0.7+	0.1+	2000 02 06	704	0.2−	0.0
1997 05 01	704	0.0	0.8+	1999 12 31	699	0.1−	0.9+	2000 02 06	704	0.5+	0.3−
1997 05 01	704	0.2+	0.3−	2000 01 05	704	0.6−	0.5−	2000 02 06	704	0.7−	0.2+
1997 05 01	704	0.7−	0.1+	2000 01 05	704	0.2−	0.1−	2000 02 08	704	0.1−	0.1+
1997 05 01	704	0.5−	0.3+	2000 01 05	704	0.9−	0.3−	2000 02 08	704	0.5+	0.1−
1997 05 01	704	0.3+	0.7+	2000 01 05	704	0.3−	0.6+	2000 02 08	704	0.6+	0.2−
1998 08 19	704	1.2−	0.6−	2000 01 07	704	0.1+	0.5−	2000 02 08	704	0.5+	0.2−
1998 08 19	704	(2.0+	0.7−)	2000 01 07	704	0.1+	0.4+	2000 02 08	704	0.3−	0.1+

2000 AT₁₂₂ = 1997 LD₁₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	323.30312		(2000.0)	P	Q
<i>n</i>	0.27302113	ω	3.82399	−0.99988760	−0.01390352
<i>a</i>	2.3532707	Ω	175.36821	+0.01123890	−0.94276523
<i>e</i>	0.1520425	<i>i</i>	3.98471	+0.00992390	−0.33316725
<i>P</i>	3.61	<i>H</i>	15.9	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1997 06 08	809	0.7−	0.5−	2000 01 05	704	0.8−	0.3+	2000 02 02	704	0.5+	0.2+
1997 06 08	809	1.3−	0.9−	2000 01 05	704	0.1−	0.4+	2000 02 02	704	0.1−	0.9+
1997 06 08	809	0.7−	0.2−	2000 01 05	704	0.7+	0.4−	2000 02 02	704	0.2+	0.6−
1997 06 09	809	1.0+	1.5+	2000 01 05	704	0.1+	0.6+	2000 02 03	704	0.0	0.4+
1997 06 09	809	1.4+	1.1+	2000 01 07	704	0.7−	0.1+	2000 02 03	704	(2.6+	0.3+)
1997 06 09	809	0.6+	1.0+	2000 01 07	704	0.1−	0.0	2000 02 03	704	1.1+	0.7+
1998 10 14	910	0.4−	0.6+	2000 01 07	704	0.5−	0.0	2000 02 03	704	0.5+	0.1+
1998 10 14	910	0.5−	0.9+	2000 01 07	704	0.4−	0.5−				
1998 10 14	910	0.1+	0.5+	2000 01 07	704	0.0	0.2−				

2000 AE₁₂₃ = 1995 CY₆

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	174.34330		(2000.0)	P	Q
<i>n</i>	0.18440249	ω	171.56118	+0.69709407	+0.70817790
<i>a</i>	3.0569725	Ω	142.51137	−0.66809177	+0.69828228
<i>e</i>	0.0423867	<i>i</i>	10.60442	−0.26021769	+0.10433558
<i>P</i>	5.34	<i>H</i>	13.9	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1995 02 01	691	0.1−	0.0	2000 01 05	704	0.9−	0.1+	2000 02 03	704	0.1−	0.3−
1995 02 01	691	0.0	0.1+	2000 01 07	704	0.0	0.4−	2000 02 03	704	0.1−	0.9+
1995 02 01	691	0.1+	0.0	2000 01 07	704	0.1+	0.1+	2000 02 03	704	0.2+	0.3−
1995 02 07	691	0.0	0.1+	2000 01 07	704	0.0	0.2+	2000 02 03	704	0.4−	0.7+
1995 02 07	691	0.0	0.4−	2000 02 02	704	0.4+	0.2+	2000 02 06	704	0.4+	1.0−
1995 02 07	691	0.1−	0.0	2000 02 02	704	0.7+	0.4−	2000 02 06	704	0.9+	0.0
2000 01 05	704	1.0−	0.5−	2000 02 02	704	0.4+	0.2+	2000 02 06	704	0.2−	0.5+
2000 01 05	704	0.5−	0.3−	2000 02 02	704	0.1−	0.6+				

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2000 AP₁₂₃ = 1993 PL₅ = 1998 SP₁₂₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	347.50182		(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.21957622	ω	327.47235	-0.84905277	-0.52830700		
<i>a</i>	2.7211084	Ω	180.63934	+0.50263071	-0.80717188		
<i>e</i>	0.0434927	<i>i</i>	5.40607	+0.16270143	-0.26337287		
<i>P</i>	4.49	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1993 08 15	010	0.3-	0.2-	1998 09 27	704	0.7-	0.3-	2000 02 04	704	0.1+	0.2-
1993 08 15	010	0.5-	1.8-	1998 09 27	704	0.4+	0.6-	2000 02 04	704	0.2-	0.3+
1993 08 16	010	1.3+	0.3-	1998 11 11	704	(2.3+	1.5+)	2000 02 04	704	0.2-	0.3-
1993 08 16	010	0.6+	1.3-	1998 11 11	704	0.4-	1.8-	2000 02 04	704	0.1+	0.1-
1993 08 16	010	(1.3+	2.4-)	1998 11 11	704	0.7+	1.0-	2000 02 08	704	0.1-	0.1+
1996 04 19	566	0.4-	1.1-	1998 11 11	704	(2.2-	0.0)	2000 02 08	704	0.5+	0.1-
1996 04 19	566	0.5-	0.8-	2000 01 05	704	0.4+	0.8+	2000 02 08	704	0.4-	0.1-
1996 04 19	566	0.1-	1.1-	2000 01 05	704	0.0	1.0-	2000 02 08	704	0.2+	0.2-
1998 09 18	699	0.1+	0.2+	2000 01 05	704	0.2+	0.4-	2000 02 08	704	0.7+	0.4-
1998 09 18	699	0.2+	0.5+	2000 01 07	704	0.3-	0.1+	2000 02 10	704	0.3+	0.1-
1998 09 18	699	0.1-	0.6+	2000 01 07	704	0.6+	0.7-	2000 02 10	704	0.2-	0.4-
1998 09 26	704	0.5+	0.1+	2000 01 07	704	0.3-	0.0	2000 02 10	704	0.8-	0.6+
1998 09 26	704	(1.0+	2.1-)	2000 01 07	704	0.6-	0.8-	2000 02 10	704	0.6+	0.3-
1998 09 26	704	1.8+	1.5-	2000 02 02	704	0.2-	0.3+	2000 02 10	704	0.0	0.1-
1998 09 26	704	1.8-	0.1-	2000 02 02	704	0.2-	0.5+	2000 02 11	704	0.0	0.5-
1998 09 26	704	1.5-	1.5+	2000 02 02	704	0.1-	0.3+	2000 02 11	704	0.3-	0.0
1998 09 27	704	0.1-	0.9+	2000 02 02	704	0.1-	0.3+	2000 02 11	704	0.3-	0.2+
1998 09 27	704	0.5+	0.0	2000 02 02	704	0.0	0.3+	2000 02 11	704	0.2-	0.2-
1998 09 27	704	0.9+	0.3+	2000 02 04	704	0.2+	0.5+	2000 02 11	704	0.1-	0.2-

2000 AT₁₂₃ = 1998 RC₂₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	340.71188		(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.28367509	ω	353.24959	-0.92287575	-0.38356355		
<i>a</i>	2.2939745	Ω	164.06292	+0.35891063	-0.88901516		
<i>e</i>	0.0377754	<i>i</i>	7.18477	+0.13958336	-0.25006209		
<i>P</i>	3.47	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 17	704	0.5-	1.2+	1998 09 29	691	0.9-	0.2-	2000 02 04	704	0.1-	0.7+
1998 08 17	704	0.0	0.0	1998 09 29	691	0.6-	0.2-	2000 02 04	704	0.1-	0.4-
1998 08 17	704	(0.4+	2.4-)	1998 09 29	691	0.9-	0.1-	2000 02 04	704	0.1+	0.9+
1998 08 17	704	0.6+	0.5+	2000 01 05	704	0.3+	0.4+	2000 02 04	704	0.4-	1.0+
1998 08 17	704	0.9-	0.8+	2000 01 05	704	0.5-	0.2-	2000 02 08	704	0.0	0.2+
1998 08 23	704	0.3+	1.8+	2000 01 05	704	0.7+	0.4-	2000 02 08	704	0.3+	0.4+
1998 08 23	704	0.7-	0.9-	2000 01 05	704	0.2-	0.6-	2000 02 08	704	0.2-	0.0
1998 08 23	704	(2.4-	1.1+)	2000 01 05	704	0.6-	1.2-	2000 02 08	704	0.6+	0.0
1998 08 23	704	0.6-	1.0-	2000 01 07	704	0.1+	0.3-	2000 02 08	704	0.2+	0.2+
1998 08 23	704	(4.9-	1.7+)	2000 01 07	704	0.1-	0.0	2000 02 10	704	0.2+	0.7+
1998 09 14	704	0.2-	1.1-	2000 01 07	704	0.4-	0.7-	2000 02 10	704	0.1-	0.3+
1998 09 14	704	0.6+	0.1-	2000 01 07	704	0.0	0.4-	2000 02 10	704	0.2-	0.3+
1998 09 14	704	0.8+	1.7-	2000 01 07	704	0.2-	0.6-	2000 02 10	704	0.5+	1.6-
1998 09 14	704	0.0	0.2+	2000 02 02	704	0.2+	0.5+	2000 02 10	704	0.1-	0.2+
1998 09 18	704	(2.5+	1.7-)	2000 02 02	704	0.3-	0.3+	2000 02 15	809	0.2-	0.2+
1998 09 18	704	1.7+	0.4+	2000 02 02	704	0.1-	0.3+	2000 02 15	809	0.3-	0.3+
1998 09 18	704	0.6-	0.8+	2000 02 02	704	0.2-	0.2+	2000 02 15	809	0.5+	0.0
1998 09 18	704	0.3+	0.5-	2000 02 02	704	0.1-	0.2+	2000 02 15	809	0.7+	0.6-
1998 09 18	704	1.2+	1.4+	2000 02 04	704	0.1+	0.4+				

2000 AV₁₂₃ = 1990 DS₂ = 1996 JR₁₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	245.19679		(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.19240227	ω	92.15748	-0.28680207	+0.95610378		
<i>a</i>	2.9716381	Ω	160.84407	-0.93554096	-0.26603180		
<i>e</i>	0.0514582	<i>i</i>	10.55071	-0.20617389	-0.12285211		
<i>P</i>	5.12	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1990 02 24	809	0.1+	0.6-	1996 05 21	691	0.2+	0.2+	2000 02 02	704	0.0	0.4+
1990 02 24	809	0.4+	0.6-	2000 01 05	704	0.2+	0.4+	2000 02 02	704	0.3+	0.0
1990 02 24	809	0.8+	0.6-	2000 01 05	704	0.2+	0.2-	2000 02 02	704	0.0	0.0
1990 02 25	809	1.0-	1.0+	2000 01 05	704	0.5-	1.0-	2000 02 02	704	0.4+	0.1-
1990 02 25	809	0.2-	0.7+	2000 01 05	704	0.4-	0.9+	2000 02 04	704	0.1-	0.1+
1990 02 25	809	0.1-	0.4+	2000 01 07	704	0.2-	0.0	2000 02 04	704	0.2-	0.1+
1996 05 14	691	0.2-	0.1-	2000 01 07	704	0.3-	0.2-	2000 02 04	704	0.2-	1.1-
1996 05 14	691	0.1-	0.2-	2000 01 07	704	0.1-	0.4+	2000 02 04	704	0.5+	0.3-
1996 05 14	691	0.1+	0.1+	2000 01 07	704	0.1-	0.2-	2000 02 04	704	0.5+	0.2-
1996 05 21	691	0.0	0.3+	2000 01 07	704	0.1+	0.3+				
1996 05 21	691	0.0	0.4-	2000 02 02	704	0.2-	0.3+				

2000 AW₁₂₃ = 1988 CW₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	283.78317		(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.24275220	ω	77.12542	-0.68137396	+0.72192800		
<i>a</i>	2.5450360	Ω	148.82619	-0.72873713	-0.65373191		
<i>e</i>	0.1343173	<i>i</i>	13.47513	-0.06834996	-0.22683596		
<i>P</i>	4.06	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1988 02 14	809	0.7+	0.2+	2000 01 07	704	0.0	0.1+	2000 02 08	704	0.1-	0.5+
1988 02 14	809	0.3+	0.5-	2000 01 07	704	0.1+	0.3-	2000 02 08	704	0.1+	0.3+
1988 02 14	809	1.1+	0.1+	2000 02 02	704	0.7-	1.1+	2000 02 08	704	0.9-	0.2-
1988 02 19	888	0.6-	0.4-	2000 02 02	704	0.3-	0.6+	2000 02 10	704	0.4+	0.1+
1988 02 19	888	1.5-	0.5+	2000 02 02	704	0.5-	0.6+	2000 02 10	704	0.2+	0.2+
2000 01 05	704	0.2-	0.0	2000 02 02	704	0.3-	0.1-	2000 02 10	704	0.8+	0.4-
2000 01 05	704	0.3+	0.6-	2000 02 04	704	0.0	0.7-	2000 02 10	704	0.0	0.3+
2000 01 05	704	0.3+	0.5+	2000 02 04	704	0.2+	0.1-	2000 02 10	704	0.2+	0.2-
2000 01 05	704	0.3-	0.1+	2000 02 04	704	1.0+	0.2-	2000 02 15	809	0.1-	0.3-
2000 01 05	704	0.1-	0.1-	2000 02 04	704	0.2+	0.2-	2000 02 15	809	0.4-	0.0
2000 01 07	704	0.0	0.2-	2000 02 04	704	0.1+	0.5-	2000 02 15	809	0.2-	0.2-
2000 01 07	704	0.2-	0.1-	2000 02 08	704	0.2+	0.3+	2000 02 15	809	0.3-	0.2-
2000 01 07	704	0.4+	0.0	2000 02 08	704	0.2+	0.0				

2000 AE₁₂₄ = 1997 MB₇ = 1998 RV₃₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	79.49045		(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.22727636	ω	259.66745	+0.75581285	-0.64558104		
<i>a</i>	2.6592951	Ω	140.41456	+0.64761403	+0.71235412		
<i>e</i>	0.1303758	<i>i</i>	9.88711	+0.09665918	+0.27527573		
<i>P</i>	4.34	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1997 06 28	691	0.0	0.3+	1999 10 20	704	0.4-	0.0	2000 02 06	704	0.2-	0.5-
1997 06 28	691	0.2+	0.3+	1999 10 20	704	0.3-	0.3-	2000 02 06	704	0.2+	0.0
1997 06 28	691	0.0	0.7+	1999 11 08	703	0.1+	0.5+	2000 02 06	704	1.2-	0.1-
1998 08 23	704	0.0	0.5+	1999 11 08	703	1.1+	0.6+	2000 02 06	704	0.2-	0.6-
1998 08 23	704	0.0	0.4-	1999 11 08	703	0.7+	0.8-	2000 02 06	704	0.2-	0.5-
1998 08 23	704	0.4-	0.3-	1999 11 08	703	1.4+	0.8+	2000 02 06	704	0.0	0.6-
1998 08 23	704	0.2-	1.2-	2000 01 05	704	0.0	0.5-	2000 02 06	704	0.5-	0.1+
1998 08 23	704	1.7-	0.2-	2000 01 05	704	0.7-	0.6-	2000 02 06	704	0.3-	0.2-
1998 08 30	699	0.7+	0.8+	2000 01 05	704	0.2-	1.4+	2000 02 06	704	0.0	0.4-
1998 08 30	699	0.0	1.1+	2000 01 05	704	0.6-	0.5-	2000 02 08	704	0.2+	0.2+
1998 08 30	699	0.1+	0.8+	2000 01 05	704	0.6-	0.4+	2000 02 08	704	1.4+	0.4+
1998 09 14	704	0.1-	0.1-	2000 01 07	704	0.0	0.3-	2000 02 08	704	0.6-	1.6+

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1998 09 14	704	0.4−	0.3+	2000 01 07	704	0.1−	0.2+	2000 02 08	704	0.0	0.0
1998 09 14	704	0.2−	0.3+	2000 01 07	704	0.2+	0.2+	2000 02 08	704	0.0	0.4+
1998 09 14	704	0.2+	0.5−	2000 01 07	704	0.4−	0.1+	2000 02 10	704	0.3−	0.0
1998 09 18	704	0.6+	0.2−	2000 01 07	704	0.0	0.2+	2000 02 10	704	0.2−	0.0
1998 09 18	704	0.3+	0.1+	2000 02 02	704	0.5+	0.1+	2000 02 10	704	1.1−	0.2−
1998 09 18	704	0.0	1.3+	2000 02 02	704	0.2−	0.0	2000 02 10	704	0.2+	0.0
1998 09 18	704	1.0+	1.3+	2000 02 02	704	0.3+	0.2−	2000 02 11	704	0.6−	1.0+
1998 09 18	704	0.0	0.4+	2000 02 02	704	0.1+	1.1−	2000 02 11	704	0.5+	0.1−
1998 12 08	704	0.3−	0.2+	2000 02 02	704	0.9+	0.1−	2000 02 11	704	0.1+	0.6+
1998 12 08	704	0.7−	1.6−	2000 02 03	704	0.4+	0.1−	2000 02 11	704	0.3+	0.1+
1998 12 08	704	0.0	0.5−	2000 02 03	704	0.0	0.0	2000 02 11	704	0.5+	0.3+
1998 12 08	704	(2.5+	0.9−)	2000 02 03	704	0.8+	0.3+	2000 02 12	704	(0.3−	4.0+)
1998 12 08	704	1.5−	0.3−	2000 02 03	704	0.1+	0.0	2000 02 12	704	(0.9+	2.5+)
1998 12 21	327	0.3+	0.5−	2000 02 03	704	0.1+	0.1−	2000 02 12	704	(1.3+	2.9+)
1998 12 21	327	0.3+	0.5−	2000 02 05	704	0.3+	0.2+	2000 02 12	704	0.1−	0.1+
1998 12 21	327	0.3+	0.7−	2000 02 05	704	0.3−	0.0	2000 02 12	704	0.3+	0.6+
1998 12 21	327	0.4+	0.8+	2000 02 05	704	0.1+	0.3−	2000 02 12	704	0.1−	1.1+
1999 10 20	704	0.4+	0.6−	2000 02 05	704	0.2−	0.3−	2000 02 12	704	0.7−	0.2+
1999 10 20	704	0.4−	0.1−	2000 02 05	704	0.1−	0.4−	2000 02 12	704	0.1+	1.0+

2000 AH₁₂₄ = 1994 JQ₇

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Spahr			
<i>M</i>	9.29144	(2000.0)	P	Q	
<i>n</i>	0.29946094	ω	342.18719	−0.60327777	−0.79638974
<i>a</i>	2.2126324	Ω	144.88303	+0.74044708	−0.57916566
<i>e</i>	0.0610080	<i>i</i>	4.25226	+0.29630061	−0.17415660
<i>P</i>	3.29	<i>H</i>	15.6	<i>G</i>	0.15

Residuals in seconds of arc

1994 05 08	691	0.8+	0.2+	2000 01 07	704	0.6−	0.3+	2000 02 03	704	0.3+	0.2+
1994 05 08	691	0.1+	0.0	2000 01 07	704	0.1−	0.5+	2000 02 03	704	0.2−	0.2+
1994 05 13	691	0.9−	0.6+	2000 01 07	704	0.1+	0.7−	2000 02 03	704	0.0	0.4+
1994 05 13	691	0.3+	0.0	2000 02 02	704	0.0	0.3−	2000 02 03	704	0.4+	0.2−
1994 05 13	691	0.3−	0.8−	2000 02 02	704	0.4+	0.1−	2000 02 06	704	0.0	0.1−
1994 05 13	691	0.0	0.1−	2000 02 02	704	0.2−	0.4+	2000 02 06	704	0.0	0.1−
2000 01 05	704	0.2+	0.5−	2000 02 02	704	0.2−	0.6−	2000 02 06	704	0.9−	0.2+
2000 01 05	704	0.4+	0.1−	2000 02 02	704	0.4+	0.3−	2000 02 06	704	0.0	0.1+
2000 01 05	704	0.1−	0.5+	2000 02 03	704	0.1+	0.1+				

2000 AO₁₂₄ = 1977 RH₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Spahr			
<i>M</i>	34.05949	(2000.0)	P	Q	
<i>n</i>	0.23235809	ω	298.69915	+0.00245115	−0.99939301
<i>a</i>	2.6203795	Ω	151.09754	+0.94073945	−0.00948019
<i>e</i>	0.1852501	<i>i</i>	4.12310	+0.33912133	+0.03352209
<i>P</i>	4.24	<i>H</i>	14.7	<i>G</i>	0.15

Residuals in seconds of arc

1977 09 09	675	0.1−	1.4−	2000 01 07	704	0.1+	0.1+	2000 02 03	704	0.2−	0.0
1977 09 10	675	0.0	1.8+	2000 01 07	704	0.5−	0.3−	2000 02 03	704	0.2+	0.1+
1999 12 07	704	0.1−	0.7−	2000 01 07	704	0.7−	0.1−	2000 02 03	704	0.3+	0.2+
1999 12 07	704	0.9+	0.1+	2000 01 07	704	0.2−	0.8−	2000 02 03	704	0.4+	0.2+
1999 12 07	704	0.3+	1.4+	2000 01 07	704	0.2−	0.7−	2000 02 06	704	0.5+	0.2+
1999 12 07	704	0.1+	0.4+	2000 02 02	704	0.3−	0.1+	2000 02 06	704	0.3+	0.3+
2000 01 05	704	0.2+	0.3−	2000 02 02	704	0.0	0.3−	2000 02 06	704	0.3+	0.4+
2000 01 05	704	0.4+	0.4−	2000 02 02	704	0.2−	0.4−	2000 02 06	704	0.3−	1.5+
2000 01 05	704	0.9−	0.5−	2000 02 02	704	0.1−	0.3−	2000 02 06	704	0.6+	0.2+
2000 01 05	704	0.5−	0.2−	2000 02 02	704	0.0	0.2+				
2000 01 05	704	0.5−	0.3−	2000 02 03	704	0.1+	0.5+				

2000 AP₁₂₄ = 1981 XV = 1995 UD₄₇

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Spahr			
<i>M</i>	76.37518	(2000.0)	P	Q	
<i>n</i>	0.27916402	ω	141.30562	+0.77573586	−0.62945964
<i>a</i>	2.3186209	Ω	257.76401	+0.56696393	+0.72641326
<i>e</i>	0.1889144	<i>i</i>	2.63228	+0.27710248	+0.27587013
<i>P</i>	3.53	<i>H</i>	15.1	<i>G</i>	0.15

Residuals in seconds of arc

1981 12 04	511	0.2+	0.8+	1999 12 31	699	1.5+	0.3+	2000 01 07	704	0.5−	1.1+
1981 12 04	511	0.2−	0.6+	1999 12 31	699	1.0+	0.2+	2000 02 02	704	0.2−	0.1−
1993 01 28	809	1.2−	0.8−	1999 12 31	699	0.7+	0.3+	2000 02 02	704	0.2+	0.2+
1993 01 28	809	(3.3−	1.0−)	2000 01 05	704	0.2+	0.3+	2000 02 02	704	0.7−	0.0
1995 10 22	408	0.9+	1.4−	2000 01 05	704	0.1−	0.2−	2000 02 02	704	0.2+	0.3+
1995 10 22	408	0.4+	0.3+	2000 01 05	704	0.0	0.1−	2000 02 02	704	0.1+	0.1+
1995 10 27	408	0.0	0.2+	2000 01 05	704	0.1+	0.1−	2000 02 03	704	0.1+	0.5+
1995 10 27	408	0.8−	1.1−	2000 01 05	704	0.5+	1.0−	2000 02 03	704	0.0	0.1+
1997 04 05	566	0.2−	0.0	2000 01 07	704	0.5−	1.0−	2000 02 03	704	0.2−	0.1−
1997 04 05	566	0.3−	0.2−	2000 01 07	704	0.0	0.4−	2000 02 03	704	0.8−	0.3+
1997 04 05	566	0.3+	0.8−	2000 01 07	704	0.0	0.3−	2000 02 03	704	0.6−	0.3−

2000 AQ₁₂₄ = 1995 UH₄₉ = 1997 ER₂₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Spahr			
<i>M</i>	99.52801	(2000.0)	P	Q	
<i>n</i>	0.28010016	ω	204.55372	+0.95625857	−0.29242676
<i>a</i>	2.3134519	Ω	172.43795	+0.27691625	+0.89668926
<i>e</i>	0.1854933	<i>i</i>	3.26394	+0.09427056	+0.33231755
<i>P</i>	3.52	<i>H</i>	15.2	<i>G</i>	0.15

Residuals in seconds of arc

1995 10 23	033	0.4+	0.3−	2000 01 05	704	1.6−	0.0	2000 01 30	703	0.6+	0.1+
1995 10 24	033	0.4−	0.0	2000 01 05	704	0.8−	0.1−	2000 01 30	703	0.8−	0.5+
1995 10 24	033	0.1+	0.1−	2000 01 05	704	0.4+	1.0−	2000 01 30	703	1.0−	0.4−
1997 03 04	691	0.4−	0.4+	2000 01 05	704	0.1−	0.1+	2000 02 02	704	0.8+	0.6+
1997 03 04	691	0.3−	0.3+	2000 01 07	704	0.4+	0.3−	2000 02 02	704	0.4+	0.3+
1997 03 04	691	0.5−	0.1−	2000 01 07	704	0.5−	0.1−	2000 02 02	704	0.7+	0.2+
1997 03 14	691	1.7+	1.0−	2000 01 07	704	0.7+	0.1+	2000 02 02	704	0.1+	0.4+
1997 03 14	691	0.2−	0.1−	2000 01 07	704	0.0	0.1+	2000 02 02	704	0.8+	0.5+
1997 03 14	691	0.7−	0.2−	2000 01 07	704	0.4−	0.2+				
2000 01 05	704	0.6+	0.5−	2000 01 30	703	0.1−	0.1−				

2000 AY₁₂₄ = 1992 OB₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

		Williams			
<i>M</i>	163.62689	(2000.0)	P	Q	
<i>n</i>	0.19186969	ω	172.63826	+0.85650685	+0.51121532
<i>a</i>	2.9771346	Ω	156.19868	−0.48207143	+0.84156641
<i>e</i>	0.0946390	<i>i</i>	10.14700	−0.18439946	+0.17442730
<i>P</i>	5.14	<i>H</i>	13.2	<i>G</i>	0.15

Residuals in seconds of arc

1992 07 26	809	0.7+	0.4−	1998 11 13	704	1.1+	1.6−	2000 01 07	704	0.2−	0.3−
1992 07 26	809	1.1+	0.8+	1998 11 19	699	0.2+	0.2+	2000 01 07	704	0.2−	0.9−
1992 07 30	809	0.1−	0.2−	1998 11 19	699	0.5+	0.0	2000 01 07	704	0.4−	0.3−
1992 07 30	809	0.4+	0.1−	1998 11 19	699	0.3+	0.5+	2000 01 07	704	0.5−	0.2−
1992 07 30	809	0.1−	0.7−	1998 12 14	699	0.8−	0.4−	2000 01 07	704	0.3+	0.1+
1992 07 31	809	0.0	0.8+	1998 12 14	699	1.1−	1.3+	2000 02 02	704	0.4−	0.2+
1992 07 31	809	0.8−	0.3+	1998 12 14	699	0.1+	0.0	2000 02 02	704	0.4−	0.0
1992 07 31	809	1.2−	0.2+	1999 12 15	703	1.3+	0.2+	2000 02 02	704	0.1+	0.4+
1998 10 29	699	0.3+	0.2+	1999 12 15	703	0.2+	1.1+	2000 02 02	704	0.0	0.9+
1998 10 29	699	0.8−	1.1+	1999 12 15	703	1.1−	0.4−	2000 02 02	704	0.0	1.0+
1998 10 29	699	0.3+	0.2+	1999 12 15	703	(2.3−	0.0)	2000 02 04	704	0.3−	0.1−
1998 11 13	704	0.3−	0.1−	2000 01 05	704	0.5−	0.0	2000 02 04	704	0.1+	0.5+
1998 11 13	704	0.2+	1.3−	2000 01 05	704	1.1+	0.6+	2000 02 04	704	0.3+	0.1−
1998 11 13	704	0.9+	1.1+	2000 01 05	704	0.6+	0.7−				
1998 11 13	704	1.0−	1.2−	2000 01 05	704	0.2+	1.2−				

2000 AZ₁₂₄ = 1998 RV₇₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	21.68439		(2000.0)		P		Q
n	0.23638297	ω	315.97433		-0.38508035		-0.92037320
a	2.5905497	Ω	156.42327		+0.88676769		-0.38942048
e	0.0550188	i	9.79085		+0.25564858		-0.03556497
P	4.17	H	14.3	G	0.15	U	4

Residuals in seconds of arc

1998 09 14	704	0.8-	1.2+	1998 09 27	704	0.4-	0.1+	2000 02 02	704	0.1+	0.2-
1998 09 14	704	(2.5-	0.5-)	1998 09 27	704	0.7-	0.1+	2000 02 02	704	0.5-	0.2-
1998 09 14	704	1.2-	1.8+	1998 09 27	704	0.7+	0.5+	2000 02 02	704	0.0	0.3-
1998 09 17	699	0.5+	0.1-	1998 09 27	704	0.4+	0.2-	2000 02 02	704	0.0	0.1-
1998 09 17	699	1.0-	0.4+	1998 09 27	704	0.5+	0.8-	2000 02 04	704	0.3-	0.4+
1998 09 17	699	0.1+	0.3-	2000 01 05	704	0.6-	0.3-	2000 02 04	704	0.0	0.1+
1998 09 18	704	0.7-	0.4-	2000 01 05	704	0.0	0.1-	2000 02 04	704	0.1-	0.4+
1998 09 18	704	0.7-	0.7+	2000 01 05	699	0.7+	0.5-	2000 02 04	704	0.2-	0.5+
1998 09 18	704	0.8-	1.0-	2000 01 05	704	0.4-	0.7-	2000 02 04	704	0.1-	0.1+
1998 09 18	704	1.8-	0.9+	2000 01 05	699	0.1+	0.6+	2000 02 06	704	0.1+	0.4+
1998 09 18	704	0.8+	0.1-	2000 01 05	704	0.9-	0.1-	2000 02 06	704	0.2-	0.2+
1998 09 24	910	1.0+	0.2+	2000 01 05	704	0.1+	0.3-	2000 02 06	704	0.2+	0.1+
1998 09 24	910	0.9+	0.2+	2000 01 05	699	1.1+	0.1+	2000 02 06	704	0.2+	0.2+
1998 09 24	910	1.0+	0.3+	2000 01 07	704	0.0	0.9+	2000 02 06	704	0.1-	0.1+
1998 09 26	704	0.2+	0.4-	2000 01 07	704	0.6-	0.3+	2000 02 08	704	0.1+	0.0
1998 09 26	704	0.2+	0.4-	2000 01 07	704	0.4+	1.3-	2000 02 08	704	0.0	0.4+
1998 09 26	704	0.0	1.6-	2000 01 07	704	0.1+	0.4-	2000 02 08	704	0.0	0.0
1998 09 26	704	1.1+	0.0	2000 01 07	704	0.0	0.4-	2000 02 08	704	0.0	0.2+
1998 09 26	704	0.2+	0.7-	2000 02 02	704	0.4+	0.1+	2000 02 08	704	0.5+	0.1-

2000 AB₁₂₅ = 1998 UF₃₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	67.66920		(2000.0)		P		Q
n	0.20394214	ω	207.18160		+0.44576430		-0.89343661
a	2.8584553	Ω	216.42176		+0.83729824		+0.43803100
e	0.0512091	i	5.35056		+0.31658465		+0.09949806
P	4.83	H	14.1	G	0.15	U	4

Residuals in seconds of arc

1998 10 28	704	0.1+	0.7-	2000 01 05	704	0.8-	0.5+	2000 02 02	704	0.1+	0.2-
1998 10 28	704	1.8-	0.3+	2000 01 05	704	0.1+	0.3+	2000 02 02	704	0.1+	0.4+
1998 10 28	704	1.5+	0.6+	2000 01 05	704	0.3-	0.1-	2000 02 02	704	0.2-	0.0
1998 10 28	704	0.5-	0.5-	2000 01 05	704	0.1+	1.0+	2000 02 02	704	0.1+	0.1+
1998 10 29	704	0.8+	1.2-	2000 01 05	704	0.8+	0.2-	2000 02 04	704	0.1-	0.1+
1998 10 29	704	0.1-	1.4+	2000 01 07	704	0.0	0.1+	2000 02 04	704	0.3-	0.1-
1998 10 29	704	1.3-	0.4+	2000 01 07	704	0.7+	0.2-	2000 02 04	704	0.2+	0.0
1998 10 29	704	0.3+	0.1-	2000 01 07	704	0.7-	1.7-				
1998 10 29	704	1.0+	0.3-	2000 02 02	704	0.1+	0.1+				

2000 AC₁₂₅ = 1991 SD₅ = 1997 GM₁₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	113.35250		(2000.0)		P		Q
n	0.27249046	ω	181.98926		+0.98535723		-0.16992855
a	2.3563249	Ω	187.83616		+0.15781474		+0.93999796
e	0.1406715	i	5.88505		+0.06454180		+0.29585151
P	3.62	H	14.3	G	0.15	U	1

Residuals in seconds of arc

1991 09 17	675	0.5-	0.1+	1998 08 17	704	0.9-	0.4+	2000 01 05	704	0.5+	0.5+
1991 09 17	675	0.4+	0.1-	1998 08 23	704	0.1-	0.7+	2000 01 05	704	0.3+	0.3+
1997 03 31	704	1.5-	0.5-	1998 08 23	704	0.2+	0.5+	2000 01 05	704	0.8-	0.3-
1997 03 31	704	0.5+	0.2+	1998 08 23	704	1.2+	0.3+	2000 01 05	704	0.3+	0.5+
1997 03 31	704	(4.1-	1.5+)	1998 08 23	704	(0.7+	4.9+)	2000 01 07	704	0.9-	0.5+
1997 03 31	704	0.2+	0.4+	1998 08 23	704	(2.9-	2.7+)	2000 01 07	704	0.6-	0.2-
1997 04 03	704	0.7+	0.5-	1998 08 28	699	0.0	0.4-	2000 01 07	704	0.5-	0.6-

1997 04 03	704	0.1-	0.8+	1998 08 28	699	0.1-	0.1-	2000 01 07	704	0.0	0.5-
1997 04 03	704	0.0	0.6-	1998 08 28	699	0.2+	0.1-	2000 01 07	704	0.9-	0.7-
1997 04 03	704	1.7+	1.8+	1998 09 17	910	0.7+	0.9+	2000 02 02	704	0.4+	0.4+
1997 04 05	704	0.8-	0.1-	1998 09 17	910	0.9+	1.2+	2000 02 02	704	0.3+	0.2+
1997 04 05	704	0.6-	0.8+	1998 09 17	910	0.2-	0.8+	2000 02 02	704	0.1+	0.2+
1997 04 06	704	0.2-	0.0	1999 10 20	704	1.0+	0.7+	2000 02 02	704	0.3+	0.3-
1997 04 06	704	0.9+	0.2-	1999 10 20	704	0.1+	0.3-	2000 02 02	704	0.1-	0.0
1997 04 07	704	0.5+	0.2-	1999 10 20	704	0.5+	1.0-	2000 02 04	704	0.2-	0.7+
1997 04 07	704	0.4-	0.3-	1999 12 05	704	0.4-	1.2+	2000 02 04	704	0.0	0.5+
1998 08 17	704	0.2-	0.4-	1999 12 05	704	0.5+	0.7+	2000 02 04	704	0.9+	0.9+
1998 08 17	704	0.9-	0.1+	1999 12 05	704	1.2+	1.1+	2000 02 04	704	0.2-	0.6+
1998 08 17	704	0.7-	0.2+	1999 12 05	704	0.1+	0.1-				
1998 08 17	704	0.8-	0.0	2000 01 05	704	0.4-	1.1-				

2000 AE₁₂₅ = 1995 YF₂₂ = 1998 QJ₆₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	136.46274		(2000.0)		P		Q
n	0.27964143	ω	104.26853		+0.98128519		+0.16890323
a	2.3159813	Ω	246.07460		-0.19105485		+0.91392893
e	0.1452567	i	5.80624		+0.02402944		+0.36906045
P	3.52	H	14.5	G	0.15	U	3

Residuals in seconds of arc

1995 12 17	327	0.3+	0.5-	1998 08 27	704	0.5-	0.5+	2000 02 02	703	0.7+	0.1+
1995 12 17	327	0.4+	0.3-	1998 08 27	704	0.5+	0.4-	2000 02 02	704	0.2-	0.1-
1995 12 17	327	0.0	0.6-	1998 08 27	704	0.5-	0.6-	2000 02 02	703	0.9-	0.1-
1995 12 18	327	0.2-	0.3-	1998 08 27	704	0.5-	0.0	2000 02 02	703	0.3-	0.5-
1995 12 18	327	0.0	0.4+	1998 10 11	699	1.4-	0.5+	2000 02 02	704	0.2-	0.0
1995 12 18	327	0.3-	0.8-	1998 10 11	699	0.5-	0.1+	2000 02 02	703	0.7-	0.5+
1998 06 25	699	0.4+	0.5+	1998 10 11	699	0.3-	0.7+	2000 02 02	704	0.2-	0.3+
1998 06 25	699	0.4+	1.0+	2000 01 05	704	0.2+	0.3+	2000 02 02	704	0.0	0.6+
1998 06 25	699	0.7+	0.4+	2000 01 05	704	0.2+	0.5-	2000 02 02	704	0.4+	0.7+
1998 07 24	566	0.4+	0.5+	2000 01 05	699	0.1-	0.8+	2000 02 04	704	0.5+	1.4+
1998 07 24	566	0.1+	0.5+	2000 01 05	704	0.4-	0.3+	2000 02 04	704	0.0	0.2-
1998 07 24	566	0.0	0.7+	2000 01 05	699	0.2+	0.5+	2000 02 04	704	1.7+	1.3-
1998 08 23	699	0.8-	0.3+	2000 01 05	704	0.1-	0.2+	2000 02 04	704	0.0	0.2+
1998 08 23	699	0.4-	0.1-	2000 01 05	704	0.3-	0.6+	2000 02 04	704	0.0	0.0
1998 08 23	699	0.4-	0.0	2000 01 05	699	0.7+	0.0	2000 02 12	704	0.8+	1.3-
1998 08 24	704	0.0	0.1+	2000 01 07	704	0.3-	0.3+	2000 02 12	704	0.1+	0.5+
1998 08 24	704	0.8+	0.6+	2000 01 07	704	0.1+	0.2-	2000 02 12	704	0.4+	0.1+
1998 08 24	704	0.2-	0.1-	2000 01 07	704	0.1+	1.2+	2000 02 12	704	0.8-	1.6+
1998 08 24	704	0.1-	0.3+	2000 01 07	704	0.1+	0.7+	2000 02 12	704	0.5+	0.5+
1998 08 27	704	0.2+	0.4+	2000 01 07	704	0.2+	0.5+				

2000 AL₁₂₅ = 1998 QZ₈₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	38.95422		(2000.0)		P		Q
n	0.21322055	ω	149.62357		+0.05385850		-0.98034504
a	2.7749171	Ω	296.69717		+0.86810020		+0.13989832
e	0.1415001	i	12.26567		+0.49345852		-0.13911168
P	4.62	H	14.7	G	0.15	U	4

Residuals in seconds of arc

1998 08 24	704	0.7+	1.9-	2000 01 05	704	0.1-	0.0	2000 02 02	704	0.2-	0.2-
1998 08 24	704	0.5+	1.2-	2000 01 05	704	0.1-	1.2-	2000 02 04	704	0.4-	0.3+
1998 08 24	704	0.4-	0.2+	2000 01 05	704	0.8-	1.1+	2000 02 04	704	0.3+	0.7+
1998 08 27	704	0.3+	0.2+	2000 01 05	704	0.4-	0.2+	2000 02 04	704	0.4+	0.8+
1998 08 27	704	0.6+	1.9+	2000 01 07	704	0.7-	0.0	2000 02 04	704	0.7-	1.2

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2000 AP₁₂₅ = 1998 RX₃₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26956494	ω	190.01354	+0.92962940	+0.36680700		
<i>a</i>	2.3733426	Ω	148.39567	-0.33326710	+0.87770642		
<i>e</i>	0.0846547	<i>i</i>	3.85570	-0.15723301	+0.30835704		
<i>P</i>	3.66	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 09 14	704	1.0+	0.9+	2000 01 05	704	0.1-	0.5-	2000 02 03	704	0.9-	0.6-
1998 09 14	704	0.3+	1.3-	2000 01 05	704	1.1+	0.7-	2000 02 05	704	0.1+	0.4+
1998 09 14	704	0.0	0.7-	2000 01 07	704	0.1-	0.6+	2000 02 05	704	0.5+	1.0-
1998 09 14	704	0.6-	0.5+	2000 01 07	704	0.3-	0.0	2000 02 05	704	0.3-	0.3+
1998 09 18	704	0.3-	0.3+	2000 01 07	704	0.0	1.4+	2000 02 05	704	0.2+	0.7-
1998 09 18	704	0.5+	0.0	2000 01 07	704	0.5-	0.2-	2000 02 05	704	0.0	0.2+
1998 09 18	704	0.8+	1.5+	2000 02 03	704	0.5+	0.1-	2000 02 05	704	0.2+	0.5+
1998 09 18	704	1.0-	1.3-	2000 02 03	704	0.2+	0.0	2000 02 05	704	0.6-	1.0+
1998 09 18	704	0.6-	0.0	2000 02 03	704	0.3+	0.5-	2000 02 05	704	0.2-	0.8+
2000 01 05	704	0.0	0.1-	2000 02 03	704	0.1+	1.2-	2000 02 05	704	0.2-	0.5+

2000 AQ₁₂₅ = 1998 SF₂₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.28580831	ω	136.26829	+0.03830463	+0.99545637		
<i>a</i>	2.2825457	Ω	135.71042	-0.94771147	+0.06384917		
<i>e</i>	0.1393178	<i>i</i>	7.17155	-0.31682127	-0.07063920		
<i>P</i>	3.45	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 22	699	0.7-	0.3+	2000 01 07	704	0.3-	0.3+	2000 02 03	704	0.3-	0.6+
1998 09 22	699	0.2+	0.5-	2000 01 07	704	0.4+	0.2+	2000 02 03	704	0.3-	0.1-
1998 09 22	699	0.1-	0.3+	2000 01 07	704	0.5+	0.1+	2000 02 03	704	0.4-	0.5+
1998 09 24	699	0.4+	0.1-	2000 01 07	704	0.1-	0.3-	2000 02 03	704	0.1-	0.7+
1998 09 24	699	0.5-	0.3+	2000 01 07	704	0.6+	1.1-	2000 02 06	704	0.4+	0.1-
1998 09 24	699	0.8+	0.3-	2000 02 02	704	0.6+	0.8+	2000 02 06	704	0.3-	0.0
2000 01 05	704	0.3-	0.4+	2000 02 02	704	0.3-	0.4-	2000 02 06	704	0.8-	0.0
2000 01 05	704	0.4-	0.1-	2000 02 02	704	0.4+	0.3-	2000 02 06	704	1.0+	0.7-
2000 01 05	704	0.2-	0.0	2000 02 02	704	0.1+	1.1-				
2000 01 05	704	0.0	0.4+	2000 02 03	704	0.1-	0.2+				

2000 AS₁₂₅ = 1991 PT₁₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.27792926	ω	92.39561	+0.95871569	-0.27705204		
<i>a</i>	2.3254832	Ω	283.69401	+0.22758603	+0.88266015		
<i>e</i>	0.1542890	<i>i</i>	3.78174	+0.17049579	+0.37967516		
<i>P</i>	3.55	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1991 08 10	809	0.1-	0.1-	2000 01 07	704	0.7+	0.9+	2000 02 03	704	0.2-	0.8-
1991 08 10	809	1.8-	0.3+	2000 01 07	704	0.4+	1.0-	2000 02 03	704	0.5+	0.5+
1991 08 10	809	0.5-	0.1-	2000 01 07	704	0.3+	0.9-	2000 02 03	704	0.6+	0.8+
1991 08 14	809	1.0+	0.1+	2000 01 07	704	0.9+	0.5-	2000 02 03	704	0.3-	0.1+
1991 08 14	809	0.6+	0.1-	2000 01 07	704	0.3+	0.2+	2000 02 06	704	0.5+	0.2-
1991 08 14	809	0.8+	0.0	2000 02 02	704	0.3+	0.0	2000 02 06	704	0.5-	0.3+
2000 01 05	704	0.4-	1.0+	2000 02 02	704	0.5-	0.7-	2000 02 06	704	0.1-	0.2-
2000 01 05	704	0.3+	0.8+	2000 02 02	704	0.1-	0.2-	2000 02 06	704	0.9-	0.2-
2000 01 05	704	1.3-	0.5+	2000 02 02	704	0.2-	0.2+	2000 02 06	704	0.4+	0.5+
2000 01 05	704	0.3-	0.8-	2000 02 02	704	0.1-	0.0				
2000 01 05	704	0.6-	0.2-	2000 02 03	704	0.1+	0.2-				

2000 AU₁₂₅ = 1998 RL₁₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.27264971	ω	271.96804	+0.54103895	-0.83978753		
<i>a</i>	2.3554073	Ω	145.15611	+0.79957714	+0.49703049		
<i>e</i>	0.0515037	<i>i</i>	4.52719	+0.26067847	+0.21844358		
<i>P</i>	3.61	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 23	704	0.1-	0.6-	1998 09 18	704	0.9-	0.3-	2000 01 07	704	0.5+	1.0-
1998 08 23	704	(3.2-	2.3+)	1998 09 18	704	0.1+	0.2-	2000 01 07	704	0.6+	0.5-
1998 08 23	704	0.9-	0.3+	1999 12 07	704	0.8-	1.3+	2000 01 07	704	0.6+	0.5-
1998 08 23	704	0.5-	0.5-	1999 12 07	704	0.0	0.4+	2000 01 07	704	0.4+	0.6-
1998 09 14	704	0.2-	0.1+	1999 12 07	704	0.8+	1.0-	2000 02 02	704	0.1-	0.0
1998 09 14	704	0.5+	0.4+	1999 12 31	699	0.3-	0.3+	2000 02 02	704	0.1-	0.1-
1998 09 14	704	0.9-	0.1+	1999 12 31	699	0.9-	0.0	2000 02 02	704	0.2-	0.3+
1998 09 14	704	0.1-	0.6+	1999 12 31	699	0.8-	0.4+	2000 02 02	704	0.0	0.3+
1998 09 16	699	0.3+	1.4+	2000 01 05	704	0.1-	0.3-	2000 02 02	704	0.1+	0.6+
1998 09 16	699	0.0	0.3+	2000 01 05	704	0.1+	0.2-	2000 02 03	704	0.1-	0.1+
1998 09 16	699	0.3+	1.0+	2000 01 05	704	0.3-	0.3+	2000 02 03	704	0.2-	0.2+
1998 09 18	704	1.5+	1.1-	2000 01 05	704	0.6+	0.4-	2000 02 03	704	0.4-	0.2+
1998 09 18	704	1.1+	0.8-	2000 01 05	704	0.0	0.2+	2000 02 03	704	0.3-	0.4+
1998 09 18	704	0.2-	0.6-	2000 01 07	704	0.7+	0.0				

2000 AW₁₂₅ = 1998 UC₂₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22033386	ω	207.15879	+0.96919704	+0.22644427		
<i>a</i>	2.7148670	Ω	139.37399	-0.19019994	+0.93800594		
<i>e</i>	0.0389888	<i>i</i>	8.55422	-0.15646431	+0.26242686		
<i>P</i>	4.47	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 24	699	0.4-	0.6+	2000 01 13	120	0.3-	0.6+	2000 02 03	704	0.0	0.2+
1998 09 24	699	0.7-	0.1-	2000 01 15	120	0.6-	0.5-	2000 02 03	704	0.0	0.2-
1998 09 24	699	0.8-	0.2-	2000 01 15	120	0.4-	0.6-	2000 02 05	704	0.6+	0.2+
1998 10 17	699	0.2-	0.1-	2000 01 15	120	0.9-	0.3-	2000 02 05	704	0.0	0.3-
1998 10 17	699	0.2-	0.4-	2000 01 16	120	0.9-	0.6-	2000 02 05	704	0.2-	0.5+
1998 10 17	699	0.0	0.1+	2000 01 16	120	0.2-	1.1-	2000 02 05	704	0.0	0.2+
1998 10 20	699	0.7+	0.6-	2000 01 16	120	1.9+	0.6-	2000 02 05	704	0.2-	0.3+
1998 10 20	699	0.8+	0.2-	2000 01 16	120	0.8-	0.4-	2000 02 05	704	0.2-	0.2-
1998 10 20	699	0.2+	0.2+	2000 01 17	120	1.0-	0.4-	2000 02 05	704	0.1-	0.0
1998 11 13	704	1.3+	0.1-	2000 01 30	703	0.2-	0.4+	2000 02 05	704	0.1-	0.5+
1998 11 13	704	(2.5+	1.5-)	2000 01 30	703	0.5-	0.5+	2000 02 05	704	0.3+	0.0
1998 11 13	704	0.8-	1.0+	2000 01 30	703	0.7-	0.2+	2000 02 05	704	0.3-	0.2+
1998 11 13	704	(0.4+	2.1+)	2000 01 30	703	0.5+	0.2+	2000 02 05	704	0.3-	0.2+
1998 11 13	704	(3.2-	1.4-)	2000 02 02	704	0.8+	0.2+	2000 02 05	704	0.4-	0.0
2000 01 05	704	1.4+	1.8+	2000 02 02	704	0.1+	0.6+	2000 02 05	704	0.0	0.3-
2000 01 05	704	0.0	0.1+	2000 02 02	704	0.1-	0.1+	2000 02 05	704	0.4-	0.5-
2000 01 05	704	0.4+	0.1-	2000 02 02	704	0.1+	0.2+	2000 02 05	704	0.1+	0.3+
2000 01 05	704	0.2+	0.1+	2000 02 02	704	0.2+	0.6-	2000 02 05	704	0.4-	0.1-
2000 01 05	704	0.1+	0.0	2000 02 02	704	0.2+	0.4+	2000 02 05	704	0.1+	0.7-
2000 01 07	704	0.2+	0.4-	2000 02 02	704	0.1-	0.1-	2000 02 05	704	0.1-	0.7-
2000 01 07	704	0.3+	0.5-	2000 02 02	704	1.4+	1.1+	2000 02 05	704	0.3-	0.1-
2000 01 07	704	0.6+	0.5-	2000 02 02	704	0.4-	0.5-	2000 02 05	704	0.5-	0.3+
2000 01 07	704	0.8+	0.2-	2000 02 02	704	0.7+	0.7+	2000 02 06	704	0.2-	0.2+
2000 01 07	704	0.7+	0.0	2000 02 03	704	0.1+	0.6+	2000 02 06	704	0.1+	0.2+
2000 01 12	120	0.0	0.4-	2000 02 03	704	0.1+	0.2+	2000 02 06	704	0.0	0.1+
2000 01 12	120	0.6-	0.2+	2000 02 03	704	0.2-	0.4-	2000 02 06	704	0.1-	0.2-

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2000 FEB. 22

2000 AA₁₂₆ = 1981 UP₆ = 1998 RJ₆₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	56.20208		(2000.0)	P		Q	
<i>n</i>	0.22716155	ω	225.56789	+0.24681215		−0.96875659	
<i>a</i>	2.6601911	Ω	210.16814	+0.90231041		+0.23891414	
<i>e</i>	0.0610122	<i>i</i>	2.78081	+0.35343978		+0.06656349	
<i>P</i>	4.34	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1981 10 30	381	0.5−	0.7−	1998 09 27	704	0.1+	0.4+	2000 02 02	704	0.5+	0.6−
1981 10 30	381	0.5+	0.3+	1998 09 27	704	0.3−	1.1−	2000 02 04	704	0.2−	0.6−
1998 09 14	704	0.7−	0.2−	1998 10 14	699	0.4−	0.0	2000 02 04	704	0.1+	0.0
1998 09 14	704	1.4−	1.2−	1998 10 14	699	1.0+	0.1+	2000 02 04	704	0.0	0.4+
1998 09 14	704	1.6−	1.0+	1998 10 14	699	0.7+	0.6−	2000 02 04	704	0.4+	0.3+
1998 09 15	699	0.1−	0.0	2000 01 05	704	0.7−	0.9−	2000 02 05	704	0.1+	0.3−
1998 09 15	699	1.0+	0.1−	2000 01 05	704	0.1+	0.7−	2000 02 05	704	0.1+	0.0
1998 09 15	699	0.3+	0.4+	2000 01 05	704	1.1−	0.0	2000 02 05	704	0.9+	0.9+
1998 09 18	704	0.3+	1.2+	2000 01 05	704	0.4−	1.1−	2000 02 05	704	0.0	0.6+
1998 09 18	704	0.6−	0.9+	2000 01 07	704	0.0	0.2−	2000 02 05	704	0.7+	0.1−
1998 09 18	704	0.1−	0.6+	2000 01 07	704	1.4−	0.2+	2000 02 06	704	0.2−	0.1+
1998 09 18	704	0.0	0.9+	2000 01 07	704	0.8−	0.5+	2000 02 06	704	0.3−	0.4+
1998 09 18	704	0.2−	0.9+	2000 01 07	704	0.2−	1.5+	2000 02 06	704	0.1+	0.1+
1998 09 26	704	0.6+	0.5+	2000 01 30	703	0.3+	0.4−	2000 02 06	704	0.6−	0.2−
1998 09 26	704	0.7−	0.5−	2000 01 30	703	0.5+	0.1+	2000 02 06	704	0.3+	0.9+
1998 09 26	704	0.4+	1.0−	2000 01 30	703	0.6−	0.0	2000 02 08	704	0.2+	0.0
1998 09 26	704	0.4+	0.7−	2000 01 30	703	0.4−	0.4−	2000 02 08	704	0.6+	0.0
1998 09 26	704	0.4+	0.2−	2000 02 02	704	0.5+	0.0	2000 02 08	704	0.4+	0.3+
1998 09 27	704	0.4−	0.1−	2000 02 02	704	0.2+	0.6−	2000 02 08	704	0.5+	0.7+
1998 09 27	704	0.3+	0.3−	2000 02 02	704	0.2+	0.5−	2000 02 08	704	0.1+	0.4+
1998 09 27	704	0.5+	0.0	2000 02 02	704	0.1+	0.1−				

2000 AL₁₂₆ = 1994 LG₇

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	107.50055		(2000.0)	P		Q	
<i>n</i>	0.27805537	ω	122.45173	+0.94466519		−0.31465446	
<i>a</i>	2.3247800	Ω	256.03214	+0.25965467		+0.89000531	
<i>e</i>	0.1213150	<i>i</i>	5.48374	+0.20046730		+0.32997442	
<i>P</i>	3.54	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1994 06 03	809	0.7+	0.5+	1998 09 15	699	0.9−	0.2−	2000 01 07	704	0.1−	1.3−
1994 06 03	809	0.9+	1.2+	2000 01 05	704	0.3+	1.2−	2000 02 02	704	0.2+	0.4+
1994 06 03	809	0.3+	0.3+	2000 01 05	699	0.3−	0.6+	2000 02 02	704	0.1−	0.1+
1994 06 04	809	0.1+	0.2−	2000 01 05	704	0.6−	0.4−	2000 02 02	704	0.1−	0.7+
1994 06 04	809	0.9−	0.7+	2000 01 05	704	0.6−	0.6+	2000 02 02	704	0.2+	0.2+
1994 06 04	809	0.9−	0.5+	2000 01 05	699	0.8+	0.1+	2000 02 02	704	0.3+	0.5+
1995 12 21	566	0.5−	0.7+	2000 01 05	699	0.8+	0.1+	2000 02 04	704	0.1−	0.6−
1995 12 21	566	0.1+	0.9+	2000 01 05	704	0.3+	0.1+	2000 02 04	704	0.1+	0.3+
1995 12 21	566	0.0	0.8+	2000 01 07	704	0.1+	0.8+	2000 02 04	704	0.1+	0.0
1998 09 15	699	0.0	1.2+	2000 01 07	704	0.3−	0.2+	2000 02 04	704	0.6−	0.2+
1998 09 15	699	0.3+	0.2+	2000 01 07	704	0.3+	0.0				

2000 AP₁₂₆ = 1931 VK = 1989 EW₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	198.84553		(2000.0)	P		Q	
<i>n</i>	0.17746266	ω	1.91777	+0.49042002		+0.85299432	
<i>a</i>	3.1361589	Ω	297.49038	−0.80222877		+0.36181487	
<i>e</i>	0.0323117	<i>i</i>	11.61324	−0.34046616		+0.37615249	
<i>P</i>	5.55	<i>H</i>	12.3	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1931 11 03	024	0.4+	0.6−	1999 11 05	703	1.2+	0.1+	2000 01 07	704	0.6+	0.1+
1931 11 13	024	(5.8−	2.2−)	1999 11 16	704	1.2−	0.1−	2000 01 07	704	0.6+	0.3+
1989 03 02	809	1.1−	0.8−	1999 11 16	704	0.3+	0.4+	2000 02 02	704	0.6+	0.6+

1989 03 02	809	(2.9−	0.5−)	1999 11 16	704	0.4+	0.4+	2000 02 02	704	0.2+	1.5+
1989 03 02	809	1.9−	0.8−	1999 11 16	704	0.1−	0.0	2000 02 02	704	0.4+	0.8+
1989 03 03	809	0.1+	1.6−	1999 11 16	704	0.1+	0.7−	2000 02 02	704	0.7+	0.9+
1989 03 03	809	0.0	1.3−	1999 12 06	704	0.5+	0.4+	2000 02 02	704	0.3+	1.0+
1989 03 03	809	1.1−	0.5−	1999 12 06	704	0.0	1.3−	2000 02 04	704	0.2+	0.5+
1998 12 14	704	0.1+	0.4+	1999 12 06	704	0.5+	1.1−	2000 02 04	704	0.0	0.4+
1998 12 14	704	0.2+	0.3−	1999 12 06	704	0.1+	0.5−	2000 02 04	704	0.4+	0.1+
1998 12 14	704	0.6−	1.0−	1999 12 06	704	0.2+	0.3−	2000 02 04	704	0.1−	0.2+
1998 12 14	704	0.6−	0.8−	2000 01 05	704	0.6−	0.2+	2000 02 08	704	0.6−	0.0
1998 12 14	704	0.6+	1.2−	2000 01 05	704	0.2−	0.4+	2000 02 08	704	0.2+	0.5−
1999 01 06	699	0.3−	0.2+	2000 01 05	704	0.1−	0.2+	2000 02 08	704	0.2−	0.0
1999 01 06	699	0.5+	1.7+	2000 01 05	704	0.1−	0.1+	2000 02 08	704	0.3−	0.4−
1999 01 06	699	0.3−	0.4+	2000 01 05	704	0.6−	0.3−	2000 02 08	704	0.0	0.5−
1999 11 05	703	0.9−	0.6+	2000 01 07	704	0.3+	0.2−	2000 02 13	106	0.4+	0.6+
1999 11 05	703	0.4−	0.1+	2000 01 07	704	0.6+	0.1+	2000 02 13	106	0.1+	0.2+
1999 11 05	703	0.7−	0.8+	2000 01 07	704	0.6+	0.0	2000 02 13	106	0.6+	0.5−

2000 AQ₁₂₆ = 1998 MD₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	108.83059		(2000.0)	P		Q	
<i>n</i>	0.27467086	ω	95.55486	+0.97602701		−0.20842567	
<i>a</i>	2.3438383	Ω	276.48647	+0.16621768		+0.89974441	
<i>e</i>	0.1669049	<i>i</i>	3.61741	+0.14050966		+0.38343024	
<i>P</i>	3.59	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 06 21	691	0.3+	0.2−	1999 11 16	704	1.5+	0.0	2000 01 30	703	0.5−	0.6+
1998 06 21	691	0.4+	0.1−	1999 11 16	704	0.4−	0.4+	2000 01 30	703	0.5−	0.8+
1998 06 21	691	0.2+	0.0	1999 11 16	704	0.4−	0.5+	2000 01 30	703	0.8+	0.4−
1998 06 24	699	0.0	0.9+	2000 01 05	704	0.7−	0.4+	2000 02 02	704	0.7+	0.4+
1998 06 24	699	0.7+	0.8+	2000 01 05	704	0.1+	0.0	2000 02 02	704	0.1−	0.4+
1998 06 24	699	0.1−	0.4+	2000 01 05	704	1.1−	0.1+	2000 02 02	704	0.1−	0.3+
1998 06 25	691	0.1−	0.2+	2000 01 05	704	0.0	0.2+	2000 02 02	704	0.3+	0.0
1998 06 25	691	0.1−	0.1+	2000 01 05	704	0.1−	0.2+	2000 02 02	704	0.3+	0.3−
1998 06 25	691	0.1−	0.2+	2000 01 07	704	0.2−	0.1+	2000 02 04	704	0.8+	0.6−
1998 08 17	704	0.6−	0.1+	2000 01 07	704	0.1−	0.1+	2000 02 04	704	0.1+	0.4−
1998 08 17	704	1.3+	0.1+	2000 01 07	704	0.1+	0.3+	2000 02 04	704	0.4+	0.0
1998 08 17	704	0.9−	0.0	2000 01 07	704	0.6+	0.7+	2000 02 04	704	0.4+	0.5−
1998 08 17	704	0.6−	0.9+	2000 01 07	704	0.2−	0.7+				
1998 08 17	704	1.5−	1.0+	2000 01 30	703	0.1+	0.9+				

2000 AS₁₂₆ = 1998 US₄₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	268.95211		(2000.0)	P		Q	
<i>n</i>	0.21382907	ω	312.13727	−0.62354126		+0.78066212	
<i>a</i>	2.7696499	Ω	279.23896	−0.70414682		−0.58413786	
<i>e</i>	0.0173528	<i>i</i>	2.43807	−0.33966683		−0.22214775	
<i>P</i>	4.61	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 10 19	699	0.0	0.1−	2000 01 12	120	0.6+	0.5+	2000 02 03	704	0.2+	0.2+
1998 10 19	699	0.3+	0.2−	2000 01 12	120	0.2+	1.0−	2000 02 03	704	1.0+	0.8−
1998 10 19	699	1.5+	0.5+	2000 01 15	120	0.0	0.8+	2000 02 03	704	0.1−	0.4−
1998 10 24	691	0.5−	0.1+	2000 01 15	120	1.5−	0.1−	2000 02 03	704	0.6+	0.5−
1998 10 24	691	0.6−	0.2−	2000 01 15	120	0.4+	0.1+	2000 02 03	704	0.2+	0.2+
1998 10 24	691	0.6−	0.3−	2000 01 30	703	0.9−	0.2+	2000 02 03	704	0.3+	0.4−
1998 11 10	704	0.1+	0.2+	2000 01 30	703	1.2−	1.1+	2000 02 03	704	0.1−	

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2000 01 07	704	0.2+	0.3-	2000 02 02	704	0.2+	0.0	2000 02 05	704	0.9-	0.1+
2000 01 07	704	0.2-	0.2-	2000 02 02	704	0.3+	0.1+	2000 02 05	704	0.4-	0.2+
2000 01 07	704	0.8+	0.4+	2000 02 02	704	0.2-	0.6-	2000 02 06	704	0.4+	0.3+
2000 01 07	704	0.4-	0.2+	2000 02 02	704	0.1-	0.4+	2000 02 06	704	0.5+	0.1-
2000 01 11	120	1.9+	1.0-	2000 02 02	704	0.1-	0.2-	2000 02 06	704	0.1+	0.0
2000 01 12	120	1.3-	0.4-	2000 02 02	704	0.6+	0.8+	2000 02 06	704	0.4+	0.5+
2000 01 12	120	0.4-	0.4-	2000 02 02	704	1.0-	0.9-				

2000 AV₁₂₆ = 1997 GS₃₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	249.56624		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.27672375	ω	124.25743	-0.06371517	+0.99585377
a	2.3322320	Ω	141.92682	-0.94674576	-0.03974105
e	0.1762674	i	6.04379	-0.31561503	-0.08182858
P	3.56	H	14.3	G 0.15	U 4

Residuals in seconds of arc

1994 08 12	809	0.0	1.3+	2000 01 30	703	0.1-	1.0+	2000 02 03	704	0.4+	0.1+
1994 08 12	809	0.6-	1.6+	2000 01 30	703	0.5-	0.0	2000 02 03	704	0.0	0.1-
1994 08 12	809	0.8-	1.6+	2000 01 31	704	0.5+	0.3+	2000 02 03	704	0.5+	0.2-
1997 04 07	809	0.7+	0.5-	2000 01 31	704	0.2+	0.6+	2000 02 03	704	0.2+	0.1+
1997 04 07	809	0.9+	0.2-	2000 01 31	704	0.8+	0.9+	2000 02 03	704	1.0+	0.1+
1997 04 07	809	1.1+	0.1+	2000 01 31	704	0.7-	0.6+	2000 02 03	704	0.5+	0.2+
1997 04 08	809	0.2-	0.5+	2000 01 31	704	0.4+	1.1+	2000 02 03	704	0.5+	0.2-
1997 04 08	809	0.8-	0.7+	2000 01 31	704	0.5-	1.7+	2000 02 03	704	0.5+	0.6+
1997 04 08	809	1.5-	0.6+	2000 01 31	704	0.9-	1.1+	2000 02 03	704	0.5+	0.1+
2000 01 05	704	0.3-	0.6-	2000 02 01	691	0.1-	0.3-	2000 02 05	704	0.0	0.1+
2000 01 05	704	0.1-	1.0-	2000 02 01	691	0.1+	0.3-	2000 02 05	704	0.2+	0.1+
2000 01 05	704	0.7-	0.4-	2000 02 01	691	0.2+	0.3-	2000 02 05	704	0.8+	0.5-
2000 01 05	704	0.8-	0.7-	2000 02 02	704	0.4+	0.5+	2000 02 05	704	0.2+	0.1-
2000 01 05	704	0.6-	1.0-	2000 02 02	704	0.3+	0.0	2000 02 05	704	0.3+	0.2+
2000 01 07	704	1.0-	0.0	2000 02 02	704	0.4+	0.3+	2000 02 05	704	0.4+	0.0
2000 01 07	704	1.0-	1.0-	2000 02 02	704	0.2+	0.3+	2000 02 05	704	(2.1+	0.4+)
2000 01 07	704	1.0-	0.3+	2000 02 02	704	0.6+	0.3+	2000 02 05	704	0.3+	0.2-
2000 01 07	704	1.1-	0.9-	2000 02 02	704	0.3+	0.2-	2000 02 05	704	1.6+	0.7+
2000 01 09	704	1.1-	0.3+	2000 02 02	704	0.0	0.0	2000 02 05	704	0.3+	0.3+
2000 01 09	704	0.4-	0.6+	2000 02 02	704	0.9+	1.1-	2000 02 06	704	0.2+	0.4-
2000 01 09	704	1.6-	1.8+	2000 02 02	704	1.1-	0.5-	2000 02 06	704	0.3+	0.7-
2000 01 30	703	0.9-	0.1+	2000 02 02	704	0.5+	1.0-	2000 02 06	704	0.4+	0.4+
2000 01 30	703	0.3-	0.7+	2000 02 03	704	0.1-	0.6+				

2000 AZ₁₂₆ = 1993 TL₄₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	153.58694		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.20996309	ω	40.04393	+0.91610317	+0.38079235
a	2.8035442	Ω	297.15066	-0.39440893	+0.79960256
e	0.1665814	i	8.10861	-0.07208734	+0.46436293
P	4.69	H	12.4	G 0.15	U 4

Residuals in seconds of arc

1993 09 22	675	0.0	0.0	2000 01 07	704	0.1+	0.2-	2000 02 06	704	0.1+	0.1+
1993 09 22	675	0.6-	0.2+	2000 01 07	704	0.2-	0.4-	2000 02 06	704	0.1+	0.3+
1993 10 10	095	1.0+	0.4-	2000 02 02	704	0.4-	0.2+	2000 02 08	704	0.6-	0.3-
1993 10 10	095	0.4-	0.3+	2000 02 02	704	0.2-	0.1-	2000 02 08	704	0.5-	0.1+
1993 10 13	095	(0.9-	3.9+)	2000 02 02	704	0.3+	0.0	2000 02 08	704	0.2-	0.1+
2000 01 05	704	1.3+	0.4-	2000 02 02	704	0.0	0.3+	2000 02 08	704	0.2-	0.6+
2000 01 05	704	0.2+	0.3-	2000 02 02	704	0.2+	0.3+	2000 02 08	704	0.1+	0.3+
2000 01 05	704	0.6+	0.1+	2000 02 04	704	0.3+	0.4+	2000 02 11	704	0.3-	0.5-
2000 01 05	704	0.3+	0.2+	2000 02 04	704	0.3+	0.3+	2000 02 11	704	0.8-	0.1+
2000 01 05	704	0.5+	0.3-	2000 02 04	704	0.2+	0.6+	2000 02 11	704	0.3-	0.3+
2000 01 07	704	0.3+	0.4-	2000 02 06	704	0.1-	0.2-	2000 02 11	704	0.5-	0.7+
2000 01 07	704	0.2+	0.5-	2000 02 06	704	0.3-	0.3-	2000 02 13	106	0.4-	0.4-
2000 01 07	704	0.2+	0.2+	2000 02 06	704	0.0	0.2-	2000 02 13	106	0.1-	0.7-

2000 AA₁₂₇ = 1988 VT₅ = 1990 DS₅ = 1998 VY₂₀Id. G. V. Williams; 1998 VY₂₀ = 1997 NV₁ (*MPC* 33319) is invalid

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	129.13422		(2000.0)	P	Q
n	0.19652352	ω	162.66567	+0.99997160	+0.00229537
a	2.9299465	Ω	197.20758	-0.00482846	+0.92644674
e	0.1117559	i	1.39035	+0.00578613	+0.37641887
P	5.02	H	12.8	G 0.15	U 1

Residuals in seconds of arc

1988 11 04	046	(0.0	6.4-)	1998 11 11	704	1.4-	0.5+	2000 01 12	120	1.0-	0.2-
1988 11 04	046	(1.1-	3.9-)	1998 11 24	699	0.1+	0.9+	2000 01 12	120	0.3+	0.1-
1988 11 05	046	(2.2+	6.8-)	1998 11 24	699	0.3+	0.3+	2000 01 12	120	0.6+	0.4+
1988 11 05	046	(1.2+	4.0-)	1998 11 24	699	0.8+	0.3+	2000 01 12	120	0.7+	0.5+
1988 11 12	046	0.0	1.8-	1998 11 25	691	0.0	0.2-	2000 01 30	703	0.3+	0.7+
1988 11 12	046	0.8+	1.9-	1998 11 25	691	0.0	0.2-	2000 01 30	703	0.1+	0.6+
1990 02 23	033	0.1-	0.1+	1998 11 25	691	0.0	0.3-	2000 01 30	703	0.0	0.7+
1990 02 23	033	0.1+	0.3+	1999 01 06	699	0.2-	0.5+	2000 01 30	703	0.4+	0.8+
1996 03 19	566	(2.9+	3.9-)	1999 01 06	699	0.2-	0.6-	2000 01 31	704	0.1-	0.2+
1996 03 19	566	(2.3+	4.1-)	1999 01 06	699	0.4-	0.4+	2000 01 31	704	0.0	0.5+
1996 03 19	566	(2.8+	3.5-)	1999 01 11	704	0.4+	1.4-	2000 01 31	704	0.2+	0.2+
1997 07 11	292	0.1+	0.7-	1999 01 11	704	1.8+	1.4+	2000 01 31	704	0.2+	0.1+
1997 07 11	292	(2.6-	2.4+)	1999 01 11	704	(2.1+	0.1-)	2000 02 02	704	0.0	0.1+
1997 07 11	292	(2.3-	0.2+)	1999 01 11	704	(2.6+	0.5+)	2000 02 02	704	0.1-	0.4+
1998 09 29	910	0.7+	0.1-	1999 01 11	704	(2.4+	1.2+)	2000 02 02	704	0.2-	0.1+
1998 09 29	910	0.7+	0.1-	2000 01 05	704	0.1-	0.5-	2000 02 02	704	0.2-	0.4+
1998 09 29	910	0.8+	0.1-	2000 01 05	704	0.5-	0.3-	2000 02 02	704	0.3-	0.2-
1998 10 18	699	0.1-	0.9+	2000 01 05	704	0.1+	0.7-	2000 02 03	704	0.2+	0.4+
1998 10 18	699	0.0	0.9+	2000 01 05	704	0.1-	0.8-	2000 02 03	704	0.1+	0.3+
1998 10 18	699	(3.4-	1.0+)	2000 01 05	704	0.3-	1.0-	2000 02 03	704	0.2+	0.1+
1998 11 10	704	0.1-	0.8+	2000 01 07	704	0.4+	0.5-	2000 02 03	704	0.1+	0.4+
1998 11 10	704	0.4+	0.3-	2000 01 07	704	0.0	0.5-	2000 02 03	704	0.0	0.3+
1998 11 10	704	0.4-	0.2+	2000 01 07	704	0.3+	0.7-	2000 02 07	691	0.4-	0.2-
1998 11 10	704	1.2-	0.6+	2000 01 07	704	0.0	0.8-	2000 02 07	691	0.6-	0.3-
1998 11 11	704	0.6-	0.2+	2000 01 07	704	0.0	0.5-	2000 02 07	691	0.9-	0.1-
1998 11 11	704	0.5-	0.3-	2000 01 09	704	0.2-	0.6-	2000 02 13	106	0.3+	0.2+
1998 11 11	704	0.6-	0.2-	2000 01 09	704	0.2+	1.1-	2000 02 13	106	0.2-	0.4+
1998 11 11	704	0.8-	0.1+	2000 01 09	704	0.5+	0.0	2000 02 13	106	0.3-	0.0

2000 AB₁₂₇ = 1990 ER

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	348.14334		(2000.0)	P	Q
n	0.19076147	ω	206.65332	-0.88233926	-0.45055664
a	2.9886538	Ω	305.90646	+0.45616476	-0.74777824
e	0.0503260	i	9.66087	+0.11572009	-0.48767450
P	5.17	H	13.1	G 0.15	U 3

Residuals in seconds of arc

1990 02 24	809	(3.2+	2.8-)	1999 11 10	703	0.2+	0.5-	2000 01 07	704	0.2+	0.8-
1990 02 24	809	(2.8+	2.4-)	1999 11 10	703	0.8+	0.5+	2000 02 02	704	0.3+	0.7+
1990 02 24	809	(2.2+	2.8-)	1999 11 10	703	1.1+	0.1-	2000 02 02	704	0.2-	0.8+
1990 03 02	809	0.5-	0.5-	1999 11 10	703	1.1+	1.3+	2000 02 02	704	0.6+	0.9+
1990 03 02	809	0.5-	0.1-	1999 11 16	704	0.6+	0.1+	2000 02 02	704	0.0	0.7+
1990 03 02	809	1.5-	0.8-	1999 11 16	704	0.7+	0.5+	2000 02 02	704	0.1+	0.9+
1990 03 04	809	0.5-	1.4-	1999 11 16	704	0.2-	0.4-	2000 02 04	704	0.6-	0.3+
1990 03 04	809	0.3-	1.6-	1999 11 16	704	0.4+	0.5-	2000 02 04	704	0.2+	1.0+
1990 03 04	809	0.0	1.6-	1999 11 16	704	1.1-	0.5-	2000 02 04	704	0.6-	0.4+
1998 11 14	704	1.0+	0.4-	2000 01 05	704	0.6-	0.8-	2000 02 04	704	0.0	0.3+
1998 11 14	704	0.3-	0.1+	2000 01 05	704	0.3+	0.1-	2000 02 04	704	0.8+	0.9+
1998 11 14	704	0.7+	0.6-	2000 01 05	704	0.0	0.2-	2000 02 11	704	0.4+	0.8+
1998 11 14	704	1.4+	1.6-	2000 01 05	704	0.0	0.6-	2000 02 11	704	0.1+	0.7+
1998 11 16	704	0.4+	1.0-	2000 01 05	704	0.1-	0.5-	2000 02 11	704	0.2+	0.1+
1998 11 16	704	0.5+	0.9+	2000 01 07	704	0.2-	0.6-	2000 02 11	704	0.5+	0.4+
1998 11 16	704	1.6-	0.9-	2000 01 07	704	0.9-	0.7-	2000 02 11	704	0.2+	0.6+
1998 11 16	704	1.0-	0.3-	2000 01 07	704	0.3-	0.6-				

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	147.74262	(2000.0)	P	Q
<i>n</i>	0.18385444	ω 51.94621	+0.95040886	+0.24047441
<i>a</i>	3.0630445	Ω 293.35804	−0.30672787	+0.82956032
<i>e</i>	0.1043678	<i>i</i> 12.40521	+0.05139084	+0.50398584
<i>P</i>	5.36	<i>H</i> 12.4	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1986 07 04	675	(7.4+ 1.9−)	1999 01 06	699	0.1−	0.7+	2000 01 05	699	0.1−	0.1−
1986 07 06	413	1.0− 0.4−	1999 12 06	704	0.0	0.2+	2000 01 07	704	0.4+	0.1+
1986 07 06	413	1.3+ 0.3−	1999 12 06	704	1.0+	0.3+	2000 01 07	704	0.3−	0.1−
1997 09 01	566	0.5− 1.0+	1999 12 06	704	0.8+	0.4−	2000 01 07	704	0.2−	0.1+
1997 09 01	566	0.5− 1.5+	1999 12 06	704	0.7+	0.3+	2000 01 07	704	0.1−	1.2+
1997 09 01	566	0.7− 0.9+	1999 12 06	704	0.0	0.9−	2000 02 02	704	0.3+	0.0
1998 12 14	704	0.4− 0.1−	2000 01 05	704	0.6−	0.3+	2000 02 02	704	0.4+	0.1+
1998 12 14	704	0.3− 0.7−	2000 01 05	699	0.1+	1.4+	2000 02 02	704	0.1+	0.3−
1998 12 14	704	0.3− 0.6−	2000 01 05	704	0.5−	0.4−	2000 02 02	704	0.6+	0.5−
1998 12 14	704	0.2− 1.2−	2000 01 05	704	0.6−	0.7+	2000 02 02	704	0.2+	0.5−
1998 12 14	704	1.1+ 0.2+	2000 01 05	699	0.8+	0.3+	2000 02 04	704	0.5+	0.2+
1999 01 06	699	0.7+ 0.1−	2000 01 05	704	0.6−	0.5−	2000 02 04	704	0.0	0.8+
1999 01 06	699	0.6− 0.8+	2000 01 05	704	1.0−	0.4+	2000 02 04	704	0.3+	0.4+

2000 AM₁₂₇ = 1990 SK₁₀ = 1993 HY₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	274.30391	(2000.0)	P	Q
<i>n</i>	0.26325122	ω 106.81761	−0.37888909	+0.91654406
<i>a</i>	2.4111402	Ω 140.14972	−0.90682203	−0.34008548
<i>e</i>	0.1848536	<i>i</i> 11.52481	−0.18470750	−0.21044918
<i>P</i>	3.74	<i>H</i> 13.7	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1990 09 17	675	0.5+ 0.3−	2000 01 05	699	0.6+	0.6+	2000 01 30	703	0.4+	0.1+
1990 09 17	675	0.3+ 0.1−	2000 01 05	704	0.3+	0.3+	2000 02 01	703	0.2+	0.1−
1993 04 23	675	0.5− 1.2+	2000 01 05	704	0.6+	0.7−	2000 02 01	703	0.1+	0.4−
1993 04 23	675	0.9+ 0.1+	2000 01 05	699	0.1−	0.9+	2000 02 01	703	0.0	0.3+
1993 04 26	675	0.1+ 0.7+	2000 01 05	704	0.4+	0.2+	2000 02 01	703	0.2−	0.2−
1993 04 26	675	0.5− 0.1+	2000 01 05	699	0.8+	0.3+	2000 02 07	691	0.3−	0.5−
1998 11 13	704	0.3+ 0.0	2000 01 05	704	0.1−	0.3+	2000 02 07	691	0.3−	0.6−
1998 11 13	704	0.4+ 0.4−	2000 01 07	704	0.2+	0.2−	2000 02 07	691	0.3−	0.5−
1998 11 13	704	0.3− 1.0−	2000 01 07	704	0.7−	0.1+	2000 02 11	704	0.0	0.3−
1998 11 13	704	1.1− 1.0+	2000 01 07	704	0.0	0.2+	2000 02 11	704	0.2+	0.0
1998 11 19	699	0.5− 1.2+	2000 01 07	704	0.4−	0.2−	2000 02 11	704	0.2−	0.4−
1998 11 19	699	0.2− 1.0+	2000 01 30	703	0.1+	0.1+	2000 02 11	704	0.1+	0.2+
1998 11 19	699	0.4− 0.6+	2000 01 30	703	0.2−	0.5+	2000 02 11	704	0.0	0.1+
2000 01 05	704	0.2− 1.0−	2000 01 30	703	0.0	0.0				

2000 AQ₁₂₇ = 1949 OB₁ = 1987 DK₂ = 1998 XP₃₀

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	250.72293	(2000.0)	P	Q
<i>n</i>	0.22646035	ω 337.86517	−0.01939742	+0.99813234
<i>a</i>	2.6656795	Ω 290.98453	−0.90775996	−0.04186499
<i>e</i>	0.2167989	<i>i</i> 3.55703	−0.41904128	+0.04448766
<i>P</i>	4.35	<i>H</i> 13.0	<i>G</i> 0.15	<i>U</i> 2

Residuals in seconds of arc

1949 07 30	024	0.6− 1.6+	1998 12 17	704	1.3−	0.4+	2000 01 12	120	0.2+	0.3−
1987 02 23	010	0.2− 0.5−	1998 12 17	704	0.7−	1.1+	2000 01 12	120	0.4+	0.5−
1987 02 23	010	1.0− 0.4−	2000 01 05	704	0.7−	0.0	2000 01 12	120	1.9−	0.0
1987 02 23	010	0.6+ 0.1+	2000 01 05	704	0.8−	0.1+	2000 01 30	703	0.0	0.7+
1998 11 24	704	1.4+ 1.5+	2000 01 05	704	0.1−	0.5+	2000 01 30	703	1.0+	1.1+
1998 11 24	704	0.3− 0.8+	2000 01 05	704	0.1−	0.2−	2000 01 30	703	0.1−	0.9+
1998 11 24	704	0.7+ 1.2−	2000 01 05	704	0.1+	0.4+	2000 01 30	703	0.3+	0.8+
1998 11 24	704	1.0+ 0.7−	2000 01 07	704	0.6+	0.2−	2000 02 02	704	0.1−	0.8+
1998 11 24	704	1.3+ 0.0	2000 01 07	704	0.1−	0.3−	2000 02 02	704	0.0	0.7+

1998 12 14	704	0.8+ 0.5−	2000 01 07	704	0.0	0.7−	2000 02 02	704	0.0	0.7+
1998 12 14	704	1.1− 0.4−	2000 01 07	704	0.1−	0.9−	2000 02 02	704	1.5+	0.1+
1998 12 14	704	1.1+ 0.2−	2000 01 07	704	0.2+	1.1−	2000 02 04	704	0.1+	0.2+
1998 12 14	704	0.4− 0.1−	2000 01 09	704	0.9−	1.0−	2000 02 04	704	0.5+	0.6+
1998 12 17	704	1.6− 0.3−	2000 01 09	704	0.5+	1.0−	2000 02 04	704	0.1−	0.5+
1998 12 17	704	1.7− 0.1−	2000 01 09	704	0.3+	0.9−	2000 02 04	704	0.1+	1.5+
1998 12 17	704	0.5+ 0.0	2000 01 12	120	(2.6− 0.0)					

2000 AR₁₂₇ = 1976 UB₆ = 1997 GO₄₂ = 1998 VA₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	225.98142	(2000.0)	P	Q
<i>n</i>	0.27013309	ω 87.35331	+0.25911512	+0.96579024
<i>a</i>	2.3700137	Ω 197.67485	−0.89922535	+0.23729079
<i>e</i>	0.1541303	<i>i</i> 1.96675	−0.35249557	+0.10460546
<i>P</i>	3.65	<i>H</i> 14.2	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1976 10 22	381	0.1−	0.6+	2000 01 05	704	0.3−	0.2−	2000 02 05	704	0.4+	0.2−
1976 10 22	381	0.1−	0.2+	2000 01 05	704	0.8+	1.4+	2000 02 05	704	1.7+	0.3+
1997 04 11	809	(1.5+	2.2+)	2000 01 05	704	0.0	0.7+	2000 02 06	704	0.4−	0.3+
1997 04 11	809	(1.9+	2.4+)	2000 01 07	704	1.1−	0.9−	2000 02 06	704	0.4+	0.6−
1997 04 11	809	1.4+	1.5+	2000 01 07	704	0.5−	0.5+	2000 02 06	704	(2.7−	1.9−)
1997 04 12	809	(0.8+	2.4+)	2000 01 07	704	0.3+	0.8+	2000 02 06	704	0.2−	0.9−
1997 04 12	809	0.4−	1.9+	2000 01 07	704	0.6−	0.1−	2000 02 06	704	0.2−	0.4−
1997 04 12	809	(0.1+	2.8+)	2000 01 07	704	1.0−	0.7+	2000 02 08	704	0.1−	0.2−
1998 11 10	704	0.1+	0.2+	2000 02 01	703	0.1+	0.6−	2000 02 08	704	0.1−	0.5−
1998 11 10	704	0.1+	0.5−	2000 02 01	703	0.2−	0.1+	2000 02 08	704	0.2−	0.3−
1998 11 10	704	0.1−	0.0	2000 02 01	703	0.2−	0.1−	2000 02 08	704	0.0	0.2−
1998 11 10	704	1.1−	0.5−	2000 02 01	703	0.3−	0.0	2000 02 08	704	0.0	0.5−
1998 11 10	704	0.5−	0.2−	2000 02 02	704	0.2−	0.9+	2000 02 10	704	0.3−	0.6+
1998 11 11	704	0.3−	0.1−	2000 02 02	704	0.8+	0.5+	2000 02 10	704	0.2+	0.3−
1998 11 11	704	0.2+	0.2+	2000 02 02	704	0.1+	1.5+	2000 02 10	704	0.4+	1.0−
1998 11 11	704	0.3+	0.8+	2000 02 02	704	0.3+	0.8+	2000 02 10	704	0.6−	0.3−
1998 11 11	704	1.0+	0.4−	2000 02 02	704	0.5+	1.2+	2000 02 10	704	0.4−	0.2−
1998 11 11	704	0.8+	1.0+	2000 02 04	704	0.0	0.0	2000 02 11	704	0.1+	0.2+
1998 11 14	699	0.5−	0.5+	2000 02 04	704	0.2−	0.3+	2000 02 11	704	0.3−	0.4−
1998 11 14	699	0.4−	0.6+	2000 02 04	704	0.5−	0.3−	2000 02 11	704	0.0	1.2−
1998 11 14	699	0.5−	1.0+	2000 02 04	704	0.1−	0.3−	2000 02 11	704	0.2+	0.6−
2000 01 05	704	0.0	0.3−	2000 02 05	704	0.1+	0.1−	2000 02 11	704	1.2+	0.3−

2000 AS₁₂₇ = 1998 SW₁₅₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	5.77351	(2000.0)	P	Q
<i>n</i>	0.25214088	ω 353.65845	−0.71346176	−0.69711326
<i>a</i>	2.4814596	Ω 141.82215	+0.64779871	−0.69471705
<i>e</i>	0.0686965	<i>i</i> 6.57255	+0.26707519	−0.17720420
<i>P</i>	3.91	<i>H</i> 14.7	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 09 23	910	0.3+	0.9+	1999 12 06	704	0.4+	0.3−	2000 02 02	704	0.3+	0.7+
1998 09 23	910	0.6+	1.2+	1999 12 06	704	0.4−	0.1−	2000 02 02	704	0.2+	0.7−
1998 09 23	910	0.3+	1.0+	1999 12 06	704	0.3+	0.8+	2000 02 02	704	0.4+	0.0
1998 09 26	704	1.2+	0.3−	2000 01 05	704	0.6+	0.9−	2000 02 06	704	0.5−	0.2+
1998 09 26	704	0.3−	0.3−	2000 01 05	704	0.1+	0.2+	2000 02 06	704	0.0	0.1+
1998 09 26	704	0.8−	0.2−	2000 01 05	704	0.4+	0.5+	2000 02 06	704	0.1+	0.2−
1998 09 26	704	0.5−	0.2−	2000 01 05	704	0.6−	1.0+	2000 02 06	704	0.0	0.3+
1998 09 26	704	0.1+	1.4−	2000 01 07	704	0.4−	0.5−	2000 02 06	704	0.3+	0.1+
1998 09 27	704	0.3+	0.2−	2000 01 07	704	0.4−	0.4+	2000 02 08	704	0.0	0.2+
1998 09 27	704	0.9−	0.9−	2000 01 07	704	0.7−	0.0	2000 02 08	704	0.3+	0.3−
1998 09 27	704	(0.9+	2.7+)	2000 01 07	704	0.1−	0.1−	2000 02 08	704	0.3−	0.4+
1998 09 27	704	0.4−	0.6+	2000 01 07	704	0.5+	0.3−	2000 02 08	704	0.3−	0.9−
1999 12 06	704	0.6−	0.6−	2000 02 02	704	0.1+	0.2−				
1999 12 06	704	0.4+	0.6−	2000 02 02	704	0.0	0.8+				

2000 FEB. 22

M.P.C. 38681

2000 AT₁₂₇ = 1977 ED₇

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	26.25982		(2000.0)	P		Q	
<i>n</i>	0.16881102	ω	284.66052	−0.33721976	−0.94142461		
<i>a</i>	3.2424168	Ω	185.04790	+0.87055586	−0.31118978		
<i>e</i>	0.0862369	<i>i</i>	1.03688	+0.35835085	−0.12992544		
<i>P</i>	5.84	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1977 03 12	381	1.1−	0.7−	1998 11 16	566	0.3−	0.4−	2000 01 05	704	0.0	0.2−
1977 03 12	381	1.5+	0.5+	1998 11 16	566	0.3−	0.5−	2000 01 05	704	0.3−	0.4−
1977 03 14	381	0.1+	0.1−	1998 11 16	566	0.0	0.4−	2000 01 07	704	0.1+	0.7−
1977 03 14	381	0.2+	1.0−	1998 11 24	699	0.3−	0.1+	2000 01 07	704	0.5−	0.7−
1977 03 15	381	0.8−	1.0−	1998 11 24	699	0.7−	0.1+	2000 01 07	704	0.0	0.4−
1977 03 15	381	1.4−	1.2−	1998 11 24	699	0.5+	0.4+	2000 01 07	704	0.2+	0.6+
1998 10 18	699	0.5−	0.7−	1998 12 08	699	0.7+	1.0−	2000 01 07	704	0.1−	1.0−
1998 10 18	699	0.8−	0.4−	1998 12 08	699	1.5+	0.5−	2000 02 02	704	0.1+	1.1+
1998 10 18	699	0.8−	1.3−	1998 12 08	699	0.2+	1.1−	2000 02 02	704	0.0	1.0+
1998 11 11	704	0.4+	0.1+	1999 12 07	704	0.3−	0.4+	2000 02 02	704	0.1+	0.9+
1998 11 11	704	0.4+	0.2+	1999 12 07	704	1.0−	0.2+	2000 02 02	704	0.2+	0.8+
1998 11 11	704	0.9+	0.7+	1999 12 07	704	0.3−	0.9−	2000 02 02	704	0.4+	1.5+
1998 11 11	704	0.4+	0.5+	1999 12 07	704	0.3−	0.2+	2000 02 04	704	0.0	0.5+
1998 11 11	699	0.1+	0.6+	1999 12 07	704	1.0+	0.5−	2000 02 04	704	0.2+	0.5+
1998 11 11	704	0.7−	0.1+	2000 01 05	704	0.4+	0.2−	2000 02 04	704	0.5−	0.1+
1998 11 11	699	0.6+	0.3+	2000 01 05	704	0.2+	0.9−	2000 02 04	704	0.1+	0.3+
1998 11 11	699	0.1+	1.2+	2000 01 05	704	0.3+	0.3+	2000 02 04	704	0.8+	0.0

2000 AU₁₂₇ = 1995 OS₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	110.84544		(2000.0)	P		Q	
<i>n</i>	0.29460392	ω	231.37271	+0.97459213	−0.22192864		
<i>a</i>	2.2368852	Ω	141.42262	+0.21763003	+0.90623419		
<i>e</i>	0.1728654	<i>i</i>	2.78482	+0.05298454	+0.35984339		
<i>P</i>	3.35	<i>H</i>	15.4	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1995 07 24	691	0.3+	0.5+	2000 02 02	704	0.6−	0.9+	2000 02 08	704	0.2−	0.5−
1995 07 24	691	0.5+	0.2−	2000 02 03	704	1.7−	1.6+	2000 02 10	691	0.3−	0.7−
1995 07 24	691	0.0	0.0	2000 02 03	704	0.8−	1.1+	2000 02 10	691	0.4−	0.7−
1995 07 26	691	0.3−	0.1−	2000 02 03	704	0.1−	0.8+	2000 02 10	691	0.3−	0.4−
1995 07 26	691	0.3−	0.1−	2000 02 06	704	0.5+	0.5+	2000 02 11	704	0.9−	0.1−
1995 07 26	691	0.1−	0.3−	2000 02 06	704	0.2−	0.6−	2000 02 11	704	1.4+	0.3+
2000 01 05	704	0.4−	0.1+	2000 02 06	704	0.6+	0.1−	2000 02 11	704	0.4+	0.2+
2000 01 05	704	0.2+	0.7+	2000 02 06	704	0.3+	0.5+	2000 02 11	704	0.0	0.3−
2000 01 05	704	0.2−	0.4−	2000 02 06	704	0.1+	0.4+	2000 02 11	704	0.2+	0.1+
2000 01 07	704	0.1+	0.7−	2000 02 07	691	0.0	0.1−	2000 02 11	704	1.6+	0.7+
2000 01 07	704	0.9−	0.4−	2000 02 07	691	0.0	0.5−	2000 02 11	704	0.5−	0.6−
2000 01 07	704	1.8+	0.1−	2000 02 07	691	0.0	1.5−	2000 02 11	704	0.5+	0.0
2000 01 07	704	0.2−	0.2−	2000 02 08	704	0.4+	0.1−	2000 02 14	691	0.4−	0.5−
2000 02 02	704	0.1+	1.2+	2000 02 08	704	0.3+	0.1−	2000 02 14	691	0.5−	0.5−
2000 02 02	704	0.2+	0.9+	2000 02 08	704	0.0	0.1−	2000 02 14	691	0.5−	0.6−
2000 02 02	704	0.6+	0.4−	2000 02 08	704	0.1+	0.2+				

2000 AY₁₂₇ = 1982 BV₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	44.86091		(2000.0)	P		Q	
<i>n</i>	0.21926968	ω	293.75390	+0.31116402	−0.94300516		
<i>a</i>	2.7236439	Ω	137.54248	+0.92312383	+0.27040537		
<i>e</i>	0.2625162	<i>i</i>	10.06511	+0.22587461	+0.19396442		
<i>P</i>	4.49	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1982 01 30	675	0.0	0.0	1999 10 20	704	0.0	0.0	2000 01 07	704	0.4−	0.5−
1982 01 31	675	0.0	0.3+	1999 12 05	704	0.8+	1.3+	2000 02 03	704	0.1−	0.6+

1998 08 17	704	0.6−	0.9−	1999 12 05	704	0.5+	0.0	2000 02 03	704	0.0	0.1+
1998 08 17	704	0.3−	0.3+	1999 12 05	704	(1.9−	2.9−)	2000 02 03	704	0.3+	0.3+
1998 08 17	704	1.2−	0.2−	1999 12 05	704	(0.1−	3.4−)	2000 02 03	704	0.2+	0.0
1998 08 17	704	0.3−	0.7−	1999 12 14	704	0.2−	1.3−	2000 02 03	704	0.0	0.3+
1998 08 17	704	0.5−	0.6+	1999 12 14	704	0.2−	0.3−	2000 02 10	691	0.4−	0.0
1998 08 27	699	0.9+	0.7−	1999 12 14	704	0.5+	0.1+	2000 02 10	691	0.3−	0.1−
1998 08 27	699	1.0+	1.1−	1999 12 14	704	0.9−	1.3−	2000 02 10	691	0.4−	0.1−
1998 08 27	699	0.8+	0.2+	1999 12 14	704	0.4+	0.1−	2000 02 11	704	0.3+	0.5+
1998 08 27	699	0.0	0.0	2000 01 05	704	0.1+	0.2+	2000 02 11	704	0.1+	0.7+
1998 08 27	699	0.1+	0.8+	2000 01 05	704	0.2−	0.0	2000 02 11	704	0.1+	0.7+
1998 08 27	699	0.1−	1.0+	2000 01 05	704	0.0	0.0	2000 02 11	704	0.0	0.6+
1998 09 14	699	0.4−	0.4+	2000 01 05	704	0.1+	0.0	2000 02 11	704	(3.2+	1.8+)
1998 09 14	699	0.3+	0.8+	2000 01 05	704	0.1+	0.4+	2000 02 14	691	0.3−	0.0
1998 09 14	699	0.2+	1.3+	2000 01 07	704	0.2+	0.2−	2000 02 14	691	0.3−	0.1−
1999 10 20	704	0.5−	0.3−	2000 01 07	704	0.2+	0.1−	2000 02 14	691	0.3−	0.1−
1999 10 20	704	0.4−	0.2−	2000 01 07	704	0.3+	0.0				
1999 10 20	704	1.1+	0.8+	2000 01 07	704	0.0	0.7−				

2000 AA₁₂₈ = 1969 TG₈ = 1995 BX₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	242.40330		(2000.0)	P		Q	
<i>n</i>	0.20578810	ω	121.85221	−0.05892155	+0.98209720		
<i>a</i>	2.8413356	Ω	143.42818	−0.98694670	−0.03039968		
<i>e</i>	0.0705664	<i>i</i>	17.47512	−0.14988147	−0.18590574		
<i>P</i>	4.79	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1969 10 10	033	0.0	0.4−	1998 11 21	703	0.2−	0.7+	2000 02 02	704	0.2+	0.5+
1969 10 10	033	0.2+	0.4−	1998 11 21	703	0.2−	0.0	2000 02 02	704	0.1+	0.2−
1995 01 24	381	0.2−	0.1−	2000 01 05	704	0.0	0.3−	2000 02 02	704	0.1−	0.1+
1995 01 24	381	0.2−	0.2−	2000 01 05	699	0.0	0.1+	2000 02 02	704	0.1−	0.1+
1995 01 25	381	0.4+	0.2−	2000 01 05	704	0.3−	0.1+	2000 02 02	704	0.0	0.4−
1995 01 25	381	0.2+	0.2−	2000 01 05	704	0.4−	0.1−	2000 02 04	704	0.3−	0.1−
1998 11 13	704	0.5+	0.2−	2000 01 05	699	0.3+	0.1+	2000 02 04	704	0.1−	0.6+
1998 11 13	704	0.1+	0.3−	2000 01 05	704	0.0	0.5−	2000 02 04	704	0.1−	0.1+
1998 11 13	704	1.3−	0.7+	2000 01 05	699	0.1−	0.1−	2000 02 04	704	0.0	0.2+
1998 11 13	704	1.3+	0.5−	2000 01 05	704	0.2−	0.1+	2000 02 04	704	0.4−	0.4+
1998 11 13	704	0.8−	1.6+	2000 01 07	704	0.4−	0.1−	2000 02 06	704	0.3+	0.3−
1998 11 16	566	0.0	0.2−	2000 01 07	704	0.3+	0.2+	2000 02 06	704	0.5+	0.3+
1998 11 16	566	0.2+	0.4−	2000 01 07	704	0.3−	0.0	2000 02 06	704	0.0	0.1+
1998 11 16	566	0.2+	0.5−	2000 01 07	704	0.3−	0.1−	2000 02 06	704	0.6+	0.0
1998 11 21	703	0.0	0.2+	2000 01 07	704	0.0	0.2+	2000 02 06	704	0.5+	0.4−

2000 AE₁₂₈ = 1994 TU₁₆ = 1999 XB₂₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	69.23069		(2000.0)	P		Q	
<i>n</i>	0.22019497	ω	256.21338	+0.56525561	−0.82425465		
<i>a</i>	2.7160085	Ω	159.26242	+0.78829638	+0.52793575		
<i>e</i>	0.1574090	<i>i</i>	5.35095	+0.24305333	+0.20466588		
<i>P</i>	4.48	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1994 10 05	033	0.5+	0.2−	1998 12 08	704	(0.3−	2.3+)	2000 01 07	704	0.5−	0.4−
1994 10 05	033	0.5−	0.2−	1998 12 08	704	1.6+	1.5−	2000 01 07	704	0.3+	0.1+
1994 10 06	033	0.1+	0.4−	1999 12 05	704	0.5−	0.2−	2000 01 07	704	0.6+	0.1−
1998 08 23	704	1.2−	1.3−	1999 12 05	704	0.2+	0.2−	2000 01 07	704	0.3+	1.0+
1998 08 23	704	0.2−	1.2−	1999 12 05	704	1.6+	1.6−	2000 01 07	704	0.5+	0.9+
1998 08 23	704	(2.3+	0.0)	1999 12 05	704	0.1+	0.7+	2000 02 02	704	0.6−	0.3+
1998 08 23	704	0.9−	0.2−	1999 12 07	704	0.2−	0.4+	2000 02 02	704	0.0	0.4+
1998 08 23	704	(2.4−	1.8−)	1999 12 07	704	0.4−	0.2+	2000 02 02	704	0.1+	0.6+
1998 08 26	699	0.3+	0.1+	1999 12 07	704	0.8−	0.3+	2000 02 02	704	0.3+	0.2+
1998 08 26	699	0.1−	0.5−	1999 12 07	704	0.1−	0.6+	2000 02 02	704	0.4+	0.0
1998 08 26	699	1.0+	0.2+	1999 12 07	704	0.4+	0.0	2000 02 04	704	0.5+	0.5+
1998 10 10	699	0.3+	2.0+	2000 01 05	704	1.2−	1.1−	2000 02 04	704	0.1+	0.2+

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1998 10 10	699	0.1+	1.3+	2000 01 05	704	0.1-	0.2-	2000 02 04	704	0.4+	0.1-
1998 10 10	699	0.1-	1.3+	2000 01 05	704	1.0-	1.1-	2000 02 04	704	0.0	0.2+
1998 12 08	704	0.8-	0.6+	2000 01 05	704	0.2+	0.9-	2000 02 04	704	0.2+	0.3+
1998 12 08	704	(0.1+	3.7+)	2000 01 05	704	0.8-	0.4-				

2000 AJ₁₂₈ = 1986 XW₂ = 1998 QP₇₂

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				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.23593014	ω	132.19118	+0.44784844	-0.87981494		
<i>a</i>	2.5938634	Ω	290.55363	+0.76202145	+0.46874944		
<i>e</i>	0.1563355	<i>i</i>	9.79165	+0.46771260	+0.07873772		
<i>P</i>	4.18	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1986 12 02	010	(2.9-	2.6-)	1998 09 18	699	0.9-	0.3+	2000 02 01	703	0.1+	0.3-
1986 12 03	010	(1.7-	3.4-)	1998 09 18	699	0.1+	0.7+	2000 02 02	704	0.1+	0.1-
1986 12 03	010	0.2+	2.4-	1999 12 07	704	(2.1-	4.0+)	2000 02 02	704	0.4+	0.1-
1998 08 19	704	(1.1-	2.5+)	1999 12 07	704	(1.4-	3.2+)	2000 02 02	704	0.5+	0.1+
1998 08 19	704	(0.6-	2.5+)	1999 12 07	704	(1.0-	2.9+)	2000 02 02	704	0.6+	0.2-
1998 08 19	704	(0.1+	2.4+)	1999 12 07	704	(1.6-	2.6+)	2000 02 02	704	0.6+	0.6+
1998 08 19	704	1.0+	1.9-	2000 01 05	704	0.0	0.3+	2000 02 05	704	0.5+	0.5+
1998 08 19	704	1.1-	0.5+	2000 01 05	704	0.1-	0.3+	2000 02 05	704	1.0+	1.0-
1998 08 24	704	0.1-	0.6+	2000 01 05	704	0.6+	0.9+	2000 02 05	704	0.7-	0.2-
1998 08 24	704	0.0	0.4+	2000 01 05	704	0.3-	1.5+	2000 02 06	704	0.8+	0.4-
1998 08 24	704	0.2-	1.5+	2000 01 07	704	0.5+	1.0+	2000 02 06	704	0.2+	0.3-
1998 08 24	704	0.3-	0.1+	2000 01 07	704	0.1+	0.7+	2000 02 06	704	0.4+	0.5-
1998 08 24	704	0.4-	0.8+	2000 01 07	704	0.3-	1.3+	2000 02 12	704	0.3-	0.1+
1998 08 27	704	1.2+	0.2+	2000 01 07	704	0.6-	1.2+	2000 02 12	704	0.1-	0.7-
1998 08 27	704	0.0	0.5+	2000 01 07	704	0.1-	1.2+	2000 02 12	704	0.4-	0.3-
1998 08 27	704	0.1+	0.1-	2000 02 01	703	0.3-	0.5-	2000 02 12	704	0.7-	0.4-
1998 08 27	704	0.1+	0.2+	2000 02 01	703	0.8-	0.1+	2000 02 12	704	0.3-	0.1-
1998 09 18	699	1.3-	0.5-	2000 02 01	703	0.3+	0.3-				

2000 AO₁₂₈ = 1993 SB₃ = 1998 VF₂₀

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.21223005	ω	169.59226	+0.99464434	-0.10141558		
<i>a</i>	2.7835443	Ω	196.26867	+0.08897720	+0.93833390		
<i>e</i>	0.0841067	<i>i</i>	4.08127	+0.05258996	+0.33052137		
<i>P</i>	4.64	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1993 09 15	809	0.7+	2.0+	1998 10 18	699	0.4-	0.3-	2000 01 07	704	0.8-	0.2-
1993 09 15	809	0.9-	1.4+	1998 11 10	704	0.9+	0.3+	2000 01 07	704	0.9-	0.9-
1993 09 15	809	1.0-	1.5+	1998 11 10	704	0.8+	0.9+	2000 01 07	704	0.5-	1.4-
1993 09 18	033	1.0-	0.6-	1998 11 10	704	1.9+	0.8+	2000 01 07	704	0.2-	0.6+
1993 09 18	033	0.1+	0.3-	1998 11 10	704	(2.4+	0.7+)	2000 02 02	704	0.5+	0.8+
1993 09 19	675	0.8-	0.5-	1998 11 11	704	0.1+	0.0	2000 02 02	704	0.4+	0.4+
1993 09 20	033	1.8+	0.7-	1998 11 11	704	0.2-	0.8+	2000 02 02	704	0.7+	0.2+
1993 09 22	033	1.1+	1.1-	1998 11 11	704	0.8+	0.7-	2000 02 02	704	0.2+	0.1-
1993 09 22	809	(0.5-	3.9+)	1998 11 11	704	1.4-	1.2-	2000 02 02	704	0.4+	0.7+
1993 09 22	809	(0.9-	3.2+)	1998 11 14	699	0.6-	0.9+	2000 02 04	704	1.0+	0.2-
1993 09 22	809	(0.6-	3.6+)	1998 11 14	699	0.5-	0.4+	2000 02 04	704	0.1+	0.1+
1993 09 23	675	0.0	0.7-	1998 11 14	699	0.0	0.3-	2000 02 04	704	0.0	1.0+
1993 09 23	675	0.3-	0.7-	2000 01 05	704	0.1+	0.8-	2000 02 04	704	0.6-	0.9+
1998 10 18	699	1.4-	1.5-	2000 01 05	704	0.2-	0.5-	2000 02 04	704	0.1-	0.3+
1998 10 18	699	0.3-	0.2+	2000 01 05	704	0.2-	0.9-				

2000 AR₁₂₈ = 1984 BK₄ = 1991 PP₂₁

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.18862615	ω	318.38336	+0.02609711	+0.97392121		
<i>a</i>	3.0111666	Ω	311.78472	-0.81863556	-0.10857245		
<i>e</i>	0.2503035	<i>i</i>	17.59334	-0.57372010	+0.19922224		
<i>P</i>	5.23	<i>H</i>	12.6	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1984 01 25	675	0.8-	0.9-	2000 01 05	704	0.1+	0.0	2000 02 02	704	0.0	0.1-
1984 01 26	675	0.3-	0.9-	2000 01 05	704	0.1-	0.3-	2000 02 02	704	0.3-	0.2-
1991 08 10	675	0.1-	0.1-	2000 01 05	704	0.9+	0.1+	2000 02 02	704	0.2+	0.5-
1991 08 10	675	0.4+	0.4-	2000 01 07	704	0.6+	1.3+	2000 02 02	704	0.8+	0.4+
1998 12 17	704	1.1-	1.1+	2000 01 07	704	0.3-	0.1+	2000 02 04	704	0.1-	0.1-
1998 12 17	704	1.3+	1.0-	2000 01 07	704	0.7-	0.6-	2000 02 04	704	0.0	0.7-
1998 12 17	704	0.7+	0.3+	2000 01 07	704	0.0	0.7-	2000 02 04	704	0.0	0.2+
1998 12 17	704	0.7-	0.2+	2000 01 07	704	0.9-	0.2+	2000 02 04	704	0.4+	0.3+
2000 01 05	704	0.7-	1.7+	2000 02 02	704	0.4+	0.2-	2000 02 04	704	0.1+	0.0

2000 AS₁₂₈ = 1955 SF₂ = 1955 UE = 1997 EY₄₉ = 1998 MM₃₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.29503	ω	110.80991	+0.80178558	-0.59647062		
<i>a</i>	2.2327260	Ω	285.82560	+0.53304315	+0.74171914		
<i>e</i>	0.1705044	<i>i</i>	2.19892	+0.27019417	+0.30671733		
<i>P</i>	3.34	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1955 09 22	024	(2.3-	3.6+)	1998 06 26	704	1.2-	1.6+	2000 01 07	704	0.5-	0.0
1955 10 20	760	0.2-	0.6+	1998 06 26	704	0.1+	0.1-	2000 01 07	704	0.7-	0.0
1955 10 20	760	0.3-	0.5+	1998 06 27	809	1.7+	0.5-	2000 01 07	704	0.6-	0.1-
1997 03 05	809	0.6+	1.6+	1998 06 27	809	1.2+	0.7-	2000 01 07	704	0.8-	0.3-
1997 03 05	809	0.5+	1.5+	1998 06 27	809	1.2+	0.3-	2000 02 02	704	0.1+	0.1-
1997 03 05	809	0.7+	1.3+	1999 12 04	703	0.3+	1.5+	2000 02 02	704	0.5+	0.4-
1997 03 06	809	(2.8+	2.5+)	1999 12 04	703	0.8+	0.8+	2000 02 02	704	0.2+	0.7-
1997 03 06	809	(1.9+	2.6+)	1999 12 04	703	0.0	0.3+	2000 02 02	704	0.4+	0.8-
1997 03 06	809	(1.9+	2.0+)	1999 12 04	703	0.3-	0.3+	2000 02 02	704	0.2+	0.8-
1998 06 24	704	1.3-	0.8-	1999 12 06	704	0.6-	0.0	2000 02 04	704	0.3+	0.1-
1998 06 24	704	1.0+	1.1-	1999 12 06	704	0.0	0.0	2000 02 04	704	0.4+	0.2+
1998 06 24	704	0.5-	0.0	1999 12 06	704	0.3+	0.1+	2000 02 04	704	0.4+	0.2-
1998 06 24	704	(0.2-	2.4-)	1999 12 06	704	0.2-	0.8-	2000 02 04	704	0.2+	0.3-
1998 06 24	704	0.6-	1.1-	1999 12 06	704	0.2-	0.5-	2000 02 04	704	0.1-	0.4-
1998 06 26	809	(2.9+	0.3-)	2000 01 05	704	0.7+	0.2-	2000 02 05	757	1.0-	0.8-
1998 06 26	809	(2.8+	0.9-)	2000 01 05	704	0.2+	0.0	2000 02 05	757	1.0-	0.0
1998 06 26	809	(2.3+	0.7-)	2000 01 05	704	0.1-	0.1-	2000 02 06	757	0.3-	0.2-
1998 06 26	704	0.0	1.1-	2000 01 05	704	0.2-	0.1-	2000 02 06	757	0.6+	0.0
1998 06 26	704	1.4-	0.4+	2000 01 05	704	0.6-	0.2+				
1998 06 26	704	0.6+	1.2+	2000 01 07	704	0.4-	0.4-				

2000 AY₁₂₈ = 3085 T-1 = 1993 FM₄₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26861120	ω	316.50429	-0.76037774	-0.64945647		
<i>a</i>	2.3789573	Ω	183.01176	+0.62146909	-0.72502535		
<i>e</i>	0.0736425	<i>i</i>	6.17953	+0.18868458	-0.22922593		
<i>P</i>	3.67	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1971 03 24	675	0.7+	0.2+	1998 08 17	704	(3.3-	1.8+)	2000 02 02	704	0.2-	0.4+
1971 03 25	675	0.2+	0.2+	2000 01 04	699	0.1+	0.7-	2000 02 02	704	0.3-	1.1+
1971 03 26	675	0.9-	1.9+	2000 01 04	699	0.4+	0.1+	2000 02 02	704	0.2-	0.6+
1971 03 26	675	0.2-	1.6-	2000 01 04	699	0.5+	0.3-	2000 02 02	704	0.5-	0.5+
1971 03 26	675	1.0-	0.7-	2000 01 05	704	0.4-	0.6+	2000 02 04	704	0.3-	0.0
1971 03 26	675	0.8-	0.3-	2000 01 05	704	0.3-	0.1-	2000 02 04	704	0.2-	0.3-
1971 03 27	675	(1.7-	3.5+)	2000 01 05	704	0.3-	0.4-	2000 02 04	704	0.9+	0.4+

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1971 03 27	675	1.4+	1.8-	2000 01 05	704	0.0	0.6-	2000 02 04	704	0.2-	0.9+
1993 03 19	809	0.1-	1.1+	2000 01 07	704	0.2+	0.7-	2000 02 05	704	0.7+	0.0
1993 03 20	809	0.3+	0.4+	2000 01 07	704	0.3-	0.6-	2000 02 05	704	0.3+	0.5+
1993 03 24	809	0.5+	0.6+	2000 01 07	704	0.2+	0.5-	2000 02 05	704	0.1-	0.4-
1998 08 17	704	(2.4+	0.8-)	2000 01 07	704	0.7+	0.6-	2000 02 05	704	0.4-	0.6+
1998 08 17	704	0.3-	1.1+	2000 01 07	704	0.1+	0.6-	2000 02 05	704	0.3-	0.3+
1998 08 17	704	(2.1+	3.5-)	2000 02 02	704	0.1+	0.1+				

2000 AA₁₂₉ = 1997 QC₅

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
				P		Q	
<i>M</i>	335.16233		(2000.0)				
<i>n</i>	0.19131062	ω	239.88991	-0.94039925		-0.31123112	
<i>a</i>	2.9829318	Ω	281.68489	+0.33972676		-0.84160338	
<i>e</i>	0.0265132	<i>i</i>	8.04534	+0.01532904		-0.44140563	
<i>P</i>	5.15	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 08 31	910	0.2-	0.4+	1998 11 14	704	0.1+	0.2-	2000 02 02	704	0.7+	0.4+
1997 08 31	910	0.1-	0.5+	2000 01 05	704	0.2+	0.2-	2000 02 02	704	0.3+	0.0
1997 08 31	910	0.1+	0.1+	2000 01 05	704	0.0	0.2-	2000 02 02	704	0.4+	0.1+
1997 09 08	910	0.1+	0.3+	2000 01 05	704	0.2+	0.1-	2000 02 02	704	0.3+	0.3+
1997 09 08	910	0.3-	0.3+	2000 01 05	704	0.8+	0.2+	2000 02 02	704	0.3-	0.3+
1997 09 08	910	0.3-	0.3+	2000 01 07	704	0.1-	0.6-	2000 02 04	704	0.1+	0.4+
1998 11 14	704	1.1-	1.0-	2000 01 07	704	0.2-	0.4+	2000 02 04	704	0.1+	0.4+
1998 11 14	704	0.4+	1.4-	2000 01 07	704	0.1+	0.7-	2000 02 04	704	0.0	0.9+
1998 11 14	704	1.4+	1.7+	2000 01 07	704	0.2+	1.1-	2000 02 04	704	0.5-	0.6+
1998 11 14	704	1.0-	0.7+	2000 01 07	704	1.2-	0.4-	2000 02 04	704	0.4-	0.7+

2000 AB₁₂₉ = 1994 LS₇

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
				P		Q	
<i>M</i>	325.16379		(2000.0)				
<i>n</i>	0.29581754	ω	277.43716	-0.99586294		-0.01410610	
<i>a</i>	2.2307630	Ω	261.78485	+0.04769565		-0.92199734	
<i>e</i>	0.0822888	<i>i</i>	5.20372	-0.07734423		-0.38693917	
<i>P</i>	3.33	<i>H</i>	15.5	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1994 06 08	809	0.3+	0.2+	2000 01 05	704	0.4+	0.2+	2000 02 02	704	1.0-	0.5-
1994 06 08	809	0.2-	0.8+	2000 01 05	704	0.5+	0.1+	2000 02 02	704	0.6-	0.2-
1994 06 08	809	0.3+	0.0	2000 01 05	704	0.9+	0.4-	2000 02 02	704	0.0	0.6+
1994 06 09	809	(3.4+	3.0+)	2000 01 05	704	0.3-	0.4-	2000 02 02	704	0.7-	0.4+
1994 06 09	809	0.1-	0.1-	2000 01 07	704	0.3-	0.7+	2000 02 04	704	0.0	0.1-
1994 06 09	809	0.4-	0.2+	2000 01 07	704	0.1+	0.1+	2000 02 04	704	0.5-	0.9-
1999 12 07	704	0.0	0.5+	2000 01 07	704	0.1+	1.2+	2000 02 04	704	1.2+	0.7-
1999 12 07	704	0.7+	0.6+	2000 01 07	704	0.4-	0.5+	2000 02 04	704	0.8+	0.5-
1999 12 07	704	0.3+	0.7+	2000 01 07	704	0.5-	0.2-	2000 02 04	704	0.1-	0.7-
1999 12 07	704	0.9+	0.1-	2000 02 02	704	0.6-	0.0				

2000 AC₁₂₉ = 1998 QD₈₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
				P		Q	
<i>M</i>	85.91816		(2000.0)				
<i>n</i>	0.21578093	ω	126.50687	+0.83079271		-0.53993115	
<i>a</i>	2.7529227	Ω	266.54494	+0.45752046		+0.80074436	
<i>e</i>	0.1532779	<i>i</i>	7.77987	+0.31695189		+0.25938933	
<i>P</i>	4.57	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 19	704	0.9+	0.8-	1998 08 27	704	(0.8+	2.3+)	2000 01 07	704	0.6+	0.1+
1998 08 19	704	0.9+	0.0	1998 08 27	704	0.4+	0.8+	2000 01 07	704	0.4+	0.4-
1998 08 19	704	(2.6+	0.9+)	1998 09 18	699	0.2-	0.2+	2000 02 02	704	1.0+	0.3-
1998 08 19	704	0.8-	0.2-	1998 09 18	699	0.4-	1.4+	2000 02 02	704	0.3+	0.5-

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1998 08 24	704	1.5+	1.3-	1998 09 18	699	0.7-	1.4+	2000 02 02	704	0.5-	0.3+
1998 08 24	704	1.2-	1.4-	2000 01 05	704	1.1-	0.1-	2000 02 04	704	0.2-	0.2+
1998 08 24	704	0.7+	1.5-	2000 01 05	704	0.6-	0.9-	2000 02 04	704	0.8-	0.5+
1998 08 24	704	0.1+	1.5-	2000 01 05	704	0.8+	0.3-	2000 02 04	704	0.1-	0.0
1998 08 27	704	0.8-	0.8+	2000 01 07	704	0.0	0.2+				
1998 08 27	704	0.1-	1.4+	2000 01 07	704	0.1-	0.6+				

2000 AD₁₂₉ = 1999 AZ₃₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
				P		Q	
<i>M</i>	294.24014		(2000.0)				
<i>n</i>	0.26589759	ω	16.03217	-0.72388659		+0.68978091	
<i>a</i>	2.3951154	Ω	207.59625	-0.63621644		-0.67514467	
<i>e</i>	0.1735851	<i>i</i>	1.70737	-0.26686485		-0.26149947	
<i>P</i>	3.71	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1999 01 15	691	0.1+	0.1+	2000 01 05	704	0.0	0.7-	2000 02 02	704	0.0	0.5+
1999 01 15	691	0.2+	0.1+	2000 01 07	704	0.1+	0.3-	2000 02 02	704	0.2-	0.3+
1999 01 15	691	0.6+	0.0	2000 01 07	704	0.3-	0.2+	2000 02 03	704	0.6+	0.5+
1999 01 19	691	0.1-	0.5+	2000 01 07	704	0.7-	0.9-	2000 02 03	704	0.2+	0.4+
1999 01 19	691	0.4-	0.0	2000 01 07	704	0.1+	1.0-	2000 02 03	704	0.1+	0.2+
1999 01 19	691	0.7-	0.1+	2000 02 02	704	0.3+	0.2+	2000 02 03	704	0.1+	0.5+
2000 01 05	704	0.2-	0.5-	2000 02 02	704	0.3-	0.2+	2000 02 03	704	0.2-	0.6+
2000 01 05	704	0.3+	0.2-	2000 02 02	704	0.1+	0.1-				

2000 AH₁₂₉ = 1998 QN₆₇

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				Spahr			
				P		Q	
<i>M</i>	103.83442		(2000.0)				
<i>n</i>	0.26696710	ω	114.66233	+0.91230890		-0.38893887	
<i>a</i>	2.3887143	Ω	268.44033	+0.31385103		+0.86509309	
<i>e</i>	0.0984012	<i>i</i>	7.36468	+0.26303993		+0.31676570	
<i>P</i>	3.69	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 07 31	699	0.2-	1.0+	1998 08 27	704	0.4-	1.0+	2000 01 07	704	0.5-	0.6-
1998 07 31	699	0.1-	1.2+	2000 01 05	704	0.7+	0.2+	2000 01 07	704	0.4+	0.2-
1998 07 31	699	0.0	0.4+	2000 01 05	699	0.6-	0.5-	2000 02 02	704	0.4-	0.3+
1998 08 24	704	0.2+	0.5-	2000 01 05	704	0.5+	0.6+	2000 02 02	704	0.1-	0.2-
1998 08 24	704	0.8+	0.3+	2000 01 05	699	0.3+	0.2-	2000 02 02	704	0.2-	0.3-
1998 08 24	704	1.1+	1.1-	2000 01 05	704	0.3+	0.5+	2000 02 02	704	0.4+	0.2-
1998 08 24	704	1.0-	0.7-	2000 01 05	704	0.1+	1.1+	2000 02 04	704	0.3+	0.1-
1998 08 24	704	0.3+	0.6-	2000 01 05	699	0.5-	0.4+	2000 02 04	704	0.4-	0.3-
1998 08 27	704	0.6-	0.0	2000 01 07	704	0.4-	0.6-	2000 02 04	704	1.1+	0.7+
1998 08 27	704	0.2-	0.2-	2000 01 07	704	0.7-	0.5-	2000 02 04	704	0.1-	0.3+
1998 08 27	704	(2.6-	3.2+)	2000 01 07	704	0.3-	0.2+				

2000 AQ₁₂₉ = 1998 VG₂₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
				P		Q	
<i>M</i>	175.79630		(2000.0)				
<i>n</i>	0.24026505	ω	21.51305	+0.75654923		+0.65209657	
<i>a</i>	2.5625695	Ω	297.69153	-0.60776210		+0.67348016	
<i>e</i>	0.2199619	<i>i</i>	3.17381	-0.24136796		+0.34813005	
<i>P</i>	4.10	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 11 10	704	0.7+	0.4-	1999 01 19	910	0.1-	0.1-	2000 01 30	703	0.6+	0.5+
1998 11 10	704	0.4+	0.2+	1999 01 19	910	0.0	0.3-	2000 01 30	703	0.8+	0.6+
1998 11 10	704	0.5+	1.3+	2000 01 05	704	0.2-	0.8-	2000 01 30	703	0.5-	0.6+
1998 11 10	704	0.7-	0.6+	2000 01 05	704	0.3+	0.1-	2000 01 30	703	0.2+	0.2-
1998 11 10	704	0.8+	0.9+	2000 01 05	704	0.2-	0.7-	2000 02 01	691	0.4+	0.4-
1998 11 11	704	0.1-	0.5-	2000 01 05	704	1.0+	0.0	2000 02 01	691	0.4+	0.5-
1998 11 11	704	0.2-	0.4-	2000 01 07	704	0.6-	0.4-	2000 02 01	691	0.2+	0.7-
1998 11 11	704	0.8-	1.4-	2000 01 07	704	1.7-	0.3-	2000 02 03	704	1.1+	1.3+
1998 11 11	704	1.1-	0.7-	2000 01 07	704	0.7-	0.3-	2000 02 03	704	0.1-	0.5+

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1998 11 11	704	0.1+	1.9-	2000 01 07	704	1.0+	0.8+	2000 02 03	704	0.1-	0.3+
1998 11 15	699	0.2+	0.7+	2000 01 07	704	0.5+	0.5+	2000 02 03	704	0.9-	0.0
1998 11 15	699	0.0	0.5+	2000 01 29	691	0.1-	0.2-	2000 02 03	704	0.5-	0.1-
1998 11 15	699	0.1+	1.5+	2000 01 29	691	0.2-	0.2-				
1999 01 19	910	0.1+	0.1-	2000 01 29	691	0.8-	0.1+				

2000 AV₁₂₉ = 1991 OS = 1998 SB₁₃₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	253.30220		(2000.0)		P		Q
<i>n</i>	0.29838558	ω	8.07489	-0.11625721			+0.98980857
<i>a</i>	2.2179453	Ω	255.27735	-0.91594592			-0.13886437
<i>e</i>	0.1611288	<i>i</i>	4.87780	-0.38409286			+0.03155451
<i>P</i>	3.30	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1991 07 16	675	0.7-	0.2-	1998 10 15	704	(3.3-	2.2-)	2000 02 02	704	0.3+	0.7-
1991 07 16	675	0.1+	0.1-	2000 01 05	699	0.3-	0.5+	2000 02 06	704	0.2-	0.1+
1991 07 18	675	0.9+	0.9+	2000 01 05	704	0.6-	0.8-	2000 02 06	704	0.0	0.2-
1991 07 18	675	0.2-	0.6-	2000 01 05	699	0.7-	0.7-	2000 02 06	704	0.0	0.3+
1998 09 26	704	0.2-	0.1-	2000 01 05	704	0.4-	0.2-	2000 02 06	704	0.0	0.2-
1998 09 26	704	0.7-	0.3-	2000 01 05	699	0.9+	0.9+	2000 02 06	704	0.2-	0.1-
1998 09 26	704	0.9+	1.0-	2000 01 05	704	1.2+	0.5+	2000 02 08	704	0.2+	0.1+
1998 09 26	704	0.0	0.2-	2000 01 07	704	0.1+	0.3+	2000 02 08	704	0.0	0.5-
1998 09 27	704	(2.7-	2.0+)	2000 01 07	704	0.1-	0.6-	2000 02 08	704	0.2-	0.3+
1998 09 27	704	(2.8-	2.1+)	2000 01 07	704	0.6-	1.1-	2000 02 08	704	1.0-	0.3-
1998 09 27	704	(4.2-	3.2+)	2000 01 07	704	0.5-	0.4+	2000 02 08	704	0.2-	0.2-
1998 09 27	704	(5.5-	0.7+)	2000 02 02	704	0.3+	0.1-	2000 02 10	704	0.0	0.3+
1998 10 15	704	0.2-	1.1+	2000 02 02	704	0.2+	0.0	2000 02 10	704	0.2-	0.4+
1998 10 15	704	(2.6+	0.7+)	2000 02 02	704	0.2+	1.2+	2000 02 10	704	0.4+	0.2-
1998 10 15	704	0.1+	0.6+	2000 02 02	704	0.7+	0.1-	2000 02 10	704	0.6+	0.5+

2000 AW₁₂₉ = 1998 OB₆

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Williams

<i>M</i>	109.58214		(2000.0)		P		Q
<i>n</i>	0.29324754	ω	215.86923	+0.96735339			-0.25139993
<i>a</i>	2.2437775	Ω	158.62353	+0.24814829			+0.91392986
<i>e</i>	0.1640589	<i>i</i>	5.04034	+0.05147669			+0.31863818
<i>P</i>	3.36	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 06 24	704	0.6+	0.9+	2000 01 05	704	0.0	0.1+	2000 02 08	704	0.5+	0.6-
1998 06 24	704	1.4-	1.2-	2000 01 07	704	0.7-	0.7-	2000 02 08	704	0.6-	0.3+
1998 06 24	704	1.1+	0.4+	2000 01 07	704	0.1-	0.3+	2000 02 08	704	0.5-	0.5+
1998 06 24	704	(4.2-	0.7-)	2000 01 07	704	0.2+	0.2-	2000 02 08	704	0.2+	0.4+
1998 07 21	704	0.1-	1.9+	2000 02 02	704	0.4+	0.0	2000 02 08	704	0.2+	0.6+
1998 07 21	704	0.7+	0.1-	2000 02 02	704	0.7+	0.4-	2000 02 08	704	0.6-	0.5+
1998 07 21	704	0.4+	0.4-	2000 02 02	704	1.2-	1.1-	2000 02 10	704	0.5-	0.1-
1998 07 26	704	0.8-	0.3-	2000 02 02	704	0.0	0.1+	2000 02 10	704	0.7-	0.5+
1998 07 26	704	0.1-	1.3-	2000 02 02	704	0.0	0.1+	2000 02 10	704	0.2+	0.2-
1998 07 26	704	0.8-	0.7-	2000 02 05	704	0.2+	0.8-	2000 02 10	704	0.3-	0.3+
1998 07 26	704	0.4+	0.1+	2000 02 05	704	0.3+	0.1-	2000 02 11	704	0.0	0.5+
1999 12 07	704	0.9+	1.0+	2000 02 05	704	0.1+	0.0	2000 02 11	704	0.5-	0.2-
1999 12 07	704	0.6-	1.0-	2000 02 08	704	2.0+	0.6+	2000 02 11	704	0.3+	0.5-
1999 12 07	704	0.7+	1.4-	2000 02 08	704	1.0-	0.2+	2000 02 11	704	0.2-	0.1+
2000 01 05	704	0.3+	0.8+	2000 02 08	704	0.3+	0.2-	2000 02 11	704	0.1+	0.3-
2000 01 05	704	0.7+	0.4-	2000 02 08	704	0.3-	0.2-				

2000 AY₁₂₉ = 1998 VP₁₀

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Williams

<i>M</i>	138.74930		(2000.0)		P		Q
<i>n</i>	0.22273592	ω	199.30562	+0.99941179			-0.02958079
<i>a</i>	2.6953131	Ω	162.36258	+0.03376582			+0.93723711
<i>e</i>	0.0242565	<i>i</i>	3.28287	-0.00599590			+0.34743573
<i>P</i>	4.43	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 11 10	704	1.0+	0.2+	2000 01 05	704	0.7-	1.1+	2000 02 02	704	0.3-	0.2+
1998 11 10	704	0.0	0.5+	2000 01 05	704	1.1+	1.2-	2000 02 02	704	0.1-	0.0
1998 11 10	704	0.3+	1.2+	2000 01 05	704	0.2+	0.6+	2000 02 02	704	0.5-	0.2-
1998 11 10	704	0.8-	1.7+	2000 01 07	704	0.2+	0.6+	2000 02 04	704	0.1+	0.3+
1998 11 11	704	0.8-	0.9-	2000 01 07	704	0.6+	0.3-	2000 02 04	704	0.6+	0.2+
1998 11 11	704	2.0+	0.9-	2000 01 07	704	0.8-	0.6-	2000 02 04	704	0.3+	0.7+
1998 11 11	704	1.7-	1.8-	2000 02 02	704	0.6-	0.4-	2000 02 04	704	0.4+	0.8-
2000 01 05	704	0.5-	0.3-	2000 02 02	704	0.0	0.1+				

2000 AC₁₃₀ = 1997 MD₃

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Williams

<i>M</i>	264.35274		(2000.0)		P		Q
<i>n</i>	0.26171449	ω	327.95432	-0.11986176			+0.98526793
<i>a</i>	2.4205694	Ω	294.90915	-0.88012480			-0.16230613
<i>e</i>	0.2299608	<i>i</i>	7.72947	-0.45936205			+0.05388713
<i>P</i>	3.77	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 06 28	704	0.1+	1.0+	1997 07 03	704	1.6-	0.4+	2000 01 07	704	0.3+	0.8+
1997 06 28	704	0.1+	0.4+	1997 07 03	704	1.7-	0.7+	2000 01 07	704	1.3-	1.1-
1997 06 28	704	0.2+	0.4+	1998 11 16	704	0.4+	0.5+	2000 02 02	704	0.3+	0.3+
1997 06 29	704	0.5-	0.2+	1998 11 16	704	(1.1+	2.8-)	2000 02 02	704	0.1+	0.8+
1997 06 29	704	0.7+	0.3+	1998 11 16	704	0.3+	0.6-	2000 02 02	704	0.4+	0.7-
1997 06 29	704	0.1+	0.1+	1998 11 16	704	1.5-	0.5+	2000 02 02	704	0.9+	0.6-
1997 06 29	704	0.3+	1.2+	1998 12 14	704	0.7+	0.3-	2000 02 02	704	0.3+	0.9-
1997 06 29	704	0.2-	0.9+	1998 12 14	704	0.3+	1.6-	2000 02 04	704	0.4-	0.0
1997 07 02	704	1.0+	0.4-	1998 12 14	704	(0.3+	2.4-)	2000 02 04	704	0.0	0.0
1997 07 02	704	0.5+	1.0-	1998 12 14	704	(3.2-	2.6+)	2000 02 04	704	0.3-	0.1+
1997 07 02	704	0.6-	0.5-	2000 01 05	704	0.2-	0.3-	2000 02 04	704	0.1+	0.4+
1997 07 02	704	0.7-	0.8-	2000 01 05	704	0.1+	0.2-	2000 02 04	704	0.1+	0.2+
1997 07 02	704	0.5-	0.5-	2000 01 05	704	0.5+	0.7-	2000 02 08	704	0.0	0.3+
1997 07 03	704	1.8+	1.5-	2000 01 05	704	0.1+	1.5-	2000 02 08	704	0.9-	0.4+
1997 07 03	704	2.0+	1.1-	2000 01 07	704	0.2-	0.5+	2000 02 08	704	0.3-	0.0
1997 07 03	704	0.4-	1.6-	2000 01 07	704	0.1-	0.5-	2000 02 08	704	0.3-	0.7+

2000 AD₁₃₀ = 1978 CM = 1991 XE₆

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Spahr

<i>M</i>	305.00754		(2000.0)		P		Q
<i>n</i>	0.26941632	ω	273.17672	-0.77160001			+0.62755582
<i>a</i>	2.3742154	Ω	305.72056	-0.52085281			-0.71711832
<i>e</i>	0.1923415	<i>i</i>	7.35670	-0.36516542			-0.30317487
<i>P</i>	3.66	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1978 02 02	675	0.1-	0.1+	2000 01 07	704	0.9-	0.6-	2000 02 01	703	1.0-	0.3+
1978 02 03	675	0.2-	0.8-	2000 01 07	704	0.1-	0.6+	2000 02 04	704	0.4-	0.1-
1991 12 11	033	0.5+	0.7+	2000 01 07	704	0.2+	0.6+	2000 02 04	704	0.1-	0.1+
1991 12 11	033	0.4-	1.0-	2000 01 07	704	0.2-	0.2+	2000 02 04	704	0.5+	0.0
1999 12 06	704	1.3+	0.4-	2000 01 07	704	0.1-	0.0	2000 02 04	704	0.2-	0.2+
1999 12 06	704	0.3-	0.1+	2000 01 30	703	0.3-	0.2+	2000 02 04	704	0.1-	0.1-
1999 12 06	704	0.5+	0.6+	2000 01 30	703	0.1+	0.5+	2000 02 06	704	0.1+	0.1+
1999 12 06	704	0.5-	0.6+	2000 01 30	703	0.1+	0.3+	2000 02 06	704	0.4+	0.3-
1999 12 06	704	0.4+	0.4+	2000 01 30	703	0.5-	0.3+	2000 02 06	704	0.4+	0.6-
2000 01 05	704	0.8+	0.1-	2000 02 01	703	0.2+	0.2+	2000 02 06	704	0.7+	0.2-
2000 01 05	704	0.4-	0.7-	2000 02 01	703	0.1-	0.2-	2000 02 06	704	0.3+	0.8-
2000 01 05	704	0.1-	0.1-	2000 02 01	703	0.4+	0.3+				

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M	7.19330		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.23250277	ω	80.12920	-0.85981733	-0.42413567
a	2.6192923	Ω	74.30829	+0.26926266	-0.84970780
e	0.2267828	i	17.17550	+0.43383382	-0.31321812
P	4.24	H	14.3	G 0.15	U 5

Residuals in seconds of arc

1994 12 01	691	0.3−	0.3−	2000 01 03	704	0.1−	0.7−	2000 01 08	704	0.0	0.3−
1994 12 01	691	0.2−	0.1−	2000 01 03	704	0.6−	0.3−	2000 01 08	704	0.1−	0.7−
1994 12 01	691	0.4−	0.1+	2000 01 03	704	0.9+	0.2−	2000 01 31	704	0.3+	0.2+
1994 12 03	691	0.3+	0.3+	2000 01 03	704	0.6−	0.5+	2000 01 31	704	0.1−	0.2+
1994 12 03	691	0.2+	0.1+	2000 01 08	704	0.8+	1.0−	2000 01 31	704	0.1−	1.6+
1994 12 03	691	0.2+	0.1+	2000 01 08	704	0.8−	0.1+				
2000 01 03	704	0.4+	0.9+	2000 01 08	704	0.2+	0.5−				

2000 AS₁₃₃ = 1996 EY₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	76.57480	(2000.0)		P	Q		
<i>n</i>	0.21134761	ω	10.49546	+0.95359816	−0.30097927		
<i>a</i>	2.7912870	Ω	7.03594	+0.27136982	+0.84786708		
<i>e</i>	0.1511496	<i>i</i>	3.68638	+0.13041843	+0.43650074		
<i>P</i>	4.66	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1996 03 12	691	0.2+	0.1−	1999 12 15	704	0.0	0.3−	2000 01 08	704	0.6−	1.0−
1996 03 12	691	0.9+	0.1+	1999 12 15	704	0.2+	0.4+	2000 01 08	704	0.6−	0.3−
1996 03 12	691	0.7+	0.1+	2000 01 04	704	0.2+	0.2−	2000 01 08	704	0.0	0.6−
1996 03 17	691	0.5−	0.7−	2000 01 04	704	0.5+	0.5−	2000 01 25	704	0.0	0.6+
1996 03 17	691	0.8−	0.3+	2000 01 04	704	0.1−	0.2−	2000 01 25	704	0.5−	1.2+
1996 03 17	691	0.6−	0.1+	2000 01 04	704	0.3+	0.4+	2000 01 25	704	0.1−	0.7+
1999 12 15	704	0.5+	0.0	2000 01 04	704	0.1+	0.1−				

2000 AV₁₃₃ = 1995 UT₄₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	61.15449	(2000.0)		P	Q		
<i>n</i>	0.28598537	ω	85.73939	+0.66726777	−0.74378129		
<i>a</i>	2.2816035	Ω	322.30709	+0.65533878	+0.61135190		
<i>e</i>	0.0782243	<i>i</i>	3.68362	+0.35395594	+0.27025589		
<i>P</i>	3.45	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1995 10 17	327	0.6−	0.6−	2000 01 04	704	0.0	0.2−	2000 01 30	704	0.3+	0.2+
1995 10 17	327	0.4+	0.0	2000 01 04	704	0.1−	0.8+	2000 01 30	704	0.6+	0.0
1995 10 17	327	0.4+	0.0	2000 01 08	704	0.2−	0.8−	2000 01 30	704	0.5+	0.4+
1995 10 18	327	0.1+	0.3+	2000 01 08	704	0.0	0.1−	2000 01 31	704	0.6+	0.2+
1995 10 18	327	0.2+	0.2+	2000 01 08	704	0.1−	0.6−	2000 01 31	704	0.3−	0.7−
1995 10 18	327	0.4−	0.1+	2000 01 08	704	1.3+	1.1+	2000 01 31	704	0.5+	0.3−
2000 01 04	704	0.8−	0.8−	2000 01 08	704	0.0	0.1−	2000 01 31	704	1.5−	0.2+
2000 01 04	704	0.0	0.6+	2000 01 30	704	0.9−	0.1+				

2000 AL₁₃₄ = 1998 TB₂₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	232.84597	(2000.0)		P	Q		
<i>n</i>	0.17775658	ω	293.78482	−0.35570028	+0.93459332		
<i>a</i>	3.1327009	Ω	315.37831	−0.85562634	−0.32717136		
<i>e</i>	0.1187938	<i>i</i>	0.28994	−0.37600648	−0.13962172		
<i>P</i>	5.54	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 10 14	691	0.3+	0.4+	2000 01 03	704	0.2+	0.7+	2000 01 08	704	0.6+	0.3+
1998 10 14	691	0.0	0.0	2000 01 03	704	0.2−	0.1−	2000 01 08	691	0.1+	0.0
1998 10 14	691	0.1+	0.1+	2000 01 03	691	0.2+	0.4−	2000 01 08	691	0.3+	0.2−
1998 10 19	691	0.3−	0.2−	2000 01 03	704	0.5+	0.2−	2000 01 08	691	0.2+	0.2−
1998 10 19	691	0.1−	0.1−	2000 01 04	704	0.0	0.4+	2000 01 15	691	0.1−	0.1+
1998 10 19	691	0.0	0.1−	2000 01 04	704	0.5+	0.0	2000 01 15	691	0.1−	0.0
1999 12 08	704	0.3+	0.8−	2000 01 04	704	1.3−	1.1+	2000 01 15	691	0.3−	0.0
1999 12 08	704	0.4+	0.4+	2000 01 04	704	0.8+	0.7−	2000 01 25	704	0.6−	0.4−
1999 12 08	704	1.1−	0.5−	2000 01 04	704	0.2−	0.1+	2000 01 25	704	0.4−	0.2−
2000 01 03	691	0.2+	0.4−	2000 01 08	704	0.3−	0.3+	2000 01 25	704	0.7+	0.5−
2000 01 03	704	0.4−	0.3+	2000 01 08	704	0.2+	0.7+	2000 01 25	704	0.1+	0.5+

2000 01 03	704	0.5−	0.2−	2000 01 08	704	0.0	0.7−
2000 01 03	691	0.3+	0.5−	2000 01 08	704	0.3−	0.9+

2000 AY₁₃₄ = 1995 BM₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Spahr			
<i>M</i>	294.44601	(2000.0)		P	Q		
<i>n</i>	0.18288568	ω	220.30418	−0.96855619	+0.24376357		
<i>a</i>	3.0738517	Ω	333.67832	−0.18943687	−0.85227400		
<i>e</i>	0.1246562	<i>i</i>	6.44622	−0.16128418	−0.46282648		
<i>P</i>	5.39	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1995 01 28	691	0.8+	0.2+	2000 01 04	704	0.0	0.2−	2000 01 29	704	0.2+	0.1+
1995 01 28	691	0.2−	0.0	2000 01 04	704	0.2+	0.2−	2000 01 29	704	0.3+	0.0
1995 02 06	691	0.1−	0.3+	2000 01 04	704	0.5−	0.5−	2000 01 29	704	0.6−	0.1−
1995 02 06	691	0.3−	0.2−	2000 01 04	704	0.4−	0.2−	2000 01 29	704	0.2+	0.2+
1995 02 06	691	0.2−	0.3−	2000 01 08	704	0.0	0.7+	2000 01 30	704	0.0	0.5−
1999 12 10	704	0.1+	0.3+	2000 01 08	704	0.1+	0.1+	2000 01 30	704	0.6+	0.3−
1999 12 10	704	0.2−	0.6−	2000 01 08	704	0.2+	0.5−	2000 01 30	704	0.1−	0.2−
1999 12 10	704	0.2−	0.3+	2000 01 08	704	0.5−	0.4+	2000 01 30	704	0.1−	0.1+
1999 12 10	704	0.8+	0.0	2000 01 08	704	0.2−	0.2+				
2000 01 04	704	0.2+	0.1+	2000 01 29	704	0.2−	0.9+				

2000 AS₁₃₅ = 1992 EY₃₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	6.24974	(2000.0)		P	Q		
<i>n</i>	0.23664883	ω	165.82316	−0.43833700	−0.89797217		
<i>a</i>	2.5886091	Ω	310.15926	+0.81961576	−0.38161688		
<i>e</i>	0.1411284	<i>i</i>	2.91125	+0.36890470	−0.21912222		
<i>P</i>	4.16	<i>H</i>	16.2	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1992 03 05	809	0.4+	0.1−	2000 01 04	704	0.9−	0.7−	2000 01 08	704	0.5−	1.5−
1992 03 09	809	0.4−	0.0	2000 01 08	704	0.4+	0.4−	2000 01 29	691	0.1+	0.1+
2000 01 04	704	0.0	1.3+	2000 01 08	704	0.6+	0.3−	2000 01 29	691	0.0	0.3+
2000 01 04	704	0.4−	0.7+	2000 01 08	704	0.5+	0.2−	2000 01 29	691	0.1−	0.3+
2000 01 04	704	0.1+	1.0+	2000 01 08	704	0.1+	0.6−				

2000 AX₁₃₆ = 1986 RZ₁₀ = 1992 DU₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	351.30228	(2000.0)		P	Q		
<i>n</i>	0.25052970	ω	190.00365	−0.98837188	−0.14653443		
<i>a</i>	2.4920872	Ω	341.42199	+0.14682843	−0.85031866		
<i>e</i>	0.0352018	<i>i</i>	7.32210	+0.03952779	−0.50545607		
<i>P</i>	3.93	<i>H</i>	13.3	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1986 09 09	095	(4.2−	3.8−)	1999 01 14	699	0.1−	0.7−	2000 01 08	704	0.6+	0.3−
1992 02 27	033	0.4−	1.0−	1999 01 14	699	0.1+	0.3−	2000 01 10	699	0.3+	0.2−
1992 02 27	033	1.0−	1.1−	1999 01 14	699	0.0	1.1−	2000 01 10	699	0.0	0.4+
1992 02 28	033	0.7−	0.8−	1999 12 05	704	0.3−	0.1+	2000 01 10	699	1.5+	0.2−
1996 02 20	566	(4.4−	7.2−)	1999 12 05	704	1.0−	0.1−	2000 02 05	704	0.4+	0.9+
1996 02 20	566	(4.8−	7.1−)	1999 12 05	704	0.2−	0.4−	2000 02 05	704	0.1−	0.3+
1996 02 20	566	(4.3−	7.1−)	1999 12 05	704	0.5−	0.1+	2000 02 05	704	0.4−	0.2+
1996 03 15	566	0.6+	0.6−	1999 12 05	699	0.3−	0.6−	2000 02 06	704	0.3−	0.2+
1996 03 15	566	0.2+	0.2−	1999 12 05	704	0.1−	0.4−	2000 02 06	704	0.2−	0.1−
1996 03 15	566	0.4+	0.5−	1999 12 05	699	0.0	0.8+	2000 02 06	704	0.0	0.5−
1996 04 19	566	0.1−	0.2+	1999 12 05	699	0.3+	0.2−	2000 02 06	704	0.2−	0.2−
1996 04 19	566	0.1−	0.2+	1999 12 18	699	0.8+	0.3+	2000 02 08	691	0.2−	0.2−
1996 04 19	566	0.3−	0.0	1999 12 18	699	0.4−	0.7+	2000 02 08	691	0.1−	0.3−
1998 11 14	704	0.7−	0.2−	1999 12 18	699	0.6+	0.0	2000 02 08	691	0.1−	0.2−
1998 11 14	704	0.4−	0.3−	2000 01 04	704	0.3+	0.2−	2000 02 11	704	0.2+	0.2+
1998 11 14	704	0.2+	0.6−	2000 01 04	704	0.3+	0.1−	2000 02 11	704	0.0	0.9+
1998 11 14	704	0.2+	0.0	2000 01 04	704	0.4−	0.2−	2000 02 11	704	0.2−	0.5+

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1998 11 14	704	1.8+	0.6+	2000 01 04	704	0.2+	0.2-	2000 02 11	704	0.6-	0.7+
1998 11 16	704	0.6-	0.0	2000 01 04	704	0.8+	0.3-	2000 02 11	704	0.7-	0.1+
1998 11 16	704	0.5-	0.5+	2000 01 08	704	0.0	0.5+	2000 02 13	106	0.0	0.1+
1998 11 16	704	0.4-	0.5+	2000 01 08	704	0.4+	0.2-	2000 02 13	106	0.2+	0.4+
1998 11 16	704	0.1+	1.4+	2000 01 08	704	0.7+	0.4+	2000 02 14	106	0.1+	0.6+
1998 11 16	704	(3.2+	0.8+)	2000 01 08	704	0.5+	1.0+				

2000 AC₁₃₇ = 1977 CP₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	312.77963		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.17455727	ω	209.35449	-0.69348167	+0.72000995
a	3.1708626	Ω	16.78438	-0.64233035	-0.60160818
e	0.1373698	i	5.13822	-0.32633556	-0.34590933
P	5.65	H	13.2	G 0.15	U 3

Residuals in seconds of arc

1977 02 11	675	0.7-	0.4-	2000 01 08	704	0.1-	0.6-	2000 02 06	704	0.1-	0.1-
1977 02 12	675	0.1+	1.2-	2000 01 08	704	0.1-	0.3-	2000 02 06	704	0.4+	0.2-
1999 01 16	704	0.7+	0.2-	2000 01 08	704	0.2-	1.0-	2000 02 06	704	0.5-	0.2-
1999 01 16	704	0.7+	1.2+	2000 01 10	699	0.5-	0.1-	2000 02 11	704	0.2+	0.1+
1999 01 16	704	1.0-	1.8-	2000 01 10	699	0.3-	0.2+	2000 02 11	704	0.3-	0.4-
1999 01 16	704	0.4-	1.9+	2000 01 10	699	0.5-	0.7+	2000 02 11	704	0.4-	0.2+
2000 01 04	704	0.1-	0.5+	2000 02 01	703	0.5+	0.0	2000 02 11	704	0.4-	0.5+
2000 01 04	704	0.4-	0.4-	2000 02 01	703	0.3+	0.1+	2000 02 11	704	0.1-	0.4+
2000 01 04	704	1.2+	0.8+	2000 02 01	703	0.1+	0.1+	2000 02 16	703	0.3+	1.0+
2000 01 04	704	0.3+	0.3-	2000 02 01	703	0.7+	0.7+	2000 02 16	703	0.2+	0.3-
2000 01 08	704	0.0	0.9-	2000 02 06	704	0.5+	0.0	2000 02 16	703	0.3+	0.3+
2000 01 08	704	0.5-	0.0	2000 02 06	704	0.1+	0.1-	2000 02 16	703	0.1-	0.0

2000 AP₁₃₇ = 1982 JS = 1998 XB₅₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	263.79526		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.21244694	ω	186.28894	-0.02158384	+0.99520264
a	2.7816494	Ω	82.50319	-0.91302349	+0.01926675
e	0.0297625	i	5.52311	-0.40733553	-0.09591918
P	4.64	H	13.6	G 0.15	U 3

Residuals in seconds of arc

1982 05 15	675	0.8+	1.3-	1998 12 17	704	1.1+	0.1+	2000 01 08	704	0.6-	0.3-
1982 05 16	675	0.8-	1.3-	1998 12 17	704	0.2+	0.4-	2000 01 08	704	1.6+	0.4-
1982 05 16	675	0.8-	0.5-	1998 12 17	704	0.5+	0.1-	2000 01 08	704	1.1-	0.9-
1982 05 17	675	0.7-	1.2-	1998 12 17	704	0.2+	0.9-	2000 01 08	704	0.5-	1.6-
1998 12 15	704	0.9+	1.7-	1998 12 17	704	0.6-	1.2-	2000 02 04	704	0.0	0.4+
1998 12 15	704	0.3+	0.4+	1998 12 17	704	0.3-	1.4-	2000 02 04	704	0.7+	0.2+
1998 12 15	704	0.3+	0.5+	1998 12 17	704	0.1+	0.0	2000 02 04	704	0.0	0.1+
1998 12 15	704	0.7+	0.3+	1998 12 17	704	(0.9-	2.5-)	2000 02 04	704	1.1-	1.2+
1998 12 15	704	0.0	0.4+	1998 12 22	704	0.6-	1.7-	2000 02 04	704	0.7-	1.5+
1998 12 16	704	0.4+	0.3-	1998 12 22	704	(2.7-	2.0+)	2000 02 11	704	0.6+	0.2-
1998 12 16	704	0.6-	0.0	1998 12 22	704	1.4-	1.4+	2000 02 11	704	1.2+	0.3+
1998 12 16	704	(1.2+	2.5-)	1998 12 22	704	(2.2-	0.5+)	2000 02 11	704	0.8+	1.0+
1998 12 16	704	(0.4+	2.7-)	2000 01 04	704	0.1-	0.2+	2000 02 11	704	0.1-	0.2-
1998 12 16	704	(1.1+	2.3-)	2000 01 04	704	0.2+	0.6+	2000 02 11	704	0.4+	0.2-
1998 12 17	704	0.4-	0.4+	2000 01 04	704	0.4-	0.4+				

2000 AD₁₄₁ = 1998 RK₁₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	46.98082		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.28516455	ω	233.25880	-0.01563866	-0.99798216
a	2.2859796	Ω	217.77956	+0.94641169	+0.00508194
e	0.0394043	i	5.76515	+0.32258385	-0.06329118
P	3.46	H	15.0	G 0.15	U 1

Residuals in seconds of arc

1995 10 15	327	0.0	0.4+	1998 09 15	699	0.6+	0.8+	2000 01 08	704	0.0	0.1-
1995 10 15	327	0.0	0.2+	1998 09 15	699	0.5-	0.8+	2000 01 08	704	0.3-	0.4+
1995 10 15	327	0.6-	1.4-	1998 09 18	704	(0.9+	2.6+)	2000 01 08	704	0.2+	0.1-
1995 10 28	327	0.1-	0.7+	1998 09 18	704	1.0+	0.3-	2000 01 08	704	0.2-	0.9-
1995 10 28	327	0.7-	0.0	1998 09 18	704	0.5-	1.1+	2000 01 08	704	0.1+	0.0
1995 10 28	327	1.1+	0.9+	1998 09 18	704	1.0-	0.3+	2000 02 02	704	0.4+	0.3+
1997 02 09	910	0.6+	0.8+	1998 09 18	704	0.7+	0.6-	2000 02 02	704	0.6+	0.3+
1997 02 09	910	0.4+	1.1+	1999 12 05	704	0.8-	0.4-	2000 02 02	704	0.0	0.5+
1997 02 09	910	0.1-	1.1+	1999 12 05	704	0.0	0.6-	2000 02 02	704	0.4+	0.9+
1998 09 14	704	0.9-	1.4-	1999 12 05	704	0.1-	0.3-	2000 02 02	704	0.5+	0.8+
1998 09 14	704	1.2-	0.2-	2000 01 05	704	0.8-	0.3-	2000 02 06	704	0.1-	0.6+
1998 09 14	704	0.0	0.2+	2000 01 05	704	0.0	0.0	2000 02 06	704	0.2+	0.2+
1998 09 14	704	0.3-	1.2+	2000 01 05	704	0.1+	0.5-	2000 02 06	704	0.3+	0.5+
1998 09 14	704	1.0-	1.5+	2000 01 05	704	0.0	0.2-	2000 02 06	704	0.1+	0.3+
1998 09 15	699	1.9+	0.1+	2000 01 05	704	0.6-	0.6-				

2000 AF₁₄₁ = 1998 QV₆₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	122.22347		(2000.0)	P	Q		
n	0.26971199	ω	103.59551	+0.99043400	-0.06598157		
a	2.3724799	Ω	260.28865	+0.01575427	+0.92659506		
e	0.1525103	i	7.06247	+0.13708500	+0.37022700		
P	3.65	H	14.6	G	0.15	U	4

Residuals in seconds of arc

1998 06 25	699	0.0	0.7-	1998 09 17	699	0.4-	0.1+	2000 01 08	704	0.4+	0.2+
1998 06 25	699	0.1-	1.1+	1998 09 17	699	0.0	0.3+	2000 01 08	704	0.1-	0.5-
1998 06 25	699	0.7-	0.4+	1999 12 05	704	1.5-	0.5+	2000 01 08	704	0.4+	0.2+
1998 07 31	699	0.0	0.4-	1999 12 05	704	0.3+	1.0+	2000 01 08	704	0.9-	0.0
1998 07 31	699	0.0	0.4-	1999 12 05	704	0.4+	0.3+	2000 01 08	704	0.2-	0.1+
1998 07 31	699	0.2+	0.3-	1999 12 05	704	0.0	0.1+	2000 02 02	704	0.0	0.2-
1998 08 24	704	0.9+	0.6-	1999 12 14	704	0.7+	0.2-	2000 02 02	704	0.1+	0.1-
1998 08 24	704	0.1+	0.9+	1999 12 14	704	0.9-	0.9-	2000 02 02	704	0.2-	0.3+
1998 08 24	704	0.9-	1.6-	1999 12 14	704	0.8+	0.4-	2000 02 02	704	0.5-	0.4-
1998 08 27	704	0.6-	0.6+	1999 12 14	704	0.4-	0.5-	2000 02 02	704	0.2+	0.0
1998 08 27	704	0.2-	0.5+	1999 12 14	704	0.6-	0.7-	2000 02 04	704	0.2-	0.4-
1998 08 27	704	0.2-	0.2+	2000 01 05	704	1.7+	0.1-	2000 02 04	704	0.8+	0.6+
1998 08 27	704	1.2+	0.3+	2000 01 05	704	0.5+	0.7+	2000 02 04	704	0.9-	0.5+
1998 08 27	704	0.5+	0.0	2000 01 05	704	0.4+	0.4-				
1998 09 17	699	0.3-	0.0	2000 01 05	704	0.4-	0.4+				

2000 AN₁₄₁ = 1978 RQ₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	92.11883		(2000.0)	P	Q
n	0.29258697	ω	226.84406	+0.82368149	-0.56624854
a	2.2471534	Ω	167.54409	+0.55237224	+0.78918345
e	0.1305033	i	8.04595	+0.12819402	+0.23780682
P	3.37	H	13.9	G 0.15	U 1

Residuals in seconds of arc

1978 09 02	809	0.2-	0.5-	1999 10 20	704	0.3-	0.4+	2000 02 02	704	0.1+	0.1+
1978 09 02	809	0.7-	0.4-	1999 12 05	704	0.1+	0.2-	2000 02 02	704	0.2-	0.2+
1978 09 02	809	0.1+	0.2+	1999 12 05	704	0.0	0.1-	2000 02 02	704	0.2-	0.1+
1978 09 02	809	0.0	0.1-	1999 12 05	704	0.6+	0.1+	2000 02 04	704	0.8-	0.9+
1978 09 06	809	0.1+	0.2-	1999 12 05	704	0.5+	0.2-	2000 02 04	704	0.5-	0.3+
1978 09 10	809	0.7-	1.7+	1999 12 05	704	0.6+	0.6-	2000 02 04	704	0.2-	1.0+
1978 09 10	809	0.4+	0.9-	2000 01 05	704	0.0	0.1-	2000 02 04	704	0.5-	0.8+
1978 09 10	809	0.3-	1.0+	2000 01 05	704	0.1+	0.3-	2000 02 06	704	0.1-	0.3+
1978 09 10	809	1.3+	0.5-	2000 01 05	704	0.0	0.6-	2000 02 06	704	0.3+	0.2+
1998 08 17	704	(0.7-	2.2+)	2000 01 05	704	0.7+	1.6-	2000 02 06	704	0.3+	0.2+
1998 08 17	704	1.2+	0.6+	2000 01 05	704	0.8-	1.5-	2000 02 06	704	0.1+	0.2+
1998 08 17	704	0.5-	1.0-	2000 01 08	704	0.8-	0.4+	2000 02 06	704	0.0	0.1+
1998 08 17	704	0.1+	0.4+	2000 01 08	704	0.2-	0.0	2000 02 12	704	(2.9+	1.3-)
1998 08 17	704	0.7-	0.3+	2000 01 08	704	0.0	0.1-	2000 02 12	704	(1.5+	3.7-)

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1999 10 20	704	0.2−	0.1+	2000 01 08	704	0.3+	0.2−	2000 02 12	704	1.3+	0.4+
1999 10 20	704	0.2−	0.3+	2000 01 08	704	0.5+	0.5−	2000 02 12	704	0.5−	0.5−
1999 10 20	704	0.2−	1.1+	2000 02 02	704	0.1+	0.1−				
1999 10 20	704	0.7+	0.1+	2000 02 02	704	0.0	0.3+				

2000 AQ₁₄₁ = 1989 PJ = 1998 QG₉₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	118.74760		(2000.0)		P		Q
<i>n</i>	0.22267160	ω	208.23390		+0.99358587		−0.06631262
<i>a</i>	2.6958321	Ω	155.05911		+0.08418051		+0.97459040
<i>e</i>	0.2046064	<i>i</i>	12.54548		−0.07550343		+0.21395371
<i>P</i>	4.43	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1989 08 09	675	1.2−	0.5+	1998 10 18	699	0.4+	0.5+	2000 02 02	704	1.5+	0.1−
1989 08 09	675	0.8+	1.4+	1998 10 18	699	0.1−	0.4+	2000 02 02	704	0.8+	0.6−
1998 08 28	704	0.4+	0.1+	1998 10 18	699	0.2−	0.2−	2000 02 02	704	0.8+	0.8−
1998 08 28	704	0.9−	1.0+	2000 01 05	704	0.4+	0.6−	2000 02 02	704	0.5+	0.1−
1998 08 28	704	1.6−	0.4−	2000 01 05	704	0.1+	0.1+	2000 02 02	704	0.9+	0.5−
1998 08 28	704	1.8+	1.6−	2000 01 05	704	0.1−	0.1−	2000 02 04	704	0.7−	0.4−
1998 08 28	704	0.4−	0.9−	2000 01 05	704	0.6+	0.2−	2000 02 04	704	0.1−	0.7−
1998 08 31	704	0.2+	0.9+	2000 01 08	704	0.5−	0.4+	2000 02 04	704	0.2−	0.7−
1998 08 31	704	1.2+	0.6−	2000 01 08	704	0.5−	0.7+	2000 02 04	704	0.3+	0.2+
1998 08 31	704	0.6−	0.7+	2000 01 08	704	0.3+	0.3+	2000 02 04	704	0.4−	0.3−
1998 08 31	704	1.8+	0.5−	2000 01 08	704	0.4+	0.7+	2000 02 11	704	0.3−	0.8+
1998 08 31	704	0.9−	1.4−	2000 02 01	703	1.7−	0.6−	2000 02 11	704	0.3−	1.2+
1998 09 21	699	0.2−	0.1+	2000 02 01	703	1.3−	0.3+	2000 02 11	704	0.1−	1.1+
1998 09 21	699	0.6−	0.1+	2000 02 01	703	1.3+	1.3−	2000 02 11	704	0.4−	1.7+
1998 09 21	699	0.1+	0.5+	2000 02 01	703	1.0−	0.5+				

2000 AT₁₄₁ = 1998 UM₂₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	65.01914		(2000.0)		P		Q
<i>n</i>	0.17496334	ω	258.49704		+0.37931367		−0.92464782
<i>a</i>	3.1659545	Ω	169.02727		+0.90307268		+0.36199545
<i>e</i>	0.0809156	<i>i</i>	10.25168		+0.20144693		+0.11826120
<i>P</i>	5.63	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 10 18	809	0.0	0.4−	2000 01 05	704	0.2+	0.3+	2000 02 02	704	0.3+	0.1+
1998 10 18	809	1.0−	1.0−	2000 01 05	704	1.0+	0.1−	2000 02 02	704	0.7+	0.1−
1998 10 18	809	0.9−	0.3−	2000 01 05	704	0.1+	0.2+	2000 02 02	704	0.0	0.1+
1998 10 19	809	0.9+	0.4+	2000 01 05	704	0.1+	0.4+	2000 02 02	704	0.3+	0.6−
1998 10 19	809	0.4+	0.3+	2000 01 05	704	0.8−	0.3−	2000 02 02	704	0.0	0.1−
1998 10 19	809	0.6+	0.8+	2000 01 08	704	0.1+	0.3+	2000 02 04	704	0.2−	0.2+
1998 11 13	704	(3.7−	2.7−)	2000 01 08	704	0.1+	0.0	2000 02 04	704	0.0	0.2+
1998 11 13	704	(2.1−	4.6−)	2000 01 08	704	0.6−	0.7−	2000 02 04	704	0.1−	0.1+
1998 11 13	704	(3.3−	3.6−)	2000 01 08	704	0.3+	0.1−	2000 02 04	704	0.5−	0.1−
1998 11 13	704	(7.7−	5.4−)	2000 01 08	704	0.5−	0.0	2000 02 04	704	0.5−	0.2+

2000 AU₁₄₁ = 1994 LH₆

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Spahr

<i>M</i>	106.69577		(2000.0)		P		Q
<i>n</i>	0.28060503	ω	134.67699		+0.91757828		−0.38594181
<i>a</i>	2.3106761	Ω	248.23988		+0.32949117		+0.87252647
<i>e</i>	0.1208199	<i>i</i>	5.89509		+0.22245374		+0.29957717
<i>P</i>	3.51	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1994 06 03	809	0.8−	0.6−	1998 08 27	704	0.7+	0.5−	2000 01 08	704	0.1−	0.2+
1994 06 03	809	0.6+	1.2−	1998 08 27	704	0.9+	0.8−	2000 01 08	704	0.4−	0.5+
1994 06 03	809	1.6+	1.5−	1998 09 15	699	0.4−	0.6+	2000 01 08	704	0.3−	0.8+
1994 06 04	809	0.9−	2.0+	1998 09 15	699	0.6−	0.9+	2000 02 02	704	0.7+	0.1+

1994 06 04	809	0.2−	1.0+	1998 09 15	699	0.4−	0.3+	2000 02 02	704	0.0	0.2+
1994 06 04	809	0.1−	0.8+	2000 01 05	704	0.2−	0.2+	2000 02 02	704	0.0	0.9−
1998 08 19	566	0.2−	0.2+	2000 01 05	704	0.5+	0.1−	2000 02 02	704	0.0	0.4−
1998 08 19	566	0.3−	0.4+	2000 01 05	704	0.4−	0.0	2000 02 06	704	0.1−	0.3−
1998 08 19	566	0.1+	0.5+	2000 01 05	704	0.9+	0.3−	2000 02 06	704	0.3−	0.0
1998 08 27	704	0.3−	0.5+	2000 01 05	704	0.5+	0.1−	2000 02 06	704	0.2−	0.3+
1998 08 27	704	0.7+	1.2−	2000 01 08	704	0.4−	0.3+	2000 02 06	704	0.6+	0.1+
1998 08 27	704	0.5−	0.4−	2000 01 08	704	0.4−	0.2+				

2000 AY₁₄₁ = 1997 GZ₁₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	79.11675		(2000.0)		P		Q
<i>n</i>	0.27800570	ω	215.22096		+0.77573357		−0.63103438
<i>a</i>	2.3250569	Ω	183.92013		+0.59656379		+0.73626825
<i>e</i>	0.2257529	<i>i</i>	4.82315		+0.20578891		+0.24434539
<i>P</i>	3.55	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 03 11	809	(6.1−	3.4−)	1999 12 05	704	0.4−	0.5−	2000 02 04	704	0.2−	0.2+
1997 03 11	809	(4.0−	4.2−)	2000 01 05	704	0.5−	0.3−	2000 02 04	704	0.1+	0.1−
1997 03 11	809	(4.5−	4.1−)	2000 01 05	704	0.2−	0.5−	2000 02 04	704	0.1+	0.1−
1997 03 13	809	(3.5−	4.5−)	2000 01 05	704	0.3−	0.5−	2000 02 06	704	0.2+	0.4−
1997 03 13	809	(3.5−	3.0−)	2000 01 05	704	0.3−	0.8−	2000 02 06	704	0.2+	0.2+
1997 03 13	809	(2.4−	3.0−)	2000 01 05	704	0.3−	0.3−	2000 02 06	704	0.8+	0.1+
1997 04 03	704	0.4+	0.6−	2000 01 08	704	0.2−	0.2−	2000 02 06	704	0.2−	0.5−
1997 04 03	704	0.0	0.2+	2000 01 08	704	0.5−	0.6−	2000 02 06	704	0.4+	0.1−
1997 04 05	704	0.5−	0.5+	2000 01 08	704	0.1−	0.6−	2000 02 08	704	0.0	0.4+
1997 04 05	704	0.1−	0.3−	2000 01 08	704	0.5−	0.3+	2000 02 08	704	0.2+	0.2+
1997 04 06	704	0.2−	0.1+	2000 01 08	704	0.6−	0.3−	2000 02 08	704	0.4+	0.3+
1997 04 06	704	0.2+	0.6−	2000 02 02	704	0.0	0.4−	2000 02 08	704	0.5+	0.5+
1997 04 07	704	0.9−	0.2−	2000 02 02	704	0.5−	0.2+	2000 02 08	704	0.1+	0.6+
1997 04 07	704	0.8+	0.0	2000 02 02	704	0.3+	0.4+	2000 02 12	704	0.1+	0.9+
1999 12 05	704	0.0	0.5−	2000 02 02	704	0.2+	0.6+	2000 02 12	704	(2.5−	2.9+)
1999 12 05	704	0.1−	0.1+	2000 02 02	704	0.4−	1.0+	2000 02 12	704	(3.2−	4.5+)
1999 12 05	704	0.3+	0.3+	2000 02 04	704	0.1−	0.3+				
1999 12 05	704	0.8+	0.0	2000 02 04	704	0.5+	0.1+				

2000 AD₁₄₂ = 1988 RP₂ = 1998 VS₂₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	277.90932		(2000.0)		P		Q
<i>n</i>	0.21243787	ω	316.23190		−0.50617204		+0.85168338
<i>a</i>	2.7817286	Ω	282.92143		−0.74799397		−0.51188042
<i>e</i>	0.1031283	<i>i</i>	8.00540		−0.42929582		−0.11231147
<i>P</i>	4.64	<i>H</i>	12.6	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1988 09 08	054	1.2−	0.2−	1999 12 14	704	0.2−	0.0	2000 02 02	704	0.3+	0.2+
1988 09 08	054	1.0−	1.4−	1999 12 14	704	0.4−	0.7−	2000 02 02	704	0.1+	0.1−
1988 09 09	054	2.1+	0.3+	1999 12 14	704	0.7−	0.4−	2000 02 02	704	0.1+	0.2−
1988 09 16	054	0.5+	0.3+	1999 12 14	704	0.2+	0.7−	2000 02 02	704	0.1+	0.0
1998 11 10	704	0.3−	0.2+	1999 12 14	704	0.4+	1.1−	2000 02 02	704	0.3+	0.0
1998 11 10	704	1.0+	0.0	2000 01 05	704	0.1+	0.0	2000 02 05	704	0.1+	0.3+
1998 11 10	704	0.8+	0.3−	2000 01 05	704	0.4−	0.5−	2000 02 05	704	0.2+	0.1+
1998 11 10	704	1.5−	0.8−	2000 01 05	704	0.9−	0.2−	2000 02 05	704	0.6+	0.3−
1998 11 11	704	0.3+	1.6+	2000 01 05	704	0.3−	0.2+	2000 02 06	704	0.0	0.2−
1998 11 11	704	0.3−	0.9+	2000 01 05	704	1.3−	0.4−	2000 02 06	704	0.2+	0.2−
1998 11 11	704	0.4+	1.0−	2000 01 08	704	0.0	0.3−	2000 02 06	704	0.6+	0.1−
1998 11 11	704	0.4−	0.1+	2000 01 08	704	0.3−	0.1−	2000 02 06	704	0.2+	0.1+
1999 12 05	703	0.2+	1.1+	2000 01 08	704	0.4+	0.4+	2000 02 06	704	0.4+	0.6+
1999 12 05	703	0.2+	1.2+	2000 01 08	704	0.6−	0.3+	2000 02 12	704	0.8+	0.2−
1999 12 05	703	0.3−	0.1−	2000 01 08	704	1.7−	0.5+	2000 02 12	704	0.1−	0.1−
1999 12 05	703	0.4+	0.3+	2000 02 01	703	0.4−	0.9−	2000 02 12	704	0.6+	0.3−
1999 12 09	699	1.1+	1.3+	2000 02 01	703	1.0−	0.4+	2000 02 12	704	0.3+	0.3+
1999 12 09	699	0.1−	0.3−	2000 02 01	703	0.3−	0.3−	2000 02 12	704	0.3+	0.0
1999 12 09	699	0.9+	0.1−	2000 02 01	703	0.1+	0.0				

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2000 AG₁₄₂ = 1993 OP₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22246145	ω	131.90321	+0.32197939	−0.92796269		
<i>a</i>	2.6975296	Ω	298.39953	+0.79316367	+0.37262053		
<i>e</i>	0.1555614	<i>i</i>	12.31751	+0.51693391	+0.00625959		
<i>P</i>	4.43	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1993 07 13	809	1.9+	1.3−	1998 08 27	704	0.4−	0.7−	2000 02 02	704	0.2−	0.1+
1993 07 13	809	1.2+	0.9−	1998 08 27	704	0.4−	0.7−	2000 02 02	704	0.3+	0.1−
1993 07 13	809	1.3+	0.7−	1998 08 27	704	(2.5−	0.5−)	2000 02 02	704	0.2+	0.4+
1993 07 20	809	1.0−	0.0	2000 01 05	704	0.5−	0.6−	2000 02 02	704	0.3+	0.0
1993 07 20	809	1.1−	0.2−	2000 01 05	704	0.3−	1.1−	2000 02 02	704	0.2+	0.1−
1993 07 20	809	1.2−	0.2−	2000 01 05	704	0.6−	0.0	2000 02 06	704	0.3−	0.3−
1993 07 24	809	0.6+	0.4−	2000 01 05	704	0.1+	0.0	2000 02 06	704	0.2−	0.1−
1998 08 19	704	0.4+	0.2+	2000 01 05	704	0.2+	0.4−	2000 02 06	704	0.0	0.4−
1998 08 19	704	0.4−	1.0+	2000 01 08	704	0.0	0.6−	2000 02 06	704	0.0	0.2+
1998 08 19	704	0.5+	0.7+	2000 01 08	704	0.6−	0.5−	2000 02 06	704	0.4+	0.4−
1998 08 19	704	(5.9−	0.0)	2000 01 08	704	0.6−	0.7−	2000 02 13	106	0.1−	0.4−
1998 08 27	704	0.6+	1.4−	2000 01 08	704	0.3−	0.2−	2000 02 13	106	0.5−	0.7+
1998 08 27	704	0.5+	0.5−	2000 01 08	704	0.7−	0.5−	2000 02 13	106	0.3+	0.2+

2000 AH₁₄₂ = 1975 TM₃ = 1997 UE₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.17400281	ω	245.72813	+0.49645527	−0.86792504		
<i>a</i>	3.1775950	Ω	174.43172	+0.84292647	+0.47775513		
<i>e</i>	0.0642464	<i>i</i>	9.15413	+0.20738161	+0.13585348		
<i>P</i>	5.66	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1975 10 03	095	0.1+	0.5−	1998 11 16	699	0.0	0.2−	2000 01 10	704	0.7+	0.6−
1997 09 29	327	0.1−	0.3+	1998 11 16	699	0.9+	0.9+	2000 01 10	704	0.6−	0.1+
1997 09 29	327	0.2+	0.3−	1998 11 16	566	0.8−	1.2−	2000 01 10	704	0.5−	0.4−
1997 09 29	327	0.5+	0.3+	1998 11 16	566	1.0−	1.0−	2000 01 10	704	0.2−	0.6+
1997 10 09	327	0.6+	0.7+	1998 11 16	566	0.8−	1.0−	2000 02 02	704	0.4+	0.1+
1997 10 09	327	0.2+	0.0	2000 01 05	704	0.4−	0.1−	2000 02 02	704	0.0	0.2+
1997 10 09	327	0.2−	0.1+	2000 01 05	704	0.3−	0.6−	2000 02 02	704	0.1−	0.2+
1997 10 17	327	0.2−	0.2−	2000 01 05	704	0.1−	0.2+	2000 02 02	704	0.2+	0.2+
1997 10 17	327	0.0	0.3+	2000 01 05	704	0.2+	1.1+	2000 02 02	704	0.2+	0.2+
1997 10 17	327	0.8−	0.5+	2000 01 08	704	0.1−	0.4−	2000 02 05	704	0.3+	0.0
1997 10 17	327	0.0	0.2−	2000 01 08	704	0.6−	0.2+	2000 02 05	704	0.2+	0.2−
1997 10 19	327	0.1+	0.5+	2000 01 08	704	0.8−	0.2−	2000 02 05	704	0.6+	0.1−
1997 10 19	327	0.4−	0.4+	2000 01 08	704	0.1+	0.4+	2000 02 06	704	(1.1+	2.3−)
1997 10 19	327	0.3−	0.2−	2000 01 08	704	0.6−	0.2−	2000 02 06	704	1.4+	0.4−
1998 11 13	704	0.4−	0.9+	2000 01 08	704	0.7−	0.1+	2000 02 06	704	0.2+	0.3+
1998 11 13	704	1.3+	0.9−	2000 01 08	704	0.3−	0.3−	2000 02 06	704	0.4+	0.5+
1998 11 13	704	0.4−	1.4+	2000 01 08	704	1.3−	0.6+	2000 02 06	704	0.3+	0.9+
1998 11 13	704	1.7+	0.0	2000 01 08	704	(0.5−	2.1−)	2000 02 13	106	0.6+	0.2+
1998 11 13	704	0.6−	0.1+	2000 01 08	704	1.1−	0.2+	2000 02 13	106	0.4+	0.4−
1998 11 16	699	0.1+	0.9+	2000 01 10	704	1.3+	0.7−	2000 02 13	106	0.1+	0.2−

2000 AV₁₄₂ = 1979 HM = 1998 YE₁₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.18212784	ω	342.36245	−0.98394638	+0.17387118		
<i>a</i>	3.0823727	Ω	207.74708	−0.15155219	−0.93309814		
<i>e</i>	0.0892535	<i>i</i>	4.95694	−0.09424145	−0.31479625		
<i>P</i>	5.41	<i>H</i>	13.1	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1979 04 19	807	0.9−	0.6+	1998 12 25	691	0.2−	0.6−	2000 01 08	704	0.5+	0.3−
1979 04 26	807	0.7+	0.8−	1998 12 28	691	0.4−	0.5−	2000 01 08	704	0.3+	1.1−
1979 04 26	807	0.1+	0.0	1998 12 28	691	0.3−	0.7−	2000 01 08	704	0.0	0.3−

1997 12 01	621	0.3−	0.9+	1998 12 28	691	0.3−	0.5−	2000 01 08	704	1.1−	0.3+
1997 12 01	621	0.5−	1.0+	1999 12 05	703	0.2−	1.4+	2000 02 02	704	0.0	0.3+
1997 12 01	621	0.2−	0.8+	1999 12 05	703	0.3−	0.2+	2000 02 02	704	0.0	0.2+
1998 11 23	699	0.2+	0.1+	1999 12 05	704	(2.4−	0.5+)	2000 02 02	704	0.0	0.2+
1998 11 23	699	0.1+	0.1−	1999 12 05	703	0.5−	0.4+	2000 02 02	704	0.2+	0.3+
1998 11 23	699	0.3+	1.0−	1999 12 05	704	0.3−	0.3−	2000 02 02	704	0.1+	0.6+
1998 11 24	704	0.2+	0.4+	1999 12 05	703	0.0	0.8+	2000 02 06	704	0.3−	0.2+
1998 11 24	704	0.0	0.6−	1999 12 05	704	0.5+	0.5+	2000 02 06	704	0.3+	0.2+
1998 11 24	704	0.0	0.9+	1999 12 05	704	0.3+	0.1−	2000 02 06	704	0.5−	0.0
1998 11 24	704	0.0	0.7−	1999 12 05	704	0.0	0.6+	2000 02 06	704	0.2−	0.6−
1998 11 24	704	1.1+	0.5+	1999 12 16	699	0.3+	1.3+	2000 02 06	704	0.1−	0.6−
1998 12 08	699	0.1−	0.5−	1999 12 16	699	0.7+	0.2+	2000 02 13	106	0.4−	0.2−
1998 12 08	699	0.3+	1.2+	1999 12 16	699	0.1−	1.0+	2000 02 13	106	0.8+	0.1−
1998 12 08	699	0.3−	0.7+	2000 01 05	704	1.3+	0.1+	2000 02 13	106	0.1+	0.2+
1998 12 25	691	0.2−	0.6−	2000 01 05	704	0.2−	1.8−				
1998 12 25	691	0.1−	0.8−	2000 01 05	704	0.5−	0.3−				

2000 AX₁₄₂ = 1991 RB₂₀

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.27614229	ω	170.94264	+0.88372877	−0.46383473		
<i>a</i>	2.3355048	Ω	216.89936	+0.42262238	+0.84811979		
<i>e</i>	0.1288846	<i>i</i>	5.95548	+0.20103180	+0.25602765		
<i>P</i>	3.57	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1991 09 14	675	0.4+	0.3−	1998 12 09	699	0.5−	0.3−	2000 01 08	704	0.8−	0.0
1991 09 14	675	0.0	0.0	1998 12 09	699	0.2+	1.2+	2000 01 08	704	0.6−	0.2−
1991 09 17	675	0.1−	0.2−	1998 12 09	699	0.6−	0.3+	2000 01 08	704	0.1−	0.1−
1991 09 17	675	0.0	0.5−	1999 12 14	704	(2.9+	1.6+)	2000 02 02	704	0.1+	0.6+
1998 06 30	699	0.8−	0.6−	1999 12 14	704	1.3+	0.4+	2000 02 02	704	0.3+	0.2+
1998 06 30	699	0.5−	0.6+	1999 12 14	704	0.1+	0.9+	2000 02 02	704	0.1+	0.8+
1998 06 30	699	0.5−	1.0+	1999 12 14	704	0.0	0.6−	2000 02 02	704	0.5+	0.0
1998 08 23	704	0.1+	0.1−	1999 12 14	704	1.3−	0.5−	2000 02 02	704	0.1+	0.6+
1998 08 23	704	0.3+	0.8+	2000 01 05	704	0.2+	0.1−	2000 02 06	704	0.3+	0.4+
1998 08 23	704	0.2+	0.6−	2000 01 05	704	0.0	0.4+	2000 02 06	704	0.7−	0.1−
1998 08 23	704	0.5+	0.3−	2000 01 05	704	0.2+	0.6−	2000 02 06	704	0.4+	0.1−
1998 10 11	699	0.0	0.5+	2000 01 05	704	0.1−	0.2+	2000 02 06	704	0.2+	0.1+
1998 10 11	699	0.0	0.6+	2000 01 08	704	0.0	0.3−	2000 02 06	704	0.3+	0.8−
1998 10 11	699	0.1+	0.0	2000 01 08	704	0.4−	0.1−				

2000 AD₁₄₃ = 1995 BJ₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	7.60807		(2000.0)		P		Q				
n	0.20445929	ω	225.36357		−0.76287057		−0.63542233				
a	2.8536332	Ω	274.80954		+0.62194284		−0.67072059				
e	0.2459260	i	6.88439		+0.17667938		−0.38258640				
P	4.82	H	14.4		G	0.15	U	3			
Residuals in seconds of arc											
1995 01 29	905	0.4+	0.0	1999 12 14	704	0.3+	0.8−	2000 01 08	704	0.1+	0.1+
1995 01 29	905	0.9−	0.4−	1999 12 14	704	0.4+	0.4−	2000 02 03	704	0.7−	0.5+
1995 01 31	905	0.8+	0.5−	1999 12 16	699	0.0	0.3−	2000 02 03	704	0.1−	0.5+
1995 01 31	905	0.3+	0.4−	1999 12 16	699	0.6−	1.0+	2000 02 03	704	0.2−	0.1+
1995 02 02	905	1.2−	0.5+	1999 12 16	699	0.3−	0.3+	2000 02 03	704	0.1+	0.2−
1995 02 02	905	0.8+	1.2+	2000 01 05	704	0.1+	0.2+	2000 02 03	704	0.6−	1.0−
1999 12 05	703	0.6+	0.2−	2000 01 05	704	0.5+	0.2+	2000 02 06	704	0.0	0.0
1999 12 05	703	0.1−	0.0	2000 01 05	704	0.4+	0.3−	2000 02 06	704	0.0	0.4+
1999 12 05	703	0.6−	0.4+	2000 01 05	704	0.2+	0.1−	2000 02 06	704	0.2+	0.2+
1999 12 05	703	0.6−	1.0+	2000 01 05	704	0.2+	0.6−	2000 02 06	704	0.6+	0.1−
1999 12 14	704	0.2+	0.4+	2000 01 08	704	0.8−	0.3+	2000 02 13	106	0.1+	0.1+
1999 12 14	704	0.4+	0.5−	2000 01 08	704	0.1−	0.2−	2000 02 13	106	0.2−	0.3−
1999 12 14	704	0.6−	1.5−	2000 01 08	704	0.6+	0.1+	2000 02 13	106	0.2+	0.1+

2000 AG₁₄₃ = 1985 RN₁ = 1993 UF₃ = 1998 XC₇₀

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	254.83807		(2000.0)		P		Q
n	0.24212742	ω	342.72311		+0.11538153		+0.98447532
a	2.5494122	Ω	293.73798		-0.89343349		+0.04465813
e	0.1878547	i	8.30805		-0.43412406		+0.16974687
P	4.07	H	13.3	G	0.15	U	1

Residuals in seconds of arc

1985 09 09	046	1.0-	0.2+	1998 12 17	704	0.4+	0.0	2000 01 06	699	0.3+	0.4-
1985 09 09	046	0.5-	0.1+	1999 12 05	704	0.2-	0.3+	2000 01 08	704	0.2+	0.2-
1985 09 10	046	0.5-	1.9+	1999 12 05	704	0.3-	0.2+	2000 01 08	704	0.2+	0.1-
1985 09 10	046	0.5+	0.3+	1999 12 05	704	0.7-	0.2-	2000 01 08	704	0.1+	1.4-
1993 10 20	675	1.6+	1.5-	1999 12 05	703	0.0	0.0	2000 01 08	704	0.2-	0.1+
1993 10 20	675	(2.1+	0.7+)	1999 12 05	704	0.2-	0.2-	2000 01 08	704	(2.7-	1.3-)
1993 10 21	675	1.9+	1.9-	1999 12 05	703	1.3+	1.2-	2000 02 02	704	0.3-	0.5+
1997 08 31	910	0.2-	0.0	1999 12 05	703	1.0+	0.5-	2000 02 02	704	0.3-	0.2+
1997 08 31	910	0.3-	0.0	1999 12 05	704	0.2-	0.3-	2000 02 02	704	0.6-	0.4+
1997 08 31	910	0.2-	0.0	1999 12 05	703	0.4+	0.9-	2000 02 02	704	0.4-	0.4+
1998 12 14	704	(1.9-	3.0+)	2000 01 05	704	0.5+	0.6+	2000 02 06	704	0.1-	0.4+
1998 12 14	704	0.4+	0.2+	2000 01 05	704	0.1-	0.2-	2000 02 06	704	0.1+	0.0
1998 12 14	704	0.6+	1.6+	2000 01 05	704	0.7-	0.3+	2000 02 06	704	0.2+	0.1-
1998 12 17	704	0.4-	0.4+	2000 01 05	704	0.3+	1.1-	2000 02 06	704	0.0	0.1-
1998 12 17	704	0.1+	0.1-	2000 01 05	704	0.9-	0.3+	2000 02 06	704	0.4+	0.6+
1998 12 17	704	1.3-	1.0-	2000 01 06	699	0.2+	0.4+				
1998 12 17	704	0.1-	0.6-	2000 01 06	699	0.2+	0.5+				

2000 AK₁₄₃ = 1998 YA₁₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	239.39765		(2000.0)		P		Q
n	0.21407814	ω	46.70915		+0.03064000		+0.99548926
a	2.7675013	Ω	225.28433		-0.94974556		+0.00099838
e	0.1853048	i	7.25915		-0.31151977		+0.09486905
P	4.60	H	13.8	G	0.15	U	4

Residuals in seconds of arc

1998 11 24	704	0.9-	1.4-	1998 12 25	691	0.6+	0.6+	2000 01 10	704	0.5-	0.2-
1998 11 24	704	1.1+	1.0-	1998 12 28	691	0.0	0.4+	2000 01 10	704	0.9+	0.1-
1998 11 24	704	0.5+	0.3-	1998 12 28	691	0.5+	0.3+	2000 01 10	704	0.5+	0.0
1998 11 24	704	1.0+	0.3+	1998 12 28	691	0.5+	1.1+	2000 01 10	704	0.2+	0.6-
1998 11 24	704	0.5+	1.0+	2000 01 05	704	0.0	0.5-	2000 01 10	704	0.2+	0.2-
1998 12 17	704	0.5-	1.7-	2000 01 05	704	0.2+	0.5+	2000 01 11	704	1.0-	0.3+
1998 12 17	704	1.6-	1.7-	2000 01 05	704	0.6+	0.5-	2000 01 11	704	0.1+	0.4-
1998 12 17	704	1.8-	1.2+	2000 01 05	704	0.2-	1.3+	2000 01 11	704	(0.4+	2.2-)
1998 12 17	704	0.7-	0.3-	2000 01 08	704	0.3-	0.2-	2000 02 04	704	0.2+	0.2-
1998 12 17	704	(7.3-	1.9-)	2000 01 08	704	0.1+	0.7+	2000 02 04	704	0.2+	0.2-
1998 12 25	691	0.4+	1.0+	2000 01 08	704	0.5-	0.5+	2000 02 04	704	0.5+	0.8-
1998 12 25	691	0.5+	0.5+	2000 01 08	704	1.0-	0.6+				

2000 AM₁₄₃ = 1989 EV₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	5.75006		(2000.0)		P	Q	
n	0.26826404	ω	257.49421		-0.71241648	-0.69806878	
a	2.3810092	Ω	238.18077		+0.67221685	-0.64944698	
e	0.0717438	i	4.85074		+0.20146281	-0.30152710	
P	3.67	H	15.6	G	0.15	U	5

Residuals in seconds of arc

1989 03 02	809	1.2+	0.4-	2000 01 08	704	0.9-	0.0	2000 02 02	704	0.3+	0.6-
1989 03 02	809	1.1-	0.4-	2000 01 08	704	0.1-	0.4-	2000 02 02	704	0.0	0.0
1989 03 02	809	1.2+	1.6-	2000 01 08	704	0.7+	0.0	2000 02 05	704	0.3-	0.4+
1989 03 03	809	0.2+	1.7+	2000 01 08	704	0.4+	0.0	2000 02 05	704	0.4-	0.2+
1989 03 03	809	0.7-	1.0+	2000 02 02	703	0.8-	0.1-	2000 02 05	704	0.2+	0.8-

1989 03 03	809	0.7-	1.0-	2000 02 02	703	0.1+	0.0	2000 02 08	704	0.4+	0.6+
2000 01 05	704	0.6+	0.0	2000 02 02	704	0.5+	0.4+	2000 02 08	704	0.5+	0.3-
2000 01 05	704	0.6-	0.7+	2000 02 02	703	0.9-	0.4-	2000 02 08	704	0.5-	0.3+
2000 01 05	704	0.4+	1.0-	2000 02 02	704	0.2+	0.1+	2000 02 08	704	0.3-	0.8+
2000 01 05	704	0.1-	0.5+	2000 02 02	703	0.5-	0.2+	2000 02 08	704	0.8+	0.9-
2000 01 08	704	0.3-	0.4+	2000 02 02	704	0.6+	0.2-				

2000 AN₁₄₃ = 1998 QE₉₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	133.14076		(2000.0)		P		Q
n	0.21882830	ω	187.56773		+0.97756279		+0.19885791
a	2.7273051	Ω	160.53735		-0.18069009		+0.96115066
e	0.2582849	i	12.03490		-0.10826853		+0.19142867
P	4.50	H	13.4	G	0.15	U	5

Residuals in seconds of arc

1998 08 28	704	0.1+	0.4+	2000 01 05	704	0.1+	0.1-	2000 02 05	704	0.8+	1.0+
1998 08 28	704	0.5+	1.6+	2000 01 05	704	0.3-	0.5+	2000 02 05	704	0.7+	0.9+
1998 08 28	704	0.8-	0.4+	2000 01 08	704	0.6-	0.6-	2000 02 06	704	1.4+	0.4+
1998 08 28	704	1.4-	0.2-	2000 01 08	704	0.3-	0.2-	2000 02 06	704	0.4+	0.0
1998 08 28	704	0.0	1.2-	2000 01 08	704	0.8-	0.3-	2000 02 06	704	0.7+	0.8+
1998 08 31	704	0.1-	0.1-	2000 01 08	704	0.6+	0.4-	2000 02 12	704	0.5-	1.1-
1998 08 31	704	0.6-	1.5-	2000 01 08	704	0.3+	0.5-	2000 02 12	704	0.2-	0.5-
1998 08 31	704	0.5+	0.9+	2000 02 02	704	(0.4-	2.2-)	2000 02 12	704	0.0	0.2-
1998 08 31	704	(2.6+	1.8+)	2000 02 02	704	0.1-	0.8-	2000 02 12	704	1.5-	0.9+
1998 08 31	704	1.9+	0.1-	2000 02 02	704	0.2-	0.9-				
2000 01 05	704	0.6-	0.4-	2000 02 05	704	0.1-	1.5+				

2000 AO₁₄₃ = 1998 RO₃₀

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	60.65756		(2000.0)		P		Q
n	0.25675519	ω	250.92748		+0.29930838		-0.95415188
a	2.4516393	Ω	181.66495		+0.90911742		+0.28611630
e	0.0794260	i	5.82025		+0.28968949		+0.08792978
P	3.84	H	15.2	G	0.15	U	3

Residuals in seconds of arc

1997 05 04	809	0.0	0.1+	1998 09 14	704	0.9+	0.5+	2000 01 08	704	0.1-	1.2-
1997 05 04	809	0.1-	0.4-	1998 09 14	704	0.6+	0.4+	2000 01 08	704	0.3-	0.4-
1997 05 04	809	0.1-	0.6-	1998 09 18	704	(2.3+	1.8-)	2000 02 02	704	1.0-	0.6+
1998 08 17	704	0.3-	0.1-	1998 09 18	704	(2.8+	0.0)	2000 02 02	704	0.1-	0.4-
1998 08 17	704	0.7-	0.1-	1998 09 18	704	0.4-	1.9-	2000 02 02	704	0.7+	0.7-
1998 08 17	704	(1.2+	2.3-)	1998 09 18	704	0.4-	0.7-	2000 02 02	704	0.7-	0.3-
1998 08 17	704	(3.1+	2.3-)	2000 01 05	704	(2.5-	0.5+)	2000 02 06	704	0.5+	0.3-
1998 08 23	704	1.2-	0.6-	2000 01 05	704	0.7-	0.5+	2000 02 06	704	0.6+	1.3+
1998 08 23	704	0.4+	0.0	2000 01 05	704	0.1-	0.2+	2000 02 06	704	0.5+	0.2+
1998 08 23	704	0.4-	0.5+	2000 01 05	704	0.2-	0.3+	2000 02 06	704	0.3+	0.1+
1998 08 23	704	(3.8-	1.0+)	2000 01 08	704	0.4-	1.1-	2000 02 06	704	0.7+	0.6+
1998 09 14	704	1.3+	1.0+	2000 01 08	704	0.1-	0.2-				
1998 09 14	704	0.4+	0.1+	2000 01 08	704	0.1-	0.0				

2000 AR₁₄₃ = 1998 VY₄₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

$\dot{M}$	120.54421		(2000.0)		P		Q
n	0.25828997	ω	228.00372		+0.95081363		-0.22151365
a	2.4419177	Ω	143.20646		+0.24830938		+0.96294565
e	0.1362575	i	21.19392		-0.18519150		+0.15384206
P	3.82	H	14.4	G	0.15	U	4

Residuals in seconds of arc

1998 08 19	699	0.3+	1.6+	2000 01 05	704	0.7-	0.8+	2000 02 02	704	0.1+	0.1-
1998 08 19	699	0.4+	1.0+	2000 01 05	704	1.3-	0.1-	2000 02 02	704	0.3-	0.2-
1998 08 19	699	0.2+	1.2+	2000 01 05	704	0.6-	0.1-	2000 02 04	704	0.8+	0.7-
1998 09 28	699	0.9-	0.7+	2000 01 08	704	0.6+	0.1-	2000 02 04	704	0.2-	0.7+

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1998 09 28	699	0.3+	0.2+	2000 01 08	704	0.5+	0.4+	2000 02 04	704	1.4+	0.6+
1998 09 28	699	0.5-	0.6+	2000 01 08	704	0.5-	0.1+	2000 02 04	704	0.0	0.6+
1998 11 14	809	0.4+	1.0-	2000 01 08	704	0.7-	0.6-	2000 02 04	704	0.8+	0.0
1998 11 14	809	0.7-	1.9-	2000 01 08	704	0.6-	0.7-	2000 02 12	704	1.1-	0.5+
1998 11 15	809	0.6+	0.1-	2000 02 02	704	1.1+	0.3-	2000 02 12	704	0.6-	0.7+
1998 11 15	809	0.6-	1.0-	2000 02 02	704	0.0	0.2+	2000 02 12	704	1.1+	1.4+
2000 01 05	704	0.2-	0.2+	2000 02 02	704	0.1-	0.1+				

2000 AT₁₄₃ = 1998 XK₂₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.19006630	ω	305.40010	-0.47745810	+0.86539867		
<i>a</i>	2.9959367	Ω	295.39310	-0.74168952	-0.48973171		
<i>e</i>	0.0646287	<i>i</i>	9.68957	-0.47109492	-0.10605659		
<i>P</i>	5.19	<i>H</i>	13.1	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 12 14	704	0.5-	0.1-	1999 12 05	703	(2.2+	2.0+)	2000 02 02	704	0.3+	0.0
1998 12 14	704	0.3+	0.7-	1999 12 05	703	0.8-	1.2+	2000 02 02	704	0.1-	0.0
1998 12 14	704	0.8-	0.5+	2000 01 05	704	0.8+	0.3+	2000 02 02	704	0.2-	0.4+
1998 12 14	704	1.7+	0.9-	2000 01 05	704	1.3+	0.8+	2000 02 02	704	0.0	0.5+
1998 12 14	704	(2.3-	0.0)	2000 01 05	704	0.1-	1.0-	2000 02 06	704	0.1+	0.8+
1998 12 17	704	1.3-	0.4+	2000 01 05	704	0.1-	0.2+	2000 02 06	704	0.5+	0.0
1998 12 17	704	0.6+	0.0	2000 01 08	704	0.1-	0.6-	2000 02 06	704	0.0	0.4+
1998 12 17	704	0.5+	0.4+	2000 01 08	704	0.5-	0.3-	2000 02 06	704	0.2-	0.2+
1998 12 17	704	0.7-	0.3+	2000 01 08	704	0.5-	0.3-	2000 02 06	704	0.2+	0.0
1998 12 17	704	0.2+	0.0	2000 01 08	704	0.4-	0.0	2000 02 13	106	0.4-	0.6-
1999 12 05	703	0.5+	0.5-	2000 01 08	704	0.4-	1.3-	2000 02 13	106	0.2+	0.1-
1999 12 05	703	(0.9-	2.8+)	2000 02 02	704	0.1-	0.2-	2000 02 13	106	(3.5-	1.0-)

2000 AV₁₄₃ = 1995 DN₁₂ = 1998 XV₈₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.19115957	ω	147.93439	+0.55876959	+0.82532806		
<i>a</i>	2.9845030	Ω	155.73891	-0.79654522	+0.56138897		
<i>e</i>	0.0958714	<i>i</i>	11.41226	-0.23085115	+0.06063008		
<i>P</i>	5.16	<i>H</i>	12.5	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1995 02 22	033	0.4+	0.2-	2000 01 05	704	0.0	0.6-	2000 02 02	704	0.2-	0.0
1995 02 23	033	0.3+	0.4-	2000 01 05	704	0.9+	0.6+	2000 02 02	704	0.2-	0.3+
1995 02 24	033	0.8-	0.1+	2000 01 05	704	0.5-	0.8+	2000 02 02	704	0.2+	0.4+
1998 12 15	704	(0.8+	3.0-)	2000 01 05	704	0.9-	0.6+	2000 02 04	704	0.2+	0.0
1998 12 15	704	1.5+	0.4-	2000 01 08	704	0.8-	0.6-	2000 02 04	704	0.0	0.4+
1998 12 15	704	0.2-	0.5+	2000 01 08	704	0.2+	0.3-	2000 02 04	704	0.4+	0.1+
1998 12 15	704	0.9+	0.7-	2000 01 08	704	0.3+	0.5-	2000 02 04	704	0.4+	0.8+
1998 12 22	704	1.1-	0.5+	2000 01 08	704	1.0+	1.3-	2000 02 04	704	0.2-	1.0+
1998 12 22	704	0.3-	0.3+	2000 01 08	704	0.1+	0.4-	2000 02 13	106	0.5+	0.6-
1998 12 22	704	1.2-	1.0-	2000 02 02	704	0.2-	0.0	2000 02 13	106	0.2-	0.3+
1998 12 22	704	0.5+	0.9+	2000 02 02	704	0.2-	0.1-	2000 02 13	106	0.7-	0.4-

2000 AL₁₄₄ = 1997 PU

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.24249937	ω	50.65883	-0.93819067	+0.29757804		
<i>a</i>	2.5468047	Ω	145.57794	-0.32337944	-0.93567984		
<i>e</i>	0.1620533	<i>i</i>	18.22199	+0.12338559	-0.18960629		
<i>P</i>	4.06	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 08 03	910	0.4-	0.1-	2000 01 08	704	0.3-	0.1-	2000 02 03	012	0.5-	0.1+
1997 08 03	910	0.4+	0.4-	2000 01 08	704	0.6-	1.0+	2000 02 04	704	0.5+	0.3-
1997 08 03	910	0.0	0.1-	2000 01 08	704	0.0	1.6+	2000 02 04	704	0.1+	0.1+
1997 08 04	910	0.0	0.3+	2000 01 08	704	0.1-	0.1+	2000 02 04	704	1.0+	0.2+
1997 08 04	910	0.1-	0.0	2000 01 16	739	0.1-	0.2-	2000 02 04	704	0.5+	0.2-

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1997 08 04	910	0.0	0.3+	2000 01 16	739	0.1+	0.2-	2000 02 04	704	0.4+	0.2-
2000 01 05	704	0.2+	0.3+	2000 01 16	739	0.6-	0.0	2000 02 11	704	0.2-	0.1+
2000 01 05	704	0.3-	0.7-	2000 02 03	012	1.0-	0.5+	2000 02 11	704	0.2+	0.2+
2000 01 05	704	0.2-	0.4-	2000 02 03	012	0.9-	0.1+	2000 02 11	704	0.5+	0.1-
2000 01 05	704	0.2+	1.2-	2000 02 03	012	0.5-	0.3-	2000 02 11	704	0.6-	0.4-
2000 01 08	704	1.7+	0.1-	2000 02 03	012	0.5-	0.1-	2000 02 11	704	1.0+	0.3+

2000 AM₁₄₄ = 1998 QR₁₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	51.27886	ω	150.69981	-0.08360038	-0.99506155		
<i>a</i>	2.2497005	Ω	304.04706	+0.90123828	-0.05258707		
<i>e</i>	0.1415758	<i>i</i>	3.70288	+0.42518295	-0.08418503		
<i>P</i>	3.37	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 17	704	0.1+	0.4-	1999 11 04	703	0.2-	0.8+	2000 02 02	704	0.3+	0.2+
1998 08 17	704	0.7-	0.2+	1999 11 04	703	0.6+	0.0	2000 02 02	704	0.3+	0.6+
1998 08 17	704	0.1-	0.6+	2000 01 05	704	0.0	0.2-	2000 02 02	704	0.5+	0.3+
1998 08 17	704	0.1-	0.0	2000 01 05	704	0.3+	0.9-	2000 02 02	704	0.4-	0.8+
1998 08 17	704	0.9+	0.1+	2000 01 05	704	0.0	0.9-	2000 02 05	704	0.3-	1.4+
1998 08 23	699	0.4-	0.2+	2000 01 05	704	0.6+	0.5-	2000 02 05	704	0.7-	0.3+
1998 08 23	704	0.7-	0.1+	2000 01 06	699	0.6+	0.8+	2000 02 05	704	0.2-	0.3+
1998 08 23	704	0.8-	0.3+	2000 01 06	699	0.1+	0.2+	2000 02 06	704	0.1-	0.6+
1998 08 23	699	0.8+	0.1-	2000 01 06	699	0.4-	1.0+	2000 02 06	704	0.6-	0.2-
1998 08 23	704	0.4-	1.7+	2000 01 08	704	0.7+	0.1+	2000 02 06	704	0.4-	0.1+
1998 08 23	704	(2.3+	0.4+)	2000 01 08	704	0.1-	0.6-	2000 02 13	106	0.1-	0.0
1998 08 23	699	0.2-	0.5+	2000 01 08	704	0.9+	0.4-	2000 02 13	106	0.5+	0.3-
1998 08 23	704	0.3+	0.3+	2000 01 08	704	0.9+	0.1-	2000 02 13	106	0.1+	0.1-
1999 11 04	703	0.1-	0.3+	2000 01 08	704	0.4+	0.5-				
1999 11 04	703	1.3-	0.3-	2000 02 02	704	0.0	0.2+				

2000 AP₁₄₄ = 1993 PH₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22944643	ω	336.06003	+0.58125034	+0.79014862		
<i>a</i>	2.6425011	Ω	328.41586	-0.67374293	+0.33330990		
<i>e</i>	0.0146673	<i>i</i>	21.79437	-0.45630965	+0.51436337		
<i>P</i>	4.30	<i>H</i>	12.8	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1993 08 15	010	0.3-	0.3+	1999 02 08	704	1.3-	0.5+	2000 01 08	704	0.5-	0.3-
1993 08 15	010	0.7-	0.9+	1999 02 08	704	(1.2+	2.2+)	2000 01 08	704	0.4+	0.4-
1993 08 15	010	1.1-	1.3+	1999 02 08	704	(4.1-	0.2-)	2000 01 08	704	0.5-	0.6-
1993 08 17	010	(3.5+	0.6-)	1999 12 05	704	0.3+	1.2+	2000 02 02	704	0.5+	0.2+
1997 10 29	568	0.5-	0.4-	1999 12 05	704	0.4+	1.0+	2000 02 02	704	0.4+	0.4+
1998 08 29	704	0.2-	0.4-	1999 12 05	704	1.4+	1.6+	2000 02 02	704	0.8+	0.7+
1998 08 29	704	0.2-	0.7+	1999 12 05	699	0.5-	1.3+	2000 02 02	704	0.2-	0.8+
1998 08 29	704	0.9-	0.9+	1999 12 05	699	0.3-	0.2+	2000 02 05	704	0.4-	0.3+
1998 08 29	704	0.5+	0.3+	1999 12 05	699	1.0-	0.1+	2000 02 05	704	0.2+	0.1-
1998 08 29	704	1.0-	1.1-	1999 12 18	699	0.9+	1.1+	2000 02 05	704	0.2-	0.4-
1998 11 17	704	0.2+	0.5+	1999 12 18	699	0.1-	1.4+	2000 02 06	704	0.3+	0.5-
1998 11 17	704	0.3+	0.2+	1999 12 18	699	0.4+	1.1+	2000 02 06	704	0.3-	0.0
1998 11 17	704	(0.6-	2.7+)	2000 01 05	704	0.7-	0.3-	2000 02 06	704	0.0	0.3-
1998 11 17	704	0.4+	0.7-	2000 01 05	704	0.1+	0.7-	2000 02 06	704	0.5-	0.8-
1998 11 17	704	(1.8+	3.2-)	2000 01 05	704	0.6+	0.6-	2000 02 06	704	0.3+	0.5-
1998 11 19	704	0.5+	0.5-	2000 01 05	704	0.8+	1.6-	2000 02 12	704	(1.7-	4.1-)
1998 11 19	704	(2.2+	0.6-)	2000 01 06	699	0.4+	0.3+	2000 02 12	704	(3.4-	3.4-)
1998 11 19	704	(0.1-	4.6-)	2000 01 06	699	0.6+	0.0	2000 02 12	704	(1.2-	4.6-)
1998 11 19	704	1.1+	1.5-	2000 01 06	699	0.2+	0.2+	2000 02 12	704	(2.6-	3.4-)
1998 11 19	704	0.0	0.6+	2000 01 08	704	0.8-	0.0				
1999 02 08	704	1.1+	0.2+	2000 01 08	704	0.1-	0.3-				

2000 AT₁₄₄ = 1993 PL₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	322.43113		(2000.0)	P		Q	
<i>n</i>	0.23772271	ω	245.54028	-0.85013643		+0.50990810	
<i>a</i>	2.5808074	Ω	324.70094	-0.36190475		-0.74705598	
<i>e</i>	0.1011228	<i>i</i>	13.14224	-0.38248268		-0.42649864	
<i>P</i>	4.15	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1993 08 15	010	(2.6+	3.5+)	1999 12 05	704	1.6+	0.4-	2000 02 02	704	0.2-	0.5+
1993 08 15	010	(2.0+	5.1+)	1999 12 05	704	1.6+	1.1-	2000 02 02	704	1.0+	1.6+
1993 08 15	010	(4.6+	4.2+)	1999 12 05	704	1.8+	0.4-	2000 02 02	704	0.8+	1.2+
1993 08 16	010	0.2+	1.2+	1999 12 05	699	0.4+	1.0+	2000 02 02	704	0.6+	1.1+
1993 08 17	010	1.4-	1.5+	1999 12 05	699	0.0	1.1+	2000 02 07	704	0.8-	1.6-
1993 08 17	010	1.1-	0.5+	1999 12 05	699	0.1+	0.3-	2000 02 07	704	0.9-	1.4-
1998 12 12	704	0.0	0.6-	2000 01 05	704	0.8-	0.1+	2000 02 07	704	0.9-	1.8-
1998 12 12	704	0.2-	0.3-	2000 01 05	704	0.8+	0.6+	2000 02 07	704	0.8-	1.8-
1998 12 12	704	0.4-	1.1-	2000 01 05	704	0.5-	2.0+	2000 02 07	704	0.8-	1.4-
1998 12 12	704	(1.7-	2.5+)	2000 01 05	704	0.1-	0.4+	2000 02 08	704	0.3-	0.3-
1998 12 12	704	1.3-	1.0-	2000 01 08	704	0.3-	0.4+	2000 02 08	704	0.0	0.1-
1999 01 08	704	0.5+	1.2+	2000 01 08	704	0.4+	0.4+	2000 02 08	704	0.2+	0.8-
1999 01 08	704	1.6+	0.7+	2000 01 08	704	0.2+	1.1+	2000 02 08	704	0.0	0.5+
1999 01 08	704	0.5+	0.2+	2000 01 08	704	0.1+	1.0+	2000 02 14	106	0.0	1.0+
1999 01 08	704	(4.0-	0.9-)	2000 01 08	704	0.6+	0.3+	2000 02 14	106	0.5+	0.8+
1999 12 05	704	0.7-	1.0+	2000 02 02	704	0.3+	0.4-	2000 02 14	106	0.1+	0.2+

2000 AR₁₄₅ = 1981 UQ₁ = 1995 WL₆ = 1997 GO₄₄ = 1998 MQ₃₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	115.86748		(2000.0)	P		Q	
<i>n</i>	0.28688098	ω	159.71575	+0.98496326		-0.16641471	
<i>a</i>	2.2768524	Ω	209.98139	+0.14292534		+0.93580034	
<i>e</i>	0.1880374	<i>i</i>	5.32842	+0.09705530		+0.31077945	
<i>P</i>	3.44	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1981 10 25	675	0.7+	0.8-	1998 06 24	704	0.3-	0.7+	2000 01 08	704	0.8+	0.0
1981 10 25	675	0.3-	0.9+	1998 06 24	704	0.3-	1.2-	2000 01 08	704	1.3+	1.4-
1981 10 26	675(23.7+	4.9-)		1998 06 24	704	0.4-	0.8+	2000 02 02	704	0.4+	0.0
1995 11 21	399	0.7+	0.9+	1998 06 26	704	0.1+	0.7-	2000 02 02	704	0.9+	0.6+
1995 11 21	399	0.1-	0.9-	1998 06 26	704	1.0+	1.9+	2000 02 02	704	0.2+	0.2+
1995 11 25	399	0.4-	0.8-	1998 06 26	704	(2.8-	0.1+)	2000 02 02	704	0.3+	0.2+
1995 11 25	399	1.1-	0.0	2000 01 06	704	0.5-	0.1-	2000 02 02	704	0.8+	0.1+
1997 04 05	566	0.4-	0.4-	2000 01 06	704	0.9-	1.4+	2000 02 06	704	1.2+	0.1+
1997 04 05	566	0.2+	0.4-	2000 01 06	704	0.3-	0.0	2000 02 06	704	0.3+	0.1+
1997 04 05	566	0.2-	0.0	2000 01 06	704	0.7-	1.7+	2000 02 06	704	0.4-	0.1-
1997 04 10	327	0.7-	0.3-	2000 01 08	704	0.1-	0.2+	2000 02 06	704	0.9+	0.7+
1997 04 10	327	0.7-	0.1-	2000 01 08	704	0.8-	0.9-				
1997 04 10	327	0.8-	0.1-	2000 01 08	704	0.8-	0.3-				

2000 AD₁₄₆ = 1998 KX₆₅

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	238.73575		(2000.0)	P		Q	
<i>n</i>	0.36045032	ω	122.05443	-0.57126592		+0.72426323	
<i>a</i>	1.9554157	Ω	108.09903	-0.82053286		-0.51514590	
<i>e</i>	0.0558998	<i>i</i>	23.96836	+0.01952133		-0.45833118	
<i>P</i>	2.73	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1993 08 12	413	0.7+	0.0	1999 12 03	704	(2.6-	0.6-)	2000 01 09	704	0.8+	0.3+
1993 08 12	413	0.5-	0.7-	1999 12 03	704	0.9-	0.1+	2000 01 09	704	0.5+	0.3+
1998 05 27	704	0.7+	0.9-	1999 12 03	704	1.0-	0.1+	2000 01 11	704	0.3+	0.4-
1998 05 27	704	0.2-	1.7+	2000 01 07	704	0.2-	0.1+	2000 01 11	704	0.3+	0.1+
1998 05 27	704	1.4+	0.0	2000 01 07	704	0.4+	0.4-	2000 01 11	704	0.0	0.6+
1998 05 27	704	1.8-	0.6+	2000 01 07	704	1.0+	0.7-	2000 01 11	704	0.3-	0.1-

1998 06 04	704	0.3-	1.2-	2000 01 07	704	0.6+	0.9-	2000 01 11	704	0.4-	0.7+
1998 06 04	704	(0.0	2.1+)	2000 01 07	704	0.1-	0.8-	2000 02 02	704	0.1-	0.2+
1998 06 04	704	0.6+	0.2+	2000 01 09	704	0.1+	0.2+	2000 02 02	704	0.0	0.5-
1998 06 04	704	0.5-	1.1-	2000 01 09	704	0.6+	0.0	2000 02 02	704	0.2+	0.0
1999 12 03	704	1.5-	0.6+	2000 01 09	704	0.4+	0.5-				

2000 AH₁₄₆ = 1998 NC

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	178.26910		(2000.0)	P		Q	
<i>n</i>	0.27819879	ω	172.35325	+0.30033125		+0.86723699	
<i>a</i>	2.3239809	Ω	114.39717	-0.89658621		+0.39874089	
<i>e</i>	0.1789549	<i>i</i>	25.85237	-0.32547550		-0.29817058	
<i>P</i>	3.54	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 07 03	699	0.2-	0.2-	2000 01 07	704	0.2+	0.2-	2000 01 11	704	0.0	0.5+
1998 07 03	699	0.1-	0.4-	2000 01 07	704	0.3+	0.1-	2000 01 11	704	0.2+	0.2+
1998 07 03	699	0.5-	0.1+	2000 01 07	704	0.0	0.6-	2000 01 11	704	0.0	0.5+
1998 07 04	699	1.0+	0.4-	2000 01 09	704	0.8-	0.6-	2000 02 03	704	0.8+	1.1-
1998 07 04	699	0.1+	0.6+	2000 01 09	704	0.1-	0.5-	2000 02 03	704	0.8-	0.3+
1998 07 04	699	0.3-	0.3+	2000 01 09	704	0.1+	0.6+	2000 02 03	704	0.6-	0.1+
2000 01 07	704	0.2-	0.4+	2000 01 09	704	0.1-	0.0	2000 02 03	704	0.5+	0.5+
2000 01 07	704	0.3-	0.2+	2000 01 09	704	0.8+	0.2-				

2000 AY₁₄₇ = 1987 SW₁₃ = 1998 MA₄₀

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	103.72095		(2000.0)	P		Q	
<i>n</i>	0.26203403	ω	214.62022	+0.99753528		-0.02844355	
<i>a</i>	2.4186012	Ω	146.83172	+0.04673405		+0.95120730	
<i>e</i>	0.1455358	<i>i</i>	6.73295	-0.05233820		+0.30723873	
<i>P</i>	3.76	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1987 09 22	095	0.1-	0.4+	1998 06 26	809	1.4-	0.8+	2000 01 05	704	0.3+	0.5+
1998 06 19	910	1.5+	0.2-	1998 06 27	809	0.3+	1.0+	2000 01 05	704	0.0	0.1+
1998 06 19	910	1.2+	0.0	1998 06 27	809	0.7-	0.3+	2000 01 09	704	0.2-	0.0
1998 06 19	910	0.8+	0.2-	1998 06 27	809	0.1+	0.5+	2000 01 09	704	0.1+	0.6+
1998 06 24	704	0.4-	0.1+	1999 12 14	704	0.8-	0.5-	2000 01 09	704	0.2-	0.2+
1998 06 24	704	0.8-	0.2+	1999 12 14	704	0.1-	0.9-	2000 02 02	704	0.5+	0.3+
1998 06 24	704	0.8+	1.6-	1999 12 14	704	0.4-	0.9-	2000 02 02	704	0.2-	0.7+
1998 06 24	704	(1.5+	3.3-)	1999 12 14	704	0.1-	1.3-	2000 02 02	704	0.2-	0.2+
1998 06 24	704	0.4+	0.5-	2000 01 05	704	0.3-	1.5+	2000 02 03	704	0.7+	0.1+
1998 06 26	809	0.7-	0.8+	2000 01 05	704	0.3+	0.2+	2000 02 03	704	0.1-	0.8+
1998 06 26	809	1.1-	0.6+	2000 01 05	704	0.1+	0.3+	2000 02 03	704	0.5+	0.2+

2000 AV₁₄₈ = 1998 OX₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	41.21734		(2000.0)	P		Q	
<i>n</i>	0.18104886	ω	266.45869	+0.81123401		-0.57224628	
<i>a</i>	3.0946071	Ω	128.40835	+0.57864412		+0.75612719	
<i>e</i>	0.2179080	<i>i</i>	8.81922	+0.08408547		+0.31749940	
<i>P</i>	5.44	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 07 16	691	0.8-	0.9+	1999 12 06	704	0.6-	0.3-	2000 01 09	704	0.6+	0.1+
1998 07 16	691	0.4-	0.9+	1999 12 06	704	0.3+	0.4-	2000 01 09	704	0.5-	0.2+
1998 07 16	691	0.7-	0.8+	1999 12 06	704	0.1-	0.6-	2000 02 02	704	0.4-	0.4+
1998 07 25	691	0.2-	0.6+	1999 12 06	704	0.0	0.4-	2000 02 02	704	0.6-	0.6+
1998 07 25	691	0.2+	0.6+	1999 12 14	704	0.1+	0.1+	2000 02 02	704	0.1+	0.2-
1998 07 25	691	0.4-	0.6+	1999 12 14	704	0.4+	0.1-	2000 02 02	704	0.2+	0.7+
1998 08 17	704	1.7-	0.8-	1999 12 14	704	0.2+	0.3-	2000 02 02	704	0.8+	0.6+
1998 08 17	704	1.1+	1.0-	1999 12 14	704	0.1+	0.0	2000 02 03	704	0.6-	0.1-
1998 08 17	704	0.6+	0.7-	1999 12 14	704	0.0	0.5-	2000 02 03	704	0.5-	0.0

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1998 08 17	704	0.1−	0.2−	2000 01 07	704	0.2+	0.1+	2000 02 03	704	0.6−	0.0
1998 08 17	704	1.1−	0.4−	2000 01 07	704	0.3+	0.1−	2000 02 03	704	0.6−	0.2+
1999 11 05	704	0.3+	0.9+	2000 01 07	704	0.2+	0.5−	2000 02 03	704	0.2−	0.1−
1999 11 05	704	0.2+	0.4+	2000 01 07	704	0.0	0.2−	2000 02 03	704	0.1−	0.0
1999 11 05	704	0.1−	0.0	2000 01 07	704	0.4−	0.1−	2000 02 03	704	0.1+	0.3−
1999 11 05	704	0.5−	0.4−	2000 01 09	704	0.7+	0.1−	2000 02 03	704	0.3+	0.1−
1999 11 05	704	1.0−	0.5−	2000 01 09	704	0.9+	0.3+	2000 02 03	704	0.4−	0.9+
1999 12 06	704	0.0	0.2+	2000 01 09	704	0.7+	0.4+	2000 02 03	704	0.1−	1.3+

2000 AC₁₅₀ = 1996 FT₁₈ = 1998 RJ₇₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams				Williams			
<i>M</i>	342.37192	(2000.0)	P	<i>Q</i>			
<i>n</i>	0.19132565	<i>ω</i>	288.62382	−0.65043270	−0.75686653		
<i>a</i>	2.9827756	<i>Ω</i>	202.33895	+0.74478495	−0.61898323		
<i>e</i>	0.0406539	<i>i</i>	9.68709	+0.14910627	−0.20979231		
<i>P</i>	5.15	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1996 03 24	809	0.9+	0.6+	1998 09 18	704	1.6+	3.2+	2000 01 09	704	0.6+	0.1−
1996 03 24	809	0.2+	0.7−	1998 09 18	704	0.1−	0.9−	2000 01 09	704	0.4−	0.1−
1996 03 24	809	0.4+	1.5−	1998 09 18	704	1.2−	0.4−	2000 01 09	704	0.0	0.2−
1996 03 26	809	0.5+	0.4+	1998 09 18	704	0.2−	0.5+	2000 01 11	704	0.3−	0.2−
1996 03 26	809	1.7−	1.2+	1998 09 18	704	0.2+	1.0+	2000 01 11	704	0.0	1.3+
1996 03 26	809	0.3−	0.1+	2000 01 07	704	0.3−	1.0−	2000 01 11	704	0.4−	0.2−
1998 09 14	704	0.1+	0.9−	2000 01 07	704	0.0	0.5+	2000 01 11	704	0.6+	0.6−
1998 09 14	704	0.4−	2.8−	2000 01 07	704	0.4−	0.6+				
1998 09 14	704	0.0	0.4+	2000 01 07	704	0.6+	0.0				

2000 AY₁₅₀ = 1980 DR₃ = 1985 DN₃ = 1990 DQ₁

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Williams				Williams			
<i>M</i>	319.03798	(2000.0)	P	<i>Q</i>			
<i>n</i>	0.19644424	<i>ω</i>	55.20436	−0.86885682	+0.43359559		
<i>a</i>	2.9307348	<i>Ω</i>	148.41670	−0.44596033	−0.89504904		
<i>e</i>	0.1993141	<i>i</i>	27.14103	+0.21495863	−0.10431718		
<i>P</i>	5.02	<i>H</i>	12.6	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1980 02 20	095	0.8+	2.0−	2000 01 08	704	0.3−	0.6−	2000 02 04	704	0.4+	0.1+
1985 02 20	675	0.1−	0.9−	2000 01 08	704	0.4−	0.3−	2000 02 04	704	0.1−	0.5+
1985 02 22	675	1.1+	1.8−	2000 01 08	704	0.0	0.4−	2000 02 04	704	0.0	0.5+
1990 02 20	046	(3.4−	0.4−)	2000 01 08	704	0.3−	0.3+	2000 02 04	704	0.0	0.6+
1990 02 20	046	(1.2−	2.7−)	2000 01 08	704	0.4−	0.4−	2000 02 04	704	0.0	1.1+
1990 02 21	046	0.7−	0.4+	2000 01 08	704	0.6−	0.1+	2000 02 12	704	0.6+	0.1−
1990 02 21	046	1.7−	0.1−	2000 01 08	704	0.2−	0.5−	2000 02 12	704	0.5+	0.1−
1990 02 22	046	(2.7−	1.5−)	2000 01 08	704	0.4−	1.0+	2000 02 12	704	0.1+	0.2+
1990 02 22	046	(3.2−	0.7−)	2000 01 08	704	0.3−	0.2−	2000 02 12	704	0.3+	0.3−
1998 12 19	704	(3.4−	0.1−)	2000 01 09	704	0.4−	0.8−	2000 02 13	704	(1.9−	3.1+)
1998 12 19	704	0.4+	0.4−	2000 01 09	704	0.4−	0.1+	2000 02 13	704	0.6+	1.2+
1998 12 19	704	0.4−	0.4−	2000 01 09	704	0.4+	0.9+	2000 02 13	704	0.5+	0.8+
1998 12 19	704	0.2+	0.5−	2000 01 09	704	0.1−	0.6+	2000 02 13	106	0.5+	0.3+
1999 12 14	704	1.3−	1.1−	2000 02 02	704	0.5+	0.3+	2000 02 13	106	0.4+	0.0
1999 12 14	704	2.0−	0.5+	2000 02 02	704	0.4+	0.0	2000 02 13	106	0.5−	0.1−
1999 12 14	704	0.1+	1.1+	2000 02 02	704	0.6+	0.1+				
2000 01 08	704	0.1+	0.7−	2000 02 02	704	0.7+	0.2−				

2000 AF₁₅₂ = 1994 JN₁

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Spahr				Spahr			
<i>M</i>	332.30197	(2000.0)	P	<i>Q</i>			
<i>n</i>	0.28435402	<i>ω</i>	31.84347	−0.54185573	−0.73123991		
<i>a</i>	2.2903216	<i>Ω</i>	94.27250	+0.65722638	−0.67593466		
<i>e</i>	0.1844452	<i>i</i>	24.55069	+0.52387580	+0.09165445		
<i>P</i>	3.47	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1994 05 13	413	(2.6−	0.7−)	2000 01 08	704	0.5+	0.1−	2000 01 11	704	0.1+	0.5−
1994 05 13	413	0.6−	0.6−	2000 01 08	704	0.2+	0.6−	2000 02 04	704	0.6−	0.8−
1994 05 14	413	0.8−	0.1−	2000 01 08	704	0.1+	1.0−	2000 02 04	704	0.2+	0.4+
1994 05 14	413	0.7+	0.2−	2000 01 10	704	0.1−	0.3−	2000 02 04	704	0.2+	1.5+
1999 11 08	704	0.1+	0.3+	2000 01 10	704	0.3−	0.2−	2000 02 04	704	0.2+	0.0
1999 11 08	704	0.4+	0.5−	2000 01 10	704	0.1+	0.3−	2000 02 06	704	0.1−	0.2−
1999 11 08	704	0.1+	0.3−	2000 01 10	704	0.1−	0.3−	2000 02 06	704	0.1+	0.1−
1999 11 08	704	0.2+	0.2+	2000 01 10	704	0.9−	0.2+	2000 02 06	704	1.0−	0.2+
1999 11 08	704	0.3+	0.4+	2000 01 10	699	0.2−	0.2−	2000 02 06	704	1.8−	1.0+
1999 12 16	704	0.3−	1.2+	2000 01 10	699	0.1+	0.1+	2000 02 06	704	0.7+	0.1−
1999 12 16	704	0.0	0.2−	2000 01 10	699	0.1+	0.2−	2000 02 08	704	0.1+	0.3−
1999 12 16	704	0.4+	0.3+	2000 01 11	704	0.1−	0.2−	2000 02 08	704	0.2+	0.0
1999 12 16	704	0.2−	0.6+	2000 01 11	704	0.1−	0.0	2000 02 08	704	0.8+	0.2+
2000 01 08	704	0.2+	0.2−	2000 01 11	704	0.1+	0.4−	2000 02 08	704	0.2+	0.7+
2000 01 08	704	0.0	0.3−	2000 01 11	704	0.0	0.6−	2000 02 08	704	0.5+	0.3−

2000 AS₁₅₂ = 1951 YZ₁

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Williams				Williams			
<i>M</i>	157.06542	(2000.0)	P	<i>Q</i>			
<i>n</i>	0.37111450	<i>ω</i>	58.64925	+0.79341704	+0.50689025		
<i>a</i>	1.9177740	<i>Ω</i>	268.84898	−0.60655939	+0.70459012		
<i>e</i>	0.1541878	<i>i</i>	19.69678	+0.05074550	+0.49660351		
<i>P</i>	2.66	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1951 12 27	711	(0.4+	3.6+)	Y 1999 12 14	704	0.3+	0.7+	2000 01 11	704	0.6+	0.4−
1951 12 28	711	0.1+	2.5−	Y 2000 01 08	704	0.5−	0.1+	2000 01 12	704	0.3+	0.1+
1951 12 28	711	1.2−	0.6−	Y 2000 01 08	704	0.3−	0.4+	2000 01 12	704	0.9−	0.4−
1997 01 14	566	0.2+	0.7+	2000 01 08	704	0.3−	0.3+	2000 01 12	704	0.0	0.6−
1997 01 14	566	0.2−	0.6+	2000 01 08	704	0.5−	0.6+	2000 01 12	704	0.3+	0.6−
1997 01 14	566	0.1+	0.6+	2000 01 08	704	0.6−	0.4+	2000 01 12	704	0.4+	0.1−
1999 12 05	704	0.6+	0.2+	2000 01 10	704	0.2−	0.2+	2000 02 06	704	0.5−	1.4−
1999 12 05	704	0.3+	0.1+	2000 01 10	704	0.0	0.1+	2000 02 06	704	0.2−	0.3+
1999 12 05	704	0.3+	0.2−	2000 01 10	704	0.0	0.1+	2000 02 06	704	1.4+	0.0
1999 12 05	704	0.3+	0.3−	2000 01 10	704	0.2−	0.1+	2000 02 06	704	0.2+	0.4+
1999 12 05	704	0.0	0.1+	2000 01 10	704	0.1+	0.6+	2000 02 08	704	0.2−	0.2+
1999 12 14	704	0.2+	0.5+	2000 01 11	704	0.3+	0.4−	2000 02 08	704	0.9−	0.3+
1999 12 14	704	0.5+	0.2+	2000 01 11	704	0.4+	0.3−	2000 02 08	704	0.1−	0.1+
1999 12 14	704	0.2+	0.1+	2000 01 11	704	0.3+	0.3−	2000 02 08	704	0.3−	0.1+
1999 12 14	704	0.3+	0.6+	2000 01 11	704	(3.1−	2.3+)	2000 02 08	704	0.2−	0.1+

2000 AJ₁₅₃ = 1977 TZ₃ = 1991 NL₈ = 1997 EJ₅₁

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Williams				Williams			
<i>M</i>	101.28466	(2000.0)	P	<i>Q</i>			
<i>n</i>	0.27562659	<i>ω</i>	11.22893	+0.97374222	−0.22764288		
<i>a</i>	2.3384171	<i>Ω</i>	1.93353	+0.20351099	+0.86612067		
<i>e</i>	0.2449827	<i>i</i>	3.72622	+0.10202630	+0.44498732		
<i>P</i>	3.58	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1977 10 10	095	2.2−	0.5+	2000 01 07	046	0.2+	0.8+	2000 01 12	046	0.9−	0.3−
1977 10 13	330	1.7+	0.8+	2000 01 07	046	0.1+	0.5+	2000 01 12	046	0.0	0.4−
1991 07 14	675	0.3+	0.9+	2000 01 07	595	0.2+	1.9+	2000 01 12	046	0.2−	0.9−
1991 07 14	675	0.7−	0.0	2000 01 07	595	0.2+	1.7+	2000 01 12	046	0.3+	0.5−
1997 03 05	809	1.2+	0.4−	2000 01 07	595	0.5+	1.1+	2000 01 12	046	0.1+	0.8−
1997 03 05	809	0.0	0.3−	2000 01 07	651	0.2+	0.1−	2000 01 30	704	0.1−	0.6+
1997 03 05	809	0.1+	1.1−	2000 01 07	651	0.1+	0.1−	2000 01 30	704	0.4+	1.3+
1997 03 06	809	0.2−	0.3+	2000 01 07	651	0.0	0.4−	2000 01 30	704	0.1−	0.8+
1997 03 06	809	0.2−	0.1−	2000 01 07	046	0.2−	0.4+	2000 01 30	704	0.0	0.7+
1997 03 06	809	1.0−	1.2+	2000 01 07	046	0.2−	0.2−	2000 02 03	704	1.0+	0.2+
1998 05 29	704	0.2−	0.1+	2000 01 07	046	0.3−	0.0	2000 02 03	704	0.3+	0.1−
1998 05 29	704	0.8−	0.2+	2000 01 07	046	0.4−	0.0	2000 02 03	704	0.7+	0.4−
1998 05 29	704	0.8+	0.1−	2000 01 07	046	0.2+	0.5+	2000 02 03	704	1.1+	0.4−
1998 05 29	704	(4.6−	2.0−)	2000 01 07	046	0.1+	0.4+	2000 02 03	704	1.1+	0.7−

1998 06 26	704	1.1+	0.7+	2000 01 08	711	0.0	0.8-	2000 02 05	704	0.3-	0.1+
1998 06 26	704	0.0	1.4+	2000 01 08	711	0.0	0.5+	2000 02 05	704	0.3-	0.3+
1998 06 26	704	1.1-	0.6-	2000 01 08	711	0.4-	0.6+	2000 02 05	704	0.4-	0.1+
1998 06 26	704	(0.9+	2.3+)	2000 01 08	422	0.3+	0.3+	2000 02 08	704	0.1+	0.1-
1999 11 16	704	0.1+	0.8-	2000 01 08	422	0.9-	0.4+	2000 02 08	704	0.5-	0.0
1999 11 16	704	0.2-	0.8-	2000 01 08	422	0.4-	0.9+	2000 02 08	704	0.2+	0.1+
1999 11 16	704	1.4+	1.0-	2000 01 09	046	0.3-	0.1-	2000 02 08	704	0.2+	0.4+
1999 11 16	704	0.1+	1.5-	2000 01 09	046	0.3-	0.3-	2000 02 08	704	0.2+	0.7+
2000 01 04	704	0.4-	0.5-	2000 01 09	046	0.4-	0.0	2000 02 10	704	0.4-	0.4+
2000 01 04	704	0.0	0.2-	2000 01 09	046	0.1-	0.4-	2000 02 10	704	0.1-	0.5+
2000 01 04	704	0.3-	0.4-	2000 01 09	711	0.2-	0.1+	2000 02 10	704	0.1-	0.1-
2000 01 04	704	0.4-	0.5-	2000 01 09	711	0.0	0.8-	2000 02 10	704	0.5+	0.3+
2000 01 04	704	0.6-	0.4-	2000 01 09	711	0.2+	0.8-	2000 02 10	704	(1.0-	2.7+)
2000 01 06	704	0.2+	0.0	2000 01 10	711	0.0	0.0	2000 02 11	704	0.4+	0.0
2000 01 06	704	0.2+	0.0	2000 01 10	711	0.1+	0.0	2000 02 11	704	0.1+	0.1-
2000 01 06	704	0.5+	0.4+	2000 01 10	711	0.2-	0.3-	2000 02 11	704	0.2+	0.1-
2000 01 06	704	0.1+	0.2-	2000 01 11	711	0.3-	0.2-	2000 02 11	704	0.0	0.3-
2000 01 06	699	0.5+	0.1+	2000 01 11	711	0.4-	0.4+	2000 02 11	704	0.4+	0.1+
2000 01 06	704	0.2+	0.1-	2000 01 11	711	0.2-	0.3-	2000 02 11	704	0.1+	0.5-
2000 01 06	699	0.1+	0.2-	2000 01 12	557	0.7-	0.0	2000 02 11	704	0.2+	0.4+
2000 01 06	699	0.1-	0.6+	2000 01 12	557	0.6-	0.4-	2000 02 11	704	0.1-	0.2-
2000 01 07	046	0.2+	0.6+	2000 01 12	557	0.3-	0.1-	2000 02 11	704	0.3+	0.3+
2000 01 07	046	0.3+	1.0+	2000 01 12	557	0.5-	0.0	2000 02 11	704	0.2-	0.4-

2000 AL₁₅₄ = 1998 SY₈₄

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				Williams			
<i>M</i>	93.81465		(2000.0)	<i>P</i>	<i>Q</i>		
<i>n</i>	0.22023416	ω	342.13626	+0.91570995	-0.39537351		
<i>a</i>	2.7156862	Ω	41.38537	+0.38066329	+0.79625617		
<i>e</i>	0.0434836	<i>i</i>	6.23472	+0.12872741	+0.45788198		
<i>P</i>	4.48	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 26	704	1.1+	0.9+	2000 01 02	704	0.3+	0.2-	2000 01 29	704	0.2-	0.0
1998 09 26	704	1.1-	0.0	2000 01 02	704	0.9+	0.9+	2000 01 29	704	0.0	0.4+
1998 09 26	704	1.1-	0.7+	2000 01 02	704	0.1-	0.5-	2000 01 29	704	0.1+	0.7+
1998 09 26	704	0.1+	1.4+	2000 01 02	704	1.1+	1.1-	2000 01 29	704	0.6+	0.2+
1998 09 27	704	0.0	0.0	2000 01 03	691	0.1-	0.0	2000 01 30	704	0.3-	0.7+
1998 09 27	704	0.3+	0.1-	2000 01 03	691	0.3-	0.1-	2000 01 30	704	0.1+	0.3+
1998 09 27	704	0.1+	0.4-	2000 01 03	691	0.1-	0.1-	2000 01 30	704	1.0+	0.1+
1998 09 27	704	0.8+	1.2-	2000 01 04	704	0.4-	0.3-	2000 01 30	704	0.5-	1.6-
1998 09 27	704	0.4-	1.2-	2000 01 04	704	0.1-	0.3+	2000 02 11	704	0.6-	0.5-
1999 12 15	704	0.6-	0.7+	2000 01 04	704	0.0	0.6-	2000 02 11	704	0.0	0.2-
1999 12 15	704	0.2+	0.2+	2000 01 04	704	0.2+	0.5-	2000 02 11	704	0.3-	1.1+
1999 12 15	704	0.3+	0.9+	2000 01 04	704	0.6-	0.2-				
2000 01 02	704	1.1-	0.4-	2000 01 29	704	0.6+	0.0				

2000 AO₁₅₄ = 1982 BF₇ = 1998 SP₁₂₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	194.63613		(2000.0)	<i>P</i>	<i>Q</i>		
<i>n</i>	0.21381486	ω	237.63239	+0.12976982	+0.98884006		
<i>a</i>	2.7697727	Ω	40.02780	-0.86721375	+0.14897006		
<i>e</i>	0.1257579	<i>i</i>	6.53327	-0.48072872	-0.00180410		
<i>P</i>	4.61	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1982 01 26	381	0.4-	0.6+	1998 11 11	699	0.5+	0.7-	2000 01 04	704	0.0	0.5-
1982 01 26	381	0.7+	0.2+	1998 11 11	699	0.9-	0.3-	2000 01 04	704	0.2-	0.2-
1998 09 26	704	0.0	0.1+	1998 11 25	699	(2.2-	0.5+)	2000 01 29	704	0.2-	0.5+
1998 09 26	704	0.9+	0.7-	1998 11 25	699	1.8-	0.9+	2000 01 29	704	0.3+	0.1+
1998 09 26	704	0.0	0.1-	1998 11 25	699	0.7+	0.2+	2000 01 29	704	1.3+	0.3-
1998 09 26	704	0.2-	0.1-	1999 11 16	704	0.4+	0.9-	2000 01 29	704	0.1+	0.2-
1998 09 26	704	0.5+	0.2+	1999 11 16	704	0.3+	0.1+	2000 01 29	704	0.0	0.1-
1998 09 27	704	0.1-	0.0	1999 11 16	704	0.3+	0.4-	2000 01 30	704	0.1-	0.2-
1998 09 27	704	0.1-	0.2+	1999 11 16	704	0.3+	0.0	2000 01 30	704	0.5-	0.3-
1998 09 27	704	0.7-	0.1-	1999 11 16	704	0.8-	0.5+	2000 01 30	704	0.1+	0.0

1998 09 27	704	0.4-	0.1+	2000 01 02	704	0.8-	0.7+	2000 01 30	704	0.4-	0.1-
1998 09 27	704	0.1-	0.8-	2000 01 02	704	0.4-	0.0	2000 02 11	704	0.5-	0.1+
1998 10 10	699	0.6+	0.4+	2000 01 02	704	1.1+	0.2-	2000 02 11	704	0.2+	0.2+
1998 10 10	699	0.2-	0.9+	2000 01 04	704	0.7-	0.3+	2000 02 11	704	0.5+	1.0+
1998 10 10	699	0.9+	0.3+	2000 01 04	704	0.2-	0.3-	2000 02 11	704	0.1+	0.4-
1998 11 11	699	0.1-	0.1+	2000 01 04	704	0.1-	0.4-				

2000 AK₁₅₆ = 1986 VS₇ = 1989 EB₃

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				Williams			
<i>M</i>	41.92312		(2000.0)	<i>P</i>	<i>Q</i>		
<i>n</i>	0.08085056	ω	124.88062	+0.62148549	-0.74272134		
<i>a</i>	5.2968057	Ω	284.70724	+0.60803286	+0.65790171		
<i>e</i>	0.0909827	<i>i</i>	14.93264	+0.49401602	+0.12462083		
<i>P</i>	12.19	<i>H</i>	10.4	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1986 11 09	675	(3.9-	0.0)	1998 12 24	699	1.0+	0.4+	2000 01 03	704	0.6-	1.5-
1986 11 09	675	1.0+	2.1+	1998 12 24	699	0.7+	0.4+	2000 01 04	704	0.1+	0.2+
1986 11 27	675	1.9-	0.2-	1998 12 24	699	0.1+	0.5+	2000 01 04	704	0.4+	0.1+
1986 11 27	675	1.0+	1.5+	1999 01 06	699	1.3+	1.4-	2000 01 04	704	0.6+	0.3+
1989 03 02	809	0.1-	0.4+	1999 01 06	699	1.3+	0.6+	2000 01 04	704	1.0+	0.8+
1989 03 02	809	0.3-	0.3+	1999 01 06	699	0.7+	0.5-	2000 01 04	704	1.3-	0.1+
1989 03 02	809	1.1-	0.2+	1999 11 14	704	0.8+	0.4-	2000 01 04	704	0.2-	0.7+
1989 03 03	809	0.7+	0.4-	1999 11 14	704	1.0+	0.1-	2000 01 04	704	0.4-	0.5-
1989 03 03	809	0.2-	1.2-	1999 11 14	704	0.3+	0.6-	2000 01 04	704	0.8+	0.3+
1989 03 03	809	0.3-	1.4-	1999 11 14	704	0.5-	0.7-	2000 01 24	849	0.9-	0.6+
1998 11 14	704	0.1+	1.2-	1999 11 16	704	1.2+	0.4-	2000 01 24	849	0.2-	0.4+
1998 11 14	704	0.1-	1.0-	1999 11 16	704	0.6+	0.8-	2000 01 24	849	0.7-	0.7+
1998 11 14	704	0.3-	0.6-	1999 11 16	704	0.6+	0.6-	2000 01 24	849	0.2+	0.8+
1998 11 14	704	0.1+	0.7-	1999 11 16	704	(1.0+	2.2-)	2000 01 30	704	0.3+	0.4+
1998 11 14	704	0.8-	1.8+	1999 11 16	704	0.1-	0.5-	2000 01 30	704	0.1+	0.1-
1998 11 16	704	0.2-	0.4-	1999 12 15	704	0.2+	0.6+	2000 01 30	704	0.0	0.4+
1998 11 16	704	0.7-	0.2-	1999 12 15	704	0.2-	0.6+	2000 01 30	704	0.4+	0.1-
1998 11 16	704	0.6-	0.7-	1999 12 15	704	0.7-	0.2+	2000 01 30	704	0.2-	0.1+
1998 11 16	704	1.5-	1.1+	1999 12 15	704	0.7-	0.2+	2000 01 31	704	0.2+	1.1+
1998 11 16	704	0.1-	1.0+	2000 01 03	704	0.6-	0.8+	2000 01 31	704	0.3-	0.3+
1998 11 16	566	0.7-	1.6-	2000 01 03	704	0.2-	0.2+	2000 01 31	704	0.1+	0.0
1998 11 16	566	0.3+	1.1-	2000 01 03	704	0.3-	0.4-	2000 01 31	704	0.2-	0.7+
1998 11 16	566	0.1-	1.5-	2000 01 03	704	0.4+	1.2-				

2000 AM₁₅₉ = 1998 VE₁₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	208.33317		(2000.0)	<i>P</i>	<i>Q</i>		
<i>n</i>	0.24090825	ω	310.29987	+0.29401591	+0.95525655		
<i>a</i>	2.5580062	Ω	336.73840	-0.85029967	+0.24600771		
<i>e</i>	0.2029082	<i>i</i>	4.68286	-0.43651474	+0.16421060		
<i>P</i>	4.09	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 11 10	704	0.1-	0.8-	2000 01 03	704	0.2+	0.6-	2000 01 30	049	0.9+	0.4-
1998 11 10	704	0.0	0.5-	2000 01 03	704	0.1-	0.2-	2000 01 31	704	0.4-	0.3-

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2000 AN₁₅₉ = 1995 XB₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 342.50767 (2000.0)			Williams			<i>P</i>			<i>Q</i>		
<i>n</i>	0.27117535	ω	61.15079	−0.89433121	−0.42196455	<i>a</i>	2.3639371	Ω	93.55030	+0.34071790	−0.85777958
<i>e</i>	0.1226938	<i>i</i>	8.56932	+0.28997068	−0.29353042	<i>P</i>	3.63	<i>H</i>	15.5	<i>G</i>	0.15
Residuals in seconds of arc											
1995 12 14	691	0.2+	0.2+	2000 01 03	704	1.1+	0.4+	2000 02 03	704	0.1+	0.2+
1995 12 14	691	0.4+	0.2+	2000 01 03	704	1.5−	0.8−	2000 02 03	704	0.0	0.3−
1995 12 14	691	0.1+	0.2+	2000 01 03	704	0.1+	0.2−	2000 02 03	704	0.2+	0.5+
1995 12 20	691	0.3−	0.3+	2000 01 03	704	0.9−	0.2+	2000 02 03	704	0.1−	0.1+
1995 12 20	691	0.4−	0.2+	2000 01 04	704	0.4−	0.3+	2000 02 03	704	0.1−	0.9+
1995 12 20	691	0.5−	0.2+	2000 01 04	704	0.7−	0.1−	2000 02 11	704	0.2+	0.3+
1999 12 07	704	1.0+	1.5−	2000 01 04	704	0.3−	0.3−	2000 02 11	704	0.2−	0.6+
1999 12 07	704	1.3+	0.2−	2000 01 04	704	1.1−	0.6−	2000 02 11	704	0.2+	0.3+
1999 12 07	704	0.6+	0.7−	2000 01 04	704	0.2−	0.0	2000 02 11	704	0.3−	0.8+
1999 12 07	704	0.2−	0.1+	2000 01 31	704	0.3+	0.3−	2000 02 11	704	0.4+	0.2−
1999 12 07	704	1.0+	0.6−	2000 01 31	704	0.4+	0.0				
2000 01 03	704	1.0−	0.6−	2000 01 31	704	0.4+	0.3+				

2000 AP₁₅₉ = 1998 TR₂₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 318.49551 (2000.0)			Williams			<i>P</i>			<i>Q</i>		
<i>n</i>	0.17514636	ω	143.99876	−0.99757467	−0.04674296	<i>a</i>	3.1637486	Ω	33.43434	+0.01722841	−0.88371991
<i>e</i>	0.1155467	<i>i</i>	5.37096	+0.06743852	−0.46567609	<i>P</i>	5.63	<i>H</i>	14.0	<i>G</i>	0.15
Residuals in seconds of arc											
1998 10 14	691	0.0	0.4+	2000 01 03	704	1.6−	1.0−	2000 01 30	704	0.2+	1.4+
1998 10 14	691	0.6+	0.0	2000 01 03	704	0.5+	1.0+	2000 01 31	704	0.7+	0.0
1998 10 14	691	0.0	0.1+	2000 01 03	704	1.0+	1.0−	2000 01 31	704	0.5−	0.1−
1998 10 19	691	0.5−	0.1−	2000 01 04	704	0.1−	1.5+	2000 01 31	704	0.3+	0.1+
1998 10 19	691	0.0	0.1−	2000 01 04	704	0.6−	0.3−	2000 02 03	704	0.4+	0.3+
1998 10 19	691	0.2−	0.0	2000 01 04	704	0.3−	0.5+	2000 02 03	704	0.6+	0.1−
1999 12 15	704	0.5+	0.1+	2000 01 04	704	0.6−	0.3−	2000 02 03	704	1.5+	0.1+
1999 12 15	704	0.0	1.0−	2000 01 04	704	0.4+	0.1−	2000 02 03	704	0.4−	0.2+
1999 12 15	704	0.5−	0.1−	2000 01 30	704	0.3−	0.7−	2000 02 03	704	1.1−	0.7+
1999 12 15	704	0.8+	1.1−	2000 01 30	704	0.3+	0.2+				
2000 01 03	704	1.0−	0.5−	2000 01 30	704	0.3−	0.1−				

2000 AW₁₆₀ = 1996 JF₁₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 231.62948 (2000.0)			Williams			<i>P</i>			<i>Q</i>		
<i>n</i>	0.19742766	ω	187.06274	−0.14515817	+0.98410109	<i>a</i>	2.9209943	Ω	74.62960	−0.90249435	−0.08930275
<i>e</i>	0.0841396	<i>i</i>	6.09283	−0.40550346	−0.15352542	<i>P</i>	4.99	<i>H</i>	14.0	<i>G</i>	0.15
Residuals in seconds of arc											
1996 05 10	691	0.2+	0.2+	2000 01 03	704	0.5−	0.0	2000 01 30	704	0.6−	0.1−
1996 05 10	691	0.1+	0.5+	2000 01 04	704	0.4−	1.0−	2000 01 31	704	0.0	0.3+
1996 05 10	691	0.1+	0.1+	2000 01 04	704	0.8−	1.3−	2000 01 31	704	0.2−	0.1−
1996 05 17	691	0.1+	0.5−	2000 01 04	704	0.7+	1.4+	2000 01 31	704	0.1−	0.2−
1996 05 17	691	0.2−	0.1−	2000 01 04	704	0.3−	0.3+	2000 02 11	704	0.5+	0.3−
1996 05 17	691	0.4−	0.1−	2000 01 30	704	0.4+	0.2+	2000 02 11	704	0.3−	0.2+
2000 01 03	704	0.9+	0.7−	2000 01 30	704	0.6+	0.3−	2000 02 11	704	0.3+	0.5−
2000 01 03	704	0.1+	0.9+	2000 01 30	704	0.5−	1.2+				

2000 AN₁₆₁ = 1997 EL₅₃ = 1998 SJ₅₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 295.06209 (2000.0)			Williams			<i>P</i>			<i>Q</i>		
<i>n</i>	0.29706297	ω	212.10959	−0.82644304	+0.56300952	<i>a</i>	2.2245237	Ω	2.16408	−0.49504939	−0.72370371
<i>e</i>	0.1152668	<i>i</i>	5.30303	−0.26817532	−0.39909049	<i>P</i>	3.32	<i>H</i>	14.8	<i>G</i>	0.15
Residuals in seconds of arc											
1997 03 08	809	0.9+	0.9+	1998 09 25	699	(0.0	3.0+)	2000 01 03	704	(2.6+	0.0)
1997 03 08	809	0.6+	0.9+	1998 09 25	699	0.0	1.8+	2000 01 04	704	0.0	0.1−
1997 03 08	809	0.5+	0.9+	1998 09 26	704	0.7+	1.2+	2000 01 04	704	0.1+	0.1−
1997 03 09	809	0.4+	1.4+	1998 09 26	704	0.3+	0.6−	2000 01 04	704	0.3+	0.4−
1997 03 09	809	0.4+	1.1+	1998 09 26	704	0.6−	1.4−	2000 01 04	704	0.2+	0.3−
1997 03 09	809	0.3+	0.6+	1998 09 26	704	0.3+	0.1−	2000 01 04	704	0.2+	0.3−
1998 08 28	704	2.0−	0.7−	1998 09 27	704	0.9−	1.1+	2000 01 06	699	0.1−	0.3+
1998 08 28	704	1.1−	1.7−	1998 09 27	704	0.2+	0.7+	2000 01 06	699	0.1+	0.1−
1998 08 28	704	0.1−	0.7−	1998 09 27	704	0.1−	1.5+	2000 01 06	699	0.3+	0.2+
1998 08 28	704	(7.4−	2.3−)	1998 09 27	704	0.3+	1.5+	2000 02 11	704	0.4−	0.5+
1998 09 16	699	0.7−	0.0	1998 09 27	704	0.1−	1.7+	2000 02 11	704	0.4−	0.5+
1998 09 16	699	0.4+	0.5−	2000 01 03	704	0.2+	0.9−	2000 02 11	704	0.2−	0.3+
1998 09 16	699	0.6−	0.4+	2000 01 03	704	0.4+	0.1−	2000 02 11	704	0.6−	0.8+
1998 09 25	699	0.1+	1.9+	2000 01 03	704	0.2+	1.0−	2000 02 11	704	0.7−	0.1+

2000 AO₁₆₁ = 1998 SK₈₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 49.33389 (2000.0)			Williams			<i>P</i>			<i>Q</i>		
<i>n</i>	0.17348466	ω	30.70158	+0.44140718	−0.89612098	<i>a</i>	3.1839189	Ω	33.16818	+0.80519562	+0.37288936
<i>e</i>	0.2262776	<i>i</i>	4.83555	+0.39600469	+0.24066724	<i>P</i>	5.68	<i>H</i>	14.6	<i>G</i>	0.15
Residuals in seconds of arc											
1998 09 26	704	0.8−	1.9−	2000 01 03	704	1.3+	0.6+	2000 02 11	704	0.1−	0.3+
1998 09 26	704	(2.3−	2.8−)	2000 01 03	704	0.7−	0.7−	2000 02 11	704	0.4+	0.2−
1998 09 26	704	1.0−	0.1−	2000 01 04	704	0.2−	1.0+	2000 02 11	704	1.1−	0.4−
1998 09 26	704	1.8−	0.9−	2000 01 04	704	0.4−	1.1−	2000 02 11	704	0.3−	0.3+
1998 09 27	704	1.1+	0.1−	2000 01 04	704	0.3−	0.3−	2000 02 11	704	1.0+	0.9+
1998 09 27	704	(1.4+	2.1+)	2000 01 04	704	0.2+	0.2−	2000 02 11	704	0.4+	0.4−
1998 09 27	704	1.2+	0.4+	2000 01 04	704	0.3+	0.3−	2000 02 11	704	1.0−	0.4+
1998 09 27	704	0.7+	1.2+	2000 02 10	704	0.0	0.7+	2000 02 11	704	0.2+	0.1+
1998 09 27	704	0.6+	1.3+	2000 02 10	704	0.9+	0.4−	2000 02 11	704	0.1+	0.5−
2000 01 03	704	0.0	0.2+	2000 02 10	704	0.8−	0.2−				
2000 01 03	704	0.4−	0.1+	2000 02 10	704	0.4+	0.0				

2000 AF₁₆₂ = 1998 SG₄₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	16.17055		(2000.0)		P		Q				
n	0.22565424	ω	107.74116		−0.40046982		−0.91630723				
a	2.6720242	Ω	5.86784		+0.83219880		−0.36472906				
e	0.2445662	i	1.25262		+0.38349587		−0.16538980				
P	4.37	H	16.1	G	0.15	U	4				
Residuals in seconds of arc											
1998 09 27	691	1.3−	0.0	2000 02 05	704	0.0	0.0	2000 02 06	704	0.4−	0.2+
1998 09 27	691	0.4−	0.2+	2000 02 05	704	0.1+	0.7+	2000 02 06	704	0.2+	0.1−
1998 09 27	691	0.2+	1.0+	2000 02 05	704	0.8+	0.4+	2000 02 06	704	0.1−	0.0
1998 09 29	691	0.3+	0.3+	2000 02 05	704	0.4+	0.5+	2000 02 06	704	0.3−	0.0
1998 09 29	691	0.1+	0.0	2000 02 05	704	0.1−	0.3+	2000 02 06	704	0.0	0.3−
1998 09 29	691	0.3+	0.1−	2000 02 05	704	0.2−	0.1−	2000 02 06	704	0.5−	0.5+
2000 01 04	704	0.6+	1.4−	2000 02 05	704	0.2+	0.2−	2000 02 06	704	0.7+	0.0
2000 01 04	704	0.9+	0.8−	2000 02 05	704	0.5+	0.0	2000 02 06	704	0.6−	0.4+
2000 01 04	704	0.7−	0.1−	2000 02 05	704	0.0	0.5−	2000 02 08	704	0.5+	0.1−
2000 01 04	704	0.1+	0.4−	2000 02 05	704	0.3+	0.3+	2000 02 08	704	0.2−	0.1+
2000 01 04	704	1.9−	0.3−	2000 02 05	704	0.1+	0.1+	2000 02 08	704	0.2−	0.2−
2000 01 06	704	0.2+	1.3−	2000 02 05	704	0.3−	0.3−	2000 02 08	704	0.1−	0.3+

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2000 01 06	704	0.4+	0.0	2000 02 05	704	0.2+	1.1+	2000 02 08	704	0.8−	0.6−
2000 01 06	704	0.4−	0.1−	2000 02 05	704	0.2−	0.8+	2000 02 08	704	0.0	0.3+
2000 01 06	704	0.1−	0.3−	2000 02 05	704	0.4+	0.8+	2000 02 08	704	0.5−	1.2−
2000 01 30	703	0.5−	1.6+	2000 02 05	704	0.2+	0.5+	2000 02 08	704	0.5−	0.5+
2000 01 30	703	0.2+	0.3+	2000 02 05	704	0.7+	0.5+	2000 02 08	704	0.9−	0.4−
2000 01 30	703	0.2+	1.5+	2000 02 05	704	0.2−	0.0	2000 02 08	704	(0.0	3.3+)
2000 01 30	703	0.2−	0.2−	2000 02 05	704	0.3−	0.9+	2000 02 08	049	1.4+	1.1−
2000 01 30	704	0.1−	0.0	2000 02 05	704	0.1+	0.5+	2000 02 08	049	1.3+	1.6−
2000 01 30	704	0.7−	0.4−	2000 02 05	704	0.3+	0.6+	2000 02 08	049	0.5+	0.6−
2000 01 30	704	0.2+	0.5+	2000 02 05	704	0.3+	0.1−	2000 02 11	704	0.4−	0.3−
2000 01 30	704	0.5−	0.8−	2000 02 05	704	0.4+	0.3+	2000 02 11	704	0.3−	0.8−
2000 02 05	704	0.3−	0.2−	2000 02 05	704	0.3+	0.6+	2000 02 11	704	0.1−	0.1+

2000 AH₁₆₂ = 1993 FJ₇₀

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	10.99817		(2000.0)	P	Q
<i>n</i>	0.26934580	ω	165.11037	−0.61008629	−0.79153618
<i>a</i>	2.3746298	Ω	322.46606	+0.72085523	−0.53585464
<i>e</i>	0.1065117	<i>i</i>	3.34708	+0.32888062	−0.29382015
<i>P</i>	3.66	<i>H</i>	15.8	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1993 03 21	809	0.1+	0.1+	2000 01 11	691	0.2−	0.3−	2000 02 05	704	0.1−	0.0
1993 03 22	809	0.1−	0.1−	2000 02 02	732	0.3+	0.6+	2000 02 06	732	1.0−	0.0
2000 01 04	704	0.8+	0.2+	2000 02 02	732	0.4+	0.2+	2000 02 06	732	0.0	0.4−
2000 01 04	704	0.4−	0.2+	2000 02 02	732	0.5−	0.2+	2000 02 11	704	1.3−	0.4−
2000 01 04	704	0.3−	0.5+	2000 02 03	704	0.7+	0.7+	2000 02 11	704	0.0	0.0
2000 01 06	704	0.3−	0.5+	2000 02 03	704	0.4+	0.3+	2000 02 11	704	0.6+	0.0
2000 01 06	704	0.0	0.4−	2000 02 03	704	0.5−	0.1−	2000 02 11	704	1.0+	0.2+
2000 01 06	704	0.6+	0.6−	2000 02 03	704	0.2+	0.7−	2000 02 11	704	0.5+	0.2−
2000 01 11	691	0.3−	0.2−	2000 02 05	704	0.2+	0.6+				
2000 01 11	691	0.2−	0.2−	2000 02 05	704	0.5−	0.4−				

2000 AJ₁₆₂ = 1998 RT₃₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	304.46748		(2000.0)	P	Q
<i>n</i>	0.30794907	ω	248.80258	−0.90504814	+0.42178350
<i>a</i>	2.1717848	Ω	316.09539	−0.35512006	−0.82013224
<i>e</i>	0.0811226	<i>i</i>	4.51997	−0.23404615	−0.38662874
<i>P</i>	3.20	<i>H</i>	15.3	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 09 14	704	0.7−	1.0−	2000 01 30	704	0.1−	0.0	2000 02 05	704	0.3−	0.2−
1998 09 14	704	0.4+	0.0	2000 01 30	704	0.8+	0.3−	2000 02 05	704	0.6−	0.3−
1998 09 14	704	1.0−	0.1−	2000 01 30	704	0.1+	0.3+	2000 02 05	704	0.1+	0.1+
1998 09 14	704	0.2+	0.4−	2000 01 31	704	0.2−	0.2−	2000 02 05	704	0.2−	0.2+
1998 09 18	704	(2.8+	1.7−)	2000 01 31	704	0.6−	0.1−	2000 02 05	704	0.4+	0.3+
1998 09 18	704	1.4+	1.3−	2000 01 31	704	1.0+	0.4−	2000 02 05	704	0.1+	0.0
1998 09 18	704	0.4+	1.7+	2000 01 31	704	0.2+	0.9−	2000 02 05	704	0.2+	0.2−
1998 09 18	704	0.7−	1.3+	2000 02 03	704	0.4+	0.3+	2000 02 05	704	0.0	0.5+
2000 01 04	704	0.1+	0.1−	2000 02 03	704	0.1+	0.0	2000 02 05	704	0.1−	0.0
2000 01 04	704	0.1+	1.2−	2000 02 03	704	1.0+	0.2+	2000 02 05	704	0.1−	0.9−
2000 01 04	704	0.6−	1.5+	2000 02 03	704	1.0+	0.9+	2000 02 05	704	0.5−	1.6−
2000 01 06	704	0.1−	1.1−	2000 02 03	704	0.9+	0.5+	2000 02 11	704	0.4−	0.2+
2000 01 06	704	0.1−	0.1−	2000 02 05	704	0.3+	0.0	2000 02 11	704	0.2−	0.7+
2000 01 06	704	0.5−	0.0	2000 02 05	704	0.0	0.1+	2000 02 11	704	0.8−	0.2+
2000 01 06	704	0.7−	0.7+	2000 02 05	704	0.1−	0.0	2000 02 11	704	0.5−	0.8+
2000 01 30	704	0.0	0.5+	2000 02 05	704	0.2−	0.2−	2000 02 11	704	0.3−	0.2+

2000 FEB. 22

2000 AP₁₆₂ = 1992 SX₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	98.13125		(2000.0)	P	Q
<i>n</i>	0.31200139	ω	21.09136	+0.87700833	−0.48034101
<i>a</i>	2.1529389	Ω	7.64590	+0.42771094	+0.76971392
<i>e</i>	0.1256610	<i>i</i>	4.89532	+0.21890580	+0.42049137
<i>P</i>	3.16	<i>H</i>	15.8	<i>G</i>	0.15
				<i>U</i>	5

Residuals in seconds of arc

1992 09 27	691	0.2+	0.2+	2000 01 06	704	1.4−	0.4+	2000 02 08	704	0.2+	0.4−
1992 09 27	691	0.3+	0.2+	2000 01 06	704	0.9+	0.2−	2000 02 10	704	0.0	0.0
1992 09 27	691	0.9+	0.1+	2000 01 06	704	0.1−	0.9−	2000 02 10	704	0.8+	0.7+
1992 09 28	691	1.1−	0.5−	2000 02 06	704	0.2−	0.2−	2000 02 10	704	0.3+	0.1−
1992 09 28	691	0.0	0.1−	2000 02 06	704	0.2+	1.2+	2000 02 10	704	0.0	0.4−
1992 09 28	691	0.3−	0.1+	2000 02 06	704	0.4+	0.6+	2000 02 10	704	0.8−	1.5−
2000 01 04	704	1.2+	1.1+	2000 02 06	704	0.5−	0.5+	2000 02 11	704	0.4−	1.0+
2000 01 04	704	0.2−	0.6−	2000 02 06	704	0.0	0.6+	2000 02 11	704	0.4+	0.1−
2000 01 04	704	0.0	0.8+	2000 02 08	704	0.7+	1.0−	2000 02 11	704	0.3+	0.8−
2000 01 04	704	0.5−	1.0−	2000 02 08	704	0.6−	0.1+	2000 02 11	704	0.2−	0.5+
2000 01 06	704	(2.4−	0.5+)	2000 02 08	704	0.8−	0.1−	2000 02 11	704	0.0	0.2−

2000 AS₁₆₂ = 1985 DX₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	50.59476		(2000.0)	P	Q
<i>n</i>	0.26180348	ω	82.06525	+0.16505162	−0.98628293
<i>a</i>	2.4200208	Ω	358.43036	+0.87389375	+0.14717763
<i>e</i>	0.2860180	<i>i</i>	4.16269	+0.45723920	+0.07473109
<i>P</i>	3.76	<i>H</i>	14.6	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1985 02 16	809	0.7+	1.6−	1999 12 05	704	0.2−	0.7−	2000 01 10	699	0.4+	0.0
1985 02 16	809	0.4+	1.3−	1999 12 05	704	0.4+	0.8−	2000 01 10	699	0.1+	0.7−
1985 02 16	809	0.0	1.0−	1999 12 05	699	0.3+	0.2+	2000 02 06	704	0.3+	0.1+
1985 02 24	809	1.3−	0.3−	1999 12 05	704	0.1+	0.9−	2000 02 06	704	0.8+	0.4+
1985 02 24	809	0.8−	0.6−	1999 12 05	699	1.3−	1.7+	2000 02 06	704	0.0	0.9+
1985 02 24	809	0.4−	0.8−	1999 12 05	699	0.6−	0.1+	2000 02 06	704	0.3+	0.0
1985 02 26	809	0.4−	0.4+	2000 01 04	704	0.3+	0.7−	2000 02 06	704	0.1−	0.0
1985 02 26	809	0.4−	0.2+	2000 01 04	704	1.3−	0.2+	2000 02 06	704	0.4+	0.6+
1985 02 26	809	0.2−	0.4+	2000 01 04	704	0.2+	0.4+	2000 02 06	704	0.2+	1.1+
1999 11 16	704	0.5+	0.3+	2000 01 04	704	0.7+	0.8+	2000 02 06	704	0.2+	0.4−
1999 11 16	704	0.5+	1.1−	2000 01 04	704	1.1+	0.9+	2000 02 06	704	0.3+	0.2+
1999 11 16	704	0.0	1.5−	2000 01 08	704	0.3−	0.6+	2000 02 11	704	0.1−	0.7+
1999 11 16	704	0.4−	0.5+	2000 01 08	704	0.8−	0.2−	2000 02 11	704	0.4+	0.5+
1999 11 16	704	0.7−	1.0−	2000 01 08	704	0.4+	0.5−	2000 02 11	704	0.5+	0.8+
1999 12 05	704	0.5−	0.4+	2000 01 08	704	0.3+	0.4−	2000 02 11	704	0.1+	0.5+
1999 12 05	704	0.2−	0.0	2000 01 10	699	0.6−	0.5+	2000 02 11	704	0.1−	0.2+

2000 AX₁₆₃ = 1998 QE₂₁ = 1998 VQ₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	81.62815		(2000.0)	P	Q
<i>n</i>	0.21955888	ω	215.54134	+0.89530911	−0.44540736
<i>a</i>	2.7212517	Ω	170.90248	+0.41672927	+0.83290414
<i>e</i>	0.1783972	<i>i</i>	2.10996	+0.15734775	+0.32845545
<i>P</i>	4.49	<i>H</i>	15.0	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 08 17	704	0.5+	0.6−	1998 11 09	910	0.2+	0.0	2000 01 06	704	0.3−	0.8−
1998 08 17	704	1.8+	0.1+	1998 11 09	910	0.1+	0.1−	2000 01 25	120	(2.5+	2.2+)
1998 08 17	704	1.1−	1.7−	1998 11 09	910	0.2+	0.0	2000 01 25	120	1.3−	0.4+
1998 08 17	704	0.7+	0.3−	1998 11 11	910	0.1+	0.2+	2000 01 25	120	0.7−	0.2−
1998 08 17	704	1.1+	0.5+	1998 11 11	910	0.6−	0.0	2000 02 02	704	1.0+	0.8+
1998 08 23	699	0.6+	0.4−	1998 11 11	910	0.0	0.2+	2000 02 02	704	0.4−	0.0
1998 08 23	704	1.1−	0.7+	2000 01 05	704	0.6−	0.8+	2000 02 02	704	0.8+	1.1−
1998 08 23	704	1.0−	0.2+	2000 01 05	704	1.4+	0.4−	2000 02 02	704	0.1−	0.2+

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1998 08 23	699	0.3−	1.0+	2000 01 05	704	0.2−	0.7+	2000 02 03	704	0.3−	0.1+
1998 08 23	704	0.5−	0.4+	2000 01 05	704	0.1−	0.3−	2000 02 03	704	0.1+	0.3+
1998 08 23	704	0.1−	0.2+	2000 01 05	704	1.0+	0.6−	2000 02 03	704	1.2+	0.4−
1998 08 23	699	0.3−	0.1−	2000 01 06	704	1.1−	0.2+	2000 02 03	704	0.1+	1.2+
1998 08 23	704	0.3−	0.1−	2000 01 06	704	0.2−	1.1−				

2000 AE₁₆₄ = 1989 SM₁₀ = 1998 WL₃₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	238.22660		(2000.0)	P		Q	
<i>n</i>	0.23521485	ω	56.88253	+0.05050507		+0.99868131	
<i>a</i>	2.5991194	Ω	216.01589	−0.92145197		+0.04303766	
<i>e</i>	0.1679438	<i>i</i>	0.89774	−0.38519540		+0.02798928	
<i>P</i>	4.19	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1989 09 28	809	0.4+	0.9+	1998 11 18	704	1.0−	0.9+	2000 01 26	691	0.1−	0.2−
1989 09 28	809	0.7+	0.7+	1998 11 19	699	0.2−	0.7−	2000 01 29	691	0.0	0.6−
1989 09 28	809	1.2+	0.7+	1998 11 19	699	1.4+	0.2+	2000 01 29	691	0.3−	0.6−
1989 09 29	809	0.2−	0.3+	1998 11 19	699	0.3+	0.0	2000 01 29	691	0.1−	0.8−
1989 09 29	809	0.2−	0.1+	1998 11 25	699	0.3+	0.4+	2000 01 30	703	0.1+	0.9+
1989 09 29	809	0.1+	0.0	1998 11 25	699	0.2+	0.7+	2000 01 30	703	0.3+	0.4+
1989 10 01	809	0.4−	1.8−	1998 11 25	699	0.1−	0.4+	2000 01 30	703	0.0	0.1−
1989 10 01	809	0.4−	1.8−	2000 01 05	704	0.5−	0.2+	2000 01 30	703	1.0+	0.3−
1989 10 01	809	0.2−	1.9−	2000 01 05	704	1.6−	0.1−	2000 02 02	704	0.2+	0.0
1996 02 20	566	0.2+	0.4+	2000 01 05	704	0.4+	0.2+	2000 02 02	704	0.3+	0.4−
1996 02 20	566	0.1+	0.4+	2000 01 05	704	1.1+	0.8+	2000 02 02	704	1.4−	0.6−
1996 02 20	566	0.3+	0.4+	2000 01 07	704	0.1−	0.7−	2000 02 02	704	0.4+	0.0
1998 10 18	699	1.1−	1.3+	2000 01 07	704	0.3−	0.7−	2000 02 03	704	0.6+	0.1−
1998 10 18	699	0.3−	1.0−	2000 01 07	704	0.9−	0.1+	2000 02 03	704	0.0	0.2−
1998 10 18	699	0.2−	0.7−	2000 01 07	704	0.3+	0.2+	2000 02 03	704	0.1+	0.1+
1998 11 18	704	0.5+	0.5+	2000 01 07	704	0.7−	0.6−	2000 02 03	704	0.1−	0.1−
1998 11 18	704	0.3−	0.9+	2000 01 26	691	0.2−	0.3−	2000 02 03	704	0.1−	0.4−
1998 11 18	704	(0.6−	3.5+)	2000 01 26	691	0.1−	0.2−				

2000 AF₁₆₄ = 1980 KM₂ = 1992 HR₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	295.49209		(2000.0)	P		Q	
<i>n</i>	0.23703742	ω	84.06518	−0.69981175		+0.69620756	
<i>a</i>	2.5857792	Ω	139.89226	−0.71319636		−0.66839144	
<i>e</i>	0.1552214	<i>i</i>	14.36857	−0.04018038		−0.26181657	
<i>P</i>	4.16	<i>H</i>	12.9	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1980 05 18	808	0.4+	0.4+	1999 12 05	704	0.2−	0.0	2000 02 01	703	0.1+	0.2+
1980 05 18	808	1.2−	0.2−	1999 12 05	704	0.2−	0.5−	2000 02 01	703	0.0	0.4+
1980 06 15	808	0.7+	0.3+	1999 12 05	704	0.0	0.0	2000 02 02	704	0.0	0.3+
1980 06 15	808	1.3+	0.7−	1999 12 05	704	0.4+	0.2−	2000 02 02	704	0.1+	0.3+
1992 04 20	374	0.2−	0.3−	Y 1999 12 14	704	0.8−	1.9−	2000 02 02	704	0.0	0.1+
1992 04 20	374	1.4−	1.1−	1999 12 14	704	0.4+	1.9−	2000 02 02	704	0.1−	0.0
1992 04 20	374	1.6−	1.9+	1999 12 14	704	(0.5−	2.0−)	2000 02 02	704	0.0	0.1+
1998 11 13	704	0.4−	0.2+	1999 12 14	704	0.9−	0.0	2000 02 04	704	0.3+	0.7+
1998 11 13	704	0.8−	0.3+	1999 12 14	704	1.2+	0.5−	2000 02 04	704	0.2+	0.9+
1998 11 13	704	1.3+	0.1−	2000 01 05	704	0.2+	0.2−	2000 02 04	704	0.1+	0.7+
1998 11 13	704	0.5−	0.8+	2000 01 05	704	0.1−	0.6−	2000 02 04	704	0.3+	0.6+
1998 11 13	704	0.2−	0.3+	2000 01 05	704	0.1−	0.2−	2000 02 04	704	0.4+	0.7+
1998 11 21	703	0.0	0.1+	2000 01 05	704	0.1−	0.3−	2000 02 12	704	(2.9+	2.8−)
1998 11 21	703	0.8−	0.3+	2000 01 05	704	0.3−	0.3−	2000 02 12	704	(3.5−	1.1+)
1998 11 21	703	0.7−	0.0	2000 01 07	704	0.1+	0.6−	2000 02 12	704	1.7+	0.3+
1999 10 20	704	0.1−	0.4−	2000 01 07	704	0.4+	0.9−	2000 02 12	704	0.9−	1.3+
1999 10 20	704	0.5+	0.6−	2000 01 07	704	(2.6−	1.0+)	2000 02 13	704	0.0	0.1+
1999 10 20	704	0.0	0.4−	2000 01 07	704	0.8−	1.3+	2000 02 13	704	0.8+	0.1+
1999 10 20	704	0.1+	0.9−	2000 01 07	704	0.2−	0.1+	2000 02 13	704	(4.4+	0.7+)
1999 10 20	704	0.4+	0.8−	2000 01 30	703	0.0	0.1+	2000 02 13	704	0.6+	0.9+
1999 11 06	703	0.2−	0.8−	2000 01 30	703	0.1−	0.1+	2000 02 14	691	0.1−	0.4−
1999 11 06	703	0.5+	0.3−	2000 01 30	703	0.1+	0.4+	2000 02 14	691	0.0	0.4−

1999 11 06	703	0.8+	0.7−	2000 01 30	703	0.4+	0.3+	2000 02 14	691	0.0	0.4−
1999 11 06	703	0.3−	0.1+	2000 02 01	703	0.1−	0.1+				
1999 12 05	704	0.7−	0.1+	2000 02 01	703	0.0	0.5+				

2000 AH₁₆₄ = 1990 ER₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	241.86070		(2000.0)	P		Q	
<i>n</i>	0.19025743	ω	89.89593	−0.00246250		+0.99999696	
<i>a</i>	2.9939299	Ω	179.96252	−0.96819863		−0.00235873	
<i>e</i>	0.0620805	<i>i</i>	8.95162	−0.25017063		−0.00071460	
<i>P</i>	5.18	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1990 03 02	809	1.1+	0.2−	2000 01 05	704	0.2+	1.3−	2000 02 02	704	0.2−	0.5+
1990 03 02	809	0.9+	0.2−	2000 01 05	704	0.3−	0.8−	2000 02 02	704	1.4+	0.2−
1990 03 02	809	0.1+	0.1−	2000 01 05	704	0.1−	0.2−	2000 02 02	704	0.4+	1.1+
1990 03 04	809	0.4−	1.2+	2000 01 05	704	0.6−	0.8−	2000 02 02	704	0.7+	0.6−
1990 03 04	809	0.5−	1.0+	2000 01 08	704	(2.2+	1.3−)	2000 02 02	704	0.8−	0.3+
1990 03 04	809	0.6−	0.2+	2000 01 08	704	0.7−	1.2−	2000 02 06	704	0.6+	0.9+
1997 09 06	910	0.1+	0.5−	2000 01 08	704	0.4−	0.4+	2000 02 06	704	0.5+	0.0
1997 09 06	910	0.1+	0.6−	2000 01 08	704	1.5−	0.4−	2000 02 06	704	0.7+	0.2−
1997 09 06	910	0.2+	0.6−	2000 01 10	704	(2.4+	1.0−)	2000 02 06	704	0.1−	0.2+
1998 11 16	699	0.0	1.1+	2000 01 10	704	0.2+	1.3−	2000 02 06	704	0.4+	0.7+
1998 11 16	699	0.2+	0.6+	2000 01 10	704	0.4−	0.4−				
1998 11 16	699	0.2−	0.9+	2000 01 10	704	1.5−	1.1−				

2000 AQ₁₆₄ = 1998 XG₃₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	324.34020		(2000.0)	P		Q	
<i>n</i>	0.18589396	ω	311.74762	−0.79883564		+0.58610674	
<i>a</i>	3.0405993	Ω	264.57056	−0.50362563		−0.77474587	
<i>e</i>	0.1543532	<i>i</i>	7.81862	−0.32897241		−0.23716603	
<i>P</i>	5.30	<i>H</i>	12.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 10 29	327	0.4−	0.6+	1998 12 17	704	1.1−	0.1−	2000 01 11	704	0.7−	0.8−
1997 10 29	327	0.0	0.8+	1998 12 17	704	(2.2−	0.1+)	2000 01 11	704	0.0	0.3+
1997 10 29	327	0.3−	0.6+	1998 12 22	704	0.1+	0.9+	2000 01 11	704	1.0−	0.0
1998 12 14	704	0.8−	0.2−	1998 12 22	704	1.0+	0.3+	2000 01 11	704	0.2−	0.0
1998 12 14	704	0.2−	0.1+	1998 12 22	704	1.2+	0.8−	2000 01 11	704	0.2+	0.0
1998 12 14	704	0.3+	0.5−	1998 12 22	704	1.8+	0.2+	2000 02 07	704	0.3+	0.2−
1998 12 14	704	0.4−	0.8+	1998 12 22	704	1.1+	1.4+	2000 02 07	704	0.5+	0.1−
1998 12 14	704	0.0	1.4+	2000 01 05	704	0.8−	0.9−	2000 02 07	704	0.3+	0.2−
1998 12 16	704	0.4−	0.8+	2000 01 05	704	0.6−	0.2+	2000 02 07	704	0.3+	0.0
1998 12 16	704	0.6+	1.8−	2000 01 05	704	0.0	0.9+	2000 02 07	704	0.5+	0.0
1998 12 16	704	0.5−	1.3−	2000 01 10	704	0.5−	0.1+	2000 02 10	704	0.0	0.1+
1998 12 16	704	0.9−	1.2−	2000 01 10	704	0.7+	0.2+	2000 02 10	704	0.5−	0.4+
1998 12 16	704	1.8−	1.7−	2000 01 10	704	0.6+	0.4+	2000 02 10	704	0.4+	0.1+
1998 12 17	704	0.1+	0.7+	2000 01 10	704	0.9+	0.2+	2000 02 10	704	0.0	0.7+
1998 12 17	704	0.3−	0.2−	2000 01 10	704	0.2+	0.3+				

2000 AY₁₆₄ = 1998 SB₇₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	32.99624		(2000.0)	P	Q
n	0.23401647	ω	189.68712	−0.03333515	−0.98061399
a	2.6079851	Ω	262.40639	+0.92951751	+0.04057716
e	0.1135052	i	11.23313	+0.36726824	−0.19170212
P	4.21	H	15.2	G 0.15	U 4

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1998 08 24	704	1.7−	0.4−	2000 01 07	704	0.4−	0.0	2000 01 27	385	1.1+	1.1+
1998 08 24	704	(6.3−	2.1+)	2000 01 07	704	0.2+	0.1−	2000 01 27	385	0.6+	0.3−
1998 08 27	704	0.2+	0.6+	2000 01 07	704	0.4+	0.4+	2000 01 28	888	0.6−	0.3+
1998 08 27	704	0.0	0.6+	2000 01 07	704	0.5−	0.1−	2000 01 28	888	0.2−	0.3−
1998 08 27	704	0.6+	1.2+	2000 01 10	704	1.0+	1.3+	2000 01 28	888	0.0	0.4−
1998 08 27	704	1.0+	0.1+	2000 01 10	704	0.5+	0.1−	2000 01 30	888	1.1−	0.0
1998 08 27	704	(5.1−	0.3+)	2000 01 10	704	0.5+	0.9−	2000 01 30	888	0.0	0.2−
1998 09 19	704	1.0−	0.3−	2000 01 10	704	0.7+	0.3+	2000 01 30	888	0.3+	0.4+
1998 09 19	704	0.3+	1.4−	2000 01 10	704	1.6−	0.2−	2000 02 06	704	0.4+	0.2+
1998 09 19	704	1.4−	1.1+	2000 01 11	704	0.2+	0.1+	2000 02 06	704	0.1−	0.1−
1998 09 19	704	0.1−	0.1+	2000 01 11	704	0.9−	1.3−	2000 02 06	704	1.0+	0.7−
1998 09 23	704	0.1+	0.3−	2000 01 11	704	1.0−	0.5−				

2000 AR₁₆₅ = 1996 BM₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	13.36864		(2000.0)	P	Q
<i>n</i>	0.23674697	ω	318.85368	−0.10691933	−0.97922947
<i>a</i>	2.5878937	Ω	136.45480	+0.96509389	−0.14387668
<i>e</i>	0.2564039	<i>i</i>	14.48104	+0.23908586	+0.14286058
<i>P</i>	4.16	<i>H</i>	14.7	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1996 01 26	411	0.3−	0.3−	1999 12 03	704	0.2−	0.7−	2000 01 10	704	0.1+	0.7−
1996 01 26	411	0.4−	0.3+	1999 12 03	704	0.2−	0.3−	2000 01 10	704	0.2−	0.3−
1996 01 27	411	0.4+	0.2+	1999 12 03	704	0.6−	0.3+	2000 01 11	704	0.0	0.1+
1996 01 27	411	0.8+	0.5−	2000 01 08	704	0.3+	0.3+	2000 01 11	704	0.4+	0.2+
1996 01 30	411	0.0	0.2−	2000 01 08	704	0.4+	0.2−	2000 01 11	704	0.2−	0.2+
1996 01 30	411	1.0+	0.4+	2000 01 08	704	0.9+	0.3−	2000 01 11	704	0.3+	0.3+
1996 02 12	411	1.6−	0.0	2000 01 08	704	1.0+	0.2−	2000 01 11	704	0.1+	0.8+
1996 02 12	411	0.2−	0.2+	2000 01 08	704	0.7+	0.3−	2000 02 04	704	0.5−	0.4+
1996 02 19	411	0.2−	0.8−	2000 01 10	704	0.1−	0.1+	2000 02 04	704	0.7−	0.5+
1996 02 19	411	0.4+	0.1+	2000 01 10	704	0.3+	0.2−	2000 02 04	704	0.9−	0.8+
1999 12 03	704	0.4−	0.4+	2000 01 10	704	0.3−	0.4−	2000 02 04	704	0.9−	0.2+

2000 AG₁₆₇ = 1998 SW₇₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	12.55530		(2000.0)	P	Q
<i>n</i>	0.17680542	ω	280.48015	−0.35401331	−0.93483957
<i>a</i>	3.1439262	Ω	190.37893	+0.90648285	−0.33577733
<i>e</i>	0.2920156	<i>i</i>	8.74087	+0.23013781	−0.11544936
<i>P</i>	5.57	<i>H</i>	14.4	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1998 09 26	704	1.0+	1.2−	1999 12 13	703	0.7−	0.0	2000 01 10	704	0.2−	0.3−
1998 09 26	704	1.6−	0.5+	1999 12 13	703	0.3+	0.4+	2000 01 10	704	0.6+	0.5+
1998 09 26	704	(2.2+	1.2−)	1999 12 16	699	0.2+	0.3+	2000 01 10	704	0.9+	0.3+
1998 09 26	704	0.5−	0.4−	1999 12 16	699	0.6−	1.2+	2000 01 11	704	0.0	0.0
1998 09 27	704	0.2−	0.1+	1999 12 16	699	0.7+	0.0	2000 01 11	704	0.1−	0.1+
1998 09 27	704	0.1−	0.8+	2000 01 04	699	0.3+	0.2+	2000 01 11	704	0.4−	0.1+
1998 09 27	704	(2.4−	0.7−)	2000 01 04	699	0.3+	0.3+	2000 01 11	704	0.4−	0.2−
1998 09 27	704	0.0	0.1+	2000 01 04	699	0.3+	0.4+	2000 01 11	704	0.5−	0.2+
1998 09 27	704	1.3+	0.4−	2000 01 08	704	1.1+	1.0−	2000 02 06	704	0.3+	0.2+
1999 10 20	704	0.4+	0.8−	2000 01 08	704	0.6−	0.4−	2000 02 06	704	0.6−	0.0
1999 10 20	704	0.1−	0.1+	2000 01 08	704	0.2+	0.2−	2000 02 06	704	0.1−	0.2+
1999 10 20	704	0.1+	0.4−	2000 01 08	704	0.1−	0.5−	2000 02 06	704	0.0	0.5+
1999 10 20	704	0.5−	0.1+	2000 01 08	704	0.4−	1.1−	2000 02 06	704	0.1+	0.2+
1999 12 13	703	0.1−	0.6+	2000 01 10	704	0.1−	0.1+				
1999 12 13	703	0.7−	0.3−	2000 01 10	704	0.0	0.6−				

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2000 AA₁₆₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	5.05569		(2000.0)	P	Q
<i>n</i>	0.28801043	ω	39.33535	−0.99039662	−0.07345615
<i>a</i>	2.2708960	Ω	136.00998	+0.03792602	−0.95902805
<i>e</i>	0.0689551	<i>i</i>	9.70883	+0.13295167	−0.27362272
<i>P</i>	3.42	<i>H</i>	13.3	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1999 01 17	699	0.6−	0.1+	2000 01 08	704	0.1−	0.8−	2000 02 06	704	0.4+	1.0+
1999 01 17	699	1.1+	0.1+	2000 01 08	704	0.1−	0.3−	2000 02 06	704	0.3−	0.2+
1999 01 17	699	0.2−	0.2−	2000 01 08	704	0.1+	1.2−	2000 02 06	704	0.5−	0.7+
1999 02 04	704	0.3+	0.5−	2000 01 10	704	0.1−	0.0	2000 02 06	704	0.3+	0.9+
1999 02 04	704	0.2+	0.6+	2000 01 10	704	0.4+	1.4−	2000 02 11	704	0.1−	0.2+
1999 02 04	704	0.3−	0.7+	2000 01 10	704	0.3+	0.9−	2000 02 11	704	1.4+	1.0+
1999 02 04	704	0.9−	0.3+	2000 01 10	704	0.2−	0.4−	2000 02 11	704	(0.4+	2.6+)
2000 01 08	704	0.2−	0.0	2000 01 10	704	0.3−	0.4−				
2000 01 08	704	0.1−	0.7−	2000 02 06	704	0.8−	1.2+				

2000 AM₁₆₈ = 1996 FD₆

Id. B. G. Marsden

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	313.71189		(2000.0)	P	Q
<i>n</i>	0.23306770	ω	205.01326	−0.98054110	+0.19476522
<i>a</i>	2.6150580	Ω	346.15061	−0.15835080	−0.85878237
<i>e</i>	0.1270899	<i>i</i>	5.90114	−0.11603526	−0.47387694
<i>P</i>	4.23	<i>H</i>	15.7	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1996 03 17	691	0.1+	0.0	2000 01 13	046	0.3+	0.5−	2000 01 15	046	0.0	0.0
1996 03 17	691	0.1−	0.0	2000 01 13	046	0.3+	0.4−	2000 01 15	046	0.1−	0.4+
1996 03 17	691	0.2+	0.1+	2000 01 13	046	0.3−	0.1+	2000 01 25	046	0.1+	0.1−
1996 03 26	691	0.3−	0.0	2000 01 13	046	0.6−	0.3+	2000 01 25	046	0.1−	0.1−
1996 03 26	691	0.1+	0.1−	2000 01 13	046	0.3−	0.3+	2000 01 25	046	0.0	0.2−
1996 03 26	691	0.0	0.0	2000 01 13	046	0.2−	0.7+	2000 01 25	046	0.3−	0.7+
2000 01 13	046	0.7+	0.5+	2000 01 14	046	0.6−	0.0	2000 02 03	046	0.1−	0.3−
2000 01 13	046	0.5+	0.2−	2000 01 14	046	0.0	0.0	2000 02 03	046	0.1+	0.3−
2000 01 13	046	0.6−	0.2−	2000 01 14	046	0.2−	0.5−	2000 02 03	046	0.3+	0.2+
2000 01 13	046	0.2+	0.3−	2000 01 15	046	0.1+	0.1+				
2000 01 13	046	0.6+	0.3−	2000 01 15	046	0.5+	0.1+				

2000 AN₁₆₈ = 1987 BA₃ = 1998 UA₃₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	115.90424		(2000.0)	P	Q
<i>n</i>	0.23419383	ω	242.64443	+0.88989747	−0.45144927
<i>a</i>	2.6066682	Ω	144.08444	+0.44792584	+0.83769224
<i>e</i>	0.0392822	<i>i</i>	6.40046	+0.08628400	+0.30735203
<i>P</i>	4.21	<i>H</i>	14.5	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1987 01 30	010	(15.6−	3.0+)	2000 01 14	046	0.6−	1.1+	2000 02 04	704	0.2+	1.2−
1987 01 30	010	0.0	0.3+	2000 01 14	046	0.5−	1.5+	2000 02 04	704	0.8+	0.2−
1987 01 30	010	(9.2+	0.4−)	2000 01 14	046	0.7−	1.2+	2000 02 05	725	1.7−	1.0−
1998 10 28	704	0.2+	0.2−	2000 01 14	046	0.7−	0.8+	2000 02 05	725	0.4+	0.1−
1998 10 28	704	1.1−	0.6+	2000 01 15	046	0.7−	0.9+	2000 02 06	704	0.4+	0.4−
1998 10 28	704	1.8+	1.3−	2000 01 15	046	0.5−	0.4+	2000 02 06	704	0.8+	0.4−
1998 10 28	704	0.7+	1.0−	2000 01 15	046	0.9−	1.1+	2000 02 06	704	0.4+	0.4−
1998 10 29	704	0.8+	0.6+	2000 01 15	046	0.6−	0.9+	2000 02 06	704	0.9+	0.2−
1998 10 29	704	0.1+	0.3−	2000 01 15	046	0.8−	1.2+	2000 02 06	704	0.5+	0.2+
1998 10 29	704	0.1+	1.1+	2000 02 04	046	0.1+	0.0	2000 02 08	691	0.1−	0.8−
1998 10 29	704	1.1−	1.3−	2000 02 04	046	0.6+	0.0	2000 02 08	691	0.0	0.8−
1998 10 29	704	1.1−	0.6+	2000 02 04	046	0.7+	0.2+	2000 02 08	691	0.1−	1.0−
2000 01 13	046	0.4−	0.1+	2000 02 04	046	0.4+	0.3−	2000 02 12	120	1.1+	0.7−
2000 01 13	046	0.8−	0.8+	2000 02 04	725	0.3−	0.3−	2000 02 12	120	0.7+	1.1−
2000 01 13	046	0.0	0.5+	2000 02 04	704	0.4+	0.5+	2000 02 14	691	0.8+	1.3−

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2000 01 13	046	1.1−	0.1−	2000 02 04	704	0.7+	0.1+	2000 02 14	691	1.1+	1.6−
2000 01 14	046	0.9−	1.1+	2000 02 04	725	(3.6+	1.9−)	2000 02 14	691	1.0+	1.3−
2000 01 14	046	1.2−	1.2+	2000 02 04	704	0.0	0.0				

2000 AF₁₆₉ = 1997 NZ₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	344.79869		(2000.0)	$\mathbf{P}$		$\mathbf{Q}$	
n	0.21444434	ω	355.28356	−0.34656008		−0.91025963	
a	2.7643498	Ω	114.84925	+0.86858322		−0.40260028	
e	0.0860773	i	14.45748	+0.35420233		+0.09664587	
P	4.60	H	14.3	G	0.15	U	3

Residuals in seconds of arc

1993 07 13	809	0.8+	0.7−	1999 11 05	704	0.7−	0.1+	2000 01 07	704	0.1+	0.6−
1993 07 13	809	0.1−	0.8−	1999 11 05	704	0.3+	1.3+	2000 01 07	704	0.1−	0.2−
1993 07 13	809	1.3+	0.2+	1999 12 05	704	0.3−	0.5−	2000 01 11	704	0.5+	0.5+
1993 07 26	809	1.3−	0.3−	1999 12 05	704	0.9−	0.1−	2000 01 11	704	0.7+	0.4+
1993 07 26	809	0.8−	1.2+	1999 12 05	704	0.8−	0.4+	2000 01 11	704	0.9+	1.5+
1993 07 26	809	(0.4−	2.5+)	1999 12 05	704	1.0−	0.4−	2000 01 11	704	1.0+	0.2+
1997 07 07	910	0.1+	0.5+	1999 12 05	704	0.3−	0.1−	2000 01 11	704	1.1+	1.0+
1997 07 07	910	0.2+	0.4+	2000 01 04	699	0.6+	0.3−	2000 02 02	704	0.1−	0.3−
1997 07 07	910	0.0	0.5+	2000 01 04	699	0.1−	0.6−	2000 02 02	704	0.1−	0.1+
1997 07 08	910	0.3+	0.7+	2000 01 04	699	0.3−	0.3+	2000 02 02	704	0.0	0.5+
1997 07 08	910	0.3+	0.6+	2000 01 07	704	0.4+	0.4−	2000 02 02	704	0.6+	0.7+
1997 07 08	910	0.3+	0.5+	2000 01 07	704	0.1+	0.2−	2000 02 02	704	1.2−	0.4+
1999 11 05	704	1.4−	0.5+	2000 01 07	704	0.4+	1.1−				

2000 AD₁₇₁ = 1998 MH₁₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	86.39597		(2000.0)	P	Q
n	0.23813717	ω	231.85938	+0.95519252	+0.20181211
a	2.5778121	Ω	115.54349	−0.13411430	+0.94720927
e	0.2069254	i	13.88483	−0.26385716	+0.24913142
P	4.14	H	13.9	G 0.15	U 4

Residuals in seconds of arc

1998 06 03	704	0.2+	1.1−	1999 11 05	704	0.2−	0.8−	2000 01 11	704	0.5−	0.5−
1998 06 03	704	(0.0	2.8+)	1999 11 05	704	0.3−	1.1−	2000 01 11	704	0.6−	0.7−
1998 06 03	704	0.2−	0.4−	1999 12 05	704	0.6−	0.1+	2000 01 11	704	0.6−	0.5−
1998 06 03	704	0.1−	0.0	1999 12 05	704	0.6−	0.5+	2000 01 11	704	0.9−	0.0
1998 06 19	704	0.1−	0.2+	1999 12 05	704	0.4−	0.7+	2000 01 11	704	0.4−	0.3−
1998 06 19	704	(1.1−	3.0+)	1999 12 05	704	0.0	0.9+	2000 02 02	704	0.0	0.2−
1998 06 19	704	1.8−	0.7+	1999 12 05	704	0.1+	0.8+	2000 02 02	704	0.1+	0.3+
1998 06 19	704	1.0+	0.0	1999 12 14	704	1.3+	0.7+	2000 02 02	704	0.5+	0.3−
1998 06 25	704	0.5−	0.2−	1999 12 14	704	1.4+	0.7+	2000 02 02	704	0.3+	0.5+
1998 06 25	704	1.7+	0.9+	1999 12 14	704	0.2−	0.2+	2000 02 02	704	0.4+	0.4−
1998 06 25	704	0.4+	0.3+	1999 12 14	704	0.3+	0.6+	2000 02 03	704	0.0	0.1+
1998 06 25	704	0.4−	0.1+	1999 12 14	704	0.1−	0.4+	2000 02 03	704	0.0	0.8+
1999 11 05	704	1.3+	0.2−	2000 01 07	704	0.2−	0.5−	2000 02 03	704	0.2+	0.1+
1999 11 05	704	0.4+	0.5−	2000 01 07	704	0.5−	0.7−	2000 02 03	704	0.2−	0.5+
1999 11 05	704	0.5−	0.0	2000 01 07	704	0.3+	0.9−				

2000 AX₁₇₄ = 1980 RO₆ = 1997 LO₁₀ = 1998 QN₆₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	48.01015		(2000.0)	P	Q
n	0.21453641	ω	182.04307	+0.68196840	−0.72376781
a	2.7635588	Ω	224.98128	+0.67312350	+0.67739924
e	0.1516217	i	8.56354	+0.28604869	+0.13149310
P	4.59	H	13.8	G 0.15	U 1

Residuals in seconds of arc

1980 09 13	675	0.3−	0.1−	1998 08 27	704	1.3−	0.5−	1999 12 14	704	0.2−	0.0
1980 09 14	675	0.0	0.9+	1998 08 27	704	0.8+	0.3+	1999 12 14	704	0.2+	0.3−
1997 06 07	809	0.2+	0.2+	1999 11 04	704	1.0−	0.4+	2000 01 07	704	0.0	0.6−
1997 06 07	809	0.8−	0.2−	1999 11 04	704	0.5+	0.3+	2000 01 07	704	1.0+	0.0
1997 06 07	809	0.5+	0.2+	1999 11 04	704	0.4−	0.2+	2000 01 07	704	0.4+	0.4−
1997 06 08	809	(1.2+	6.1+)	1999 11 04	704	0.1−	0.7+	2000 01 07	704	0.3+	1.0−
1997 06 08	809	(2.3+	5.6+)	1999 12 06	704	0.4+	0.3−	2000 01 07	704	0.1−	0.9−
1997 06 08	809	(2.2+	5.7+)	1999 12 06	704	0.1+	0.1−	2000 01 11	704	0.3−	0.0
1998 08 24	704	0.4+	0.0	1999 12 06	704	0.4+	0.1−	2000 01 11	704	0.6−	0.4−
1998 08 24	704	1.3−	0.7+	1999 12 06	704	0.1−	0.5−	2000 01 11	704	0.5−	0.3−
1998 08 24	704	0.7+	1.2+	1999 12 06	704	0.1+	0.1+	2000 02 02	703	0.1−	0.8+
1998 08 24	704	0.0	1.2−	1999 12 14	704	0.1−	0.4+	2000 02 02	703	0.4−	0.4+
1998 08 27	704	(0.7−	2.8−)	1999 12 14	704	0.5+	0.6+	2000 02 02	703	0.4−	0.2+
1998 08 27	704	1.3+	1.8−	1999 12 14	704	(2.3+	0.1−)	2000 02 02	703	0.0	0.8+

2000 AG₁₇₅ = 1989 UY₁

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	75.47669		(2000.0)	P	Q		
n	0.20392900	ω	157.44866	+0.99296199	−0.08596223		
a	2.8585780	Ω	207.86284	+0.06310206	+0.96611067		
e	0.2221884	i	10.03885	+0.10022285	+0.24339405		
P	4.83	H	12.3	G	0.15	U	4

Residuals in seconds of arc

1989 10 29	402	0.5+	2.2+	1999 10 20	704	0.2+	0.1−	2000 01 11	704	0.2−	0.2+
1989 10 30	402	0.7+	0.3+	1999 10 20	704	0.0	0.1−	2000 01 11	704	0.1−	0.1+
1989 11 21	402	(3.5+	2.8+)	2000 01 07	704	0.6+	0.1+	2000 01 11	704	0.3−	0.1+
1989 11 21	402	1.5−	0.5−	2000 01 07	704	0.4+	0.3+	2000 02 04	704	0.3+	0.5−
1989 11 21	095	(2.2+	4.8−)	2000 01 07	704	0.6+	0.2+	2000 02 04	704	0.6+	0.3−
1989 11 21	095	0.3+	1.8−	2000 01 07	704	0.5+	0.2+	2000 02 04	704	1.0−	0.0
1999 10 20	704	0.6−	0.5−	2000 01 07	704	0.1+	0.6+	2000 02 04	704	0.4−	0.6+
1999 10 20	704	0.4−	0.4−	2000 01 11	704	0.2−	0.1−	2000 02 04	704	(1.0−	2.3+)
1999 10 20	704	0.4−	0.5−	2000 01 11	704	0.2−	0.1−				

2000 AR₁₇₇ = 1990 HE₃

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	57.37390		(2000.0)	P	Q
n	0.17464252	ω	274.28551	+0.70994900	−0.66332068
a	3.1698306	Ω	127.47491	+0.70400195	+0.67741829
e	0.1080493	i	17.34494	−0.01880612	+0.31797819
P	5.64	H	13.1	G 0.15	U 5

Residuals in seconds of arc

1990 04 29	413	0.7−	0.5+	2000 01 07	704	0.5−	0.4−	2000 02 02	704	0.6+	0.7−
1990 04 29	413	1.0+	0.6−	2000 01 07	704	0.2−	0.1−	2000 02 02	704	0.8−	0.7+
1990 04 30	413	0.3−	0.1+	2000 01 07	704	0.4−	0.7+	2000 02 02	704	0.5+	0.2+
1990 04 30	413	(4.5+	0.6−)	2000 01 11	704	0.2+	0.4−	2000 02 03	704	0.1−	0.2+
1999 12 14	704	1.0−	0.1−	2000 01 11	704	1.5+	0.1−	2000 02 03	704	0.0	0.1−
1999 12 14	704	0.1+	0.3−	2000 01 11	704	0.3−	0.2+	2000 02 03	704	0.2−	0.0
1999 12 14	704	0.1−	0.1−	2000 01 11	704	0.4+	0.4−	2000 02 03	704	0.1−	0.2−
2000 01 07	704	0.2−	0.1+	2000 01 11	704	0.3+	0.1−	2000 02 03	704	0.5−	0.4+
2000 01 07	704	0.1+	1.1+	2000 02 02	704	0.5+	0.5−				

2000 AT₁₇₇ = 1996 RX₃₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	7.64511		(2000.0)	P	Q
n	0.08437503	ω	301.40403	−0.12328673	−0.98771638
a	5.1482556	Ω	155.13089	+0.97026489	−0.14028066
e	0.0861072	i	13.19603	+0.20829407	+0.06883091
P	11.68	H	10.4	G	0.15
					U
					2

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2000 FEB. 22

Residuals in seconds of arc

1996 09 14	809	0.7+	0.0	1998 12 17	699	0.6+	0.1-	1999 12 14	704	0.3+	0.5-
1996 09 15	809	0.2+	0.5-	1998 12 17	699	0.2+	0.0	1999 12 14	704	0.1-	0.6-
1996 09 16	809	0.2-	0.3-	1998 12 17	699	1.0+	0.7-	2000 01 07	704	0.1-	0.4+
1996 09 16	809	0.2-	0.2-	1999 10 20	704	0.3-	0.1+	2000 01 07	704	0.1+	0.2+
1996 09 16	809	0.4-	0.4+	1999 10 20	704	0.5-	0.6-	2000 01 07	704	0.1+	0.0
1998 10 29	699	1.5-	0.1+	1999 10 20	704	0.1+	1.0+	2000 01 07	704	0.1-	0.0
1998 10 29	699	0.2-	0.8+	1999 10 20	704	0.1+	0.4+	2000 01 07	704	0.1+	0.3+
1998 10 29	699	0.2+	0.2-	1999 10 20	704	(0.2- 2.0+)		2000 01 11	704	0.4-	0.0
1998 11 13	704	1.1+	0.1+	1999 12 05	704	0.8+	0.3-	2000 01 11	704	0.6-	0.0
1998 11 13	704	(3.0+ 2.2-)		1999 12 05	704	0.4+	0.1-	2000 01 11	704	0.8-	0.1-
1998 11 13	704	1.4-	0.7-	1999 12 05	704	0.9+	0.1+	2000 01 11	704	0.7-	0.2-
1998 11 13	704	1.1-	0.6+	1999 12 05	704	0.1+	0.6-	2000 01 11	704	0.9-	0.2+
1998 11 13	704	1.4-	0.2+	1999 12 05	704	0.3-	0.3-	2000 02 04	704	(2.4+ 0.9+)	
1998 11 21	699	1.4+	0.3+	1999 12 14	704	0.5+	0.4+	2000 02 04	704	0.4+	0.3+
1998 11 21	699	0.3+	0.1+	1999 12 14	704	0.3+	0.3-	2000 02 04	704	0.9+	0.2+
1998 11 21	699	0.6+	0.1+	1999 12 14	704	0.2+	0.4-	2000 02 04	704	0.3-	0.3-

2000 AZ₁₇₇ = 1993 GE₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams			
<i>M</i>	119.78093	(2000.0)	
<i>n</i>	0.22783436	ω 161.70172	+0.84767191 +0.52952156
<i>a</i>	2.6549514	Ω 166.18216	-0.50217639 +0.82065561
<i>e</i>	0.2940592	<i>i</i> 7.83206	-0.17108830 +0.21478196
<i>P</i>	4.33	<i>H</i> 12.9	<i>G</i> 0.15 <i>U</i> 2

Residuals in seconds of arc

1993 04 15	675	0.3-	0.5-	1998 12 08	704	0.5+	0.8-	2000 01 07	704	0.5+	0.5+
1993 04 15	675	0.1-	0.4-	1998 12 08	704	0.6+	1.5-	2000 01 07	704	0.3+	0.1-
1993 04 16	675	1.8+	1.9-	1998 12 08	704	0.9+	0.7-	2000 01 07	704	0.2-	0.5+
1993 04 16	675	0.9-	0.6-	1998 12 08	704	0.7+	1.2+	2000 01 11	704	0.2-	0.5+
1993 04 19	675	1.5-	1.1-	1998 12 08	704	0.4-	0.0	2000 01 11	704	0.4+	1.9+
1993 04 19	675	0.2-	0.4-	1999 10 20	704	0.2+	0.5-	2000 01 11	704	0.8-	0.7+
1998 08 23	704	(5.0+ 0.6+)		1999 10 20	704	0.1-	0.3-	2000 01 11	704	0.3+	0.1-
1998 08 23	704	(5.0+ 0.1+)		1999 10 20	704	0.7-	0.7-	2000 01 11	704	0.2-	0.3-
1998 08 23	704	0.7+	0.6+	1999 10 20	704	0.6-	0.6-	2000 02 02	704	0.2+	0.5+
1998 08 23	704	0.2-	0.4+	1999 10 20	704	0.3-	0.8-	2000 02 02	704	0.6+	0.1-
1998 10 13	699	0.2-	0.3-	1999 12 14	704	0.0	0.2+	2000 02 02	704	0.1+	0.8+
1998 10 13	699	0.6-	0.4+	1999 12 14	704	0.0	0.2-	2000 02 02	704	0.1+	0.3+
1998 10 13	699	0.1+	0.6-	1999 12 14	704	0.1-	1.2-	2000 02 02	704	0.0	0.1+
1998 11 20	704	0.5+	1.5-	1999 12 14	704	0.5-	1.4-	2000 02 04	704	0.3-	0.4-
1998 11 20	704	1.1-	1.4-	1999 12 14	704	0.8+	1.6-	2000 02 04	704	0.0	0.1+
1998 11 20	704	1.7+	1.2-	2000 01 07	704	0.1-	0.3-	2000 02 04	704	0.6-	0.3-
1998 11 20	704	1.9-	0.7-	2000 01 07	704	0.1+	0.5+	2000 02 04	704	0.2+	0.1-

2000 AT₁₈₀ = 1997 EB₅₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr			
<i>M</i>	38.72476	(2000.0)	
<i>n</i>	0.28722003	ω 242.70869	+0.16386213 -0.98602844
<i>a</i>	2.2750602	Ω 197.93552	+0.93598211 +0.16499196
<i>e</i>	0.1077646	<i>i</i> 5.58159	+0.31158739 +0.02292520
<i>P</i>	3.43	<i>H</i> 14.8	<i>G</i> 0.15 <i>U</i> 3

Residuals in seconds of arc

1997 03 05	809	0.8+	0.0	1999 12 06	704	0.3-	0.1-	2000 01 11	704	0.0	0.4-
1997 03 05	809	0.6+	0.4+	1999 12 06	704	0.1-	0.2-	2000 02 02	704	0.3+	0.3+
1997 03 05	809	0.3+	0.5+	1999 12 06	704	0.0	0.9-	2000 02 02	704	0.3+	0.6+
1997 03 06	809	0.7-	0.2-	2000 01 07	704	0.6-	0.6-	2000 02 02	704	0.1+	0.0
1997 03 06	809	0.7-	0.2-	2000 01 07	704	0.2-	0.2-	2000 02 02	704	0.4+	0.0
1997 03 06	809	0.7-	1.4-	2000 01 07	704	0.2+	0.7-	2000 02 02	704	0.1-	0.2-
1998 08 17	704	0.0	1.6+	2000 01 07	704	0.1-	0.1-	2000 02 04	704	0.3+	1.3+
1998 08 17	704	0.6-	0.9-	2000 01 07	704	0.2+	1.1+	2000 02 04	704	0.1+	0.3+
1998 08 17	704	0.1-	1.0+	2000 01 11	704	0.0	0.1-	2000 02 04	704	0.4-	0.7+
1998 08 17	704	0.7+	1.6-	2000 01 11	704	0.2+	0.3-	2000 02 04	704	0.4+	0.5+

1999 12 06	704	0.3-	0.1-	2000 01 11	704	0.8+	0.3-	2000 02 04	704	1.4-	0.1-
1999 12 06	704	0.1-	0.5-	2000 01 11	704	0.0	0.3+				

2000 AH₁₈₂ = 1993 RW₂ = 1997 MO₁₀ = 1998 SZ₁₄₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5 Williams

<i>M</i>	144.52142	(2000.0)		<i>P</i>	<i>Q</i>
<i>n</i>	0.21115600	ω 166.38164	+0.87880321	+0.47523001	
<i>a</i>	2.7929753	Ω 165.01438	-0.45194870	+0.85793197	
<i>e</i>	0.1596701	<i>i</i> 9.60470	-0.15312509	+0.19521571	
<i>P</i>	4.67	<i>H</i> 12.9	<i>G</i> 0.15	<i>U</i> 1	

Residuals in seconds of arc

1993 09 12	675	1.3-	0.4+	1998 09 27	704	0.9+	0.8-	1999 10 20	704	0.2+	0.2-
1993 09 12	675	1.0+	0.4+	1998 09 27	704	0.5+	0.4-	1999 12 14	704	0.7-	1.0+
1993 09 15	675	0.6+	0.2-	1998 09 27	704	0.3+	0.0	1999 12 14	704	0.2+	1.7+
1993 09 15	675	0.2-	0.0	1998 09 27	704	0.7+	0.1+	1999 12 14	704	(0.5+ 2.9+)	
1996 02 15	566	0.9+	0.9-	1998 09 27	704	0.8+	0.1+	1999 12 14	704	1.7+	1.2+
1996 02 15	566	0.1+	0.9-	1998 10 17	699	0.1-	1.0+	2000 01 07	704	0.3-	0.5-
1996 02 15	566	0.7+	0.8-	1998 10 17	699	0.3-	1.0+	2000 01 07	704	0.2-	0.0
1996 03 17	566	0.8-	0.2+	1998 10 17	699	0.2-	0.6+	2000 01 07	704	0.2-	0.2-
1996 03 17	566	1.1-	0.2-	1998 11 13	704	0.6+	1.1+	2000 01 07	704	0.8+	0.1-
1996 03 17	566	0.9-	0.3-	1998 11 13	704	(0.5+ 2.4-)		2000 01 07	704	0.3-	0.4-
1997 06 29	691	0.4+	0.1+	1998 11 13	704	(0.1+ 2.3-)		2000 01 11	704	1.5+	0.9-
1997 06 29	691	0.1+	0.1+	1998 11 13	704	(0.1- 2.5-)		2000 01 11	704	0.2+	0.8-
1997 06 29	691	0.2+	0.2+	1998 11 13	704	(3.1- 0.8-)		2000 01 11	704	0.6-	0.9+
1997 07 12	691	0.0	0.1+	1998 12 14	699	0.9-	1.2-	2000 02 02	704	0.1-	0.6+
1997 07 12	691	0.8-	0.2-	1998 12 14	699	0.6-	0.3-	2000 02 02	704	0.3-	1.3-
1997 07 12	691	0.0	0.2+	1998 12 14	699	0.2-	0.4-	2000 02 02	704	1.0-	0.6+
1998 09 22	699	0.2-	0.2+	1999 01 11	704	1.1-	0.4-	2000 02 02	704	0.4-	0.2+
1998 09 22	699	0.2+	0.2-	1999 01 11	704	0.8-	0.7-	2000 02 02	704	0.3-	0.3-
1998 09 22	699	0.1+	0.2-	1999 01 11	704	(3.3- 0.8-)		2000 02 04	704	0.0	0.1-
1998 09 26	704	0.3+	1.1-	1999 01 11	704	1.3-	0.8-	2000 02 04	704	0.1-	0.2+
1998 09 26	704	0.2+	0.5-	1999 10 20	704	0.0	1.2+	2000 02 04	704	0.6+	0.8+
1998 09 26	704	0.6-	0.4-	1999 10 20	704	0.5-	0.0	2000 02 04	704	0.3+	0.2-
1998 09 26	704	0.0	0.4-	1999 10 20	704	0.8+	0.2-				
1998 09 26	704	0.2+	0.0	1999 10 20	704	0.3+	0.2+				

2000 AN₁₈₂ = 1977 BC = 1993 PM₈ = 1998 SW₁₅₈

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Williams			
<i>M</i>	355.01346	(2000.0)	
<i>n</i>	0.21427302	ω 325.14177	-0.71770855 -0.69583225
<i>a</i>	2.7658230	Ω 170.62053	+0.67030976 -0.70074789
<i>e</i>	0.0917160	<i>i</i> 9.42292	+0.18862466 -0.15738451
<i>P</i>	4.60	<i>H</i> 14.1	<i>G</i> 0.15 <i>U</i> 2

Residuals in seconds of arc

1977 01 21	801	0.0	0.2+	1998 09 27	704	0.3+	0.1-	2000 01 11	704	0.3+	0.5+
1993 08 15	010	0.5-	1.1+	1998 09 27	704	0.4-	0.5+	2000 01 11	704	1.1-	0.7+
1993 08 15	010	(2.1- 2.5+)		1998 09 27	704	0.4-	0.2-	2000 01 11	704	0.5-	1.0-
1993 08 15	010	(5.1- 2.0+)		1999 10 20	704	0.0	0.0	2000 01 11	704	0.4-	0.3+
1993 08 16	010	0.8-	0.7+	1999 10 20	704	0.1-	0.3+	2000 02 02	703	0.1-	1.8+
1993 08 17	010	0.7-	1.3+	1999 10 20	704	0.4+	0.3+	2000 02 02	703	1.8+	1.0+
1993 08 17	010	1.2+	1.5+	1999 12 14	704	1.6+	0.2-	2000 02 02	703	0.4-	0.8+
1998 09 25	699	1.4-	0.6+	1999 12 14	704	0.1+	1.3-	2000 02 02	703	0.7-	1.1+
1998 09 25	699	1.1+	1.1+	1999 12 14	704	0.3-	1.7-	2000 02 04	704	0.3+	0.9+
1998 09 25	699	0.1+	0.2+	1999 12 14	704	1.4-	0.5-	2000 02 04	704	0.3+	0.5+
1998 09 26	704	0.6+	0.4-	2000 01 07	704	1.8+	0.9-	2000 02 04	704	0.1+	0.3+

2000 FEB. 22

M.P.C. 38701

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	42.10777	(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.08339725	ω	209.06198	+0.19234127 −0.97321746
<i>a</i>	5.1884173	Ω	230.14326	+0.92907038 +0.22190405
<i>e</i>	0.0702643	<i>i</i>	9.44011	+0.31596371 −0.06005310
<i>P</i>	11.82	<i>H</i>	11.4	<i>G</i> 0.15 <i>U</i> 3

Residuals in seconds of arc

1997 10 29	704	0.1−	0.1+	1997 11 06	704	(5.8−	0.0)	1998 12 16	704	0.4−	1.2−
1997 10 29	704	(4.1+	1.0−)	1997 11 06	704	1.2+	0.0	1999 12 14	704	0.7−	1.2+
1997 10 29	704	0.2+	0.3+	1997 11 29	704	0.6+	0.3+	1999 12 14	704	0.7+	0.1+
1997 10 29	704	0.4+	1.2+	1997 11 29	704	0.9−	0.5−	1999 12 14	704	0.7−	0.5+
1997 10 31	704	0.4−	0.0	1997 11 29	704	0.7−	0.2+	1999 12 14	704	0.8−	0.0
1997 10 31	704	0.4+	1.1−	1997 11 29	704	1.2−	0.6−	1999 12 14	704	0.7−	0.8+
1997 10 31	704	(0.7−	2.2+)	1997 12 08	327	0.5−	0.9+	2000 01 04	699	1.2+	0.3+
1997 10 31	704	0.6−	0.0	1997 12 08	327	0.2−	0.4+	2000 01 04	699	0.2−	0.6+
1997 10 31	704	1.1−	0.0	1997 12 08	327	0.2+	0.7+	2000 01 04	699	0.6−	0.4+
1997 11 06	704	(6.2−	0.5+)	1998 12 15	704	0.4−	0.3−	2000 01 07	704	0.8+	0.2−
1997 11 06	704	1.3+	1.0−	1998 12 15	704	0.2−	1.2+	2000 01 07	704	0.4+	0.8−
1997 11 06	704	(5.4−	0.4−)	1998 12 15	704	1.9+	1.5+	2000 01 07	704	0.0	0.4−
1997 11 06	704	(2.3+	0.4+)	1998 12 15	704	1.8−	1.7−	2000 01 07	704	0.1−	0.3−
1997 11 06	704	(4.4−	0.7−)	1998 12 16	704	0.8−	0.6+	2000 01 07	704	0.4+	0.2−
1997 11 06	704	(2.6+	1.3−)	1998 12 16	704	0.6+	0.5−	2000 01 11	704	0.1−	0.6+
1997 11 06	704	(4.8−	0.5−)	1998 12 16	704	0.0	0.4−	2000 01 11	704	0.1−	0.5−
1997 11 06	704	1.1+	0.1−	1998 12 16	704	1.0+	0.7−	2000 01 11	704	0.6+	0.9−

2000 AV₁₈₃ = 1998 SM₁₆₄

Id. G. V. Williams

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Spahr

<i>M</i>	91.22383	(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.12500473	ω	185.68652	+0.97811008 +0.20257618
<i>a</i>	3.9614279	Ω	162.40638	−0.18417629 +0.94919569
<i>e</i>	0.2664670	<i>i</i>	9.05614	−0.09684922 +0.24081203
<i>P</i>	7.88	<i>H</i>	12.1	<i>G</i> 0.15 <i>U</i> 3

Residuals in seconds of arc

1998 09 18	809	0.7−	0.4+	1998 11 19	699	0.1+	0.2−	1999 12 05	704	1.1+	0.1+
1998 09 18	809	0.9−	0.2+	1998 11 19	699	0.6+	0.4−	2000 01 07	704	1.0+	0.4−
1998 09 18	809	1.4−	0.7−	1998 11 19	699	0.5+	0.5−	2000 01 07	704	0.5−	0.1−
1998 09 19	809	(1.1−	5.3+)	1999 01 17	699	0.7+	1.4+	2000 01 07	704	0.4−	0.6−
1998 09 19	809	(1.3−	4.2+)	1999 01 17	699	1.1−	0.1−	2000 01 07	704	0.4−	0.7−
1998 09 19	809	(1.7−	4.0+)	1999 01 17	699	0.4−	1.0+	2000 01 11	704	0.2−	0.2+
1998 10 12	699	0.2+	0.5+	1999 12 05	704	0.1−	0.2+	2000 01 11	704	0.4+	0.6−
1998 10 12	699	1.2+	0.7+	1999 12 05	704	0.9+	0.4+	2000 01 11	704	0.1+	0.2−
1998 10 12	699	(2.4+	0.2+)	1999 12 05	704	0.3−	0.5−	2000 01 11	704	0.8+	0.5+
1998 11 13	704	(2.0+	0.2+)	1999 12 05	704	1.2−	0.6−	2000 02 02	704	0.6−	0.4+
1998 11 13	704	0.2−	0.5−	1999 12 05	704	0.5+	0.5+	2000 02 02	704	0.5−	1.7+
1998 11 13	704	0.7+	1.4+	1999 12 05	704	0.2−	0.1−	2000 02 02	704	1.1−	1.0+
1998 11 13	704	1.8+	1.0−	1999 12 05	704	0.2+	0.6−				
1998 11 13	704	1.6−	1.3−	1999 12 05	704	0.2+	0.7−				

2000 AC₁₈₅ = 1997 EG₅₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	344.15454	(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.29715086	ω	330.07019	−0.90189454 −0.43187927
<i>a</i>	2.2240850	Ω	184.36705	+0.41452657 −0.86003822
<i>e</i>	0.0904071	<i>i</i>	6.14934	+0.12146588 −0.27168833
<i>P</i>	3.32	<i>H</i>	15.8	<i>G</i> 0.15 <i>U</i> 5

Residuals in seconds of arc

1997 03 08	809	0.7+	0.7−	2000 01 07	704	0.3+	0.7+	2000 02 02	704	0.0	0.1−
1997 03 08	809	0.7+	0.3+	2000 01 07	704	0.7−	0.7+	2000 02 02	704	0.1−	0.4+
1997 03 08	809	0.3+	0.5−	2000 01 07	704	0.1+	0.4−	2000 02 02	704	0.0	0.5−
1997 03 09	809	0.7−	0.7+	2000 01 11	704	0.0	0.1+	2000 02 02	704	0.4−	0.0
1997 03 09	809	0.1−	0.1+	2000 01 11	704	0.6−	0.4−	2000 02 04	704	0.4−	0.1−

1997 03 09	809	0.9−	0.2+	2000 01 11	704	0.4+	0.0	2000 02 04	704	0.5+	1.0−
2000 01 07	704	0.1−	0.5+	2000 01 11	704	0.5+	0.0	2000 02 04	704	0.6+	0.3+
2000 01 07	704	0.0	0.2−	2000 02 02	704	0.0	0.0				

2000 AD₁₈₅ = 1991 RF₃₄ = 1998 QY₁₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	55.64212	(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.27188187	ω	246.35307	+0.36593806 −0.93062826
<i>a</i>	2.3598399	Ω	182.19664	+0.89099696 +0.35174655
<i>e</i>	0.0956572	<i>i</i>	6.76250	+0.26872618 +0.10102176
<i>P</i>	3.63	<i>H</i>	14.3	<i>G</i> 0.15 <i>U</i> 2

Residuals in seconds of arc

1991 09 11	675	1.3+	0.7−	1998 09 15	699	0.3+	0.1−	2000 01 11	704	0.2−	0.2−
1991 09 11	675	0.7−	1.2−	1998 09 15	699	0.6+	0.4−	2000 01 11	704	0.1+	0.3+
1998 07 26	699	0.0	0.3−	1999 10 20	704	0.1−	0.4−	2000 01 11	704	0.1+	0.2−
1998 07 26	699	0.7+	0.5+	1999 10 20	704	0.3−	0.4−	2000 01 11	704	0.0	0.1+
1998 07 26	699	0.7+	0.1+	1999 10 20	704	0.0	0.4−	2000 01 11	704	0.0	0.3+
1998 08 17	704	0.0	0.1+	1999 10 20	704	1.3−	0.7+	2000 02 02	704	0.3+	0.3+
1998 08 17	704	0.6−	0.6+	1999 12 16	699	0.6+	0.9+	2000 02 02	704	0.2+	0.1+
1998 08 17	704	0.2+	0.6+	1999 12 16	699	0.2+	1.5+	2000 02 02	704	0.0	0.3+
1998 08 17	704	0.0	1.0+	1999 12 16	699	0.4+	0.3+	2000 02 02	704	0.0	0.2+
1998 08 23	704	0.1+	0.4+	2000 01 07	704	0.1−	0.5+	2000 02 04	704	0.6+	0.3−
1998 08 23	704	1.6−	0.6+	2000 01 07	704	0.3−	0.2−	2000 02 04	704	0.6+	0.1+
1998 08 23	704	0.6+	0.6+	2000 01 07	704	0.3−	0.4+	2000 02 04	704	0.1−	0.8−
1998 08 23	704	1.8−	1.0+	2000 01 07	704	0.6−	0.0	2000 02 04	704	0.0	0.1−
1998 09 15	699	0.2+	0.5−	2000 01 07	704	0.2−	0.4−	2000 02 04	704	0.2+	0.3+

2000 AG₁₈₇ = 1998 MZ₁₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	60.17861	(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.23337410	ω	174.98702	+0.97249331 −0.21715014
<i>a</i>	2.6127686	Ω	198.23180	+0.20325290 +0.96782485
<i>e</i>	0.1294337	<i>i</i>	15.62700	+0.11377621 +0.12712541
<i>P</i>	4.22	<i>H</i>	14.2	<i>G</i> 0.15 <i>U</i> 3

Residuals in seconds of arc

1998 06 19	704	1.1−	1.1+	1999 11 16	703	0.8−	0.1−	2000 01 10	699	0.5−	0.4+
1998 06 19	704	0.5−	1.3+	1999 11 16	703	0.6−	0.1+	2000 01 10	699	0.2−	0.5+
1998 06 19	704	0.2+	1.1−	1999 11 16	703	0.1−	0.5+	2000 01 10	699	0.5−	0.2+
1998 06 19	704	0.9−	0.2+	1999 12 03	704	(3.2−	2.2+)	2000 01 11	704	0.3−	0.7−
1998 06 25	704	1.5+	1.2+	1999 12 03	704	0.0	0.3+	2000 01 11	704	0.5−	0.6+
1998 06 25	704	0.4+	0.3+	1999 12 03	704	0.3−	0.4+	2000 01 11	704	0.1+	0.2−
1998 06 25	704	0.1+	1.0−	1999 12 03	704	0.5−	0.1−	2000 01 11	704	0.9+	0.0
1998 06 25	704	1.0+	0.2+	1999 12 03	704	0.4+	0.6−	2000 01 11	704	0.4+	1.5+
1998 06 25	704	1.0−	0.7−	1999 12 08	699	1.0+	0.8−	2000 02 06	704	1.1+	0.8−
1999 11 05	704	0.5+	0.5−	1999 12 08	699	0.1−	0.7+	2000 02 06	704	0.3+	0.7+
1999 11 05	704	0.1+	0.2−	1999 12 08	699	0.5−	1.2+	2000 02 06	704	1.6+	0.6+
1999 11 05	704	1.0+	0.1+	2000 01 08	704	1.0−	0.6−	2000 02 06	704	1.6+	0.5+
1999 11 05	704	0.4+	0.2−	2000 01 08	704	1.1−	0.4+	2000 02 06	704	0.5+	0.1−
1999 11 05	704	0.2−	1.2−	2000 01 08	704	1.5−	1.1−				
1999 11 16	703	0.4−	0.2−	2000 01 08	704	0.2+	0.8+				

2000 AU₁₈₇ = 1990 RK₁₆ = 1992 EZ₁₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	9.49999	(2000.0)	<i>P</i>	<i>Q</i>
<i>n</i>	0.22824527	ω	276.98238	+0.14670574 −0.98763205
<i>a</i>	2.6517639	Ω	164.25379	+0.96885143 +0.13218608
<i>e</i>	0.1735232	<i>i</i>	11.76229	+0.19951025 +0.08431953
<i>P</i>	4.32	<i>H</i>	14.9	<i>G</i> 0.15 <i>U</i> 2

Residuals in seconds of arc

1990 09 15	809	1.4+	0.7−	1999 11 13	703	0.0	0.7+	2000 01 07	699	0.3−	0.3+
1990 09 15	809	1.9+	0.2−	1999 11 13	703	0.0	0.0	2000 01 07	699	0.5−	0.7+
1990 09 15	809	0.1−	1.2−	1999 12 03	704	0.2+	1.3−	2000 01 08	704	0.1+	0.2−

1990 09 22	809	1.0–	0.3+	1999 12 03	704	0.1+	0.1–	2000 01 08	704	0.0	0.1+
1990 09 22	809	0.6–	0.7–	1999 12 03	704	0.1+	0.1–	2000 01 08	704	0.2+	0.1–
1990 09 22	809	0.8–	1.3–	1999 12 03	704	0.2–	0.2–	2000 01 08	704	0.0	0.9+
1992 03 01	809	0.5–	0.8–	1999 12 03	704	0.2–	0.8–	2000 01 11	704	0.1–	0.0
1992 03 03	809	0.7–	1.2–	1999 12 05	699	(0.2–	2.5+)	2000 01 11	704	0.2–	0.3–
1992 03 06	809	0.6+	1.5–	1999 12 05	699	1.1+	0.7+	2000 01 11	704	0.3–	0.1–
1999 11 13	703	0.3–	0.2–	1999 12 05	699	0.2–	1.1+	2000 01 11	704	0.2–	0.1–
1999 11 13	703	0.4–	0.6+	2000 01 07	699	0.1+	0.1+	2000 01 11	704	0.5+	0.1–

2000 AV₁₈₇ = 1998 QZ₆₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr				Q			
<i>M</i>	224.97557	(2000.0)	P		Q		
<i>n</i>	0.26893230	ω	38.79166	–0.61190864	+0.78880350		
<i>a</i>	2.3770633	Ω	193.80409	–0.77262591	–0.61181042		
<i>e</i>	0.1199821	<i>i</i>	14.05324	–0.16916566	–0.05896641		
<i>P</i>	3.66	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 06 26	699	0.3+	0.1+	1999 10 31	703	0.3–	1.0+	2000 01 07	699	0.1–	0.2–
1998 06 26	699	0.5+	0.7+	1999 10 31	703	0.2+	0.4+	2000 01 07	699	0.4–	0.1–
1998 06 26	699	0.6+	0.0	1999 11 05	704	0.2–	0.2–	2000 01 07	699	0.0	0.2–
1998 07 17	699	0.1+	0.1–	1999 11 05	704	0.3+	0.5–	2000 01 08	704	0.3+	0.6–
1998 07 17	699	0.1+	0.1+	1999 11 05	704	0.1–	1.5–	2000 01 08	704	0.7+	0.7+
1998 07 17	699	0.1–	0.0	1999 11 05	704	1.0–	0.5–	2000 01 08	704	0.2+	0.2+
1998 08 24	704	0.2–	0.1+	1999 11 05	704	0.6–	0.2–	2000 01 08	704	0.6–	0.5–
1998 08 24	704	0.0	0.2+	1999 11 14	699	0.1–	0.0	2000 01 08	704	0.1+	0.0
1998 08 24	704	0.4+	0.4–	1999 11 14	699	0.5–	0.2+	2000 01 11	704	1.0+	0.9–
1998 08 24	704	0.1+	0.5–	1999 11 14	699	0.7–	1.1+	2000 01 11	704	0.2+	0.8–
1998 08 24	704	0.4–	0.4+	1999 12 03	704	0.1–	0.5+	2000 01 11	704	0.5+	0.0
1998 08 27	704	0.2–	0.6+	1999 12 03	704	0.5+	0.4–	2000 01 11	704	0.2–	0.9+
1998 08 27	704	1.0–	0.7–	1999 12 03	704	0.6+	0.7–	2000 02 06	704	0.1–	0.3+
1998 08 27	704	0.8+	0.0	1999 12 03	704	0.9–	1.1–	2000 02 06	704	0.7–	0.1+
1998 08 27	704	0.4–	0.0	1999 12 03	704	0.4+	0.9–	2000 02 06	704	0.0	0.5+
1998 08 27	704	0.4–	0.1–	1999 12 16	699	0.5+	0.8+	2000 02 06	704	0.4+	0.0
1999 10 31	703	1.6+	0.6+	1999 12 16	699	0.6+	0.9+	2000 02 06	704	0.2–	0.3+
1999 10 31	703	0.8–	0.1–	1999 12 16	699	0.5–	1.3+				

2000 AH₁₈₈ = 1998 QC₆₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr				Q			
<i>M</i>	42.98734	(2000.0)	P		Q		
<i>n</i>	0.22140191	ω	227.51879	+0.67096278	–0.74148994		
<i>a</i>	2.7061288	Ω	180.34749	+0.72689027	+0.65808884		
<i>e</i>	0.0219138	<i>i</i>	12.11645	+0.14642232	+0.13081188		
<i>P</i>	4.45	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 07 31	699	0.1+	0.1–	1998 08 27	704	0.4+	0.4–	2000 01 08	704	0.3+	0.1+
1998 07 31	699	0.5+	0.2+	1999 11 05	704	0.0	0.8+	2000 01 08	704	0.3+	1.2–
1998 07 31	699	0.3–	0.0	1999 11 05	704	0.0	0.1–	2000 01 11	704	0.2+	1.5–
1998 08 23	699	0.1–	0.0	1999 11 05	704	0.1+	0.5–	2000 01 11	704	0.7+	0.3–
1998 08 23	699	0.4–	0.4+	1999 11 05	704	0.0	0.5–	2000 01 11	704	0.6–	0.3+
1998 08 23	699	0.2–	0.6+	1999 11 05	704	0.3+	0.1–	2000 01 11	704	0.1–	0.5–
1998 08 24	704	0.6+	0.5+	1999 12 16	699	0.9–	0.6+	2000 02 02	703	1.6–	0.6+
1998 08 24	704	0.3+	0.6+	1999 12 16	699	0.3–	0.3–	2000 02 02	703	0.2–	0.6+
1998 08 24	704	0.1+	0.0	1999 12 16	699	0.0	1.0+	2000 02 02	703	0.5+	0.2–
1998 08 24	704	0.3–	1.0–	2000 01 07	699	0.1+	0.9+	2000 02 02	703	0.4–	0.5+
1998 08 24	704	1.6–	1.1–	2000 01 07	699	0.2–	0.8+	2000 02 06	704	0.3+	0.3+
1998 08 27	704	0.3+	0.4+	2000 01 07	699	0.3+	0.7+	2000 02 06	704	0.2+	0.7–
1998 08 27	704	0.6+	0.5+	2000 01 08	704	0.4–	0.4–	2000 02 06	704	0.6+	0.5–
1998 08 27	704	0.0	0.3–	2000 01 08	704	1.2+	1.3–	2000 02 06	704	0.2–	0.4+
1998 08 27	704	0.2+	0.4–	2000 01 08	704	0.5–	0.2+	2000 02 06	704	0.5+	0.3+

2000 AB₁₈₉ = 1985 QG₁ = 1988 FU₃ = 1994 RS₆ = 1997 GE₄₀

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr				Q			
<i>M</i>	50.27190	(2000.0)	P		Q		
<i>n</i>	0.22672057	ω	214.35797	+0.76920754	–0.63862940		
<i>a</i>	2.6636394	Ω	185.48573	+0.62536436	+0.75934700		
<i>e</i>	0.0058130	<i>i</i>	13.13948	+0.13129807	+0.12467812		
<i>P</i>	4.35	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1985 08 16	675	(57.2–	1.5+)	1998 08 24	704	0.7+	0.7–	1999 12 16	699	0.1+	0.2+
1985 08 16	675	(57.1–	1.5+)	1998 08 24	704	0.3–	1.2–	1999 12 16	699	0.3–	0.6+
1985 08 17	675	0.3–	0.8–	1998 08 24	704	0.1+	0.8–	1999 12 16	699	0.2–	0.2–
1985 08 17	675	0.2–	0.6+	1998 08 27	704	1.0–	0.0	2000 01 07	699	0.1+	0.9–
1988 03 26	809	0.6–	1.0–	1998 08 27	704	0.3–	0.1–	2000 01 07	699	0.2–	0.3–
1988 03 26	809	1.0–	0.2–	1998 08 27	704	1.0–	0.7+	2000 01 07	699	0.3+	0.5–
1994 09 12	691	0.7+	0.4+	1998 08 27	704	0.1–	1.0+	2000 01 08	704	0.8+	1.2+
1994 09 12	691	0.9+	0.1+	1998 08 27	704	1.5–	0.0	2000 01 08	704	0.1+	1.1+
1994 09 12	691	0.6+	0.3+	1999 11 05	704	0.5–	0.6–	2000 01 08	704	0.3–	0.8–
1994 09 14	691	0.3+	0.4+	1999 11 05	704	0.4–	0.5+	2000 01 11	704	0.4+	0.4+
1994 09 14	691	0.6+	0.4+	1999 11 05	704	0.0	0.2–	2000 01 11	704	0.2+	0.7+
1994 09 14	691	0.8+	0.3+	1999 11 05	704	0.4+	0.4–	2000 01 11	704	0.1+	0.7+
1997 04 07	809	0.4+	1.6+	1999 11 05	704	0.3–	0.6+	2000 01 11	704	1.1–	1.3–
1997 04 07	809	0.8+	1.6+	1999 11 14	699	1.0–	0.5+	2000 01 11	704	0.9–	0.1+
1997 04 07	809	1.2+	1.7+	1999 11 14	699	0.9–	0.1–	2000 02 06	704	0.9+	0.9–
1997 04 08	809	0.1+	0.4–	1999 11 14	699	0.4+	0.8+	2000 02 06	704	0.7+	0.6+
1997 04 08	809	0.7+	1.3–	1999 12 03	704	(4.2+	1.2–)	2000 02 06	704	0.9+	1.1–
1997 04 08	809	0.4–	0.2–	1999 12 03	704	1.1+	0.0	2000 02 06	704	0.2+	0.4–
1998 08 24	704	(1.2+	5.1–)	1999 12 03	704	1.0–	0.2+				

2000 AG₁₉₁ = 1996 RF₂₇ = 1997 TO₂₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams				Q			
<i>M</i>	15.81103	(2000.0)	P		Q		
<i>n</i>	0.08371313	ω	257.75513	–0.00131399	–0.99843905		
<i>a</i>	5.1753573	Ω	192.72307	+0.98742877	+0.00753007		
<i>e</i>	0.1449663	<i>i</i>	14.68637	+0.15805915	–0.05534224		
<i>P</i>	11.77	<i>H</i>	10.7	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1996 09 10	809	0.0	0.8+	1998 12 17	699	0.3–	0.6–	2000 02 06	704	0.5+	0.5+
1996 09 11	809	0.3–	0.1+	1998 12 17	699	0.5–	0.2+	2000 02 06	704	1.5–	0.1–
1996 09 15	809	0.0	0.6+	1998 12 17	699	0.4+	0.5–	2000 02 06	704	0.4+	0.4+
1997 10 06	809	0.2–	0.1–	2000 01 08	704	0.2–	0.2–	2000 02 06	704	0.3+	0.4+
1997 10 06	809	0.3–	0.2+	2000 01 08	704	0.2+	0.3–	2000 02 06	704	0.0	0.1+
1997 10 07	809	0.1+	0.3+	2000 01 08	704	0.5–	0.1+	2000 02 11	704	0.2–	0.4+
1997 10 07	809	0.4+	0.2+	2000 01 08	704	0.2+	0.6–	2000 02 11	704	0.5+	0.8+
1998 11 13	704	0.4–	0.0	2000 01 08	704	0.4–	0.8–	2000 02 11	704	0.2+	0.1–
1998 11 13	704	0.1–	0.5+	2000 01 11	704	0.3+	0.3+	2000 02 11	704	0.3+	1.0+
1998 11 13	704	0.1+	0.7–	2000 01 11	704	0.1–	0.5–	2000 02 11	704	0.4+	1.1+
1998 11 13	704	0.2+	0.4–	2000 01 11	704	0.3–	0.1+				
1998 11 13	704	0.3+	0.8–	2000 01 11	704	0.2+	0.1+				

2000 AF₁₉₂ = 1992 SQ₅

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	23.90484		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.17856832	ω	290.98360	-0.08897606	-0.99278078
a	3.1231999	Ω	163.49700	$+0.98622649$	-0.09911657
e	0.0402747	i	16.44843	$+0.13942946$	$+0.06754431$
P	5.52	H	13.0	G 0.15	U 3

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1992 09 26	691	0.1−	0.7−	2000 01 08	704	0.2−	1.2−	2000 02 05	704	0.2+	0.2+
1992 09 26	691	0.0	0.1+	2000 01 11	704	0.7−	0.1−	2000 02 06	704	0.2+	0.4+
1992 09 26	691	0.0	0.1−	2000 01 11	704	0.5−	0.0	2000 02 06	704	0.2+	0.3+
1998 09 28	699	1.0−	0.1−	2000 01 11	704	0.1−	0.6+	2000 02 06	704	0.2+	0.3+
1998 09 28	699	0.4+	0.6+	2000 01 11	704	1.7−	0.4+	2000 02 06	704	0.5+	0.3+
1998 09 28	699	0.8+	1.5−	2000 02 05	704	0.5+	0.2+	2000 02 06	704	0.3+	0.1+

2000 AS₁₉₂ = 1990 OZ₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	93.11796		(2000.0)	P	Q
<i>n</i>	0.24368948	ω	195.89358	+0.98511233	−0.17020792
<i>a</i>	2.5385060	Ω	173.75463	+0.17171617	+0.96753707
<i>e</i>	0.1898734	<i>i</i>	12.82334	+0.00820135	+0.18681882
<i>P</i>	4.04	<i>H</i>	14.0	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1990 07 25	675	(2.2−	0.7−)	1999 12 13	703	0.2+	0.2+	2000 01 11	704	0.2+	0.2+
1990 07 25	675	0.7−	0.9−	1999 12 13	703	0.2−	0.1+	2000 02 05	704	0.5+	0.0
1990 07 27	675	0.1−	0.1+	2000 01 08	704	0.4−	0.7−	2000 02 05	704	0.7+	0.0
1990 07 27	675	(1.6+	5.3+)	2000 01 08	704	0.5−	0.5−	2000 02 05	704	0.4+	0.0
1990 07 29	675	0.7+	1.2+	2000 01 08	704	0.4−	0.5−	2000 02 05	704	0.0	0.3+
1990 07 29	675	(0.1−	2.2−)	2000 01 08	704	0.2−	0.7−	2000 02 05	704	0.3−	0.0
1998 09 15	910	0.2−	0.0	2000 01 08	704	0.4−	0.4−	2000 02 06	704	0.3+	1.2+
1998 09 15	910	0.1+	0.2+	2000 01 11	704	0.5−	0.9−	2000 02 06	704	0.7+	0.2+
1998 09 15	910	0.1+	0.1+	2000 01 11	704	0.4−	0.4−	2000 02 06	704	0.0	0.6+
1999 12 13	703	0.4+	0.2+	2000 01 11	704	0.4−	0.3+	2000 02 06	704	0.3+	1.1+
1999 12 13	703	0.2+	0.1+	2000 01 11	704	0.1−	0.5+				

2000 AT₁₉₂ = 1994 RL₁₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	81.29687		(2000.0)	P	Q
<i>n</i>	0.22769523	ω	217.34418	+0.95242801	−0.28709187
<i>a</i>	2.6560327	Ω	158.64409	+0.29961570	+0.94346381
<i>e</i>	0.2215130	<i>i</i>	16.31021	−0.05577910	+0.16569337
<i>P</i>	4.33	<i>H</i>	13.1	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1994 09 04	675	0.3+	0.2+	2000 01 11	704	0.2+	0.3−	2000 02 05	704	0.6+	0.1−
1994 09 04	675	0.5−	0.2+	2000 01 11	704	0.1−	0.4−	2000 02 05	704	0.1+	0.1−
1994 09 06	675	0.2+	0.5−	2000 01 11	704	0.4−	0.1+	2000 02 05	704	0.2−	0.2−
2000 01 08	704	0.1−	0.6−	2000 01 12	704	0.3−	0.5+	2000 02 06	704	0.1−	0.0
2000 01 08	704	0.2−	0.7−	2000 01 12	704	0.1−	0.4+	2000 02 06	704	0.1+	0.2+
2000 01 08	704	0.2+	0.4−	2000 01 12	704	0.1−	0.5+	2000 02 06	704	0.5+	0.1+
2000 01 08	704	0.3+	0.1−	2000 01 12	704	0.5−	0.7+	2000 02 06	704	0.4+	0.4+
2000 01 08	704	0.0	0.3+	2000 01 12	704	0.3−	0.6+	2000 02 06	704	0.3+	0.7−
2000 01 11	704	0.1+	0.1−	2000 02 05	704	0.2+	0.6+				
2000 01 11	704	0.0	0.1+	2000 02 05	704	0.4−	0.9−				

2000 AL₁₉₃ = 1986 WJ₅ = 1998 WG₂₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	217.18969		(2000.0)	P	Q
<i>n</i>	0.17828154	ω	21.72336	+0.05338381	+0.97264205
<i>a</i>	3.1265483	Ω	251.91623	−0.94762345	−0.02205473
<i>e</i>	0.0932608	<i>i</i>	13.75912	−0.31489674	+0.23125968
<i>P</i>	5.53	<i>H</i>	12.5	<i>G</i> 0.15	<i>U</i> 1

Residuals in seconds of arc

1986 11 27	010	2.1+	0.6+	1998 11 21	704	1.5+	0.7+	2000 01 11	704	0.7−	1.0+
1986 11 27	010	2.4−	0.1+	1998 11 21	704	1.6+	0.4+	2000 01 11	704	0.7−	0.4−
1996 06 13	566	0.1+	0.6−	1998 11 21	704	1.4−	0.3−	2000 01 11	704	0.2−	0.0
1996 06 13	566	0.0	0.8−	1999 12 05	704	0.5+	1.4−	2000 02 06	704	0.3−	0.3−
1996 06 13	566	0.0	0.6−	1999 12 05	704	0.4+	1.2−	2000 02 06	704	0.0	0.2−
1998 11 11	704	0.3+	0.3+	1999 12 05	704	1.4−	0.1−	2000 02 06	704	0.0	0.2+
1998 11 11	704	0.3+	0.3−	1999 12 05	704	0.9+	1.0−	2000 02 06	704	0.4−	0.1+

1998 11 11	704	0.4−	1.8−	1999 12 05	704	0.1+	1.6−	2000 02 06	704	0.1−	0.5+
1998 11 11	704	1.1+	1.3−	1999 12 14	704	0.5−	1.4+	2000 02 08	704	0.1+	0.2+
1998 11 18	704	0.7−	0.1+	1999 12 14	704	1.1+	1.2+	2000 02 08	704	0.2+	0.7+
1998 11 18	704	0.5−	0.1−	1999 12 14	704	0.4+	0.7−	2000 02 08	704	0.5−	0.3+
1998 11 18	704	1.3−	0.3−	2000 01 08	704	0.1−	0.3−	2000 02 08	704	0.6+	0.5+
1998 11 18	704	0.4−	0.9+	2000 01 08	704	0.1+	0.3−	2000 02 11	704	0.0	0.2+
1998 11 18	704	(2.8−	0.7+)	2000 01 08	704	0.2−	0.1+	2000 02 11	704	0.6+	0.2+
1998 11 20	699	0.3+	0.0	2000 01 08	704	0.6−	0.2+	2000 02 11	704	0.1+	0.3+
1998 11 20	699	0.0	0.5+	2000 01 08	704	0.5−	0.7−	2000 02 11	704	0.1−	0.4+
1998 11 20	699	0.4−	0.2+	2000 01 11	704	0.3+	0.1−	2000 02 11	704	0.7+	0.5+
1998 11 21	704	0.1−	0.7−	2000 01 11	704	0.2+	0.2+				

2000 AB₁₉₅ = 1998 VM₁₇

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	353.14289		(2000.0)	P	Q
<i>n</i>	0.18470108	ω	282.59479	−0.76621181	−0.63542828
<i>a</i>	3.0536770	Ω	218.07412	+0.63318624	−0.72121723
<i>e</i>	0.0390683	<i>i</i>	8.92358	+0.10952011	−0.27581988
<i>P</i>	5.34	<i>H</i>	13.6	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 10 18	327	0.3+	0.2+	1998 11 14	699	0.4−	0.4+	2000 02 06	704	1.2+	0.7−
1998 10 18	327	0.2−	0.1+	1998 11 14	699	0.8+	0.8+	2000 02 06	704	0.4−	0.5−
1998 10 18	327	0.1−	0.0	1998 11 14	699	0.1−	0.8+	2000 02 08	704	(2.5+	1.6−)
1998 10 19	699	0.3+	1.4+	2000 01 04	699	1.0+	0.0	2000 02 08	704	0.3+	0.9+
1998 10 19	699	1.1+	0.2−	2000 01 04	699	0.3+	1.2+	2000 02 08	704	0.4+	0.1+
1998 10 19	699	0.2−	0.3+	2000 01 04	699	(2.1+	0.3−)	2000 02 08	704	0.0	0.3+
1998 10 30	327	(0.8−	3.1−)	2000 01 08	704	0.4−	0.1+	2000 02 08	704	0.3+	0.2+
1998 10 30	327	0.1−	0.8−	2000 01 08	704	0.2−	0.4−	2000 02 10	704	0.0	0.0
1998 10 30	327	0.1−	1.0−	2000 01 08	704	0.4+	0.4−	2000 02 10	704	0.2−	0.1−
1998 11 10	704	0.5−	0.6+	2000 01 08	704	0.3−	0.3−	2000 02 10	704	0.8−	0.6−
1998 11 10	704	0.1−	0.4−	2000 01 08	704	0.5+	0.7+	2000 02 10	704	1.1−	0.9−
1998 11 10	704	0.0	1.2−	2000 01 11	704	0.3−	0.2−	2000 02 10	704	0.3−	0.2+
1998 11 10	704	0.1−	0.1−	2000 01 11	704	0.0	0.1+	2000 02 11	704	0.0	0.1−
1998 11 11	704	0.6−	1.2−	2000 01 11	704	0.7−	0.1−	2000 02 11	704	0.1+	0.7−
1998 11 11	704	0.3+	0.3−	2000 01 11	704	0.8−	0.8+	2000 02 11	704	0.5−	0.1−
1998 11 11	704	0.2−	0.8−	2000 01 11	704	0.8−	1.6+	2000 02 11	704	0.3−	0.1−
1998 11 11	704	0.9+	1.1+	2000 02 06	704	0.7+	0.6−	2000 02 11	704	0.5+	0.5+
1998 11 11	704	1.0−	0.2+	2000 02 06	704	1.4+	0.8−				

2000 AD₁₉₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	193.80588		(2000.0)	P	Q
<i>n</i>	0.24157411	ω	49.97581	+0.52447316	+0.82548489
<i>a</i>	2.5533036	Ω	252.85208	−0.83245613	+0.44573960
<i>e</i>	0.1821175	<i>i</i>	12.60779	−0.17873077	+0.34625266
<i>P</i>	4.08	<i>H</i>	13.9	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 12 09	704	0.4−	0.1+	1999 12 16	699	0.2+	1.1+	2000 01 11	704	0.1−	0.2−
1998 12 09	704	0.1−	0.5+	1999 12 16	699	0.7+	0.3−	2000 01 11	704	0.9−	0.3−
1998 12 09	704	1.4+	1.4−	2000 01 04	699	0.1+	0.1−	2000 01 11	704	1.1−	0.6−
1998 12 09	704	0.3−	0.2−	2000 01 04	699	0.6+	0.4+	2000 01 11	704	1.0−	0.1−
1998 12 09	704	(5.9−	1.4−)	2000 01 04	699	0.7+	0.3+	2000 01 11	704	0.1+	1.4−
1999 01 08	699	0.3+	0.1−	2000 01 08	704	0.6−	0.1+	2000 02 06	704	0.2+	0.0
1999 01 08	699	0.5−	0.7+	2000 01 08	704	0.3+	0.2−	2000 02 06	704	0.0	1.3+
1999 01 08	699	0.4−	0.7+	2000 01 08	704	0.9−	0.3+	2000 02 06	704	0.7+	0.0
1999 12 16	699	1.4+	0.9−	2000 01 08	704	0.7−	0.5+	2000 02 06	704	0.4+	0.0

2000 AE₁₉₅ = 1998 QE₇₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	50.32026	(2000.0)	P		Q	
<i>n</i>	0.21738831	ω	207.25680	+0.35210398	-0.93074952	
<i>a</i>	2.7393357	Ω	222.33060	+0.88320139	+0.36528682	
<i>e</i>	0.1524366	<i>i</i>	8.42217	+0.30980331	+0.01645814	
<i>P</i>	4.53	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i> 4
Residuals in seconds of arc						
1998 08 24	704	1.3+	0.3-	2000 01 08	704	0.2-
1998 08 24	704	1.2-	1.0+	2000 01 08	704	0.1+
1998 08 24	704	0.4-	1.2+	2000 01 08	704	1.0-
1998 08 24	704	0.9+	1.3-	2000 01 11	704	0.9+
1998 08 27	704	0.3-	1.2+	2000 01 11	704	1.7-
1998 08 27	704	0.3+	1.8+	2000 01 11	704	0.0
1998 08 27	704	0.0	0.6-	2000 01 11	704	0.8-
1998 08 27	704	1.2+	0.2-	2000 02 06	704	0.2-
1998 10 22	327	0.1+	0.8-	2000 02 06	704	0.1+
1998 10 22	327	1.3-	1.2-	2000 02 06	704	0.7+
1998 10 22	327	1.2-	0.2-	2000 02 06	704	0.3+
2000 01 08	704	0.7-	0.8-	2000 02 06	704	0.1-
2000 01 08	704	0.6-	0.1+	2000 02 08	704	0.3+

2000 AS₁₉₅ = 1998 QZ₆₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	56.76641	(2000.0)	P		Q	
<i>n</i>	0.23728334	ω	177.74096	+0.49216803	-0.86151995	
<i>a</i>	2.5839923	Ω	242.75305	+0.79645270	+0.50348018	
<i>e</i>	0.1669965	<i>i</i>	8.06411	+0.35133136	+0.06550632	
<i>P</i>	4.15	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i> 3
Residuals in seconds of arc						
1998 06 19	699	0.5+	0.7-	1999 11 08	703	0.2+
1998 06 19	699	0.7+	1.0-	1999 11 08	699	0.1-
1998 06 19	699	(0.3- 2.1+)		1999 11 08	703	0.2+
1998 07 31	699	0.4-	0.4-	1999 12 05	704	(2.3+ 0.2-)
1998 07 31	699	0.4+	0.3+	1999 12 05	704	(2.2+ 0.9-)
1998 07 31	699	0.2+	0.0	1999 12 05	704	0.1+
1998 08 24	704	0.3+	0.1-	1999 12 05	704	0.4+
1998 08 24	704	0.1+	0.3+	1999 12 14	704	0.4+
1998 08 24	704	0.5+	0.1+	1999 12 14	704	0.6+
1998 08 24	704	0.6+	0.1-	1999 12 14	704	0.8+
1998 08 24	704	0.2+	1.7-	1999 12 14	704	0.3+
1998 08 27	704	0.2-	0.4-	1999 12 14	704	0.2+
1998 08 27	704	0.6-	1.1+	1999 12 16	699	0.2-
1998 08 27	704	0.5-	0.1-	1999 12 16	699	0.4+
1998 08 27	704	0.1+	0.5+	1999 12 16	699	0.1+
1998 08 27	704	1.1-	1.1+	2000 01 08	704	0.2-
1999 11 08	699	0.4-	0.8-	2000 01 08	704	0.6-
1999 11 08	703	0.4+	0.1+	2000 01 08	704	0.5-
1999 11 08	703	0.1+	0.1+	2000 01 08	704	0.6-
1999 11 08	699	0.1-	1.3+	2000 01 08	704	0.8-

2000 AO₁₉₆ = 1988 DK₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	34.40823	(2000.0)	P		Q	
<i>n</i>	0.24364482	ω	216.01531	-0.01693937	-0.99492480	
<i>a</i>	2.5388162	Ω	235.15798	+0.94329675	+0.01698881	
<i>e</i>	0.1764311	<i>i</i>	6.94116	+0.33151817	-0.09917674	
<i>P</i>	4.05	<i>H</i>	15.6	<i>G</i>	0.15	<i>U</i> 5
Residuals in seconds of arc						
1988 02 16	809	0.6+	0.4-	2000 01 05	699	0.3-
1988 02 16	809	1.3+	0.5+	2000 01 08	704	0.0
1988 02 16	809	1.2+	1.1-	2000 01 08	704	0.6-

1988 02 21	809	1.9-	0.7+	2000 01 08	704	0.6-	0.4-	2000 02 06	704	0.3+	0.1+
1988 02 21	809	1.4-	0.3-	2000 01 08	704	0.3+	0.4-	2000 02 06	704	0.7+	0.1-
1988 02 21	809	(3.1- 0.5-)		2000 01 11	704	0.5-	0.3+	2000 02 06	704	0.8-	0.1-
2000 01 05	699	0.7+	0.4+	2000 01 11	704	0.2-	0.0	2000 02 06	704	0.9+	0.1-
2000 01 05	699	0.7+	0.3+	2000 01 11	704	0.2-	0.2-				

2000 AS₁₉₆ = 1998 RV₂₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	325.87483	(2000.0)	P		Q	
<i>n</i>	0.30267463	ω	313.21505	-0.99707624	-0.01523301	
<i>a</i>	2.1969426	Ω	226.06529	+0.03915223	-0.94336831	
<i>e</i>	0.0682936	<i>i</i>	5.96842	-0.06562063	-0.33139731	
<i>P</i>	3.26	<i>H</i>	15.5	<i>G</i>	0.15	<i>U</i> 3
Residuals in seconds of arc						
1997 03 17	599	0.1+	0.2-	1998 09 18	704	0.5-
1997 03 17	599	0.2-	0.0	1998 09 18	704	0.7+
1998 08 17	704	(2.2+ 2.0+)		2000 01 08	704	0.5-
1998 08 17	704	0.2+	0.2-	2000 01 08	704	0.2-
1998 08 17	704	0.3-	0.6+	2000 01 08	704	0.3-
1998 08 17	704	(2.5- 2.8+)		2000 01 08	704	0.6-
1998 09 14	704	0.5-	1.1-	2000 01 08	704	0.1-
1998 09 14	704	0.1-	0.3-	2000 01 11	704	0.1+
1998 09 14	704	0.7+	0.4-	2000 01 11	704	0.2-
1998 09 14	704	1.2+	1.5+	2000 01 11	704	0.7-
1998 09 18	704	1.5-	1.2+	2000 01 11	704	0.0

2000 AL₁₉₇ = 1998 UK₄₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	220.46154	(2000.0)	P		Q	
<i>n</i>	0.27245007	ω	43.44242	+0.31125653	+0.93813683	
<i>a</i>	2.3565578	Ω	245.22260	-0.91121626	+0.24929043	
<i>e</i>	0.1753349	<i>i</i>	9.61936	-0.26982271	+0.24031972	
<i>P</i>	3.62	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i> 4
Residuals in seconds of arc						
1998 10 28	704	0.3+	0.4+	1998 10 29	704	0.9-
1998 10 28	704	0.2+	0.1+	2000 01 08	704	0.4-
1998 10 28	704	0.1+	0.2+	2000 01 08	704	0.5+
1998 10 28	704	0.3-	0.7+	2000 01 08	704	1.1+
1998 10 29	704	0.7-	1.0-	2000 01 08	704	1.4+
1998 10 29	704	0.9+	0.4-	2000 01 11	704	0.8-
1998 10 29	704	0.2+	0.2-	2000 01 11	704	1.0-
1998 10 29	704	0.2+	0.9-	2000 01 11	704	0.4-

2000 AT₁₉₇ = 2752 P-L = 1998 VL₄₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	114.09661	(2000.0)	P		Q	
<i>n</i>	0.18323181	ω	187.39970	+0.97782778	-0.20894093	
<i>a</i>	3.0699795	Ω	184.73034	+0.19978645	+0.95085690	
<i>e</i>	0.1127853	<i>i</i>	9.78753	+0.06275519	+0.22850569	
<i>P</i>	5.38	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i> 3
Residuals in seconds of arc						
1960 09 24	675	0.2-	0.7+	1998 11 14	699	0.9+
1960 09 24	675	0.5-	0.7-	1998 11 19	699	0.4+
1960 09 26	675	0.3-	0.3+	1998 11 19	699	0.4-
1960 09 26	675	0.5+	0.6-	1998 11 19	699	0.4+
1960 09 28	675	0.2+	0.4+	2000 01 08	704	0.8-
1960 09 28	675	0.1-	0.9-	2000 01 08	704	0.5+
1960 09 29	675	0.6+	0.6+	2000 01 08	704	0.7+
1960 09 29	675	0.2-	0.1+	2000 01 08	704	0.6-
1998 11 11	704	0.3-	0.4-	2000 01 08	704	1.4+
1998 11 11	704	0.5+	0.1-	2000 01 11	704	0.4+
1998 11 11	704	0.8-	0.5+	2000 01 11	704	0.0

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1998 11 14 699 0.2- 0.0 2000 01 11 704 0.3+ 0.2+ 2000 02 08 704 0.3+ 0.1-
 1998 11 14 699 0.4- 0.3+ 2000 01 11 704 0.4- 0.1- 2000 02 08 704 0.6- 0.0

2000 AW₁₉₇ = 1998 SE₆₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	93.01529		(2000.0)	P	Q
<i>n</i>	0.21537348	ω	134.73785	+0.85949725	-0.48980071
<i>a</i>	2.7563936	Ω	255.10510	+0.41575696	+0.83624991
<i>e</i>	0.1534701	<i>i</i>	8.69829	+0.29733924	+0.24653873
<i>P</i>	4.58	<i>H</i>	13.9	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1998 08 27	704	0.8+	0.3-	1998 12 24	699	0.6-	0.1-	2000 01 08	704	0.1-	0.8-
1998 08 27	704	0.3-	0.4-	1998 12 24	699	0.6-	0.3+	2000 01 08	704	0.1-	0.1+
1998 08 27	704	1.4+	1.5-	1999 12 05	704	0.8-	0.0	2000 01 08	704	0.3-	1.0-
1998 08 27	704	1.1-	0.5-	1999 12 05	704	0.4+	0.3-	2000 01 11	704	0.4-	0.6-
1998 08 27	704	0.9-	0.1+	1999 12 05	704	(0.5+ 2.4-)		2000 01 11	704	0.4-	0.1-
1998 09 19	699	0.2-	0.7+	1999 12 14	704	0.2-	0.1+	2000 01 11	704	0.3-	0.6+
1998 09 19	699	0.0	0.7+	1999 12 14	704	1.2+	0.2-	2000 01 11	704	0.4+	0.6-
1998 09 19	699	0.6-	1.0+	1999 12 14	704	0.2-	0.5-	2000 01 11	704	0.2-	0.3-
1998 09 25	699	0.1+	0.4-	1999 12 14	704	1.1+	0.9-	2000 02 02	703	0.6-	0.3+
1998 09 25	699	0.4+	0.1+	2000 01 05	699	0.7+	0.5+	2000 02 02	703	0.3-	0.7+
1998 09 25	699	0.4+	0.5+	2000 01 05	699	0.3+	0.7+	2000 02 02	703	0.0	0.1+
1998 12 09	704	0.9+	0.4-	2000 01 05	699	0.6+	0.5+	2000 02 02	703	0.4-	0.1+
1998 12 09	704	0.0	0.3-	2000 01 05	699	0.0	1.0+	2000 02 06	704	0.5+	0.5+
1998 12 09	704	0.8-	0.2-	2000 01 05	699	0.2+	0.6+	2000 02 06	704	0.2+	0.2+
1998 12 09	704	0.3+	0.2-	2000 01 05	699	0.0	0.2+	2000 02 06	704	0.1-	0.3-
1998 12 09	704	1.2+	0.1-	2000 01 08	704	0.3+	0.1-	2000 02 06	704	0.0	0.2-
1998 12 24	699	0.8-	0.1+	2000 01 08	704	0.0	0.5-	2000 02 06	704	0.8-	0.3-

2000 AJ₁₉₈ = 1998 VA₂₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	78.54590		(2000.0)	P	Q
<i>n</i>	0.17416786	ω	159.24908	+0.56947263	-0.81059676
<i>a</i>	3.1755872	Ω	255.79859	+0.73294450	+0.57590073
<i>e</i>	0.0746261	<i>i</i>	8.09466	+0.37214684	+0.10616615
<i>P</i>	5.66	<i>H</i>	13.7	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 10 19	699	0.7+	0.8+	1998 11 18	704	0.7+	0.3-	2000 02 06	704	0.2+	0.8-
1998 10 19	699	0.3-	1.7+	1998 11 18	704	0.2+	0.2+	2000 02 08	704	0.0	0.6+
1998 10 19	699	0.6+	0.3-	1998 11 18	704	(2.2- 1.1+)		2000 02 08	704	0.7+	1.1+
1998 11 10	699	1.5-	1.5+	2000 01 08	704	0.1+	0.2+	2000 02 08	704	0.4-	0.7+
1998 11 10	704	0.2+	0.2-	2000 01 08	704	1.0-	0.1+	2000 02 08	704	0.6+	0.8+
1998 11 10	704	0.6-	0.9-	2000 01 08	704	0.4+	0.2+	2000 02 08	704	(1.9+ 3.1+)	
1998 11 10	704	0.8-	0.8-	2000 01 08	704	0.2-	0.3+	2000 02 10	704	0.2+	0.4-
1998 11 10	699	0.5+	0.3+	2000 01 08	704	0.5-	0.2+	2000 02 10	704	0.4+	1.8-
1998 11 10	704	0.8-	0.7+	2000 01 11	704	0.4-	0.0	2000 02 10	704	0.5-	0.6-
1998 11 10	699	0.3-	1.1-	2000 01 11	704	0.1+	0.7-	2000 02 10	704	0.7-	0.1+
1998 11 11	704	1.3+	1.1-	2000 01 11	704	0.4+	1.3+	2000 02 10	704	0.6-	0.2-
1998 11 11	704	0.8+	0.1-	2000 02 06	704	0.5+	0.0	2000 02 11	704	0.1-	0.3-
1998 11 11	704	0.4-	0.7-	2000 02 06	704	0.2+	0.5-	2000 02 11	704	1.5-	0.2+
1998 11 11	704	0.4-	0.1+	2000 02 06	704	0.4+	0.1-	2000 02 11	704	1.2+	0.2-
1998 11 18	704	0.2+	0.2+	2000 02 06	704	0.3+	0.0	2000 02 11	704	0.2+	0.2+

2000 AM₁₉₈ = 1996 BM₁₃ = 1998 QM₇₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	41.07481		(2000.0)	P	Q
<i>n</i>	0.28072251	ω	226.44125	-0.13157208	-0.98744606
<i>a</i>	2.3100314	Ω	231.32481	+0.93872622	-0.09577468
<i>e</i>	0.0640008	<i>i</i>	6.42791	+0.31856218	-0.12560850
<i>P</i>	3.51	<i>H</i>	14.5	<i>G</i> 0.15	<i>U</i> 3

Residuals in seconds of arc

1996 01 16	327	0.3-	0.7-	1998 08 27	704	0.6-	0.3+	2000 01 11	704	0.2+	0.5-
1996 01 16	327	0.0	0.7-	1998 08 27	704	0.3+	0.3+	2000 01 11	704	0.1+	0.7-
1996 01 16	327	0.5+	1.0-	1998 08 27	704	0.1-	0.2-	2000 01 11	704	0.1-	0.7-
1996 01 17	327	0.4+	0.6+	1998 09 15	699	0.5+	1.0+	2000 02 02	704	0.4-	0.1+
1996 01 17	327	0.2-	0.3+	1998 09 15	699	0.1+	1.2+	2000 02 02	704	0.2-	0.0
1996 01 17	327	0.2-	0.3-	1998 09 15	699	1.7-	0.7+	2000 02 02	704	0.3-	0.0
1998 08 19	704	(3.1+ 1.3+)		1999 12 05	704	0.4-	0.3+	2000 02 02	704	0.7-	0.4+
1998 08 19	704	0.2-	0.4+	1999 12 05	704	0.4-	0.3+	2000 02 02	704	0.1-	0.3+
1998 08 19	704	0.4+	1.7+	1999 12 05	704	0.5-	0.1+	2000 02 06	704	0.3-	0.1+
1998 08 19	704	1.1+	1.4-	1999 12 05	704	0.0	0.9+	2000 02 06	704	0.3+	0.0
1998 08 19	704	0.2+	0.5+	1999 12 05	704	0.4-	1.1+	2000 02 06	704	0.4+	0.2+
1998 08 24	704	0.2-	1.0-	2000 01 08	704	0.8+	0.3-	2000 02 06	704	0.2-	0.5+
1998 08 24	704	0.1+	1.4-	2000 01 08	704	1.8+	0.8+	2000 02 06	704	0.1+	1.1+
1998 08 24	704	0.3-	0.8-	2000 01 08	704	0.5+	0.1-	2000 02 13	106	0.6-	0.2-
1998 08 24	704	0.4-	0.2-	2000 01 08	704	0.5+	0.6-	2000 02 13	106	0.2+	0.2-
1998 08 24	704	0.5-	0.5+	2000 01 08	704	0.3+	0.2-	2000 02 13	106	0.4-	0.2+
1998 08 27	704	0.3+	0.2-	2000 01 11	704	0.5+	0.1-				
1998 08 27	704	0.3+	0.0	2000 01 11	704	0.0	0.1-				

2000 AN₁₉₈ = 1993 FX₇₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	278.65877		(2000.0)	P	Q
<i>n</i>	0.26708650	ω	43.21860	-0.61345123	+0.78943864
<i>a</i>	2.3880024	Ω	189.01583	-0.75684913	-0.59547978
<i>e</i>	0.0667028	<i>i</i>	7.90267	-0.22551493	-0.14896466
<i>P</i>	3.69	<i>H</i>	15.0	<i>G</i> 0.15	<i>U</i> 5

Residuals in seconds of arc

1993 03 21	809	0.2-	0.2+	2000 01 11	704	0.5+	1.4+	2000 02 08	704	0.1-	0.5-
1993 03 22	809	0.2+	0.2-	2000 02 06	704	0.1+	0.7-	2000 02 10	704	0.1-	0.3-
2000 01 08	704	0.1-	0.7-	2000 02 06	704	0.1+	0.0	2000 02 10	704	0.7-	0.6-
2000 01 08	704	0.0	0.6+	2000 02 06	704	0.2-	0.2+	2000 02 10	704	0.4-	1.0+
2000 01 08	704	0.1+	0.4-	2000 02 06	704	0.2-	0.5+	2000 02 11	704	0.2+	0.3-
2000 01 08	704	0.2-	0.3-	2000 02 06	704	0.2+	0.2+	2000 02 11	704	0.2+	0.8-
2000 01 08	704	0.1-	0.8-	2000 02 08	704	0.2+	0.4+	2000 02 11	704	0.4+	0.3+
2000 01 11	704	0.0	0.1-	2000 02 08	704	1.0-	0.6-	2000 02 11	704	0.8+	0.6+
2000 01 11	704	0.1-	0.6+	2000 02 08	704	0.7-	0.4+				
2000 01 11	704	0.0	0.1-	2000 02 08	704	1.3+	0.0				

2000 AV₁₉₈ = 1998 XE₇₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	153.15376		(2000.0)	P	Q
<i>n</i>	0.18431531	ω	164.84294	+0.99071515	+0.13387123
<i>a</i>	3.0579363	Ω	187.58348	-0.13573814	+0.96416737
<i>e</i>	0.0831188	<i>i</i>	10.34831	-0.00765790	+0.22904098
<i>P</i>	5.35	<i>H</i>	12.9	<i>G</i> 0.15	<i>U</i> 4

Residuals in seconds of arc

1998 11 13	704	(3.1+ 1.0-)		1998 12 22	704	0.4+	0.2-	2000 01 11	704	0.4-	0.2-
1998 11 13	704	0.2+	0.8+	1998 12 22	704	0.9+	0.2+	2000 01 11	704	0.0	0.5-
1998 11 13	704	1.3+	0.7-	1999 12 14	704	0.3-	0.4-	2000 02 02	704	0.6+	0.7+
1998 11 13	704	0.1-	0.4+	1999 12 14	704	0.4+	0.0	2000 02 02	704	0.4+	0.1+
1998 11 13	704	0.5-	0.1+	1999 12 14	704	0.9-	0.5+	2000 02 02	704	0.3+	0.0
1998 12 15	704	1.2-	0.2-	1999 12 14	704	1.8+	0.7+	2000 02 02	704	0.3+	0.4+
1998 12 15	704	0.3+	1.3+	2000 01 08	704	0.6-	0.3-	2000 02 02	704	0.1+	0.4+
1998 12 15	704	(1.7+ 2.5+)		2000 01 08	704	1.3-	0.9-	2000 02 06	704	0.2+	1.1+
1998 12 15	704	1.1-	0.5-	2000 01 08	704	0.4-	0.0	2000 02 06	704	0.4+	0.0
1998 12 22	704	0.7-	0.4-	2000 01 11	704	0.5-	0.2-	2000 02 06	704	0.2+	0.2-
1998 12 22	704	0.7+	0.6-	2000 01 11	704	0.4-	1.2-				

2000 AB₁₉₉ = 1998 XB₂₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.17003736	ω	315.29965	−0.75499683	+0.62673963		
<i>a</i>	3.2268081	Ω	264.50263	−0.53429034	−0.75844743		
<i>e</i>	0.0532215	<i>i</i>	11.16908	−0.38014947	−0.17875944		
<i>P</i>	5.80	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 11 24	704	0.5−	0.9−	1998 12 17	704	0.3−	0.8−	2000 01 11	704	0.3−	0.9+
1998 11 24	704	0.8−	0.4−	1998 12 17	704	(0.6−	2.7−)	2000 01 11	704	0.8−	0.7−
1998 11 24	704	2.0+	1.5−	2000 01 05	699	0.3+	0.0	2000 01 11	704	0.4−	0.9+
1998 11 24	704	0.1+	1.9+	2000 01 05	699	0.4−	0.0	2000 02 06	704	0.5−	0.2−
1998 12 14	704	0.1+	0.9+	2000 01 05	699	0.2+	0.4+	2000 02 06	704	0.6+	0.6−
1998 12 14	704	0.3−	0.6−	2000 01 08	704	0.5+	0.7+	2000 02 06	704	0.1−	0.3−
1998 12 14	704	0.0	0.9+	2000 01 08	704	0.4−	0.3−	2000 02 06	704	0.0	0.8+
1998 12 14	704	0.2−	1.1+	2000 01 08	704	0.3−	1.7−	2000 02 06	704	0.6+	0.6+
1998 12 17	704	0.0	1.5−	2000 01 11	704	1.1+	0.5−				
1998 12 17	704	0.1−	1.0+	2000 01 11	704	0.1−	0.0				

2000 AS₁₉₉ = 1991 WN = 1998 KY₅₈

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.24462425	ω	232.85778	+0.95514640	+0.13636562		
<i>a</i>	2.5320350	Ω	117.90524	−0.06844744	+0.96529125		
<i>e</i>	0.2625019	<i>i</i>	17.30485	−0.28811509	+0.22274922		
<i>P</i>	4.03	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1991 11 27	413	0.2+	0.8−	1999 09 13	704	0.3−	1.0−	2000 01 09	704	0.4−	0.4−
1991 11 27	413	0.3+	0.7−	1999 09 13	704	0.4−	0.0	2000 01 11	704	0.4−	0.2−
1998 04 28	704	0.2−	0.0	1999 09 30	704	0.3−	0.3+	2000 01 11	704	0.3−	1.2−
1998 04 28	704	0.2+	0.1+	1999 09 30	704	1.0−	0.5−	2000 01 11	704	0.4−	0.2−
1998 04 28	704	0.8−	0.0	1999 09 30	704	0.4−	0.8−	2000 01 11	704	0.7−	0.3+
1998 04 28	704	0.6+	0.2−	1999 09 30	704	0.4−	0.0	2000 01 11	704	0.4−	0.4−
1998 04 28	704	0.2−	0.4−	1999 09 30	704	0.9−	0.3−	2000 01 11	704	0.6−	1.2+
1998 05 22	566	0.2−	0.2+	1999 11 08	703	0.2−	0.3+	2000 01 11	704	0.6−	0.7−
1998 05 22	566	0.1+	0.1+	1999 11 08	703	0.2−	0.4+	2000 01 11	704	0.1+	0.2−
1998 05 22	566	0.0	0.3−	1999 11 08	703	0.2−	0.2+	2000 01 11	704	0.3−	0.8−
1998 05 23	704	0.2−	0.3+	1999 11 08	703	0.0	0.3+	2000 01 11	704	1.3+	0.6−
1998 05 23	704	0.2+	0.9+	1999 11 10	704	0.9+	0.6+	2000 02 05	704	0.1+	0.7+
1998 05 23	704	0.3−	0.8+	1999 11 10	704	0.8+	0.3+	2000 02 05	704	0.3−	0.7−
1998 05 23	704	0.7−	1.3+	1999 11 10	704	0.7+	0.4+	2000 02 05	704	0.6−	0.3−
1998 05 23	704	0.4+	0.1−	1999 11 10	704	0.6+	0.4+	2000 02 06	704	0.6+	0.1+
1998 05 25	704	0.5+	0.3+	1999 11 10	704	1.0+	0.5+	2000 02 06	704	0.7+	0.0
1998 05 25	704	0.3+	0.3+	1999 12 01	704	0.4+	0.2−	2000 02 06	704	0.4+	0.3+
1998 05 25	704	0.8+	1.3−	1999 12 01	704	1.2+	0.0	2000 02 06	704	0.5+	0.3+
1998 05 25	704	1.3−	0.1−	1999 12 01	704	0.7+	0.4+	2000 02 06	704	0.4+	1.0+
1998 06 25	699	1.1+	0.3−	1999 12 01	704	0.3+	0.5+	2000 02 07	703	1.0−	1.9+
1998 06 25	699	0.7−	0.8+	2000 01 09	704	0.0	0.1−	2000 02 07	703	1.0−	0.6+
1998 06 25	699	1.4+	0.0	2000 01 09	704	0.3−	0.3−	2000 02 07	703	0.5−	0.3+
1999 09 13	704	0.9−	1.1+	2000 01 09	704	0.3−	0.2−	2000 02 07	703	0.5+	1.1+

2000 AZ₁₉₉ = 1990 UB₇ = 1994 RK₁₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.21584562	ω	253.84233	+0.52896747	−0.84627213		
<i>a</i>	2.7523726	Ω	163.74919	+0.83912968	+0.51042700		
<i>e</i>	0.2021420	<i>i</i>	13.08997	+0.12670753	+0.15260328		
<i>P</i>	4.57	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1990 10 30	776(62.8+	6.6+)	Y	1999 10 02	704	1.0+	0.5+	1999 12 16	704	0.1+	0.2−
1990 10 30	776(63.5+	8.1+)	Y	1999 10 02	704	0.5+	0.6+	2000 01 09	704	0.4−	0.7+

1990 10 30	776(62.2+	5.9+)	Y	1999 10 02	704	0.5+	0.4+	2000 01 09	704	0.1−	0.7+
1990 10 30	776(62.0+	6.3+)	Y	1999 10 02	704	0.3+	0.5−	2000 01 09	704	0.8−	0.9+
1990 10 30	776(61.7+	6.6+)	Y	1999 10 03	703	0.3−	0.6−	2000 01 09	704	0.2+	0.6+
1990 10 30	776(61.4+	6.8+)	Y	1999 10 03	703	0.4−	0.1−	2000 01 09	704	0.7+	1.0+
1990 10 30	776(61.9+	7.2+)	Y	1999 10 03	703	0.0	0.1+	2000 01 11	704	0.3−	0.6−
1990 10 30	776(61.4+	7.1+)	Y	1999 10 03	703	0.2−	0.5−	2000 01 11	704	0.5−	0.7−
1994 09 03	809	0.3−	0.0	1999 11 07	704	0.5+	1.0−	2000 01 11	704	0.2−	0.1−
1994 09 03	809	0.2+	0.7+	1999 11 07	704	0.5−	0.5−	2000 01 11	704	0.2+	0.0
1994 09 03	809	0.7−	0.7−	1999 11 07	704	0.8−	0.0	2000 02 06	704	0.1−	0.7+
1994 09 04	809	0.5+	0.5+	1999 11 07	704	0.5−	0.1+	2000 02 06	704	0.2−	0.0
1994 09 04	809	0.2−	0.2−	1999 12 16	704	0.5+	0.0	2000 02 06	704	0.7+	0.5−
1994 09 04	809	0.5+	0.0	1999 12 16	704	0.5−	0.4−	2000 02 06	704	0.2−	0.0
1999 10 02	704	0.4+	0.7+	1999 12 16	704	0.2−	0.2−	2000 02 06	704	0.6+	0.6−

2000 AZ₂₀₁ = 1998 WM₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.19036858	ω	233.00355	−0.74885580	−0.64559369		
<i>a</i>	2.9927644	Ω	266.27415	+0.64569410	−0.65982768		
<i>e</i>	0.0311458	<i>i</i>	8.63057	+0.14931215	−0.38449477		
<i>P</i>	5.18	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1998 10 26	098	1.0+	0.3+	1998 12 14	704	0.3−	0.2+	2000 01 11	704	0.1−	0.4−
1998 10 26	098	0.9−	0.5+	1998 12 14	704	0.2+	1.6−	2000 01 11	704	0.1−	1.2−
1998 11 10	704	0.6+	1.1+	1998 12 14	704	0.9−	0.2−	2000 01 11	704	0.4+	1.0−
1998 11 10	704	0.1+	0.2+	1998 12 14	704	1.0+	0.8+	2000 01 11	704	1.6−	1.4−
1998 11 10	704	0.2−	1.3+	1999 01 05	699	0.3+	0.5+	2000 02 07	703	0.3−	0.2+
1998 11 10	704	(2.5+	0.1+)	1999 01 05	699	0.0	0.3−	2000 02 07	703	0.4−	0.2+
1998 11 18	704	0.3−	0.8−	1999 01 05	699	1.0−	0.2−	2000 02 07	703	0.1+	0.1−
1998 11 18	704	0.1−	0.1−	1999 12 14	704	0.7−	0.1+	2000 02 07	703	0.0	0.1+
1998 11 18	704	0.4+	0.2+	1999 12 14	704	0.6−	1.5−	2000 02 08	704	0.1+	0.3−
1998 11 18	704	0.7+	0.8+	1999 12 14	704	(2.9−	6.9−)	2000 02 08	704	0.2+	0.4+
1998 11 18	704	0.6+	1.7+	1999 12 14	704	(0.6−	2.4−)	2000 02 08	704	0.1+	0.1+
1998 11 21	704	0.2+	1.6−	1999 12 14	704	0.1+	0.7+	2000 02 08	704	0.4+	0.1+
1998 11 21	704	0.1+	0.9−	2000 01 07	699	0.2+	1.2+	2000 02 08	704	0.7+	0.2+
1998 11 21	704	0.5+	1.1−	2000 01 07	699	0.6+	0.2−	2000 02 13	704	(2.1+	0.1−)
1998 11 21	704	0.5+	1.4−	2000 01 07	699	0.5+	0.3+	2000 02 13	704	0.2−	0.8−
1998 11 24	704	0.1−	0.3−	2000 01 09	704	0.0	1.5+	2000 02 13	704	1.0+	0.8+
1998 11 24	704	0.7−	1.3+	2000 01 09	704	0.4−	0.5+	2000 02 13	106	0.6+	0.6+
1998 11 24	704	(2.8−	1.2−)	2000 01 09	704	1.4−	0.4−	2000 02 13	106	0.3+	0.2−
1998 11 24	704	1.6−	0.0	2000 01 11	704	0.1+	0.5+				

2000 AO₂₀₂ = 1998 QL₇₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22492588	ω	187.77900	+0.66179904	−0.73865760		
<i>a</i>	2.6777895	Ω	220.91449	+0.69792009	+0.66943216		
<i>e</i>	0.1750277	<i>i</i>	11.27844	+0.27373269	+0.07902869		
<i>P</i>	4.38	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1997 05 04	809	0.9+	0.1−	1998 08 27	704	0.5−	0.8+	2000 01 11	704	0.1−	0.1−
1997 05 04	809	0.2+	0.5−	2000 01 08	704	0.2+	0.1+	2000 01 11	704	0.3−	0.4+
1997 05 04	809	1.2−	0.7+	2000 01 08	704	0.5+	1.5+	2000 01 11	704	0.8−	0.4−
1998 08 24	704	1.0+	0.5−	2000 01 08	704	0.3−	0.5+	2000 02 05	704	0.2+	0.5−
1998 08 24	704	0.6+	0.6+	2000 01 08	704	0.1+	0.2−	2000 02 05	704	0.2+	0.2+
1998 08 24	704	(3.1−	2.2+)	2000 01 08	704	0.9−	1.5−	2000 02 05	704	0.3+	0.2−
1998 08 24	704	1.1−	0.7−	2000 01 10	704	0.6−	0.1+	2000 02 05	704	0.3+	0.7−
1998 08 24	704	1.0−	0.9+	2000 01 10	704	0.0	0.3+	2000 02 06	704	0.6+	0.1−
1998 08 27	704	0.2−	0.1+	2000 01 10	704	0.1+	0.1+	2000 02 06	704	0.3+	0.1−
1998 08 27	704	0.2−	0.9−	2000 01 10	704	0.3−	0.2−	2000 02 06	704	0.7+	0.4+
1998 08 27	704	1.3+	0.4+	2000 01 10	704	0.2+	0.3+	2000 02 06	704	0.1+	0.2−
1998 08 27	704	0.3+	0.8−	2000 01 11	704	0.3−	0.2+				

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2000 AJ₂₀₃ = 1983 WJ₁ = 1998 XS₆₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	340.30148	ω	281.75262	−0.94323322	+0.29138589		
<i>a</i>	3.0034750	Ω	275.34504	−0.20631802	−0.89012896		
<i>e</i>	0.2067365	<i>i</i>	9.21193	−0.26027670	−0.35037793		
<i>P</i>	5.21	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1983 11 30	801	0.1−	0.2−	1999 12 16	704	1.5−	1.3−	2000 01 11	704	0.1−	0.3−
1998 12 14	704	0.5+	0.6+	1999 12 16	704	1.0−	0.4−	2000 01 11	704	0.2−	0.4−
1998 12 14	704	0.1−	0.9+	2000 01 10	704	0.6−	0.4+	2000 02 07	704	0.5−	0.3−
1998 12 14	704	(0.4+ 2.3+)		2000 01 10	704	0.2+	0.6+	2000 02 07	704	0.3−	0.6−
1998 12 14	704	(0.8− 3.7+)		2000 01 10	704	0.8+	0.3−	2000 02 07	704	0.3−	0.3−
1998 12 14	704	(2.5− 0.8+)		2000 01 10	704	0.3+	0.5+	2000 02 07	704	0.0	0.8−
1998 12 17	704	0.3−	0.3−	2000 01 10	704	0.1+	0.0	2000 02 07	704	0.5−	0.5−
1998 12 17	704	0.3+	0.5+	2000 01 11	699	0.1+	0.4+	2000 02 10	704	0.4+	0.5+
1998 12 17	704	0.5+	0.9−	2000 01 11	699	0.5+	1.0+	2000 02 10	704	0.5+	0.9+
1998 12 17	704	1.6−	0.3+	2000 01 11	704	0.1+	0.1−	2000 02 10	704	0.3+	0.5+
1998 12 17	704	0.7+	0.5−	2000 01 11	704	0.5−	0.3−	2000 02 10	704	0.5+	0.6+
1999 12 16	704	0.2−	0.9−	2000 01 11	699	0.9+	0.6+	2000 02 10	704	0.5+	0.2+
1999 12 16	704	0.5−	1.4−	2000 01 11	704	0.5+	1.1+				

2000 AK₂₀₃ = 1999 CL

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	111.32321	ω	116.60538	+0.75150915	−0.63388175		
<i>a</i>	2.6554432	Ω	283.30904	+0.51851219	+0.73886564		
<i>e</i>	0.1738820	<i>i</i>	10.82903	+0.40789595	+0.22862961		
<i>P</i>	4.33	<i>H</i>	12.9	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1993 07 23	010	0.5+	0.4+	1999 01 08	704	0.2+	0.0	2000 01 10	704	0.1+	0.2+
1993 07 23	010	1.1−	0.7+	1999 01 08	704	1.0+	0.0	2000 01 10	704	0.5−	0.3−
1993 07 23	010	0.3+	0.4−	1999 01 08	704	0.9+	0.1+	2000 01 10	704	0.2+	0.1−
1998 08 29	704	0.8−	0.5−	1999 01 08	704	1.1+	0.8+	2000 01 10	704	0.6+	0.8−
1998 08 29	704	0.1−	0.5−	1999 02 05	704	0.7+	1.2−	2000 01 11	704	0.3−	0.1−
1998 08 29	704	0.9−	0.2+	1999 02 05	704	0.8−	1.3+	2000 01 11	704	0.1−	0.4+
1998 08 29	704	0.2+	1.7−	1999 02 05	704	1.6−	0.0	2000 01 11	704	0.5+	0.6+
1998 08 29	704	0.1−	0.1+	1999 02 05	704	1.1−	0.0	2000 01 11	704	0.0	0.7+
1998 10 16	699	0.1−	0.7+	1999 02 06	704	0.9−	0.5+	2000 01 11	704	0.0	1.0+
1998 10 16	699	0.2−	0.1+	1999 02 06	704	0.1+	0.4+	2000 02 07	704	1.4−	0.4−
1998 10 16	699	0.3−	0.6+	1999 02 06	704	0.1−	0.3+	2000 02 07	704	0.9−	0.5−
1998 12 09	704	1.2+	0.1−	1999 02 06	704	0.4+	0.1+	2000 02 07	704	0.8−	0.3−
1998 12 09	704	0.8+	0.4−	1999 11 09	703	0.7+	0.9+	2000 02 07	704	0.4−	1.1−
1998 12 09	704	0.7−	0.4+	1999 11 09	703	0.4−	0.6+	2000 02 07	704	0.5+	1.7−
1998 12 09	704	(1.6+ 2.3−)		1999 11 09	703	0.1−	0.1+	2000 02 10	704	0.5+	0.5+
1998 12 09	704	0.3+	1.1−	1999 11 09	703	0.9+	0.4+	2000 02 10	704	1.1+	0.4+
1999 01 08	704	0.3+	0.3−	2000 01 10	704	0.4+	0.4+	2000 02 10	704	0.1−	0.2−

2000 AZ₂₀₃ = 1997 NO₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	4.43084	ω	217.09686	−0.94816689	−0.25279777		
<i>a</i>	2.6167535	Ω	307.14221	+0.31705594	−0.79326948		
<i>e</i>	0.0709058	<i>i</i>	13.97760	−0.02133256	−0.55391047		
<i>P</i>	4.23	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1997 07 13	910	0.5+	0.1+	1999 12 16	704	1.3−	1.8−	2000 01 11	699	0.7+	0.1+
1997 07 13	910	0.5+	0.0	1999 12 16	704	0.7−	0.5−	2000 01 11	704	0.3−	0.2−
1997 07 13	910	0.3+	0.1+	1999 12 16	704	1.3−	1.6−	2000 01 11	704	0.5−	0.1+
1997 07 14	910	0.0	0.1−	2000 01 05	704	0.4−	0.2+	2000 01 11	704	0.3+	1.3−
1997 07 14	910	0.0	0.2−	2000 01 05	704	0.4−	0.0	2000 02 07	704	0.2−	0.6+
1997 07 14	910	0.1−	0.2−	2000 01 05	704	0.3−	0.2−	2000 02 07	704	0.3−	0.5+

1997 09 01	566	0.5−	0.3−	2000 01 05	704	0.1−	0.4−	2000 02 07	704	0.2−	1.0+
1997 09 01	566	0.3−	0.4−	2000 01 10	704	(2.3+ 1.7−)		2000 02 07	704	0.5+	1.1+
1997 09 01	566	0.2+	0.0	2000 01 10	704	0.2+	0.8−	2000 02 07	704	0.1−	1.0+
1999 11 05	703	0.9+	0.8+	2000 01 10	704	0.5−	0.1−	2000 02 10	704	0.4+	0.4−
1999 11 05	703	0.7−	0.1+	2000 01 10	704	0.2−	0.7−	2000 02 10	704	0.6+	0.2−
1999 11 05	703	0.0	0.9+	2000 01 11	699	0.4+	0.1−	2000 02 10	704	1.0+	0.1−
1999 11 05	703	1.3+	1.8+	2000 01 11	699	0.0	0.6+	2000 02 10	704	0.5+	0.0
1999 12 16	704	1.2−	1.7−	2000 01 11	704	0.2+	0.5+				
1999 12 16	704	(0.7− 2.5−)		2000 01 11	704	0.4+	0.2−				

2000 AN₂₀₄ = 1990 TB₅ = 1998 QV₇₉

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	42.03934	ω	238.29930	+0.37182710	−0.92749830		
<i>a</i>	2.5686244	Ω	190.09830	+0.90870858	+0.37216641		
<i>e</i>	0.1516463	<i>i</i>	12.72440	+0.18971908	+0.03520042		
<i>P</i>	4.12	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1990 10 09	413	0.4−	1.4−	1998 10 14	699	0.2−	0.1+	2000 01 12	704	0.7−	0.0
1990 10 09	413	0.6−	1.5+	1998 10 14	699	0.3−	0.5−	2000 01 12	704	1.0−	0.1+
1990 10 11	413	0.9+	0.6+	1999 12 20	704	0.1+	0.9−	2000 01 12	704	0.6−	0.6+
1998 08 24	704	0.4+	0.2−	1999 12 20	704	0.2+	1.1−	2000 02 05	704	0.8+	0.6+
1998 08 24	704	0.3+	0.9−	1999 12 20	704	0.1+	0.6−	2000 02 05	704	0.6+	0.8+
1998 08 24	704	0.3+	0.3+	1999 12 20	704	0.5+	0.9−	2000 02 05	704	0.4+	0.9+
1998 08 24	704	0.3−	0.7+	1999 12 20	704	0.5+	0.5−	2000 02 05	704	0.6+	0.7+
1998 08 24	704	1.0−	1.0+	2000 01 08	704	0.7−	0.3−	2000 02 05	704	0.5+	1.1+
1998 08 27	704	0.2−	0.5+	2000 01 08	704	0.3−	0.4−	2000 02 06	704	0.3+	0.5+
1998 08 27	704	0.4+	0.9−	2000 01 08	704	0.3−	0.1−	2000 02 06	704	0.6+	0.5+
1998 08 27	704	0.3−	0.2+	2000 01 08	704	0.4−	0.5−	2000 02 06	704	0.3+	0.8+
1998 08 27	704	0.3−	0.4−	2000 01 08	704	0.7−	0.4−	2000 02 06	704	0.4+	0.9+
1998 08 27	704	0.6+	0.9+	2000 01 12	704	0.4−	0.6−	2000 02 06	704	0.7+	1.0+
1998 10 14	699	0.4+	1.1+	2000 01 12	704	0.7−	0.3−				

2000 AY₂₀₄ = 1995 EE₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	339.01206	ω	330.39099	−0.76210306	−0.64490149		
<i>a</i>	3.2201449	Ω	168.87767	+0.63701767	−0.76272855		
<i>e</i>	0.0530731	<i>i</i>	17.32781	+0.11579039	−0.04844816		
<i>P</i>	5.78	<i>H</i>	12.6	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1995 02 24	033	0.0	0.2−	1998 11 13	704	(3.3− 0.5−)	2000 01 11	704	(0.5− 2.4−)	
1995 03 05	033	0.0	0.4+	1999 12 16	704	0.7−	0.2+	2000 01 12	704	0.2− 0.4−
1995 03 05	033	0.5+	0.9+	1999 12 16	704	0.9−	0.2−	2000 01 12	704	0.2+ 0.7−
1995 03 07	033	1.2−	0.3+	1999 12 16	704	0.7−	0.1+	2000 01 12	704	0.5− 0.9−
1995 03 23	033	0.8+	0.7−	1999 12 16	704	0.8−	0.3−	2000 01 12	704	0.1− 0.9−
1995 03 24	033	0.1−	0.1+	1999 12 16	704	0.7−	0.2−	2000 02 05	704	1.1+ 0.9+
1997 08 30	566	0.1−	0.4+	2000 01 08	704	0.3−	0.8−	2000 02 05	704	0.1+ 1.5+
1997 08 30	566	0.1−	0.8+	2000 01 08	704	0.6−	0.7−	2000 02 05	704	0.4+ 1.1+
1997 08 30	566	0.1+	0.3−	2000 01 08	704	0.9−	0.4−	2000 02 05	704	0.9+ 1.4+
1998 11 13	704	(1.1− 2.2+)		2000 01 08	704	0.2−	0.6−	2000 02 06	704	0.2+ 1.1+
1998 11 13	704	0.5−	0.7+	2000 01 08	704	1.9+	0.6+	2000 02 06	704	1.1+ 1.0+
1998 11 13	704	0.0	0.2−	2000 01 11	704	0.3−	0.8−	2000 02 06	704	0.2+ 0.8+
1998 11 13	704	0.5+	0.4+	2000 01 11	704	0.3+	0.8−	2000 02 06	704	0.7+ 0.6−

2000 AO₂₀₅ = 3309 T-1 = 1998 MJ₂₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26378627	ω	224.20276	+0.97190331	+0.23530640		
<i>a</i>	2.4078786	Ω	122.18669	-0.21397674	+0.89369759		
<i>e</i>	0.2143936	<i>i</i>	0.39967	-0.09807093	+0.38201506		
<i>P</i>	3.74	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i>	2
Residuals in seconds of arc							
1971 03 25	675	0.9+	0.4-	1998 06 26	704	0.5+	0.4-
1971 03 26	675	0.0	0.2+	1998 06 26	704	1.1-	1.5-
1971 03 26	675	0.4-	0.4-	1998 07 21	704	1.7+	0.1-
1971 04 02	675	0.1-	1.6+	1998 07 21	704	0.2+	1.7+
1997 03 18	599	1.1-	1.6-	1998 07 21	704	(1.4-	2.8+)
1997 03 18	599	0.9+	0.9+	1998 07 21	704	0.3+	1.3+
1998 06 24	704	0.1-	1.7+	2000 01 07	691	0.3+	1.2-
1998 06 24	704	0.4-	0.6-	2000 01 07	691	0.3+	0.1-
1998 06 24	704	0.1-	0.7-	2000 01 07	691	0.4+	0.2-
1998 06 24	704	0.6-	0.5-	2000 01 10	732	0.3-	0.4+
1998 06 24	704	(2.3-	0.4-)	2000 01 10	732	0.8-	0.4-
1998 06 26	704	0.2+	0.8-	2000 01 10	732	0.1-	0.8+
1998 06 26	704	1.0-	0.3+	2000 01 10	732	1.2-	0.6+
1998 06 26	704	0.1+	0.1+	2000 01 10	732	0.6-	0.3-

2000 AD₂₁₂ = 1994 PH₃₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.28133490	ω	135.00341	+0.18481634	+0.97875257		
<i>a</i>	2.3066780	Ω	145.35943	-0.93990292	+0.20242868		
<i>e</i>	0.1291461	<i>i</i>	8.98811	-0.28709827	-0.03265028		
<i>P</i>	3.50	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	5
Residuals in seconds of arc							
1994 08 10	809	0.4+	0.4+	2000 01 12	691	0.1+	0.0
1994 08 10	809	0.4+	0.4-	2000 01 12	691	0.1+	0.0
1994 08 10	809	0.1-	0.4-	2000 01 12	691	0.2+	0.0
1994 08 11	809	0.3-	0.2+	2000 02 02	703	0.2+	0.1-
1994 08 11	809	0.0	0.2+	2000 02 02	703	0.0	1.2+
1994 08 11	809	1.2-	0.1-	2000 02 02	703	(2.4+	1.7+)
2000 01 05	691	0.0	0.1-	2000 02 02	703	0.0	0.7+
2000 01 05	691	0.1-	0.1-	2000 02 04	704	0.2-	0.9+
2000 01 05	691	0.2-	0.0	2000 02 04	704	0.3-	1.8-

2000 AA₂₁₄ = 1997 MN₁

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.23594814	ω	330.83932	+0.14633295	-0.95832708		
<i>a</i>	2.5937315	Ω	109.82624	+0.95063549	+0.06762308		
<i>e</i>	0.1301139	<i>i</i>	15.11799	+0.27363998	+0.27755419		
<i>P</i>	4.18	<i>H</i>	16.0	<i>G</i>	0.15	<i>U</i>	5
Residuals in seconds of arc							
1997 06 27	691	0.1-	0.5+	1997 07 01	691	0.5+	0.2-
1997 06 27	691	0.2-	0.0	1997 07 01	691	0.1+	0.0
1997 06 27	691	0.2-	0.5-	2000 01 06	691	0.1+	0.0
1997 07 01	691	0.0	0.2+	2000 01 06	691	0.2+	0.0

2000 AF₂₁₄ = 1997 NG₁₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.19328189	ω	215.09852	+0.81319031	+0.55034524		
<i>a</i>	2.9626154	Ω	110.41905	-0.47702684	+0.81662525		
<i>e</i>	0.1034202	<i>i</i>	11.65465	-0.33341704	+0.17390608		
<i>P</i>	5.10	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	3
Residuals in seconds of arc							
1997 07 09	327	0.5-	0.5-	2000 01 04	704	1.6+	1.3+
1997 07 09	327	0.3+	0.3+	2000 01 04	704	0.5+	0.7+
1997 07 09	327	0.3+	0.0	2000 01 06	691	0.1-	0.2+
1997 07 12	327	0.5-	0.2+	2000 01 06	691	0.1-	0.4+
1997 07 12	327	0.1+	0.6+	2000 01 06	691	0.3-	0.3+
1997 07 12	327	0.4+	1.6+	2000 01 11	691	0.5-	0.2+
1998 11 16	566	0.1-	0.1+	2000 01 11	691	0.4-	0.0
1998 11 16	566	0.4-	0.1-	2000 01 11	691	0.8-	0.1-
1998 11 16	566	0.3+	0.3+	2000 01 26	691	0.4+	0.0
2000 01 04	704	0.2+	0.4+	2000 01 26	691	0.2+	0.0
2000 01 04	704	0.6+	0.3-	2000 01 26	691	0.1-	0.1-

2000 AH₂₁₄ = 1997 QA₃

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.17596923	ω	109.98222	+0.52654139	+0.85013425		
<i>a</i>	3.1538780	Ω	191.79386	-0.78901144	+0.48643711		
<i>e</i>	0.1438156	<i>i</i>	1.42709	-0.31656771	+0.20162016		
<i>P</i>	5.60	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>	4
Residuals in seconds of arc							
1996 06 13	566	0.2+	0.6+	2000 01 06	704	0.4-	1.5+
1996 06 13	566	0.1+	0.4+	2000 01 06	704	0.4-	0.4+
1996 06 13	566	0.1+	0.4+	2000 01 06	691	0.1-	0.2-
1997 08 28	358	0.3-	1.9+	2000 01 06	691	0.3-	0.0
1997 08 28	358	1.4+	0.9-	2000 01 06	691	0.3-	1.1-
1997 08 30	358	1.9-	0.7+	2000 01 13	691	0.5+	0.1+
1997 08 30	358	0.1+	0.0	2000 01 13	691	0.5+	0.1-
2000 01 06	704	0.7+	0.5+	2000 01 13	691	0.6+	0.0

2000 AK₂₁₄ = 1998 SE₁₅₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22679870	ω	237.92285	+0.79816843	-0.60232304		
<i>a</i>	2.6630277	Ω	159.10643	+0.56309085	+0.73907104		
<i>e</i>	0.0617195	<i>i</i>	1.86088	+0.21413979	+0.30163050		
<i>P</i>	4.35	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i>	5
Residuals in seconds of arc							
1993 07 19	809	0.7+	0.5+	1998 09 27	704	0.1+	1.9+
1993 07 19	809	0.2-	0.6+	1998 09 27	704	1.8-	1.1-
1993 07 19	809	0.7-	0.4+	2000 01 06	691	1.3-	0.5-
1998 09 26	704	0.3-	0.8-	2000 01 06	691	0.8-	0.3-
1998 09 26	704	0.2-	0.9+	2000 01 06	691	0.8-	0.1-
1998 09 26	704	0.1+	1.4-	2000 01 13	691	0.5+	0.3-
1998 09 26	704	1.1+	0.3-	2000 01 13	691	0.6+	0.0
1998 09 26	704	0.2-	1.3+	2000 01 13	691	0.6+	0.2-
1998 09 27	704	0.2-	1.0-	2000 02 02	704	0.1+	0.4+
1998 09 27	704	1.1+	1.2+	2000 02 02	704	0.5-	0.5+

2000 FEB. 22

M.P.C. 38709

2000 AW₂₁₅ = 1978 WB₈ = 1998 VU₂₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	77.66284			(2000.0)	P			Q		
<i>n</i>	0.19491349	ω		242.45701		+0.46753689		−0.88397354		
<i>a</i>	2.9460591	Ω		179.66826		+0.82275101		+0.43507312		
<i>e</i>	0.0992745	<i>i</i>		1.98397		+0.32324919		+0.17117874		
<i>P</i>	5.06	<i>H</i>		14.0	<i>G</i>	0.15		<i>U</i>	4	
Residuals in seconds of arc										
1978 11 29	675	2.0−	0.2−	2000 01 07	691	0.1−	0.5−	2000 02 04	704	0.1+ 0.0
1978 11 30	675	1.9+ 0.8+		2000 01 07	691	0.0	0.6−	2000 02 04	704	0.6+ 0.7+
1998 11 10	704	0.2+ 0.1+		2000 01 08	691	0.1−	0.3−	2000 02 04	704	0.8− 0.4+
1998 11 10	704	0.3− 0.1+		2000 01 08	691	0.1−	0.3−	2000 02 04	704	0.4+ 0.6−
1998 11 10	704	0.5+ 0.8+		2000 01 08	691	0.1−	0.3−	2000 02 10	732	0.2+ 0.0
1998 11 11	704	0.8+ 0.2−		2000 02 02	704	0.2−	0.4+	2000 02 10	732	0.3+ 0.2+
1998 11 11	704	0.4+ 0.2+		2000 02 02	704	0.1−	0.6+	2000 02 10	732	0.1+ 0.5+
1998 11 11	704	0.1+ 1.5−		2000 02 02	704	0.5+ 0.0		2000 02 11	732	0.4− 0.5−
1998 11 11	704	0.2+ 0.7+		2000 02 02	704	0.1+ 0.1−		2000 02 11	732	0.2+ 0.4+
1998 11 11	704	1.6− 0.5−		2000 02 02	704	0.2− 0.2+		2000 02 11	732	0.5− 0.1+
2000 01 07	691	0.3− 0.6−		2000 02 04	704	0.3+ 0.0				

2000 AA₂₁₆ = 3069 P-L = 1995 YF₁₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	230.17631		(2000.0)		P		Q				
<i>n</i>	0.26220016	ω	338.73479		+0.40376999		+0.91224233				
<i>a</i>	2.4175794	Ω	315.00229		−0.82462488		+0.33016372				
<i>e</i>	0.1542047	<i>i</i>	5.61349		−0.39618633		+0.24249918				
<i>P</i>	3.76	<i>H</i>	14.5	<i>G</i>	0.15		<i>U</i>	5			
Residuals in seconds of arc											
1960 09 25	675	1.9−	0.5−	1995 12 27	691	0.1+	0.1−	2000 02 06	704	0.3+	0.3+
1960 09 27	675	0.1+	0.0	2000 01 07	691	0.5−	0.8−	2000 02 06	704	0.4−	0.3+
1960 09 28	675	1.7+	0.2+	2000 01 07	691	0.1+	0.6−	2000 02 06	704	0.5+	0.2+
1960 09 29	675	0.1+	0.4+	2000 01 07	691	0.7−	0.1−	2000 02 08	704	0.9−	0.1+
1995 12 22	691	0.1+	0.1+	2000 01 08	691	0.6−	0.2−	2000 02 08	704	0.5−	0.0
1995 12 22	691	0.3−	0.2+	2000 01 08	691	0.6−	0.5−	2000 02 08	704	1.4+	0.4+
1995 12 22	691	0.0	0.3+	2000 01 08	691	0.3−	0.5−	2000 02 11	704	0.0	1.2−
1995 12 27	691	0.2+	0.1+	2000 02 06	704	1.0+	1.8+	2000 02 11	704	0.2+	0.4−
1995 12 27	691	0.2+	0.0	2000 02 06	704	0.4+	0.1+	2000 02 11	704	0.1+	0.4+

2000 AJ₂₁₈ = 1998 SJ₉₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	326.85984		(2000.0)		P		Q
n	0.22083609	ω	204.37014		−0.93298365		−0.35855442
a	2.7107493	Ω	314.57992		+0.33701414		−0.83976262
e	0.0287046	i	2.51931		+0.12634466		−0.40772229
P	4.46	H	14.9		G 0.15		U 5
Residuals in seconds of arc							
1998 09 26	704	(3.0+ 0.5−)	2000 01 03	704	1.9− 0.0	2000 01 13	691 0.6− 0.6−
1998 09 26	704	1.3+ 0.2−	2000 01 03	704	1.0+ 1.5+	2000 01 30	704 0.5− 0.5+
1998 09 26	704	0.5− 0.1+	2000 01 03	704	0.5+ 0.3+	2000 01 30	704 0.0 0.6−
1998 09 27	704	0.2− 0.7−	2000 01 08	691	0.4+ 0.3−	2000 01 30	704 0.3+ 0.2+
1998 09 27	704	1.4+ 0.6−	2000 01 08	691	1.0+ 0.2−	2000 01 31	704 1.1+ 0.3+
1998 09 27	704	0.1− 1.1+	2000 01 08	691	0.4+ 0.5−	2000 01 31	704 0.2− 0.4+
1998 09 27	704	0.4− 0.0	2000 01 13	691	0.5− 0.4−	2000 01 31	704 0.4− 0.1−
1998 09 27	704	1.4− 0.2+	2000 01 13	691	0.7− 0.6−		

2000 AS₂₂₀ = 1995 UJ₂₄ = 1995 WZ₃₈

Id. M. E. Sansaturio, G. V. Williams (d)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	60.58722	(2000.0)		P		Q	
n	0.27018233	ω	77.08310	+0.67294789		−0.73955149	
a	2.3697258	Ω	330.60616	+0.66684875		+0.61493608	
e	0.1773986	i	1.67052	+0.32008417		+0.27371008	
P	3.65 <th>H</th> <td>17.0<th>G</th><td>0.15<th>U</th><td>4</td></td></td>	H	17.0 <th>G</th> <td>0.15<th>U</th><td>4</td></td>	G	0.15 <th>U</th> <td>4</td>	U	4
Residuals in seconds of arc							
1995 10 19	691	0.2−	0.1−	1995 10 24	691	0.0	0.1−
1995 10 19	691	0.3+	0.0	1995 11 23	691	0.0	0.1+
1995 10 19	691	0.2+	0.2+	1995 11 23	691	0.0	0.2+
1995 10 24	691	0.1−	0.2−	1995 11 23	691	0.2−	0.2+
1995 10 24	691	0.0	0.1−	2000 01 08	691	0.1−	0.1−

2000 AF₂₂₂ = 1998 WW₁₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	19.90265		(2000.0)		$\mathbf{P}$		$\mathbf{Q}$		
n	0.17995938	ω	193.53220		−0.64178252		−0.76619713		
a	3.1070844	Ω	296.40299		+0.70694034		−0.57465063		
e	0.0524687	i	2.08032		+0.29723820		−0.28760843		
P	5.48	H	13.2	G	0.15	U	3		
Residuals in seconds of arc									
1998 11 18	704	0.3−	0.5+	1999 12 05	703	0.9+	0.3+	2000 02 06	704 0.0 0.1+
1998 11 18	704	0.6−	0.1−	1999 12 05	703	1.6−	0.7+	2000 02 06	704 0.2+ 0.1+
1998 11 18	704	0.4−	0.8−	1999 12 05	703	1.7−	0.1−	2000 02 06	704 0.1+ 0.5+
1998 11 18	704	0.2+	1.5−	2000 01 08	691	0.1−	0.6−	2000 02 06	704 0.2− 0.6+
1998 11 21	704	0.3−	0.3+	2000 01 08	691	0.1−	0.6−	2000 02 06	704 0.1+ 0.5+
1998 11 21	704	0.8−	0.5+	2000 01 08	691	0.1−	0.7−	2000 02 08	704 0.1− 0.1+
1998 11 21	704 (2.3−	0.4+)	2000 01 10	691	0.2+	0.4−	2000 02 08	704 0.1− 0.3−	
1998 11 21	704	0.1−	1.7+	2000 01 10	691	0.4+	0.4−	2000 02 08	704 0.2+ 0.0
1998 11 21	704 (3.5−	0.5−)	2000 01 10	691	0.4+	0.5−	2000 02 08	704 0.1+ 0.0	
1998 11 24	704 (2.4+	1.1−)	2000 02 02	704	0.4+	0.2−	2000 02 08	704 0.1− 0.2+	
1998 11 24	704	0.7+	0.4+	2000 02 02	704	0.1+	0.2−	2000 02 10	704 0.5− 0.3+
1998 11 24	704	0.2−	0.0	2000 02 02	704	0.5+	0.4+	2000 02 10	704 0.3− 0.4+
1998 11 24	704	0.1+	0.5+	2000 02 02	704	0.8+	0.2+	2000 02 10	704 0.4− 0.3+
1998 11 24	704	0.4+	1.6+	2000 02 02	704	0.5+	0.1+	2000 02 10	704 0.5− 0.1+
1998 12 14	704	0.4−	0.3+	2000 02 04	704	0.3−	0.5+	2000 02 11	704 0.1− 0.5−
1998 12 14	704	1.6+	1.7−	2000 02 04	704	0.6−	0.3−	2000 02 11	704 0.3+ 0.1−
1998 12 14	704 (1.4+	2.5−)	2000 02 04	704	0.1+	0.6+	2000 02 11	704 0.4+ 0.5−	
1998 12 14	704	0.2+	1.6−	2000 02 04	704	0.3−	0.0	2000 02 11	704 0.4+ 0.3−
1999 12 05	703	1.9+	0.2−	2000 02 04	704	0.7−	0.5+	2000 02 11	704 0.1− 0.5−

2000 AT₂₂₃ = 1997 EA₃₀

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	76.22118		(2000.0)		P		Q	
n	0.28359384	ω	260.52511		+0.82669798		−0.56246361	
a	2.2944126	Ω	133.69961		+0.52367887		+0.75988570	
e	0.2320446	i	1.13514		+0.20574470		+0.32589632	
P	3.48	H	17.1	G	0.15	U	4	
Residuals in seconds of arc								
1997 03 07	691	0.3−	0.5+	1997 03 14	691	0.0	0.6−	2000 01 12 691 0.4− 0.1−
1997 03 07	691	0.6−	0.2−	2000 01 09	691	0.1+	0.1+	2000 01 12 691 0.2− 0.2−
1997 03 07	691	0.3+	0.0	2000 01 09	691	0.4+	0.1−	2000 02 10 691 0.1+ 0.4+
1997 03 14	691	0.3+	0.2−	2000 01 09	691	0.2+	0.2−	2000 02 10 691 0.5+ 0.3+
1997 03 14	691	0.1+	0.2+	2000 01 12	691	0.5−	0.3−	2000 02 10 691 0.2− 0.3+

2000 AC₂₂₅ = 1998 TA₁₇

Id. M. E. Sansaturio

M.P.C. 38710

2000 FEB. 22

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	238.31007		(2000.0)		P		Q		
<i>n</i>	0.26287986	ω	286.20995		-0.12693147		+0.99174257		
<i>a</i>	2.4134104	Ω	336.47445		-0.89164711		-0.12216673		
<i>e</i>	0.1671486	<i>i</i>	2.62847		-0.43457316		-0.03901236		
<i>P</i>	3.75	<i>H</i>	16.9	<i>G</i>	0.15		<i>U</i>	5	
Residuals in seconds of arc									
1998 10 14	910	0.0	0.5-	1998 10 21	910	0.3-	0.2+	2000 01 11	691 0.4+ 0.7+
1998 10 15	910	0.1+	0.5-	1998 10 22	910	0.1+	0.4+	2000 01 13	691 0.4- 0.5-
1998 10 15	910	0.2+	0.5-	2000 01 11	691	0.5+	0.8+	2000 01 13	691 0.4- 0.7-
1998 10 21	910	0.2-	0.9+	2000 01 11	691	0.4+	0.4+	2000 01 13	691 0.5- 0.7-

2000 AU₂₂₆ = 1998 UA₃₄

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	108.48833		(2000.0)		$\mathbf{P}$		$\mathbf{Q}$		
n	0.20899961	ω	88.82864		+0.96016439		-0.27719777		
a	2.8121538	Ω	287.26359		+0.23942691		+0.88122777		
e	0.1003901	i	2.11814		+0.14408021		+0.38288251		
P	4.72	H	14.3		G	0.15	U	5	
Residuals in seconds of arc									
1998 10 11	699	0.6-	0.9-	1998 10 29	704	1.0-	1.1+	2000 02 02	704 0.7- 0.3-
1998 10 11	699	0.7+	0.8+	1998 10 29	704	0.2+	0.3+	2000 02 02	704 0.4- 0.4+
1998 10 11	699	0.3+	0.5-	1998 10 29	704	0.6-	0.7+	2000 02 02	704 0.1- 0.7+
1998 10 28	704	0.0	0.3-	2000 01 09	691	0.1-	0.2-	2000 02 02	704 0.3+ 0.8+
1998 10 28	704	0.8+	0.1-	2000 01 09	691	0.2-	0.0	2000 02 03	704 0.1+ 0.2-
1998 10 28	704	0.6+	1.6-	2000 01 09	691	0.3-	0.4-	2000 02 03	704 0.5- 0.0
1998 10 28	704	0.9+	0.1+	2000 01 16	691	0.2+	0.1-	2000 02 03	704 0.6+ 1.1-
1998 10 29	704	1.4-	0.3+	2000 01 16	691	0.0	0.2-	2000 02 03	704 1.0+ 0.7+
1998 10 29	704	(2.5-	1.8+)	2000 01 16	691	0.1+	0.3-		

2000 AF₂₂₉ = 1995 WJ₂₇

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	339.23469		(2000.0)		P		Q			
<i>n</i>	0.21061171	ω	166.23207		-0.17048803		-0.95759090			
<i>a</i>	2.7977852	Ω	293.17161		+0.87844637		-0.04091500			
<i>e</i>	0.2023319	<i>i</i>	14.63503		+0.44639199		-0.28521156			
<i>P</i>	4.68	<i>H</i>	13.3		<i>G</i>	0.15	<i>U</i>	3		
Residuals in seconds of arc										
1995 11 18	691	0.3-	0.1-	2000 01 07	699	0.8-	0.5+	2000 02 02	704	1.0- 0.4-
1995 11 18	691	0.1-	0.2-	2000 01 07	699	0.9-	0.2+	2000 02 02	704	0.8- 0.8-
1995 11 18	691	0.1-	0.1-	2000 01 07	699	0.7-	0.2-	2000 02 02	704	0.6- 0.9-
1995 11 30	691	0.3+	0.1-	2000 01 31	704	0.7+	0.0	2000 02 03	704	0.3+ 0.1-
1995 11 30	691	0.0	0.3+	2000 01 31	704	0.0	0.9+	2000 02 03	704	0.1+ 0.6+
1995 11 30	691	0.1+	0.0	2000 01 31	704	0.2-	0.2+	2000 02 03	704	0.3+ 0.1-
2000 01 03	704	1.4+	0.6-	2000 01 31	704	0.4+	0.9+	2000 02 03	704	0.1+ 0.2+
2000 01 03	704	0.2+	0.3-	2000 01 31	704	0.2+	0.8+	2000 02 03	704	0.1- 0.3+
2000 01 03	704	0.6+	0.3-	2000 02 02	704	1.0+	0.4-			
2000 01 03	704	0.2-	0.2+	2000 02 02	704	0.0	0.5-			

2000 AS₂₃₀ = 1998 SK₁₁₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	74.39467		(2000.0)	<i>P</i>	<i>Q</i>					
<i>n</i>	0.21237840	ω	272.14947	+0.62575726	-0.77826409					
<i>a</i>	2.7822479	Ω	138.95958	+0.74356789	+0.57492667					
<i>e</i>	0.0931965	<i>i</i>	4.56663	+0.23565791	+0.25251601					
<i>P</i>	4.64	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	4			

Residuals in seconds of arc

1998 09 17	699	0.9-	0.5+	1998 09 27	704	1.4-	0.6+	2000 02 02	704	0.6- 0.0
1998 09 17	699	0.7+	0.8+	1998 09 27	704	1.1-	1.3-	2000 02 02	704	0.4- 0.5+
1998 09 17	699	0.8-	0.9+	2000 01 03	691	0.7-	0.3+	2000 02 02	704	0.7+ 0.9-
1998 09 26	704	0.9-	0.9-	2000 01 03	691	1.9-	0.0	2000 02 02	704	0.1+ 0.3-
1998 09 26	704	1.5+	0.5+	2000 01 03	691	1.5-	0.0	2000 02 02	704	0.1+ 0.1+
1998 09 26	704	1.5+	1.2-	2000 01 05	704	0.4+	0.1+	2000 02 03	704	0.3- 0.0
1998 09 27	704	1.0+	0.4+	2000 01 05	704	1.9+	0.7-	2000 02 03	704	0.2+ 0.1-
1998 09 27	704	0.4+	0.8-	2000 01 05	704	0.3+	0.1-	2000 02 03	704	0.4+ 0.0
1998 09 27	704	0.0	0.6+	2000 01 05	704	1.5+	0.4+	2000 02 03	704	0.2- 0.8+

2000 AT₂₃₀ = 1990 RU₇ = 1994 TV₇ = 1998 UO₄₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	282.88075		(2000.0)	P	Q						
n	0.26188881	ω	58.83086	-0.62302309	+0.78219953						
a	2.4194951	Ω	172.63040	-0.72406996	-0.57551905						
e	0.1455539	i	1.10648	-0.29591371	-0.23862464						
P	3.76	H	14.6	G	0.15	U	5				
Residuals in seconds of arc											
1990 09 14	809	0.1-	0.2+	1998 10 28	704	0.1-	0.2-	2000 02 02	704	0.4-	0.1+
1990 09 14	809	0.4+	0.3+	1998 10 28	704	0.1-	0.5+	2000 02 02	704	0.1-	0.2+
1990 09 14	809	1.0+	0.3+	1998 10 29	704	1.1+	0.7+	2000 02 02	704	0.0	0.2-
1990 09 15	809	0.8-	0.5+	1998 10 29	704	0.7+	0.1+	2000 02 03	704	0.0	0.5+
1990 09 15	809	0.3-	0.7+	1998 10 29	704	0.3+	0.9+	2000 02 03	704	0.3-	0.1+
1990 09 15	809	0.1+	0.6+	1998 10 29	704	1.2-	0.1-	2000 02 03	704	0.5-	0.1-
1994 10 06	691	0.5-	0.3-	2000 01 03	691	0.3-	0.1-	2000 02 03	704	0.2-	0.0
1994 10 06	691	0.0	0.7-	2000 01 03	691	0.3-	0.4-	2000 02 03	704	0.2+	0.0
1994 10 06	691	0.8-	0.3+	2000 01 03	691	0.2-	0.0	2000 02 11	704	0.7+	0.2+
1994 10 11	691	0.6-	0.0	2000 01 06	704	0.0	0.4+	2000 02 11	704	0.2+	1.5+
1994 10 11	691	0.4-	0.2-	2000 01 06	704	0.7-	0.6+	2000 02 11	704	2.0+	0.4+
1994 10 11	691	0.4-	0.0	2000 01 06	704	0.3-	0.3-	2000 02 11	704	0.1-	1.0-
1998 10 28	704	0.1-	1.6-	2000 02 02	704	0.1-	0.4-				
1998 10 28	704	1.7+	0.9-	2000 02 02	704	0.3+	0.0				

2000 AC₂₃₁ = 1992 EZ₈ = 1996 DY₅

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

M	14.68631		(2000.0)		P		Q				
n	0.24070499	ω	331.98038		-0.43276726		-0.89094270				
a	2.5594461	Ω	143.18579		+0.86408230		-0.45346263				
e	0.1705764	i	13.27529		+0.25704917		+0.02434633				
P	4.09	H	14.4		G	0.15	U	3			
Residuals in seconds of arc											
1992 03 02	809	0.2-		1999 12 05	704	0.2+	0.1+	2000 01 07	704	0.4-	0.4+
1992 03 05	809	1.1-	0.3+	1999 12 05	704	0.4+	0.2+	2000 01 07	704	0.3-	0.7+
1992 03 07	809	1.7-	1.1+	1999 12 05	704	0.9+	1.0-	2000 02 02	704	0.2-	0.3+
1996 02 16	010	0.7+	0.4-	1999 12 05	704	0.0	0.0	2000 02 02	704	0.4-	0.1-
1996 02 16	010	1.2+	0.0	1999 12 05	704	0.9+	0.0	2000 02 02	704	0.6-	0.1-
1996 02 16	010	1.4+	0.1-	1999 12 16	699	0.3-	0.4-	2000 02 02	704	0.6-	0.3-
1996 02 17	010	0.7+	0.4+	1999 12 16	699	0.6+	0.9+	2000 02 02	704	0.5-	0.8-
1996 02 17	010	0.9+	0.3+	1999 12 16	699	0.9-	1.4+	2000 02 04	704	0.4-	0.1-
1996 02 17	010	0.9+	0.6+	2000 01 04	699	0.3+	0.0	2000 02 04	704	0.5-	0.1-
1998 08 17	704	0.6+	0.6+	2000 01 04	699	0.5+	0.4-	2000 02 04	704	0.1-	0.5-
1998 08 17	704	1.0-	0.5-	2000 01 04	699	0.5+	0.0	2000 02 04	704	0.1+	0.2-
1998 08 17	704	0.3+	1.0+	2000 01 07	704	0.8-	0.6-	2000 02 04	704	0.1+	0.2-
1998 08 17	704	(2.5+	0.6-)	2000 01 07	704	0.5-	0.4-				
1998 08 17	704	(2.4-	0.9-)	2000 01 07	704	0.2-	0.1+				

2000 FEB. 22

M.P.C. 38711

2000 AP₂₃₂ = 1998 RZ₂₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	327.22800	ω	218.66201	−0.98716007	−0.14150578		
<i>a</i>	2.2851050	Ω	313.03277	+0.15973398	−0.87385388		
<i>e</i>	0.0514198	<i>i</i>	5.81840	+0.00022508	−0.46514032		
<i>P</i>	3.45	<i>H</i>	15.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 17	704	0.2+	0.0	2000 01 04	704	0.3−	0.1+	2000 01 30	691	0.4−	0.3−
1998 08 17	704	1.5+	0.1+	2000 01 04	704	0.2−	0.3+	2000 01 30	691	0.3−	0.3−
1998 08 17	704	(2.4+	1.2−)	2000 01 04	704	0.2−	0.2−	2000 01 30	691	0.3−	0.2−
1998 08 17	704	1.1−	1.3+	2000 01 05	699	0.6−	0.6+	2000 02 03	704	0.3−	1.0+
1998 09 14	704	0.4+	0.4+	2000 01 05	699	1.1+	0.4−	2000 02 03	704	0.6−	0.5+
1998 09 14	704	0.9+	0.3+	2000 01 05	699	0.2−	1.1+	2000 02 03	704	0.5+	0.3+
1998 09 14	704	(2.1−	1.7−)	2000 01 06	704	(2.3+	1.6−)	2000 02 03	704	0.2−	0.4+
1998 09 14	704	0.0	0.1−	2000 01 06	704	0.1−	0.2+	2000 02 03	704	0.4+	1.6+
1998 09 15	699	0.9+	0.9−	2000 01 06	704	0.0	1.1−	2000 02 08	691	0.5+	0.4−
1998 09 15	699	0.4−	0.4−	2000 01 06	704	0.0	1.0−	2000 02 08	691	0.3+	0.4−
1998 09 15	699	0.6+	0.7−	2000 01 28	691	0.6+	0.1−	2000 02 08	691	0.3+	0.5−
1998 09 18	704	0.7+	0.5−	2000 01 28	691	0.3−	0.9−	2000 02 11	704	0.6+	0.2−
1998 09 18	704	1.5−	1.5−	2000 01 28	691	0.7+	0.2−	2000 02 11	704	0.3+	0.1+
1998 09 18	704	0.9−	1.7+	2000 01 29	691	0.7−	0.2−	2000 02 11	704	0.4+	0.1+
1998 09 18	704	1.4−	0.7+	2000 01 29	691	0.6−	0.2−	2000 02 11	704	0.3+	0.1−
2000 01 04	704	0.2+	0.2+	2000 01 29	691	0.6−	0.1−	2000 02 11	704	0.1−	0.7+

2000 AC₂₃₃ = 1982 DL₄

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<i>M</i>		(2000.0)		P		Q	
<i>n</i>	340.09900	ω	170.25927	−0.97941920	−0.20181352		
<i>a</i>	2.3625330	Ω	358.08961	+0.17846642	−0.85884493		
<i>e</i>	0.1292911	<i>i</i>	5.25836	+0.09427497	−0.47080430		
<i>P</i>	3.63	<i>H</i>	15.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1982 02 28	810	0.2+	0.6−	2000 02 02	704	0.3+	0.2+	2000 02 06	704	0.7+	0.6−
1982 03 01	810	0.6−	0.6+	2000 02 02	704	0.3−	0.1+	2000 02 06	704	0.1−	0.5−
1982 03 01	810	0.2+	0.4−	2000 02 02	704	0.0	0.6+	2000 02 06	704	0.3+	0.3−
2000 01 04	704	0.2+	0.3−	2000 02 02	704	0.3−	0.5+	2000 02 06	704	0.1+	0.4−
2000 01 04	704	0.1+	1.2−	2000 02 03	704	0.9−	0.1−	2000 02 11	704	0.9+	0.9+
2000 01 04	704	0.5−	0.3−	2000 02 03	704	0.5−	0.4+	2000 02 11	704	0.1−	0.1−
2000 01 06	699	0.5−	0.5−	2000 02 03	704	0.3−	0.1+	2000 02 11	704	0.1+	0.0
2000 01 06	699	0.4+	0.7+	2000 02 03	704	0.2+	0.1−	2000 02 11	704	0.3+	0.7+
2000 01 06	699	0.0	0.8+	2000 02 03	704	0.2−	0.4+	2000 02 11	704	0.3+	0.1−
2000 02 02	704	0.1−	0.5−	2000 02 06	704	0.1+	0.0				

2000 AN₂₃₃ = 1987 QX₂ = 1990 FG₃ = 1998 XV₇₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	118.93082	ω	273.28084	+0.78597696	−0.61683541		
<i>a</i>	2.9303836	Ω	124.80902	+0.58556913	+0.72097668		
<i>e</i>	0.1215638	<i>i</i>	2.92407	+0.19836586	+0.31576368		
<i>P</i>	5.02	<i>H</i>	13.1	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1987 08 22	809	0.5+	1.4−	1998 12 15	704	0.0	0.2−	1999 12 09	703	0.7+	0.0
1987 08 22	809	0.4+	1.1−	1998 12 15	704	0.4−	0.3+	2000 01 04	704	0.9−	0.1+
1987 08 22	809	0.3+	1.1−	1998 12 15	704	0.1−	0.9+	2000 01 04	704	0.5−	0.0
1987 08 24	809	0.9+	0.4+	1998 12 15	704	1.0−	0.3+	2000 01 04	704	0.5+	0.0
1987 08 24	809	1.4+	1.1−	1998 12 16	704	0.6+	0.5−	2000 01 06	699	0.4−	0.2+
1987 08 26	809	(3.1−	1.4−)	1998 12 16	704	0.6−	0.9−	2000 01 06	699	0.6+	1.1+
1987 08 26	809	(4.6−	1.2−)	1998 12 16	704	(0.6−	2.2+)	2000 01 06	699	0.3−	1.3+
1987 08 26	809	(4.1−	0.5+)	1998 12 16	704	(0.3+	2.3+)	2000 02 06	704	0.2+	0.3−
1987 08 28	809	1.5−	1.7+	1998 12 22	704	0.3+	0.2+	2000 02 06	704	0.0	0.5−
1987 08 28	809	1.5−	1.6+	1998 12 22	704	0.9+	1.5−	2000 02 06	704	0.2−	0.3+

1987 08 28	809	0.5−	1.7+	1998 12 22	704	0.1+	0.3−	2000 02 06	704	0.0	0.5+
1987 08 29	809	(3.9−	3.1+)	1998 12 22	704	0.8+	0.2+	2000 02 06	704	0.1+	0.2+
1987 08 29	809	(3.9−	3.6+)	1998 12 22	704	0.5+	0.4−	2000 02 11	704	1.0+	0.3−
1987 08 29	809	(2.9−	3.4+)	1999 01 11	704	(2.8+	0.5−)	2000 02 11	704	0.6−	0.1−
1987 09 01	809	0.0	0.5−	1999 01 11	704	(2.5+	1.3+)	2000 02 11	704	0.1+	0.4+
1987 09 01	809	0.3−	0.7+	1999 01 11	704	0.3−	0.9+	2000 02 11	704	0.4+	1.2+
1990 03 17	033	0.4−	0.9−	1999 01 11	704	0.8−	0.5+	2000 02 11	704	0.4+	0.1+
1998 11 03	327	0.1−	0.4−	1999 01 11	704	(3.8−	0.5−)	2000 02 16	703	0.2−	0.3−
1998 11 03	327	0.3+	0.0	1999 12 09	703	0.6+	0.2+	2000 02 16	703	0.3−	0.5−
1998 11 03	327	0.2+	0.2−	1999 12 09	703	0.2+	0.1−	2000 02 16	703	0.2+	0.7−
1998 12 15	704	0.4−	0.9+	1999 12 09	703	0.7−	0.3+	2000 02 16	703	0.3−	0.9−

2000 AP₂₃₃ = 1997 ES₅₈

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<i>M</i>		(2000.0)		P		Q	
<i>n</i>	357.36876	ω	25.66866	−0.92274861	−0.38370183		
<i>a</i>	2.1671227	Ω	131.71913	+0.34472673	−0.86367830		
<i>e</i>	0.0702627	<i>i</i>	2.77715	+0.17233247	−0.32685273		
<i>P</i>	3.19	<i>H</i>	15.5	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1997 03 10	809	0.2+	0.1+	2000 01 04	691	0.3−	1.0−	2000 02 01	703	0.4+	0.7+
1997 03 10	809	0.3−	0.2−	2000 01 04	691	0.2−	0.5−	2000 02 04	704	0.0	0.1+
1997 03 10	809	0.1+	0.5+	2000 01 07	704	0.8−	0.7−	2000 02 04	704	0.9+	0.6−
1997 03 11	809	1.0−	0.3−	2000 01 07	704	0.1−	0.2−	2000 02 04	704	0.1−	0.4+
1997 03 11	809	0.3−	0.8−	2000 01 07	704	0.5−	0.4−	2000 02 04	704	0.2−	0.9+
1997 03 11	809	0.6+	0.9−	2000 01 07	704	1.0+	0.5−	2000 02 11	704	0.3+	0.2−
1998 09 18	704	0.4+	0.7−	2000 01 16	691	0.1+	0.2−	2000 02 11	704	0.3+	0.6+
1998 09 18	704	0.8−	1.2+	2000 01 16	691	0.1+	0.2−	2000 02 11	704	(0.4−	3.4+)
1998 09 18	704	0.8+	1.4−	2000 01 16	691	0.1+	0.2−	2000 02 13	120	0.1−	0.5+
1998 09 18	704	(3.0+	1.6−)	2000 02 01	703	0.2−	0.5+	2000 02 13	120	0.3−	0.3+
1998 09 18	704	(4.9−	2.3−)	2000 02 01	703	0.3+	0.2+				
2000 01 04	691	0.5−	0.4−	2000 02 01	703	0.4−	0.5+				

2000 AZ₂₃₄ = 9554 P-L = 1982 DB₇ = 1995 FG₁₀

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	147.16778	ω	202.40470	+0.87365618	+0.48134561		
<i>a</i>	3.3786898	Ω	128.62679	−0.43149912	+0.83389510		
<i>e</i>	0.0326331	<i>i</i>	5.20934	−0.22479633	+0.27004697		
<i>P</i>	6.21	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1960 10 17	675	0.1+	0.2+	1998 11 11	704	0.2+	1.9+	2000 01 05	704	0.3−	0.3+
1960 10 22	675	1.0−	1.3−	1998 11 11	704	0.7+	1.6+	2000 01 05	704	0.4−	0.3−
1960 10 24	675	0.6+	0.3−	1998 11 14	699	1.0+	0.1+	2000 01 05	704	0.3−	0.3−
1960 10 26	675	0.3+	0.1+	1998 11 14	699	0.2+	0.6+	2000 01 05	704	0.1−	0.3+
1982 02 20	033	0.1−	0.9+	1998 11 14	699	0.5+	0.4−	2000 01 07	691	0.1−	0.4−
1982 02 20	033	1.2+	0.3+	1998 11 15	120	0.5−	0.2−	2000 01 07	691	0.0	0.4−
1982 02 21	033	(4.6−	2.7+)	1998 11 15	120	1.4−	1.2−	2000 01 07	691	0.0	0.6−
1982 02 21	033	0.4+	0.8+	1999 12 03	049	0.8+	0.4−	2000 02 02	704	0.4+	0.4−
1995 03 26	691	0.3−	0.5−	1999 12 03	049	0.8+	0.3−	2000 02 02	704	0.8−	0.4+
1995 03 26	691	0.1−	0.5−	1999 12 03	049	0.3+	0.4+	2000 02 02	704	0.0	0.8+
1995 03 26	691	0.2−	0.9−	1999 12 07	704	0.8+	0.5+	2000 02 02	704	0.2−	0.1+
1995 04 07	691	0.3−	0.2−	1999 12 07	704	0.2−	0.3+	2000 02 03	704	0.6−	0.7+
1995 04 07	691	0.1−	0.3−	1999 12 07	704	0.6−	0.2−	2000 02 03	704	0.5+	0.0
1995 04 07	691	0.1−	0.2−	1999 12 07	704	0.0	0.4−	2000 02 03	704	0.8−	1.5−
1998 11 11	704	0.0	2.0−	2000 01 05	704	0.2−	0.1−				

2000 AK₂₃₆ = 2000 AF₁₆₈ = 2000 AL₂₄₄ = 1990 TR₁₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	57.43156		(2000.0)	P		Q					
<i>n</i>	0.23133373	ω	101.75695	+0.72993968		-0.68287649					
<i>a</i>	2.6281092	Ω	301.32000	+0.61291554		+0.67301557					
<i>e</i>	0.3053439	<i>i</i>	1.97611	+0.30252703		+0.28412980					
<i>P</i>	4.26 <th><i>H</i></th> <td>15.4<th><i>G</i></th><td>0.15<th><i>U</i></th><td colspan="2">4</td></td></td>	<i>H</i>	15.4 <th><i>G</i></th> <td>0.15<th><i>U</i></th><td colspan="2">4</td></td>	<i>G</i>	0.15 <th><i>U</i></th> <td colspan="2">4</td>	<i>U</i>	4				
Residuals in seconds of arc											
1990 10 11	033	0.1+	0.3+	2000 01 06	704	0.9+	0.5+	2000 01 25	120	0.2-	0.6-
1990 10 12	033	0.5-	0.7-	2000 01 06	704	1.0+	0.1-	2000 01 25	120	0.6-	0.8-
1990 10 12	033	0.2-	0.6-	2000 01 06	704	0.8-	0.4-	2000 01 27	691	0.1+	0.0
1990 10 13	033	(2.0+	0.5+)	2000 01 06	704	0.1+	1.0-	2000 01 27	691	0.1+	0.0
1990 10 14	033	0.6+	1.0+	2000 01 07	104	0.1-	0.4+	2000 01 27	691	0.1-	0.2+
1999 12 31	699	0.6+	0.1+	2000 01 07	104	0.1-	0.7+	2000 01 30	120	1.3-	0.9-
1999 12 31	699	0.5+	0.3+	2000 01 10	120	(2.2-	1.1-)	2000 01 30	120	1.3+	0.6+
1999 12 31	699	0.6-	0.3-	2000 01 10	120	0.7-	1.0+	2000 02 10	691	0.2+	0.1-
2000 01 05	691	0.5-	0.5-	2000 01 24	120	0.7+	1.3+	2000 02 10	691	0.2+	0.1-
2000 01 05	691	0.4-	0.4-	2000 01 24	120	0.9+	0.1-	2000 02 10	691	0.1+	0.2-
2000 01 05	691	0.4-	0.4-	2000 01 24	120	1.0-	0.5+				

2000 AQ₂₃₆ = 1991 PA₁₀ = 1998 XW₆₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	66.69431		(2000.0)		P		Q				
<i>n</i>	0.17575877	ω	142.62008		+0.05173044		-0.97475021				
<i>a</i>	3.1563952	Ω	303.41244		+0.84187219		+0.15956844				
<i>e</i>	0.0551501	<i>i</i>	15.08385		+0.53719194		-0.15620483				
<i>P</i>	5.61	<i>H</i>	12.9	<i>G</i>	0.15	<i>U</i>	3				
Residuals in seconds of arc											
1991 08 05	675	1.5+	1.4-	1998 12 17	704	0.1-	0.3+	2000 02 08	704	0.1-	0.1+
1991 08 05	675	0.1-	0.9-	2000 01 05	704	0.2-	1.4-	2000 02 10	704	0.4-	0.4-
1991 08 08	675	0.3+	1.2-	2000 01 05	704	0.7+	0.6-	2000 02 10	704	0.1+	0.5+
1991 08 08	675	0.3+	0.3+	2000 01 05	704	0.7+	0.2-	2000 02 10	704	0.1+	0.5-
1998 12 14	704	0.9+	0.1-	2000 01 11	699	1.1-	1.0-	2000 02 10	704	1.2-	0.3+
1998 12 14	704	1.3-	1.3-	2000 01 11	699	0.2-	0.8+	2000 02 11	704	0.6+	0.1+
1998 12 14	704	0.9-	0.9+	2000 01 11	699	0.9-	0.4+	2000 02 11	704	0.3-	0.6-
1998 12 17	704	0.1+	0.5-	2000 02 08	704	0.1+	0.5-	2000 02 11	704	0.0	0.0
1998 12 17	704	0.3+	0.3-	2000 02 08	704	0.1-	0.2+	2000 02 11	704	0.1-	0.4-
1998 12 17	704	0.6+	0.1+	2000 02 08	704	0.3-	0.2-	2000 02 11	704	0.1+	0.3+
1998 12 17	704	0.2+	0.0	2000 02 08	704	0.3+	0.1+				

2000 AT₂₃₆ = 1998 SR₈₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	359.24653		(2000.0)		P		Q				
<i>n</i>	0.28628304	ω	264.98095		-0.93135418		-0.35456101				
<i>a</i>	2.2800216	Ω	254.23334		+0.35878531		-0.85485175				
<i>e</i>	0.0949880	<i>i</i>	4.93928		+0.06206847		-0.37883370				
<i>P</i>	3.44	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	4				
Residuals in seconds of arc											
1998 09 18	699	1.1-	0.1+	1998 09 29	704	0.3-	0.4+	2000 02 02	704	0.1+	0.8+
1998 09 18	699	0.4-	0.2+	1998 09 29	704	0.5-	0.8+	2000 02 02	704	0.4+	0.9+
1998 09 18	699	1.6+	0.1+	1998 09 29	704	1.4-	1.5-	2000 02 07	704	0.0	0.4-
1998 09 26	704	(0.4+	2.0+)	2000 01 05	704	0.5-	0.2-	2000 02 07	704	0.2-	0.4-
1998 09 26	704	0.1-	1.3+	2000 01 05	704	0.5-	0.4-	2000 02 07	704	0.8-	0.3-
1998 09 26	704	(3.6+	1.2+)	2000 01 05	704	0.6-	0.4-	2000 02 07	704	0.4-	0.2-
1998 09 27	704	0.1+	1.0+	2000 01 05	704	0.4-	1.0-	2000 02 07	704	0.4-	1.7-
1998 09 27	704	0.1+	0.4-	2000 01 06	699	0.6+	1.1+	2000 02 08	704	0.1+	0.1-
1998 09 27	704	1.2+	1.2-	2000 01 06	699	0.1+	0.1+	2000 02 08	704	0.7+	0.3+
1998 09 27	704	0.7+	0.1+	2000 01 06	699	0.0	0.6-	2000 02 08	704	1.0+	0.3+
1998 09 27	704	1.7-	1.5-	2000 02 02	704	0.1-	0.1-	2000 02 08	704	0.0	1.2+
1998 09 29	704	1.6+	0.9+	2000 02 02	704	0.4-	0.4-	2000 02 08	704	0.7+	0.5+
1998 09 29	704	0.0	0.3+	2000 02 02	704	0.2+	1.0+				

2000 AU₂₃₆ = 1998 TQ₃₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	7.79307		(2000.0)		P		Q				
<i>n</i>	0.27444166	ω	236.25906		-0.85833713		-0.50117401				
<i>a</i>	2.3451432	Ω	273.43974		+0.49961375		-0.76762506				
<i>e</i>	0.0536037	<i>i</i>	6.32203		+0.11680530		-0.39947012				
<i>P</i>	3.59	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	4				
Residuals in seconds of arc											
1998 10 12	699	0.3+	0.8-	2000 01 05	704	0.1-	1.7-	2000 02 07	704	0.4-	0.7-
1998 10 12	699	0.5-	0.5+	2000 01 05	704	(0.2+	2.5-)	2000 02 07	704	0.3-	0.5-
1998 10 12	699	0.1+	0.3-	2000 01 06	699	1.2-	1.1+	2000 02 07	704	0.2+	0.4-
1998 10 18	699	0.6+	0.6-	2000 01 06	699	0.6+	0.7+	2000 02 07	704	0.5+	0.1-
1998 10 18	699	0.3-	0.8+	2000 01 06	699	0.7+	0.5+	2000 02 08	704	0.8-	0.1+
1998 10 18	699	0.2-	0.3+	2000 02 02	704	0.4+	0.2+	2000 02 08	704	0.8-	0.4-
1999 12 05	703	0.4+	0.1-	2000 02 02	704	0.1+	0.2+	2000 02 08	704	0.5+	0.4+
1999 12 05	703	0.1-	0.9+	2000 02 02	704	0.0	0.0	2000 02 08	704	0.7-	0.1+
1999 12 05	703	0.1+	0.1-	2000 02 02	704	0.3+	0.2-	2000 02 13	704	0.0	0.7+
1999 12 05	703	0.2-	0.2-	2000 02 02	704	0.1-	0.9-	2000 02 13	704	1.0+	0.1+
2000 01 05	704	0.3+	0.1-	2000 02 07	704	0.2-	0.5-	2000 02 13	704	0.4-	1.2+

2000 AV₂₃₆ = 1979 OE₁₆ = 1998 VR₂₂

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	175.89284		(2000.0)		P		Q				
<i>n</i>	0.26588606	ω	93.55211		+0.93694366		+0.34032166				
<i>a</i>	2.3951847	Ω	246.56444		-0.34506720		+0.86483765				
<i>e</i>	0.1568296	<i>i</i>	4.96979		-0.05536429		+0.36910296				
<i>P</i>	3.71	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	3				
Residuals in seconds of arc											
1979 07 31	095	0.5-	1.5+	1998 11 25	691	0.2+	0.1-	2000 01 06	699	1.4+	0.3+
1998 10 19	699	0.2-	0.2+	1998 11 25	691	0.2+	0.1-	2000 01 06	699	0.4-	0.8-
1998 10 19	699	0.0	0.3+	1998 11 25	691	0.4+	0.0	2000 01 06	699	0.6+	0.6-
1998 10 19	699	0.1+	0.4+	1999 01 06	699	0.3-	0.3-	2000 02 02	704	0.2-	0.2+
1998 11 10	704	0.4+	0.0	1999 01 06	699	0.1+	0.0	2000 02 02	704	0.7-	0.7+
1998 11 10	704	0.1+	0.5-	1999 01 06	699	0.2+	0.3-	2000 02 02	704	0.6-	1.3+
1998 11 10	704	0.6+	0.3-	1999 01 08	704	0.2-	0.0	2000 02 02	704	0.3-	1.3+
1998 11 10	704	0.5+	0.1+	1999 01 08	704	0.3+	0.6-	2000 02 02	704	0.4-	0.5+
1998 11 10	704	0.6+	0.2-	1999 01 08	704	1.3-	1.1+	2000 02 06	704	0.4+	0.3-
1998 11 11	704	0.5-	0.0	1999 01 08	704	1.1-	0.6+	2000 02 06	704	0.2+	0.1-
1998 11 11	704	0.2-	0.6+	1999 01 08	704	0.1-	0.7-	2000 02 06	704	0.4+	0.4+
1998 11 11	704	0.3-	0.3+	2000 01 05	704	0.2+	0.2-	2000 02 06	704	0.2+	0.2+
1998 11 11	704	0.5-	0.1-	2000 01 05	704	0.4+	1.2-				
1998 11 11	704	0.2-	0.3+	2000 01 05	704	(0.3-	2.7-)				

2000 AJ₂₃₇ = 1998 XH₃₃

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Williams

M	33.27721		(2000.0)		P		Q	
n	0.17628328	ω	186.89572		-0.61902131		-0.77353483	
a	3.1501311	Ω	301.44440		+0.72795818		-0.50019344	
e	0.0674924	i	9.16275		+0.29477026		-0.38916628	
P	5.59	H	13.0	G	0.15	U	3	
Residuals in seconds of arc								
1998 11 16	704	0.8+	0.3-	1999 01 11	704	0.6+	0.6+	2000 01 11 699 0.0 0.9+
1998 11 16	704	0.9+	0.6+	1999 01 11	704	0.1+	1.3+	2000 02 02 704 0.7+ 0.1+
1998 11 16	704	0.7-	0.8+	1999 01 11	704	(0.6-	4.2+)	2000 02 02 704 1.0+ 0.8-
1998 11 16	704	0.5+	0.4-	1999 01 11	704	1.3-	0.9+	2000 02 02 704 (3.5+ 2.1-)
1998 11 16	704	0.6-	0.0	1999 01 11	704	(2.8-	1.3+)	2000 02 02 704 (2.2+ 1.0-)
1998 12 14	704	0.0	0.4-	1999 11 05	703	1.2+	0.4+	2000 02 07 704 0.8- 0.6+
1998 12 14	704	0.3-	0.4-	1999 11 05	703	(2.2+ 2.6+)	2000 02 07 704 0.6- 0.4-	
1998 12 14	704	0.2-	0.0	1999 11 05	703	0.1+	0.3+	2000 02 07 704 1.0- 0.7-
1998 12 14	704	1.2+	0.5-	1999 11 05	703	0.5+	0.3+	2000 02 07 704 0.7- 0.1-
1998 12 14	704	0.2-	0.5-	2000 01 05	704	1.2-	0.6-	2000 02 07 704 0.4- 0.6-

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1998 12 17	704	0.2−	0.2+	2000 01 05	704	0.8−	0.4−	2000 02 08	704	0.9+	0.0
1998 12 17	704	0.1−	0.5+	2000 01 05	704	1.6−	0.3−	2000 02 08	704	0.9+	0.3+
1998 12 17	704	0.9−	1.2−	2000 01 05	704	0.0	0.7−	2000 02 08	704	0.6+	0.5+
1998 12 17	704	0.2−	0.6−	2000 01 11	699	0.2+	0.2+	2000 02 08	704	0.8+	0.3+
1998 12 17	704	0.5+	0.8−	2000 01 11	699	0.3−	0.8+	2000 02 08	704	0.5+	0.1+

2000 AO₂₃₇ = 1993 QB₂

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Williams

<i>M</i>	279.87481		(2000.0)		P		Q
<i>n</i>	0.23557841	ω	275.75056	−0.36441187		+0.92406493	
<i>a</i>	2.5964446	Ω	331.99435	−0.72720084		−0.35975808	
<i>e</i>	0.1169990	<i>i</i>	14.22191	−0.58170690		−0.12914381	
<i>P</i>	4.18	<i>H</i>	12.9	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1993 08 16	010	0.1+	0.8+	1999 12 09	699	1.4+	1.6+	2000 02 04	704	0.2+	0.3+
1993 08 16	010	0.1−	0.2+	1999 12 15	704	0.0	0.0	2000 02 04	704	0.5−	0.2+
1993 08 16	010	0.7−	0.1−	1999 12 15	704	0.4+	0.3−	2000 02 04	704	0.2−	0.3+
1993 08 17	010	(3.7−	1.2+)	1999 12 15	704	1.0+	0.1−	2000 02 04	704	0.1−	0.7+
1998 11 14	704	0.6−	1.2−	1999 12 15	704	0.7+	0.9−	2000 02 04	704	0.3−	0.4+
1998 11 14	704	0.2−	1.4+	2000 01 05	699	0.3−	0.5+	2000 02 04	704	0.4+	0.1+
1998 11 14	704	(0.0	2.9+)	2000 01 05	699	0.2+	0.1−	2000 02 04	704	0.3−	0.4+
1998 11 14	704	(0.4+	2.8+)	2000 01 05	699	0.2−	0.2+	2000 02 04	704	0.1+	0.6+
1998 11 16	704	1.2+	1.0+	2000 01 07	704	0.1+	0.3+	2000 02 08	704	0.2−	0.0
1998 11 16	704	0.5+	0.1−	2000 01 07	704	1.6−	0.0	2000 02 08	704	0.3−	0.2+
1998 11 16	704	0.0	0.4−	2000 01 07	704	0.3+	0.6−	2000 02 08	704	0.1+	0.4+
1998 11 16	704	0.8−	1.2−	2000 01 07	704	0.0	1.5−	2000 02 08	704	0.0	0.1+
1999 11 16	704	0.3+	0.9+	2000 01 07	704	(0.0	2.0−)	2000 02 08	704	0.2+	0.2+
1999 11 16	704	0.3+	0.3−	2000 02 01	703	0.6−	0.4+	2000 02 11	704	0.0	0.5−
1999 11 16	704	0.1−	0.3+	2000 02 01	703	0.0	0.2+	2000 02 11	704	0.3+	0.6−
1999 11 16	704	0.3−	0.8−	2000 02 01	703	0.3−	0.3+	2000 02 11	704	1.0+	0.6−
1999 11 16	704	1.0−	0.1−	2000 02 01	703	0.4−	0.2+	2000 02 11	704	0.3+	1.0−
1999 12 09	699	0.4+	1.0+	2000 02 04	704	0.0	0.3+	2000 02 11	704	0.9+	1.2−
1999 12 09	699	0.5−	0.7−	2000 02 04	704	0.2−	0.1+				

2000 AR₂₃₇ = 1987 CN

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Williams

<i>M</i>	83.92599		(2000.0)		P		Q
<i>n</i>	0.23333043	ω	93.74604	+0.37350203		−0.92263349	
<i>a</i>	2.6130945	Ω	333.67070	+0.74157930		+0.35924744	
<i>e</i>	0.1573637	<i>i</i>	12.51942	+0.55727586		+0.14031653	
<i>P</i>	4.22	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1987 01 31	046	(3.1−	0.1−)	1998 11 21	699	0.2−	0.5+	2000 01 06	699	0.4+	0.4+
1987 02 01	046	1.5−	1.3−	1998 11 21	699	0.2−	0.5+	2000 02 02	704	0.6+	0.8+
1987 02 01	046	0.2−	1.3−	1999 01 08	704	0.0	0.2+	2000 02 02	704	0.7+	0.0
1987 02 03	046	0.3+	0.5+	1999 01 08	704	0.7+	0.4+	2000 02 02	704	0.9+	0.2+
1987 02 03	046	0.7+	0.7+	1999 01 08	704	0.3+	0.3+	2000 02 02	704	1.3+	0.4−
1998 08 29	704	0.7−	1.1−	1999 01 08	704	0.4+	1.3−	2000 02 02	704	0.1−	0.8−
1998 08 29	704	1.1+	1.4−	1999 01 08	704	0.9−	0.8−	2000 02 07	704	0.0	0.7−
1998 08 29	704	(0.4−	2.7−)	1999 12 09	703	0.1+	0.2+	2000 02 07	704	0.4−	0.4−
1998 08 29	704	(0.0	2.6−)	1999 12 09	703	0.2−	0.9+	2000 02 07	704	0.2−	0.7−
1998 08 29	704	0.0	0.2+	1999 12 09	703	0.3+	1.3+	2000 02 07	704	0.4−	0.8−
1998 09 20	699	0.2+	0.4+	1999 12 09	703	0.7+	0.3−	2000 02 07	704	0.1−	0.7−
1998 09 20	699	0.5+	0.3+	2000 01 05	704	0.4+	0.2−	2000 02 08	704	0.0	0.5+
1998 09 20	699	0.1+	0.3+	2000 01 05	704	1.5−	0.4+	2000 02 08	704	0.3−	0.7+
1998 10 29	699	0.2−	0.1−	2000 01 05	704	0.8−	0.4−	2000 02 08	704	0.0	0.9+
1998 10 29	699	0.3−	0.3+	2000 01 05	704	1.3−	0.0	2000 02 08	704	0.1−	0.4+
1998 10 29	699	0.4−	0.4+	2000 01 06	699	0.1+	0.1+	2000 02 08	704	0.1−	0.2+
1998 11 21	699	0.5−	0.6+	2000 01 06	699	0.9+	0.6+				

2000 AW₂₃₇ = 1993 QA₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	258.15847		(2000.0)		P		Q
<i>n</i>	0.23393770	ω	317.34081	−0.17726745		+0.98235277	
<i>a</i>	2.6085704	Ω	302.36531	−0.88284436		−0.18551505	
<i>e</i>	0.1594420	<i>i</i>	4.05031	−0.43492768		−0.02381604	
<i>P</i>	4.21	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1993 08 17	010	(5.3−	2.2−)	2000 01 07	704	0.1+	0.3+	2000 02 04	704	0.5−	0.3−
1993 08 19	010	1.0+	0.0	2000 01 07	704	0.4+	0.1+	2000 02 04	704	0.9−	0.4+
1993 08 19	010	0.8−	0.9−	2000 01 07	704	0.0	0.1+	2000 02 04	704	0.5+	0.1−
1993 08 19	010	0.1−	1.2−	2000 02 02	704	0.2−	0.1+	2000 02 04	704	1.3−	0.4−
1993 09 18	010	0.0	0.1−	2000 02 02	704	0.1+	0.2+	2000 02 06	704	0.3−	0.3−
1993 09 18	010	0.2−	1.1+	2000 02 02	704	0.1+	0.4+	2000 02 06	704	0.3−	0.6−
1993 09 18	010	0.5+	0.5+	2000 02 02	704	0.1+	0.2+	2000 02 06	704	0.6−	0.8−
2000 01 06	120	0.4−	0.0	2000 02 02	704	0.1−	0.6+	2000 02 06	704	0.3+	0.5−
2000 01 06	120	1.9+	0.0	2000 02 04	704	1.1+	0.1−				

2000 AV₂₃₉ = 1998 QC₅₃

Id. G. V. Williams

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Spahr

<i>M</i>	88.99619		(2000.0)		P		Q
<i>n</i>	0.21083149	ω	105.88941	+0.78293961		−0.61426799	
<i>a</i>	2.7958405	Ω	292.11357	+0.52238694		+0.73505689	
<i>e</i>	0.2543010	<i>i</i>	6.09638	+0.33781276		+0.28699514	
<i>P</i>	4.67	<i>H</i>	12.9	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1993 07 25	033	0.1−	1.2+	1998 12 09	704	0.2+	0.4−	1999 12 05	699	0.2−	0.3+
1993 07 26	033	0.6−	0.6+	1998 12 09	704	0.5+	0.5+	1999 12 05	699	0.8−	0.7−
1998 06 30	704	0.4+	0.0	1998 12 09	704	0.3+	0.2+	1999 12 05	699	0.5+	0.6+
1998 06 30	704	0.1−	0.2−	1998 12 09	704	1.3+	0.5−	2000 01 06	699	1.1+	1.1+
1998 06 30	704	0.6−	0.4−	1998 12 09	704	1.7+	0.7−	2000 01 06	699	0.4+	1.2+
1998 06 30	704	0.9−	1.5+	1998 12 24	699	0.7−	0.1−	2000 01 06	699	0.2+	1.6+
1998 06 30	704	1.7−	0.7−	1998 12 24	699	0.6−	0.1−	2000 01 08	704	1.6+	0.4+
1998 08 20	699	0.5+	0.0	1998 12 24	699	0.3−	0.2−	2000 01 08	704	0.2−	0.5+
1998 08 20	699	0.3+	0.4+	1999 01 08	704	1.0+	0.4−	2000 01 08	704	1.4+	1.5−
1998 08 20	699	0.2−	0.4+	1999 01 08	704	0.2+	0.2+	2000 01 08	704	0.8+	1.2+
1998 08 27	699	0.1−	0.6+	1999 01 08	704	1.0−	0.5+	2000 01 08	704	0.1+	0.4−
1998 08 27	699	0.2+	0.8+	1999 01 08	704	0.2−	0.5−	2000 02 02	704	0.1−	0.0
1998 08 27	699	0.0	0.5+	1999 01 08	704	(1.4+	2.1−)	2000 02 02	704	0.2−	0.1+
1998 10 15	699	0.2−	0.3+	1999 02 04	699	1.3−	0.3−	2000 02 02	704	0.0	0.1+
1998 10 15	699	0.0	0.4+	1999 02 04	699	0.3+	0.5+	2000 02 02	704	0.4+	0.1−
1998 10 15	699	0.1+	0.2+	1999 02 04	699	0.3−	0.3−	2000 02 02	704	0.1+	0.1+
1998 11 20	704	1.7−	0.4−	1999 12 05	704	0.1+	0.1+	2000 02 06	704	0.1−	0.0
1998 11 20	704	0.3+	0.0	1999 12 05	704	0.5−	0.8−	2000 02 06	704	0.0	0.6−
1998 11 20	704	1.9−	0.0	1999 12 05	704	0.5−	0.3+	2000 02 06	704	0.2−	0.3−
1998 11 20	704	(2.3−	0.6+)	1999 12 05	704	0.6−	0.3+	2000 02 06	704	1.0−	1.5+
1998 11 20	704	1.7+	0.3+	1999 12 05	704	0.8−	0.2−	2000 02 06	704	0.5+	0.7+

2000 AY₂₃₉ = 1998 SG₁₃₈ = 1998 UO₃₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	90.73222		(2000.0)		P		Q
<i>n</i>	0.19671190	ω	181.50549	+0.82806814		−0.56049066	
<i>a</i>	2.9280757	Ω	212.59410	+0.51460562		+0.76867205	
<i>e</i>	0.1021226	<i>i</i>	1.31739	+0.22245048		+0.30821016	
<i>P</i>	5.01	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 26	704	0.0	0.1+	1998

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1998 09 27	704	0.2+	0.2+	1998 11 10	704	1.9+	1.1-	2000 01 30	703	0.4+	0.2+
1998 09 27	704	0.1+	0.0	1998 11 10	704	1.7-	1.0-	2000 01 30	703	0.6-	0.7+
1998 09 27	704	0.3+	0.7-	1998 11 10	704	0.9-	0.4+	2000 01 30	703	1.2-	0.2+
1998 09 27	704	0.3+	0.5+	1998 11 10	704	0.1+	0.9-	2000 02 02	704	0.5+	0.0
1998 10 17	699	0.2+	0.7+	2000 01 06	691	0.3+	0.8-	2000 02 02	704	1.1+	0.5+
1998 10 17	699	0.1+	0.1+	2000 01 06	691	0.0	0.7-	2000 02 02	704	0.8+	0.7-
1998 10 17	699	0.5+	0.8+	2000 01 06	691	0.1-	0.6-	2000 02 02	704	1.1+	0.1-
1998 10 28	704	1.0+	1.7+	2000 01 07	704	0.7+	0.3-	2000 02 03	704	0.1+	0.8+
1998 10 28	704	0.1+	0.7-	2000 01 07	704	1.0-	0.3-	2000 02 03	704	1.1+	0.2+
1998 10 28	704	0.5+	1.1-	2000 01 07	704	0.9-	0.1-	2000 02 03	704	0.3+	0.1-

2000 AX₂₄₁ = 1998 SY₉₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	2.72915		(2000.0)	P	Q
n	0.23914182	ω	330.87267	-0.74897172	-0.66034268
a	2.5705873	Ω	167.33798	+0.64592527	-0.74602662
e	0.1419533	i	14.44270	+0.14772239	-0.08597578
P	4.12	H	14.9	G 0.15	U 4

Residuals in seconds of arc

1998 09 26	704	0.1-	0.8-	2000 01 07	699	0.4+	0.9+	2000 02 06	704	0.0	0.2+
1998 09 26	704	(2.5+	0.3+)	2000 01 07	699	1.4+	0.2-	2000 02 06	704	0.0	0.1-
1998 09 26	704	1.2+	1.4+	2000 01 07	699	1.2+	0.0	2000 02 06	704	0.2+	0.3+
1998 09 26	704	0.3-	1.7-	2000 01 11	704	0.1-	0.1+	2000 02 06	704	0.6+	0.2+
1998 09 26	704	(2.8-	0.2+)	2000 01 11	704	1.0-	0.3-	2000 02 11	704	0.6-	0.5-
1998 09 27	704	0.9+	0.8+	2000 01 11	704	1.0-	0.4+	2000 02 11	704	0.1+	0.1-
1998 09 27	704	0.5+	0.5+	2000 01 11	704	0.5-	1.0-	2000 02 11	704	0.4-	0.0
1998 09 27	704	0.5-	1.5-	2000 01 11	704	0.8-	0.2-	2000 02 11	704	0.6+	0.7+
1998 09 27	704	1.7-	1.3+	2000 02 06	704	0.1-	0.3-				

2000 AN₂₄₂ = 1993 RQ₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	138.65822		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$		
n	0.21685572	ω	17.58075	+0.98728396	-0.15543294		
a	2.7438190	Ω	351.15897	+0.10683409	+0.80402412		
e	0.0408480	i	12.52524	+0.11771518	+0.57392144		
P	4.54	H	13.4	G	0.15	U	3

Residuals in seconds of arc

1993 09 14	809	1.2-	0.8-	1998 12 24	699	1.2-	0.2+	2000 02 03	704	0.3-	0.5+
1993 09 14	809	(3.3-	0.7-)	2000 01 07	704	0.7+	0.9-	2000 02 03	704	0.2+	1.0+
1993 09 14	809	(3.2-	0.4-)	2000 01 07	704	1.6+	0.4-	2000 02 03	704	0.2+	0.6+
1993 09 19	809	0.3-	0.0	2000 01 07	704	0.1-	0.3-	2000 02 09	411	0.4-	0.5-
1993 09 19	809	0.8+	0.2+	2000 01 10	699	0.3+	0.4+	2000 02 09	411	0.0	1.6-
1993 09 19	809	0.9+	0.4+	2000 01 10	699	0.6-	1.0+	2000 02 10	704	0.3-	0.2-
1998 12 09	704	(2.4+	0.3-)	2000 01 10	699	0.0	0.5+	2000 02 10	704	0.2-	0.8+
1998 12 09	704	(1.6+	2.4+)	2000 01 28	411	(0.3-	2.2-)	2000 02 10	704	0.6-	0.5+
1998 12 09	704	1.0+	1.0+	2000 01 28	411	0.3-	1.5-	2000 02 11	704	0.0	0.5-
1998 12 09	704	0.1+	0.4-	2000 01 30	411	0.3-	0.0	2000 02 11	704	0.0	0.3-
1998 12 09	704	(5.1-	0.3+)	2000 01 30	411	0.4-	0.3-	2000 02 11	704	0.1-	0.5+
1998 12 24	699	1.1+	0.6-	2000 02 03	704	0.2+	0.1-	2000 02 11	704	0.1+	0.1+
1998 12 24	699	1.1-	0.4-	2000 02 03	704	0.5-	0.5+	2000 02 11	704	0.9+	0.1-

2000 AQ₂₄₂ = 1992 SG₂₃

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	92.10291		(2000.0)	$\mathbf{P}$	$\mathbf{Q}$
n	0.30648160	ω	293.83700	+0.75318367	-0.65183205
a	2.1787117	Ω	106.96823	+0.63217448	+0.68006705
e	0.1663663	i	5.30807	+0.18185100	+0.33559467
P	3.22	H	14.6	G 0.15	U 3

Residuals in seconds of arc

1992 09 29	675	1.1+	0.4-	2000 01 07	704	0.8+	0.1+	2000 02 03	704	0.4-	0.0
1992 09 29	675	0.4-	0.3+	2000 01 07	704	0.5-	0.9+	2000 02 03	704	0.1-	0.0

2000 FEB. 22

1992 10 04	675	0.0	0.3-	2000 01 07	704	1.3+	0.0	2000 02 03	704	0.1-	0.2-
1992 10 04	675	0.5-	0.1+	2000 01 07	704	1.1-	0.4+	2000 02 03	704	0.1+	0.1-
1998 06 26	704	0.8-	0.9-	2000 01 07	704	0.4+	0.9+	2000 02 06	703	0.8-	0.1-
1998 06 26	704	1.3+	0.3+	2000 01 10	699	0.6+	0.0	2000 02 06	703	0.5-	0.3+
1998 06 26	704	(1.6+	2.8-)	2000 01 10	699	0.3+	0.5-	2000 02 06	703	0.3-	0.0
1998 06 26	704	0.1-	1.9-	2000 01 10	699	0.6+	1.0-	2000 02 06	703	0.4-	0.1+
1998 07 26	704	0.8+	0.3-	2000 01 28	411	0.7-	0.3-	2000 02 11	704	0.1+	0.1+
1998 07 26	704	0.1-	0.3+	2000 01 28	411	0.1+	0.2+	2000 02 11	704	0.2-	0.3+
1998 07 26	704	0.2+	1.0+	2000 01 30	411	1.4+	0.2+	2000 02 11	704	0.2-	0.2+
1998 07 26	704	1.0-	1.7+	2000 01 30	411	0.0	1.5-	2000 02 11	704	0.0	0.0
1998 07 26	704	(1.3-	2.2+)	2000 02 03	704	0.5-	0.2+	2000 02 11	704	0.4+	0.2-

2000 AS₂₄₂ = 1979 OK₁₁ = 1983 CM₅ = 1998 XB₈₆

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	291.00479		(2000.0)	P	Q
n	0.17543314	ω	92.77733	-0.52915695	+0.83721734
a	3.1602999	Ω	144.15399	-0.84159419	-0.49709031
e	0.1202004	i	13.63593	-0.10822267	-0.22796567
P	5.62	H	12.9	G 0.15	U 1

Residuals in seconds of arc

1979 07 24	413	0.4-	1.0-	1998 12 22	704	1.2+	0.5+	2000 02 10	888	0.0	0.5-
1979 07 26	675	0.8+	0.6-	1998 12 22	704	1.1-	0.9-	2000 02 10	888	0.3-	0.1+
1979 07 26	675	2.0+	2.0+	2000 01 07	704	0.2-	0.8-	2000 02 10	888	0.0	0.2-
1979 07 27	675	1.0-	0.0	2000 01 07	704	0.3-	0.5-	2000 02 10	120	0.8-	0.3+
1979 07 28	413	1.5-	1.1-	2000 01 07	704	0.1-	0.4-	2000 02 10	120	1.0-	0.1-
1983 02 14	381	0.0	0.2+	2000 01 07	704	0.2-	0.8+	2000 02 11	704	0.6+	0.3+
1998 12 15	704	1.6-	0.3+	2000 01 07	704	0.1-	0.3+	2000 02 11	704	0.0	0.7+
1998 12 15	704	0.1-	0.2-	2000 01 10	691	0.1+	0.2-	2000 02 11	704	0.5+	0.2+
1998 12 15	704	(2.6-	0.7-)	2000 01 10	691	0.1+	0.3-	2000 02 11	704	0.4+	0.4+
1998 12 15	704	1.0+	0.5-	2000 01 10	691	0.1+	0.0	2000 02 11	704	0.3+	0.2+
1998 12 15	704	0.7-	1.7+	2000 02 09	888	0.2+	0.3+	2000 02 12	120	0.0	0.8-
1998 12 22	704	1.4+	0.1+	2000 02 09	888	0.7+	0.3-	2000 02 13	120	0.3-	0.5-
1998 12 22	704	0.1-	1.2-	2000 02 09	888	0.3+	0.0				

2000 AG₂₄₃ = 1984 BG

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	48.39192		(2000.0)	P	Q
n	0.36885806	ω	303.59978	+0.00845859	-0.96346340
a	1.9255872	Ω	142.92151	+0.99950695	+0.00005077
e	0.1691188	i	26.36097	+0.03023743	+0.26784002
P	2.67	H	15.3	G 0.15	U 4

Residuals in seconds of arc

1984 01 28	675	(0.4-	3.2+)	2000 02 02	704	0.3+	0.2-	2000 02 10	704	0.1-	0.0
1984 01 28	675	0.3+	1.2-	2000 02 02	704	0.1-	0.4-	2000 02 10	704	0.1-	0.2-
1984 01 29	675	0.2-	0.2+	2000 02 02	704	0.1-	0.7-	2000 02 10	704	0.0	0.3+
1984 01 29	675	(0.3+	5.8-)	2000 02 02	704	0.4-	0.5-	2000 02 10	704	0.2+	0.7-
1984 01 30	675	(1.2-	4.2+)	2000 02 02	704	0.3+	0.8-	2000 02 10	704	0.4-	0.5-
1984 01 30	675	(0.5+	8.0-)	2000 02 04	704	0.2+	0.2+	2000 02 11	704	0.3-	0.3+
2000 01 07	699	(3.2+	0.7-)	2000 02 04	704	0.4-	0.1+	2000 02 11	704	0.1-	0.1+
2000 01 07	699	0.6+	0.2+	2000 02 04	704	0.3-	0.2+	2000 02 11	704	0.1-	0.4+
2000 01 07	699	1.3+	0.4+	2000 02 04	704	0.4-	0.3-	2000 02 11	704	0.2-	0.6+
2000 01 09	704	0.1+	0.3-	2000 02 04	704	0.4-	0.3-	2000 02 11	704	0.5-	0.2+
2000 01 09	704	0.3+	0.1-	2000 02 06	704	0.2+	0.1+	2000 02 11	704	0.0	0.2+
2000 01 09	704	0.8-	0.1-	2000 02 06	704	0.3+	0.1+	2000 02 11	704	0.1-	0.4+
2000 01 11	704	(0.1+	2.2-)	2000 02 06	704	0.0	0.1+	2000 02 11	704	0.5+	0.4+
2000 01 11	704	0.1+	0.4+	2000 02 06	704	0.4+	0.2-	2000 02 11	704	0.1+	0.4+
2000 01 11	704	0.2+	0.1+	2000 02 06	704	0.2-	0.0	2000 02 11	704	0.0	0.6+
2000 01 11	704	0.5-	0.1-	2000 02 08	704	0.4+	0.1+	2000 02 12	704	0.8+	0.5-
2000 01 11	704	0.1-	0.3-	2000 02 08	704	0.4+	0.0	2000 02 12	704	0.1-	0.1+
2000 01 11	704	0.0	0.3+	2000 02 08	704	0.0	0.2+	2000 02 12	704	0.0	0.1+
2000 01 11	704	0.4-	0.4-	2000 02 08	704	0.3+	0.1-	2000 02 12	704	0.7-	0.3+
2000 01 11	704	0.2-	0.9+	2000 02 08	704	0.3+	0.0				

2000 FEB. 22

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2000 AV₂₄₃ = 1988 RX₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	308.81106		(2000.0)	P		Q	
<i>n</i>	0.22406623	ω	240.19487	-0.55436556	+0.83215330		
<i>a</i>	2.6846342	Ω	356.05053	-0.67510139	-0.45954114		
<i>e</i>	0.2164763	<i>i</i>	11.83986	-0.48674114	-0.31039140		
<i>P</i>	4.40	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	2
Residuals in seconds of arc							
1988 09 07	033	0.1+	1.1+	1998 12 17	704 (0.3+	2.1-)	2000 02 04 704 0.6+ 0.7-
1988 09 08	033	0.9-	0.9-	1998 12 17	704 0.3+	0.5-	2000 02 04 704 0.6+ 0.1-
1988 09 08	033	0.5+	0.3+	2000 01 07	704 1.1+	0.1+	2000 02 04 704 0.1+ 0.1+
1997 10 30	704 (2.8-	1.2-)		2000 01 07	704 0.0	0.3+	2000 02 04 704 0.6- 0.5-
1997 10 30	704 0.9+	0.6+		2000 01 07	704 0.5+	0.1+	2000 02 11 704 0.2+ 0.3+
1997 10 30	704 (3.1-	2.6+)		2000 01 07	704 0.5-	0.2-	2000 02 11 704 0.2- 0.1+
1997 10 30	704 1.5-	0.1+		2000 01 10	699 0.4-	0.1+	2000 02 11 704 0.0 0.3-
1998 12 17	704 0.9-	0.7+		2000 01 10	699 0.1-	0.2+	2000 02 11 704 0.4- 0.6+
1998 12 17	704 0.4+	0.2-		2000 01 10	699 0.9-	1.5+	2000 02 11 704 0.1+ 0.3+
1998 12 17	704 0.4+	0.8-		2000 02 04	704 0.6+	0.5-	

2000 AA₂₄₄ = 1987 KG₁ = 1997 JG₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	24.39373		(2000.0)	P		Q	
<i>n</i>	0.29448678	ω	80.35667	-0.63554979	-0.76650759		
<i>a</i>	2.2374784	Ω	49.51772	+0.65211819	-0.59704032		
<i>e</i>	0.1252388	<i>i</i>	6.97962	+0.41330175	-0.23666216		
<i>P</i>	3.35	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	4
Residuals in seconds of arc							
1987 05 30	413 0.2+	0.3+		1997 05 07	704 0.8+	0.4+	2000 02 04 411 (3.0- 0.7+)
1987 05 30	413 0.4+	1.4+		1997 05 07	704 0.9+	0.8+	2000 02 05 411 0.7+ 1.4-
1997 05 03	809 1.2-	0.5-		2000 01 07	704 0.3+	0.7-	2000 02 05 411 0.2- 0.9-
1997 05 03	809 0.8-	1.9-		2000 01 07	704 0.3-	0.1-	2000 02 10 704 0.7- 0.5+
1997 05 03	809 (3.2-	1.7-)		2000 01 07	704 1.1-	0.6-	2000 02 10 704 0.5- 0.8+
1997 05 04	809 (1.7-	4.0-)		2000 01 07	704 0.5+	0.3+	2000 02 10 704 0.4- 0.4+
1997 05 04	809 (1.5-	3.3-)		2000 01 10	699 0.2+	1.1-	2000 02 10 704 0.1- 0.4+
1997 05 04	809 2.0-	1.8-		2000 01 10	699 0.8+	0.9+	2000 02 10 704 0.3- 1.0+
1997 05 07	704 0.9+	0.6+		2000 01 10	699 1.6+	0.6+	
1997 05 07	704 0.8+	0.5+		2000 02 04	411 (4.4-	0.9+)	

2000 AX₂₄₄ = 1998 SY₇₇

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	35.78452		(2000.0)	P		Q	
<i>n</i>	0.25304836	ω	267.31141	-0.25465028	-0.96682327		
<i>a</i>	2.4755234	Ω	197.48150	+0.91175539	-0.23309798		
<i>e</i>	0.1053002	<i>i</i>	3.84606	+0.32226595	-0.10448970		
<i>P</i>	3.89	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	3
Residuals in seconds of arc							
1998 08 23	704 1.3+	0.3-		1998 09 26	704 (2.1-	1.2+)	2000 01 11 704 0.4+ 0.1-
1998 08 23	704 0.5+	0.1-		1998 09 27	704 0.2+	0.4-	2000 01 11 704 0.3+ 0.0
1998 08 23	704 0.7+	0.1+		1998 09 27	704 0.1+	0.8+	2000 01 11 704 0.1+ 0.7-
1998 08 23	704 0.2-	1.6-		1998 09 27	704 0.2-	0.7-	2000 01 11 704 0.3+ 0.6+
1998 08 23	704 0.4+	0.9+		1998 09 27	704 0.2-	1.2+	2000 01 11 704 1.2- 0.2+
1998 08 23	704 0.6-	0.8-		1998 09 27	704 0.8-	0.4+	2000 02 02 704 0.2+ 0.2-
1998 08 23	704 (2.1+	0.9-)		1999 12 14	704 0.4-	0.2+	2000 02 02 704 0.1+ 0.4+
1998 08 23	704 1.3+	0.3+		1999 12 14	704 0.9+	0.4-	2000 02 02 704 0.1- 0.3+
1998 08 23	704 1.2-	0.8-		1999 12 14	704 0.2-	0.5-	2000 02 02 704 0.3+ 0.3-
1998 08 23	704 (5.1-	0.2+)		1999 12 14	704 1.1-	0.8-	2000 02 02 704 0.1+ 0.2-
1998 09 25	699 0.4-	0.4+		1999 12 14	704 1.0+	0.3-	2000 02 06 704 0.4+ 0.1+
1998 09 25	699 0.1-	0.7+		2000 01 08	704 0.3+	0.5+	2000 02 06 704 0.4- 0.1+
1998 09 25	699 0.1-	0.2+		2000 01 08	704 0.1-	0.5+	2000 02 06 704 0.3- 0.3+
1998 09 26	704 0.0	0.3-		2000 01 08	704 0.8-	0.1+	2000 02 06 704 0.0 0.2+

1998 09 26	704 0.5-	0.8+	2000 01 08	704 0.4+	0.1+	2000 02 06	704 0.2+	0.0
1998 09 26	704 0.2+	0.9-	2000 01 08	704 0.4-	0.8-			

2000 AK₂₄₅ = 1992 BQ₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	21.14313		(2000.0)	P		Q	
<i>n</i>	0.23887084	ω	245.99566	+0.30049926	-0.95329126		
<i>a</i>	2.5725311	Ω	186.73931	+0.94209164	+0.30167005		
<i>e</i>	0.1688963	<i>i</i>	15.11159	+0.14887424	+0.01519728		
<i>P</i>	4.13	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i>	3
Residuals in seconds of arc							
1992 01 30	675 0.6+	0.4-		1999 11 07	704 0.8+	0.1-	1999 12 16 704 0.7- 0.1-
1992 01 30	675 0.1-	0.4-		1999 12 03	704 0.4-	0.0	1999 12 16 704 0.6- 0.1-
1992 01 31	675 1.0-	1.0+		1999 12 03	704 0.5-	0.1+	1999 12 16 704 0.3- 0.3-
1992 01 31	675 0.5+	0.4+		1999 12 03	704 0.3-	0.4-	2000 01 09 704 0.3- 0.3-
1997 03 03	327 1.0-	0.3-		1999 12 03	704 0.3-	0.1-	2000 01 09 704 0.4- 0.4-
1997 03 03	327 1.2+	0.4-		1999 12 03	704 0.3-	0.3+	2000 01 09 704 0.4- 0.1+
1997 03 03	327 0.2-	0.4-		1999 12 08	699 0.7+	0.3+	2000 01 09 704 0.7- 0.1+
1999 11 07	704 0.3+	0.9-		1999 12 08	699 0.8+	0.1-	2000 01 09 704 1.1- 0.9+
1999 11 07	704 0.1+	0.3+		1999 12 08	699 0.6+	0.0	2000 01 10 699 1.2+ 0.2-
1999 11 07	704 0.3+	0.0		1999 12 16	704 0.5-	0.0	2000 01 10 699 1.1+ 0.2+
1999 11 07	704 0.6+	0.1+		1999 12 16	704 0.5-	0.3-	2000 01 10 699 1.0+ 0.2+

2000 AO₂₄₅ = 1985 DG₁ = 1998 WC₁₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	355.52033		(2000.0)	P		Q	
<i>n</i>	0.19976199	ω	268.25999	-0.98129017	-0.12852533		
<i>a</i>	2.8981942	Ω	264.33741	+0.17454183	-0.90812386		
<i>e</i>	0.1209493	<i>i</i>	8.28277	-0.08126968	-0.39848752		
<i>P</i>	4.93	<i>H</i>	13.1	<i>G</i>	0.15	<i>U</i>	3
Residuals in seconds of arc							
1985 02 25	688 1.8-	2.1+		1999 01 05	699 1.3-	0.3-	2000 01 11 704 0.7+ 0.3-
1985 02 25	688 1.8+	2.1-		1999 01 05	699 0.3-	0.8+	2000 01 11 699 0.5+ 1.3+
1998 11 21	704 0.1+	0.5+		1999 01 05	699 0.4+	0.2+	2000 01 11 704 0.1+ 0.2-
1998 11 21	704 0.4-	0.4-		1999 12 16	704 1.3-	0.2-	2000 01 11 704 1.7+ 0.7-
1998 11 21	704 0.8-	0.4-		1999 12 16	704 0.9-	0.6+	2000 01 11 704 2.0+ 1.0-
1998 11 21	704 (1.8-	2.8-)		1999 12 16	704 0.2-	0.4-	2000 02 07 704 0.9- 0.4-
1998 11 21	704 0.8-	0.8-		1999 12 16	704 0.8-	0.1-	2000 02 07 704 0.8- 0.3+
1998 11 24	704 0.2+	0.7+		1999 12 16	704 0.3-	0.4-	2000 02 07 704 0.0 0.2+
1998 11 24	704 0.3+	0.1-		2000 01 10	704 0.4+	0.3-	2000 02 07 704 0.8- 1.0+
1998 11 24	704 0.8+	0.7-		2000 01 10	704 1.1+	1.4+	2000 02 07 704 0.3+ 1.3+
1998 11 24	704 0.9+	0.2-		2000 01 10	704 1.2+	0.1-	2000 02 10 704 0.1+ 0.2+
1998 12 14	704 0.7+	0.9-		2000 01 10	704 0.6+	1.0-	2000 02 10 704 0.2- 0.3+
1998 12 14	704 0.0	0.9-		2000 01 11	699 0.0	0.0	2000 02 10 704 0.7- 1.3-
1998 12 14	704 0.4-	0.9+		2000 01 11	699 0.2+	0.1+	2000 02 10 704 0.4- 0.3-
1998 12 14	704 0.5+	1.8+		2000 01 11	704 1.4-	0.5-	

2000 BF₂ = 1989 ER₉ = 1992 WJ₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	254.28297		(2000.0)	P		Q	
<i>n</i>	0.17437863	ω	189.99626	-0.15224209	+0.98777849		
<i>a</i>	3.1730278	Ω	71.25279	-0.90433391	-0.12558495		
<i>e</i>	0.1465502	<i>i</i>	2.02171	-0.39875121	-0.09231503		
<i>P</i>	5.65	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	1
Residuals in seconds of arc							
1989 03 05	033 0.2-	0.0		1998 12 17	704 0.7-	0.4+	2000 01 30 703 0.6+ 1.3+
1989 03 05	033 0.0	0.3-		1998 12 17	704 (1.7-	2.6-)	2000 01 30 703 1.0- 0.1+
1992 11 23	691 0.3-	0.5-		1998 12 17	704 (3.7-	0.7+)	2000 01 30 703 0.3+ 0.4+
1992 11 23	691 0.0	0.0		2000 01 04	704 0.5+	0.1+	2000 01 30 703 1.1+ 0.5+
1992 11 23	691 0.2+	0.0		2000 01 04	704 0.4-	0.5-	2000 01 30 120 0.4- 0.2+
1992 11 27	691 0.2-	0.2+		2000 01 04	704 0.8-	1.1-	2000 01 30 120 0.8- 0.7-

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1992 11 27	691	0.2+	0.0	2000 01 04	704	0.4+	1.3-	2000 02 03	704	0.4+	0.6+
1992 11 27	691	0.1+	0.1-	2000 01 25	120	0.7-	1.0-	2000 02 03	704	0.5+	0.2-
1997 10 30	704	(1.9+	2.3+)	2000 01 25	120	1.3+	0.2+	2000 02 03	704	0.6-	0.0
1997 10 30	704	0.9-	1.3+	2000 01 25	120	0.5-	0.1-	2000 02 03	704	0.1+	0.2+
1997 10 30	704	0.1-	0.6+	2000 01 26	120	0.7+	0.0	2000 02 03	704	0.3+	0.3+
1997 10 30	704	1.3+	0.4-	2000 01 26	120	0.8-	0.4-	2000 02 11	704	0.8-	1.8+
1997 10 30	704	0.8-	0.5-	2000 01 26	120	1.0+	0.1-	2000 02 11	704	0.1-	1.3+
1998 12 17	704	(2.1+	1.6-)	2000 01 27	120	0.2+	0.5-	2000 02 11	704	0.3+	1.1+
1998 12 17	704	0.8+	0.8-	2000 01 27	120	0.8-	1.3-				

2000 BC₃ = 1995 UQ₂₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.29444238	<i>ω</i>	342.05695		+0.67839433		-0.73380889
<i>a</i>	2.2377033	<i>Ω</i>	65.20747		+0.67885585		+0.60726555
<i>e</i>	0.0965858	<i>i</i>	2.28110		+0.28095527		+0.30455388
<i>P</i>		<i>H</i>		<i>G</i>		<i>U</i>	
	3.35		15.8		0.15		6

Residuals in seconds of arc

1995 10 20	691	0.3+	0.1-	2000 01 27	120	0.4+	0.6-	2000 02 03	704	0.4+	0.4+
1995 10 20	691	0.1-	0.0	2000 01 30	703	0.8-	0.1-	2000 02 03	704	0.5+	0.3+
1995 10 20	691	0.0	0.0	2000 01 30	703	0.4-	0.5+	2000 02 04	120	0.5-	0.4-
1995 10 26	691	0.1-	0.1+	2000 01 30	703	1.0-	0.2-	2000 02 04	120	1.2+	0.5-
1995 10 26	691	0.1-	0.1-	2000 01 30	703	0.7-	0.7+	2000 02 09	120	0.5-	0.1-
1995 10 26	691	0.1-	0.1+	2000 01 30	120	1.5-	1.0-	2000 02 09	120	0.8-	0.1-
2000 01 26	120	0.9+	0.0	2000 01 30	120	0.4+	0.5-	2000 02 11	704	0.2-	0.3-
2000 01 26	120	0.0	0.3+	2000 02 03	704	1.0+	0.4+	2000 02 11	704	0.6+	0.1-
2000 01 26	120	1.1+	0.1-	2000 02 03	704	0.3+	0.5+	2000 02 11	704	0.2+	1.0+
2000 01 27	120	0.5-	0.5+	2000 02 03	704	0.3-	0.4-	2000 02 11	704	0.2+	0.5-

2000 BF₃ = 1998 SM₂₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.26627940	<i>ω</i>	263.12886		-0.80403909		+0.59405619
<i>a</i>	2.3928254	<i>Ω</i>	313.31290		-0.53112735		-0.73640824
<i>e</i>	0.1160068	<i>i</i>	1.95853		-0.26725432		-0.32372851
<i>P</i>		<i>H</i>		<i>G</i>		<i>U</i>	
	3.70		15.4		0.15		5

Residuals in seconds of arc

1998 09 21	691	0.4+	0.1-	1998 10 01	691	1.0-	0.0	2000 01 30	704	0.5-	0.1+
1998 09 21	691	0.4+	0.2+	1998 10 01	691	0.9-	0.0	2000 01 30	703	0.4-	0.2+
1998 09 21	691	0.4+	0.3-	1998 10 20	910	0.2+	0.3+	2000 01 30	703	0.7-	0.7-
1998 09 24	691	0.0	0.5+	1998 10 20	910	0.3-	0.4+	2000 01 30	703	0.4-	0.3+
1998 09 24	691	0.2-	0.2+	1998 10 20	910	0.0	0.5+	2000 01 30	704	0.2+	0.0
1998 09 27	691	0.1+	0.2-	2000 01 27	120	0.6-	0.3-	2000 02 04	704	0.1+	0.2-
1998 09 27	691	0.4-	0.2-	2000 01 27	120	(4.2+	0.5+)	2000 02 04	704	0.5+	0.2+
1998 09 27	691	(4.7-	0.7-)	2000 01 27	120	1.6+	0.2+	2000 02 04	704	0.3-	0.2-
1998 09 30	691	0.1+	0.4-	2000 01 27	120	0.2+	0.3+	2000 02 04	704	0.3-	0.1+
1998 09 30	691	0.4+	0.4-	2000 01 27	120	0.3+	0.2-	2000 02 04	704	0.6+	0.4+
1998 09 30	691	0.1-	0.1+	2000 01 30	704	0.2+	0.1+				
1998 10 01	691	0.9+	0.7-	2000 01 30	703	0.5-	0.6-				

2000 BP₃ = 1989 ED₂ = 1998 XZ₆₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.17618075	<i>ω</i>	123.25672		-0.97862740		+0.20101995
<i>a</i>	3.1513532	<i>Ω</i>	68.37233		-0.20076098		-0.88827443
<i>e</i>	0.0996756	<i>i</i>	2.67296		-0.04453585		-0.41298852
<i>P</i>		<i>H</i>		<i>G</i>		<i>U</i>	
	5.59		12.7		0.15		3

Residuals in seconds of arc

1989 03 05	046	(3.9+	0.8+)	1998 12 17	704	0.6+	0.4-	2000 02 02	411	1.0-	0.1+
1989 03 05	046	(3.6+	1.2-)	1998 12 17	704	0.2+	0.4-	2000 02 03	704	0.3+	0.4+
1989 03 06	046	(2.8+	0.2-)	1998 12 17	704	1.3-	1.5-	2000 02 03	704	0.1+	0.1+
1989 03 06	046	1.5+	1.8-	1998 12 17	704	0.1-	0.2-	2000 02 03	704	0.0	0.1-

1989 03 07	046	0.2-	1.4+	1998 12 17	704	0.1-	1.8-	2000 02 03	704	0.1+	0.5+
1989 03 07	046	0.0	0.9+	1999 11 16	704	0.7-	1.2+	2000 02 03	704	0.0	0.3+
1989 03 08	399	1.0-	0.1+	1999 11 16	704	0.2-	1.0+	2000 02 06	703	0.0	0.5+
1989 03 08	399	2.1-	1.5-	1999 11 16	704	0.2-	0.4+	2000 02 06	703	0.3+	0.6+
1989 03 08	399	1.4-	0.2+	1999 11 16	704	0.4+	0.5+	2000 02 06	703	0.4+	0.1-
1989 03 12	399	(0.4-	3.9-)	1999 12 06	704	0.0	0.3-	2000 02 06	703	0.2+	0.1-
1989 03 12	399	1.5+	2.2-	1999 12 06	704	0.8+	0.6-	2000 02 11	704	0.8+	0.1-
1989 03 12	399	0.8-	0.6-	1999 12 06	704	1.0+	0.7+	2000 02 11	704	0.7+	0.3+
1989 03 12	399	0.1-	1.9-	2000 01 27	411	(1.5+	3.1+)	2000 02 11	704	0.4+	0.1+
1989 03 12	399	(0.2-	3.3-)	2000 01 27	411	(0.3+	2.1+)	2000 02 11	704	1.3+	0.1+
1998 12 14	704	0.2-	0.5+	2000 01 28	411	1.6-	0.5-	2000 02 11	704	0.7+	0.5+
1998 12 14	704	1.1+	0.5-	2000 01 28	411	0.2+	1.5+	2000 02 11	411	0.3-	0.1-
1998 12 14	704	0.7+	1.1+	2000 02 02	411	0.6-	0.4+	2000 02 11	411	0.8-	0.2-

2000 BQ₃ = 1981 AB₂ = 1998 VX₁₁

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.21063265	<i>ω</i>	337.97636		-0.06894342		-0.99369869
<i>a</i>	2.7975998	<i>Ω</i>	115.88324		+0.92932652		-0.09618297
<i>e</i>	0.0706864	<i>i</i>	5.63704		+0.36276580		+0.05754788
<i>P</i>		<i>H</i>		<i>G</i>		<i>U</i>	
	4.68		13.9		0.15		2

Residuals in seconds of arc

1981 01 08	381	0.8-	1.9-	1999 12 04	703	0.3-	0.3+	2000 02 03	704	0.2+	0.2+
1981 01 08	381	0.4+	2.3-	1999 12 04	703	0.8-	0.7+	2000 02 03	704	0.6+	0.1+
1998 10 12	699	0.4+	0.7+	2000 01 07	704	0.2-	0.4-	2000 02 03	704	0.1+	0.5+
1998 10 12	699	0.8-	1.8+	2000 01 07	704	0.1-	0.2+	2000 02 03	704	0.1-	0.9+
1998 10 12	699	0.0	0.6+	2000 01 07	704	0.1+	0.0	2000 02 03	704	0.4+	0.2+
1998 11 10	704	0.2+	0.2-	2000 01 07	704	0.6-	0.9+	2000 02 06	703	0.4+	0.3+
1998 11 10	704	0.0	0.1+	2000 01 27	411	0.7+	0.9-	2000 02 06	703	0.3+	0.3+
1998 11 10	704	1.1+	0.7-	2000 01 27	411	1.6-	0.0	2000 02 06	703	0.0	0.2+
1998 11 10	704	(2.2-	0.2+)	2000 01 28	411	0.2-	1.3+	2000 02 06	703	0.3+	0.2+
1998 11 11	704	0.0	0.6-	2000 01 28	411	0.1+	0.1-	2000 02 11	704	1.3+	1.0+
1998 11 11	704	0.4+	0.9+	2000 01 30	704	0.5+	0.3+	2000 02 11	704	0.3+	0.1-
1998 11 11	704	1.2-	0.7+	2000 01 30	704	0.3+	0.5+	2000 02 11	704	0.1-	0.3-
1998 11 11	704	0.2-	0.4-	2000 01 30	704	0.1+	0.9+	2000 02 11	704	0.6-	0.2+
1998 11 11	704	0.5-	1.2-	2000 01 30	704	0.3+	0.8-	2000 02 11	704	0.4-	0.1+
1999 12 04	703	1.2+	0.9-	2000 02 02	411	1.7-	0.4-	2000 02 11	411	0.3+	1.5-
1999 12 04	703	1.6+	1.2+	2000 02 02	411	0.2-	0.1+	2000 02 11	411	0.4-	0.2-

2000 BR₃ = 1998 RZ₁₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.28133181	<i>ω</i>	112.26536		-0.32047927		-0.94724808
<i>a</i>	2.3066949	<i>Ω</i>	356.42022		+0.84543614		-0.28424018
<i>e</i>	0.1253115	<i>i</i>	3.44974		+0.42723619		-0.14808308
<i>P</i>		<i>H</i>		<i>G</i>		<i>U</i>	
	3.50		15.0		0.15		2

Residuals in seconds of arc

1995 10 25	033	0.0	0.6-	1998 09 18	704	0.6-	0.7-	2000 01 28	411	1.1-	0.0

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1998 09 14	704	1.1−	0.3+	1999 12 15	704	0.1+	0.1−	2000 02 11	704	0.3+	0.3+
1998 09 14	704	0.6+	0.5+	1999 12 15	704	0.6−	1.1+	2000 02 11	704	0.3+	0.3+
1998 09 14	704	0.3+	1.0+	1999 12 15	704	1.0+	0.3−	2000 02 11	704	0.1+	0.4+
1998 09 14	704	(4.6−	0.1−)	1999 12 15	704	0.5−	0.5−	2000 02 11	704	0.0	0.7+
1998 09 18	704	0.3−	0.3+	2000 01 27	411	0.1−	1.7+	2000 02 11	704	0.1+	0.6+
1998 09 18	704	0.7+	0.7−	2000 01 27	411	0.0	0.3+	2000 02 11	411	0.4−	0.2+
1998 09 18	704	0.2−	1.8+	2000 01 28	411	0.1+	1.7−	2000 02 11	411	0.4−	0.4−

2000 BS₃ = 1976 UL₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	344.58257		(2000.0)		P		Q
<i>n</i>	0.26681457	<i>ω</i>	116.67979	−0.98221609	−0.18319884		
<i>a</i>	2.3896247	<i>Ω</i>	52.79185	+0.14863922	−0.89248568		
<i>e</i>	0.1602130	<i>i</i>	2.95849	+0.11470804	−0.41219837		
<i>P</i>	3.69	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1976 10 22	381	0.5−	0.3−	2000 01 27	411	0.1−	0.5−	2000 02 03	704	0.3+	0.6+
1976 10 22	381	0.7−	0.7+	2000 01 27	411	0.4+	0.8−	2000 02 03	704	0.3−	0.6+
1976 10 24	381	1.1+	0.1−	2000 01 28	411	0.5+	0.2+	2000 02 03	704	0.3+	0.2−
1998 09 25	699	0.1+	0.2+	2000 01 28	411	0.2+	0.9−	2000 02 03	704	0.2−	0.2−
1998 09 25	699	0.0	0.2+	2000 01 30	704	0.2−	0.5+	2000 02 03	704	0.1−	0.0
1998 09 25	699	0.3−	0.1−	2000 01 30	704	0.3−	0.3+	2000 02 11	704	0.4+	0.4+
1999 11 16	704	0.7−	1.1−	2000 01 30	704	0.1−	0.5+	2000 02 11	704	0.2+	0.4+
1999 11 16	704	0.5+	0.8−	2000 01 30	704	0.5+	0.1+	2000 02 11	704	0.1+	0.4+
1999 11 16	704	0.0	1.4−	2000 01 30	703	0.1+	0.8+	2000 02 11	704	0.3−	0.1−
1999 11 16	704	1.1−	0.2−	2000 01 30	703	0.1−	1.2+	2000 02 11	704	0.4+	0.0
1999 12 15	704	0.4+	0.6+	2000 01 30	703	0.3−	0.3+	2000 02 11	411	0.1+	1.3−
1999 12 15	704	0.1+	0.9+	2000 01 30	703	0.1+	1.2+	2000 02 11	411	0.4−	0.7−
1999 12 15	704	0.2+	0.4−	2000 02 02	411	1.0−	0.7−				
1999 12 15	704	0.8+	0.5+	2000 02 02	411	0.1−	1.3−				

2000 BU₃ = 1998 RC₄₀ = 4868 T-1

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	357.84723		(2000.0)		P		Q
<i>n</i>	0.30320524	<i>ω</i>	79.47901	−0.88870752	−0.45242361		
<i>a</i>	2.1943787	<i>Ω</i>	73.58794	+0.38453966	−0.82373205		
<i>e</i>	0.0171167	<i>i</i>	4.43885	+0.24965613	−0.34172852		
<i>P</i>	3.25	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1971 05 13	675	0.5−	0.1−	1999 12 06	704	0.8+	1.4+	2000 02 03	704	0.1+	0.8+
1971 05 14	675	0.2−	0.5+	1999 12 06	704	0.2−	0.6+	2000 02 03	704	0.4+	0.2+
1971 05 16	675	0.7+	0.3−	1999 12 06	704	0.5−	0.3+	2000 02 03	704	0.0	0.3−
1998 09 14	704	0.3−	0.1−	2000 01 10	699	0.1+	0.3−	2000 02 06	703	(0.2+	2.2+)
1998 09 14	704	0.5−	1.5−	2000 01 10	699	0.1+	0.6−	2000 02 06	703	0.0	1.0+
1998 09 14	704	0.7+	0.8−	2000 01 10	699	0.1−	0.1+	2000 02 06	703	0.0	0.2−
1998 09 14	704	0.4+	0.8−	2000 01 27	411	0.3−	0.5−	2000 02 06	703	0.3+	0.4+
1998 09 18	704	0.4−	1.1−	2000 01 27	411	0.3+	0.6+	2000 02 11	704	0.2+	0.8+
1998 09 18	704	1.1+	0.3+	2000 01 28	411	0.8−	0.1−	2000 02 11	704	0.7+	0.1+
1998 09 18	704	0.4−	1.3+	2000 01 28	411	0.6+	0.5−	2000 02 11	704	0.1−	0.0
1998 09 18	704	1.0−	1.3+	2000 02 02	411	1.5−	0.5−	2000 02 11	704	0.5+	0.3−
1998 09 18	704	0.6+	0.7+	2000 02 02	411	0.1−	0.9−	2000 02 11	704	0.7+	0.3−
1999 12 06	704	0.1−	0.0	2000 02 03	704	0.0	0.5+	2000 02 11	411	1.4−	1.0−
1999 12 06	704	0.1−	0.1+	2000 02 03	704	0.0	0.5−	2000 02 11	411	0.2+	1.1−

2000 BV₃ = 1989 WS₆ = 1991 FX₆ = 1998 VO₃₆

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	105.04191		(2000.0)		P		Q
<i>n</i>	0.21234583	<i>ω</i>	285.91776	+0.75369972	−0.63861323		
<i>a</i>	2.7825323	<i>Ω</i>	114.04279	+0.64906682	+0.68618204		
<i>e</i>	0.0499841	<i>i</i>	9.78925	+0.10319401	+0.34832076		
<i>P</i>	4.64	<i>H</i>	12.3	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1989 11 28	402	0.2−	2.1−	1999 02 04	704	0.3+	0.6+	2000 01 10	699	0.3+	0.2+
1989 11 28	402	0.8+	1.7−	1999 02 04	704	1.4+	1.6+	2000 01 27	411	(0.9−	2.2−)
1991 03 17	875	0.2+	0.3−	1999 02 04	704	0.2−	1.1+	2000 01 27	411	0.2−	1.7−
1993 09 23	675	0.1+	0.5−	1999 11 16	704	0.5+	0.3+	2000 01 28	411	0.4+	0.4+
1993 09 23	675	0.0	0.5+	1999 11 16	704	0.4+	0.6+	2000 01 28	411	0.7+	0.1−
1998 11 13	704	0.6+	0.5+	1999 11 16	704	0.6−	0.1+	2000 02 02	411	0.3+	0.5−
1998 11 13	704	0.8−	1.3+	1999 11 16	704	0.4−	0.8+	2000 02 02	411	0.9−	0.0
1998 11 13	704	0.7−	0.6+	1999 11 16	704	0.7−	0.3−	2000 02 03	704	0.2+	0.4+
1998 11 13	704	0.1+	0.5+	1999 12 06	704	0.7+	0.2−	2000 02 03	704	0.2+	0.1+
1998 11 13	704	0.2−	0.5−	1999 12 06	704	0.9+	0.3−	2000 02 03	704	0.1+	0.5+
1998 11 16	704	1.0−	0.1+	1999 12 06	704	0.8+	0.6−	2000 02 03	704	0.3+	0.2+
1998 11 16	704	0.2−	0.1+	1999 12 06	704	0.5+	0.2−	2000 02 03	704	0.4+	0.2+
1998 11 16	704	0.1−	0.5−	1999 12 06	704	0.3+	0.2+	2000 02 06	703	(2.5−	1.1+)
1998 11 16	704	0.1+	0.3+	1999 12 15	704	0.4+	0.5−	2000 02 06	703	0.2−	0.3+
1998 11 16	704	0.3−	0.0	1999 12 15	704	0.0	0.0	2000 02 06	703	0.2−	0.6+
1998 11 19	699	0.3+	0.1−	1999 12 15	704	0.8+	0.1+	2000 02 06	703	0.6−	0.3+
1998 11 19	699	0.2+	0.0	2000 01 04	704	0.3−	1.0−	2000 02 11	704	0.2+	0.1+
1998 11 19	699	0.2−	0.0	2000 01 04	704	0.2−	0.4−	2000 02 11	704	0.0	0.0
1998 12 14	699	0.3−	0.6−	2000 01 04	704	1.5−	0.1+	2000 02 11	704	0.4+	0.3+
1998 12 14	699	0.0	0.1−	2000 01 04	704	1.8−	0.8+	2000 02 11	704	0.7+	0.7+
1998 12 14	699	0.2−	0.2+	2000 01 04	704	1.2−	1.4+	2000 02 11	704	0.5+	1.0+
1999 02 04	704	1.5+	0.9−	2000 01 10	699	0.3−	0.0	2000 02 11	411	0.6−	1.2−
1999 02 04	704	(2.9+	1.0−)	2000 01 10	699	0.1+	0.1+	2000 02 11	411	0.3−	0.8−

2000 BW₃ = 1994 TF₁₆ = 1998 UN₂₈

Id. T. B. Spahr

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	219.43442		(2000.0)		P		Q
<i>n</i>	0.25340604	<i>ω</i>	180.76422	+0.41786706	+0.90351297		
<i>a</i>	2.4731934	<i>Ω</i>	113.93995	−0.83298672	+0.42282655		
<i>e</i>	0.1080887	<i>i</i>	5.97498	−0.36265720	+0.06987152		
<i>P</i>	3.89	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1994 10 08	675	1.6+	1.1−	2000 01 27	411	0.6−	0.7−	2000 02 05	747	0.2+	0.1−
1994 10 08	675	0.1−	1.7−	2000 01 28	411	0.3+	0.1−	2000 02 05	747	0.1+	0.1−
1994 10 10	675	(1.4−	2.7−)	2000 01 28	411	1.0+	0.9−	2000 02 05	747	0.1+	0.1+
1994 10 10	675	0.1−	0.8−	2000 01 30	704	1.4+	0.8+	2000 02 05	704	0.1−	0.5−
1998 10 18	809	(1.5+	3.0+)	2000 01 30	704	0.0	0.0	2000 02 05	704	0.5+	0.5−
1998 10 18	809	(1.2+	3.5+)	2000 01 30	704	(0.2−	2.4+)	2000 02 05	747	0.1+	0.1+
1998 10 18	809	(0.6+	3.0+)	2000 01 30	704	0.6+	0.1+	2000 02 05	704	0.5+	0.4−
1998 10 19	809	(1.0+	2.2+)	2000 01 30	703	0.4+	0.1+	2000 02 06	747	0.4−	0.1−
1998 10 19	809	(1.6+	2.6+)	2000 01 30	703	0.1+	0.2+	2000 02 06	747	0.3+	0.2−
1998 10 19	809	(1.5+	3.5+)	2000 01 30	703	0.1+	0.2−	2000 02 06	703	0.2−	0.1−
1998 11 11	704	0.3−	1.0+	2000 01 30	703	0.7−	0.2+	2000 02 06	703	0.6+	0.0
1998 11 11	704	0.4+	0.8+	2000 02 02	411	0.1−	1.2−	2000 02 06	703	0.5+	0.1−
1998 11 11	704	0.3−	1.3+	2000 02 02	411	1.5−	0.4−	2000 02 06	703	0.4+	0.1−
1998 12 14	699	0.1+	0.8+	2000 02 03	704	0.7+	0.1+	2000 02 11	704	0.3−	0.1−
1998 12 14	699	0.6−	0.2−	2000 02 03	704	0.1+	0.1−	2000 02 11	704	0.0	0.4+
1998 12 14	699	0.6−	0.2−	2000 02 03	704	0.0	0.2+	2000 02 11	704	0.6−	0.3+
2000 01 07	704	1.2−	0.0	2000 02 03	704	0.6+	0.3+	2000 02 11	704	0.4−	0.4+
2000 01 07	704	0.4−	0.3+	2000 02 03	704	0.7+	0.2−	2000 02 11	704	0.2−	1.1+
2000 01 07	704	0.4−	0.1−	2000 02 04	747	0.1+	0.2−	2000 02 11	411	0.7−	0.8−
2000 01 07	704	1.2−	0.0	2000 02 04	747	0.2+	0.1+	2000 02 11	411	0.0	0.4−
2000 01 07	704	0.6−	1.1+	2000 02 04	747	0.1+	0.2−				
2000 01 27	411	0.9−	1.1+	2000 02 04	747	0.2+	0.2−				

2000 BX₃ = 1998 SU₁₀₉

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 10.12264 (2000.0)			<i>P</i>			<i>Q</i>		
<i>n</i>	0.22576581	ω	145.52189	-0.72862225	-0.68405011			
<i>a</i>	2.6711438	Ω	351.06646	+0.56784211	-0.57521089			
<i>e</i>	0.1236846	<i>i</i>	12.80784	+0.38296861	-0.44856202			
<i>P</i>	4.37	<i>H</i>	13.6	<i>G</i> 0.15	<i>U</i> 4			

Residuals in seconds of arc

1998 09 17	699	0.9-	0.7-	1998 09 27	704	0.1+	0.6+	2000 02 03	704	0.5+	0.0
1998 09 17	699	1.0-	0.5-	1999 12 15	704	1.2-	0.3+	2000 02 03	704	0.6+	0.4+
1998 09 17	699	0.1-	0.2+	1999 12 15	704	0.4-	0.5-	2000 02 03	704	0.6+	0.3+
1998 09 26	704	0.0	0.6+	1999 12 15	704	0.1-	1.2-	2000 02 03	704	0.8+	0.5+
1998 09 26	704	0.8+	0.3+	1999 12 15	704	0.5-	0.6-	2000 02 06	703	0.2+	0.5+
1998 09 26	704	0.4+	0.2+	2000 01 27	411	0.2+	0.3-	2000 02 06	703	0.1+	0.4+
1998 09 26	704	0.5+	0.0	2000 01 27	411	0.7-	1.0-	2000 02 06	703	0.3-	0.6+
1998 09 26	704	0.6+	0.1-	2000 01 28	411	0.0	0.2-	2000 02 06	703	0.1-	0.5+
1998 09 27	704	0.2-	1.4-	2000 01 28	411	0.0	1.0-	2000 02 11	411	1.2+	0.0
1998 09 27	704	0.2-	0.4-	2000 02 02	411	0.2-	0.2+	2000 02 11	411	0.4-	0.2-
1998 09 27	704	0.0	0.9+	2000 02 02	411	1.2-	0.9+				
1998 09 27	704	0.6-	1.1+	2000 02 03	704	0.3+	0.2+				

2000 BY₃ = 1978 WP₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 4.18288 (2000.0)			<i>P</i>			<i>Q</i>		
<i>n</i>	0.24299117	ω	88.98391	-0.92465318	-0.31787645			
<i>a</i>	2.5433671	Ω	72.45652	+0.19778998	-0.87143816			
<i>e</i>	0.1354658	<i>i</i>	12.70443	+0.32541606	-0.37356403			
<i>P</i>	4.06	<i>H</i>	14.3	<i>G</i> 0.15	<i>U</i> 3			

Residuals in seconds of arc

1978 11 29	675	0.5-	0.3+	2000 01 29	154	0.4-	0.2+	2000 02 03	154	0.6-	0.1+
1978 11 30	675	0.3+	0.1+	2000 01 29	154	0.4-	0.1+	2000 02 03	154	0.5-	0.4+
1998 10 12	699	0.1+	0.1-	2000 01 29	154	0.4-	0.1+	2000 02 03	704	0.7+	0.2-
1998 10 12	699	0.1+	0.2+	2000 01 29	154	0.4-	0.0	2000 02 03	704	0.7+	0.2+
1998 10 12	699	1.0-	0.1+	2000 01 29	154	0.3-	0.0	2000 02 03	704	1.4+	1.0-
1998 11 13	704	(2.1+	1.1+)	2000 01 31	610	0.2-	0.3-	2000 02 03	704	(3.0+	0.9+)
1998 11 13	704	(0.6-	3.6-)	2000 01 31	610	0.0	0.2-	2000 02 03	704	(2.4+	0.7-)
1998 11 13	704	0.8+	0.3-	2000 01 31	610	0.1+	0.0	2000 02 03	704	(2.2+	1.1+)
1998 11 13	704	0.5+	0.5+	2000 01 31	610	0.2+	0.1+	2000 02 03	704	1.1+	0.3+
1998 11 13	704	(6.8-	4.2-)	2000 01 31	610	0.3+	0.3+	2000 02 03	704	1.7+	1.1+
1998 11 19	699	0.2+	0.5-	2000 01 31	154	0.3-	0.3+	2000 02 04	154	0.5-	0.1+
1998 11 19	699	0.1+	0.4-	2000 01 31	154	0.1-	0.1+	2000 02 04	154	0.0	0.1+
1998 11 19	699	0.7-	0.1+	2000 01 31	154	0.1+	0.1-	2000 02 06	154	0.9-	0.1-
2000 01 06	704	0.2+	0.8-	2000 01 31	154	0.4+	0.3-	2000 02 06	154	0.3-	0.4+
2000 01 06	704	0.5-	0.2-	2000 01 31	154	0.6+	0.5-	2000 02 10	610	0.0	0.4-
2000 01 06	704	0.4+	0.0	2000 02 01	154	0.8-	0.3-	2000 02 10	610	0.0	0.3-
2000 01 28	154	0.7+	0.1+	2000 02 01	154	0.7-	0.2-	2000 02 10	610	0.0	0.2-
2000 01 28	154	0.7+	0.1+	2000 02 01	154	0.8-	0.1-	2000 02 10	610	0.0	0.0
2000 01 28	154	0.9+	0.2+	2000 02 01	154	0.8-	0.5+	2000 02 10	610	0.2+	0.2+
2000 01 29	154	0.6-	0.2+	2000 02 01	154	0.8-	0.5+				

2000 BB₄ = 1992 OA₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 128.01562 (2000.0)			<i>P</i>			<i>Q</i>		
<i>n</i>	0.19125259	ω	234.23683	+0.94937458	-0.29396382			
<i>a</i>	2.9835352	Ω	142.50277	+0.31313398	+0.91380710			
<i>e</i>	0.1601316	<i>i</i>	10.48597	-0.02519962	+0.28025319			
<i>P</i>	5.15	<i>H</i>	13.2	<i>G</i> 0.15	<i>U</i> 5			

Residuals in seconds of arc

1992 07 30	809	0.6+	0.7+	2000 01 28	652	0.7+	1.4-	2000 02 04	704	0.0	0.6+
1992 07 30	809	0.5+	0.2+	2000 01 28	652	1.0+	0.1-	2000 02 04	704	0.0	0.3-
1992 07 30	809	0.9-	0.5+	2000 01 28	652	1.0+	0.1+	2000 02 04	704	0.4-	0.6+

1992 07 31	809	0.2+	0.5-	2000 01 29	652	1.1-	1.8+	2000 02 04	652	1.3-	0.2-
1992 07 31	809	0.2+	0.6-	2000 01 29	652	1.4-	0.1-	2000 02 11	704	1.3+	0.5-
1992 07 31	809	0.7-	0.4-	2000 01 29	652	0.2-	0.8+	2000 02 11	704	0.2-	0.1-
1999 01 14	699	0.5+	0.2-	2000 02 04	652	1.7-	0.7-	2000 02 11	704	0.7+	0.5-
1999 01 14	699	0.2-	0.3+	2000 02 04	652	0.4-	0.9-	2000 02 11	704	0.0	1.0+
1999 01 14	699	0.4-	0.2-	2000 02 04	704	1.9+	0.2-				

2000 BS₉ = 1998 UF₂₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 282.60601 (2000.0)			<i>P</i>			<i>Q</i>		
<i>n</i>	0.24440129	ω	95.52341	-0.59237794	+0.80351795			
<i>a</i>	2.5335747	Ω	137.96786	-0.76954768	-0.54274686			
<i>e</i>	0.1449321	<i>i</i>	5.03081	-0.23850522	-0.24450921			
<i>P</i>	4.03	<i>H</i>	14.8	<i>G</i> 0.15	<i>U</i> 4			

Residuals in seconds of arc

1996 02 15	566	0.9+	0.1+	2000 01 29	691	0.8-	0.2-	2000 02 03	704	0.1-	0.5+
1996 02 15	566	1.0-	0.3+	2000 01 29	691	0.6-	0.2-	2000 02 05	704	0.8+	0.7+
1996 02 15	566	0.9+	0.1+	2000 01 30	703	0.0	0.5+	2000 02 05	704	0.4+	0.6+
1996 02 15	566	0.1+	0.6+	2000 01 30	703	0.5-	0.4+	2000 02 05	704	0.4+	0.0
1996 02 15	566	0.9+	0.1-	2000 01 30	703	0.3-	0.2-	2000 02 05	704	0.4+	0.5+
1996 02 15	566	1.6-	0.1+	2000 01 30	703	0.1-	0.7+	2000 02 05	704	0.2+	1.7-
1998 10 18	809	0.3-	0.2+	2000 01 31	704	0.2-	0.5+	2000 02 05	704	0.7+	0.7+
1998 10 18	809	0.5-	0.4-	2000 01 31	704	0.4+	0.8-	2000 02 05	704	0.6-	1.1+
1998 10 18	809	1.4-	0.4-	2000 01 31	704	0.2+	0.3-	2000 02 08	691	0.6-	0.5-
1998 10 19	809	1.7+	0.3+	2000 02 01	691	0.4+	0.5-	2000 02 08	691	0.7-	0.4-
1998 10 19	809	0.8+	0.5+	2000 02 01	691	0.2+	0.5-	2000 02 08	691	0.7-	0.5-
1998 10 19	809	0.3-	0.2-	2000 02 01	691	0.3+	0.6-	2000 02 10	691	0.1-	0.7-
2000 01 26	691	0.2-	0.1-	2000 02 03	704	0.5+	0.1-	2000 02 10	691	0.0	0.7-
2000 01 26	691	0.1-	0.1-	2000 02 03	704	0.1+	0.3+	2000 02 10	691	0.0	0.8-
2000 01 26	691	0.2-	0.2-	2000 02 03	704	0.7+	1.3+				
2000 01 29	691	1.0-	0.2-	2000 02 03	704	0.8+	0.7+				

2000 BD₁₁ = 1993 FT₁₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 2.01947 (2000.0)			<i>P</i>			<i>Q</i>		
<i>n</i>	0.27306108	ω	100.52072	-0.83464040	-0.54540650			
<i>a</i>	2.3530411	Ω	46.47781	+0.45476328	-0.76110394			
<i>e</i>	0.1334540	<i>i</i>	6.08451	+0.31075032	-0.35107341			
<i>P</i>	3.61	<i>H</i>	15.4	<i>G</i> 0.15	<i>U</i> 5			

Residuals in seconds of arc

1993 03 17	809	0.4+	0.4+	2000 01 28	888	0.3+	0.4+	2000 02 02	888	0.5-	0.3-
1993 03 18	809	0.3-	0.4-	2000 01 29	888	0.1+	0.3-	2000 02 09	888	0.2-	0.1-
1993 03 23	809	0.0	0.0	2000 01 29	888	0.2+	0.3-	2000 02 09	888	0.2+	0.2-
2000 01 28	888	0.2-	0.2+	2000 01 29	888	0.3+	0.2-	2000 02 09	888	0.3+	0.1+
2000 01 28	888	0.1-	0.5+	2000 02 02	888	0.3-	0.2+				

2000 BD₁₂ = 1998 WL₂₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 132.35602 (2000.0)			<i>P</i>			<i>Q</i>		
<i>n</i>	0.20617289	ω	53.70112	+0.99835089	-0.05571553			
<i>a</i>	2.8377993	Ω	309.48859	+0.04523002	+0.91178515			
<i>e</i>	0.0779217	<i>i</i>	1.02684	+0.03535175	+0.40687052			
<i>P</i>	4.78	<i>H</i>	15.9	<i>G</i> 0.15	<i>U</i> 6			

Residuals in seconds of arc

1998 11 16	691	0.2+	0.3-	2000 01 28	691	0.4+	0.1+	2000 02 07	691	0.0	0.5+
1998 11 16	691	0.0	0.0	2000 01 28	691	0.3+	0.1-	2000 02 07	691	0.8-	0.3-
1998 11 16	691	0.1+	0.1+	2000 01 28	691	0.4+	0.2-	2000 02 07	691	0.0	0.6+
1998 11 19	691	0.1-	0.2-	2000 01 30	691	0.3-	0.2+	2000 02 10	691	0.3+	0.2-
1998 11 19	691	0.1+	0.3+	2000 01 30	691	0.2-	0.1+	2000 02 10	691	0.2+	0.3-
1998 11 19	691	0.4-	0.1+	2000 01 30	691	0.5-	0.0	2000 02 10	691	0.3+	0.3-

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2000 BH₁₃ = 1998 UP₃₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	47.38847		(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.17603443	ω	297.10674	+0.22394063	−0.97438928		
<i>a</i>	3.1530992	Ω	139.93575	+0.90502795	+0.20014202		
<i>e</i>	0.1497495	<i>i</i>	1.81619	+0.36162827	+0.10251200		
<i>P</i>	5.60	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 10 28	704	(3.4+ 0.1−)	2000 01 30	691	0.5− 0.3−	2000 02 08	691	0.6− 0.6−
1998 10 28	704	0.8+ 0.4−	2000 01 30	691	0.4− 0.2−	2000 02 08	691	0.4− 0.6−
1998 10 28	704	0.7+ 0.9+	2000 01 31	704	0.6− 0.3−	2000 02 10	691	1.1− 0.9−
1998 10 28	704	0.6− 0.7−	2000 01 31	704	1.4+ 0.0	2000 02 10	691	0.3− 0.8−
1998 10 29	704	1.4− 1.2−	2000 01 31	704	1.1+ 0.3−	2000 02 10	691	0.2− 0.9−
1998 10 29	704	0.3+ 0.3+	2000 02 03	704	0.6+ 0.1+	2000 02 11	704	0.7− 0.7+
1998 10 29	704	0.2+ 1.2+	2000 02 03	704	0.4+ 1.2+	2000 02 11	704	1.4+ 0.5+
2000 01 29	691	0.5− 0.0	2000 02 03	704	0.6+ 0.4+	2000 02 11	704	0.3+ 1.1+
2000 01 29	691	1.0− 0.7+	2000 02 03	704	0.0 0.0	2000 02 11	704	0.3+ 0.3+
2000 01 29	691	0.4− 0.1+	2000 02 03	704	1.1+ 0.5+			
2000 01 30	691	0.2− 0.4−	2000 02 08	691	0.4− 0.4−			

2000 BZ₁₃ = 1991 VP₁₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	334.48906		(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.27019453	ω	99.82768	−0.99829762	+0.01899580		
<i>a</i>	2.3696544	Ω	81.27582	−0.03974968	−0.91348699		
<i>e</i>	0.1443942	<i>i</i>	3.19825	+0.04268286	−0.40642426		
<i>P</i>	3.65	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1991 11 05	691	0.1+ 0.1+	1999 12 07	704	0.9− 0.4−	2000 01 30	411	0.1− 0.8−
1991 11 05	691	0.1− 0.1+	1999 12 07	704	0.1+ 0.6−	2000 02 03	704	0.1+ 0.4+
1991 11 05	691	0.4+ 0.2−	1999 12 07	704	1.1+ 1.4−	2000 02 03	704	0.1− 0.4+
1991 11 07	691	0.5+ 0.1−	2000 01 27	411	0.9+ 1.3−	2000 02 03	704	0.0 0.8+
1991 11 07	691	0.0 0.1−	2000 01 27	411	0.3+ 0.4+	2000 02 03	704	0.4− 0.9+
1991 11 07	691	0.3+ 0.2−	2000 01 30	704	0.6− 0.5−	2000 02 03	704	0.5− 1.3+
1991 11 08	691	0.8− 0.6+	2000 01 30	704	0.3− 0.0	2000 02 09	411	0.3− 1.1−
1991 11 08	691	0.6− 0.5−	2000 01 30	704	0.2− 0.9+	2000 02 09	411	0.6+ 0.7−
1991 11 08	691	0.2− 0.2+	2000 01 30	704	0.1− 1.0+	2000 02 11	704	0.8+ 0.2+
1991 11 08	691	0.5− 0.5+	2000 01 30	703	0.1− 0.2+	2000 02 11	704	0.5+ 0.1+
1991 11 08	691	0.4+ 0.5+	2000 01 30	703	0.1− 0.2−	2000 02 11	704	0.5+ 0.0
1991 11 08	691	0.3+ 0.0	2000 01 30	703	0.3− 0.4+	2000 02 11	704	0.8+ 0.3+
1999 12 07	704	0.9− 1.0−	2000 01 30	703	0.6− 0.5+	2000 02 11	704	0.1+ 0.6−
1999 12 07	704	0.1+ 0.7−	2000 01 30	411	0.7− 0.3+			

2000 BC₁₄ = 1990 SK₁₉ = 1998 SM₂₅

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	170.11772		(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.25277854	ω	208.78667	+0.86906096	+0.48583906		
<i>a</i>	2.4772847	Ω	121.85056	−0.43025894	+0.83531828		
<i>e</i>	0.1054921	<i>i</i>	6.30186	−0.24415219	+0.25730097		
<i>P</i>	3.90	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1990 09 17	675	0.1+ 0.3−	2000 01 28	376	0.5− 0.9−	2000 02 04	376	0.1+ 0.5−
1990 09 17	675	0.1+ 0.4−	2000 01 30	376	0.7+ 0.4−	2000 02 04	376	0.4+ 0.3−
1998 09 22	699	0.0 0.0	2000 01 30	376	0.4+ 0.1+	2000 02 09	376	0.3+ 0.3−
1998 09 22	699	0.2− 0.2−	2000 02 02	376	0.3− 0.2+	2000 02 09	376	0.3+ 0.4+
1998 09 22	699	0.1+ 0.6+	2000 02 02	376	0.8− 0.6−	2000 02 11	704	0.4+ 0.0
1998 09 24	699	0.1+ 0.3−	2000 02 03	704	0.1− 0.3+	2000 02 11	704	0.7+ 0.1−
1998 09 24	699	0.1− 0.2+	2000 02 03	704	0.1+ 0.3+	2000 02 11	704	0.3− 0.8+
1998 09 24	699	0.1− 0.3+	2000 02 03	704	0.1+ 1.1−	2000 02 11	704	0.8− 0.6+
2000 01 28	376	0.2+ 0.7−	2000 02 03	704	0.5− 0.1+	2000 02 11	704	0.7− 0.9+
2000 01 28	376	0.5+ 0.5+	2000 02 03	704	0.4− 0.3+			

2000 BJ₁₄ = 1991 RB₃₇ = 1995 EV₈

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	255.08726		(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.18520565	ω	275.18213	+0.04211906	+0.99905581		
<i>a</i>	3.0481282	Ω	357.16552	−0.80995376	+0.02790054		
<i>e</i>	0.1614098	<i>i</i>	12.43943	−0.58497939	+0.03330228		
<i>P</i>	5.32	<i>H</i>	12.2	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1991 09 15	675	0.4+ 0.2−	1999 01 16	704	1.5+ 0.1+	2000 02 06	703	0.3+ 0.0
1991 09 15	675	0.4+ 0.3−	1999 01 16	704	0.8+ 0.4−	2000 02 06	703	0.5− 0.9+
1995 03 05	033	0.6− 0.4−	1999 01 16	704	0.7− 1.3−	2000 02 06	703	0.1− 0.7+
1995 03 05	033	0.1+ 0.3−	2000 01 10	699	(2.1+ 0.7+)	2000 02 06	703	0.4− 0.1−
1995 03 07	033	1.1− 0.2−	2000 01 10	699	0.6+ 0.4+	2000 02 08	704	0.7+ 0.6+
1997 10 29	327	0.7− 0.6+	2000 01 10	699	1.1+ 0.6+	2000 02 08	704	0.6+ 0.1+
1997 10 29	327	0.8− 0.7+	2000 01 28	411	(2.4− 4.9+)	2000 02 08	704	0.8+ 0.0
1997 10 29	327	0.7− 0.7+	2000 01 28	411	(1.9− 3.6+)	2000 02 08	704	0.6+ 0.3−
1998 12 17	704	0.7− 0.1−	2000 01 30	411	0.8− 0.3+	2000 02 08	704	1.4+ 0.1−
1998 12 17	704	1.1+ 0.4−	2000 01 30	411	1.1− 1.0−	2000 02 10	704	0.4+ 0.4+
1998 12 17	704	(4.1− 1.0−)	2000 02 03	704	0.3+ 0.6+	2000 02 10	704	0.0 0.1−
1998 12 17	704	0.2− 0.4+	2000 02 03	704	0.0 0.2+	2000 02 10	704	(2.0+ 0.5+)
1998 12 17	704	1.7− 1.9−	2000 02 03	704	0.4+ 0.6+	2000 02 11	411	0.2− 0.9−
1999 01 16	704	0.1− 0.3−	2000 02 03	704	0.2− 0.3+	2000 02 11	411	0.1− 0.7−
1999 01 16	704	0.5+ 0.1+	2000 02 03	704	0.9− 0.7+			

2000 BO₁₄ = 1998 XN₃₃

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	306.41943		(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.17670500	ω	172.45856	−0.79717027	+0.59721992		
<i>a</i>	3.1451172	Ω	44.61079	−0.56031103	−0.67715005		
<i>e</i>	0.1018530	<i>i</i>	7.24676	−0.22488019	−0.42987926		
<i>P</i>	5.58	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 10 29	566	0.2− 0.3−	1998 12 17	704	0.0 0.7+	2000 02 03	704	0.8− 0.8+
1997 10 29	566	0.0 0.3+	1998 12 17	704	0.5− 0.3−	2000 02 03	704	0.5− 0.1+
1997 10 29	566	0.2− 0.8+	1998 12 17	704	(2.4− 0.8−)	2000 02 03	704	0.3+ 0.1+
1998 12 14	704	0.8+ 0.3+	2000 01 10	699	0.3+ 0.1+	2000 02 03	704	0.2+ 0.4+
1998 12 14	704	0.3− 1.8−	2000 01 10	699	0.6+ 0.6+	2000 02 06	703	0.1+ 0.6+
1998 12 14	704	1.2− 1.2−	2000 01 10	699	0.0 0.9+	2000 02 06	703	0.6+ 0.5+
1998 12 14	704	0.6+ 0.8−	2000 01 28	411	(1.7+ 3.3−)	2000 02 06	703	0.7+ 0.4−
1998 12 14	704	0.5− 0.2−	2000 01 28	411	0.2+ 1.9−	2000 02 06	703	1.2+ 0.8+
1998 12 17	704	0.9+ 1.0+	2000 01 30	411	1.3− 0.7−	2000 02 09	411	0.5− 0.5−
1998 12 17	704	0.3+ 1.6+	2000 01 30	411	1.0− 0.2−	2000 02 09	411	0.4+ 0.3−

2000 BP₁₄ = 1976 UB₁₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	62.30300		(2000.0)	Nakano		<i>P</i>	<i>Q</i>
<i>n</i>	0.26354155	ω	15.93190	+0.42863684	−0.89843194		
<i>a</i>	2.4093690	Ω	48.79257	+0.81447157	+0.33857791		
<i>e</i>	0.2254381	<i>i</i>	7.28079	+0.39103263	+0.27961591		
<i>P</i>	3.74	<i>H</i>	15.3	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1976 10 22	381	0.3− 0.9+	2000 01 30	411	(3.2− 0.2−)	2000 02 06	703	0.2+ 0.8+
1976 10 22	381	0.2− 0.9+	2000 02 03	704	0.1+ 0.5+	2000 02 06	703	1.0+ 0.6−
1976 10 24	381	0.5− 1.6−	2000 02 03	704	0.1+ 0.4+	2000 02 06	703	0.2− 0.4+
1976 10 24	381	1.1+ 0.3−	2000 02 03	704	0.6− 0.1−	2000 02 09	411	0.4− 1.7−
2000 01 28	411	1.1+ 1.2+	2000 02 03	704	0.0 0.4−	2000 02 09	411	0.1− 0.6−
2000 01 28	411	0.0 1.8+	2000 02 03	704	0.5− 0.1+			
2000 01 30	411	(4.0− 0.1−)	2000 02 06	703	0.6− 1.9−			

2000 BR₁₄ = 1998 XR₇₁

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>			(2000.0)			P		Q	
<i>n</i>	0.18478276	ω	327.89600	+0.87356162	+0.48663013				
<i>a</i>	3.0527770	Ω	3.02768	-0.40266485	+0.73298645				
<i>e</i>	0.0985026	<i>i</i>	9.82358	-0.27340650	+0.47531250				
<i>P</i>	5.33	<i>H</i>	12.4	<i>G</i>	0.15	<i>U</i>	4		

Residuals in seconds of arc

1995 03 23	033	0.3+	0.6-	1999 01 16	704	0.2-	1.0+	2000 02 06	703	0.8-	0.5+
1995 03 24	033	0.2-	0.6+	1999 01 16	704	0.3-	0.4+	2000 02 06	703	0.5-	1.0+
1998 12 14	704	0.6-	0.4-	1999 01 16	704	1.5+	1.6+	2000 02 06	703	0.6-	0.6-
1998 12 14	704	1.3-	1.2-	2000 01 28	411	0.2+	1.3-	2000 02 06	703	0.4-	0.9+
1998 12 14	704	1.1-	0.3+	2000 01 28	411	0.8+	1.1-	2000 02 09	411	1.3-	0.9-
1998 12 14	704	0.8+	0.4+	2000 01 30	411	0.7+	1.2-	2000 02 09	411	0.9-	0.8-
1998 12 17	704	0.0	0.0	2000 01 30	411	0.2+	1.0-	2000 02 11	704	0.0	0.6+
1998 12 17	704	0.1+	0.4-	2000 02 03	704	0.1+	0.4+	2000 02 11	704	0.5+	0.6+
1998 12 17	704	1.1+	0.2+	2000 02 03	704	0.1+	0.4+	2000 02 11	704	0.3+	0.5+
1998 12 17	704	0.8-	1.0-	2000 02 03	704	0.9+	0.2+	2000 02 11	704	0.4+	0.6+
1998 12 17	704	0.0	1.1-	2000 02 03	704	0.0	0.4+				
1999 01 16	704	0.7+	0.7+	2000 02 03	704	0.0	0.5+				

2000 BY₁₄ = 1978 XJ = 1999 AL₉

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>			(2000.0)			P		Q	
<i>n</i>	0.24198673	ω	333.32830	+0.74414785	-0.64916726				
<i>a</i>	2.5504003	Ω	68.06412	+0.63921540	+0.62346630				
<i>e</i>	0.1622933	<i>i</i>	9.77966	+0.19403004	+0.43574263				
<i>P</i>	4.07	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	1		

Residuals in seconds of arc

1978 12 03	675	0.7+	0.1+	1998 12 08	704	0.5-	1.2+	1999 12 15	704	0.5-	0.3+
1978 12 03	675	0.5-	0.5-	1999 01 10	327	0.3-	0.6+	1999 12 15	704	0.1-	0.6+
1978 12 05	675 (15.5+	0.4-)		1999 01 10	327	0.6-	0.4+	1999 12 15	704	0.4-	0.4+
1978 12 06	675	1.0-	0.6-	1999 01 10	327	0.5-	0.2+	1999 12 15	704	0.4+	0.5-
1978 12 06	675	1.2+	0.3+	1999 01 11	327	0.1-	0.3-	2000 01 31	411	0.6-	1.3+
1993 05 14	809	0.7+	1.3+	1999 01 11	327	0.5+	0.7+	2000 01 31	411	1.0+	0.1+
1993 05 14	809	0.0	0.5+	1999 01 11	327	0.2-	0.6+	2000 02 01	411	0.3+	0.1-
1993 05 14	809	0.0	0.2+	1999 01 16	703	(2.9-	0.0)	2000 02 01	411	0.1+	0.0
1998 12 08	704	(0.3-	2.2+)	1999 11 16	703	0.6+	1.5+	2000 02 09	411	0.4+	1.1-
1998 12 08	704	(0.1-	2.5+)	1999 11 16	703	0.1-	1.5+	2000 02 09	411	0.3-	1.1-
1998 12 08	704	(0.5-	3.6+)	1999 11 16	703	0.2-	0.0				

2000 BX₁₅ = 1998 QF₁₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>			(2000.0)			P		Q	
<i>n</i>	0.23288471	ω	110.50279	+0.28527980	-0.94585068				
<i>a</i>	2.6164277	Ω	321.81472	+0.75926713	+0.32163142				
<i>e</i>	0.1210290	<i>i</i>	14.50713	+0.58491782	+0.04381459				
<i>P</i>	4.23	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	3		

Residuals in seconds of arc

1998 08 17	704	0.3+	0.6-	1999 12 16	699	0.0	0.4+	2000 02 02	704	0.2+	0.2+
1998 08 17	704	0.3-	0.6+	1999 12 30	704	0.0	0.2-	2000 02 02	704	0.1+	0.1+
1998 08 17	704	0.2+	0.3-	1999 12 30	704	0.0	0.9-	2000 02 02	704	0.1-	0.5+
1998 08 17	704	0.2-	1.2-	1999 12 30	704	0.2-	0.9-	2000 02 02	704	0.2+	0.2+
1998 08 23	704	0.4+	0.8+	1999 12 30	704	0.5-	0.7-	2000 02 02	704	0.3+	0.3+
1998 08 23	704	0.9-	0.2+	2000 01 29	704	0.2+	0.1+	2000 02 02	704	0.0	0.4+
1998 08 23	704	1.6+	1.1+	2000 01 29	704	1.1+	0.7+	2000 02 02	704	0.0	0.5+
1998 08 23	704	2.0-	0.7+	2000 01 29	704	1.4-	1.2-	2000 02 02	704	0.2+	0.6+
1999 11 01	704	0.2-	0.2-	2000 01 29	704	0.4-	0.2+	2000 02 03	704	0.3+	0.0
1999 11 01	704	0.5-	0.8-	2000 01 31	704	0.1+	0.4+	2000 02 03	704	0.3+	0.1+
1999 11 01	704	0.4-	0.6-	2000 01 31	704	0.6-	0.7-	2000 02 03	704	0.1+	0.1-

1999 11 01	704	0.7-	0.6-	2000 01 31	704	0.2-	0.9+	2000 02 03	704	0.1+	0.1+
1999 11 01	704	0.7-	0.1-	2000 01 31	704	0.2-	1.2+	2000 02 03	704	0.1+	0.2+
1999 12 13	704	0.5+	0.2-	2000 02 02	704	0.1-	0.1-	2000 02 03	704	0.2+	0.2+
1999 12 13	704	0.2+	0.5+	2000 02 02	704	0.3+	0.1-	2000 02 03	704	0.1+	0.3+
1999 12 13	704	0.5+	0.1+	2000 02 02	704	0.5+	0.2-	2000 02 06	704	1.1-	1.2-
1999 12 13	704	0.3+	0.3+	2000 02 02	704	0.3-	0.1+	2000 02 06	704	0.1-	0.1-
1999 12 13	704	0.2-	0.4+	2000 02 02	704	0.4+	0.1-	2000 02 06	704	0.2+	0.6-
1999 12 16	699	0.2-	0.2+	2000 02 02	704	0.2+	0.3+	2000 02 06	704	0.2+	0.1+
1999 12 16	699	0.7+	0.2+	2000 02 02	704	0.1-	0.1+				

2000 BO₁₈ = 1995 UE₄₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>			(2000.0)			P		Q	
<i>n</i>	0.27440734	ω	125.49421	+0.17352196	-0.98150204				
<i>a</i>	2.3453387	Ω	314.29583	+0.86300793	+0.19111589				
<i>e</i>	0.0831984	<i>i</i>	6.48951	+0.47445488	+0.01133434				
<i>P</i>	3.59	<i>H</i>	15.7	<i>G</i>	0.15	<i>U</i>	5		

Residuals in seconds of arc

1995 10 24	327	0.5+	0.5-	2000 01 29	691	0.1+	0.3-	2000 02 07	691	0.3-	0.3-
1995 10 24	327	0.2-	0.6+	2000 01 30	704	0.4+	0.3+	2000 02 11	704	0.3+	0.9-
1995 10 25	327	0.2-	0.0	2000 01 30	704	0.8-	0.2-	2000 02 11	704	0.1+	0.0
1995 10 25	327	0.1-	0.1-	2000 01 30	704	0.2-	0.3+	2000 02 11	704	0.6+	1.0+
1995 10 25	327	0.0	0.0	2000 01 30	704	1.5-	1.9+	2000 02 11	704	0.3-	0.2-
2000 01 27	049	0.8+	0.4-	2000 01 31	704	0.7+	0.4-	2000 02 11	704	0.8+	0.6+
2000 01 28	049	0.7+	0.3-	2000 01 31	704	0.3-	0.8+	2000 02 14	691	0.3-	0.1-
2000 01 28	049	0.5+	0.0	2000 01 31	704	0.3-	0.7-	2000 02 14	691	0.0	0.0
2000 01 29	691	0.1-	0.4-	2000 02 07	691	0.4-	0.1-	2000 02 14	691	0.1-	0.0
2000 01 29	691	0.0	0.3-	2000 02 07	691	0.3-	0.2-				

2000 BT₁₈ = 1998 RL₄₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>			(2000.0)			P		Q	
<i>n</i>	0.20964661	ω	128.73866	+0.04619053	-0.99608305				
<i>a</i>	2.8063650	Ω	318.42162	+0.87763831	+0.07651532				
<i>e</i>	0.1247104	<i>i</i>	6.52366	+0.47709268	-0.04431671				
<i>P</i>	4.70	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	4		

Residuals in seconds of arc

1998 09 14	704	0.0	0.6-	2000 01 03	704	0.7+	0.3-	2000 02 03	620	1.2-	0.6-
1998 09 14	704	0.3+	0.7-	2000 01 03	704	0.1-	0.2-	2000 02 03	620	1.1-	0.9-
1998 09 14	704	0.1-	1.0-	2000 01 03	704	0.4-	1.0+	2000 02 03	620	1.7+	0.3+
1998 09 14	704	0.7-	1.2-	2000 01 30	704	0.4-	0.8-	2000 02 03	620	0.5+	0.5-
1998 09 18	704	(0.4-	2.4-)	2000 01 30	704	0.0	0.2+	2000 02 03	620	0.9-	0.2-
1998 09 18	704	0.8+	0.3+	2000 01 30	704	0.4+	1.0-	2000 02 11	704	0.3+	0.1-
1998 09 18	704	0.6+	1.7+	2000 01 31	704	0.0	0.8+	2000 02 11	704	0.2+	0.6+
1998 09 18	704	0.9-	1.3+	2000 01 31	704	0.2-	0.6+	2000 02 11	704	0.2+	0.2+
2000 01 03	704	0.5+	0.0	2000 01 31	704	0.7-	0.3+	2000 02 11	704	0.5+	0.3+

2000 BD₁₉

Id. DANEOPS (1997 observations)

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>			(2000.0)			P		Q	
<i>n</i>	1.20127682	ω	324.18457	+0.49579601	+0.84728361				
<i>a</i>	0.8764100	Ω	333.87743	-0.66143657	+0.22626046				
<i>e</i>	0.8951321	<i>i</i>	25.63939	-0.56275037	+0.48053792				
<i>P</i>	0.82	<i>H</i>	16.7	<i>G</i>	0.15	<i>U</i>	6		

Residuals in seconds of arc

1997 02 10	675	0.9-	0.4-	2000 01 27	118	0.2+	0.3+	2000 01 31	704	0.5+	0.2-
1997 02 10	675	0.9+	0.4+	2000 01 27	118	0.2+	0.2+	2000 02 01	118	1.3+	0.4+
2000 01 26	704	0.4+	0.5+	2000 01 28	461	0.5-	0.1+	2000 02 01	118	1.6+	0.3+
2000 01 26	704	0.1-	0.3+	2000 01 28	461	0.7-	0.1-	2000 02 02	704	0.0	0.2+
2000 01 26	704	0.1-	0.6+	2000 01 28	461	0.5-	0.2+	2000 02 02	704	0.9+	0.9+
2000 01 26	587	0.4-	0.6-	2000 01 28	461	0.8-	0.1-	2000 02 02	704	0.7+	0.3+

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2000 01 26	587	0.4+	0.4+	2000 01 28	461	0.4-	0.2-	2000 02 02	704	0.1-	0.3-
2000 01 26	587	0.2+	0.0	2000 01 28	402	0.3-	0.2+	2000 02 02	557	0.5-	0.1+
2000 01 27	012	0.0	0.6+	2000 01 28	402	0.3+	0.9-	2000 02 02	557	0.1+	1.0+
2000 01 27	012	0.5-	0.4-	2000 01 28	402	0.3-	0.9-	2000 02 02	557	0.3+	0.6+
2000 01 27	012	1.1-	0.5-	2000 01 28	402	0.7+	0.8-	2000 02 02	557	0.5+	0.3+
2000 01 27	012	0.4-	0.1-	2000 01 28	118	0.4+	1.6+	2000 02 03	704	0.7+	0.3+
2000 01 27	704	0.4+	0.1-	2000 01 28	118	0.1+	0.2-	2000 02 03	704	0.2+	0.0
2000 01 27	012	0.8-	0.5-	2000 01 28	118	0.4+	0.4-	2000 02 03	704	0.2+	0.4-
2000 01 27	704	0.0	0.5+	2000 01 29	704	0.7+	0.4+	2000 02 03	704	0.4+	0.0
2000 01 27	658	0.1-	0.1+	2000 01 29	704	0.1+	0.1-	2000 02 10	046	0.1-	0.5+
2000 01 27	658	0.3-	0.5+	2000 01 29	704	0.1+	0.0	2000 02 10	118	0.1+	0.6+
2000 01 27	704	0.0	0.9-	2000 01 29	704	0.2+	0.1-	2000 02 10	046	0.6+	0.0
2000 01 27	658	0.0	0.2-	2000 01 30	704	0.1+	0.2-	2000 02 10	046	0.9+	0.1+
2000 01 27	704	0.3-	0.6+	2000 01 30	704	0.3+	0.4+	2000 02 10	118	0.9+	0.0
2000 01 27	704	0.1+	0.2+	2000 01 30	704	0.4+	0.5-	2000 02 10	118	0.2-	0.3-
2000 01 27	046	0.0	0.2-	2000 01 30	858	0.3+	0.1-	2000 02 11	360	0.1+	0.3-
2000 01 27	046	0.1+	1.0+	2000 01 30	858	0.1+	0.1-	2000 02 11	360	1.0-	0.6-
2000 01 27	046	1.2+	0.5-	2000 01 30	858	0.3-	0.1-	2000 02 11	360	0.5-	0.3-
2000 01 27	046	0.6-	0.2+	2000 01 30	557	0.3-	0.1-	2000 02 11	611	1.1-	0.0
2000 01 27	046	1.9-	0.3+	2000 01 30	557	0.9-	0.3-	2000 02 11	611	0.7-	0.6-
2000 01 27	046	1.2-	1.2-	2000 01 30	557	0.1-	0.3+	2000 02 11	611	0.5-	0.5-
2000 01 27	046	0.2+	0.7-	2000 01 31	704	0.1+	0.2+				
2000 01 27	118	0.2-	0.5+	2000 01 31	704	0.5+	0.2-				

2000 BF₁₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	256.47768		(2000.0)		P		Q
<i>n</i>	0.53899011	ω	324.68899	+0.14382659		+0.98543995	
<i>a</i>	1.4953706	Ω	313.39032	-0.87683916		+0.08442414	
<i>e</i>	0.4196697	<i>i</i>	7.16796	-0.45876683		+0.14758276	
<i>P</i>	1.83	<i>H</i>	19.3	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1991 10 04	675	0.4-	0.2-	2000 02 01	691	0.1+	0.1-	2000 02 08	413	0.0	0.1-
1991 10 04	675	0.4+	0.2+	2000 02 01	691	0.3-	0.1-	2000 02 08	413	0.8-	0.7-
2000 01 28	691	0.3+	0.1-	2000 02 01	691	0.7+	0.4+	2000 02 08	413	0.2+	0.1-
2000 01 28	691	0.7+	0.5+	2000 02 03	858	1.0-	0.6+	2000 02 08	413	0.0	0.2-
2000 01 28	691	0.7+	0.4+	2000 02 03	858	1.8-	0.1-	2000 02 08	413	0.0	0.2-
2000 01 29	691	0.3-	0.5-	2000 02 03	858	1.9-	0.1+	2000 02 08	413	0.6+	0.3-
2000 01 29	691	0.0	0.1-	2000 02 04	104	1.4+	1.8-	2000 02 09	413	0.0	0.3+
2000 01 29	691	0.1-	0.4-	2000 02 04	104	1.7+	0.6-	2000 02 09	413	0.0	0.0
2000 01 30	691	0.0	0.1-	2000 02 04	104	0.8-	0.2+	2000 02 09	413	0.3+	0.0
2000 01 30	691	0.1-	0.2-	2000 02 04	104	(4.7-	1.5+)	2000 02 10	691	0.8-	0.9+
2000 01 30	691	0.5-	0.2-	2000 02 05	691	0.3-	0.5-	2000 02 10	691	(0.7+	2.7+)
2000 01 30	858	0.4-	0.5+	2000 02 05	691	0.5-	1.0-	2000 02 10	691	0.6+	0.6+
2000 01 30	858	1.2-	0.1-	2000 02 05	691	0.5-	0.8-	2000 02 10	413	0.4+	0.2+
2000 01 30	858	0.1+	0.2+	2000 02 05	104	1.6+	0.1+	2000 02 10	413	0.5-	0.6+
2000 01 31	691	0.4-	0.9+	2000 02 07	413	0.2+	0.0	2000 02 12	691	0.5-	0.4+
2000 01 31	691	1.4+	1.4+	2000 02 07	413	0.5+	0.6-	2000 02 12	691	0.0	0.4+
2000 01 31	691	1.3+	0.1-	2000 02 07	413	0.3-	0.1-	2000 02 12	691	0.2+	0.2+

2000 BS₂₀ = 1998 RA₆₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	114.10994		(2000.0)		P		Q
<i>n</i>	0.22717381	ω	54.65736	+0.98128096		-0.19253530	
<i>a</i>	2.6600954	Ω	316.44298	+0.17464197		+0.89889988	
<i>e</i>	0.1594741	<i>i</i>	0.35116	+0.08116562		+0.39358503	
<i>P</i>	4.34	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 09 14	704	0.1+	0.8+	1998 10 14	699	0.2-	0.0	2000 02 01	691	0.3-	0.1-
1998 09 14	704	1.0-	0.0	1998 10 19	699	0.3-	0.2+	2000 02 01	691	0.2-	0.1-
1998 09 14	704	0.2-	0.9+	1998 10 19	699	0.4+	0.1+	2000 02 03	704	0.2-	1.3+
1998 09 15	699	1.0+	0.1-	1998 10 19	699	0.2+	0.1+	2000 02 03	704	0.6+	0.3+
1998 09 15	699	0.2+	0.4+	2000 01 26	691	0.2-	0.0	2000 02 03	704	0.6+	0.3+
1998 09 15	699	0.5+	0.8-	2000 01 26	691	0.4-	0.2-	2000 02 03	704	1.2+	0.7-

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1998 09 18	704	0.3+	0.6+	2000 01 26	691	0.4-	0.1-	2000 02 07	691	0.0	0.2-
1998 09 18	704	0.1+	0.0	2000 01 30	703	0.1+	0.8-	2000 02 07	691	0.1+	0.2-
1998 09 18	704	0.3-	0.6-	2000 01 30	703	0.2+	0.1-	2000 02 07	691	0.0	0.2-
1998 09 18	704	0.9-	0.6-	2000 01 30	703	0.3+	0.8+	2000 02 10	691	0.2-	0.0
1998 10 14	699	0.4-	0.3-	2000 01 30	703	0.2-	0.8+	2000 02 10	691	0.2-	0.1-
1998 10 14	699	0.5+	0.4-	2000 02 01	691	0.2-	0.2-	2000 02 10	691	0.6-	0.2-

2000 BW₂₀ = 1998 QS₁₀₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	164.40801		(2000.0)		P		Q
<i>n</i>	0.27981669	ω	195.44607	+0.88342027		+0.45742654	
<i>a</i>	2.3150141	Ω	136.86004	-0.41263167		+0.86219877	
<i>e</i>	0.1840227	<i>i</i>	8.54788	-0.22204446		+0.21765625	
<i>P</i>	3.52	<i>H</i>	15.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 26	809	0.3-	0.1+	2000 01 28	691	0.1-	0.5+	2000 02 07	691	0.0	0.2+
1998 08 26	809	0.3-	0.0	2000 01 28	691	0.2+	0.5+	2000 02 07	691	0.0	0.0
1998 08 26	809	0.1-	0.5-	2000 02 01	691	0.3-	0.5-	2000 02 10	691	0.1+	0.2+
1998 08 27	809	0.5+	0.9+	2000 02 01	691	0.2+	0.1-	2000 02 10	691	0.2+	0.1-
1998 08 27	809	0.3+	0.4-	2000 02 01	691	0.0	0.6-	2000 02 10	691	0.2+	0.1-
1998 08 27	809	0.3+	0.1-	2000 02 03	704	0.5-	0.3+	2000 02 14	691	0.4+	0.6-
1998 09 27	699	0.1-	0.4+	2000 02 03	704	1.4+	0.5-	2000 02 14	691	0.1+	0.1+
1998 09 27	699	0.5+	0.2-	2000 02 03	704	0.5-	0.8+	2000 02 14	691	0.7-	0.7-
1998 09 27	699	0.7-	0.4-	2000 02 03	704	1.1-	0.1-				
2000 01 28	691	0.2+	0.3+	2000 02 07	691	0.2+	0.3+				

2000 BL₂₁ = 1977 AM₂ = 1997 PB₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	151.27768		(2000.0)		P		Q
<i>n</i>	0.17411110	ω	26.14099	+0.92573434		+0.31648499	
<i>a</i>	3.1762773	Ω	313.75737	-0.37728370		+0.73535097	
<i>e</i>	0.1375822	<i>i</i>	16.65502	-0.02594106		+0.59924637	
<i>P</i>	5.66	<i>H</i>	12.3	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1977 01 13	095	1.3-	2.5-	1999 11 16	704	0.6+	0.2+	2000 02 03	704	0.1+	0.3+
1997 08 05	608	0.6-	0.5+	1999 11 16	704	1.2-	0.7+	2000 02 03	704	0.1-	0.1-
1997 08 05	608	0.4-	0.1+	1999 11 16	704	0.1+	0.6-	2000 02 03	704	0.2-	0.2-
1997 08 06	608	0.5-	1.2+	1999 11 16	704	0.1+	0.4+	2000 02 05	704	0.2-	0.1+
1997 08 06	608	1.1-	0.9+	1999 11 16	704	1.3-	0.3+	2000 02 05	704	0.2-	0.7+
1997 08 07	608	0.3-	1.2+	2000 01 04	704	1.7+	0.1+	2000 02 05	704	0.5-	1.6+
1997 08 07	608	0.7-	0.6+	2000 01 04	704	0.4-	0.1-	2000 02 06	704	0.8+	0.3+
1997 09 02	566	0.0	0.3+	2000 01 04	704	1.5-	1.0+	2000 02 06	704	0.5+	0.1+
1997 09 02	566	0.2-	0.3+	2000 01 04	704	1.1-	0.4-	2000 02 06	704	0.3+	0.1+
1997 09 02	566	0.1+	0.1+	2000 01 04	704	(2.8-	0.7-)	2000 02 06	704	0.2+	0.7+
1998 11 14	704	0.5+	0.0	2000 01 06	704	0.3-	0.6-	2000 02 06	704	1.0+	0.6+
1998 11 14	704	0.2+	0.3+	2000 01 06	704	0.2+	0.1-	2000 02 08	704	0.3+	0.3-
1998 11 14	704	(0.6-	2.2-)	2000 01 06	704	0.3-	1.1-	2000 02 08	704	0.6+	0.1+
1998 11 14	704	1.7-	1.0-	2000 01 06	704	0.3-	1.0-	2000 02 08	704	0.3+	0.4+
1998 11 14	704	1.4-	0.4+	2000 01 06	704	0.1-	1.2-	2000 02 08	704	0.3+	0.7+
1998 11 16	704	0.6+	0.3-	2000 01 16	691	0.2+	0.0	2000 02 08	704	1.2+	1.0+
1998 11 16	704	(2.1-	3.3-)	2000 01 16	691	0.2+	0.1-	2000 02 10	691	0.1-	0.3-
1998 11 16	704	0.9-	0.4-	2000 01 16	691	0.4+	0.1+	2000 02 10	691	0.2-	0.3-
1998 11 16	704	1.0+	0.7+	2000 01 29	691	0.2-	0.1-	2000 02 10	691	0.3-	0.3-
1998 11 16	704	(4.0-	2.4+)	2000 01 29	691	0.2-	0.1-	2000 02 11	704	0.4+	0.3+
1998 12 12	704	0.3-	0.4+	2000 01 29	691	0.2-	0.0	2000 02 11	704	0.5+	0.2+
1998 12 12	704	1.2+	1.2+	2000 01 30	704	0.0	0.5+	2000 02 11	704	0.5+	0.1+
1998 12 12	704	1.2+	1.7-	2000 01 30	704	0.3+	0.4+	2000 02 11	704	0.7+	0.4+
1998 12 12	704	0.3-	0.1+	2000 01 30	704	0.1-	0.1-	2000 02 11	704	0.3+	0.4+
1998 12 12	704	0.4+	0.9+	2000 01 30	704	0.9-	0.6+	2000 02 11	704	0.4+	0.3+
1999 01 09	704	0.4+	0.7+	2000 02 01	691	0.5+	0.0	2000 02 11	704	0.1+	0.2+
1999 01 09	704	1.7-	1.2+	2000 02 01	691	0.4+	0.0	2000 02 11	704	0.4+	0.2+
1999 01 09	704	(3.2-	1.8+)	2000 02 01	691	0.4+	0.0	2000 02 11	704	0.3+	0.8+
1999 01 09	704	1.4+	1.0-	2000 02 03	704	0.2+	0.2+	2000 02 11	704	0.4+	0.6+
1999 01 09	704	0.8-	1.3-	2000 02 03	704	0.0	0.3+				

2000 BQ₂₂ = 1997 LY₁₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	317.05898		(2000.0)		P		Q			
<i>n</i>	0.28483711		ω	73.69433	−0.94546712		+0.32344966			
<i>a</i>	2.2877313		Ω	125.16203	−0.31388668		−0.87332059			
<i>e</i>	0.1292446		<i>i</i>	2.69011	−0.08698893		−0.36426840			
<i>P</i>	3.46 <th><i>H</i></th> <td>15.9<th><i>G</i></th><td>0.15<th><i>U</i></th><td colspan="2">5</td></td></td>		<i>H</i>	15.9 <th><i>G</i></th> <td>0.15<th><i>U</i></th><td colspan="2">5</td></td>	<i>G</i>	0.15 <th><i>U</i></th> <td colspan="2">5</td>	<i>U</i>	5		
Residuals in seconds of arc										
1997 05 04	809	0.7−	0.1+	2000 01 26	120	0.0	1.2+	2000 02 10	691	0.1+ 0.1−
1997 05 04	809	0.5−	1.4−	2000 01 26	120	0.6+	0.4+	2000 02 10	691	0.6− 0.1−
1997 05 04	809	0.1+	0.7−	2000 02 03	120	0.2−	0.8−	2000 02 10	691	0.5− 0.2−
1997 06 07	809	0.1+	0.9+	2000 02 03	120	1.2−	1.0−	2000 02 10	120	0.8+ 0.7−
1997 06 07	809	0.2+	0.5+	2000 02 04	120	0.9−	0.0	2000 02 10	120	0.0 0.2+
1997 06 07	809	0.0	0.3+	2000 02 04	120	0.2+	0.2−	2000 02 11	704	0.9+ 0.0
1997 06 08	809	0.6+	0.5−	2000 02 09	120	0.0	0.5+	2000 02 11	704	0.0 0.8+
1997 06 08	809	0.3+	0.6+	2000 02 09	120	0.4−	0.1−	2000 02 11	704	0.5+ 0.1+
1997 06 08	809	0.0	0.2+	2000 02 10	704	0.3+	0.1−	2000 02 11	704	0.0 0.3+
2000 01 26	120	(3.1−	0.5+)	2000 02 10	704	0.8+	0.5−	2000 02 11	704	0.8+ 1.7+
2000 01 26	120	0.0	0.9−	2000 02 10	704	0.8−	1.3+	2000 02 14	691	0.4− 0.1+
2000 01 26	120	1.2−	0.2−	2000 02 10	704	0.6+	0.2+	2000 02 14	691	0.3− 0.1+
2000 01 26	120	0.8+	0.7−	2000 02 10	704	0.5+	0.6−	2000 02 14	691	0.1− 0.1−

2000 BR₂₂ = 1982 DR₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	167.25646			(2000.0)			P			Q		
n	0.21663529	ω	210.47702				+0.89514521			+0.44274319		
a	2.7456800	Ω	123.15523				-0.39546480			+0.84244912		
e	0.0678267	i	3.55415				-0.20572470			+0.30701456		
P	4.55 <th>H</th> <td>14.1</td> <th>G</th> <td>0.15</td> <th>U</th> <td>4</td> <th colspan="5"></th>	H	14.1	G	0.15	U	4					
Residuals in seconds of arc												
1982 02 20	033	0.6+	0.2+	2000 01 26	120	0.1-	0.5-	2000 02 03	120	0.3+	0.6-	
1982 02 20	033	2.2-	1.0+	2000 01 26	120	0.7-	0.9+	2000 02 03	120	0.1+	0.5-	
1982 02 20	033	0.9-	0.2+	2000 01 26	120	0.9+	0.0	2000 02 10	691	0.3-	0.1+	
1982 02 21	033	1.9+	1.0-	2000 01 30	704	0.1-	0.7-	2000 02 10	691	0.3-	0.0	
1982 02 21	033	0.6+	0.8-	2000 01 30	704	0.4-	0.4+	2000 02 10	691	0.3-	0.1-	
1998 11 10	704	0.1-	0.5+	2000 01 30	704	0.4-	0.7+	2000 02 11	704	0.7-	0.3+	
1998 11 10	704	0.7-	0.4-	2000 01 30	704	0.2+	1.0+	2000 02 11	704	0.3+	0.0	
1998 11 10	704	1.3+	0.1+	2000 02 03	704	0.3+	0.2+	2000 02 11	704	0.3+	0.3-	
1998 11 10	704	1.0+	0.4-	2000 02 03	704	0.3-	0.2+	2000 02 11	704	0.9+	1.1+	
1998 11 10	704	1.5-	0.1+	2000 02 03	704	0.3-	0.3+	2000 02 14	691	0.0	0.0	
2000 01 25	120	0.5-	0.5-	2000 02 03	704	0.3+	0.4+	2000 02 14	691	0.2+	0.2-	
2000 01 26	120	1.4-	1.0-	2000 02 03	704	0.1-	0.7+	2000 02 14	691	0.0	0.1-	
2000 01 26	120	1.2+	0.9-	2000 02 03	120	0.9+	0.3-					

2000 BW₂₂ = 1998 TU₁₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	64.60661		(2000.0)		$\mathbf{P}$		$\mathbf{Q}$		
n	0.22772291	ω	236.98594		+0.31541521		−0.94892994		
a	2.6558175	Ω	194.63271		+0.87928504		+0.29491601		
e	0.0381934	i	1.52517		+0.35689083		+0.11205583		
P	4.33 <th>H</th> <td>15.0<th></th><th>G</th><td>0.15<th>U</th><td>5<th></th></td></td></td>	H	15.0 <th></th> <th>G</th> <td>0.15<th>U</th><td>5<th></th></td></td>		G	0.15 <th>U</th> <td>5<th></th></td>	U	5 <th></th>	
Residuals in seconds of arc									
1998 10 14	327	0.2−	0.2−	2000 01 30	703	0.0	0.3+	2000 02 02	704 0.2− 0.0
1998 10 14	327	0.2+	0.2−	2000 02 01	703	0.3+	0.1−	2000 02 04	704 0.3− 0.2+
1998 10 14	327	0.2−	0.0	2000 02 01	703	0.1−	0.3−	2000 02 04	704 0.6+ 1.4−
1998 10 15	327	0.0	0.4−	2000 02 01	703	0.8+	1.2+	2000 02 04	704 0.4+ 0.3+
1998 10 15	327	0.0	0.7+	2000 02 01	703	0.0	0.2−	2000 02 11	704 0.7− 0.8+
1998 10 15	327	0.2+	0.1+	2000 02 02	704	0.3+	1.0−	2000 02 11	704 0.0 1.2−
2000 01 30	703	0.4+	0.2+	2000 02 02	704	0.6+	0.3−	2000 02 11	704 1.3− 0.9−
2000 01 30	703	2.3−	1.1+	2000 02 02	704	0.6+	0.2+	2000 02 11	704 0.4+ 0.4+
2000 01 30	703	0.0	0.1−	2000 02 02	704	0.1−	0.1+	2000 02 11	704 0.6+ 0.6+

2000 BX₂₂ = 1995 YX₂₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	159.86939		(2000.0)			P		Q		
n	0.25982196	ω	40.65612			+0.90608976		+0.41447502		
a	2.4323094	Ω	294.66754			−0.40835146		+0.80422682		
e	0.1411729	i	5.36212			−0.11068168		+0.42594564		
P	3.79 <th>H</th> <td>14.6<td></td><td></td><th>G</th><td>0.15<th>U</th><td>4<td></td></td></td></td>	H	14.6 <td></td> <td></td> <th>G</th> <td>0.15<th>U</th><td>4<td></td></td></td>			G	0.15 <th>U</th> <td>4<td></td></td>	U	4 <td></td>	
Residuals in seconds of arc										
1995 12 24	566	0.4+	0.4−	2000 01 07	704	1.0−	1.9−	2000 02 06	704	0.7+ 0.4−
1995 12 24	566	0.2+	0.8−	2000 01 30	703	0.7+	0.1−	2000 02 06	704	0.0 0.4−
1995 12 24	566	0.7+	0.6−	2000 01 30	703	0.4−	0.5+	2000 02 06	704	0.0 0.1+
1995 12 25	566	0.4−	0.4+	2000 01 30	703	0.5+	0.3+	2000 02 06	704	0.3+ 0.5+
1995 12 25	566	0.4−	0.2+	2000 01 30	703	0.0	0.3+	2000 02 06	704	0.2+ 0.2+
1995 12 25	566	0.7−	0.5+	2000 02 01	703	0.3+	0.0	2000 02 08	704	0.1− 0.0
1998 08 23	699	0.5+	0.3−	2000 02 01	703	0.5−	1.0+	2000 02 08	704	0.4− 0.2−
1998 08 23	699	1.2+	0.4−	2000 02 01	703	1.0+	0.1+	2000 02 08	704	0.1− 0.1−
1998 08 23	699	0.4+	0.4+	2000 02 01	703	0.3−	0.1+	2000 02 08	704	0.7− 0.6−
1998 10 18	699	0.4−	0.2−	2000 02 04	704	0.3−	0.7+	2000 02 08	704	0.7− 1.2−
1998 10 18	699	0.3−	0.1+	2000 02 04	704	0.3+	0.2+	2000 02 10	704	0.1− 0.5+
1998 10 18	699	1.2−	0.7+	2000 02 04	704	1.0+	0.3−	2000 02 10	704	1.3+ 0.4+
2000 01 07	704	0.3−	0.6−	2000 02 04	704	1.7−	1.0+	2000 02 10	704	0.1− 1.0+
2000 01 07	704	0.3+	1.4−	2000 02 04	704	0.7+	1.2+	2000 02 10	704	0.8− 0.8−

2000 BY₂₂ = 1996 JL₁₆

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	315.34892		(2000.0)		P		Q				
n	0.21438482		ω	29.96570	−0.95142203		+0.30771231				
a	2.7648613		Ω	167.94207	−0.29149245		−0.88930151				
e	0.1332777		i	2.86804	−0.09913766		−0.33831340				
P	4.60 <th>H</th> <td>14.5<th>G</th><td>0.15<th>U</th><td>3</td></td></td>		H	14.5 <th>G</th> <td>0.15<th>U</th><td>3</td></td>	G	0.15 <th>U</th> <td>3</td>	U	3			
Residuals in seconds of arc											
1996 05 11	691	0.8+	0.2+	1999 12 06	704	1.3+	0.2+	2000 01 30	703	0.1−	0.1−
1996 05 11	691	0.7+	0.3+	1999 12 06	704	0.6−	0.1+	2000 02 01	703	0.1+	0.1+
1996 05 11	691	0.5+	0.5+	1999 12 06	704	0.7+	1.1+	2000 02 01	703	0.3+	0.1+
1996 05 13	566	0.6−	0.0	1999 12 06	704	0.3+	0.3−	2000 02 01	703	0.3−	0.3+
1996 05 13	566	0.3−	0.1+	2000 01 07	704	0.1−	0.0	2000 02 01	703	0.5+	0.3+
1996 05 13	566	0.7−	0.2+	2000 01 07	704	1.7−	1.4−	2000 02 04	704	0.1+	0.0
1998 11 11	704	0.5−	0.3+	2000 01 07	704	0.1+	1.1−	2000 02 04	704	0.1−	0.1−
1998 11 11	704	0.1−	0.8+	2000 01 30	703	0.1+	0.0	2000 02 04	704	0.1+	0.0
1998 11 11	704	0.7+	0.4−	2000 01 30	703	0.1+	0.2+	2000 02 04	704	0.1−	0.1−
1998 11 11	704	0.6−	0.9+	2000 01 30	703	0.1+	0.2+	2000 02 04	704	0.5−	0.5+

2000 BE₂₃ = 1998 MD₅

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	75.14841		(2000.0)			P		Q		
n	0.28537849	ω	115.69490			+0.61305158		−0.78814823		
a	2.2848370	Ω	296.38537			+0.70121154		+0.57470216		
e	0.1398991	i	3.49956			+0.36396447		+0.22031747		
P	3.45	H	16.2	G	0.15	U	3			
Residuals in seconds of arc										
1997 04 07	704 1.0−	0.1−	2000 01 07	704 0.7−	0.1+	2000 02 01	703 0.1+	0.7+		
1997 04 07	704 0.3+	1.5−	2000 01 07	704 0.0	0.1−	2000 02 01	703 0.1+	0.3+		
1998 06 19	691 1.3−	1.2+	2000 01 07	704 0.6+	0.8+	2000 02 04	704 0.3+	0.8+		
1998 06 19	691 0.7−	0.7+	2000 01 30	703 0.5−	0.9+	2000 02 04	704 0.1+	0.2+		
1998 06 19	691 0.6−	0.5+	2000 01 30	703 0.1+	0.2−	2000 02 04	704 0.9+	0.2−		
1998 06 24	691 0.4+	0.7+	2000 01 30	703 0.3+	0.4+	2000 02 04	704 0.4−	0.2+		
1998 06 24	691 0.0	0.8+	2000 01 30	703 0.1+	0.4+	2000 02 04	704 1.0+	0.1+		
1998 06 24	691 0.4+	0.5+	2000 02 01	703 0.5−	0.8+					
2000 01 07	704 0.1−	1.4−	2000 02 01	703 0.2+	0.6+					

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$$2000 \text{ BC}_{25} = 1992 \text{ OC}_3$$

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	92.39104		(2000.0)		P		Q		
n	0.31073179	ω	247.30311		+0.94730181		-0.31995081		
a	2.1587992	Ω	131.35294		+0.30110689		+0.87245954		
e	0.1847072	i	1.20875		+0.10933396		+0.36938575		
P	3.17	H	15.3		G	0.15	U	5	
Residuals in seconds of arc									
1992 07 26	809 0.4+	0.0	2000 01 30	704 0.2-	0.4+	2000 02 06	704 1.0+	1.1-	
1992 07 26	809 0.2-	0.4-	2000 01 30	704 0.9+	0.3+	2000 02 07	703 1.0-	0.3+	
1992 07 26	809 0.7+	0.4-	2000 01 30	704 0.3-	0.2+	2000 02 07	703 0.2+	0.8-	
1992 07 30	809 0.6+	0.0	2000 02 02	704 0.8+	0.7+	2000 02 07	703 0.0	0.2-	
1992 07 30	809 0.9-	0.5-	2000 02 02	704 0.3+	0.0	2000 02 07	703 0.3-	1.0+	
1992 07 30	809 0.1-	0.2-	2000 02 02	704 0.6-	0.5-	2000 02 11	704 0.6-	0.3-	
2000 01 05	704 0.7+	0.4-	2000 02 02	704 0.2-	0.8-	2000 02 11	704 0.2-	0.3-	
2000 01 05	704 0.1+	0.2-	2000 02 02	704 0.9-	0.2+	2000 02 11	704 0.0	0.6+	
2000 01 05	704 0.2-	0.5-	2000 02 03	704 0.1-	0.1-	2000 02 11	704 0.3-	0.3+	
2000 01 05	704 0.2+	0.7-	2000 02 03	704 0.9-	0.3-	2000 02 11	704 0.5-	0.5+	
2000 01 05	704 0.3+	0.1-	2000 02 03	704 0.2-	0.0	2000 02 12	691 0.4+	0.1-	
2000 01 06	704 (3.1+	1.1+)	2000 02 03	704 0.6-	0.7-	2000 02 12	691 0.2+	0.1-	
2000 01 06	704 0.8+	0.9+	2000 02 03	704 0.3+	0.5-	2000 02 12	691 0.3+	0.2-	
2000 01 06	704 0.5-	1.4+	2000 02 06	704 0.7+	0.2-	2000 02 12	691 0.3+	0.0	
2000 01 06	704 0.9-	1.0+	2000 02 06	704 0.6+	0.5+	2000 02 12	691 0.4+	0.1-	
2000 01 30	704 0.3-	0.2+	2000 02 06	704 0.4-	1.5-	2000 02 12	691 0.4+	0.1-	

$$\mathbf{2000\ BF_{25} = 1998\ YZ_8}$$
$$2000 \text{ BF}_{25} = 1998 \text{ YZ}_8$$

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5				Williams				
M	255.98407	(2000.0)		P		Q		
n	0.17336144	ω	136.22588	-0.42571368		+0.90411138		
	3.1854274	Ω	108.54706	-0.84049314		-0.38006189		
e	0.1321781	i	2.22146	-0.33517033		-0.19528329		
P	5.69	H	12.9	G	0.15	U	4	
Residuals in seconds of arc								
1998 12 08	699 2.6+	0.5-)	2000 01 06 704	0.4-	1.0-	2000 02 03 704	0.1-	0.0
1998 12 08	699 0.0	0.9-	2000 01 06 704	0.4+	0.8-	2000 02 11 704	0.2-	0.2-
1998 12 23	691 0.4-	0.2+	2000 01 06 704	0.2+	1.0-	2000 02 11 704	0.2-	0.1-
1998 12 23	691 0.4-	0.1+	2000 01 06 704	0.4+	1.1-	2000 02 11 704	0.1-	0.3+
1998 12 23	691 0.3-	0.5+	2000 01 27 691	0.3-	0.3+	2000 02 11 704	0.3+	0.4+
1998 12 23	327 0.3+	0.2-	2000 01 27 691	0.2-	0.3-	2000 02 11 704	0.2-	0.6+
1998 12 23	327 0.1+	0.1-	2000 01 27 691	0.4-	0.5+	2000 02 12 691	0.3+	0.1-
1998 12 23	327 0.1-	0.0	2000 01 30 704	0.1+	0.0	2000 02 12 691	0.3+	0.1-
1998 12 24	327 0.2+	0.0	2000 01 30 704	0.1-	0.4+	2000 02 12 691	0.3-	0.3-
1998 12 24	327 0.5+	0.5+	2000 01 30 704	1.6+	0.2+	2000 02 14 691	0.0	0.3-
1998 12 24	327 0.3+	0.1+	2000 02 03 704	0.1-	0.1+	2000 02 14 691	0.0	0.2-
2000 01 04	704 (1.0+	4.1+)	2000 02 03 704	0.4-	0.5-	2000 02 14 691	0.2-	0.2-
2000 01 04	704 0.5+	1.8+	2000 02 03 704	0.3+	0.2+			
2000 01 04	704 1.0-	1.2+	2000 02 03 704	0.2-	0.0			

$$2000 \text{ BC}_{26} = 1998 \text{ XL}_7$$

2000 BC₂₆ = 1998 XL₇

2000 BC₂₆ = 1998 XL₇											
Epoch 2000 Feb. 26.0 TT = JDT 2451600.5						Williams					
<i>M</i>	303.85755		(2000.0)			P			Q		
<i>n</i>	0.18018335	<i>ω</i>	98.35619			-0.90113125			+0.43164365		
<i>a</i>	3.1045091	<i>Ω</i>	107.22368			-0.41261532			-0.82513441		
<i>e</i>	0.1003618	<i>i</i>	2.43458			-0.13308295			-0.36446806		
<i>P</i>	5.47	<i>H</i>	13.8			<i>G</i>	0.15		<i>U</i>	5	
Residuals in seconds of arc											
1998 11 21	704	0.5+	0.1-	2000 01 30	703	(2.4-	0.6-)	2000 02 03	704	0.6-	0.2-
1998 11 21	704	0.7-	0.8-	2000 01 30	703	0.7-	0.0	2000 02 03	704	0.4+	0.4+
1998 11 21	704	0.1-	0.1+	2000 01 30	703	0.3-	1.2+	2000 02 03	704	0.5+	0.6-
1998 11 21	704	(3.7-	0.2-)	2000 01 30	704	0.3+	0.5-	2000 02 11	704	0.4-	0.1-
1998 12 08	691	0.5+	0.0	2000 01 30	703	1.3-	0.7-	2000 02 11	704	0.1-	0.5-
1998 12 08	691	0.6-	0.9+	2000 01 30	704	0.4+	0.8+	2000 02 11	704	0.0	0.2+

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1998 12 08	691	0.6+	0.0	2000 01 30	704	0.6+	0.5-	2000 02 11	704	0.1-	0.3+
1998 12 13	691	0.1-	0.0	2000 01 30	704	1.4+	0.4+	2000 02 11	704	0.1-	0.2-
1998 12 13	691	0.2-	0.2-	2000 02 03	704	0.1+	0.1+				
1998 12 13	691	0.2+	0.1+	2000 02 03	704	0.0	0.1+				

2000 BL₂₆ = 1998 XB₁₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.17079160	ω	85.54642	-0.99503159	-0.09945724		
<i>a</i>	3.2173011	Ω	88.74562	+0.08945955	-0.91307249		
<i>e</i>	0.1177025	<i>i</i>	0.25879	+0.04369350	-0.39548310		
<i>P</i>	5.77	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1998 12 08	691	0.3+	0.7+	2000 02 03	704	0.4+	0.6+	2000 02 10	691	0.1-	0.5-
1998 12 08	691	0.2-	0.1-	2000 02 03	704	0.4+	0.5+	2000 02 10	691	0.3-	0.4-
1998 12 08	691	0.8-	0.7+	2000 02 03	704	0.5+	0.4+	2000 02 10	691	0.2-	0.6-
1998 12 14	691	0.3+	0.8-	2000 02 03	704	0.3-	0.0	2000 02 11	704	1.3-	0.2+
1998 12 14	691	0.0	0.1-	2000 02 07	691	0.1-	0.7+	2000 02 11	704	0.2+	0.4-
1998 12 14	691	0.3+	0.4-	2000 02 07	691	0.1+	0.0	2000 02 11	704	0.8+	0.6+
2000 01 30	704	0.4-	0.2+	2000 02 07	691	0.2+	0.1-	2000 02 11	704	1.1-	0.6+
2000 01 30	704	0.2-	0.2+	2000 02 08	691	0.0	0.4-	2000 02 11	704	1.1+	0.1-
2000 01 30	704	0.1-	0.7-	2000 02 08	691	0.1+	0.5-				
2000 02 03	704	0.4+	0.2+	2000 02 08	691	0.1-	0.4-				

2000 BQ₂₆ = 1993 FB₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.26973589	ω	32.65344	+0.16337716	-0.98587247		
<i>a</i>	2.3723398	Ω	47.97236	+0.89415155	+0.13215424		
<i>e</i>	0.1867538	<i>i</i>	2.84921	+0.41689437	+0.10291125		
<i>P</i>	3.65	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1993 03 17	809	2.0-	1.2+	1997 05 01	704	0.1+	0.2+	2000 01 30	704	0.3+	1.4+
1993 03 18	809	0.6-	0.2-	1997 05 01	704	1.3-	0.0	2000 01 30	704	0.5+	0.8+
1993 03 23	809	1.2+	0.7-	1999 12 08	704	1.7+	0.6-	2000 02 03	704	0.1+	0.5+
1993 03 23	691	0.2+	1.0-	1999 12 08	704	0.1+	0.4+	2000 02 03	704	0.2+	0.3-
1993 03 23	691	0.2-	0.9-	1999 12 08	704	0.2-	0.2+	2000 02 03	704	0.3+	0.1-
1993 03 23	691	0.1+	0.9-	2000 01 06	704	0.0	0.3-	2000 02 03	704	0.1+	0.5-
1995 12 10	587	0.2+	0.1-	2000 01 06	704	0.9-	0.7-	2000 02 03	704	0.2-	1.0-
1995 12 10	587	0.1-	0.4-	2000 01 06	704	0.8-	0.3+	2000 02 11	704	0.0	0.3+
1997 05 01	704	0.7+	0.1-	2000 01 06	704	0.5-	0.7+	2000 02 11	704	0.2-	0.5+
1997 05 01	704	1.3+	0.4+	2000 01 30	704	0.1-	0.5+	2000 02 11	704	0.3-	0.0
1997 05 01	704	0.1-	1.2+	2000 01 30	704	0.5-	0.8+	2000 02 11	704	1.2+	1.0-

2000 BR₂₆ = 3179 T-3 = 1997 GH₄₄ = 1998 SW₁₁₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.28143998	ω	197.39718	-0.62751168	+0.77809700		
<i>a</i>	2.3061038	Ω	33.75178	-0.70819012	-0.55534463		
<i>e</i>	0.0950869	<i>i</i>	2.90738	-0.32356738	-0.29352581		
<i>P</i>	3.50	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1977 10 07	675	1.8+	0.8-	1997 04 06	704	0.8-	0.7+	2000 01 30	704	0.4-	0.2-
1977 10 11	675	1.1-	0.4+	1997 04 06	704	0.2-	0.7+	2000 01 30	704	0.5+	0.6-
1977 10 11	675	1.2-	0.1-	1997 04 11	704	1.0+	0.6-	2000 01 30	704	0.8+	0.1-
1977 10 12	675	1.1+	1.4-	1997 04 11	704	0.2-	0.2-	2000 02 03	704	0.0	0.1+
1977 10 12	675	0.1-	0.8-	1997 05 07	704	0.2+	0.4-	2000 02 03	704	0.2+	0.3+
1977 10 16	675	0.2+	0.9-	1997 05 07	704	0.1+	0.4-	2000 02 03	704	0.2-	0.4+
1977 10 16	675	0.9+	1.0-	1997 05 07	704	0.2-	0.5+	2000 02 03	704	0.4-	0.3-
1977 10 17	675	0.8+	0.8-	1997 05 07	704	0.4-	0.2-	2000 02 03	704	0.2-	0.0
1977 10 17	675	2.3+	1.1-	1997 05 07	704	0.1-	0.1+	2000 02 04	120	0.1+	0.5-
1977 10 21	675	0.2-	0.4-	1998 09 26	704	0.7+	0.9+	2000 02 04	120	0.6+	0.2+

1977 10 21	675	1.0-	0.5-	1998 09 26	704	0.3+	0.6+	2000 02 05	120	0.6-	0.3-
1997 04 06	704	0.8+	0.5-	1998 09 26	704	0.1+	1.7+	2000 02 06	120	1.4-	0.8-
1997 04 06	704	0.1-	1.1-	1998 09 26	704	0.3-	0.0	2000 02 11	704	0.9+	0.6+
1997 04 06	704	0.6-	0.4-	1998 09 26	704	(2.8+	0.4-)	2000 02 11	704	0.3-	0.1+
1997 04 06	704	0.1-	0.4-	1998 09 27	704	1.2-	1.4+	2000 02 11	704	0.0	0.1+
1997 04 06	704	0.5-	0.8-	1998 09 27	704	0.8-	0.5-	2000 02 11	704	0.1-	0.4+
1997 04 06	704	(0.3+	2.3-)	1998 09 27	704	0.7-	0.0	2000 02 11	704	0.3+	0.1+

2000 BX₂₆ = 1978 WT₁₈ = 1998 VY₁₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.19513197	ω	341.46080	+0.21269946	-0.97570065		
<i>a</i>	2.9438596	Ω	96.23264	+0.90304764	+0.17572982		
<i>e</i>	0.0659973	<i>i</i>	3.03332	+0.37318079	+0.13087118		
<i>P</i>	5.05	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1978 11 30	675	0.6+	0.0	1998 11 16	566	0.7-	0.4+	2000 01 30	703	0.9-	0.1+
1978 12 01	675	0.6-	0.1-	2000 01 04	704	0.1-	1.0-	2000 01 30	703	0.3-	0.8-
1998 11 10	704	0.1-	0.1+	2000 01 04	704	0.2-	0.0	2000 01 30	703	0.8+	0.2+
1998 11 10	704	(0.3+	2.3+)	2000 01 04	704	0.2-	1.0+	2000 02 03	704	0.1+	0.1-
1998 11 10	704	0.8+	0.4+	2000 01 04	704	0.5+	0.9+	2000 02 03	704	0.2-	0.2-
1998 11 10	704	0.1+	0.7+	2000 01 30	704	0.3+	0.3-	2000 02 03	704	0.3-	0.2-
1998 11 10	704	1.6+	0.0	2000 01 30	704	0.2+	0.4+	2000 02 03	704	0.2+	0.5-
1998 11 11	704	0.2+	0.1-	2000 01 30	703	1.1+	0.4+	2000 02 03	704	0.1-	0.2+
1998 11 11	704	0.0	0.8-	2000 01 30	703	0.6-	0.5+	2000 02 11	704	(2.3+	0.4+)
1998 11 11	704	0.1-	0.8-	2000 01 30	704	0.1+	0.1+	2000 02 11	704	0.3-	0.1+
1998 11 11	704	0.1-	0.5+	2000 01 30	703	0.1+	0.0	2000 02 11	704	0.1-	0.2-
1998 11 16	566	0.8-	0.4-	2000 01 30	703	0.3-	0.2-	2000 02 11	704	0.3+	0.1-
1998 11 16	566	0.9-	0.1-	2000 01 30	703	0.1+	0.2-				

2000 BA₂₇ = 1997 WM₄₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>		(2000.0)		<i>P</i>		<i>Q</i>	
<i>n</i>	0.08277599	ω	78.35364	+0.50090239	-0.86526704		
<i>a</i>	5.2143455	Ω	341.54463	+0.76709094	+0.45465692		
<i>e</i>	0.0583039	<i>i</i>	3.66620	+0.40083450	+0.21118721		
<i>P</i>	11.91	<i>H</i>	11.2	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1997 11 29	704	(2.7- 0.3+)	1998 12 17	704	(1.5- 2.3-)	2000 01 30	704	0.2+ 0.0
1997 11 29	704	(2.7- 1.3-)	1998 12 17	704	0.2- 0.2-	2000 01 30	703	0.6- 0.5+
1997 11 29	704	(2.4- 1.0-)	1998 12 17	704	0.0 1.6-	2000 01 30	703	(2.1+ 0.6+)
1997 11 29	704	1.8- 0.7+	1999 01 19	704	0.4+ 0.3-	2000 01 30	703	0.1- 0.8-
1997 12 04	704	0.4+ 0.2-	1999 01 19	704	0.6- 0.9-	2000 01 30	703	0.8+ 0.6+
1997 12 04	704	(3.7+ 2.6+)	1999 01 19	704	1.1- 1.4-	2000 02 03	704	0.2- 0.6-
1997 12 04	704	(2.4+ 0.4-)	1999 01 19	704	0.7+ 1.3+	2000 02 03	704	0.2- 0.9+
1997 12 04	704	0.9+ 1.7+	2000 01 04	704	0.0 0.3+	2000 02 03	704	0.1+ 0.3+
1997 12 05	704	0.8- 0.5+	2000 01 04	704	0.2- 0.1-	2000 02 03	704	0.2- 0.4+
1997 12 05	704	0.6+ 1.0+	2000 01 04	704	0.7+ 1.2+	2000 02 03	704	0.4+ 0.2+
1997 12 05	704	0.3+ 0.0	2000 01 04	704	0.0 0.2+	2000 02 11	704	0.3+ 0.6+
1997 12 05	704	0.2- 0.7+	2000 01 04	704	0.7- 0.1+	2000 02 11	704	0.1- 0.3-
1997 12 05	704	0.1+ 1.0-	2000 01 30	704	0.8+ 0.4+	2000 02 11	704	(0.5- 2.4-)
1998 12 17	704	0.0 0.6-	2000 01 30	704	0.7+ 0.5-			
1998 12 17	704	0.3- 1.9-	2000 01 30	704	0.2- 0.2-			

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Residuals in seconds of arc

1998 09 26	704	1.5−	0.1+	2000 01 04	704	0.2−	1.2−	2000 02 03	704	0.0	0.4+
1998 09 26	704	1.1+	0.7+	2000 01 04	704	1.6−	1.3+	2000 02 03	704	0.3+	0.7+
1998 09 26	704	0.3−	0.0	2000 01 30	704	0.5−	0.8+	2000 02 03	704	0.5−	0.9+
1998 09 26	704	0.2−	0.6−	2000 01 30	704	0.5+	0.3+	2000 02 11	704	0.1−	0.4−
1998 09 27	704	1.0−	0.2−	2000 01 30	704	0.3−	0.3+	2000 02 11	704	0.5+	0.2−
1998 09 27	704	1.3+	0.6+	2000 01 30	704	1.2−	0.4+	2000 02 11	704	0.0	0.7−
1998 09 27	704	1.3+	0.6+	2000 01 30	704	0.7+	0.6−	2000 02 11	704	0.1+	0.4−
1998 09 27	704	0.7−	1.1−	2000 02 03	704	0.4+	0.0	2000 02 11	704	0.0	0.2−
2000 01 04	704	1.8+	1.9−	2000 02 03	704	0.0	0.3+				

2000 BM₂₇ = 1998 SD₈₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	354.17612		(2000.0)	P	Q
<i>n</i>	0.27403060	ω	181.26023	−0.90542211	−0.42421205
<i>a</i>	2.3474878	Ω	333.62081	+0.38979626	−0.81589219
<i>e</i>	0.1079203	<i>i</i>	2.05947	+0.16813590	−0.39289193
<i>P</i>	3.60	<i>H</i>	15.3	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 09 26	704	1.0−	0.5+	2000 01 07	704	0.7−	0.3+	2000 02 04	704	0.1−	0.2−
1998 09 26	704	0.3−	0.5+	2000 01 07	704	0.1+	1.3−	2000 02 04	704	1.0+	0.1−
1998 09 26	704	0.7+	0.4+	2000 01 28	691	0.5−	0.4−	2000 02 04	704	0.0	0.0
1998 09 26	704	0.8+	0.7−	2000 01 28	691	0.7−	0.4−	2000 02 04	704	0.5+	0.4−
1998 09 26	704	0.9−	0.2+	2000 01 28	691	0.6−	0.3−	2000 02 11	704	0.2+	0.1+
1998 09 27	704	0.8−	1.2−	2000 01 30	704	0.3+	0.5+	2000 02 11	704	0.1+	0.4+
1998 09 27	704	0.8+	0.2+	2000 01 30	704	0.2+	0.6+	2000 02 11	704	0.3+	0.4+
1998 09 27	704	0.3−	1.0+	2000 01 30	704	0.0	0.0	2000 02 11	704	0.1+	0.3−
1998 09 27	704	0.6+	0.1−	2000 01 30	704	0.0	0.5+	2000 02 11	704	0.2+	0.1+
1999 12 07	704	0.6−	0.2−	2000 01 30	703	0.4+	0.5+	2000 02 15	691	0.2−	0.0
1999 12 07	704	0.2−	0.1−	2000 01 30	703	0.3+	0.3−	2000 02 15	691	0.1−	0.0
1999 12 07	704	0.0	1.2−	2000 01 30	703	1.1−	0.7+	2000 02 15	691	0.2−	0.1+
2000 01 07	704	1.1+	0.7+	2000 01 30	703	0.0	0.3+				

2000 BY₂₈ = 1998 RC₁₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	52.56823		(2000.0)	P	Q
<i>n</i>	0.24617379	ω	92.96209	+0.10785111	−0.99412078
<i>a</i>	2.5213986	Ω	350.82982	+0.88655286	+0.10053819
<i>e</i>	0.1150023	<i>i</i>	3.45054	+0.44988016	+0.04019874
<i>P</i>	4.00	<i>H</i>	14.9	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1998 09 13	691	0.2−	0.5+	2000 01 30	703	0.3+	0.3−	2000 02 08	704	0.1−	1.0−
1998 09 13	691	0.4−	0.4+	2000 01 30	703	0.5+	0.4−	2000 02 08	704	0.1+	0.6−
1998 09 13	691	0.2−	0.4+	2000 01 30	703	0.4+	0.4−	2000 02 08	704	0.0	1.1−
1998 09 19	691	0.1−	0.0	2000 01 30	703	0.4−	0.3−	2000 02 11	704	0.2+	0.1+
1998 09 19	691	0.4+	0.2−	2000 02 03	704	0.8+	0.0	2000 02 11	704	0.2−	0.6+
1998 09 19	691	0.1−	0.0	2000 02 03	704	0.6+	0.5+	2000 02 11	704	0.4+	0.2+
1999 12 06	704	0.3−	0.0	2000 02 03	704	0.6−	0.3+	2000 02 11	704	0.1−	0.4+
1999 12 06	704	0.1+	0.4−	2000 02 03	704	0.2+	0.9−	2000 02 11	704	0.2+	0.6−
1999 12 06	704	1.4+	0.0	2000 02 03	704	0.2−	1.1−	2000 02 16	704	0.5−	0.5+
1999 12 06	704	0.8−	0.5−	2000 02 06	703	0.6−	1.8+	2000 02 16	704	0.1−	0.4+
1999 12 06	704	1.0−	1.2−	2000 02 06	703	0.5−	0.4+	2000 02 16	704	0.8+	1.2+
2000 01 07	704	1.3+	0.5+	2000 02 06	703	0.0	0.4+	2000 02 16	704	0.1−	1.3+
2000 01 07	704	1.1−	0.1−	2000 02 06	703	0.2+	0.2−	2000 02 16	704	0.5+	0.6+
2000 01 07	704	0.3−	0.2+	2000 02 08	704	0.1+	0.1−				
2000 01 07	704	0.9−	0.8+	2000 02 08	704	0.2+	0.4−				

2000 BZ₂₈ = 1995 BP₁₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	4.97223		(2000.0)	P	Q
<i>n</i>	0.20114381	ω	143.48617	−0.77325289	−0.63405945
<i>a</i>	2.8849056	Ω	357.13449	+0.54377087	−0.65740871
<i>e</i>	0.1508909	<i>i</i>	8.01498	+0.32617972	−0.40716386
<i>P</i>	4.90	<i>H</i>	14.5	<i>G</i>	0.15
				<i>U</i>	4

Residuals in seconds of arc

1995 01 31	033	0.0	0.2+	2000 01 30	703	0.8−	0.3−	2000 02 06	703	0.5−	0.0
1995 01 31	033	0.3−	0.1+	2000 01 30	703	0.1−	0.6−	2000 02 06	703	0.1−	0.4−
1995 02 03	033	0.4+	0.2−	2000 01 30	703	0.1−	0.2+	2000 02 06	703	0.1−	0.6−
1999 12 08	704	0.2−	1.2−	2000 01 30	703	0.1−	0.0	2000 02 11	704	0.3+	0.3−
1999 12 08	704	0.6+	0.5+	2000 02 03	704	0.3−	0.3+	2000 02 11	704	1.0+	0.3−
1999 12 08	704	0.4−	0.5+	2000 02 03	704	0.2−	0.0	2000 02 11	704	0.6+	0.1−
2000 01 29	703	1.2+	0.0	2000 02 03	704	0.5−	0.2+	2000 02 11	704	0.2+	0.2+
2000 01 29	703	0.3−	0.3+	2000 02 03	704	0.4−	0.2+	2000 02 11	704	0.1+	0.1+
2000 01 29	703	0.6+	0.4+	2000 02 03	704	0.5−	0.6+				
2000 01 29	703	0.1−	0.2+	2000 02 06	703	0.2−	0.3−				

2000 BX₂₉ = 1996 EX₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	51.27891		(2000.0)	P	Q
<i>n</i>	0.22181082	ω	37.08621	+0.42524225	−0.90497060
<i>a</i>	2.7028020	Ω	27.75588	+0.82299286	+0.38017079
<i>e</i>	0.1397011	<i>i</i>	1.72816	+0.37663216	+0.19104550
<i>P</i>	4.44	<i>H</i>	15.3	<i>G</i>	0.15
				<i>U</i>	5

Residuals in seconds of arc

1996 03 11	691	0.2+	0.2−	2000 01 04	704	0.1+	0.5−	2000 02 02	704	0.7+	0.1+
1996 03 11	691	0.2+	0.0	2000 01 04	704	0.1+	0.2−	2000 02 02	704	0.3+	0.0
1996 03 11	691	0.1+	0.2+	2000 01 30	704	0.4+	1.1+	2000 02 11	704	0.1−	1.4−
1996 03 18	691	0.1−	0.2−	2000 01 30	704	0.2−	0.3+	2000 02 11	704	0.3−	0.0
1996 03 18	691	0.1−	0.1−	2000 01 30	704	1.0−	0.3−	2000 02 11	704	1.0−	0.6+
1996 03 18	691	0.4−	0.1+	2000 01 30	704	0.0	1.4−	2000 02 11	704	1.0+	1.2+
2000 01 04	704	0.1−	0.4−	2000 02 02	704	0.3−	0.6+				
2000 01 04	704	0.1−	0.0	2000 02 02	704	0.4+	0.5+				

2000 BZ₂₉ = 1991 PD₂₃ = 1998 VA₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	344.42260		(2000.0)	P	Q
<i>n</i>	0.18109177	ω	111.02885	−0.96533468	−0.25912787
<i>a</i>	3.0941183	Ω	53.96575	+0.22278131	−0.88052138
<i>e</i>	0.1026608	<i>i</i>	2.22052	+0.13600533	−0.39690660
<i>P</i>	5.44	<i>H</i>	13.4	<i>G</i>	0.15
				<i>U</i>	3

Residuals in seconds of arc

1991 08 02	809	0.1+	0.5−	1999 01 19	910	0.8−	0.6−	2000 01 30	703	0.1+	0.3+
1991 08 02	809	0.2−	0.4+	1999 01 19	910	0.5−	0.3−	2000 01 30	703	0.2−	0.2−
1991 08 02	809	0.2+	0.2−	1999 01 19	910	0.7−	0.3−	2000 01 30	703	1.3−	0.3+
1998 10 29	120	0.2−	1.3−	1999 12 06	704	0.0	0.5+	2000 02 03	704	0.1+	0.2+
1998 10 30	120	(2.3+	1.8−)	1999 12 06	704	0.5+	0.7−	2000 02 03	704	0.4+	0.1+
1998 10 30	120	(3.2−	1.3−)	1999 12 06	704	0.9+	0.1+	2000 02 03	704	0.2+	0.2+
1998 11 10	699	0.0	0.2+	2000 01 06	704	0.7+	0.0	2000 02 03	704	0.3+	0.6+
1998 11 10	699	0.4+	1.4+	2000 01 06	704	1.4+	0.8−	2000 02 03	704	0.3+	0.7+
1998 11 10	699	1.0−	0.1+	2000 01 06	704	0.1+	0.3−	2000 02 11	704	0.0	0.0
1998 11 10	910	0.6−	0.5+	2000 01 06	704	0.1−	0.0	2000 02 11	704	0.7+	0.6+
1998 11 10	910	0.7−	0.5+	2000 01 30	704	1.0−	0.5−	2000 02 11	704	0.3−	0.6−
1998 11 10	910	0.4−	0.4+	2000 01 30	704	0.1−	0.6−	2000 02 11	704	0.2−	0.4−
1998 11 13	910	1.1+	0.1−	2000 01 30	704	0.1−	0.2+	2000 02 11	704	0.5−	0.2+
1998 11 13	910	1.0+	0.4−	2000 01 30	704	1.0−	0.2−				
1998 11 13	910	1.8+	0.5−	2000 01 30	703	0.6−	0.2−				

2000 BB₃₀ = 1994 NL₃ = 1998 SD₁₄₃
Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.29316431	ω	120.23416	-0.65239991	+0.75186589		
<i>a</i>	2.2442022	Ω	108.72866	-0.72531506	-0.58297947		
<i>e</i>	0.1190255	<i>i</i>	5.77214	-0.21975537	-0.30794906		
<i>P</i>	3.36	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	3
Residuals in seconds of arc							
1994 07 11	809(11.4- 3.3+)	1998 09 26	704 0.3- 0.7-	2000 01 30	704 0.3+ 0.6+		
1994 07 11	809(11.6- 3.5+)	1998 09 26	704 0.1- 1.0+	2000 02 03	704 0.5+ 0.4-		
1994 07 11	809(10.6- 4.1+)	1998 09 27	704 (2.4- 1.6-)	2000 02 03	704 0.4+ 0.1+		
1994 07 12	809(10.7- 3.0+)	1998 09 27	704 1.2+ 0.1-	2000 02 03	704 0.2+ 0.3+		
1994 07 12	809 (9.9- 2.6+)	1998 09 27	704 0.0 0.0	2000 02 03	704 0.3+ 0.5+		
1994 07 12	809(10.2- 2.5+)	1998 09 27	704 0.7- 0.1-	2000 02 03	704 0.1+ 0.8+		
1997 04 07	809 0.2+ 0.3+	1999 12 06	704 0.2+ 0.6-	2000 02 11	704 0.3- 0.8+		
1997 04 07	809 0.3+ 0.9+	1999 12 06	704 0.8+ 1.1-	2000 02 11	704 0.2- 0.4-		
1997 04 07	809 0.1+ 0.4+	1999 12 06	704 1.6+ 1.4-	2000 02 11	704 0.6- 0.1-		
1998 09 26	704 0.7- 1.0+	2000 01 30	704 0.7- 0.1+	2000 02 11	704 0.4- 0.3+		
1998 09 26	704 0.6- 1.6+	2000 01 30	704 1.1- 0.8-	2000 02 11	704 0.0 0.8+		

2000 BG₃₀ = 1998 SF₂₄
Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26367198	ω	38.31093	-0.69006968	-0.72171557		
<i>a</i>	2.4085744	Ω	95.39702	+0.64989206	-0.65083554		
<i>e</i>	0.1485956	<i>i</i>	3.11699	+0.31850297	-0.23566871		
<i>P</i>	3.74	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i>	4
Residuals in seconds of arc							
1998 09 17	699 0.1+ 0.2+	2000 01 29	703 0.2- 0.1-	2000 02 03	704 0.3- 0.1-		
1998 09 17	699 0.2+ 1.3-	2000 01 29	703 0.2- 0.2-	2000 02 03	704 0.2- 0.2-		
1998 09 17	699 0.4- 0.9+	2000 01 29	703 0.1- 0.1+	2000 02 06	703 0.7+ 0.6-		
1998 09 24	699 1.0- 0.4-	2000 01 30	704 0.3+ 0.3-	2000 02 06	703 0.3- 0.2+		
1998 09 24	699 0.8+ 1.1+	2000 01 30	704 0.1- 1.4-	2000 02 06	703 0.5- 0.0		
1998 09 24	699 0.5+ 1.1-	2000 01 30	704 0.1+ 0.0	2000 02 06	703 0.4- 0.4+		
1999 12 04	703 0.8+ 1.4+	2000 01 30	704 1.1+ 0.0	2000 02 11	704 0.3- 0.1-		
1999 12 04	703 0.6+ 0.2+	2000 01 30	704 0.6+ 0.1-	2000 02 11	704 0.2+ 0.1-		
1999 12 04	703 1.0- 0.1-	2000 02 03	704 0.2- 0.3+	2000 02 11	704 0.1+ 0.2+		
1999 12 04	703 0.3- 0.5-	2000 02 03	704 0.2- 0.2-	2000 02 11	704 0.0 0.3+		
2000 01 29	703 0.5- 0.8+	2000 02 03	704 0.3- 0.1-	2000 02 11	704 0.6+ 0.1+		

2000 CF₂ = 1978 SN₆ = 1983 AK₆ = 1983 BO = 1988 SA₄ = 1997 GQ₁₂
Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.29197094	ω	342.86677	+0.96799786	-0.24400513		
<i>a</i>	2.2503132	Ω	31.44320	+0.24141314	+0.84152072		
<i>e</i>	0.1780432	<i>i</i>	6.45718	+0.06855536	+0.48197964		
<i>P</i>	3.38	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>	2
Residuals in seconds of arc							
1978 09 28	095 0.3+ 0.9+	1998 08 20	699 0.0 0.8+	1999 11 09	699 0.5- 0.9+		
1978 10 04	095 1.9- 1.0+	1998 09 24	699 0.0 0.8+	2000 02 02	411 0.8- 0.2+		
1983 01 15	095 (0.1- 3.8+)	1998 09 24	699 0.1- 0.7+	2000 02 02	411 0.1+ 0.5-		
1983 01 22	688 0.9+ 1.2+	1998 09 24	699 0.0 0.4+	2000 02 03	704 0.5+ 0.4+		
1983 01 22	688 0.1+ 1.1+	1998 10 17	699 0.7- 0.6+	2000 02 03	704 0.5+ 0.5+		
1988 09 16	095 0.5- 1.3+	1998 10 17	699 0.6- 0.2+	2000 02 03	704 0.3+ 0.4+		
1988 09 16	095 0.7+ 0.8+	1998 10 17	699 0.6- 0.4+	2000 02 03	704 0.3+ 0.2+		
1997 04 03	704 0.5+ 0.8+	1998 11 24	699 0.7- 0.3-	2000 02 03	704 0.5+ 0.2+		
1997 04 03	704 0.6+ 0.1-	1998 11 24	699 0.5- 0.3+	2000 02 03	411 1.0- 0.2-		
1997 04 05	704 0.2+ 1.5+	1998 11 24	699 0.6- 0.3-	2000 02 03	411 0.2- 0.1+		
1997 04 05	704 0.1+ 1.3+	1998 12 08	704 0.5+ 0.2+	2000 02 11	704 0.1- 0.3+		
1997 04 06	704 0.4+ 1.2+	1998 12 08	704 0.2+ 0.3-	2000 02 11	704 0.2- 0.7+		
1997 04 06	704 0.4+ 0.3+	1998 12 08	704 1.0+ 0.1-	2000 02 11	704 0.1+ 0.2+		
1997 04 07	704 0.7+ 0.4+	1998 12 08	704 0.1+ 0.5+	2000 02 11	704 0.1+ 0.5+		

1997 04 07	704 0.1+ 0.8+	1998 12 08	704 0.4- 0.1+	2000 02 11	704 0.4+ 0.7+
1998 08 20	699 0.2- 0.1+	1999 11 09	699 0.8+ 1.5-	2000 02 11	411 0.3- 0.4+
1998 08 20	699 0.6- 0.7+	1999 11 09	699 1.6+ 1.0-	2000 02 11	411 0.6+ 1.3-

2000 CH₂ = 1991 TB₄

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.28910393	ω	263.07183	-0.23311561	+0.97229838		
<i>a</i>	2.2651661	Ω	353.37294	-0.82335347	-0.20670961		
<i>e</i>	0.1063969	<i>i</i>	8.52932	-0.51744195	-0.10911920		
<i>P</i>	3.41	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	6
Residuals in seconds of arc							
1991 10 04	033 0.4+ 0.0	2000 02 04	888 0.5+ 0.0	2000 02 11	704 0.3+ 0.1-		
1991 10 04	033 0.5+ 0.0	2000 02 04	888 0.8+ 0.4-	2000 02 11	704 0.1+ 0.1-		
1991 10 05	033 0.9- 0.0	2000 02 09	888 0.1- 0.4-	2000 02 11	704 0.1+ 0.0		
2000 02 02	888 0.6- 0.2-	2000 02 09	888 0.4- 0.1-	2000 02 11	704 0.2+ 0.3+		
2000 02 02	888 0.5- 0.3+	2000 02 09	888 0.2+ 0.4+				
2000 02 02	888 0.5- 0.0	2000 02 11	704 0.2- 0.1+				

2000 CK₂ = 1999 UX₁ = 1997 KG₂

Id. S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.28673725	ω	29.22201	-0.84337900	-0.52860315		
<i>a</i>	2.2776132	Ω	118.55385	+0.46921457	-0.81194461		
<i>e</i>	0.0913035	<i>i</i>	6.30003	+0.26181970	-0.24763816		
<i>P</i>	3.44	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i>	3
Residuals in seconds of arc							
1997 05 31	327 0.1+ 0.3-	1999 10 18	557 0.8+ 0.0	2000 02 11	704 1.1+ 1.1+		
1997 05 31	327 0.1+ 0.3-	1999 10 18	557 0.3- 0.2+	2000 02 11	704 1.0- 0.4+		
1997 05 31	327 0.1+ 0.2+	1999 10 18	557 0.6- 0.5-	2000 02 11	704 0.2- 0.7+		
1997 06 03	327 0.8- 0.3-	2000 02 02	411 0.1- 0.1+	2000 02 11	704 0.1- 0.4+		
1997 06 03	327 0.4+ 0.8+	2000 02 02	411 0.2- 0.1-	2000 02 11	704 0.8+ 0.5+		
1997 06 03	327 0.1+ 0.2-	2000 02 04	411 0.2+ 1.8-	2000 02 11	411 0.7+ 0.7-		
1999 10 18	557 0.1+ 0.1+	2000 02 04	411 1.5- 0.1-	2000 02 11	411 0.2+ 0.4-		

2000 CC₁₀ = 1994 RO₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22803321	ω	134.59609	+0.42927615	-0.90294621		
<i>a</i>	2.6534076	Ω	289.97242	+0.82242242	+0.40006465		
<i>e</i>	0.1945697	<i>i</i>	1.23468	+0.37328722	+0.15695993		
<i>P</i>	4.32	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	5
Residuals in seconds of arc							
1994 09 12	691 0.4+ 0.2-	2000 01 05	704 0.0 0.4-	2000 02 10	691 0.1+ 0.7-		
1994 09 12	691 0.1- 0.3-	2000 02 02	704 0.3- 0.7+	2000 02 10	691 0.4+ 0.4-		
1994 09 12	691 0.2+ 0.0	2000 02 02	704 0.3- 0.2+	2000 02 10	691 0.3+ 0.2-		
1994 09 14	691 0.0 0.2+	2000 02 02	704 0.5- 0.6+	2000 02 11	691 0.3+ 0.4-		
1994 09 14	691 0.2- 0.3+	2000 02 02	704 0.7+ 0.3+	2000 02 11	691 1.6- 1.3-		
1994 09 14	691 0.3- 0.3+	2000 02 02	704 0.2- 1.0+	2000 02 11	691 0.6- 0.7+		
2000 01 05	704 0.1+ 0.2-	2000 02 03	704 0.5+ 0.3+	2000 02 12	691 0.3+ 0.3-		
2000 01 05	704 0.0 0.7-	2000 02 03	704 0.1+ 0.3+	2000 02 12	691 0.3+ 0.1+		
2000 01 05	704 0.7- 0.1-	2000 02 03	704 0.5+ 0.0	2000 02 12	691 0.2+ 0.0		
2000 01 05	704 0.0 0.0	2000 02 03	704 0.3+ 0.4+				

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2000 CJ₁₃ = 1998 SZ₈₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	246.91448		(2000.0)	P		Q	
<i>n</i>	0.29847036	ω	10.04730	−0.19022692		+0.98129122	
<i>a</i>	2.2175253	Ω	248.99148	−0.90292139		−0.18674565	
<i>e</i>	0.1035572	<i>i</i>	1.82230	−0.38541754		−0.04683587	
<i>P</i>	3.30	<i>H</i>	15.6	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1997 04 10	704	0.9−	0.9−	1998 09 27	704	0.6+	0.7+	2000 02 06	704	0.3−	0.0
1997 04 10	704	0.8+	0.0	1998 09 27	704	0.5−	1.0−	2000 02 06	704	0.1−	0.7−
1997 04 10	704	0.1+	0.7−	1998 09 27	704	0.4−	0.9−	2000 02 06	704	0.5−	0.0
1997 04 10	704	0.1−	1.4+	1998 09 27	704	0.8−	1.3−	2000 02 06	704	0.2+	0.5−
1998 09 18	704	1.6+	2.0+	2000 02 02	704	0.2−	0.1−	2000 02 06	704	0.3+	0.2−
1998 09 18	704	(0.4−	2.6+)	2000 02 02	704	0.1+	0.5+	2000 02 06	704	1.6+	0.4+
1998 09 18	704	0.2−	1.6+	2000 02 02	704	0.5−	0.5−	2000 02 06	704	1.1+	0.4+
1998 09 18	704	(4.9−	0.5+)	2000 02 02	704	0.8−	0.1+	2000 02 10	704	0.1+	0.2−
1998 09 25	699	1.6+	0.2−	2000 02 02	704	1.5−	0.5−	2000 02 10	704	1.5+	0.5−
1998 09 25	699	0.7+	0.1−	2000 02 03	704	0.5−	0.1−	2000 02 10	704	0.6+	1.1+
1998 09 25	699	0.5+	0.8+	2000 02 03	704	0.4+	0.3−	2000 02 11	704	0.8−	0.7−
1998 09 26	704	0.2−	0.6−	2000 02 03	704	0.7+	0.8+	2000 02 11	704	0.4−	0.3−
1998 09 26	704	0.8−	0.3−	2000 02 03	704	0.9−	0.8+	2000 02 11	704	0.5+	0.4+
1998 09 26	704	1.7−	0.0	2000 02 03	704	0.7−	0.3+	2000 02 11	704	(1.6+	2.4+)
1998 09 27	704	0.4−	0.6−	2000 02 06	704	(2.2+	1.0−)				

2000 CL₁₃ = 1998 SL₁₃₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	33.83494		(2000.0)	P		Q	
<i>n</i>	0.16977030	ω	232.25371	+0.01431809		−0.99981114	
<i>a</i>	3.2301913	Ω	216.93240	+0.92412936		+0.01825020	
<i>e</i>	0.1505998	<i>i</i>	1.25310	+0.38181137		−0.00667910	
<i>P</i>	5.81	<i>H</i>	13.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 26	704	0.0	0.7−	2000 01 05	704	0.4−	0.3−	2000 02 05	704	0.2+	0.7+
1998 09 26	704	0.3−	1.2−	2000 01 05	704	1.0−	0.1−	2000 02 05	704	0.2−	0.2−
1998 09 26	704	0.7−	0.4−	2000 02 02	704	0.1−	0.2+	2000 02 05	704	0.5−	0.4+
1998 09 26	704	0.0	0.1+	2000 02 02	704	0.1+	0.4−	2000 02 05	704	0.2−	0.9−
1998 09 26	704	0.1−	0.8−	2000 02 02	704	0.3−	0.3−	2000 02 05	704	0.5−	0.0
1998 09 27	704	0.3−	0.7−	2000 02 02	704	0.4+	0.2−	2000 02 06	704	0.6+	0.4+
1998 09 27	704	0.7+	0.9+	2000 02 02	704	0.3+	0.5−	2000 02 06	704	0.1−	0.2−
1998 09 27	704	(0.2+	2.5+)	2000 02 03	704	0.3−	0.3−	2000 02 06	704	0.3+	0.3−
1998 09 27	704	0.4+	0.7+	2000 02 03	704	0.2−	0.4+	2000 02 06	704	0.4+	0.1−
1998 09 27	704	0.1+	1.3+	2000 02 03	704	0.1+	0.3−	2000 02 12	704	0.4−	0.1+
1998 11 10	704	0.8+	0.8+	2000 02 03	704	0.1+	0.1−	2000 02 12	704	0.4−	0.4+
1998 11 10	704	0.5−	0.3+	2000 02 03	704	0.3+	0.1−	2000 02 12	704	0.6−	0.6+
1998 11 10	704	0.4−	0.0	2000 02 05	704	0.4+	0.2+	2000 02 12	704	0.2−	1.0+
1998 11 10	704	0.1+	0.1−	2000 02 05	704	0.3+	0.3−	2000 02 12	704	0.2−	1.4+
2000 01 05	704	0.5+	0.2−	2000 02 05	704	0.2+	0.9−				
2000 01 05	704	0.4+	0.4−	2000 02 05	704	0.7+	0.1−				

2000 CS₁₃ = 1993 RL₁₃ = 1996 GY₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	2.95720		(2000.0)	P		Q	
<i>n</i>	0.21026205	ω	303.73159	−0.66430924		−0.74739958	
<i>a</i>	2.8008861	Ω	187.91794	+0.70624070		−0.62353916	
<i>e</i>	0.0489751	<i>i</i>	3.88483	+0.24478011		−0.22933118	
<i>P</i>	4.69	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1993 09 14	809	1.2+	0.5+	1998 11 10	704	0.3+	0.3−	2000 02 04	704	1.6−	0.0
1993 09 14	809	0.5−	1.0+	1999 12 31	699	1.3+	0.1−	2000 02 04	704	0.7−	0.3+
1993 09 14	809	0.7−	0.9+	1999 12 31	699	0.6+	1.2+	2000 02 04	704	0.3−	1.2+
1993 09 19	809	0.9−	0.1+	1999 12 31	699	1.0+	0.2−	2000 02 06	704	0.1−	0.1−
1993 09 19	809	(2.3−	1.0−)	2000 01 05	704	0.1+	1.0−	2000 02 06	704	0.4+	0.8+

1993 09 19	809	0.9+	0.2−	2000 01 05	704	0.5−	0.7−	2000 02 06	704	0.6+	0.5+
1996 04 12	691	0.5+	0.6+	2000 01 05	704	0.1−	0.4−	2000 02 06	704	0.3+	0.1−
1996 04 12	691	0.3+	0.5+	2000 01 05	704	0.1−	0.3−	2000 02 08	704	0.2+	0.2+
1996 04 12	691	0.3+	0.6+	2000 01 05	704	0.2−	0.0	2000 02 08	704	0.2+	0.4−
1996 04 19	691	1.0−	0.5−	2000 01 07	704	0.9−	1.5−	2000 02 08	704	0.2−	0.3−
1996 04 19	691	0.6−	0.1+	2000 01 07	704	0.4+	0.4−	2000 02 08	704	0.7+	0.6+
1996 04 19	691	0.5−	0.6−	2000 01 07	704	0.1+	0.4−	2000 02 08	704	0.3+	0.3+
1997 07 12	327	0.3+	0.6+	2000 01 07	704	0.4−	1.1−	2000 02 08	704	0.4+	0.7+
1997 07 12	327	0.3+	0.7+	2000 01 07	704	0.6+	0.2−	2000 02 08	704	0.4−	0.5+
1997 07 12	327	0.1+	0.5+	2000 02 02	704	0.5+	0.3+	2000 02 08	704	0.1+	0.2+
1998 10 17	699	0.7−	0.2+	2000 02 02	704	0.5+	0.1+	2000 02 08	704	0.6−	0.0
1998 10 17	699	0.8−	0.4−	2000 02 02	704	0.8−	0.3+	2000 02 10	704	0.1−	0.3−
1998 10 17	699	0.9−	0.5+	2000 02 02	704	0.3+	0.1−	2000 02 10	704	0.3+	0.2−
1998 11 10	704	0.9−	1.3+	2000 02 02	704	0.8−	1.2+	2000 02 10	704	0.2+	0.7+
1998 11 10	704	1.1+	1.3−	2000 02 04	704	0.5−	0.3+	2000 02 10	704	0.5+	0.6+
1998 11 10	704	0.3+	0.8−	2000 02 04	704	0.1−	0.3−	2000 02 10	704	0.5+	0.5+

2000 CV₂₀ = 1995 CF₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	67.68930		(2000.0)	P		Q	
<i>n</i>	0.19578358	ω	193.82792	+0.46398957		−0.88576303	
<i>a</i>	2.9373241	Ω	228.52865	+0.81422370		+0.43165518	
<i>e</i>	0.0888947	<i>i</i>	0.89682	+0.34893185		+0.17058038	
<i>P</i>	5.03	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1995 02 01	691	0.3−	0.2+	2000 02 02	704	0.2−	1.2−	2000 02 07	691	0.6−	0.1+
1995 02 01	691	0.3−	0.2−	2000 02 02	704	0.4+	0.5−	2000 02 07	691	0.5−	0.1+
1995 02 01	691	0.3−	0.5−	2000 02 02	704	0.6+	0.2−	2000 02 07	691	0.4−	0.0
1995 02 07	691	0.2+	0.2−	2000 02 03	704	0.3+	0.1+	2000 02 11	704	0.3−	0.2+
1995 02 07	691	0.0	0.4−	2000 02 03	704	0.5−	0.1+	2000 02 11	704	0.7+	0.3+
1995 02 07	691	0.4+	0.1+	2000 02 03	704	0.0	0.0	2000 02 11	704	0.7+	0.3+
2000 02 02	704	0.4−	0.3−	2000 02 03	704	0.2−	0.4+	2000 02 11	704	0.6−	1.6+
2000 02 02	704	0.6+	0.2+	2000 02 03	704	0.1+	0.4+	2000 02 11	704	0.5+	0.4−

2000 CF₂₁ = 1998 MS₃₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	81.53396		(2000.0)	P		Q	
<i>n</i>	0.22449722	ω	165.98119	+0.92482681		−0.37890873	
<i>a</i>	2.6811970	Ω	216.34191	+0.34332282		+0.86940425	
<i>e</i>	0.3181640	<i>i</i>	3.24254	+0.16378280		+0.31711896	
<i>P</i>	4.39	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 06 26	809	0.5+	0.6+	2000 01 07	704	0.5+	0.1+	2000 02 02	704	0.6−	0.0
1998 06 26	809	0.3−	0.6+	2000 01 07	704	0.3+	0.2+	2000 02 04	704	0.4+	0.0
1998 06 26	809	0.0	0.4+	2000 01 07	704	0.2+	0.2−	2000 02 04	704	0.7−	0.3+
1998 06 27	809	0.7+	0.8−	2000 02 02	704	1.0−	0.1−	2000 02 04	704	1.5+	0.8+
1998 06 27	809	0.9−	1.1−	2000 02 02	704	0.1+	0.1−	2000 02 10	704	0.1+	0.8−
1998 06 27	809	0.1+	0.4+	2000 02 02	704	0.3+	0.2−	2000 02 10	704	0.0	0.2−
2000 01 07	704	0.8−	0.1−	2000 02 02	704	0.1−	0.1−	2000 02 10	704	0.1−	0.4+

2000 CJ₂₁ = 1995 YR₁₇ = 1998 SD₉₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	260.99123		(2000.0)	P		Q	
n	0.28800541	ω	32.31009	−0.36517871		+0.92960049	
a	2.2709223	Ω	216.34047	−0.87101492		−0.36009266	
e	0.0696245	i	4.82796	−0.32859934		−0.07858881	
P	3.42	H	15.7	G	0.15	U	2

Residuals in seconds of arc

1995 12 22	691	0.3+	0.0	1998 09 26	704	0.8−	1.3+	2000 02 02	704	0.4−	0.1−
1995 12 22	691	0.2+	0.1−	1998 09 26	704	0.8−	0.2+	2000 02 04	704	0.4+	0.4+
1995 12 22	691	0.3+	0.5+	1998 09 26	704	0.7−	1.0−	2000 02 04	704	0.4+	0.0
1995 12 27	691	0.4−	0.9−	1998 09 27	704	0.5+	1.9+	2000 02 04	704	0.7+	0.4+

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1995 12 27	691	0.3−	0.2−	1998 09 27	704	(2.1+	2.3+)	2000 02 04	704	0.7−	0.1−
1995 12 27	691	0.0	0.2−	1998 09 27	704	(3.2+	1.7+)	2000 02 04	704	1.1−	1.4+
1997 04 01	809	0.1+	1.0+	2000 02 02	704	0.0	0.5−	2000 02 08	704	2.0+	0.7+
1997 04 01	809	0.7−	0.9+	2000 02 02	704	0.6−	1.2−	2000 02 08	704	0.4−	0.4+
1997 04 01	809	1.1+	0.6−	2000 02 02	704	0.0	0.5+	2000 02 08	704	0.0	0.4−
1998 09 26	704	1.1+	0.1+	2000 02 02	704	1.0+	0.2−	2000 02 08	704	1.2−	0.0

2000 CG₂₃ = 1998 SL₈₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	73.69957		(2000.0)	P	Q		
<i>n</i>	0.22403522	ω	217.92908	+0.54744714	−0.83651604		
<i>a</i>	2.6848819	Ω	198.91412	+0.78428546	+0.52257630		
<i>e</i>	0.1074975	<i>i</i>	4.12069	+0.29188688	+0.16478753		
<i>P</i>	4.40	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1998 09 26	704	1.2+	0.7+	2000 02 02	704	0.0	0.0	2000 02 06	704	0.0	0.7−
1998 09 26	704	0.6−	1.2−	2000 02 02	704	0.0	0.2−	2000 02 06	704	0.1+	0.4+
1998 09 26	704	0.9−	0.6−	2000 02 02	704	0.5+	0.1−	2000 02 06	704	1.7+	0.8−
1998 09 26	704	0.7−	0.2−	2000 02 02	704	0.3+	0.6+	2000 02 06	704	1.2+	0.4−
1998 09 27	704	0.0	1.0−	2000 02 02	704	0.0	0.6+	2000 02 08	704	0.6−	0.4−
1998 09 27	704	1.3+	1.1+	2000 02 04	704	0.5−	1.1+	2000 02 08	704	0.6−	0.3−
1998 09 27	704	0.2−	0.5+	2000 02 04	704	0.7−	0.1+	2000 02 08	704	0.1−	0.0
1998 09 27	704	0.3+	1.5+	2000 02 04	704	1.1−	0.6+	2000 02 08	704	0.2−	0.4+
1998 09 27	704	0.4−	0.7−	2000 02 06	704	1.3+	1.3−	2000 02 08	704	1.2−	0.3+

2000 CB₂₅ = 1993 BC₁₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	106.06398		(2000.0)	P	Q		
<i>n</i>	0.28230948	ω	81.44992	+0.96268577	−0.24604515		
<i>a</i>	2.3013663	Ω	292.73297	+0.17411418	+0.88189562		
<i>e</i>	0.2409121	<i>i</i>	7.01770	+0.20717229	+0.40214662		
<i>P</i>	3.49	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1993 01 23	809	0.9+	0.8+	2000 02 04	704	0.1−	0.2−	2000 02 10	704	1.5−	0.1+
1993 01 28	809	0.3−	0.1+	2000 02 04	704	0.0	0.5+	2000 02 10	704	0.3+	1.8+
1993 01 28	809	0.7−	0.9−	2000 02 04	704	0.5+	0.5−	2000 02 10	704	0.5−	0.2+
2000 02 02	704	0.3−	0.3−	2000 02 08	704	0.2−	0.0	2000 02 12	704	(2.6+	0.1−)
2000 02 02	704	0.4−	0.1+	2000 02 08	704	0.6+	0.2−	2000 02 12	704	0.7+	0.0
2000 02 02	704	0.1−	0.3−	2000 02 08	704	0.0	0.5+	2000 02 12	704	1.3+	0.7+
2000 02 02	704	0.2−	0.0	2000 02 08	704	0.9+	0.4−	2000 02 12	704	0.6−	0.2−
2000 02 02	704	0.1+	0.3+	2000 02 08	704	0.5+	0.4−	2000 02 12	704	0.9−	1.2−
2000 02 04	704	0.4−	0.3−	2000 02 10	704	0.3+	0.1−				
2000 02 04	704	0.1−	0.1+	2000 02 10	704	0.1+	0.1−				

2000 CA₂₉ = 1998 XH₈₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	183.70401		(2000.0)	P	Q		
<i>n</i>	0.18345649	ω	177.70052	+0.82672537	+0.55507645		
<i>a</i>	3.0674724	Ω	148.03059	−0.51890642	+0.81531220		
<i>e</i>	0.0808423	<i>i</i>	9.97736	−0.21739660	+0.16479123		
<i>P</i>	5.37	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 12 15	704	0.1+	0.6−	2000 02 02	704	1.1+	0.1−	2000 02 08	691	0.1−	0.2−
1998 12 15	704	(2.5+	0.3+)	2000 02 04	704	0.0	1.1+	2000 02 08	691	0.1−	0.4−
1998 12 15	704	0.3+	1.1+	2000 02 04	704	0.3−	1.0−	2000 02 11	691	0.3−	0.1−
1998 12 15	704	0.3+	0.3+	2000 02 04	704	0.8−	0.4+	2000 02 11	691	0.2+	0.1+
1998 12 22	704	0.6−	0.9−	2000 02 04	704	0.3+	0.0	2000 02 11	691	0.3−	0.2−
1998 12 22	704	0.0	0.4−	2000 02 04	704	0.2+	0.4+	2000 02 11	704	0.6+	0.1+
1998 12 22	704	0.8−	0.7−	2000 02 06	704	0.3−	0.2+	2000 02 11	704	0.3−	0.5+
1998 12 22	704	0.7+	0.4+	2000 02 06	704	0.3+	0.0	2000 02 11	704	0.7+	0.1−
1998 12 22	704	0.1−	0.7+	2000 02 06	704	0.2+	0.8+	2000 02 11	704	0.0	0.1+
2000 02 02	704	0.8−	0.9+	2000 02 06	704	0.0	0.2−	2000 02 11	704	0.2+	0.4−

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2000 02 02	704	0.5−	0.2+	2000 02 06	704	0.3+	0.3−
2000 02 02	704	0.0	1.4−	2000 02 08	691	0.2−	0.3−

2000 CV₂₉ = 3556 T-3 = 1998 SF₁₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	15.31689		(2000.0)	P	Q		
<i>n</i>	0.27681716	ω	344.13210	−0.63225698	−0.77444433		
<i>a</i>	2.3317074	Ω	145.07613	+0.71495427	−0.59419013		
<i>e</i>	0.1741914	<i>i</i>	2.20935	+0.29848199	−0.21719591		
<i>P</i>	3.56	<i>H</i>	15.3	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1977 10 16	675	1.8+	1.1−	1998 09 24	691	0.0	0.4+	2000 02 04	704	0.4+	0.7−
1977 10 16	675	0.6+	1.6−	1998 09 24	691	0.1−	0.2+	2000 02 04	704	0.1+	0.6−
1977 10 17	675	0.0	0.5+	1998 09 24	691	0.1−	0.4+	2000 02 06	704	0.1+	0.1+
1977 10 17	675	1.8−	0.1+	1999 12 05	703	0.7+	0.2−	2000 02 06	704	0.1+	0.1+
1977 10 21	675	(4.2+	2.3−)	1999 12 05	703	0.1+	0.3−	2000 02 06	704	0.0	0.1−
1977 10 21	675	(4.5+	3.4−)	1999 12 05	703	0.8−	0.3+	2000 02 06	704	0.1−	0.3−
1995 12 22	327	0.3−	0.4+	1999 12 05	703	0.6−	0.7+	2000 02 06	704	0.1+	0.0
1995 12 22	327	0.2−	0.2+	2000 02 02	704	0.6+	0.0	2000 02 11	691	0.7−	0.0
1995 12 22	327	0.1+	0.0	2000 02 02	704	0.1−	0.5+	2000 02 11	691	0.5−	0.1−
1996 01 12	327	0.3+	0.4+	2000 02 02	704	0.2+	0.5+	2000 02 11	691	0.6−	0.1−
1996 01 12	327	0.0	0.0	2000 02 02	704	0.4+	0.0	2000 02 11	704	0.6+	1.2+
1996 01 12	327	0.1−	0.2+	2000 02 02	704	0.3+	0.0	2000 02 11	704	0.1−	0.3+
1998 09 19	691	0.2−	0.4+	2000 02 04	704	0.2+	0.1−	2000 02 11	704	0.2−	0.3−
1998 09 19	691	0.3−	0.2+	2000 02 04	704	0.4−	0.4+	2000 02 11	704	0.3−	0.3−
1998 09 19	691	0.1−	0.2+	2000 02 04	704	0.3−	0.1−	2000 02 11	704	0.4+	0.7−

2000 CK₃₁ = 1994 NO₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	234.25384		(2000.0)	P	Q		
<i>n</i>	0.28343990	ω	355.47233	+0.11438869	+0.98908495		
<i>a</i>	2.2952433	Ω	281.07598	−0.90846224	+0.06631371		
<i>e</i>	0.0939128	<i>i</i>	5.43060	−0.40200945	+0.13158057		
<i>P</i>	3.48	<i>H</i>	15.4	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1994 07 11	809	1.0−	0.1−	2000 02 02	704	0.4−	0.4−	2000 02 10	704	0.2−	0.4+
1994 07 11	809	1.1−	0.4−	2000 02 02	704	0.6+	0.8+	2000 02 10	704	0.3−	0.4−
1994 07 11	809	0.7+	0.0	2000 02 04	704	0.4−	0.2+	2000 02 11	704	0.2−	1.1−
1994 07 12	809	1.5+	0.6+	2000 02 04	704	0.2+	0.9+	2000 02 11	704	0.2−	0.0
1994 07 12	809	0.2−	0.0	2000 02 04	704	1.1+	0.2+	2000 02 11	704	0.7+	0.0
1994 07 12	809	0.2+	0.0	2000 02 04	704	1.3−	0.3+	2000 02 11	704	0.3+	0.1−
2000 02 02	704	0.3+	0.1+	2000 02 04	704	0.2+	0.3−				
2000 02 02	704	0.5−	0.5−	2000 02 10	704	0.1+	0.1−				

2000 CQ₃₄ = 1991 PA₂₉ = 1994 CW₉ = 1998 XL₃₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	69.74918		(2000.0)	P	Q		
<i>n</i>	0.16988060	ω	11.77586	+0.14077490	−0.98966535		
<i>a</i>	3.2287929	Ω	70.13613	+0.90597336	+0.11765526		
<i>e</i>	0.1451744	<i>i</i>	1.66295	+0.39924266	+0.08197399		
<i>P</i>	5.80	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1991 08 06	809	0.4−	0.1−	1998 12 14	704	0.2+	1.2−	2000 02 10	557	0.2+	0.3+
1991 08 06	809	0.6−	0.0	1998 12 17	704	0.5−	0.4+	2000 02 10	557	0.4−	0.1+
1991 08 06	809	0.9+	0.4+	1998 12 17	704	0.8−	0.8+	2000 02 10	557	0.6−	0.2+
1994 02 07	809	1.2+	1.0+	1998 12 17	704	0.7−	0.2+	2000 02 11	704	1.1+	0.7−
1994 02 07	809	0.4−	0.6+	1998 12 17	704	0.5+	0.5−	2000 02 11	704	0.5+	0.3−
1994 02 07	809	1.3−	0.5+	1998 12 17	704	0.0	0.1+	2000 02 11	704	0.4−	0.9−
1994 02 09	809	1.5+	0.3+	2000 02 04	557	0.6−	0.6+	2000 02 11	704	0.3−	0.3−
1994 02 09	809	0.7+	0.1−	2000 02 04	557	0.8−	0.3−	2000 02 11	704	0.1+	0.0
1994 02 09	809	0.5−	0.5+	2000 02 04	557	0.6−	0.0	2000 02 16	703	0.4+	0.0
1998 12 14	704	0.1−	0.1−	2000 02 06	557	0.3−	0.0	2000 02 16	703	0.8+	0.4+

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1998 12 14	704	0.7+	0.6+	2000 02 06	557	0.2-	0.5-	2000 02 16	703	0.0	0.4-
1998 12 14	704	0.3-	0.8-	2000 02 10	557	0.0	0.5-	2000 02 16	703	0.1+	0.0
1998 12 14	704	1.0+	0.0	2000 02 10	557	0.2-	0.3-				

2000 CE₃₆ = 1998 XZ₂₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	290.69698		(2000.0)	P	Q		
<i>n</i>	0.22212225	ω	275.31652	-0.47875773	+0.86976133		
<i>a</i>	2.7002750	Ω	325.25122	-0.69924267	-0.46013507		
<i>e</i>	0.1422507	<i>i</i>	12.11343	-0.53089615	-0.17830018		
<i>P</i>	4.44	<i>H</i>	13.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 11 16	704	0.6-	1.4+	1998 12 17	704	1.5+	1.8-	2000 02 05	704	0.3+	0.0
1998 11 16	704	0.0	0.8+	1998 12 17	704	(1.1+	2.7-)	2000 02 05	704	0.1-	0.5-
1998 11 16	704	0.3-	0.5+	1999 12 05	704	0.8+	0.5+	2000 02 06	704	0.0	0.1-
1998 11 16	704	(4.5-	0.4+)	1999 12 05	704	0.1-	0.2-	2000 02 06	704	0.2+	0.0
1998 12 14	704	1.3+	0.1+	1999 12 05	704	0.1-	0.8-	2000 02 06	704	0.2+	0.1-
1998 12 14	704	0.1-	0.8-	1999 12 05	704	0.5-	0.7-	2000 02 06	704	0.4+	0.1-
1998 12 14	704	1.2-	0.4-	1999 12 05	704	0.7-	1.2+	2000 02 06	704	0.2+	0.0
1998 12 14	704	(0.1-	2.4-)	2000 02 01	703	1.8+	0.3+	2000 02 12	704	(2.3-	2.6+)
1998 12 16	704	0.8+	0.7-	2000 02 01	703	0.7-	0.1-	2000 02 12	704	0.3-	1.0+
1998 12 16	704	0.1-	0.9+	2000 02 01	703	0.2+	0.1-	2000 02 12	704	0.2+	1.5+
1998 12 16	704	0.4-	1.0-	2000 02 01	703	0.6-	0.1-	2000 02 12	704	2.0+	1.4+
1998 12 16	704	0.7-	0.9+	2000 02 02	704	0.2+	0.1+	2000 02 13	704	0.5-	0.2-
1998 12 16	704	1.0-	0.1-	2000 02 02	704	0.1+	0.3-	2000 02 13	704	0.1+	1.5-
1998 12 17	704	0.0	1.1+	2000 02 02	704	0.4-	0.4-	2000 02 13	704	1.4-	0.3+
1998 12 17	704	1.8+	0.2+	2000 02 02	704	0.2-	0.3-	2000 02 13	704	0.9-	0.6-
1998 12 17	704	0.8-	1.0-	2000 02 05	704	0.2-	0.2-				

2000 CE₃₇ = 1995 GR₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	319.59357		(2000.0)	P	Q		
<i>n</i>	0.18960137	ω	42.95619	-0.87818815	+0.47588323		
<i>a</i>	3.0008323	Ω	165.24175	-0.47387890	-0.85193327		
<i>e</i>	0.0367477	<i>i</i>	10.90080	-0.06499508	-0.21850596		
<i>P</i>	5.20	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1995 04 05	691	0.1+	0.0	2000 02 02	704	0.6-	0.0	2000 02 06	704	0.1-	0.4+
1995 04 05	691	0.2-	0.1+	2000 02 02	704	0.1-	0.4+	2000 02 06	704	0.1+	0.1+
1995 04 05	691	0.1+	0.1+	2000 02 02	704	0.1-	0.0	2000 02 16	703	0.5+	0.6+
1995 04 07	691	0.3-	0.2-	2000 02 05	704	0.3+	0.1+	2000 02 16	703	0.4+	0.0
1995 04 07	691	0.2+	0.1-	2000 02 05	704	0.1+	0.4-	2000 02 16	703	0.2-	0.0
1995 04 07	691	0.1+	0.1+	2000 02 05	704	0.2+	0.0	2000 02 16	703	1.0-	0.6-
2000 02 02	704	0.4+	0.0	2000 02 06	704	0.5+	0.3-				
2000 02 02	704	0.2-	0.1+	2000 02 06	704	0.1-	0.5-				

2000 CX₃₈ = 1994 NA₁₁ = 1998 QV₁₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	110.26278		(2000.0)	P	Q		
<i>n</i>	0.26058118	ω	288.30454	+0.96089705	-0.27475338		
<i>a</i>	2.4275826	Ω	87.65391	+0.26529828	+0.87780796		
<i>e</i>	0.2045497	<i>i</i>	1.97642	+0.07933279	+0.39238217		
<i>P</i>	3.78	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1994 07 08	809	1.5-	0.0	1998 08 23	704	0.4-	1.5-	2000 02 03	704	0.9-	0.7+
1994 07 08	809	0.3+	0.5+	1998 08 23	704	0.2+	0.2-	2000 02 03	704	0.2-	0.1+
1994 07 08	809	0.9-	0.4+	1998 08 23	704	1.0-	1.6+	2000 02 05	704	0.7-	0.2+
1994 07 09	809	0.7+	0.5-	1998 08 23	704	0.0	0.2+	2000 02 05	704	0.0	0.4-
1994 07 09	809	1.3+	0.1-	2000 01 30	703	0.2-	0.1+	2000 02 05	704	0.9+	1.0-
1994 07 09	809	0.1+	0.2-	2000 01 30	703	0.3-	0.1+	2000 02 11	704	0.6+	0.6-
1998 08 17	704	0.2+	0.4-	2000 01 30	703	1.2+	0.0	2000 02 11	704	0.3-	0.2+
1998 08 17	704	0.3-	0.3-	2000 01 30	703	0.1-	0.6+	2000 02 11	704	0.2+	0.4-

1998 08 17	704	0.4+	0.5+	2000 02 03	704	0.2-	0.2+	2000 02 11	704	0.3-	0.7+
1998 08 17	704	0.8+	0.3-	2000 02 03	704	0.4-	0.3-	2000 02 11	704	0.5+	0.4-
1998 08 17	704	0.3+	0.3+	2000 02 03	704	0.1+	0.2+				

2000 CK₃₉ = 1998 SC₈₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	25.19932		(2000.0)	P	Q		
<i>n</i>	0.25306810	ω	348.76860	-0.47272485	-0.88051274		
<i>a</i>	2.4753946	Ω	129.43265	+0.81196965	-0.45069103		
<i>e</i>	0.1239661	<i>i</i>	2.60099	+0.34239817	-0.14688403		
<i>P</i>	3.89	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 09 26	704	0.6-	0.0	2000 02 04	704	0.5+	0.1-	2000 02 10	704	0.1-	0.3+
1998 09 26	704	0.7-	1.8+	2000 02 04	704	(2.4+	0.2+)	2000 02 10	704	0.0	0.3+
1998 09 26	704	0.9-	0.6-	2000 02 04	704	0.0	0.6-	2000 02 10	704	0.3-	0.8-
1998 09 26	704	1.2-	1.2+	2000 02 04	704	0.2+	0.4+	2000 02 11	704	0.0	0.5+
1998 09 27	704	0.2+	0.1+	2000 02 04	704	0.1-	0.3-	2000 02 11	704	0.3-	0.5+
1998 09 27	704	1.0+	0.4-	2000 02 05	704	0.1+	0.2-	2000 02 11	704	0.4+	0.3-
1998 09 27	704	1.6+	1.4-	2000 02 05	704	0.1+	0.0	2000 02 11	704	0.4-	0.1-
1998 09 27	704	0.6+	0.6-	2000 02 05	704	0.6-	0.3+	2000 02 11	704	0.6+	0.2+

2000 CP₄₀ = 1989 AO₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	317.00486		(2000.0)	P	Q		
<i>n</i>	0.18408352	ω	77.62098	-0.89624883	+0.41905332		
<i>a</i>	3.0605028	Ω	126.97356	-0.44354936	-0.84778586		
<i>e</i>	0.0881377	<i>i</i>	10.48391	+0.00141159	-0.32504378		
<i>P</i>	5.35	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1989 01 04	413	0.2-	0.9+	2000 02 01	703	0.6+	0.3+	2000 02 11	704	0.3+	0.1-
1989 01 04	413	1.6-	0.3-	2000 02 01	703	0.2-	0.0	2000 02 11	704	0.5+	0.4-
1989 01 10	413	0.5+	1.1+	2000 02 06	703	0.3-	0.8+	2000 02 11	704	0.1+	0.1-
1989 01 10	413	1.3+	1.7-	2000 02 06	703	0.8-	0.5+	2000 02 11	704	0.3+	0.3-
2000 02 01	703	0.4-	0.1-	2000 02 06	703	0.0	0.3+	2000 02 11	704	0.1-	0.6-
2000 02 01	703	0.4+	0.7-	2000 02 06	703	0.3-	0.5+				

2000 CB₄₃ = 1996 DT₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	108.06182		(2000.0)	P	Q		
<i>n</i>	0.23153116	ω	82.48805	+0.92683141	-0.35638963		
<i>a</i>	2.6266150	Ω	298.32669	+0.26916418	+0.85010399		
<i>e</i>	0.1454726	<i>i</i>	7.71658	+0.26179034	+0.38769787		
<i>P</i>	4.26	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1996 02 27	046	0.1+	0.2+	1996 02 27	046	0.5-	0.9-	2000 02 06	704	0.1-	0.5-
1996 02 27	046	0.1+	0.6-	1996 02 27	046	1.1-	0.6-	2000 02 06	704	0.4+	0.5+
1996 02 27	046	0.7-	1.0+	2000 02 02	704	0.1+	0.3-	2000 02 06	704	0.3-	0.6+
1996 02 27	046	0.5+	0.5-	2000 02 02	704	0.4+	0.1-	2000 02 06	704	0.2-	0.5+
1996 02 27	046	0.6+	0.7+	2000 02 02	704	0.2+	0.5-	2000 02 10	704	0.1+	0.4+
1996 02 27	046	1.1+	0.4+	2000 02 02	704	0.3-	0.2+	2000 02 10	704	0.9+	0.7+
1996 02 27	046	0.4-	1.3+	2000 02 02	704	0.1+	0.1+	2000 02 10	704	0.1-	0.3-
1996 02 27	046	0.3+	0.9-	2000 02 06	704	0.6-	0.6-	2000 02 10	704	0.5-	0.6-

2000 CE₄₈ = 1998 XO₆₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	281.54862		(2000.0)	P	Q		
<i>n</i>	0.21102568	ω	315.88907	-0.43902361	+0.88829841		
<i>a</i>	2.7941251	Ω	287.64292	-0.78018826	-0.45134296		
<i>e</i>	0.1004205	<i>i</i>	8.13492	-0.44560582	-0.08494390		
<i>P</i>	4.67	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	4

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Residuals in seconds of arc

1997 12 17	327	2.0−	1.1+	1999 12 14	704	0.9−	0.7+	2000 02 06	704	0.7−	0.3+
1997 12 17	327	0.1+	0.3+	2000 01 08	704	0.2+	0.0	2000 02 06	704	0.0	0.6−
1997 12 17	327	0.8+	0.6+	2000 01 08	704	0.1−	0.3−	2000 02 08	704	0.3+	0.0
1998 12 14	704	(2.4+	0.1−)	2000 01 08	704	0.0	0.2−	2000 02 08	704	0.3+	0.1−
1998 12 14	704	0.1+	0.5−	2000 01 08	704	0.4−	0.8−	2000 02 08	704	0.3+	0.6+
1998 12 14	704	1.0+	0.3+	2000 02 02	704	0.1−	0.1+	2000 02 08	704	0.0	0.1+
1998 12 17	704	0.7+	0.9−	2000 02 02	704	0.2+	0.1−	2000 02 08	704	0.1+	0.5−
1998 12 17	704	1.1+	1.5+	2000 02 02	704	0.1+	0.6+	2000 02 12	704	0.4−	1.4+
1998 12 17	704	1.0−	0.2−	2000 02 02	704	0.3+	0.1+	2000 02 12	704	0.1+	0.5−
1998 12 17	704	0.5−	1.1−	2000 02 02	704	0.3+	0.5+	2000 02 12	704	0.1−	0.4−
1998 12 17	704	1.3−	0.1−	2000 02 06	704	0.1+	0.7−	2000 02 12	704	0.3−	1.9+
1999 12 14	704	0.5−	0.6+	2000 02 06	704	0.3+	0.2−				
1999 12 14	704	0.8+	0.6−	2000 02 06	704	0.5+	0.6−				

2000 CG₅₅ = 1997 RF₇ = 1998 WU₁₃

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	64.85877		(2000.0)	P	Q		
<i>n</i>	0.16880273	<i>ω</i>	49.19679	+0.23194556	−0.97151347		
<i>a</i>	3.2425230	<i>Ω</i>	27.50592	+0.85777166	+0.18071268		
<i>e</i>	0.0878079	<i>i</i>	6.04161	+0.45872544	+0.15331179		
<i>P</i>	5.84	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1997 09 09	360	0.5+	0.9+	1998 11 21	704	0.3+	0.1+	2000 02 03	704	0.4−	0.8−
1997 09 09	360	0.3+	0.6+	1998 11 21	704	0.5−	0.4−	2000 02 06	704	0.5+	1.4+
1997 09 09	360	0.0	0.4+	1998 11 24	704	0.5−	0.4+	2000 02 06	704	0.3+	0.2−
1997 09 10	360	0.8−	0.1+	1998 11 24	704	0.5+	0.2−	2000 02 06	704	0.2+	0.7−
1997 09 10	360	0.7−	0.3+	1998 11 24	704	1.0−	0.1−	2000 02 06	704	0.7−	0.6+
1997 09 10	360	0.6−	0.3+	1998 11 24	704	1.0+	0.9+	2000 02 06	704	0.2−	0.2−
1998 11 18	704	0.7−	1.0+	1998 12 11	699	1.0+	0.8+	2000 02 11	704	0.7+	0.2+
1998 11 18	704	0.5+	0.4−	1998 12 11	699	0.2+	1.5−	2000 02 11	704	0.6+	0.0
1998 11 18	704	(3.4+	0.6−)	1998 12 11	699	0.0	0.4+	2000 02 11	704	1.3+	0.6+
1998 11 18	704	(2.2+	2.2−)	2000 02 03	704	0.5−	0.2−	2000 02 11	704	0.3−	1.5+
1998 11 21	704	0.9−	0.8−	2000 02 03	704	0.0	0.2−	2000 02 11	704	0.4−	0.7+
1998 11 21	704	0.6−	0.1+	2000 02 03	704	0.0	0.3−				
1998 11 21	704	1.0+	0.8−	2000 02 03	704	0.0	0.1+				

2000 CY₅₅ = 1998 QA₅₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	5.13872		(2000.0)	P	Q		
<i>n</i>	0.28045412	<i>ω</i>	183.52336	−0.78798970	−0.61533942		
<i>a</i>	2.3115050	<i>Ω</i>	318.47654	+0.56564467	−0.71023575		
<i>e</i>	0.0799651	<i>i</i>	1.79175	+0.24314264	−0.34193943		
<i>P</i>	3.51	<i>H</i>	15.9	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1998 08 30	691	0.3+	0.0	2000 01 30	703	0.3−	0.3+	2000 02 06	704	0.6−	0.7−
1998 08 30	691	0.3+	0.3+	2000 02 04	704	0.1+	0.7−	2000 02 12	120	0.6−	0.6−
1998 08 30	691	0.3+	0.0	2000 02 04	704	2.0+	1.5−	2000 02 12	120	1.4−	1.1−
1998 08 31	691	0.5−	0.4−	2000 02 04	704	0.2+	0.5−	2000 02 16	704	0.1−	0.2−
1998 08 31	691	0.5−	0.1+	2000 02 06	704	0.0	0.7+	2000 02 16	704	0.5+	1.6+
2000 01 30	703	0.5−	0.9+	2000 02 06	704	0.4+	0.3+	2000 02 16	704	0.5+	0.1−
2000 01 30	703	0.3−	0.4+	2000 02 06	704	0.2−	0.3−	2000 02 16	704	0.6+	1.1+
2000 01 30	703	0.1−	0.1+	2000 02 06	704	0.2−	0.4+				

2000 CH₅₆ = 1998 RE₂₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	15.59358		(2000.0)	P	Q		
<i>n</i>	0.30927433	<i>ω</i>	49.48540	−0.74042021	−0.66891722		
<i>a</i>	2.1655762	<i>Ω</i>	88.42245	+0.59506820	−0.69787545		
<i>e</i>	0.0684459	<i>i</i>	3.77336	+0.31252479	−0.25596799		
<i>P</i>	3.19	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 08 17	704	0.3+	1.7+	2000 01 10	699	0.1+	0.5+	2000 02 06	704	0.4+	0.4+
1998 08 17	704	0.7−	0.2−	2000 02 04	704	0.8+	0.1+	2000 02 08	704	0.2−	0.0
1998 08 17	704	1.5−	0.7+	2000 02 04	704	0.1+	0.0	2000 02 08	704	0.0	0.0
1998 08 17	704	1.0+	0.1+	2000 02 04	704	0.3+	0.5−	2000 02 08	704	0.4−	0.0
1998 08 17	704	0.3+	0.5−	2000 02 04	704	0.1−	0.5−	2000 02 08	704	0.2−	0.3−
1998 09 14	704	0.0	0.7+	2000 02 04	704	0.4−	0.4−	2000 02 08	704	0.0	0.1−
1998 09 14	704	0.7−	0.3−	2000 02 04	704	0.3+	0.4−	2000 02 10	704	0.0	0.3+
1998 09 14	704	1.3+	1.0−	2000 02 04	704	0.2+	1.0−	2000 02 10	704	0.4+	0.0
1998 09 14	704	(0.1+	2.7−)	2000 02 04	704	0.3−	0.2−	2000 02 10	704	0.2+	0.2−
1998 09 18	704	0.7−	1.1−	2000 02 04	704	1.0−	0.3−	2000 02 11	704	0.6−	0.3+
1998 09 18	704	0.1−	0.4−	2000 02 04	704	0.3+	0.3−	2000 02 11	704	0.3−	0.2+
1998 09 18	704	0.8−	0.7+	2000 02 06	704	0.1−	0.3+	2000 02 11	704	0.1−	0.4+
1998 09 18	704	1.2+	0.3+	2000 02 06	704	0.2+	0.8+	2000 02 11	704	0.4+	0.6+
2000 01 10	699	0.4+	0.5−	2000 02 06	704	0.3−	0.3−	2000 02 11	704	0.1−	0.8+
2000 01 10	699	0.1+	0.7+	2000 02 06	704	0.3+	0.3+				

2000 CS₆₄ = 1996 HG₁₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	86.36162		(2000.0)	P	Q		
<i>n</i>	0.18714786	<i>ω</i>	337.61168	+0.80730606	−0.58848260		
<i>a</i>	3.0270027	<i>Ω</i>	58.51254	+0.54897048	+0.72147256		
<i>e</i>	0.1443287	<i>i</i>	2.96462	+0.21653714	+0.36491859		
<i>P</i>	5.27	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	7

Residuals in seconds of arc

1996 04 17	809	0.7+	0.9+	2000 02 08	704	0.6−	0.4+	2000 02 11	704	0.1−	0.1−
1996 04 17	809	0.9+	0.7+	2000 02 08	704	0.5−	1.0+	2000 02 11	704	0.4+	0.2−
1996 04 17	809	0.8−	0.6+	2000 02 08	704	0.7−	0.6+	2000 02 11	704	0.3+	0.4−
1996 04 18	809	(0.3+	2.4−)	2000 02 08	704	0.6−	0.6+	2000 02 11	704	1.0+	0.1−
1996 04 18	809	0.5−	1.0−	2000 02 08	704	0.7−	0.7+	2000 02 11	704	0.4+	0.5−
1996 04 18	809	0.3−	1.1−	2000 02 10	704	0.5−	0.5+	2000 02 11	704	1.1+	0.4−
2000 02 03	704	0.2+	0.7−	2000 02 10	704	1.0−	0.2+	2000 02 11	704	0.1+	0.6−
2000 02 03	704	0.2+	0.1+	2000 02 10	704	0.4+	0.0	2000 02 11	704	0.1+	0.4−
2000 02 03	704	0.3−	0.2−	2000 02 10	704	0.1+	0.7−	2000 02 11	704	0.5−	0.4+
2000 02 03	704	0.7+	0.1−	2000 02 10	704	0.2−	1.3+				
2000 02 03	704	0.1+	0.9−	2000 02 11	704	0.7+	0.5−				

2000 CD₆₅ = 1976 UE₃ = 1996 HQ₁₅ = 1998 XT₃₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	134.18556		(2000.0)	P	Q		
<i>n</i>	0.18170006	<i>ω</i>	320.58619	+0.99943892	+0.02960395		
<i>a</i>	3.0872088	<i>Ω</i>	37.72626	−0.02040152	+0.90903196		
<i>e</i>	0.1878287	<i>i</i>	1.46714	−0.02656340	+0.41567356		
<i>P</i>	5.42	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>	1

Residuals in seconds of arc

1976 10 24	381	0.6−	0.5+	1998 12 14	704	1.4+	0.9+	2000 02 03	704	0.1+	0.5+
1976 10 24	381	0.5−	0.2+	1998 12 17	704	0.1−	0.4+	2000 02 07	691	0.3+	0.2−
1976 10 26	095	0.4+	1.1+	1998 12 17	704	0.8−	1.3−	2000 02 07	691	0.6+	0.2−
1996 04 18	809	0.1+	0.2−	1998 12 17	704	0.8+	0.8−	2000 02 07	691	0.4+	0.2−
1996 04 18	809	0.3−	0.8+	1998 12 17	704	0.5+	0.1+	2000 02 08	704	0.0	1.0−
1996 04 18	809	0.1+	0.7−	1998 12 17	704	0.4+	0.8−	2000 02 08	704	0.2+	0.1+
1996 04 18	809	(6.7+	3.0+)	2000 01 04	704	0.7−	1.1−	2000 02 08	704	0.9−	0.0
1996 04 18	809	(5.3+	2.5+)	2000 01 04	704	0.6−	0.6−	2000 02 08	704	0.1−	0.2+
1996 04 18	809	(5.4+	2.2+)	2000 01 04	704	0.1−	0.1−	2000 02 08	704	0.6+	0.9+
1996 04 20	809	(6.9+	2.8+)	2000 01 04	704	0.2−	0.2−	2000 02 11	704	0.6+	0.7−
1996 04 20	809	(6.3+	3.1+)	2000 01 30	703	0.1−	0.1−	2000 02 11	704	1.1−	0.8+
1996 04 20	809	(5.7+	2.6+)	2000 01 30	703	0.2−	1.3+	2000 02 11	704	0.1−	0.4−
1998 10 03	327	1.0−	0.1+	2000 01 30	703	0.2−	0.3−	2000 02 11	704	0.1−	0.1−
1998 10 03	327	0.6−	0.1+	2000 01 30	703	0.5−	0.2+	2000 02 11	704	0.7+	0.9+
1998 10 03	327	0.2−	0.2−	2000 02 03	704	0.3+	0.0	2000 02 12	120	(2.4+	0.6+)
1998 12 14	704	0.0	1.4−	2000 02 03	704	0.5+	0.1+	2000 02 12	120	0.1−	0.6−
1998 12 14	704	1.0−	0.8+	2000 02 03	704	0.7+	0.5+				
1998 12 14	704	0.7+	0.0	2000 02 03	704	0.3+	0.9+				

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M.P.C. 38731

2000 CF₆₉ = 1998 QU₄₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	132.08871	(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.25764346	ω	218.40408	+0.99227337	+0.11790512	
<i>a</i>	2.4460010	Ω	134.77715	-0.09608106	+0.92720383	
<i>e</i>	0.2170632	<i>i</i>	3.11921	-0.07849830	+0.35551575	
<i>P</i>	3.83	<i>H</i>	16.0	<i>G</i>	0.15	<i>U</i> 4

Residuals in seconds of arc

1998 08 17	704	0.5+	0.5+	1998 08 30	699	0.2+	0.4+	2000 02 07	691	0.0	0.3+
1998 08 17	704	0.6+	0.6-	1998 08 30	699	0.2+	0.2+	2000 02 10	691	0.3-	0.1+
1998 08 17	704	0.2-	0.3+	1998 08 30	699	0.0	0.6+	2000 02 10	691	0.2-	0.1-
1998 08 17	704	(3.9+	1.1+)	2000 02 01	691	0.1+	0.2-	2000 02 10	691	0.0	0.1-
1998 08 17	704	0.3-	1.7-	2000 02 01	691	0.2+	0.4-	2000 02 14	691	0.3-	0.1-
1998 08 23	704	(2.4-	1.2-)	2000 02 01	691	0.4+	0.3-	2000 02 14	691	0.1-	0.0
1998 08 23	704	0.4+	0.5+	2000 02 07	691	0.0	0.4+	2000 02 14	691	0.2+	0.3-
1998 08 23	704	1.2-	0.5+	2000 02 07	691	0.1-	0.2+				

2000 CN₇₂ = 1989 YP₁ = 1996 JN₁₆

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Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	214.87275	(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.20374976	ω	175.19382	+0.49656373	+0.86686478	
<i>a</i>	2.8602543	Ω	124.57247	-0.79816035	+0.47610785	
<i>e</i>	0.0085056	<i>i</i>	3.08988	-0.34112244	+0.14787418	
<i>P</i>	4.84	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i> 1

Residuals in seconds of arc

1989 12 30	413	1.7-	0.3+	1998 08 31	704	0.5+	0.7+	2000 02 10	888	0.3+	0.2-
1989 12 30	413	1.4+	0.6-	1998 08 31	704	0.1+	0.7-	2000 02 10	888	0.3+	0.1+
1989 12 31	413	0.2+	0.2-	1998 11 24	704	0.5-	0.0	2000 02 10	888	0.2+	0.2+
1989 12 31	413	0.0	0.4+	1998 11 24	704	0.5+	0.7-	2000 02 10	120	0.3-	0.1-
1996 05 13	691	0.8-	0.3-	1998 11 24	704	0.5+	0.0	2000 02 10	120	0.4+	0.4+
1996 05 13	691	0.5-	0.1-	1998 11 24	704	0.4+	0.6-	2000 02 11	704	0.2-	0.3+
1996 05 13	691	0.6-	0.3-	1999 11 16	704	0.2+	1.0-	2000 02 11	704	0.3-	0.6+
1996 05 21	566	0.5+	0.8-	1999 11 16	704	0.0	0.0	2000 02 11	704	0.6+	0.5+
1996 05 21	566	0.5+	0.7-	1999 11 16	704	0.8-	0.7-	2000 02 11	704	0.2+	0.1+
1996 05 21	566	0.7+	0.2-	1999 11 16	704	0.6-	0.3-	2000 02 11	704	0.2+	0.4+
1997 09 02	566	0.2-	0.2+	2000 02 06	120	0.7-	0.2-	2000 02 11	888	0.4+	0.3+
1997 09 02	566	0.4-	0.4+	2000 02 06	120	0.5-	0.2+	2000 02 11	888	0.3+	0.3-
1997 09 02	566	0.1+	0.1+	2000 02 06	120	0.5-	0.1+	2000 02 11	888	0.3+	0.2+
1998 08 31	704	0.9+	0.9-	2000 02 10	120	0.4-	0.4+	2000 02 12	120	(2.7+	0.6-)
1998 08 31	704	1.5-	0.3+	2000 02 10	120	0.1-	0.2-	2000 02 13	120	0.6+	0.1-

2000 CP₇₃ = 1992 DO₁₂

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	195.79379	(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.24086579	ω	169.14220	+0.60401270	+0.78796099	
<i>a</i>	2.5583068	Ω	137.87040	-0.74391227	+0.61122922	
<i>e</i>	0.0796762	<i>i</i>	10.26375	-0.28594263	+0.07427199	
<i>P</i>	4.09	<i>H</i>	15.3	<i>G</i>	0.15	<i>U</i> 5

Residuals in seconds of arc

1992 02 27	691	0.8+	0.0	2000 02 03	704	0.7-	0.4-	2000 02 10	691	0.3-	0.0
1992 02 27	691	0.6+	0.3-	2000 02 07	691	0.3-	0.3-	2000 02 14	691	0.8+	0.0
1992 03 04	809	1.4-	0.3+	2000 02 07	691	0.3-	0.3-	2000 02 14	691	0.5+	0.3+
2000 02 03	704	0.7+	0.3+	2000 02 07	691	0.2-	0.2-	2000 02 14	691	0.8+	0.0
2000 02 03	704	0.1+	0.3+	2000 02 10	691	0.2-	0.2+				
2000 02 03	704	0.8-	0.2+	2000 02 10	691	0.1-	0.2-				

2000 CF₇₅ = 1998 QR₁₀₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	177.74188	(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.29742607	ω	226.07942	+0.76693143	+0.63727537	
<i>a</i>	2.2227129	Ω	94.18398	-0.56496456	+0.72628319	
<i>e</i>	0.2246016	<i>i</i>	4.34003	-0.30435378	+0.25766807	
<i>P</i>	3.31	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i> 4

Residuals in seconds of arc

1998 06 29	704	1.2+	1.6-	1998 08 26	809	0.1+	0.1+	2000 02 10	704	1.0-	0.2-
1998 06 29	704	0.2+	0.4-	1998 08 26	809	0.0	0.1-	2000 02 10	704	0.8+	0.1+
1998 06 29	704	0.9-	0.8+	1998 08 26	809	0.2-	0.1-	2000 02 11	704	0.3-	1.0-
1998 06 29	704	(1.9-	2.4-)	2000 02 03	704	0.9+	0.5+	2000 02 11	704	0.0	0.1-
1998 06 29	704	(3.4-	3.0+)	2000 02 03	704	0.1+	0.5-	2000 02 11	704	1.7-	1.1-
1998 08 25	809	(3.6-	2.0-)	2000 02 03	704	0.7+	0.5+	2000 02 11	704	0.1+	0.3+
1998 08 25	809	(3.3-	2.4-)	2000 02 10	704	0.2-	0.4-				
1998 08 25	809	(3.9-	2.6-)	2000 02 10	704	0.2+	0.4+				

2000 CS₈₉ = 1978 NW₆ = 1997 GV₄₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	299.40051	(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.30575174	ω	140.52881	-0.46979667	+0.87931446	
<i>a</i>	2.1821776	Ω	101.32154	-0.82873361	-0.40883523	
<i>e</i>	0.1464338	<i>i</i>	4.56753	-0.30412446	-0.24425364	
<i>P</i>	3.22	<i>H</i>	15.6	<i>G</i>	0.15	<i>U</i> 6

Residuals in seconds of arc

1978 07 10	675(12.7+	8.4-)	Y	2000 02 01	703	1.2+	0.2+	2000 02 11	704	0.1-	0.6+
1978 07 11	675(20.3+	2.3-)	Y	2000 02 01	703	0.2-	0.0	2000 02 11	704	0.8+	0.7+
1978 07 13	675(14.2+	4.9+)	Y	2000 02 01	703	1.2-	1.0-	2000 02 11	704	0.2-	0.6-
1997 04 11	809	0.3+	0.2+	2000 02 01	703	0.0	0.8-	2000 02 11	704	0.4-	0.3+
1997 04 11	809	0.5+	0.0	2000 02 04	704	0.6+	0.1-	2000 02 16	703	0.1+	1.6-
1997 04 11	809	0.1+	0.5-	2000 02 04	704	0.6+	0.7+	2000 02 16	703	0.8-	0.3-
1997 04 12	809	0.8-	0.7+	2000 02 04	704	0.1+	0.5+	2000 02 16	703	0.1+	0.3-
1997 04 12	809	0.1-	0.1-	2000 02 04	704	1.5-	0.8+	2000 02 16	703	0.2-	0.3+
1997 04 12	809	0.0	0.2-	2000 02 11	704	1.3+	0.5+				

2000 CL₉₂ = 1981 UC₈ = 1997 SA₃₀

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	35.24398	(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.17625862	ω	335.82151	-0.54758576	-0.83653018	
<i>a</i>	3.1504249	Ω	147.37048	+0.77337576	-0.51472144	
<i>e</i>	0.1022179	<i>i</i>	2.03635	+0.31943665	-0.18782731	
<i>P</i>	5.59	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i> 1

Residuals in seconds of arc

1981 10 30	381	0.0	0.9+	1999 01 05	699	0.2-	1.0-	2000 02 06	704	0.3+	0.6+
1981 10 30	381	0.3-	0.3+	1999 01 05	699	0.9+	0.4-	2000 02 11	704	0.7-	0.4+
1997 09 30	691	0.5-	0.8+	2000 01 08	704	1.3-	0.9+	2000 02 11	704	1.4+	0.7+
1997 09 30	691	0.3-	1.2+	2000 01 08	704	0.4-	0.4-	2000 02 11	704	0.6+	0.4-
1997 09 30	691	0.3-	0.8+	2000 01 08	704	0.1+	0.5-	2000 02 11	704	0.1+	0.8+
1997 10 06	691	0.5-	1.0+	2000 02 06	704	0.7+	0.5+	2000 02 16	703	0.0	0.3+
1997 10 06	691	0.4-	0.5+	2000 02 06	704	0.0	0.4+	2000 02 16	703	0.4+	0.4+
1997 10 06	691	0.1-	0.9+	2000 02 06	704	0.2+	0.2+	2000 02 16	703	0.3-	0.6+
1999 01 05	699	0.2-	0.8-	2000 02 06	704	0.3+	1.0+	2000 02 16	703	0.5+	0.2+

2000 CR₉₂ = 1983 UU = 1992 OL₄ = 1995 DT₁₂ = 1998 XV₅₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	185.49164	(2000.0)	Williams		<i>P</i>	<i>Q</i>
<i>n</i>	0.20479563	ω	210.66003	+0.95283984	+0.30115685	
<i>a</i>	2.8505079	Ω	131.76430	-0.26726186	+0.89116030	
<i>e</i>	0.0867747	<i>i</i>	2.87619	-0.14376142	+0.33931973	
<i>P</i>	4.81	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i> 1

Residuals in seconds of arc

1983 10 30	675	0.7+	1.9+	1998 12 15	704	0.4+	0.1+	1999 12 09	703	1.7-	0.0
1983 11 04	675	0.6-	0.1+	1998 12 15	704	0.3+	0.3-	1999 12 09	703	0.0	0.8+
1992 07 26	809	0.1-	0.1+	1998 12 16	704	0.2-	1.1-	2000 02 06	704	0.3+	0.9-
1992 07 26	809	0.6-	0.5-	1998 12 16	704	0.5-	0.7-	2000 02 06	704	1.2-	0.7-
1992 07 26	809	0.9-	1.1-	1998 12 16	704	0.4+	0.0	2000 02 06	704	0.2+	0.3+
1992 07 30	809	1.2+	1.6-	1998 12 16	704	0.2+	0.3-	2000 02 06	704	0.0	0.3+
1992 07 30	809	0.6+	1.4-	1998 12 16	704	0.3+	0.1+	2000 02 06	704	0.6+	0.5+
1992 07 30	809	0.4+	1.1-	1998 12 22	704	0.2+	0.4-	2000 02 11	704	1.5+	0.2-
1995 02 22	033	1.2-	1.4-	1998 12 22	704	(2.2-	2.6+)	2000 02 11	704	0.5+	0.2-
1995 02 23	033	0.4-	0.5-	1998 12 22	704	1.6-	0.1+	2000 02 11	704	0.2+	0.2-
1995 02 24	033	1.2-	0.4-	1998 12 22	704	1.1-	1.9-	2000 02 11	704	0.1+	0.3-
1996 05 22	566	0.4+	0.6-	1999 01 23	704	(0.0	2.2-)	2000 02 11	704	0.5+	0.8+
1996 05 22	566	0.1-	0.6-	1999 01 23	704	1.4+	1.1+	2000 02 16	703	0.2-	0.1+
1996 05 22	566	0.1+	0.6-	1999 01 23	704	0.9+	0.7-	2000 02 16	703	0.2-	0.1+
1998 12 15	704	0.9-	0.1-	1999 01 23	704	0.4+	0.7-	2000 02 16	703	0.2+	0.1-
1998 12 15	704	0.6+	0.6-	1999 12 09	703	1.2+	0.6+	2000 02 16	703	0.0	0.6+
1998 12 15	704	0.1+	0.1+	1999 12 09	703	1.5-	1.0-				

2000 CB₉₄ = 1998 SV₁₀₉

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	75.10588		(2000.0)		P		Q
<i>n</i>	0.22925596	ω	85.78337	+0.24863712			-0.96797093
<i>a</i>	2.6439645	Ω	349.61939	+0.79426831			+0.22432553
<i>e</i>	0.1771743	<i>i</i>	11.13951	+0.55436219			+0.11274009
<i>P</i>	4.30	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1998 09 17	699	0.3-	0.2+	1998 11 20	699	0.4+	0.5-	2000 02 14	120	(3.5-	1.0+)
1998 09 17	699	0.0	0.9+	1998 11 20	699	1.1-	0.2+	2000 02 14	120	(1.7+	2.3-)
1998 09 17	699	0.7-	0.8-	1998 11 20	699	0.1+	0.3+	2000 02 14	120	(1.0+	2.3-)
1998 09 26	704	0.4+	1.0-	2000 02 08	704	0.3-	0.3-	2000 02 15	732	0.9+	0.4+
1998 09 26	704	(1.0+	2.2-)	2000 02 08	704	0.8+	0.1+	2000 02 15	732	0.0	0.6-
1998 09 26	704	0.6+	0.4-	2000 02 08	704	0.8+	0.3-	2000 02 15	732	0.0	0.4+
1998 09 26	704	0.4+	1.4-	2000 02 08	704	0.7+	0.7-	2000 02 16	732	0.5-	0.0
1998 09 26	704	0.2+	0.1-	2000 02 11	704	1.5-	0.1-	2000 02 16	732	0.2-	0.1-
1998 09 27	704	0.7-	0.4-	2000 02 11	704	0.3-	1.2+	2000 02 16	732	1.0-	0.1-
1998 09 27	704	0.7-	0.0	2000 02 11	704	0.9+	1.2+	2000 02 16	732	0.4+	0.0
1998 09 27	704	0.6-	1.0+	2000 02 11	704	0.1+	0.1-	2000 02 16	732	0.0	0.3-
1998 09 27	704	0.5+	1.0+	2000 02 11	704	0.0	0.4+	2000 02 16	732	0.1-	0.0
1998 09 27	704	1.0+	0.8+	2000 02 13	120	0.3-	0.8-	2000 02 17	732	0.3+	0.5+
1998 10 12	699	0.1-	0.4-	2000 02 13	120	(2.3-	1.0-)	2000 02 17	732	0.5+	0.2-
1998 10 12	699	0.0	0.7+	2000 02 14	120	1.3-	0.8-	2000 02 17	732	0.1+	0.1+
1998 10 12	699	0.4+	0.2-	2000 02 14	120	(3.7-	0.7-)				

2000 CX₉₄ = 1995 BY₁₅

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	110.54606		(2000.0)		P		Q
<i>n</i>	0.23425450	ω	306.77056	+0.32523097			-0.91045743
<i>a</i>	2.6062181	Ω	122.31846	+0.93500514			+0.26921174
<i>e</i>	0.2011666	<i>i</i>	17.59954	+0.14138670			+0.31399412
<i>P</i>	4.21	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1995 01 30	033	1.0+	0.3-	1999 02 04	704	(1.0-	2.1+)	2000 02 08	704	0.5+	0.5-
1995 01 30	033	0.0	0.6-	1999 03 10	704	1.7+	1.8-	2000 02 08	704	0.1+	0.5+
1995 02 02	033	1.0-	0.6+	1999 03 10	704	0.4+	0.1+	2000 02 08	704	0.4-	0.1+
1998 12 19	704	0.1-	0.2-	1999 03 10	704	1.1-	0.1+	2000 02 11	704	0.0	0.1-
1998 12 19	704	0.3-	0.4+	1999 03 10	704	0.7+	1.3-	2000 02 11	704	0.3+	0.1-
1998 12 19	704	0.0	0.3-	1999 03 10	704	0.4+	0.4-	2000 02 11	704	0.2+	0.1-
1998 12 19	704	0.0	0.8+	2000 02 06	704	0.8+	1.6-	2000 02 11	704	0.2+	0.4-
1998 12 19	704	1.3-	0.4+	2000 02 06	704	0.4-	0.9+	2000 02 16	704	0.8+	1.1-
1999 02 04	704	0.5+	0.0	2000 02 06	704	0.7-	0.3+	2000 02 16	704	0.1+	1.4+
1999 02 04	704	0.3-	0.7+	2000 02 06	704	0.3-	0.7+	2000 02 16	704	0.1-	0.3+
1999 02 04	704	0.3+	1.3+	2000 02 06	704	0.3-	1.2+				

2000 CN₁₀₁

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	236.34357		(2000.0)		P		Q
<i>n</i>	0.48738156	ω	118.33508	+0.52845888			+0.84877249
<i>a</i>	1.5991529	Ω	183.71436	-0.84281392			+0.52200189
<i>e</i>	0.6356525	<i>i</i>	15.93859	-0.10196034			+0.08425727
<i>P</i>	2.02	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	7

Residuals in seconds of arc

1984 03 07	413	0.5-	1.0+	2000 02 11	704	0.5+	0.3+	2000 02 12	711	0.3-	0.9-
1984 03 07	413	0.5+	1.0-	2000 02 11	658	0.2-	0.9+	2000 02 12	711	1.1-	0.4+
2000 02 08	704	0.4+	0.4+	2000 02 11	658	0.2+	0.2-	2000 02 12	711	0.3-	0.8-
2000 02 08	704	0.4-	1.1-	2000 02 11	704	0.4+	0.6+	2000 02 12	595	0.7-	0.4-
2000 02 08	704	0.2+	0.2-	2000 02 11	854	1.3-	1.2-	2000 02 12	104	1.6-	0.2-
2000 02 08	704	0.4+	0.2-	2000 02 11	854	(2.5+	0.5-)	2000 02 12	595	1.2-	0.2+
2000 02 08	704	0.3-	0.2+	2000 02 11	854	1.0-	0.9-	2000 02 12	104	1.4-	0.5-
2000 02 10	704	0.1-	0.6-	2000 02 11	704	0.1+	0.1+	2000 02 12	104	0.9-	0.3-
2000 02 10	704	0.1+	0.6-	2000 02 11	046	0.3-	0.4-	2000 02 12	595	0.4-	0.3-
2000 02 10	704	1.2-	0.3+	2000 02 11	046	0.2-	0.1+	2000 02 13	595	0.9-	1.0-
2000 02 10	704	0.0	0.5-	2000 02 11	046	0.3+	0.0	2000 02 13	595	0.3-	1.5-
2000 02 11	118	0.0	0.4-	2000 02 11	046	1.5+	0.3+	2000 02 14	704	0.9+	1.6+
2000 02 11	118	0.0	0.7+	2000 02 11	046	0.0	0.4+	2000 02 14	704	(2.6+	0.7-)
2000 02 11	118	0.2+	1.1+	2000 02 11	046	0.7+	0.5-	2000 02 14	704	0.4+	1.1+
2000 02 11	704	0.7+	0.7+	2000 02 11	046	0.0	0.2+	2000 02 14	704	0.4+	0.6+
2000 02 11	704	0.5+	0.0	2000 02 11	611	0.6+	1.0+	2000 02 15	422	1.2+	0.4+
2000 02 11	858	0.4+	0.2-	2000 02 11	611	0.3+	0.7+	2000 02 16	651	0.4+	0.6-
2000 02 11	858	0.0	0.2+	2000 02 12	858	0.0	0.2+	2000 02 16	651	0.6+	0.4-
2000 02 11	858	0.6+	0.2-	2000 02 12	858	0.8+	0.4+	2000 02 16	651	0.8-	0.3-
2000 02 11	658	1.9+	0.8+	2000 02 12	858	0.4+	0.5+				

2059 P-L = 1999 XV₁₂₂

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	209.34236		(2000.0)		P		Q
<i>n</i>	0.25517880	ω	232.40369	-0.64594843			+0.76336848
<i>a</i>	2.4617257	Ω	357.34713	-0.66717339			-0.56731994
<i>e</i>	0.0535743	<i>i</i>	5.43062	-0.37098555			-0.30889585
<i>P</i>	3.86	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1960 09 24	675	0.4-	1.2-	1999 11 03	704	(2.1+	0.1-)	1999 12 07	703	0.3+	0.2-
1960 09 26	675	0.9-	1.0-	1999 11 03	704	0.5+	0.0	1999 12 07	703	1.2-	1.4+
1960 09 28	675	1.4-	0.7+	1999 11 03	704	0.5+	0.7-	1999 12 07	703	0.7-	0.1+
1960 10 17	675	1.3+	0.9+	1999 11 03	704	0.2+	0.0	1999 12 07	703	0.1+	0.3+
1960 10 22	675	0.2+	1.1+	1999 11 03	704	0.2+	0.8-	1999 12 10	704	0.4-	0.6-
1960 10 25	675	0.9+	0.5-	1999 11 12	699	0.6+	0.1+	1999 12 10	704	0.1-	0.2-
1960 10 26	675	0.5-	0.4+	1999 11 12	699	0.1-	1.3-	1999 12 10	704	0.7+	0.5+
1960 10 26	675	0.5+	0.3+	1999 11 12	699	0.2-	0.9+	1999 12 10	704	0.4-	0.3+
1998 06 26	704	0.0	1.4+	1999 11 13	703	0.4-	0.1-	1999 12 13	703	0.4-	0.2+
1998 06 26	704	0.4+	0.5+	1999 11 13	703	0.1-	0.3+	1999 12 13	703	0.5+	0.0
1998 06 26	704	1.0-	0.5-	1999 11 13	703	0.0	0.7-	1999 12 13	703	0.5+	0.4-
1998 06 26	704	0.7+	1.5-	1999 11 13	703	0.2-	0.4+	1999 12 13	703	0.1+	0.2-

2214 P-L = 1997 OP₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

M	161.44308		(2000.0)		P		Q
n	0.23676933	ω	69.34866		+0.94528379		-0.32398623
a	2.5877308	Ω	309.53512		+0.27775286		+0.86086783
e	0.0929304	i	2.85096		+0.17114878		+0.39235124
P	4.16	H	16.4	G	0.15	U	6

2000 FEB. 22

M.P.C. 38733

1960 09 26	675	0.2+	1.0+	1997 07 31	691	0.1+	0.1-	1997 08 07	691	0.4+	0.1-
1960 09 26	675	0.4-	0.5+	1997 07 31	691	0.2+	0.2+				
1960 09 28	675	0.3-	0.1-	1997 07 31	691	0.9-	0.2+				

2633 P-L = 1999 XW₁₅₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.28096981	ω	242.67740	+0.61361067	-0.78954177		
<i>a</i>	2.3086757	Ω	169.45292	+0.74285671	+0.57281570		
<i>e</i>	0.1508022	<i>i</i>	3.22051	+0.26766745	+0.22024070		
<i>P</i>	3.51	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1960 09 24	675	0.6-	0.9-	1999 12 08	704	1.3-	0.5-	2000 01 05	704	0.9+	0.1+
1960 09 26	675	0.4-	0.4-	1999 12 08	704	1.2-	0.4-	2000 01 05	704	0.6+	0.3-
1960 09 27	675	0.3+	0.2-	1999 12 08	704	0.6-	0.3-	2000 01 05	704	0.4+	0.1-
1960 09 28	675	0.7-	0.2-	1999 12 08	704	1.5-	1.0-	2000 01 06	704	0.4+	0.4+
1960 10 17	675	0.5+	0.1+	1999 12 14	704	0.8+	1.3-	2000 01 06	704	0.5-	0.4+
1960 10 22	675	0.2+	0.0	1999 12 14	704	(2.5-	0.1+)	2000 01 06	704	0.6+	0.2+
1960 10 25	675	1.2-	0.8+	1999 12 14	704	0.5-	0.0	2000 02 08	049	1.3-	0.3+
1960 10 25	675	1.4+	0.7+	1999 12 14	704	1.6+	1.1+	2000 02 08	049	0.1-	0.3-
1960 10 26	675	0.6-	0.8+	1999 12 14	704	0.6-	0.6+	2000 02 08	049	0.0	0.1+
1960 10 26	675	1.1+	0.2-	2000 01 05	704	0.5+	0.4+				
1999 12 08	704	0.1-	0.1+	2000 01 05	704	1.4+	0.2+				

2652 P-L = 1998 ST₁₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.18172602	ω	224.73035	+0.87243646	-0.48869561		
<i>a</i>	3.0869148	Ω	164.52181	+0.45405646	+0.80626187		
<i>e</i>	0.1561813	<i>i</i>	1.19977	+0.18079643	+0.33334427		
<i>P</i>	5.42	<i>H</i>	15.9	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1960 09 24	675	0.1+	0.1-	1960 09 28	675	0.8+	0.1+	1998 09 17	691	0.1-	0.1+
1960 09 24	675	0.1-	0.7-	1960 09 28	675	0.1+	0.2+	1998 09 24	691	0.0	0.1+
1960 09 26	675	0.2+	0.1-	1998 09 17	691	0.3+	0.0	1998 09 24	691	0.1-	0.1-
1960 09 26	675	1.1-	0.4+	1998 09 17	691	0.0	0.0	1998 09 24	691	0.1-	0.0

2710 P-L = 1999 XA₂₀₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.18130606	ω	106.38209	-0.61912814	-0.78301909		
<i>a</i>	3.0916797	Ω	22.20311	+0.64668407	-0.55148925		
<i>e</i>	0.1333599	<i>i</i>	9.08639	+0.44551101	-0.28764685		
<i>P</i>	5.44	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1960 09 24	675	0.3+	0.5-	1999 12 12	704	0.1-	0.3-	2000 01 29	704	0.1+	0.3+
1960 09 26	675	0.2+	0.4-	1999 12 12	704	0.6-	0.9-	2000 01 29	704	0.1+	0.5-
1960 09 28	675	0.2-	0.0	1999 12 15	704	0.1+	0.7+	2000 01 29	704	0.2-	1.5+
1960 09 29	675	0.3+	1.0+	1999 12 15	704	0.3+	0.3-	2000 01 29	704	0.7-	0.6+
1960 10 17	675	0.8+	0.3+	1999 12 15	704	0.2-	0.1-	2000 01 29	704	0.8-	0.5+
1960 10 22	675	0.4-	0.4-	1999 12 15	704	0.1-	0.3+	2000 01 30	704	0.1-	0.1+
1960 10 25	675	0.3-	0.4-	1999 12 15	704	0.6+	0.8+	2000 01 30	704	0.3+	0.2+
1960 10 26	675	0.8-	0.7+	2000 01 02	704	0.6+	0.5-	2000 01 30	704	0.6+	0.2-
1999 12 12	704	0.7+	0.2-	2000 01 02	704	0.2-	0.4-	2000 01 30	704	0.8+	0.0
1999 12 12	704	0.4+	0.4-	2000 01 02	704	1.5-	1.2-				

2774 P-L = 1999 VD₈₈

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.25479035	ω	3.40711	+0.60425034	-0.79592438		
<i>a</i>	2.4642271	Ω	49.42188	+0.72988109	+0.53416042		
<i>e</i>	0.1613476	<i>i</i>	2.80948	+0.31961714	+0.28491584		
<i>P</i>	3.87	<i>H</i>	15.7	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1960 09 24	675	0.0	0.6+	1999 11 09	704	0.4-	0.0	1999 12 07	704	0.3+	0.3+
1960 09 26	675	0.6-	0.5+	1999 11 12	704	0.9+	0.3-	2000 01 03	704	0.1-	0.9-
1960 09 28	675	0.6-	0.3+	1999 11 12	704	0.5-	0.2-	2000 01 03	704	0.8-	0.3-
1960 09 29	675	0.1-	0.5-	1999 11 12	704	0.2+	0.2+	2000 01 03	704	1.0-	0.3+
1960 10 25	675	1.4+	0.5-	1999 11 12	704	0.7+	0.9+	2000 01 03	704	0.6-	0.3+
1960 10 26	675	0.1-	0.4-	1999 11 12	704	0.3-	0.2-	2000 01 04	704	0.1+	0.2-
1999 11 03	704	0.5+	0.4+	1999 11 16	704	0.5-	0.2-	2000 01 04	704	0.0	0.3+
1999 11 03	704	0.2-	0.2-	1999 11 16	704	0.2-	0.0	2000 01 04	704	0.1-	0.2-
1999 11 03	704	1.0-	0.6-	1999 11 16	704	0.0	0.2-	2000 01 04	704	1.2-	0.4-
1999 11 03	704	0.4-	0.3-	1999 11 16	704	0.5+	0.1+	2000 01 04	704	1.2-	0.3+
1999 11 03	704	0.1+	0.7+	1999 11 16	704	0.4+	0.2+	2000 01 26	120	(3.3+	0.5-)
1999 11 09	704	0.3+	0.1-	1999 12 07	704	0.1+	0.2+	2000 01 26	120	1.2+	0.1+
1999 11 09	704	0.8+	0.1-	1999 12 07	704	0.3+	0.2-	2000 01 26	120	0.9+	0.4+
1999 11 09	704	1.2+	0.4-	1999 12 07	704	0.4+	0.1+				
1999 11 09	704	0.4-	0.1-	1999 12 07	704	0.0	0.5+				

2831 P-L = 1999 VD₅₆

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.17845162	ω	276.33556	+0.84378822	+0.53552385		
<i>a</i>	3.1245613	Ω	51.29093	-0.47286516	+0.77284127		
<i>e</i>	0.1244139	<i>i</i>	2.58188	-0.25381090	+0.34048579		
<i>P</i>	5.52	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1960 09 24	675	1.0-	0.5+	1999 10 20	704	0.5+	0.1+	1999 11 12	704	0.0	0.2-
1960 09 24	675	1.8+	1.1-	1999 10 20	704	1.0-	0.8+	1999 11 12	704	0.8+	0.9-
1960 09 26	675	0.4+	0.9+	1999 11 04	704	0.7-	0.0	1999 11 12	704	0.4+	0.7-
1960 09 26	675	1.1+	0.7-	1999 11 04	704	0.4+	0.3+	1999 11 12	704	0.4+	0.1+
1960 09 28	675	0.5+	1.3+	1999 11 04	704	0.5-	0.1+	1999 11 12	704	0.2+	0.0
1960 09 28	675	0.2+	0.2-	1999 11 04	704	0.9+	0.3+	1999 11 15	691	0.3-	0.1+
1960 09 29	675	0.4-	0.7+	1999 11 09	704	0.2+	0.2+	1999 11 15	691	0.7-	0.1+
1960 09 29	675	1.3+	0.4+	1999 11 09	704	0.2-	0.0	1999 11 15	691	0.6-	0.1+
1999 10 20	704	0.3-	0.4-	1999 11 09	704	0.1+	0.3+				
1999 10 20	704	0.7+	0.5-	1999 11 09	704	0.3-	0.4+				

3037 P-L = 1999 LK₃₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.17289970	ω	153.75814	-0.03892063	-0.99086595		
<i>a</i>	3.1910962	Ω	298.23128	+0.88908300	+0.02463609		
<i>e</i>	0.1128304	<i>i</i>	8.42669	+0.45608838	-0.13258101		
<i>P</i>	5.70	<i>H</i>	13.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1960 09 24	675	0.7+	0.2+	1960 09 27	675	0.3-	0.1-	1999 06 09	691	0.1-	0.4-
1960 09 24	675	0.0	0.0	1960 09 28	675	0.8-	1.1+	1999 06 11	703	0.4+	0.4-
1960 09 24	675	0.2+	1.3-	1960 09 28	675	0.5+	0.3+	1999 06 11	703	0.5-	1.2+
1960 09 25	675	0.3-	0.9+	1960 09 28	675	0.2+	0.8-	1999 06 11	703	0.7-	0.2+
1960 09 25	675	0.6-	0.4+	1960 09 29	675	0.2-	0.7-	1999 06 11	703	0.4-	0.0
1960 09 25	675	0.2+	0.5-	1960 09 29	675	0.8-	0.9+	1999 07 14	704	0.5+	0.6+
1960 09 26	675	0.2+	0.8-	1960 10 17	675	0.2+	0.4+	1999 07 14	704	1.1+	0.6-
1960 09 26	675	0.3-	0.3-	1960 10 24	675	1.8+	0.1+	1999 07 14	704	0.5+	0.9-
1960 09 26	675	0.4-	0.0	1999 06 09	691	0.5-	0.2+				
1960 09 27	675	0.4-	0.5+	1999 06 09	691	0.5-	0.0				

3514 P-L = 1999 XM₁₂₆

Id. A. Doppler, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	61.58938		(2000.0)		P		Q
<i>n</i>	0.22960793	ω	90.86740	+0.95398673		-0.26185501	
<i>a</i>	2.6412619	Ω	284.32271	+0.17783966		+0.88637400	
<i>e</i>	0.0908085	<i>i</i>	8.67172	+0.24141742		+0.38180241	
<i>P</i>	4.29	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1960 10 17	675	1.0-	0.9-	1999 12 07	703	0.0	0.8+	1999 12 15	704	0.3+	1.3-
1960 10 17	675	1.1+	1.0+	1999 12 07	703	0.2-	0.0	1999 12 15	704	0.5+	2.1-
1960 10 17	675	0.2+	0.4+	1999 12 07	703	0.0	0.6+	1999 12 15	704	0.1-	0.6+
1960 10 22	675	0.0	0.2-	1999 12 07	703	0.1+	0.4+	2000 01 03	704	0.1+	0.1-
1960 10 22	675	0.5+	0.0	1999 12 13	703	0.1+	0.4+	2000 01 03	704	0.4+	0.3+
1960 10 24	675	0.6-	1.1-	1999 12 13	703	0.3-	0.9+	2000 01 03	704	0.4+	0.5+
1960 10 25	675	0.4+	1.0+	1999 12 13	703	0.1+	1.0+	2000 01 03	704	0.1-	0.5+
1960 10 25	675	0.7-	0.9+	1999 12 13	703	0.7-	0.5+				
1960 10 26	675	0.0	1.1-	1999 12 15	704	0.4+	2.9-				

3521 P-L = 1999 XB₈₆

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	170.94080		(2000.0)		P		Q
<i>n</i>	0.23352543	ω	31.37456	+0.55603613		+0.81465459	
<i>a</i>	2.6116397	Ω	272.90038	-0.79266251		+0.46010697	
<i>e</i>	0.1535854	<i>i</i>	9.49837	-0.25001995		+0.35304316	
<i>P</i>	4.22	<i>H</i>	13.6	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1960 10 17	675	0.7+	0.0	1998 10 18	699	0.2-	0.4+	2000 01 05	704	0.5-	0.0
1960 10 17	675	1.0+	0.6-	1998 12 09	704	0.7-	0.9-	2000 01 05	704	0.1+	0.1+
1960 10 17	675	1.2+	1.2+	1998 12 09	704	2.0-	0.4+	2000 01 05	704	0.2+	0.5+
1960 10 22	675	0.4-	1.2-	1998 12 09	704	0.8+	0.6-	2000 01 05	704	0.3-	0.1-
1960 10 22	675	0.2-	0.6+	1998 12 09	704	1.6+	0.8+	2000 02 02	704	0.0	0.1+
1960 10 24	675	0.5-	0.6+	1999 12 07	704	0.3-	0.9-	2000 02 02	704	1.5+	0.5-
1960 10 25	675	1.8-	0.7+	1999 12 07	704	0.3-	0.6+	2000 02 02	704	0.8-	1.2+
1960 10 26	675	0.0	0.1-	1999 12 07	704	0.1-	0.1+	2000 02 02	704	0.4+	0.2-
1960 10 26	675	0.2-	1.4-	1999 12 07	704	0.4+	0.4-	2000 02 03	704	0.0	0.2-
1998 09 19	699	0.2-	0.1-	1999 12 08	704	0.3-	0.3-	2000 02 03	704	0.1+	0.4+
1998 09 19	699	0.4-	0.1-	1999 12 08	704	0.3+	0.3-	2000 02 03	704	0.7+	0.1-
1998 09 19	699	0.1+	0.2-	1999 12 08	704	0.6-	0.2+	2000 02 03	704	0.5+	0.2+
1998 10 18	699	0.3+	0.2+	1999 12 08	704	1.5-	0.2+	2000 02 03	704	0.6+	0.2-
1998 10 18	699	0.3+	0.2+	2000 01 05	704	0.2-	0.1-				

3555 P-L = 1999 XR₁₀

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	143.83049		(2000.0)		P		Q
<i>n</i>	0.27972933	ω	311.08813	+0.23322604		+0.97097755	
<i>a</i>	2.3154960	Ω	332.26456	-0.85456093		+0.17864839	
<i>e</i>	0.1073928	<i>i</i>	6.53829	-0.46403796		+0.15901998	
<i>P</i>	3.52	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1960 10 22	675	0.0	0.8-	1999 11 08	699	0.3-	0.3-	1999 12 10	704	1.1+	0.3+
1960 10 24	675	0.1+	0.6+	1999 11 08	699	1.1-	0.3-	1999 12 10	704	1.8+	0.4+
1960 10 26	675	0.1-	0.1+	1999 12 05	703	0.1+	0.9-	1999 12 10	704	0.2-	0.6-
1994 03 04	033	0.2+	0.2+	1999 12 05	703	1.7-	0.5+	1999 12 13	703	0.1-	0.2-
1994 03 04	033	0.1-	0.1+	1999 12 05	703	0.3-	1.9+	1999 12 13	703	0.4-	0.3-
1999 10 05	704	0.4-	0.7+	1999 12 05	703	1.6-	0.2-	1999 12 13	703	0.1+	0.6-
1999 10 05	704	0.2-	0.3+	1999 12 07	703	0.2-	0.3-	1999 12 13	703	0.3+	0.6-
1999 10 05	704	0.3+	0.4+	1999 12 07	703	0.1+	1.4-	1999 12 15	704	0.7+	1.8-
1999 10 05	704	0.2+	0.8+	1999 12 07	703	0.8-	0.2+	1999 12 15	704	0.3+	0.0

1999 11 03	704	0.2+	0.8-	1999 12 07	703	0.2+	0.2-	1999 12 15	704	0.2+	0.2-
1999 11 03	704	0.2-	0.0	1999 12 07	699	1.0+	0.5+	1999 12 15	704	1.0+	1.0+
1999 11 03	704	0.5+	0.8-	1999 12 07	699	1.0+	1.7+	2000 01 31	704	0.4-	0.3-
1999 11 03	704	1.4-	0.3+	1999 12 07	699	0.3+	0.8+	2000 01 31	704	0.5+	0.6+
1999 11 08	699	0.2-	0.2-	1999 12 10	704	0.6+	0.2+	2000 01 31	704	0.8-	0.2+

4057 P-L = 1999 XQ₁₂₂

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	357.57143		(2000.0)		P		Q
<i>n</i>	0.20414975	ω	94.91880	+0.25414053		-0.96662745	
<i>a</i>	2.8565170	Ω	340.26706	+0.84511111		+0.23818954	
<i>e</i>	0.0361751	<i>i</i>	5.49136	+0.47031883		+0.09432450	
<i>P</i>	4.83	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1960 09 24	675	0.6+	0.3-	1998 08 17	704	0.5+	0.9-	1999 12 07	703	0.3-	0.2-
1960 09 25	675	0.2-	0.2+	1999 11 03	704	0.5+	0.6+	1999 12 07	703	0.2-	0.4-
1960 09 26	675	0.2-	0.0	1999 11 03	704	0.6+	0.2+	1999 12 10	704	0.4+	0.2-
1960 09 28	675	1.3-	0.8-	1999 11 03	704	0.5+	1.0+	1999 12 10	704	0.9+	0.7-
1960 10 17	675	0.9+	0.9+	1999 11 03	704	0.3-	0.3+	1999 12 10	704	0.6+	0.0
1960 10 22	675	(0.1+	3.6-)	1999 11 03	704	0.3-	0.3+	1999 12 10	704	0.1+	0.3+
1960 10 22	675	0.0	0.3+	1999 11 09	699	0.0	0.9-	1999 12 13	703	0.1+	0.1-
1960 10 26	675	0.7+	0.9-	1999 11 09	699	0.1-	0.4-	1999 12 13	703	0.7-	0.3-
1998 08 17	704	1.0-	1.6+	1999 11 09	699	0.6-	0.8+	1999 12 13	703	0.0	0.3+
1998 08 17	704	0.2+	0.0	1999 12 07	703	0.8-	0.1+	1999 12 13	703	0.1+	0.1-
1998 08 17	704	0.2+	0.5-	1999 12 07	703	0.4-	0.4-				

4201 P-L = 2000 CP₅₁

Id. G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	30.97378		(2000.0)		P		Q
<i>n</i>	0.21037743	ω	212.58762	-0.58375252		-0.80910501	
<i>a</i>	2.7998620	Ω	273.21465	+0.75870386		-0.51389520	
<i>e</i>	0.0276546	<i>i</i>	3.88750	+0.28913915		-0.28506280	
<i>P</i>	4.68	<i>H</i>	14.2	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1960 09 24	675	0.1-	0.4-	1998 11 21	704	0.1+	1.3-	2000 02 02	704	0.0	0.1+
1960 09 25	675	0.4-	0.4-	1998 11 21	704	0.9+	0.1+	2000 02 02	704	0.5+	0.1+
1960 09 26	675	0.2+	0.2-	1998 11 21	704	1.0+	0.9-	2000 02 06	704	0.0	0.1-
1960 09 28	675	0.3+	0.5-	1998 11 21	704	(4.2-	0.1-)	2000 02 06	704	0.2-	0.5-
1960 10 22	675	0.0	1.7+	2000 02 02	704	0.4-	0.7-	2000 02 06	704	0.2+	0.7+
1960 10 26	675	0.2-	0.2+	2000 02 02	704	0.4+	0.4+				
1998 11 21	704	1.9-	1.8+	2000 02 02	704	0.4-	0.1+				

4252 P-L = 1997 WG₁₈ = 1999 ED₁

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	358.67379		(2000.0)		P		Q
<i>n</i>	0.32136653	ω	337.92085	+0.44588351		+0.89439376	
<i>a</i>	2.1109063	Ω	318.53634	-0.81304761		+0.38819416	
<i>e</i>	0.1711382	<i>i</i>	3.05794	-0.37435475		+0.22218256	
<i>P</i>	3.07	<i>H</i>	17.1	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1960 09 24	675	0.6-	1.8-	1997 11 23	691	0.1+	0.0	1999 03 06	691	0.2+	0.2-
1960 09 25	675	1.8+	0.5+	1997 11 23	691	0.3+	0.1+	1999 03 06	691	0.2-	0.1+
1960 09 26	675	0.4+	1.2-	1997 11 23	691	0.1+	0.3+	1999 03 06	691	0.2+	0.3-
1960 09 26	675	0.6-	0.5-	1997 11 30	691	0.2+	0.0	1999 03 11	691	0.4-	0.5-
1960 09 28	675	0.3-	0.4+	1997 11 30	691	0.6-	0.3+	1999 03 11	691	0.2-	0.0
1960 10 22	675	0.5-	2.3+	1997 11 30	691	0.1+	0.9-	1999 03 11	691	0.1+	0.1+

2000 FEB. 22

M.P.C. 38735

4279 P-L = 1996 AA₁₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	113.27529		(2000.0)		P		Q
<i>n</i>	0.25924372	ω	182.86098	+0.85578182			-0.51520844
<i>a</i>	2.4359248	Ω	208.30564	+0.47658865			-0.82038328
<i>e</i>	0.1386016	<i>i</i>	5.67390	+0.20124794			+0.24805552
<i>P</i>	3.80	<i>H</i>	16.8	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1960 09 24	675	0.3+	0.3+	1960 09 28	675	0.5-	0.7-	1996 01 24	691	0.7-	0.0
1960 09 25	675	0.9+	0.0	1960 09 28	675	0.4-	0.6+	1996 01 24	691	0.0	0.3-
1960 09 25	675	0.6-	1.1+	1996 01 15	691	0.4+	0.0	1996 01 24	691	0.1-	0.1-
1960 09 26	675	0.5-	0.6-	1996 01 15	691	0.1+	0.0				
1960 09 26	675	0.9+	0.6-	1996 01 15	691	0.4+	0.4+				

4289 P-L = 1999 VV₁₅₄

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	355.57435		(2000.0)		P		Q
<i>n</i>	0.27747380	ω	62.46805	+0.55726159			-0.83029269
<i>a</i>	2.3280272	Ω	353.64495	+0.73187243			+0.49603250
<i>e</i>	0.1051908	<i>i</i>	4.44440	+0.39220181			+0.25409804
<i>P</i>	3.55	<i>H</i>	15.9	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1960 09 24	675	0.1-	0.0	1999 09 14	704	0.3+	1.2+	1999 11 13	691	0.1-	0.0
1960 09 25	675	0.3+	0.2-	1999 09 14	704	0.4+	0.5-	1999 11 13	691	1.0+	0.5+
1960 09 26	675	0.5+	0.1-	1999 09 14	704	0.5+	0.3-	1999 11 13	691	0.0	0.4-
1960 09 28	675	0.3-	0.5+	1999 10 06	704	0.1-	0.0	1999 11 17	691	0.0	0.1+
1960 10 17	675	0.2-	0.8+	1999 10 06	704	0.2-	0.1-	1999 11 17	691	0.1+	0.3-
1960 10 26	675	0.3-	0.6-	1999 10 06	704	0.4-	0.3-	1999 11 17	691	0.3-	0.1+
1999 09 14	704	0.1-	0.6+	1999 10 06	704	0.4-	0.4-				
1999 09 14	704	0.0	0.3-	1999 10 06	704	0.2-	0.3-				

4536 P-L = 2000 CG₂₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	181.50227		(2000.0)		P		Q
<i>n</i>	0.18545015	ω	138.58657	+0.80059980			+0.59919006
<i>a</i>	3.0454485	Ω	184.60527	-0.56015053			+0.74642884
<i>e</i>	0.0873309	<i>i</i>	2.39147	-0.21277063			+0.28950864
<i>P</i>	5.31	<i>H</i>	13.4	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1960 09 24	675	0.7-	0.7-	1960 10 24	675	0.7-	0.6-	2000 02 02	704	0.1+	0.8+
1960 09 26	675	0.4+	0.1-	1960 10 26	675	0.2+	1.6-	2000 02 04	704	0.2+	0.3+
1960 09 27	675	1.4+	1.1+	2000 02 02	704	0.1-	0.6+	2000 02 04	704	0.9+	1.1+
1960 09 28	675	0.2-	0.9+	2000 02 02	704	0.0	0.7-	2000 02 04	704	0.2-	0.2+
1960 10 17	675	0.8-	1.1+	2000 02 02	704	0.4-	0.3+	2000 02 04	704	0.1+	1.0-
1960 10 22	675	0.4+	0.0	2000 02 02	704	0.3-	0.4-	2000 02 04	704	0.2-	1.0-

4540 P-L = 1996 FY₁₀ = 1998 SO₁₅₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	142.11686		(2000.0)		P		Q
<i>n</i>	0.18207209	ω	137.92492	+0.69741639			+0.71643525
<i>a</i>	3.0830019	Ω	176.16041	-0.70837379			+0.69297481
<i>e</i>	0.0641914	<i>i</i>	15.76297	-0.10870581			+0.08066257
<i>P</i>	5.41	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1960 09 24	675	0.1-	0.3-	1996 03 20	691	0.1-	0.3+	1998 09 26	704	0.0	0.8+
1960 09 24	675	0.5+	0.5+	1996 03 24	691	0.0	0.4-	1998 09 27	704	1.4-	1.7-
1960 09 26	675	0.6+	0.0	1996 03 24	691	0.1-	0.4-	1998 09 27	704	0.4+	0.5-
1960 09 28	675	0.1-	0.3+	1996 03 24	691	0.1+	0.0	1998 09 27	704	0.3-	0.6+

1960 09 28	675	1.1-	0.6+	1998 09 26	704	1.0+	1.5-	1998 09 27	704	0.9-	1.7+
1996 03 20	691	0.2+	0.1+	1998 09 26	704	2.0+	0.9-				
1996 03 20	691	0.2-	0.2+	1998 09 26	704	0.7-	0.4+				

6258 P-L = 1999 UB₃₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	81.44351		(2000.0)		P		Q
<i>n</i>	0.17846520	ω	98.24066	+0.72852184			+0.68352528
<i>a</i>	3.1244028	Ω	218.65807	-0.65356958			+0.67375852
<i>e</i>	0.1491481	<i>i</i>	4.15561	-0.20518950			+0.28078931
<i>P</i>	5.52	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1960 09 24	675	0.1-	0.2-	1999 10 06	704	0.0	0.1+	1999 10 31	691	0.0	0.1-
1960 09 25	675	0.1-	0.7+	1999 10 06	704	0.4+	0.2+	1999 11 05	691	0.1+	0.6-
1960 09 26	675	0.4+	0.1-	1999 10 06	704	0.0	0.1+	1999 11 05	691	0.5-	0.0
1960 09 28	675	0.5+	0.2+	1999 10 06	704	0.5-	0.2-	1999 11 05	691	0.4-	0.0
1960 10 22	675	0.7-	0.8-	1999 10 31	691	0.3+	0.2+				
1999 10 06	704	0.1+	0.0	1999 10 31	691	0.3+	0.3+				

6260 P-L = 1994 SQ

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	183.15757		(2000.0)		P		Q
<i>n</i>	0.17414062	ω	172.46155	-0.97319119			-0.22819406
<i>a</i>	3.1759183	Ω	354.10795	+0.19369580			-0.74576477
<i>e</i>	0.0588028	<i>i</i>	16.26215	+0.12401950			-0.62590924
<i>P</i>	5.66	<i>H</i>	12.0	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1960 09 24	675	0.2+	0.2-	1994 10 07	691	0.2-	0.2+	1999 09 11	704	0.5+	0.3-
1960 09 25	675	0.4+	0.1-	1994 10 07	691	0.1-	0.1+	1999 09 11	704	0.0	0.2+
1960 09 26	675	0.1-	0.3+	1999 07 14	704	0.7-	0.1+	1999 09 11	704	0.3+	0.4-
1960 09 28	675	0.1+	0.7-	1999 07 14	704	0.3-	0.0	1999 09 11	704	0.6+	0.0
1994 09 27	691	0.1+	0.3+	1999 07 14	704	0.2-	0.4-	1999 09 29	704	0.3-	0.0
1994 09 27	691	0.3-	0.0	1999 07 14	704	0.4-	0.0	1999 09 29	704	0.3-	0.3+
1994 09 27	691	0.1-	0.1+	1999 07 14	704	0.5-	0.6-	1999 09 29	704	0.1-	0.6+
1994 10 07	691	0.1-	0.1-	1999 09 11	704	0.3+	0.0	1999 09 29	704	1.3+	0.6+

6312 P-L = 1999 XL₁₂₅

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	69.26065		(2000.0)		P		Q
<i>n</i>	0.27967674	ω	9.37366	+0.99814839			+0.05792967
<i>a</i>	2.3157863	Ω	347.26112	-0.05982191			+0.87976374
<i>e</i>	0.2216847	<i>i</i>	4.82450	-0.01100574			+0.47186853
<i>P</i>	3.52	<i>H</i>	15.8	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1960 09 24	675	0.2+	0.0	1999 11 03	704	0.1-	0.2+	1999 12 07	703	0.0	0.2+
1960 09 25	675	0.1-	0.3+	1999 11 03	704	0.6+	0.2-	1999 12 13	703	0.1+	0.0
1960 09 26	675	0.2+	0.0	1999 11 03	704	0.2-	0.2+	1999 12 13	703	0.7+	0.3-
1960 09 28	675	0.1-	0.4-	1999 11 03	704	0.1+	0.4-	1999 12 13	703	0.8+	0.5-
1960 10 17	675	0.3-	0.2-	1999 12 07	703	1.0-	0.1-	1999 12 13	703	0.3-	0.2+
1960 10 22	675	0.0	0.3+	1999 12 07	703	0.6-	0.3+				
1999 11 03	704	0.3-	0.6+	1999 12 07	703	0.2+	0.2-				

6678 P-L = 1999 XN₁₁₉

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	41.35051		(2000.0)		P		Q				
<i>n</i>	0.25484693	ω	29.99033		+0.82465525		-0.56560958				
<i>a</i>	2.4638624	Ω	4.46573		+0.50409987		+0.73055000				
<i>e</i>	0.1451375	<i>i</i>	4.00102		+0.25656781		+0.38259965				
<i>P</i>	3.87	<i>H</i>	15.7		<i>G</i>	0.15	<i>U</i>	4			
Residuals in seconds of arc											
1960 09 24	675	0.0	0.8-	1999 11 03	704	0.1+	0.8-	1999 11 16	704	0.4+	0.0
1960 09 26	675	0.1+	0.8-	1999 11 03	704	0.7+	0.7-	1999 11 16	704	0.1+	0.2+
1960 09 27	675	0.6+	1.2+	1999 11 03	704	0.6+	1.1-	1999 12 05	703	0.6-	0.1-
1960 09 28	675	0.3-	0.2+	1999 11 04	703	0.5-	0.1-	1999 12 05	703	0.0	0.1+
1960 10 17	675	0.1+	0.1-	1999 11 04	703	0.2-	0.9+	1999 12 05	703	0.1-	0.1+
1960 10 22	675	0.7-	0.6+	1999 11 04	703	0.2+	0.1+	1999 12 05	703	2.0-	0.8+
1960 10 24	675	0.1-	0.7+	1999 11 04	703	0.1-	0.1-	1999 12 13	703	0.3+	0.2+
1960 10 26	675	0.1-	0.3-	1999 11 16	704	0.1+	0.2-	1999 12 13	703	0.5+	0.6+
1999 11 03	704	0.7+	0.4+	1999 11 16	704	0.3+	0.2-	1999 12 13	703	0.0	0.1+
1999 11 03	704	0.2-	0.6-	1999 11 16	704	0.1+	0.1-	1999 12 13	703	0.2-	0.2-

6759 P-L = 1999 XS₅

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	192.38353		(2000.0)		P		Q				
<i>n</i>	0.28175370	ω	166.60523		-0.30253671		+0.95207666				
<i>a</i>	2.3043917	Ω	85.77062		-0.87858877		-0.26027478				
<i>e</i>	0.1080538	<i>i</i>	2.58404		-0.36953121		-0.16064581				
<i>P</i>	3.50	<i>H</i>	15.4		<i>G</i>	0.15	<i>U</i>	5			
Residuals in seconds of arc											
1960 09 24	675	0.3-	0.6-	1999 11 28	691	0.2-	0.1+	1999 12 07	704	0.2-	0.5-
1960 09 26	675	0.4-	0.2+	1999 11 28	691	0.2-	0.1+	1999 12 07	704	0.1+	0.8-
1960 09 27	675	0.2+	0.1-	1999 11 29	049	1.7+	0.2+	1999 12 07	691	0.1-	0.3-
1960 09 28	675	0.5+	0.6+	1999 11 29	049	1.3+	0.3+	1999 12 07	704	0.2-	0.5-
1999 11 12	704	0.2+	0.1-	1999 11 30	049	(2.1+	0.7-)	1999 12 07	704	0.0	0.5-
1999 11 12	704	0.2-	0.2+	1999 12 04	703	0.6-	1.0-	1999 12 07	691	0.2-	0.3-
1999 11 12	704	0.0	0.1-	1999 12 04	703	0.9-	0.2-	1999 12 07	704	0.3+	0.3-
1999 11 12	704	0.4+	0.4-	1999 12 04	703	0.1-	0.6+	1999 12 08	704	0.5-	0.3-
1999 11 12	704	0.3-	0.4-	1999 12 04	703	0.1+	1.0+	1999 12 08	704	0.2-	0.4+
1999 11 17	704	0.8-	0.3-	1999 12 05	703	1.1-	1.5+	1999 12 08	704	1.1+	0.3-
1999 11 17	704	0.2-	0.3-	1999 12 05	703	(2.3-	1.1-)	1999 12 08	704	0.7+	0.2-
1999 11 17	704	0.5-	0.9+	1999 12 05	703	0.1-	0.5+	1999 12 08	704	0.8+	0.8+
1999 11 17	704	0.3+	0.2+	1999 12 05	703	0.2-	0.4+				
1999 11 28	691	0.1-	0.1-	1999 12 07	691	0.2-	0.3-				

6861 P-L = 1991 RB₂₉ = 1999 LK₇

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	48.85950		(2000.0)		P		Q				
<i>n</i>	0.22190776	ω	141.12233		-0.19079074		+0.97977038				
<i>a</i>	2.7020148	Ω	117.80307		-0.91681940		-0.15586705				
<i>e</i>	0.0474612	<i>i</i>	3.91576		-0.35077213		-0.12552076				
<i>P</i>	4.44	<i>H</i>	15.2		<i>G</i>	0.15	<i>U</i>	4			
Residuals in seconds of arc											
1960 09 24	675	0.6-	0.7-	1999 05 10	704	1.7-	1.0-	1999 06 11	703	0.6-	0.4-
1960 09 26	675	0.4+	1.4-	1999 05 10	704	(4.9-	0.2+)	1999 06 11	703	1.0-	0.8+
1960 09 27	675	0.1-	0.4-	1999 05 18	704	1.9-	1.0+	1999 06 11	703	0.2+	0.4+
1960 09 28	675	1.1+	0.4+	1999 05 18	704	0.5-	0.1-	1999 06 11	703	1.6+	1.2+
1991 09 15	691	0.0	0.3+	1999 05 18	704	1.1+	1.3-	1999 06 11	703	0.4-	0.1+
1991 09 15	691	0.2-	0.5+	1999 05 18	704	0.5-	1.0-	1999 06 14	703	0.4-	1.1-
1991 09 15	691	0.1-	0.4+	1999 05 18	704	0.1-	0.8+	1999 06 14	703	0.0	1.1-
1991 09 17	691	0.1-	0.3+	1999 05 20	699	0.4+	0.3+	1999 06 14	703	0.6-	0.6-
1991 09 17	691	0.2-	0.1+	1999 05 20	699	0.8+	0.8+	1999 06 14	703	0.7+	0.9+
1991 09 17	691	0.2-	0.5+	1999 05 20	699	1.3+	0.0	1999 06 15	704	(0.2+	2.8-
1999 05 10	704	0.8+	0.5-	1999 06 11	703	0.1-	0.4+	1999 06 15	704	0.2+	0.0

1999 05 10	704	0.0	1.2+	1999 06 11	703	1.0+	0.5+	1999 06 15	704	0.5+	1.1-
1999 05 10	704	0.8-	0.1+	1999 06 11	703	0.2+	0.1+	1999 06 15	704	0.4-	1.0-

7595 P-L = 1998 DL₂₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	352.62857		(2000.0)		P		Q				
<i>n</i>	0.27358409	ω	197.10013		+0.94507652		+0.32518811				
<i>a</i>	2.3500413	Ω	143.86966		-0.29297162		+0.88745516				
<i>e</i>	0.1889309	<i>i</i>	3.19964		-0.14490690		+0.32661297				
<i>P</i>	3.60	<i>H</i>	16.2		<i>G</i>	0.15	<i>U</i>	5			
Residuals in seconds of arc											
1960 10 17	675	0.3+	1.3-	1998 02 24	691	0.2-	0.7-	1998 03 02	691	0.4+	0.7+
1960 10 22	675	0.3+	0.4+	1998 02 24	691	0.2-	0.6-	1998 03 02	691	0.3+	0.5+
1960 10 25	675	1.1-	0.8+	1998 02 24	691	0.5-	0.5-				
1960 10 26	675	0.5+	0.2+	1998 03 02	691	0.2+	0.6+				

1075 T-1 = 1996 GQ₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

M	280.64809		(2000.0)		P		Q				
n	0.27948517	ω	150.43827		+0.97806907		+0.19734871				
a	2.3168444	Ω	198.53804		-0.20702101		+0.95623896				
e	0.3541595	i	12.09009		+0.02287338		+0.21601052				
P	3.53	H	15.1		G	0.15	U	7			
Residuals in seconds of arc											
1971 03 24	675	1.5-	2.3+	1971 03 27	675	1.7+	1.7-	1996 04 19	691	0.6+	0.3+
1971 03 25	675	1.7-	0.7+	1996 04 13	691	0.0	0.2-	1996 04 19	691	0.3+	0.3+
1971 03 25	675	0.6-	0.5+	1996 04 13	691	0.2-	0.4-	1996 04 19	691	0.1-	0.6+
1971 03 26	675	2.2+	1.8-	1996 04 13	691	0.6-	0.6-				

1180 T-1 = 2000 AS₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	49.33864		(2000.0)		P		Q				
<i>n</i>	0.30174016	ω	119.63993		+0.28433411		-0.95738355				
<i>a</i>	2.2014761	Ω	313.74845		+0.85356422		+0.27687362				
<i>e</i>	0.0853463	<i>i</i>	4.02486		+0.43655725		+0.08220545				
<i>P</i>	3.27	<i>H</i>	15.0		<i>G</i>	0.15	<i>U</i>	4			
Residuals in seconds of arc											
1971 03 24	675	2.0+	1.1-	2000 01 03	704	0.1-	0.1-	2000 01 13	691	0.4-	0.4-
1971 03 25	675	0.2-	1.6+	2000 01 03	704	0.2+	0.8+	2000 01 13	691	0.4-	0.4-
1971 03 25	675	0.1-	1.0+	2000 01 04	704	0.3+	0.1+	2000 01 26	108	(2.7+	1.0-)
1971 03 26	675	1.0-	1.3+	2000 01 04	704	0.1-	0.0	2000 01 30	704	0.2-	0.1+
1971 03 27	675	0.5-	0.6-	2000 01 04	704	0.4+	0.4+	2000 01 30	704	0.1-	0.2+
1971 04 02	675	1.1-	0.8+	2000 01 04	704	0.4-	0.9+	2000 01 30	704	0.0	0.3+
1971 04 16	675	0.1-	1.7-	2000 01 08	704	0.1-	0.3-	2000 01 30	704	0.0	0.1-
1971 04 16	675	1.2+	1.1-	2000 01 08	704	0.0	0.5-	2000 01 30	704	0.9-	0.4-
1999 11 16	704	0.5+	0.3+	2000 01 08	704	0.4-	0.8-	2000 01 31	704	0.2+	0.4+
1999 11 16	704	0.3+	0.6+	2000 01 08	704	0.3-	0.9-	2000 01 31	704	0.1-	0.1+
1999 11 16	704	0.5-	0.2-	2000 01 08	704	0.2-	0.6-	2000 01 31	704	0.3+	0.3+
1999 11 16	704	0.4-	0.0	2000 01 08	691	0.4-	0.5-	2000 01 31	704	0.2+	0.2+
1999 11 16	704	0.0	0.1+	2000 01 08	691	0.1+	0.2-	2000 02 07	703	0.3+	0.4-
1999 12 30	699	0.1+	1.3+	2000 01 08	691	0.3+	0.1-	2000 02 07	703	0.3-	0.1-
1999 12 30	699	(1.0+	2.1+)	2000 01 08	691	0.7-	0.2-	2000 02 07	703	0.8-	0.1-
1999 12 30	699	0.7+	1.3+	2000 01 08	691	0.7-	0.2-	2000 02 07	703	0.7-	0.1+
2000 01 01	104	0.3+	0.2-	2000 01 08	691	(2.6-	0.6+)	2000 02 11	704	0.1+	0.2-
2000 01 01	104	0.4+	0.3-	2000 01 11	704	0.0	0.6-	2000 02 11	704	0.5+	0.4+
2000 01 01	104	0.5+	0.3-	2000 01 11	704	0.3+	0.6-	2000 02 11	704	0.1+	0.2+
2000 01 01	104	0.3+	0.9+	2000 01 11	704	0.4-	0.3-	2000 02 11	704	0.0	0.8+
2000 01 03	704	0.6+	0.1+	2000 01 11	704	0.0	0.7-	2000 02 11	704	0.3+	0.5+

2000 FEB. 22

M.P.C. 38737

2000 01 03 704 0.2- 0.1- 2000 01 11 704 1.1+ 0.5-
2000 01 03 704 0.3+ 0.3+ 2000 01 13 691 0.4- 0.4-

2035 T-1 = 1994 GF₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.25766388	ω	211.51466	-0.63419069	+0.77310951		
<i>a</i>	2.4458718	Ω	19.13149	-0.70275377	-0.57088107		
<i>e</i>	0.1716668	<i>i</i>	1.78184	-0.32239620	-0.27639914		
<i>P</i>	3.83	<i>H</i>	16.8	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1971 03 25	675	0.4+	0.1-	1994 04 06	691	0.2+	0.1+	1994 04 16	691	0.3-	0.1-
1971 03 25	675	0.2+	2.6+	1994 04 06	691	0.1-	0.1+	1994 04 16	691	0.1-	0.2-
1971 03 26	675	0.4-	0.9-	1994 04 06	691	0.3+	0.1+				
1971 03 27	675	0.3-	1.7-	1994 04 16	691	0.0	0.1+				

2083 T-1 = 1996 VF₂₄

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.25864309	ω	85.89018	-0.75541342	-0.65442201		
<i>a</i>	2.4396946	Ω	53.23031	+0.58370759	-0.69490086		
<i>e</i>	0.1852970	<i>i</i>	2.35386	+0.29771800	-0.29806817		
<i>P</i>	3.81	<i>H</i>	17.2	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1971 03 25	675	1.6+	1.7+	1996 11 10	691	0.1+	0.3+	1996 11 17	691	0.1+	0.4-
1971 03 25	675	0.4+	0.6+	1996 11 10	691	0.1-	0.1+	1996 11 17	691	0.2+	0.1-
1971 03 26	675	0.9+	1.0-	1996 11 10	691	0.1+	0.3+				
1971 03 27	675	3.0-	1.3-	1996 11 17	691	0.4-	0.2-				

2194 T-1 = 1997 GU₃₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22805811	ω	92.17337	-0.63858179	-0.76899170		
<i>a</i>	2.6532146	Ω	37.56561	+0.68548939	-0.58577831		
<i>e</i>	0.1535638	<i>i</i>	2.76515	+0.34973931	-0.25596003		
<i>P</i>	4.32	<i>H</i>	15.7	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1971 03 25	675	0.4-	1.1+	1971 04 02	675	(1.5-	4.8+)	1997 04 03	704	0.4-	0.1+
1971 03 25	675	0.5-	0.2+	1995 10 15	327	0.1+	1.1+	1997 04 03	704	0.3+	0.4-
1971 03 26	675	0.0	0.6-	1995 10 15	327	0.2+	0.3-	1997 04 11	704	(0.6-	4.3+)
1971 03 27	675	1.1+	0.6-	1995 10 15	327	0.2-	0.9-	1997 04 11	704	(0.2-	4.0+)

2212 T-1 = 1999 VK₁₂₁

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.22968415	ω	38.73469	+0.41895879	-0.90785464		
<i>a</i>	2.6406775	Ω	26.50854	+0.82358471	+0.37227451		
<i>e</i>	0.1746824	<i>i</i>	2.12344	+0.38233723	+0.19290321		
<i>P</i>	4.29	<i>H</i>	17.4	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1971 03 24	675	1.9+	2.5-	1971 03 27	675	1.8-	2.5+	1999 11 04	691	0.0	0.4+
1971 03 25	675	1.0+	0.5-	1971 04 02	675	1.2+	0.6+	1999 11 10	691	0.3+	0.5-
1971 03 25	675	0.3-	0.5+	1999 11 04	691	0.7-	0.6+	1999 11 10	691	0.3+	0.5-
1971 03 26	675	2.0-	0.5-	1999 11 04	691	0.1-	0.6+	1999 11 10	691	0.1+	0.5-

2236 T-1 = 2000 BV₂₇

Id. G. V. Williams, S. Nakano

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.23549280	ω	70.28224	-0.78726290	-0.61544783		
<i>a</i>	2.5970738	Ω	71.71467	+0.54970985	-0.72839849		
<i>e</i>	0.0589554	<i>i</i>	2.29132	+0.27934961	-0.30109732		
<i>P</i>	4.19	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1971 03 24	675	(3.8+	4.2-)	1999 11 16	704	0.4-	0.6-	2000 02 03	704	0.4+	0.9+
1971 03 25	675	0.5-	0.5-	1999 11 16	704	0.5+	0.4+	2000 02 03	704	0.5+	0.7+
1971 03 25	675	(3.0-	1.2+)	1999 11 16	704	0.4+	0.7-	2000 02 03	704	0.8+	0.6+
1971 03 26	675	2.1-	0.7+	2000 01 27	411	0.1-	0.4-	2000 02 03	704	0.8+	0.3-
1971 03 27	675	2.3-	0.2+	2000 01 27	411	0.9-	0.2-	2000 02 03	704	0.9+	0.3+
1971 04 02	675	1.3+	1.1-	2000 01 28	411	0.2-	0.8-	2000 02 11	704	1.1-	0.3+
1971 04 16	675	1.8+	0.1+	2000 01 28	411	1.2+	0.8+	2000 02 11	704	1.3-	0.7-
1971 04 16	675	1.3+	0.0	2000 01 30	704	0.1-	0.7+	2000 02 11	704	0.6-	0.7-
1971 05 13	675	0.0	0.4-	2000 01 30	704	0.2-	0.4+	2000 02 11	704	0.8+	0.3-
1971 05 14	675	0.5+	0.5+	2000 01 30	704	(2.4-	0.0)				
1999 11 16	704	0.7-	1.1-	2000 01 30	704	0.4-	0.5+				

2237 T-1 = 1999 VG₄₅

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26310354	ω	62.09778	+0.24360098	-0.96947429		
<i>a</i>	2.4120423	Ω	13.88795	+0.84398451	+0.19772256		
<i>e</i>	0.1043099	<i>i</i>	6.67398	+0.47785845	+0.14500134		
<i>P</i>	3.75	<i>H</i>	15.4	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1971 03 24	675	(3.7-	0.2+)	1999 10 06	704	0.5+	0.4+	1999 11 11	703	1.0+	0.4-
1971 03 25	675	0.4+	0.8-	1999 10 06	704	0.4+	0.7+	1999 11 11	703	0.3+	0.4-
1971 03 25	675	1.4+	0.3-	1999 10 06	704	0.1-	0.4+	1999 11 11	703	0.1+	0.1+
1971 03 26	675	1.3-	0.3+	1999 10 06	704	0.0	0.3+	1999 11 13	691	0.1+	0.0
1971 03 27	675	0.8-	0.9+	1999 10 06	704	0.2-	0.4+	1999 11 13	691	0.4+	0.1-
1971 04 02	675	0.4+	0.1-	1999 11 04	704	0.3+	0.0	1999 11 13	691	0.4+	0.1-
1995 08 28	809	0.7+	0.1-	1999 11 04	704	0.0	0.9+	1999 11 14	704	0.8-	0.1+
1995 08 29	809	1.3+	0.0	1999 11 04	704	0.2+	0.1+	1999 11 14	704	0.0	0.7+
1995 08 30	809	(2.2-	1.3-)	1999 11 04	703	0.1+	0.3+	1999 11 14	704	0.2-	0.1-
1995 08 31	809	0.8-	0.8-	1999 11 04	704	0.4+	1.1+	1999 11 14	704	0.7+	0.2+
1995 08 31	809	0.4-	0.4+	1999 11 04	703	0.5+	0.3-	1999 11 14	704	0.1+	0.1+
1995 09 01	809	1.6-	0.5-	1999 11 04	704	0.4+	0.6-	1999 11 16	704	0.5-	0.2-
1995 09 22	809	1.1+	0.0	1999 11 04	703	0.1-	0.1+	1999 11 16	704	0.4+	0.6-
1995 09 23	809	0.2+	0.4-	1999 11 04	703	0.5-	0.0	1999 11 16	704	0.3-	0.5-
1995 09 23	809	(4.1+	1.6-)	1999 11 05	704	0.3-	0.3-	1999 11 16	704	0.8-	0.4-
1999 10 02	703	0.7+	1.4+	1999 11 05	704	0.1-	0.1-	1999 11 16	704	1.8-	0.7-
1999 10 02	703	0.5-	0.5+	1999 11 05	704	0.1+	0.6-	2000 01 04	704	0.5-	0.1-
1999 10 02	703	0.5-	0.3+	1999 11 05	704	0.0	1.1-	2000 01 04	704	0.1-	0.0
1999 10 02	703	0.2-	0.8+	1999 11 11	703	0.6-	0.6-	2000 01 04	704	1.0+	0.8-

3097 T-1 = 1998 BE₄₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.25253464	ω	195.14246	-0.21387865	-0.97599268		
<i>a</i>	2.4788794	Ω	267.22029	+0.90047927	-0.18064671		
<i>e</i>	0.1831482	<i>i</i>	2.36178	+0.37867270	-0.12167599		
<i>P</i>	3.90	<i>H</i>	16.4	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1971 03 25	675	1.3+	0.1+	1971 04 02	675	0.3+	0.3-	1998 01 30	910	0.2+	0.4+
1971 03 26	675	0.6-	0.9-	1998 01 26	566	0.1-	0.3-	1998 01 30	910	0.2+	0.3+

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1971 03 26 675 1.1+ 0.5− 1998 01 26 566 0.3− 0.4− 1998 01 30 910 0.2+ 0.3+
 1971 03 27 675 2.1− 1.6+ 1998 01 26 566 0.2− 0.3−

3101 T-1 = 2000 CS₂₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		249.11726		(2000.0)		P		Q	
<i>n</i>		0.26888245	ω	355.73443		+0.04038421		+0.99869970	
<i>a</i>		2.3773571	Ω	276.57797		−0.91580449		+0.02454359	
<i>e</i>		0.1454524	<i>i</i>	1.79475		−0.39958885		+0.04468234	
<i>P</i>		3.67	<i>H</i>	14.8		<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1971 03 25	675	0.6+	0.6−	2000 02 02	704	0.3−	0.3−	2000 02 06	704	0.2+	0.4+
1971 03 26	675	0.9+	0.0	2000 02 02	704	0.5+	0.6+	2000 02 06	704	0.2+	0.9−
1971 03 26	675	0.7+	0.2−	2000 02 02	704	0.3+	0.0	2000 02 08	704	0.2+	0.2−
1971 03 27	675	1.5−	1.3+	2000 02 02	704	0.1+	0.3−	2000 02 08	704	0.3+	0.8+
1971 04 02	675	0.2+	0.3−	2000 02 04	704	0.9+	0.1+	2000 02 08	691	0.9−	0.6−
1971 04 02	675	2.6−	0.8−	2000 02 04	704	0.1+	1.0+	2000 02 08	704	0.8−	0.8−
1971 04 16	675	0.8+	0.7−	2000 02 04	704	0.1−	1.5+	2000 02 08	691	0.5−	0.4−
1971 04 16	675	0.3+	1.3−	2000 02 04	704	0.4+	0.9+	2000 02 08	704	0.2−	0.8−
1971 05 13	675	0.6+	1.7+	2000 02 06	704	0.1−	0.3+	2000 02 08	691	1.0−	0.5−
1971 05 14	675	0.0	1.0+	2000 02 06	704	0.5+	1.0−				
2000 02 02	704	0.5−	0.7+	2000 02 06	704	0.8+	0.1−				

3179 T-1 = 2000 AE₁₉₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		71.02183		(2000.0)		P		Q	
<i>n</i>		0.23068892	ω	197.53473		+0.93566044		−0.35270574	
<i>a</i>		2.6330042	Ω	183.19148		+0.34378247		+0.91850063	
<i>e</i>		0.2700544	<i>i</i>	12.19039		+0.07970667		+0.17876033	
<i>P</i>		4.27	<i>H</i>	14.6		<i>G</i>	0.15	<i>U</i>	7

Residuals in seconds of arc

1971 03 25	675	0.6+	2.8−	1971 03 27	675	0.5−	0.6+	2000 01 11	704	0.6−	0.3−
1971 03 26	675	0.9+	2.1+	2000 01 08	704	1.5+	1.0+	2000 01 11	704	1.4−	0.0
1971 03 26	675	0.5+	3.4−	2000 01 08	704	0.8+	0.3+	2000 01 11	704	1.1−	0.5−
1971 03 26	675	0.5+	0.4+	2000 01 08	704	0.8+	0.2+	2000 01 11	704	0.5−	0.6+
1971 03 26	675	0.3−	2.7−	2000 01 08	704	1.0+	0.4−				
1971 03 27	675	(1.7−	5.7+)	2000 01 11	704	0.6−	0.9−				

3225 T-1 = 1999 VO₁₄₆

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		212.77214		(2000.0)		P		Q	
<i>n</i>		0.19245408	ω	294.58432		−0.78666973		+0.61721335	
<i>a</i>		2.9711047	Ω	283.53170		−0.56106006		−0.72424747	
<i>e</i>		0.1489572	<i>i</i>	0.83013		−0.25760890		−0.30743012	
<i>P</i>		5.12	<i>H</i>	14.0		<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1971 03 24	675	0.8+	0.6+	1971 04 16	675	1.0−	0.4−	1999 11 12	704	0.9−	0.8−
1971 03 25	675	0.6+	0.5+	1971 05 14	675	0.5−	0.4+	1999 11 15	704	0.4+	0.3−
1971 03 26	675	0.2+	0.2−	1971 05 14	675	0.4+	0.5+	1999 11 15	704	0.5−	0.8+
1971 03 26	675	0.7−	1.1−	1971 05 16	675	0.5+	0.5+	1999 11 15	704	0.2−	0.9−
1971 03 27	675	1.0−	0.3+	1999 11 12	704	0.2−	0.1−	1999 11 15	704	1.3+	1.5+
1971 04 02	675	0.8−	0.0	1999 11 12	704	0.8−	0.3−	1999 11 15	704	0.9+	0.7+
1971 04 16	675	1.6+	0.7−	1999 11 12	704	0.2−	0.2−				

3283 T-1 = 1999 RN₆₆

Id. M. E. Sansaturio

2000 FEB. 22

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		100.44540		(2000.0)		P		Q	
<i>n</i>		0.25410189	ω	255.07905		−0.01845973		+0.99965049	
<i>a</i>		2.4686761	Ω	13.90455		−0.88439558		−0.00749670	
<i>e</i>		0.1374583	<i>i</i>	4.51682		−0.46637292		−0.02535146	
<i>P</i>		3.88	<i>H</i>	15.4		<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1971 03 24	675	0.2+	0.4+	1971 04 02	675	0.9−	0.7+	1999 09 07	704	0.3+	0.1−
1971 03 25	675	1.4+	0.6+	1999 09 07	704	0.5−	0.6+	1999 09 09	704	0.0	1.2−
1971 03 26	675	0.3−	0.6−	1999 09 07	704	0.4+	0.7+	1999 09 09	704	1.3+	1.0−
1971 03 26	675	0.6−	0.3−	1999 09 07	704	0.1−	0.3+	1999 09 09	704	0.7−	0.1+
1971 03 27	675	0.2+	0.9−	1999 09 07	704	0.8−	0.6+	1999 09 09	704	0.2+	0.0

3312 T-1 = 1998 QM₂₁ = 1999 XE₁₂₈

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		209.47465		(2000.0)		P		Q	
<i>n</i>		0.22917405	ω	244.20626		−0.46453474		+0.88555432	
<i>a</i>		2.6445945	Ω	358.11272		−0.80111290		−0.42072441	
<i>e</i>		0.0363989	<i>i</i>	1.75581		−0.37739316		−0.19693784	
<i>P</i>		4.30	<i>H</i>	14.9		<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1971 03 24	675	0.2−	1.8−	1998 08 23	704	(3.4−	0.7−)	1999 12 13	704	0.2+	0.4+
1971 03 25	675	(7.1+	4.2−)	1998 10 14	910	0.1+	0.7−	1999 12 13	704	0.2+	0.0
1971 03 26	675	1.9−	0.1+	1998 10 14	910	0.4−	0.8−	1999 12 13	704	0.6−	0.1−
1971 03 26	675	1.1−	1.1−	1998 10 14	910	0.3−	0.2−	1999 12 13	704	0.1+	1.3+
1971 03 27	675	0.8+	2.2−	1999 11 14	704	(2.5+	1.5−)	2000 01 03	704	(0.1−	2.1+)
1971 04 02	675	(3.5−	0.4+)	1999 11 14	704	0.8−	0.7−	2000 01 03	704	1.2+	0.5−
1998 08 17	704	1.0+	0.6−	1999 11 14	704	0.6−	0.3−	2000 01 03	704	0.6+	1.8−
1998 08 17	704	0.2−	0.0	1999 12 07	704	0.4−	0.1+	2000 01 03	704	0.5+	1.6−
1998 08 17	704	0.8+	1.1−	1999 12 07	704	0.0	0.4−	2000 01 04	704	0.8+	0.4+
1998 08 17	704	0.2−	1.3−	1999 12 07	704	0.6−	0.3−	2000 01 04	704	1.3+	0.7−
1998 08 23	704	1.7+	1.4−	1999 12 07	704	0.5−	0.2−	2000 01 04	704	0.1+	0.4−
1998 08 23	704	(1.8−	2.6−)	1999 12 07	704	0.6−	0.7+				
1998 08 23	704	0.6−	0.6+	1999 12 13	704	0.1−	0.2+				

4060 T-1 = 1998 HJ₄₀ = 1999 VJ₆₃

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		139.19075		(2000.0)		P		Q	
<i>n</i>		0.29312315	ω	231.16558		+0.19357918		+0.97939289	
<i>a</i>		2.2444123	Ω	50.09466		−0.87526473		+0.19892060	
<i>e</i>		0.1672532	<i>i</i>	4.30554		−0.44321412		+0.03493094	
<i>P</i>		3.36	<i>H</i>	15.8		<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1971 03 24	675	(5.4+	2.8−)	1998 04 20	704	1.2−	0.9−	1999 11 04	704	0.4−	0.0
1971 03 26	675	1.0+	0.1−	1998 04 20	704	0.2+	0.3−	1999 11 04	704	1.3−	0.5+
1971 03 26	675	0.6+	0.2−	1998 04 20	704	0.4−	0.5+	1999 11 04	704	0.6+	0.3−
1971 03 27	675	1.5−	0.4−	1998 04 20	704	1.8−	0.1+	1999 11 09	704	0.1−	1.6+
1971 03 27	675	1.0−	0.8−	1998 04 21	704	1.9+	1.6+	1999 11 09	704	0.9+	0.3+
1998 03 25	704	1.0−	1.0+	1998 04 21	704	0.4−	1.1+	1999 11 09	704	0.6−	0.8+
1998 03 25	704	(1.7+	2.5+)	1998 04 21	704	0.9+	0.3−	1999 11 12	704	0.3+	0.7+
1998 03 25	704	0.6+	0.1+	1998 04 21	704	1.2+	0.0	1999 11 12	704	0.2−	0.2+
1998 03 25	704	0.4+	0.2+	1998 04 21	704	0.6−	0.5−	1999 11 12	704	0.3−	0.3+
1998 03 25	704	1.3−	0.3+	1998 04 22	704	0.1+	1.1+	1999 11 12	704	0.9+	0.8+
1998 03 29	704	1.0+	0.5+	1998 04 22	704	0.1−	0.1+	1999 11 12	704	0.2+	0.0
1998 03 29	704	0.2+	0.1+	1998 04 22	704	0.5+	0.8−	1999 11 17	691	0.2−	0.1−
1998 03 29	704	0.9−	1.1−	1998 04 22	704	0.0	1.3+	1999 11 17	691	0.2−	0.2−
1998 03 29	704	1.5+	0.3+	1998 04 22	704	0.3−	1.4+	1999 11 17	691	0.1−	0.1−
1998 03 29	704	0.7−	1.8−	1999 11 04	704	0.1−	1.6−				
1998 04 20	704	1.5+	1.0−	1999 11 04	704	0.1−	1.1−				

2000 FEB. 22

M.P.C. 38739

4100 T-1 = 1999 YB₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	338.30156		(2000.0)	P		Q	
<i>n</i>	0.26734318	ω	32.64833	−0.77919015	−0.62424175		
<i>a</i>	2.3864737	Ω	108.62118	+0.56153079	−0.73523358		
<i>e</i>	0.1330666	<i>i</i>	3.41415	+0.27847062	−0.26410948		
<i>P</i>	3.69	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1971 03 24	675	(0.7+ 3.7−)	1999 12 17	704	0.1+	0.5+	1999 12 18	651	0.2+	0.0
1971 03 26	675	1.0− 0.9+	1999 12 17	704	1.1+	0.5−	1999 12 18	651	0.5+	0.1−
1971 03 26	675	0.3+ 0.2−	1999 12 17	704	0.1+	0.1−	2000 01 03	704	0.3−	0.5+
1971 03 27	675	(3.3− 0.8−)	1999 12 17	704	0.1+	0.1+	2000 01 03	704	0.5−	1.1+
1971 04 02	675	0.4+ 1.6−	1999 12 17	704	0.3+	0.7+	2000 01 03	704	1.0−	0.3+
1997 04 02	704	0.0 0.8+	1999 12 17	704	1.5+	0.7−	2000 01 03	704	1.5−	0.0
1997 04 02	704	0.2+ 0.3−	1999 12 17	704	0.7+	0.4−	2000 01 05	704	0.5+	1.1+
1999 12 08	704	0.6+ 0.8−	1999 12 18	704	0.1+	0.7−	2000 01 05	704	0.4−	0.2+
1999 12 08	704	0.2− 0.3−	1999 12 18	704	0.2−	0.1+	2000 01 05	704	1.3−	0.7+
1999 12 08	704	0.4− 1.1−	1999 12 18	704	0.1+	0.1−	2000 01 05	704	0.4−	0.4+
1999 12 08	704	0.2+ 0.4−	1999 12 18	704	0.2+	0.2−				
1999 12 17	704	0.3+ 0.2−	1999 12 18	704	0.5−	0.0				

4133 T-1 = 2000 CY₁₀₀

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	286.22613		(2000.0)	P		Q	
<i>n</i>	0.30244074	ω	96.27301	−0.76342750	+0.64485960		
<i>a</i>	2.1980751	Ω	123.88872	−0.60863546	−0.69930590		
<i>e</i>	0.1223967	<i>i</i>	2.52226	−0.21619744	−0.30842722		
<i>P</i>	3.26	<i>H</i>	16.0	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1971 03 24	675	1.7+ 0.7−	1997 04 11	327	0.2+	0.3+	2000 02 03	704	0.7+	0.4−
1971 03 26	675	0.6− 0.5+	1997 04 11	327	0.1+	0.7+	2000 02 12	691	0.5−	0.6+
1971 03 26	675	0.2− 1.2+	1997 04 11	327	0.5+	0.8+	2000 02 12	691	0.3−	0.6+
1971 03 27	675	1.5− 1.5−	2000 01 28	691	0.8+	1.1−	2000 02 12	691	0.4−	0.4+
1971 04 02	675	(7.6+ 2.0−)	2000 01 28	691	0.8+	1.0−	2000 02 14	691	0.5−	0.2+
1971 04 16	675	0.3+ 1.8−	2000 01 28	691	0.9+	1.1−	2000 02 14	691	0.6−	0.4−
1971 04 16	675	0.3+ 0.1−	2000 02 03	704	0.4−	0.2+	2000 02 14	691	0.4−	0.4+
1971 05 13	675	0.0 1.2+	2000 02 03	704	0.1−	0.4+				
1971 05 14	675	0.8− 0.3−	2000 02 03	704	0.3−	1.0+				

1013 T-2 = 1998 FT₁₄₁ = 1999 VA₄₇

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	123.41528		(2000.0)	P		Q	
<i>n</i>	0.30600553	ω	97.84770	+0.38093166	+0.92452350		
<i>a</i>	2.1809709	Ω	194.56171	−0.86619708	+0.35224546		
<i>e</i>	0.1871349	<i>i</i>	2.76750	−0.32340947	+0.14553155		
<i>P</i>	3.22	<i>H</i>	15.8	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1973 09 19	675	0.9− 1.2−	1973 09 30	675	0.4−	0.9−	1998 04 01	704	0.3−	0.8−
1973 09 19	675	0.4+ 1.1+	1973 10 04	675	1.5+	0.6−	1999 11 04	704	0.9+	0.5−
1973 09 20	675	0.7+ 0.6+	1973 10 04	675	2.6+	0.9−	1999 11 04	704	0.1+	0.1+
1973 09 24	675	0.3− 0.1+	1998 03 29	704	1.1−	0.6+	1999 11 04	704	0.5+	0.9−
1973 09 24	675	0.3+ 0.5−	1998 03 29	704	0.3+	0.3+	1999 11 12	704	0.4−	1.0+
1973 09 25	675	1.5− 0.5+	1998 03 29	704	1.5−	0.0	1999 11 12	704	0.5−	0.2−
1973 09 25	675	0.8+ 0.2+	1998 03 29	704	2.0−	0.2−	1999 11 12	704	0.5−	1.1+
1973 09 29	675	0.4− 0.5−	1998 04 01	704	1.5+	0.8−	1999 11 12	704	0.1+	0.1−
1973 09 29	675	0.1− 1.0−	1998 04 01	704	1.0+	0.7−	1999 11 12	704	0.3−	0.2−
1973 09 30	675	1.5− 0.1+	1998 04 01	704	0.8+	1.7−				

1037 T-2 = 1999 VE₅₉

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	58.81227		(2000.0)	P		Q	
<i>n</i>	0.26734566	ω	134.36508	+0.99895220	−0.04166513		
<i>a</i>	2.3864589	Ω	228.03252	+0.03128222	+0.92362274		
<i>e</i>	0.2227120	<i>i</i>	1.45924	+0.03340538	+0.38103157		
<i>P</i>	3.69	<i>H</i>	17.0	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1973 09 19	675	0.1− 3.2+	1973 09 30	675	1.0−	0.7+	1999 11 09	704	0.6+	0.3−
1973 09 19	675	0.2+ 1.9+	1973 10 04	675	1.5+	1.9−	1999 11 09	704	1.0+	1.0−
1973 09 20	675	1.1− 0.9−	1973 10 04	675	0.8+	2.8−	1999 11 12	704	0.1+	0.1+
1973 09 24	675	0.2+ 0.9−	1973 10 05	675	1.4+	0.7+	1999 11 12	704	0.5−	0.2−
1973 09 24	675	2.6+ 1.3−	1973 10 05	675	1.2−	0.5−	1999 11 12	704	0.6−	0.3+
1973 09 25	675	1.5− 0.3+	1999 11 04	704	0.1+	0.9+	1999 11 12	704	0.3−	0.4+
1973 09 25	675	1.8− 1.9+	1999 11 04	704	0.5−	0.1+	1999 11 12	704	0.4−	0.2+
1973 09 29	675	1.4+ 0.3+	1999 11 04	704	1.1−	0.0	1999 11 14	691	0.2+	0.2+
1973 09 29	675	0.1+ 0.8−	1999 11 09	704	0.3−	0.6−	1999 11 14	691	0.3+	0.2+
1973 09 30	675	1.3− 0.5−	1999 11 09	704	0.9+	0.2+	1999 11 14	691	0.2+	0.1+

1064 T-2 = 1999 XY₁₃₈

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	124.50170		(2000.0)	P		Q	
<i>n</i>	0.12246352	ω	350.62761	+0.88268270	+0.46985394		
<i>a</i>	4.0160419	Ω	341.33672	−0.42905228	+0.79658922		
<i>e</i>	0.2698555	<i>i</i>	1.86554	−0.19179519	+0.38037203		
<i>P</i>	8.05	<i>H</i>	13.2	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1973 09 19	675	0.9+ 0.1+	1973 09 30	675	1.2−	0.3+	1999 12 07	691	0.6−	0.6+
1973 09 19	675	0.6− 1.0−	1973 09 30	675	1.1−	0.1+	1999 12 07	691	0.3+	0.1+
1973 09 20	675	1.1− 0.9−	1973 10 04	675	0.6+	1.1−	1999 12 07	691	0.4−	0.5+
1973 09 24	675	0.6+ 0.0	1973 10 04	675	0.9+	0.9−	2000 01 05	691	0.1+	0.5−
1973 09 24	675	0.2+ 0.2−	1973 10 05	675	0.3−	0.6+	2000 01 05	691	0.0	0.4−
1973 09 25	675	0.6+ 2.4+	1973 10 05	675	1.3+	1.9+	2000 01 05	691	0.0	0.6−
1973 09 25	675	0.2+ 0.3−	1999 12 05	691	0.1+	0.2+	2000 01 08	691	0.1−	0.1−
1973 09 29	675	0.6− 0.6−	1999 12 05	691	0.3+	0.4+	2000 01 08	691	0.1+	0.0
1973 09 29	675	0.2− 0.5−	1999 12 05	691	0.1+	0.2−	2000 01 08	691	0.1+	0.0

1118 T-2 = 1999 TA₂₆

Id. A. Doppler, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	40.47694		(2000.0)	P		Q	
<i>n</i>	0.22914222	ω	128.04043	+0.95917435	−0.28212804		
<i>a</i>	2.6448394	Ω	248.35451	+0.25238346	+0.88532619		
<i>e</i>	0.1185270	<i>i</i>	1.21484	+0.12762117	+0.36959614		
<i>P</i>	4.30	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1973 09 19	675	2.3− 1.3−	1999 10 03	704	0.3+	0.5−	1999 11 04	704	0.2−	0.2−
1973 09 19	675	0.1− 0.3−	1999 10 03	704	0.4+	0.6−	1999 11 04	704	0.1+	0.2+
1973 09 24	675	0.3− 0.2−	1999 10 03	704	0.3−	0.9−	1999 11 04	704	0.4−	0.2+
1973 09 24	675	0.2− 0.2−	1999 10 06	704	0.1+	0.3−	1999 11 04	704	0.4+	0.4−
1973 09 29	675	0.2− 0.6+	1999 10 06	704	0.2+	0.2−	1999 11 09	704	0.2−	0.2+
1973 09 29	675	0.1− 0.6+	1999 10 06	704	0.1+	0.4−	1999 11 09	704	0.0	0.3+
1973 09 30	675	0.4− 0.7+	1999 10 06	704	0.0	0.1−	1999 11 09	704	0.0	0.4+
1973 09 30	675	1.8− 0.1−	1999 10 06	704	0.2−	0.2−	1999 11 09	704	0.1+	0.7+
1973 10 04	675	1.8+ 1.1−	1999 10 20	704	0.7+	0.2+	1999 11 09	704	0.2−	0.7+
1973 10 04	675	1.9+ 0.4−	1999 10 20	704	1.6+	0.3−	1999 11 16	704	0.2−	0.6−
1973 10 05	675	0.7+ 0.9+	1999 10 20	704	0.5−	1.2+	1999 11 16	704	1.2−	0.5−
1973 10 05	675	0.7+ 1.5+	1999 10 20	704	0.7+	0.7+	1999 11 16	704	0.0	0.1−

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1999 10 03	704	0.8−	0.4−	1999 10 20	704	0.8+	0.2−	1999 11 16	704	0.8−	0.6−
1999 10 03	704	0.6−	0.1−	1999 11 04	704	0.3+	0.6+	1999 11 16	704	0.3−	0.1+

1147 T-2 = 2000 BD₈

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 189.84675 (2000.0)				Williams			
				P		Q	
<i>n</i>	0.23828573	ω	289.34950	+0.41230946		+0.91099849	
<i>a</i>	2.5767406	Ω	5.02855	−0.79210000		+0.36339168	
<i>e</i>	0.1599976	<i>i</i>	5.95381	−0.45008722		+0.19500831	
<i>P</i>	4.14	<i>H</i>	13.0	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1973 09 19	675	0.3−	0.1+	1973 09 30	675	0.8+	0.4+	2000 01 29	704	1.3−	0.1−
1973 09 19	675	2.0+	1.1+	1973 09 30	675	0.2−	0.7+	2000 01 29	704	1.9−	0.4+
1973 09 20	675	0.8+	1.1+	1973 10 04	675	1.8+	0.3+	2000 01 30	704	1.2+	0.4−
1973 09 24	675	0.9+	1.1+	1973 10 04	675	0.1−	0.7−	2000 01 30	704	1.5+	0.6−
1973 09 24	675	1.2+	1.3−	1973 10 05	675	0.1+	1.8+	2000 01 30	704	1.5+	0.0
1973 09 25	675	1.0−	0.0	1973 10 05	675	1.1+	0.7+	2000 01 30	704	0.6+	0.4+
1973 09 25	675	1.1+	1.3+	2000 01 29	704	0.6−	0.1+	2000 01 30	704	1.3+	0.4−
1973 09 29	675	1.8+	0.8−	2000 01 29	704	1.0−	0.2+				
1973 09 29	675	1.1+	0.4+	2000 01 29	704	1.0−	0.5+				

2022 T-2 = 1999 XU₉₁

Id. A. Doppler, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 65.01586 (2000.0)				Williams			
				P		Q	
<i>n</i>	0.27052013	ω	203.13890	+0.81293978		−0.58176305	
<i>a</i>	2.3677526	Ω	192.53774	+0.55131977		+0.78328153	
<i>e</i>	0.1182444	<i>i</i>	6.90271	+0.18755115		+0.21913877	
<i>P</i>	3.64	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1973 09 19	675	0.1+	1.5+	1973 10 04	675	0.4−	0.1+	1999 12 08	704	0.2+	0.0
1973 09 19	675	0.7−	1.0+	1973 10 04	675	0.2−	0.2+	1999 12 08	704	0.0	0.1+
1973 09 20	675	0.3+	2.0−	1973 10 04	675	0.6−	0.1−	1999 12 08	704	0.4+	0.1−
1973 09 24	675	0.4+	0.5−	1973 10 04	675	1.0−	0.7+	1999 12 14	704	0.5−	0.0
1973 09 24	675	1.1+	0.1−	1973 10 05	675	1.1+	1.2−	1999 12 14	704	0.0	0.2−
1973 09 25	675	0.7−	0.0	1973 10 05	675	1.0−	0.7−	1999 12 14	704	0.2−	0.5−
1973 09 25	675	1.6−	0.5−	1973 10 05	675	1.6+	1.6−	1999 12 14	704	0.2+	0.1−
1973 09 29	675	0.0	1.2+	1973 10 05	675	1.4−	0.6−	2000 01 11	704	0.4+	0.3−
1973 09 29	675	0.4+	1.3+	1999 12 07	704	0.3−	1.2+	2000 01 11	704	0.4−	0.5−
1973 09 30	675	0.8+	0.2+	1999 12 07	704	0.4+	0.2−	2000 01 11	704	0.2+	0.4−
1973 09 30	675	0.2+	0.3+	1999 12 07	704	0.5+	0.9+	2000 01 11	704	0.4−	0.6−
1973 09 30	675	2.6+	0.0	1999 12 08	704	0.4−	0.3+				
1973 09 30	675	1.0−	0.2+	1999 12 08	704	0.0	0.4+				

2234 T-2 = 1998 FB₅₁

Id. A. Doppler, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 82.81369 (2000.0)				Williams			
				P		Q	
<i>n</i>	0.18318695	ω	229.13215	−0.49772822		+0.86623140	
<i>a</i>	3.0704806	Ω	11.26506	−0.71318533		−0.38007506	
<i>e</i>	0.1313427	<i>i</i>	12.92696	−0.49359224		−0.32432410	
<i>P</i>	5.38	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1973 09 19	675	0.1+	0.3−	1973 10 05	675	0.4+	0.5+	1998 03 20	704	0.2+	1.1+
1973 09 20	675	0.4+	0.6−	1998 02 27	566	0.1+	0.1−	1998 03 20	704	0.0	0.4+
1973 09 24	675	0.6+	0.5+	1998 02 27	566	0.5+	0.1+	1998 03 20	704	0.4−	1.0+
1973 09 24	675	0.6+	0.0	1998 02 27	566	0.1+	0.4−	1998 03 22	704	0.1+	0.3+
1973 09 25	675	0.4−	1.3−	1998 02 28	809	0.3−	0.4+	1998 03 22	704	0.1+	0.4−
1973 09 25	675	1.0+	0.8−	1998 02 28	809	0.5+	0.5−	1998 03 22	704	0.6−	0.7+
1973 09 29	675	0.3+	1.2+	1998 03 02	809	0.2−	0.6−	1998 03 22	704	0.2−	1.9+
1973 09 29	675	1.6−	0.5−	1998 03 02	809	0.5−	0.8−	1998 03 22	704	0.4−	0.6+
1973 09 30	675	0.2−	0.4+	1998 03 19	327	0.1−	0.7−	1998 04 19	704	0.3−	0.5+

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1973 09 30	675	0.8−	0.1+	1998 03 19	327	0.0	1.1−	1998 04 19	704	1.6+	2.7−
1973 10 04	675	0.0	0.3+	1998 03 19	327	0.3−	0.3−	1998 04 19	704	0.2+	0.0
1973 10 04	675	0.6−	0.4+	1998 03 20	704	0.3+	0.4−	1998 04 19	704	0.8−	0.4−
1973 10 05	675	0.9+	0.7−	1998 03 20	704	0.1−	0.3+	1998 04 19	704	0.3−	0.1+

3113 T-2 = 1999 XT₁₇₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 81.92322 (2000.0)				Williams			
				P		Q	
<i>n</i>	0.23398309	ω	348.85039	+0.92841659		−0.36969690	
<i>a</i>	2.6082331	Ω	32.92272	+0.34590064		+0.82373160	
<i>e</i>	0.1722988	<i>i</i>	3.90042	+0.13562959		+0.42987260	
<i>P</i>	4.21	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1973 09 19	675	2.2−	2.1+	1999 12 10	704	0.3+	0.1+	2000 01 03	704	0.7−	0.1−
1973 09 19	675	(2.6−	2.5+)	1999 12 10	704	0.4+	0.1−	2000 01 03	704	0.1−	0.2+
1973 09 20	675	0.0	1.2+	1999 12 10	704	0.1−	0.5−	2000 01 03	704	0.2+	0.5−
1973 09 24	675	2.3−	0.0	1999 12 10	704	1.3+	0.1+	2000 01 04	704	0.0	0.5−
1973 09 24	675	1.0−	0.2−	1999 12 10	704	0.5+	0.2+	2000 01 04	704	0.0	0.0
1973 09 25	675	0.7+	1.8−	1999 12 15	704	0.3−	0.5−	2000 01 04	704	1.1−	0.5−
1973 09 29	675	0.6+	0.0	1999 12 15	704	0.5−	0.1−	2000 01 04	704	0.6−	0.3−
1973 09 29	675	0.2+	0.6−	1999 12 15	704	0.1+	0.3+	2000 01 04	704	0.7+	0.5−
1973 09 30	675	0.5−	0.0	1999 12 15	704	0.6−	0.3−	2000 01 31	704	0.2+	0.5−
1973 09 30	675	0.2+	0.4−	1999 12 15	704	0.9−	0.3+	2000 01 31	704	0.0	0.7−
1973 10 04	675	(2.9+	1.0−)	1999 12 31	699	0.4+	1.0+	2000 01 31	704	0.1−	0.3−
1973 10 04	675	(3.2+	0.1+)	1999 12 31	699	1.5+	0.4+	2000 01 31	704	0.5−	0.1+
1973 10 05	675	2.1+	0.7−	1999 12 31	699	0.1+	1.5+	2000 02 11	704	0.3+	0.1+
1973 10 05	675	1.4+	0.6−	1999 12 31	699	0.0	0.7−	2000 02 11	704	1.3+	0.2−
1999 12 08	703	0.6−	1.1+	1999 12 31	699	0.2−	1.2+	2000 02 11	704	0.3−	0.1+
1999 12 08	703	0.1−	0.9+	1999 12 31	699	0.7+	0.1−	2000 02 11	704	1.4−	0.9−
1999 12 08	703	0.4−	0.4+	2000 01 03	704	0.6+	0.0				
1999 12 08	703	(0.3−	2.5+)	2000 01 03	704	0.0	0.4−				

3284 T-2 = 1999 XV₂₁₂

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 0.39526 (2000.0)				Williams			
				P		Q	
<i>n</i>	0.26893452	ω	323.67372	−0.16741316		−0.98371823	
<i>a</i>	2.3770502	Ω	135.85794	+0.92520691		−0.17966106	
<i>e</i>	0.1899653	<i>i</i>	5.38465	+0.34053636		+0.00451134	
<i>P</i>	3.66	<i>H</i>	15.2	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1973 09 29	675	1.4−	0.5+	1999 11 12	699	0.6−	0.1−	1999 12 15	704	0.7−	0.2−
1973 09 29	675	1.4−	0.6−	1999 11 12	699	0.8−	0.9−	1999 12 15	704	0.3−	0.4+
1973 09 30	675	0.5+	0.1−	1999 11 12	699	0.8−	0.4−	1999 12 15	704	0.5−	0.4+
1973 09 30	675	0.2−	1.5−	1999 12 02	699	0.0	0.0	1999 12 30	699	0.4−	0.5+
1973 10 04	675	0.6+	1.3+	1999 12 02	699	1.1+	0.4+	1999 12 30	699	0.4−	0.7+
1973 10 04	675	0.8+	1.7+	1999 12 02	699	0.3−	0.1+	1999 12 30	699	0.4−	0.8+
1973 10 05	675	0.2+	0.9+	1999 12 05	704	0.4+	0.6−	2000 01 05	704	0.2+	0.7−
1973 10 05	675	0.1−	1.0+	1999 12 05	704	0.5+	0.4−	2000 01 05	704	0.0	0.0
1999 10 20	704	0.9+	0.4−	1999 12 05	704	0.6+	0.5−	2000 01 05	704	0.2−	1.3+
1999 10 20	704	0.3−	1.0−	1999 12 05	704	0.5+	0.7−	2000 01 07	704	0.7+	1.0−
1999 10 20	704	0.9+	1.2−	1999 12 05	704	0.3+	0.7−	2000 01 07	704	0.3+	0.6+
1999 10 20	704	(0.9+)	2.4−)	1999 12 14	704	1.2+	1.5+	2000 01 07	704	0.1−	1.2−
1999 11 05	704	0.3−	1.1−	1999 12 14	704	0.5−	0.7+	2000 01 07	704	0.1−	1.7+
1999 11 05	704	0.2−	0.9−	1999 12 14	704	0.0	0.9+	2000 02 03	704	1.4−	1.1+
1999 11 05	704	0.5−	0.9−	1999 12 14	704	1.5+	1.4+	2000 02 03	704	0.4+	0.3−
1999 11 05	704	0.4−	0.3−	1999 12 15	704	0.0	0.2−	2000 02 03	704	1.5−	0.3−
1999 11 05	704	0.3−	0.3−	1999 12 15	704	0.2+	0.0	2000 02 03	704	0.6+	0.5+

2000 FEB. 22

M.P.C. 38741

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	201.97896		(2000.0)	P		Q		Williams			
<i>n</i>	0.23490250	ω	88.93686	−0.18606718	+0.98159932						
<i>a</i>	2.6014229	Ω	170.02475	−0.97087408	−0.17697304						
<i>e</i>	0.0366857	<i>i</i>	14.34444	−0.15093882	−0.07171694						
<i>P</i>	4.20	<i>H</i>	14.8	<i>G</i>	0.15	<i>U</i>	6				
Residuals in seconds of arc											
1973 09 19	675	1.1−	0.2+	1973 09 25	675	2.4+	0.0	1998 08 23	704	0.1−	1.0+
1973 09 19	675	1.2+	1.1−	1998 08 17	704	0.1+	0.3+	1998 08 23	704	1.1+	0.5−
1973 09 20	675	0.1+	0.7+	1998 08 17	704	0.9−	1.2−	1998 08 23	704	0.2+	0.2−
1973 09 24	675	0.1−	1.0+	1998 08 17	704	0.5+	1.5+	1998 08 23	704	1.1−	0.3−
1973 09 24	675	2.6−	0.1+	1998 08 17	704	0.1+	0.7+				
1973 09 25	675	0.0	1.0−	1998 08 17	704	0.2+	1.4−				

4213 T-2 = 1999 WL₁₈

Id. A. Doppler, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	46.89854		(2000.0)	P		Q		Williams			
<i>n</i>	0.26852150	ω	272.23725	+0.78615775	−0.61745814						
<i>a</i>	2.3794870	Ω	125.89473	+0.57922972	+0.72118620						
<i>e</i>	0.1744079	<i>i</i>	1.87353	+0.21552013	+0.31406354						
<i>P</i>	3.67	<i>H</i>	16.3	<i>G</i>	0.15	<i>U</i>	5				
Residuals in seconds of arc											
1973 09 19	675	1.8+	0.1+	1973 10 04	675	1.2−	0.6+	1999 12 07	704	0.4+	0.5−
1973 09 19	675	0.7+	0.1+	1973 10 05	675	1.6+	0.6−	1999 12 07	704	0.8−	0.5+
1973 09 19	675	0.2−	0.2+	1973 10 05	675	0.3−	1.9−	1999 12 07	704	0.7−	0.4−
1973 09 19	675	1.6−	1.9−	1999 11 17	704	1.5−	0.8−	1999 12 07	120	0.9−	0.1+
1973 09 24	675	1.0−	1.0+	1999 11 17	704	0.2−	0.7+	1999 12 07	120	1.9+	0.1+
1973 09 24	675	0.4−	0.8+	1999 11 17	704	1.1+	1.0+	1999 12 08	704	1.6−	0.2+
1973 09 25	675	2.6−	0.2−	1999 11 17	704	0.2+	1.0+	1999 12 08	704	0.5−	0.5+
1973 09 25	675	2.1+	2.2+	1999 11 29	120	0.6+	0.3−	1999 12 08	704	1.0−	0.3+
1973 09 29	675	1.3+	2.0−	1999 11 29	120	0.8+	0.3−	1999 12 08	704	1.0−	0.3+
1973 09 29	675	0.4+	2.3−	1999 12 06	120	1.3+	0.3−	1999 12 17	120	0.7+	1.8−
1973 09 30	675	0.8−	2.1+	1999 12 06	120	0.0	0.0	1999 12 17	120	2.0+	1.3−
1973 09 30	675	1.1+	0.5+	1999 12 07	704	0.4−	1.3+				
1973 10 04	675	0.8−	0.9+	1999 12 07	704	0.2−	0.0				

5071 T-2 = 1999 YA₁₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	70.16731		(2000.0)	P		Q		Williams			
<i>n</i>	0.27040052	ω	75.58573	+0.87437769	−0.47832102						
<i>a</i>	2.3684508	Ω	312.91588	+0.39106041	+0.79427169						
<i>e</i>	0.1338499	<i>i</i>	6.40407	+0.28728978	+0.37462179						
<i>P</i>	3.64	<i>H</i>	15.4	<i>G</i>	0.15	<i>U</i>	5				
Residuals in seconds of arc											
1973 09 20	675	1.6+	2.5−	1999 12 15	704	0.2+	0.1+	2000 01 02	704	0.4−	0.2+
1973 09 20	675	2.5+	2.0−	1999 12 15	704	0.4−	0.4+	2000 01 02	704	0.3+	0.2+
1973 09 24	675	0.5+	1.7+	1999 12 15	704	0.1−	0.1+	2000 01 02	120	0.3+	0.6−
1973 09 24	675	0.1−	0.2+	1999 12 15	704	0.5−	0.1+	2000 01 02	120	0.7+	0.9+
1973 09 25	675	0.4+	0.2+	1999 12 30	413	0.1−	0.6+	2000 01 04	704	0.8+	0.5−
1973 09 25	675	0.4−	0.7−	1999 12 30	413	0.0	0.3+	2000 01 04	704	0.1−	0.3−
1973 09 29	675	0.7+	1.2+	1999 12 31	120	0.6−	0.1+	2000 01 04	704	0.1+	1.0−
1973 09 29	675	1.1−	0.3+	1999 12 31	120	0.9+	0.5−	2000 01 04	704	0.1−	0.2−
1973 09 30	675	2.2−	0.8+	1999 12 31	120	0.1+	0.3−	2000 01 04	704	0.2+	1.0−
1973 09 30	675	1.3−	1.6+	1999 12 31	120	0.7−	0.5+	2000 01 30	704	0.3−	0.3−
1973 10 04	675	0.2+	0.6−	2000 01 02	704	0.0	0.1−	2000 01 30	704	0.1−	0.3+
1973 10 04	675	0.7−	0.4−	2000 01 02	704	0.0	0.0	2000 01 30	704	0.1−	0.1+
1999 12 15	704	0.3−	0.1+	2000 01 02	704	0.6+	0.0	2000 01 30	704	0.5−	0.3+

5081 T-2 = 1999 UP₁₅

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	253.70435		(2000.0)	P		Q		Williams			
<i>n</i>	0.22994993	ω	322.64443	−0.98329999	−0.12835853						
<i>a</i>	2.6386423	Ω	210.74023	+0.15112392	−0.97088533						
<i>e</i>	0.0518373	<i>i</i>	14.61992	−0.10140360	−0.20225173						
<i>P</i>	4.29	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	3				
Residuals in seconds of arc											
1973 09 20	675	0.6+	0.9+	1998 06 25	704	0.3−	0.6−	1999 10 29	703	0.3−	0.6+
1973 09 20	675	(3.3+	1.7+)	1998 06 25	704	0.2+	0.7+	1999 10 29	703	0.6+	0.4−
1973 09 24	675	0.3+	0.3+	1998 06 25	704	(3.4−	0.2−)	1999 11 03	703	1.8−	0.5+
1973 09 24	675	0.9−	0.1−	1999 10 20	704	0.8+	1.1+	1999 11 03	703	1.2−	0.8+
1973 09 25	675	0.4−	0.6−	1999 10 20	704	0.3−	0.1−	1999 11 03	703	0.5+	0.3+
1973 09 25	675	0.9−	0.7−	1999 10 20	704	0.4−	0.8+	1999 11 03	703	(4.8+	4.8−)
1973 09 29	675	0.6+	0.6−	1999 10 20	704	0.2+	0.0	1999 11 05	704	1.3+	1.1−
1973 09 29	675	0.7+	0.2+	1999 10 20	704	0.7+	0.1+	1999 11 05	704	0.2+	0.2+
1998 06 25	704	0.0	0.1+	1999 10 29	703	0.2−	0.3−	1999 11 05	704	0.5+	0.9−
1998 06 25	704	(0.9+	2.6+)	1999 10 29	703	0.1−	0.7−	1999 11 05	704	0.3−	0.3−

5146 T-2 = 1999 XX₁₉₀

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	12.53116		(2000.0)	P		Q		Williams			
<i>n</i>	0.08204820	ω	136.54676	+0.19895245	−0.96688831						
<i>a</i>	5.2451351	Ω	301.37000	+0.84013756	+0.25224077						
<i>e</i>	0.1107380	<i>i</i>	10.78888	+0.50456595	−0.03875042						
<i>P</i>	12.01	<i>H</i>	11.7	<i>G</i>	0.15	<i>U</i>	4				
Residuals in seconds of arc											
1973 09 20	675	1.2+	1.2−	1973 10 04	675	0.0	0.7+	1999 12 15	704	0.3−	0.4+
1973 09 20	675	1.0+	0.1+	1973 10 04	675	0.4+	0.2+	1999 12 15	704	0.3+	0.3−
1973 09 24	675	0.2+	1.4−	1973 10 05	675	1.2+	0.3+	1999 12 15	704	0.5+	0.9−
1973 09 24	675	0.5−	1.4−	1973 10 05	675	1.4+	1.6+	1999 12 15	704	0.4+	0.4−
1973 09 25	675	0.4−	0.3−	1999 12 12	704	0.1−	0.2+	2000 01 02	704	0.7−	0.2−
1973 09 25	675	0.0	0.4+	1999 12 12	704	0.5−	0.2−	2000 01 02	704	0.4+	0.4+
1973 09 29	675	2.2−	0.1+	1999 12 12	704	1.0+	0.4+	2000 01 02	704	0.4+	0.6+
1973 09 29	675	0.8−	0.2+	1999 12 12	704	0.4−	1.2−	2000 01 02	704	1.3−	0.3+
1973 09 30	675	0.8−	0.7+	1999 12 12	704	0.4+	0.6+				
1973 09 30	675	0.7−	0.1+	1999 12 15	704	0.2−	0.2+				

5151 T-2 = 1999 XE₁₃₂

Id. A. Doppler, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	43.90212		(2000.0)	P		Q					
<i>n</i>	0.08285557	ω	90.18698	+0.69416885	−0.70935052						
<i>a</i>	5.2110061	Ω	314.99794	+0.57229333	+0.64691690						
<i>e</i>	0.0857399	<i>i</i>	9.95754	+0.43658900	+0.27985774						
<i>P</i>	11.90	<i>H</i>	11.3	<i>G</i>	0.15	<i>U</i>	4				
Residuals in seconds of arc											
1973 09 20	675	0.8+	1.8−	1999 12 12	704	0.2+	0.1+	2000 01 02	704	0.1+	0.5−
1973 09 20	675	(1.1+	4.7−)	1999 12 12	704	0.1+	0.1−	2000 01 02	704	0.2−	0.3−
1973 09 24	675	0.9−	1.3+	1999 12 12	704	0.3+	0.3+	2000 01 02	704	0.0	0.7+
1973 09 24	675	1.3−	0.9+	1999 12 12	704	0.1−	0.5+	2000 01 02	704	0.8−	0.9−
1973 09 25	675	0.6−	1.0−	1999 12 12	704	0.2+	0.5+	2000 01 04	704	0.7+	0.9−
1973 09 25	675	0.1−	0.7−	1999 12 13	704	0.1+	0.3+	2000 01 04	704	0.1−	0.4+
1973 09 29	675	0.9+	0.0	1999 12 13	704	0.2−	0.0	2000 01 04	704	0.5−	1.0−
1973 09 29	675	0.2−	0.3+	1999 12 13	704	0.4+	1.0+	2000 01 04	704	0.6−	0.4−
1973 09 30	675	0.0	0.1+	1999 12 13	704	0.1+	0.9+	2000 01 04	704	0.7−	1.0−
1973 09 30	675	0.4+	0.1−	1999 12 13	704	1.1+	0.5+	2000 01 30	704	0.3+	0.5−
1973 10 04	675	1.0+	0.8+	1999 12 15	704	0.1+	0.0	2000 01 30	704	0.1−	0.4+
1973 10 04	675	1.0−	0.9+	1999 12 15	704	0.2−	0.6−	2000 01 30	704	0.4+	0.3+
1973 10 05	675	0.1+	0.2−	1999 12 15	704	0.3+	0.3−	2000 01 30	704	0.3+	0.7+
1973 10 05	675	0.8+	0.4−	1999 12 15	704	0.5−	1.6−	2000 01 30	704	0.7−	1.7+

1032 T-3 = 1995 DL₃ = 2000 AY₆₄

Id. G. V. Williams, K. Ichikawa

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.19141093	ω	216.86460		-0.99411460		+0.01126286
<i>a</i>	2.9818896	Ω	323.33146		+0.04716163		-0.85039547
<i>e</i>	0.0436723	<i>i</i>	10.39446		-0.09752914		-0.52602347
<i>P</i>	5.15	<i>H</i>	13.5	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1977 10 11	675	2.0+	0.1-	2000 01 06	704	0.2-	0.1-	2000 01 30	704	(0.7+	3.1-)
1977 10 11	675	1.3+	0.3-	2000 01 06	704	0.1+	1.7+	2000 01 30	703	0.1-	0.1-
1977 10 12	675	0.4+	0.7+	2000 01 15	865	(2.7-	1.0-)	2000 01 30	704	(2.7+	2.7-)
1977 10 12	675	0.5-	1.3+	2000 01 15	865	(2.6+	2.0-)	2000 01 30	703	0.1-	0.0
1977 10 16	675	0.5-	0.0	2000 01 15	865	1.9+	0.1+	2000 01 30	703	0.3+	0.4+
1977 10 16	675	0.4-	1.5-	2000 01 17	865	0.8+	0.3+	2000 01 30	703	0.4-	0.2-
1977 10 17	675	0.4+	0.4+	2000 01 17	865	(0.5+	3.9+)	2000 02 01	865	(1.4+	3.4-)
1977 10 17	675	1.0+	1.6+	2000 01 17	865	(5.2+	2.1-)	2000 02 01	865	0.3+	1.8-
1977 10 22	675	2.2-	0.4-	2000 01 17	865	(6.4-	3.7-)	2000 02 01	865	1.5-	1.4-
1977 10 22	675	1.6-	1.6-	2000 01 17	865	1.5+	1.0+	2000 02 01	865	1.9+	0.2-
1995 02 24	098	1.8+	0.1-	2000 01 17	865	1.5-	1.6+	2000 02 01	865	0.2-	0.3+
1995 02 24	098	1.4+	0.9-	2000 01 17	865	(5.6-	4.2-)	2000 02 03	704	0.3+	0.0
1995 02 25	098	(2.2-	0.7-)	2000 01 17	865	(0.0	4.0-)	2000 02 03	704	0.1-	0.0
1995 02 26	098	1.4-	0.4+	2000 01 17	865	0.3-	0.2-	2000 02 03	704	0.7-	0.0
1995 02 27	098	(1.6+	2.2+)	2000 01 17	865	0.2-	1.9-	2000 02 03	704	0.2+	0.0
1995 02 27	098	1.1-	1.9+	2000 01 25	120	1.5-	0.1-	2000 02 03	704	0.6-	0.1+
2000 01 04	704	0.2-	0.1+	2000 01 25	120	0.3+	0.2-	2000 02 05	106	0.0	0.2+
2000 01 04	704	0.2-	0.3-	2000 01 25	120	0.2-	0.4-	2000 02 05	106	0.1-	0.3+
2000 01 04	704	0.3+	0.0	2000 01 26	120	0.4-	0.2-	2000 02 05	106	1.1+	0.1+
2000 01 04	704	0.1-	0.2+	2000 01 26	120	0.8-	0.7-	2000 02 11	704	0.4-	0.1+
2000 01 04	704	0.0	0.3+	2000 01 26	120	0.4-	0.2-	2000 02 11	704	0.3-	0.1-
2000 01 06	704	0.1-	0.5+	2000 01 27	120	1.4+	0.3+	2000 02 11	704	0.4-	0.5+
2000 01 06	704	0.7+	0.2-	2000 01 27	120	0.2+	0.6-	2000 02 11	704	0.6-	0.2+
2000 01 06	704	0.3-	0.5+	2000 01 30	704	0.3+	0.9-	2000 02 11	704	0.4-	0.3-

1044 T-3 = 1999 XE₁₅₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.27307718	ω	143.66163		+0.89355211		-0.43550850
<i>a</i>	2.3529486	Ω	242.50167		+0.37746791		+0.86028887
<i>e</i>	0.1208076	<i>i</i>	7.06327		+0.24306915		+0.26501963
<i>P</i>	3.61	<i>H</i>	15.8	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1977 10 07	675	0.8+	0.2-	1999 11 09	704	1.0-	0.5-	1999 12 15	704	0.1+	0.3-
1977 10 11	675	0.7-	1.6+	1999 12 08	704	0.2+	0.0	1999 12 15	704	0.0	0.3-
1977 10 11	675	1.0-	0.6+	1999 12 08	704	0.6-	0.9-	2000 01 05	704	0.7-	0.3+
1977 10 12	675	1.1+	0.7+	1999 12 08	704	0.1+	0.0	2000 01 05	704	1.0-	0.4-
1977 10 12	675	0.5+	1.7+	1999 12 08	704	0.3+	1.5+	2000 01 05	704	0.0	0.6-
1977 10 16	675	1.4-	1.4-	1999 12 14	704	0.3+	0.6-	2000 01 05	704	0.8+	0.2-
1977 10 16	675	0.5-	0.8-	1999 12 14	704	0.0	0.5-	2000 01 05	704	1.0+	0.2-
1977 10 17	675	0.8+	0.9-	1999 12 14	704	0.6-	0.6+	2000 01 06	704	0.6+	1.2+
1977 10 17	675	0.4+	1.0-	1999 12 14	704	0.4-	0.4+	2000 01 06	704	0.4+	0.2+
1999 11 09	704	0.7+	0.6+	1999 12 15	704	0.2+	0.4+	2000 01 06	704	0.3-	0.6+
1999 11 09	704	0.3-	0.8-	1999 12 15	704	0.1+	0.0	2000 01 06	704	0.0	0.4-
1999 11 09	704	0.3-	0.5-	1999 12 15	704	0.3+	0.4+				

1096 T-3 = 1976 JS₁₀ = 1998 QF₆₈ = 1999 XY₆₃

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.23114440	ω	48.80590		+0.10513887		+0.98435297
<i>a</i>	2.6295442	Ω	227.81993		-0.95995201		+0.06332816
<i>e</i>	0.1614983	<i>i</i>	11.00056		-0.25968821		+0.16443473
<i>P</i>	4.26	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1976 05 02	809	0.1-	0.5-	1998 08 18	566	0.4+	0.3-	1999 12 07	704	0.0	0.2+
1977 10 07	675	0.4+	0.8+	1998 08 24	704	0.1+	0.4+	1999 12 07	704	1.1-	1.0+
1977 10 11	675	0.1-	1.7+	1998 08 24	704	0.5-	0.2+	1999 12 07	704	0.0	0.2+
1977 10 11	675	0.5+	1.9+	1998 08 24	704	0.0	0.4+	1999 12 07	704	0.4-	0.2+
1977 10 12	675	0.1-	0.6+	1998 08 24	704	1.5+	1.0-	1999 12 08	704	0.9+	0.1+
1977 10 12	675	1.1+	0.4+	1998 08 24	704	0.7+	1.5-	1999 12 08	704	0.3+	0.0
1977 10 16	675	1.2-	2.2-	1998 08 27	704	0.2-	0.0	1999 12 08	704	0.8+	0.4-
1977 10 16	675	0.2-	0.2-	1998 08 27	704	0.3-	0.4+	1999 12 08	704	0.0	0.7-
1977 10 17	675	0.1-	0.7-	1998 08 27	704	0.6+	0.8+	2000 01 07	704	(0.8+	2.6+)
1977 10 17	675	0.3-	1.5-	1998 08 27	704	1.0-	1.0+	2000 01 07	704	0.1+	0.1-
1998 08 18	566	1.3-	0.9-	1998 08 27	704	(2.2-	0.8+)	2000 01 07	704	0.4-	0.9-
1998 08 18	566	0.2+	0.8-	1999 12 07	704	0.1+	0.0	2000 01 07	704	0.4-	0.9-

1106 T-3 = 1992 LN₂ = 1997 WJ₄₀ = 1999 CL₇₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.25109547	ω	70.31161		+0.65268663		+0.73577685
<i>a</i>	2.4883424	Ω	241.77928		-0.74895320		+0.59062629
<i>e</i>	0.1688683	<i>i</i>	11.83035		-0.11432090		+0.33135028
<i>P</i>	3.93	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	2

Residuals in seconds of arc

1977 10 16	675	0.6-	1.4-	1993 11 12	033	0.1+	0.3-	1997 12 04	704	1.1+	1.8-
1977 10 16	675	0.8-	1.2-	1997 11 29	704	1.0-	0.2-	1999 02 12	704	0.7-	0.1+
1977 10 17	675	0.5+	2.2+	1997 11 29	704	0.0	0.7-	1999 02 12	704	0.6+	0.3+
1977 10 17	675	0.3+	2.0+	1997 11 29	704	1.4-	0.0	1999 02 12	704	1.1-	1.6-
1977 10 22	675	0.5-	1.2-	1997 11 29	704	1.7-	0.1-	1999 02 12	704	0.1-	1.3+
1977 10 22	675	0.7+	0.7+	1997 11 29	704	(2.7-	0.1+)	1999 02 16	704	0.6+	0.3-
1992 06 03	809	0.8+	0.7-	1997 12 04	704	1.4+	1.6-	1999 02 16	704	0.0	0.3-
1992 06 03	809	0.9-	0.2-	1997 12 04	704	0.7+	0.5+	1999 02 16	704	0.6+	0.2+
1992 06 03	809	0.2+	0.7-	1997 12 04	704	(2.2+	0.3+)	1999 02 16	704	0.2+	0.9+
1993 11 12	033	0.2+	0.8+	1997 12 04	704	0.7+	0.6+	1999 02 16	704	0.1+	0.4+

1132 T-3 = 1999 XJ₂₆

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		P		Q	
<i>n</i>	0.26954010	ω	125.24811		+0.98567156		-0.11985588
<i>a</i>	2.3734885	Ω	241.90288		+0.07371542		+0.93896390
<i>e</i>	0.2507151	<i>i</i>	7.73205		+0.15171555		+0.32246141
<i>P</i>	3.66	<i>H</i>	15.8	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1977 10 07	675	1.9+	1.1-	1999 10 31	703	0.5-	0.4+	1999 12 04	703	1.1-	0.6+
1977 10 11	675	0.6+	0.5+	1999 11 03	704	0.4-	0.3-	1999 12 04	703	0.0	0.1-
1977 10 11	675	1.5+	0.2+	1999 11 03	704	0.5+	0.1+	1999 12 04	703	0.0	0.6-
1977 10 12	675	0.4+	0.8+	1999 11 03	704	0.6+	0.2+	1999 12 04	703	1.3+	0.2-
1977 10 12	675	0.9-	1.2+	1999 11 03	704	0.3+	0.2-	1999 12 06	704	1.0+	0.5-
1977 10 16	675	2.3-	1.2-	1999 11 03	704	0.0	0.1+	1999 12 06	704	0.2+	0.6-
1977 10 16	675	1.2-	0.6+	1999 11 11	703	0.0	0.4+	1999 12 06	704	0.7-	0.6-
1977 10 17	675	1.1-	0.1+	1999 11 11	703	0.4-	0.3+	1999 12 06	704	0.2-	0.3-
1977 10 17	675	0.1-	0.4+	1999 11 11	703	0.3-	0.5-	1999 12 07	704	0.7-	0.1+
1977 10 22	675	1.3+	0.1-	1999 11 11	703	0.2+	0.2+	1999 12 07	704	0.3+	0.3+
1977 10 22	675	0.0	1.7-	1999 11 12	699	0.0	0.7+	1999 12 07	704	0.4+	0.3-
1999 09 07	703	0.3-	0.0	1999 11 12	699	0.1-	0.1+	1999 12 07	704	0.7-	0.4+
1999 09 07	703	0.2-	0.3-	1999 11 12	699	0.7-	0.9+	1999 12 07	704	0.7-	0.4-

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1999 09 07	703	0.6+	0.2-	1999 11 16	704	0.2-	0.0	2000 01 05	704	0.0	0.2+
1999 09 07	703	0.6+	0.5+	1999 11 16	704	0.6+	0.2-	2000 01 05	704	0.3+	0.4+
1999 10 31	703	0.6-	1.0-	1999 11 16	704	0.4-	0.4-	2000 01 05	704	0.9+	0.7+
1999 10 31	703	1.0+	0.4+	1999 11 16	704	0.6+	0.3+				
1999 10 31	703	0.5-	0.4+	1999 11 16	704	0.1-	0.3-				

1184 T-3 = 1999 XB₁₃₇

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	4.33252		(2000.0)	P	Q		
<i>n</i>	0.18084851	ω	219.34729	+0.16447054	-0.97310155		
<i>a</i>	3.0968923	Ω	221.91359	+0.95492181	+0.19805561		
<i>e</i>	0.2489899	<i>i</i>	13.97435	+0.24713107	-0.11767474		
<i>P</i>	5.45	<i>H</i>	14.6	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1977 10 07	675	0.4-	1.0-	1999 10 30	703	0.4-	0.2-	1999 12 04	699	0.4-	0.3+
1977 10 11	675	0.3-	1.6+	1999 10 30	703	0.0	0.2+	1999 12 04	699	0.2-	0.3+
1977 10 11	675	0.8+	1.7+	1999 10 30	703	0.4-	0.4-	1999 12 04	699	0.2+	1.3+
1977 10 12	675	1.2+	2.2+	1999 11 04	704	0.2+	0.7+	1999 12 05	704	0.4+	0.5-
1977 10 12	675	1.8+	0.1+	1999 11 04	704	0.8-	0.3+	1999 12 05	704	0.0	0.0
1977 10 16	675	3.2-	0.8-	1999 11 04	704	0.1-	0.0	1999 12 05	704	0.2+	0.2+
1977 10 16	675	1.1-	0.9+	1999 11 04	704	0.1-	0.3+	1999 12 05	704	0.1-	0.3+
1977 10 17	675	2.5-	0.5+	1999 11 04	704	0.4-	0.1-	1999 12 05	704	0.5+	0.1+
1977 10 17	675	1.9-	0.5+	1999 11 17	704	0.1-	0.0	1999 12 14	704	1.2+	3.8-
1977 10 21	675	2.9+	0.1+	1999 11 17	704	0.2-	0.1-	1999 12 14	704	1.6+	1.0-
1977 10 21	675	1.4+	2.0-	1999 11 17	704	0.2+	0.0	1999 12 14	704	2.2+	0.6-
1977 10 22	675	0.4+	0.1-	1999 11 17	704	0.2-	0.2-	1999 12 14	704	0.9+	1.3+
1977 10 22	675	0.6+	2.9-	1999 11 17	704	0.9-	0.2-	2000 01 06	699	1.5-	0.5+
1977 10 22	675	0.9+	0.2+	1999 12 03	699	0.1+	1.3+	2000 01 06	699	1.4-	0.2-
1977 10 22	675	0.5-	1.8-	1999 12 03	699	0.1-	0.2-	2000 01 06	699	1.9-	0.1-
1999 10 30	703	0.2+	0.5+	1999 12 03	699	0.9+	0.5+				

2208 T-3 = 1999 XV₁₃₀

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	145.29751		(2000.0)	P	Q		
<i>n</i>	0.18524533	ω	290.54828	+0.49253147	+0.86986039		
<i>a</i>	3.0476929	Ω	9.10721	-0.71972807	+0.42487524		
<i>e</i>	0.0517452	<i>i</i>	10.00142	-0.48928955	+0.25064704		
<i>P</i>	5.32	<i>H</i>	14.1	<i>G</i>	0.15	<i>U</i>	3

Residuals in seconds of arc

1977 10 07	675	1.3+	0.9-	1977 10 17	675	0.3-	0.2+	1998 08 26	809	1.4-	0.8+
1977 10 11	675	0.5+	0.9+	1977 10 17	675	0.1-	0.5+	1999 12 12	704	0.2+	1.2-
1977 10 11	675	1.4-	0.7-	1977 10 21	675	2.0+	0.9-	1999 12 12	704	0.1-	0.9+
1977 10 11	675	0.2-	0.8-	1977 10 21	675	0.9-	0.2-	1999 12 12	704	0.6-	0.6+
1977 10 11	675	0.6-	0.8+	1977 10 22	675	1.2-	2.0+	1999 12 12	704	0.1+	1.5+
1977 10 12	675	0.7-	1.0+	1977 10 22	675	(0.1-	2.5+)	1999 12 13	704	0.2-	0.3-
1977 10 12	675	1.6+	0.8-	1993 10 22	809	1.1+	0.1+	1999 12 13	704	0.1+	0.9-
1977 10 12	675	0.9-	0.0	1993 10 22	809	1.0+	1.6-	1999 12 13	704	0.1-	0.1+
1977 10 12	675	0.8-	1.1+	1993 10 22	809	0.8+	1.8-	1999 12 13	704	0.3-	0.3+
1977 10 16	675	(0.9-	2.5-)	1998 08 26	809	0.7+	0.2+	1999 12 13	704	0.4+	0.1+
1977 10 16	675	0.4+	0.2-	1998 08 26	809	0.4-	0.1+				

2281 T-3 = 1997 RP₆

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	280.40285		(2000.0)	P	Q		
<i>n</i>	0.24134759	ω	34.88374	-0.26885302	+0.96167028		
<i>a</i>	2.5549010	Ω	219.59797	-0.90183341	-0.27099692		
<i>e</i>	0.1666437	<i>i</i>	4.85348	-0.33825220	-0.04184416		
<i>P</i>	4.08	<i>H</i>	16.0	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1977 10 11	675	1.2+	1.1+	1977 10 16	675	0.5+	0.7-	1997 09 07	910	0.3+	0.2+
1977 10 11	675	0.3+	0.3-	1977 10 17	675	1.2-	1.0+	1997 09 09	910	0.2-	0.1-
1977 10 12	675	0.5+	0.5+	1977 10 17	675	0.3-	1.3+	1997 09 09	910	0.4-	0.1-
1977 10 12	675	2.2-	0.6-	1997 09 07	910	0.2+	0.1+	1997 09 09	910	0.3-	0.1+
1977 10 16	675	1.3+	2.4-	1997 09 07	910	0.4+	0.1-				

2353 T-3 = 1999 VX₃₁

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	294.90373		(2000.0)	P	Q		
<i>n</i>	0.22720551	ω	276.15775	-0.83320275	-0.54873403		
<i>a</i>	2.6598479	Ω	230.58428	+0.53584921	-0.77073477		
<i>e</i>	0.0384320	<i>i</i>	5.07158	+0.13652400	-0.32381921		
<i>P</i>	4.34	<i>H</i>	15.1	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1977 10 16	675	0.9-	1.9-	1999 11 03	704	1.6-	0.3+	1999 11 12	704	0.1+	0.2+
1977 10 16	675	0.6-	1.5-	1999 11 09	704	0.2-	0.3-	1999 11 12	704	0.2-	0.1+
1977 10 17	675	1.5-	0.4+	1999 11 09	704	0.7+	1.0+	1999 11 14	704	0.3+	0.4+
1977 10 17	675	1.0-	0.8+	1999 11 09	704	0.6-	0.5-	1999 11 14	704	0.4-	0.3-
1977 10 21	675	2.0+	1.8+	1999 11 09	704	0.1+	0.2+	1999 11 14	704	0.4+	0.4-
1977 10 21	675	2.0+	0.4+	1999 11 12	704	0.2+	0.0	1999 11 14	704	0.2+	0.2-
1999 11 03	704	0.5+	0.4+	1999 11 12	704	0.5+	0.0	1999 11 14	704	0.2-	0.2-
1999 11 03	704	0.2+	0.3-	1999 11 12	704	0.0	0.3-				

2430 T-3 = 1999 VE₂₁

Id. M. E. Sansaturio, A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>	61.12975		(2000.0)	P	Q		
<i>n</i>	0.18097502	ω	144.40517	+0.98091797	+0.14938676		
<i>a</i>	3.0954488	Ω	207.79924	-0.16909554	+0.97137974		
<i>e</i>	0.1162861	<i>i</i>	15.47445	+0.09595118	+0.18467541		
<i>P</i>	5.45	<i>H</i>	13.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1977 10 16	675	0.5-	1.0-	1999 11 05	704	0.1+	0.1-	1999 11 29	849	1.6-	0.1-
1977 10 16	675	0.2+	1.6-	1999 11 05	704	0.2+	0.6+	1999 12 05	704	(1.2+	2.5-)
1977 10 17	675	1.3-	0.0	1999 11 05	704	0.5+	1.0+	1999 12 05	704	(2.5+	4.1-)
1977 10 17	675	0.6-	0.4+	1999 11 13	849	0.1-	0.9-	1999 12 05	704	1.1-	0.7+
1977 10 21	675	0.2+	0.4+	1999 11 13	699	0.2-	0.8+	1999 12 06	739	0.5+	0.4-
1977 10 21	675	1.2+	1.4-	1999 11 13	849	0.1+	1.3-	1999 12 06	739	0.0	0.8-
1977 10 22	675	0.5+	1.0-	1999 11 13	849	0.6-	0.5-	1999 12 06	739	0.2-	0.6-
1977 10 22	675	0.9+	1.1-	1999 11 13	849	0.6-	0.9-	1999 12 13	849	(2.0+	0.8+)
1999 09 18	703	0.4-	0.9+	1999 11 13	699	0.2-	0.1-	1999 12 13	849	1.7-	0.2+
1999 09 18	703	0.3+	0.7+	1999 11 13	699	0.2-	0.4+	1999 12 13	849	0.2-	1.4+
1999 09 18	703	0.1+	0.7+	1999 11 14	849	0.4+	1.6+	1999 12 14	704	0.7+	0.9+
1999 09 18	703	0.0	1.1+	1999 11 14	849	(1.8-	3.1-)	1999 12 14	704	0.8+	0.3-
1999 10 02	703	0.8+	0.6+	1999 11 14	849	0.5-	0.4-	1999 12 14	704	0.5+	0.8-
1999 10 02	703	0.1+	0.8+	1999 11 14	849	1.5-	0.2+	1999 12 14	704	0.7-	0.7-
1999 10 02	703	0.2+	0.2+	1999 11 14	849	0.8-	0.8-	2000 01 05	704	0.6-	0.1-
1999 10 02	703	0.1+	0.3+	1999 11 15	849	0.7+	0.1-	2000 01 05	704	0.1-	0.1+
1999 10 03	704	0.5+	0.5-	1999 11 15	849	0.9-	0.6-	2000 01 05	704	0.6+	1.4-
1999 10 03	704	0.3+	0.3-	1999 11 15	849	0.4-	0.0	2000 01 05	704	0.7+	0.7-
1999 10 03	704	0.8+	0.1-	1999 11 17	849	0.9-	0.2+	2000 01 06	699	0.1+	0.3+
1999 10 03	704	1.1+	0.4-	1999 11 17	849	0.3+	0.1+	2000 01 06	699	0.3+	0.6-
1999 10 03	704	0.0	0.4-	1999 11 17	849	0.0	0.2+	2000 01 06	699	0.5-	0.3-
1999 10 20	704	0.1+	0.3+	1999 11 17	704	0.1+	0.1-	2000 01 08	704	0.1+	0.4-
1999 10 20	704	0.4+	0.6+	1999 11 17	704	0.7+	0.7-	2000 01 08	704	0.1-	0.1-
1999 10 20	704	0.4+	0.6+	1999 11 17	704	0.5+	0.0	2000 01 08	704	0.5+	0.5+
1999 10 20	704	0.4+	0.7+	1999 11 17	704	0.3+	0.2-	2000 01 08	704	0.4+	0.4+
1999 10 20	704	0.1+	0.6+	1999 11 17	704	0.5+	0.2+	2000 01 08	704	0.8+	0.9+
1999 10 30	703	0.3+	0.1+	1999 11 25	849	0.6+	0.2+	2000 02 06	704	0.5-	0.6-
1999 10 30	703	0.1+	0.2+	1999 11 25	849	0.2-	0.9+	2000 02 06	704	0.5+	0.1+
1999 10 30	703	0.1+	0.5+	1999 11 25	849	0.9+	0.5+	2000 02 06	704	1.5-	1.4-
1999 10 30	703	0.3+	0.5+	1999 11 29	849	0.1+	0.3+	2000 02 06	704	0.1-	1.5-

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1999 11 05	704	0.3−	0.1+	1999 11 29	849	1.1−	0.9+	2000 02 06	704	1.0−	1.3−
1999 11 05	704	0.0	0.3+	1999 11 29	849	0.7−	0.7+				

2437 T-3 = 1999 VJ₅₁

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 334.42122 (2000.0)				Williams <i>P</i> <i>Q</i>			
<i>n</i>	0.22636845	ω	146.52862	−0.50978494	−0.85975007		
<i>a</i>	2.6664009	Ω	334.08097	+0.77304273	−0.44206969		
<i>e</i>	0.1837685	<i>i</i>	4.04171	+0.37752385	−0.25574247		
<i>P</i>	4.35	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	6

Residuals in seconds of arc

1977 10 16	675	0.0	0.7−	1999 11 03	704	0.1+	0.2−	1999 11 09	703	0.7−	1.4+
1977 10 16	675	1.0+	0.4−	1999 11 03	704	0.3−	0.7−	1999 11 09	703	1.1−	0.5+
1977 10 17	675	0.8−	0.4+	1999 11 04	704	0.9+	0.4+	1999 11 16	704	0.5+	0.2−
1977 10 17	675	0.7−	1.4+	1999 11 04	704	0.6−	0.3+	1999 11 16	704	0.5+	0.1−
1977 10 21	675	1.3+	1.8−	1999 11 04	704	1.1+	1.2−	1999 11 16	704	0.2+	0.1+
1977 10 22	675	0.3+	1.7+	1999 11 04	704	0.7+	0.5−	1999 11 16	704	0.6−	0.1+
1977 10 22	675	1.1−	0.5−	1999 11 04	704	0.8−	0.3−	1999 11 16	704	0.3+	0.2−
1999 11 03	704	0.6+	0.8+	1999 11 09	703	0.8−	0.0				
1999 11 03	704	0.4+	0.4−	1999 11 09	703	0.2−	0.1+				

2616 T-3 = 1999 XU₁₀₈

Id. A. Doppler, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 291.09758 (2000.0)				Williams <i>P</i> <i>Q</i>			
<i>n</i>	0.27118491	ω	265.00035	−0.86732614	−0.49024656		
<i>a</i>	2.3638815	Ω	245.61952	+0.48586543	−0.79635195		
<i>e</i>	0.0404097	<i>i</i>	5.42076	+0.10807474	−0.35423422		
<i>P</i>	3.63	<i>H</i>	14.9	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1977 10 12	675	0.4−	0.1−	1999 11 14	704	0.5+	0.6+	1999 12 07	704	0.2−	0.3−
1977 10 12	675	0.3−	0.7+	1999 11 14	704	0.1−	0.7+	1999 12 07	704	0.1+	0.4−
1977 10 16	675	(0.2+	2.9−)	1999 11 14	704	0.1−	0.5+	1999 12 12	703	1.2+	1.5+
1977 10 17	675	1.1−	1.1+	1999 11 14	704	0.1+	1.1+	1999 12 12	703	0.4+	0.5+
1977 10 17	675	0.6−	1.4+	1999 11 16	704	(0.8+	2.3−)	1999 12 12	703	0.5−	0.6+
1977 10 21	675	1.7+	0.1+	1999 11 16	704	0.2+	0.7−	1999 12 12	703	0.1−	0.1+
1977 10 21	675	0.1+	2.5−	1999 11 16	704	0.2+	0.5+	2000 01 04	704	1.1+	0.3−
1977 10 22	675	1.2+	0.4−	1999 11 16	704	0.7+	0.8−	2000 01 04	704	0.3−	1.6−
1977 10 22	675	0.4−	0.9−	1999 12 04	703	0.5−	0.2+	2000 01 04	704	0.3−	0.2+
1999 11 03	704	0.4−	0.4−	1999 12 04	703	0.3−	0.0	2000 01 06	704	0.6−	0.1−
1999 11 03	704	0.3−	0.7−	1999 12 04	703	0.8−	0.4+	2000 01 06	704	0.2−	0.4+
1999 11 03	704	0.5−	0.4−	1999 12 04	703	0.5+	0.7+	2000 01 06	704	0.3−	1.1−
1999 11 03	704	0.0	0.4−	1999 12 07	704	0.8+	0.1−	2000 01 06	704	0.0	0.1+
1999 11 03	704	1.5−	0.0	1999 12 07	704	0.1−	0.6−	2000 01 06	704	0.3+	0.4−
1999 11 14	704	0.2−	0.1+	1999 12 07	704	1.1+	0.3+				

3041 T-3 = 1999 XZ₂₂

Id. A. Doppler, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 333.03141 (2000.0)				Williams <i>P</i> <i>Q</i>			
<i>n</i>	0.22535406	ω	41.83214	−0.22348459	−0.97189082		
<i>a</i>	2.6743965	Ω	61.20454	+0.87036449	−0.23318122		
<i>e</i>	0.1060510	<i>i</i>	4.84696	+0.43877134	−0.03247699		
<i>P</i>	4.37	<i>H</i>	14.5	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1977 10 11	675	1.5+	0.8−	1977 10 21	675	0.1−	2.4+	1999 12 04	699	0.1−	1.4+
1977 10 11	675	2.2+	0.4−	1977 10 22	675	(2.8−	1.5+)	1999 12 04	699	1.6−	0.6−
1977 10 12	675	0.7+	2.0−	1977 10 22	675	1.6+	1.3−	1999 12 04	699	0.8−	0.8+
1977 10 12	675	1.5−	2.1−	1977 10 22	675	(3.5−	0.8−)	1999 12 06	704	1.5+	0.2+
1977 10 16	675	0.1−	0.7+	1999 10 20	704	0.1−	0.0	1999 12 06	704	0.2+	0.0

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1977 10 16	675	1.6−	1.5+	1999 10 20	704	0.5+	0.6+	1999 12 06	704	0.3+	0.5+
1977 10 16	675	1.3−	0.3+	1999 10 20	704	0.0	0.1−	1999 12 06	704	0.3−	1.2−
1977 10 16	675	1.4−	1.8+	1999 11 17	704	0.2−	0.8−	1999 12 06	704	0.4−	0.7−
1977 10 17	675	0.4−	1.0+	1999 11 17	704	0.4+	0.2−	1999 12 07	704	0.5+	0.1+
1977 10 17	675	0.1+	0.2+	1999 11 17	704	0.4+	0.1+	1999 12 07	704	0.5+	0.2−
1977 10 17	675	(3.2−	0.8+)	1999 11 17	704	0.4+	0.5−	1999 12 07	704	0.5+	0.8+
1977 10 17	675	0.6−	0.3+	1999 11 17	704	0.9−	0.5+	1999 12 07	704	0.4−	1.0−
1977 10 21	675	0.5+	1.8−	1999 12 04	699	0.3−	0.2+	1999 12 07	704	0.4+	0.1+
1977 10 21	675	0.4−	1.1+	1999 12 04	699	0.4−	0.7−				
1977 10 21	675	0.9+	0.9−	1999 12 04	699	0.1−	0.6+				

3258 T-3 = 1999 WG₁₀

Id. A. Doppler, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 82.11419 (2000.0)				Williams <i>P</i> <i>Q</i>			
<i>n</i>	0.26846011	ω	285.01618	+0.73353702	+0.67715951		
<i>a</i>	2.3798498	Ω	32.42546	−0.57447623	+0.66345282		
<i>e</i>	0.1527674	<i>i</i>	6.22310	−0.36318109	+0.31825360		
<i>P</i>	3.67	<i>H</i>	16.3	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1977 10 07	675	0.1−	0.9−	1977 10 22	675	2.1+	1.2−	1999 11 13	691	0.2+	0.0
1977 10 11	675	1.6−	1.2−	1999 10 19	691	0.0	0.1+	1999 11 13	691	0.1+	0.2−
1977 10 11	675	1.1−	1.6+	1999 10 19	691	0.1−	0.0	1999 11 13	691	0.0	0.0
1977 10 12	675	0.5+	0.9−	1999 10 19	691	0.0	0.0	1999 11 28	691	0.3+	0.0
1977 10 12	675	1.4+	0.2+	1999 11 09	704	0.8−	0.7+	1999 11 28	691	0.1−	0.5+
1977 10 16	675	1.4+	0.1−	1999 11 09	704	0.1−	0.8−	1999 11 28	691	0.2+	0.1+
1977 10 16	675	0.1−	0.7+	1999 11 09	704	0.2−	0.3+	1999 12 02	691	0.2+	0.1−
1977 10 17	675	0.6−	0.5−	1999 11 09	704	0.2+	1.3+	1999 12 02	691	0.1+	0.3−
1977 10 17	675	0.0	0.3+	1999 11 09	704	0.1−	0.7+	1999 12 02	691	0.2+	0.4−
1977 10 21	675	0.4−	0.7+	1999 11 09	691	0.2−	0.0	1999 12 08	691	0.4−	0.6−
1977 10 21	675	1.0−	1.8+	1999 11 09	691	0.0	0.2+	1999 12 08	691	0.3−	0.1−
1977 10 22	675	0.3+	2.1−	1999 11 09	691	0.0	0.0	1999 12 08	691	0.1+	0.1+

3265 T-3 = 1999 UU₁₄

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i> 44.32931 (2000.0)				Williams <i>P</i> <i>Q</i>			
<i>n</i>	0.22489832	ω	169.27716	+0.97815846	−0.20502121		
<i>a</i>	2.6780083	Ω	202.64135	+0.18352044	+0.92916738		
<i>e</i>	0.1301467	<i>i</i>	5.10276	+0.09760267	+0.30759436		
<i>P</i>	4.38	<i>H</i>	15.4	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1977 10 07	675	0.3−	0.6−	1977 10 22	675	1.0+	0.2+	1999 11 03	703	0.0	0.1+
1977 10 11	675	2.4−	0.8+	1999 10 03	704	1.9−	0.2−	1999 11 03	703	0.1+	0.3+
1977 10 11	675	1.4−	1.3+	1999 10 03	704	0.2−	0.6−	1999 11 05	704	0.2−	0.7−
1977 10 12	675	2.3+	0.0	1999 10 03	704	1.7+	0.3+	1999 11 05	704	0.7−	0.3−
1977 10 12	675	0.2−	0.4−	1999 10 20	704	0.2−	0.4+	1999 11 05	704	0.0	0.3−
1977 10 12	675	2.1+	1.1+	1999 10 20	704	0.6+	0.5−	1999 11 05	704	0.2+	0.3+
1977 10 12	675	1.7+	1.8−	1999 10 20	704	1.0+	0.1+	1999 11 05	704	0.8+	0.1+
1977 10 16	675	0.1−	0.6+	1999 10 20	704	0.6+	1.5−	1999 11 09	704	0.5+	0.1−
1977 10 16	675	0.2−	0.3+	1999 10 29	703	(0.6−	2.7+)	1999 11 09	704	0.2+	0.2−
1977 10 17	675	1.3−	0.2−	1999 10 29	703	1.2−	0.5+	1999 11 09	704	0.2+	0.3+
1977 10 17	675	2.2−	0.2+	1999 10 29	703	(0.1−	4.8+)	1999 11 09	704	0.2−	0.0
1977 10 21	675	1.4−	0.3−	1999 10 29	703	0.4−	1.1+	1999 11 09	704	0.3+	0.4−
1977 10 21	675	0.4+	0.1−	1999 11 03	703	1.0−	0.1+				
1977 10 22	675	1.9+	0.9−	1999 11 03	703	0.2−	0.9+				

3458 T-3 = 1995 SL₁₁

Id. M. E. Sansaturio

2000 FEB. 22

M.P.C. 38745

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	349.05828		(2000.0)	P	Q				
<i>n</i>	0.21917531	ω	0.55190	+0.93133444	-0.36248761				
<i>a</i>	2.7244257	Ω	20.80691	+0.33373716	+0.81122176				
<i>e</i>	0.0787107	<i>i</i>	5.64039	+0.14572462	+0.45882674				
<i>P</i>	4.50	<i>H</i>	16.1	<i>G</i>	0.15	<i>U</i>	6		
Residuals in seconds of arc									
1977 10 11	675	0.9-	1.9+	1977 10 16	675	0.7+	0.6+	1995 09 17	691 0.1+ 0.1-
1977 10 11	675	1.0-	0.8+	1977 10 17	675	1.6-	1.7-	1995 09 22	691 0.0 0.1-
1977 10 12	675	1.4+	1.2-	1977 10 17	675	0.3+	0.1+	1995 09 22	691 0.2+ 0.1+
1977 10 12	675	1.0+	1.5+	1995 09 17	691	0.2+	0.4-	1995 09 22	691 0.1- 0.3+
1977 10 16	675	0.1-	1.5-	1995 09 17	691	0.2-	0.2-		

3466 T-3 = 1998 OY₁₂ = 1999 YW₄

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	65.53737		(2000.0)	P	Q				
<i>n</i>	0.18470087	ω	327.24718	+0.92398921	-0.38198045				
<i>a</i>	3.0536792	Ω	55.21986	+0.35548251	+0.84028208				
<i>e</i>	0.2018119	<i>i</i>	1.27665	+0.14098268	+0.38472973				
<i>P</i>	5.34	<i>H</i>	14.7	<i>G</i>	0.15	<i>U</i>	4		

Residuals in seconds of arc

1977 10 07	675	0.7+	0.5-	1998 07 26	809	0.9-	2.6-	1999 12 30	739 0.8- 1.1+
1977 10 11	675	1.1-	0.3+	1998 07 26	809	1.7-	2.5-	2000 01 01	739 1.5- 1.5+
1977 10 11	675	0.2+	0.1+	1998 07 26	809	1.7-	1.6-	2000 01 01	739 0.6- 1.8+
1977 10 12	675	1.7+	1.2-	1998 07 27	809	1.7+	2.6+	2000 01 01	739 1.5- 1.7+
1977 10 12	675	1.8+	0.9+	1998 07 27	809	1.6+	2.5+	2000 01 03	739 1.9- 0.9+
1977 10 16	675	0.1+	0.6-	1998 07 27	809	0.6+	2.6+	2000 01 03	739 1.8+ 2.2-
1977 10 16	675	1.6-	0.2-	1999 12 29	739	4.0+	1.3-	2000 01 03	739 0.8- 1.2-
1977 10 17	675	0.7-	0.6-	1999 12 29	739	0.6+	1.0-	2000 01 11	695 0.7- 0.1+
1977 10 17	675	2.8-	0.9+	1999 12 29	739	1.6+	0.9-	2000 01 11	695 0.5- 0.5-
1977 10 21	675	0.6-	0.2-	1999 12 29	739	0.5+	0.6-	2000 01 11	695 0.8- 0.3-
1977 10 21	675	0.3-	0.9+	1999 12 30	739	0.7-	1.2+		
1977 10 22	675	2.9+	0.2-	1999 12 30	739	1.4+	0.4+		

4044 T-3 = 1999 XK₉₇

Id. A. Doppler, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	323.29319		(2000.0)	P	Q				
<i>n</i>	0.27445274	ω	72.29306	-0.79885764	-0.59175088				
<i>a</i>	2.3450800	Ω	71.29201	+0.49962110	-0.75270822				
<i>e</i>	0.0649952	<i>i</i>	6.54549	+0.33497047	-0.28855023				
<i>P</i>	3.59	<i>H</i>	14.0	<i>G</i>	0.15	<i>U</i>	4		

Residuals in seconds of arc

1977 10 07	675	1.6+	1.5+	1999 12 05	703	0.5-	0.0	2000 01 04	704 0.5- 0.2+
1977 10 11	675	0.2-	1.3-	1999 12 05	703	0.4-	0.8+	2000 01 04	704 0.3- 0.4+
1977 10 11	675	0.7-	1.9-	1999 12 05	703	0.2+	0.1+	2000 01 04	704 0.2- 0.1-
1977 10 12	675	0.7-	1.3-	1999 12 07	704	0.2-	0.1-	2000 01 04	704 0.1- 0.1-
1977 10 12	675	0.5-	1.5-	1999 12 07	704	0.7-	0.8-	2000 01 04	704 0.3- 0.1+
1977 10 16	675	1.3-	1.6+	1999 12 07	704	0.2-	0.0	2000 01 04	704 0.5- 0.5-
1977 10 16	675	2.2-	1.4+	1999 12 07	704	0.3-	0.2-	2000 01 04	704 0.1+ 0.0
1977 10 17	675	0.6+	0.5+	1999 12 07	704	0.5-	0.5-	2000 01 04	704 0.5- 0.1+
1977 10 17	675	1.3+	1.2+	1999 12 10	704	0.1-	0.8-	2000 01 04	704 0.2- 0.4-
1977 10 21	675	(4.0+ 0.8-)		1999 12 10	704	0.3+	0.3-	2000 01 04	704 0.4- 0.2-
1977 10 21	675	2.1+	0.2+	1999 12 10	704	0.5+	1.1-	2000 01 04	704 0.6- 0.0
1999 11 09	704	0.2+	0.2-	1999 12 10	704	0.1-	1.0-	2000 01 04	704 0.2- 0.6-
1999 11 09	704	0.3+	0.4+	1999 12 10	704	0.2+	0.8-	2000 01 04	704 0.0 0.0
1999 11 09	704	0.0	0.3+	2000 01 03	704	0.1+	0.2-	2000 01 04	704 0.4+ 0.5+
1999 11 09	704	0.4+	0.1+	2000 01 03	704	0.8+	0.1+	2000 01 04	704 0.1+ 0.2+
1999 11 09	704	0.5-	1.7+	2000 01 03	704	0.8+	0.2+	2000 01 04	704 0.6+ 0.6+
1999 11 16	704	0.1-	0.3+	2000 01 03	704	0.5+	0.5+	2000 01 04	704 0.4+ 0.5+
1999 11 16	704	0.2+	0.5-	2000 01 03	704	0.9+	0.5+	2000 02 11	704 0.5- 1.4-

1999 11 16	704	0.3+	0.4-	2000 01 04	704	0.0	0.0	2000 02 11	704 0.3+ 0.6+
1999 11 16	704	1.3+	0.1+	2000 01 04	704	0.5-	0.0	2000 02 11	704 0.1+ 1.0+
1999 12 05	703	0.3-	0.3+	2000 01 04	704	0.2-	0.1+	2000 02 11	704 0.2+ 0.8+

4055 T-3 = 1999 XR₁₂₀

Id. A. Doppler, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	268.53306		(2000.0)	P	Q				
<i>n</i>	0.18336950	ω	129.76759	-0.97976644	-0.16566831				
<i>a</i>	3.0684424	Ω	41.05562	+0.08621102	-0.85571486				
<i>e</i>	0.0207676	<i>i</i>	9.84513	+0.18062496	-0.49021025				
<i>P</i>	5.37	<i>H</i>	13.9	<i>G</i>	0.15	<i>U</i>	5		

Residuals in seconds of arc

1977 10 11	675	0.6+	0.4-	1999 11 03	704	0.3+	0.2+	1999 11 16	704 0.2- 0.7-
1977 10 11	675	0.7+	0.6+	1999 11 03	704	1.3-	0.3+	1999 11 16	704 0.7+ 0.3+
1977 10 12	675	0.2+	0.8-	1999 11 03	704	1.4-	0.7+	1999 12 05	703 0.2+ 0.5+
1977 10 12	675	0.0	1.0-	1999 11 03	704	0.0	1.0+	1999 12 05	703 0.4- 0.1+
1977 10 16	675	1.2-	0.4+	1999 11 05	704	1.0+	0.1+	1999 12 05	703 0.6- 0.7+
1977 10 16	675	1.9-	0.7+	1999 11 05	704	0.5+	0.2+	1999 12 05	703 0.2- 0.5+
1977 10 17	675	0.2-	0.9-	1999 11 05	704	0.0	0.5-	1999 12 13	703 0.2+ 0.5-
1977 10 17	675	0.6+	0.3-	1999 11 05	704	0.7+	1.2-	1999 12 13	703 0.0 0.6-
1977 10 21	675	0.4-	0.2+	1999 11 16	704	1.0+	0.1+	1999 12 13	703 0.0 0.1+
1977 10 21	675	1.7+	1.5+	1999 11 16	704	0.9+	0.3-	1999 12 13	703 1.0- 0.9-

4062 T-3 = 1998 HA₈₄ = 1999 RP₆₄

Id. A. Doppler, G. V. Williams

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Spahr

<i>M</i>	74.98855		(2000.0)	P	Q				
<i>n</i>	0.22011730	ω	200.17715	+0.42248748	+0.90276014				
<i>a</i>	2.7166473	Ω	94.88616	-0.82005473	+0.41869914				
<i>e</i>	0.0734245	<i>i</i>	4.65143	-0.38602405	+0.09856549				
<i>P</i>	4.48	<i>H</i>	14.3	<i>G</i>	0.15	<i>U</i>	3		

Residuals in seconds of arc

1977 10 11	675	0.8+	1.0-	1998 04 22	704	0.1+	0.4-	1999 08 08	699 1.3+ 0.3+
1977 10 11	675	0.4-	1.7-	1998 04 22	704	0.6-	0.2+	1999 09 07	699 0.4- 0.3-
1977 10 12	675	0.8+	0.6+	1998 04 22	704	0.9-	0.0	1999 09 07	699 0.6+ 0.4+
1977 10 12	675	0.2-	1.1+	1998 04 22	704	0.2-	0.8-	1999 09 07	699 0.2- 0.6+
1977 10 16	675	1.6-	0.7+	1998 04 22	704	0.6+	1.2-	1999 09 07	704 0.1- 0.7+
1977 10 16	675	(3.3- 0.2+)		1998 05 01	704	0.9-	0.8-	1999 09 07	704 0.3- 0.0
1977 10 17	675	0.6-	0.9-	1998 05 01	704	0.3-	0.2+	1999 09 07	704 0.1+ 0.8+
1977 10 17	675	0.3+	0.3+	1998 05 01	704	0.7-	0.3-	1999 09 07	704 0.5- 0.2-
1977 10 21	675	0.4+	0.7+	1998 05 01	704	0.6-	0.5+	1999 09 07	704 0.2- 0.2-
1977 10 21	675	(3.3+ 1.9+)		1998 05 01	704	0.8-	0.4+	1999 09 13	704 0.1+ 0.3-
1977 10 22	675	0.9+	0.8-	1998 05 22	704	1.5+	0.1+	1999 09 13	704 0.0 0.6-
1998 04 21	704	0.3-	0.8+	1998 05 22	704	1.2+	0.3-	1999 09 13	704 0.2+ 1.4-
1998 04 21	704	0.3+	0.8+	1998 05 22	704	0.2+	0.9-	1999 09 13	704 0.1+ 0.5+
1998 04 21	704	0.3-	0.1+	1998 05 22	704	1.3+	0.4+	1999 09 13	704 0.7- 1.0-
1998 04 21	704	0.5+	0.3-	1999 08 08	699	0.0	0.1+		
1998 04 21	704	0.1-	0.5+	1999 08 08	699	0.2+	0.7+		

4080 T-3 = 1999 XW₁₁₉

Id. A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

Williams

<i>M</i>	176.09905		(2000.0)	P	Q				
<i>n</i>	0.18368918	ω	216.42808	-0.25386002	+0.95953047				
<i>a</i>	3.0648814	Ω	39.28207	-0.83573418	-0.15415755				
<i>e</i>	0.0767466	<i>i</i>	11.09941	-0.48693272	-0.23566231				
<i>P</i>	5.37	<i>H</i>	13.8	<i>G</i>	0.15	<i>U</i>	4		

Residuals in seconds of arc

1977 10 11	675	1.0+	0.2+	1998 09 17	699	0.9-	0.1-	1999 11 16	704 0.0 0.1-
1977 10 11	675	0.3-	0.2-	1998 09 17	699	0.4+	1.4+	1999 11 16	704 0.4- 1.2+

1977 10 12	675	1.4+	1.1-	1999 11 09	703	0.5-	0.8+	1999 11 16	704	0.5-	0.4-
1977 10 12	675	0.3-	1.4-	1999 11 09	703	0.4-	0.7+	1999 12 05	703	0.7-	0.2-
1977 10 16	675	0.2+	1.6+	1999 11 09	703	0.5+	1.0+	1999 12 05	703	0.7-	0.1-
1977 10 16	675	(0.4+ 2.9+)		1999 11 09	703	0.4-	0.5+	1999 12 05	703	0.0	0.3+
1977 10 17	675	1.1-	0.1+	1999 11 14	704	0.2-	0.0	1999 12 05	703	0.6-	0.6-
1977 10 17	675	0.5-	0.7-	1999 11 14	704	0.1-	0.3+	1999 12 13	703	0.8+	2.0-
1977 10 21	675	1.0+	0.1-	1999 11 14	704	0.1+	0.8+	1999 12 13	703	0.5+	0.4-
1977 10 21	675	0.8+	0.1-	1999 11 14	704	0.7+	0.4+	1999 12 13	703	0.4+	0.3-
1977 10 22	675	1.1-	0.5+	1999 11 14	704	0.2+	0.9+	1999 12 13	703	0.1-	0.3-
1977 10 22	675	0.9+	1.8-	1999 11 16	704	0.3+	0.8-				
1998 09 17	699	0.5-	0.5+	1999 11 16	704	0.5+	0.4+				

4240 T-3 = 1999 XU₅₀

Id. M. E. Sansaturio, A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	334.19031	(2000.0)		P	Q		
<i>n</i>	0.27258734	ω	38.44678	-0.50534067	-0.85757389		
<i>a</i>	2.3557666	Ω	82.09951	+0.76583651	-0.49692405		
<i>e</i>	0.0638083	<i>i</i>	5.55633	+0.39764965	-0.13279124		
<i>P</i>	3.62	<i>H</i>	15.6	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1977 10 11	675	0.6+	0.8+	1977 10 21	675	0.9+	1.4+	1999 12 07	704	0.4-	0.3-
1977 10 11	675	0.4+	0.2-	1977 10 21	675	2.1+	0.3+	1999 12 08	704	0.5-	0.5+
1977 10 12	675	1.6-	1.1-	1999 11 15	704	0.4-	0.2+	1999 12 08	704	0.2+	0.1+
1977 10 12	675	0.6-	1.0+	1999 11 15	704	0.4+	0.1+	1999 12 08	704	0.3+	0.5+
1977 10 16	675	0.6+	0.5+	1999 11 15	704	1.2+	0.2-	1999 12 08	704	0.6+	0.2+
1977 10 16	675	0.5-	1.2-	1999 11 15	704	0.1-	0.5-	1999 12 08	704	0.3+	0.1+
1977 10 17	675	1.7-	1.3+	1999 12 07	704	1.1-	0.3-				
1977 10 17	675	0.3-	2.7-	1999 12 07	704	0.5-	0.6-				

4266 T-3 = 1999 XX₁₆₃

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	81.97460	(2000.0)		P	Q		
<i>n</i>	0.18163439	ω	284.92018	+0.80681251	+0.55422204		
<i>a</i>	3.0879529	Ω	41.98935	-0.35171976	+0.72892220		
<i>e</i>	0.1470968	<i>i</i>	17.81496	-0.47470706	+0.40188351		
<i>P</i>	5.43	<i>H</i>	13.3	<i>G</i>	0.15	<i>U</i>	4

Residuals in seconds of arc

1977 10 11	675	0.2-	0.3-	1999 10 03	704	0.3+	0.5-	1999 11 16	704	0.3+	0.1-
1977 10 11	675	0.5-	0.9+	1999 10 03	704	0.1+	0.4-	1999 11 16	704	0.3+	0.1+
1977 10 11	675	0.4-	0.3-	1999 10 03	704	0.4+	0.6-	1999 11 16	704	0.5+	0.0
1977 10 11	675	0.1-	0.5+	1999 10 29	703	1.3-	0.1+	1999 11 16	704	0.3-	0.0
1977 10 12	675	0.6-	0.8-	1999 10 29	703	0.0	0.7+	1999 12 04	703	0.2-	0.5+
1977 10 12	675	1.3+	0.0	1999 10 29	703	0.7-	0.5+	1999 12 04	703	0.4-	0.5+
1977 10 12	675	0.0	0.1-	1999 10 29	703	0.5+	0.6-	1999 12 04	703	0.6-	0.2+
1977 10 12	675	0.0	0.1+	1999 11 04	704	0.4+	0.1-	1999 12 04	703	0.8-	0.6+
1977 10 16	675	1.0-	0.6+	1999 11 04	704	0.0	0.1-	1999 12 08	704	0.2-	1.0-
1977 10 16	675	1.8+	0.1+	1999 11 04	704	1.0+	0.4-	1999 12 08	704	0.5-	0.7-
1977 10 16	675	0.8-	0.4-	1999 11 04	704	0.8+	0.2-	1999 12 08	704	0.3+	0.4-
1977 10 16	675	2.4+	0.1+	1999 11 04	704	0.2+	0.2-	1999 12 08	704	0.2-	0.2-
1977 10 17	675	1.4-	1.1+	1999 11 11	703	0.2-	0.5+	1999 12 08	704	0.3+	0.2-
1977 10 17	675	1.1+	1.2+	1999 11 11	703	0.2+	0.6+	1999 12 15	704	0.1+	0.5-
1977 10 17	675	0.8-	0.8+	1999 11 11	703	0.0	0.3+	1999 12 15	704	0.6+	0.5-
1977 10 17	675	1.6+	0.0	1999 11 11	703	0.1-	0.2+	1999 12 15	704	1.1+	0.2-
1977 10 21	675	1.2+	0.1+	1999 11 14	704	0.1+	0.0	1999 12 15	704	0.7-	0.6-
1977 10 21	675	0.3-	1.5-	1999 11 14	704	0.2+	0.1-	2000 01 04	704	0.6-	1.0-
1977 10 21	675	1.1-	0.3+	1999 11 14	704	0.2+	0.1+	2000 01 04	704	0.6-	0.6+
1977 10 21	675	0.5-	0.4+	1999 11 14	703	0.5-	0.0	2000 01 04	704	0.7-	0.0
1977 10 22	675	0.8+	0.5-	1999 11 14	704	0.3+	0.2+	2000 01 04	704	1.1+	0.1+
1977 10 22	675	1.0-	1.7-	1999 11 14	703	0.2-	0.0	2000 01 04	704	0.7+	1.2+
1977 10 22	675	0.9-	1.0-	1999 11 14	704	0.1+	0.2+	2000 01 06	704	0.1+	0.9-
1999 10 02	703	0.2-	0.3+	1999 11 14	703	0.2-	0.2+	2000 01 06	704	0.2+	0.2-
1999 10 02	703	0.7-	0.3+	1999 11 14	703	(3.2- 0.5+)		2000 01 06	704	0.5+	0.0

1999 10 02	703	0.2+	0.3+	1999 11 15	691	0.5-	0.8+	2000 01 06	704	0.4-	0.5+
1999 10 02	703	1.0-	0.0	1999 11 15	691	0.4-	0.8+	2000 01 06	704	0.7+	0.8-
1999 10 03	704	0.2+	0.7-	1999 11 15	691	0.3-	0.8+				
1999 10 03	704	0.2+	0.8-	1999 11 16	704	0.4+	0.5+				

5068 T-3 = 1999 XR₁₉₅

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	20.33149	(2000.0)		P	Q		
<i>n</i>	0.22923072	ω	33.32119	+0.04952349	-0.98379756		
<i>a</i>	2.6441586	Ω	54.42181	+0.86382111	-0.04441035		
<i>e</i>	0.1471428	<i>i</i>	12.23114	+0.50135866	+0.17369539		
<i>P</i>	4.30	<i>H</i>	15.0	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1977 10 11	675	0.8-	0.9+	1999 12 12	704	0.2+	0.2-	1999 12 16	704	0.2+	0.6-
1977 10 11	675	1.9-	1.2+	1999 12 12	704	0.1-	0.4-	1999 12 16	704	0.0	0.1-
1977 10 12	675	0.5-	1.0+	1999 12 12	704	0.0	0.4+	1999 12 16	704	0.2+	0.1-
1977 10 12	675	1.6-	1.2-	1999 12 12	704	0.1-	0.2-	1999 12 16	704	0.2-	0.2-
1977 10 16	675	2.1+	0.5-	1999 12 15	704	0.9-	0.7+	1999 12 16	704	0.1-	0.2-
1977 10 16	675	1.6+	2.2-	1999 12 15	704	0.3+	0.5-	1999 12 16	704	0.0	0.1-
1977 10 17	675	1.6+	0.3-	1999 12 15	704	0.4+	1.2+	1999 12 16	704	0.5-	0.0
1977 10 17	675	1.6+	1.6-	1999 12 15	704	0.0	0.1-	1999 12 30	704	0.0	0.2+
1977 10 21	675	1.4-	1.3+	1999 12 15	704	0.6+	0.8-	1999 12 30	704	0.5+	0.2+
1977 10 21	675	0.5+	0.6+	1999 12 16	704	0.2-	0.5+	1999 12 30	704	0.1+	0.5-
1977 10 22	675	1.1-	0.7+	1999 12 16	704	0.2-	0.6+	1999 12 30	704	0.0	0.4+
1999 12 12	704	0.1+	0.2+	1999 12 16	704	0.5-	0.1+	1999 12 30	704	0.3+	0.5-

5121 T-3 = 1999 XD₅₁

Id. A. Doppler, M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

				Williams			
<i>M</i>	41.13803	(2000.0)		P	Q		
<i>n</i>	0.18277417	ω	322.93671	+0.80607941	-0.55937882		
<i>a</i>	3.0751018	Ω	72.17616	+0.57990422	+0.68143467		
<i>e</i>	0.0859311	<i>i</i>	11.70979	+0.11809776	+0.47195564		
<i>P</i>	5.39	<i>H</i>	14.4	<i>G</i>	0.15	<i>U</i>	5

Residuals in seconds of arc

1977 10 11	675	0.0	1.1+	1999 11 15	704	0.5-	0.5+	1999 12 04	703	0.7-	0.2-
1977 10 11	675	1.5-	0.5+	1999 11 15	704	0.1-	0.7-	1999 12 04	703	0.0	0.5-
1977 10 12	675	0.9+	0.3+	1999 11 15	704	0.9-	0.4-	1999 12 07	704	0.1+	0.9+
1977 10 12	675	0.6+	0.2-	1999 11 15	704	0.4-	0.1+	1999 12 07	704	0.2+	0.1-
1977 10 16	675	0.7+	1.1-	1999 11 15	704	0.8-	0.5-	1999 12 07	704	0.0	0.1-
1977 10 16	675	0.8+	1.0-	1999 11 17	704	0.7+	0.4-	1999 12 07	704	0.5+	0.1-
1977 10 17	675	0.7+	0.1+	1999 11 17	704	0.1+	1.3+	1999 12 07	704	0.2+	0.1+
1977 10 17	675	0.5+	0.8-	1999 11 17	704	1.0+	0.5+	1999 12 08	704	0.3+	0.5-
1977 10 21	675	0.9+	0.5+	1999 11 17	704	0.4+	0.6-	1999 12 08	704	0.3-	0.4-
1977 10 21	675	0.1-	0.7+	1999 11 17	704	0.7+	0.2+	1999 12 08	704	0.1-	0.4-
1977 10 22	675	2.1-	0.4+	1999 12 04	703	0.0	0.9+	1999 12 08	704	0.5-	0.3-
1977 10 22	675	1.3-	0.5-	1999 12 04	703	0.0	0.7+				

5132 T-3 = 1999 XP₉₈

Id. M. E. Sansaturio, A. Doppler

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

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1977 10 12	675	0.1−	1.7−	1999 11 16	704	0.5−	0.2+	1999 12 15	703	0.4−	0.8+
1977 10 16	675	1.3+	1.8−	1999 11 16	704	0.4−	0.7+	1999 12 15	703	0.7+	0.7+
1977 10 16	675	0.9+	1.6−	1999 11 16	704	1.3−	0.6+	1999 12 15	703	0.1+	0.6+
1977 10 17	675	(3.4+	0.7−)	1999 11 16	704	0.0	0.1+	1999 12 15	703	(1.3−	2.4+)
1977 10 17	675	1.9+	0.8−	1999 12 07	704	0.0	0.2+	2000 01 03	704	0.1+	0.1−
1977 10 21	675	1.5−	1.7+	1999 12 07	704	0.2−	0.3−	2000 01 03	704	0.1−	0.4−
1977 10 21	675	1.6−	2.1+	1999 12 07	704	0.6+	0.5−	2000 01 03	704	0.7−	0.0
1977 10 22	675	0.5+	1.9+	1999 12 07	704	0.1−	0.6−	2000 01 03	704	0.1+	0.5−
1977 10 22	675	0.4−	0.7+	1999 12 10	704	0.2+	0.5−	2000 01 03	704	0.5+	0.0
1998 09 28	699	0.7−	1.8+	1999 12 10	704	0.4+	0.8+	2000 01 04	704	0.2−	0.6+
1998 09 28	699	(0.6+	3.6+)	1999 12 10	704	0.2+	0.6+	2000 01 04	704	0.0	0.3−
1998 09 28	699	(0.4−	2.7+)	1999 12 10	704	0.2+	0.4+	2000 01 04	704	0.2+	0.1+
1999 11 03	704	0.3−	0.3+	1999 12 10	704	0.3+	1.3+	2000 01 04	704	0.9+	0.3−
1999 11 03	704	0.1+	0.4+	1999 12 15	704	0.1−	0.8−				

5168 T-3 = 1987 SQ₇ = 2000 BR₂₇

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		Williams		<i>Q</i>	
301.19515		(2000.0)			
<i>n</i>	0.19221466	<i>ω</i>	99.04851	−0.85615243	+0.48836993
<i>a</i>	2.9735714	<i>Ω</i>	110.34333	−0.51585994	−0.78894368
<i>e</i>	0.0269983	<i>i</i>	10.37226	−0.02985875	−0.37291110
<i>P</i>	5.13	<i>H</i>	13.3	<i>G</i>	0.15

Residuals in seconds of arc

1977 10 11	675	1.9−	0.6+	1999 12 04	703	0.6+	0.2+	2000 01 29	703	0.4+	0.0
1977 10 11	675	1.9−	0.2+	1999 12 04	703	0.1+	0.9+	2000 01 29	703	0.2−	0.3+
1977 10 12	675	0.3+	0.7−	1999 12 04	703	0.8−	0.0	2000 01 29	703	0.4+	0.2+
1977 10 12	675	0.1+	1.8−	1999 12 04	703	0.4+	0.6+	2000 01 30	703	0.3+	0.0

1977 10 16	675	0.7+	0.8−	1999 12 06	704	0.1+	0.4+	2000 01 30	703	0.2−	0.4+
1977 10 16	675	1.3+	1.3−	1999 12 06	704	0.2−	0.1−	2000 01 30	703	0.1−	0.1+
1977 10 17	675	0.8+	0.5+	1999 12 06	704	0.5+	0.3−	2000 01 30	703	1.6−	0.2−
1977 10 17	675	0.7+	0.5+	1999 12 06	704	0.2−	1.8−	2000 02 03	704	0.1+	0.3−
1977 10 21	675	0.4+	1.0+	2000 01 06	704	0.9−	1.8−	2000 02 03	704	0.1−	0.5+
1977 10 21	675	0.2−	1.2+	2000 01 06	704	0.6−	0.8+	2000 02 03	704	0.1+	0.1+
1977 10 22	675	2.0−	0.1+	2000 01 06	704	0.9+	0.6−	2000 02 03	704	0.1+	0.1+
1977 10 22	675	2.0+	0.5−	2000 01 06	704	0.2+	0.1−	2000 02 03	704	0.2+	0.3+
1987 09 18	010	0.9−	0.1+	2000 01 06	704	0.8+	1.0+				
1987 09 18	010	0.4+	1.3+	2000 01 29	703	0.4−	0.1−				

5184 T-3 = 1999 LL₁₄

Id. M. E. Sansaturio

Epoch 2000 Feb. 26.0 TT = JDT 2451600.5

<i>M</i>		(2000.0)		Williams	
60.02459					
<i>n</i>	0.30605313	<i>ω</i>	163.28696	+0.35990675	+0.92762415
<i>a</i>	2.1807447	<i>Ω</i>	127.69573	−0.86979431	+0.37233792
<i>e</i>	0.1039907	<i>i</i>	7.25332	−0.33752776	+0.02962953
<i>P</i>	3.22	<i>H</i>	15.7	<i>G</i>	0.15

Residuals in seconds of arc

1977 10 16	675	1.1+	1.7−	1999 10 22	675	0.2+	0.8+	1999 06 14	704	0.0	0.3+
1977 10 16	675	1.0+	2.8−	1999 06 09	704	0.2+	1.2−	1999 06 14	704	0.7−	0.1+
1977 10 17	675	0.5+	0.2−	1999 06 09	704	0.7+	0.4+	1999 06 14	704	0.0	0.2+
1977 10 17	675	0.5+	1.1−	1999 06 09	704	0.6+	0.7−	1999 06 14	704	0.5−	0.4+
1977 10 21	675	2.0−	2.2+	1999 06 09	704	0.0	0.6−	1999 06 14	704	0.6−	1.0+
1977 10 21	675	1.4−	2.9+	1999 06 09	704	0.3+	0.3+				

Object	<i>H</i>	<i>G</i>	Epoch	<i>M</i>	<i>ω</i>	<i>Ω</i>	<i>i</i>	<i>e</i>	<i>a</i>	Obs.	Opp. & Arc	rms Perts	<i>U</i>	Computer	<i>MPC</i>	Object
(17)	7.76	0.15	20000226	327.20908	135.55323	125.64424	5.58577	0.1360194	2.4698668	869	73 1853–1999	0.88	M-v 0	Williams	24548	(17)
(839)	10.2	0.15	20000226	305.71150	338.02642	338.40985	12.58394	0.1527001	2.6146514	52	16 1920–1999	0.85	M-v 1	Williams	16997	(839)
(891)	9.9	0.15	20000226	160.52275	296.66870	106.12425	13.54665	0.0261998	2.8611246	83	19 1918–2000	0.98	M-v 1	Williams	23325	(891)
(1028)	9.43	0.15	20000226	29.67533	24.46369	63.51784	9.39440	0.1199638	3.3923078	156	28 1907–2000	0.85	M-v 0	Williams	16555	(1028)
(1192)	12.92	0.15	20000226	5.65192	130.82890	1.56309	23.85352	0.2571837	2.3670772	74	9 1931–2000	0.91	M-v 2	Williams	38009	(1192)
(1205)	13.6	0.15	20000226	341.18168	349.38679	23.27474	8.88474	0.2752323	2.5345261	73	10 1931–1998	1.03	M-v 2	Williams	28564	(1205)
(1226)	11.1	0.15	20000226	338.32439	138.77929	17.59308	9.85304	0.1134638	2.5812230	124	14 1930–2000	0.75	M-v 1	Williams	24886	(1226)
(1284)	10.24	0.15	20000226	98.73493	114.26177	303.22375	10.88664	0.1694740	2.6458459	128	20 1933–2000	0.85	M-v 1	Williams	18086	(1284)
(1429)	12.5	0.15	20000226	102.05081	297.59497	47.86163	7.74384	0.3391098	2.5508695	73	20 1937–2000	0.91	M-v 1	Williams	16557	(1429)
(1441)	13.1	0.15	20000226	250.34084	115.25748	254.49934	13.92246	0.2359957	2.6330876	34	8 1937–1999	0.94	M-v 2	Williams	23226	(1441)
(1466)	11.9	0.15	20000226	326.06311	74.81214	155.18627	13.12944	0.1588945	2.3765859	91	15 1938–2000	0.80	M-v 1	Williams	16557	(1466)
(1510)	11.2	0.15	20000226	11.55186	165.29038	331.72163	11.84456	0.1490170	2.6703233	111	13 1939–2000	0.85	M-v 1	Williams	18086	(1510)
(1604)	10.53	0.15	20000226	245.88436	33.08509	309.54049	9.40732	0.0979305	3.0256458	120	26 1930–1999	0.96	M-v 1	Williams	29288	(1604)
(1696)	12.9	0.15	20000226	323.74148	165.33206	21.21434	6.04394	0.0983414	2.2614378	131	16 1939–2000	0.76	M-v 1	Williams	23959	(1696)
(1737)	10.8	0.15	20000226	338.00823	229.23553	327.67962	9.38670	0.0493856	3.0116156	85	17 1950–2000	1.12	M-v 1	Williams	15532	(1737)
(1899)	13.3	0.15	20000226	339.49646	128.75690	52.25275	7.28386	0.1062975	2.2647357	109	13 1971–2000	0.66	M-v 1	Williams	28814	(1899)
(1931)	13.2	0.15	20000226	182.07300	163.08444	182.65749	8.22542	0.2729708	2.5398904	65	10 1969–2000	0.77	M-v 1	Williams	16401	(1931)
(2070)	13.9	0.15	20000226	193.55867	349.68939	1.46427	2.75795	0.1545862	2.2500986	67	13 1954–2000	0.84	M-v 1	Williams	29887	(2070)
(2096)	13.3	0.15	20000226	309.55985	38.55550	305.26126	0.99024	0.2324697	2.4452924	76	10 1939–1999	0.78	M-v 1	Williams	22797	(2096)
(2221)	12.8	0.15	20000226	248.62322	80.54155	246.26913	13.79407	0.1386539	2.5913694	51	8 1976–2000	0.73	M-v 2	Williams	23113	(2221)
(2307)	10.9	0.15	20000226	348.11860	341.78478	251.95900	7.72009	0.0628967	3.0455088	105	15 1954–1999	0.83	M-v 1	Williams	16853	(2307)
(2459)	12.0	0.15	20000226	94.91144	217.59295	216.48923	9.67397	0.0656791	3.0219432	63	13 1931–2000	1.05	M-v 1	Williams	13437	(2459)
(2516)	13.7	0.15	20000226	77.31699	313.14364	123.39320	1.09153	0.1644437	2.2798300	123	9 1964–2000	0.82	M-v 1	Williams	20610	(2516)
(2517)	11.7	0.15	20000226	205.22034	293.05798	72.54037	2.62749	0.1785409	3.1808775	76	14 1955–2000	0.89	M-v 1	Williams	20610	(2517)
(2615)	12.2	0.15	20000226	249.27610	343.55709	323.26490	4.27570	0.1627092	3.1695884	34	7 1951–1999	0.98	M-v 1	Williams	20611	(2615)
(2803)	11.8	0.15	20000226	202.51709	44.06479	21.06490	1.33307	0.1706012	3.1493032	127	14 1929–1999	0.76	M-v 1	Williams	27430	(2803)
(2878)	11.7	0.15	20000226	246.78153	14.27822	318.52223	10.26534	0.0838295	3.0465308	67	8 1938–1999	0.89	M-v 1	Williams	17183	(2878)

(2899)	13.5	0.15	20000226	183.61812	303.43134	19.92544	3.22615	0.1560094	2.2617036	126	11	1954-2000	0.71	M-v	1	Williams	29888	(2899)
(2956)	12.4	0.15	20000226	300.88944	121.71804	112.46283	2.86486	0.0915126	2.7644231	138	13	1974-2000	0.74	M-v	1	Williams	30890	(2956)
(2963)	12.3	0.15	20000226	113.56867	349.23783	47.76429	2.70761	0.0723954	2.8704882	100	13	1952-2000	0.81	M-v	1	Williams	25039	(2963)
(2966)	13.4	0.15	20000226	312.46624	197.54912	46.63116	2.54829	0.1410411	2.4475963	92	8	1977-2000	0.87	M-v	1	Williams	30432	(2966)
(3260)	12.6	0.15	20000226	74.06377	259.79188	249.49611	5.21851	0.0927439	2.2346926	59	13	1951-1999	1.01	M-v	1	Williams	22474	(3260)
(3333)	11.8	0.15	20000226	236.28108	66.94067	231.45423	11.95826	0.2291274	3.1242299	65	9	1980-2000	0.85	M-v	1	Williams	17184	(3333)
(3342)	12.1	0.15	20000226	120.50856	313.40169	144.42962	6.18914	0.0745987	3.1394013	91	8	1980-1999	0.64	M-v	1	Williams	27544	(3342)
(3399)	12.5	0.15	20000226	284.89587	351.58296	359.29116	0.15265	0.1707386	3.1037031	124	10	1974-1999	0.83	M-v	1	Williams	24720	(3399)
(3407)	12.3	0.15	20000226	102.01052	344.37641	103.17492	13.08296	0.1552582	2.6876697	46	10	1954-2000	0.83	M-v	1	Williams	23227	(3407)
(3412)	13.3	0.15	20000226	94.64971	116.94434	307.85621	2.97291	0.1036016	2.2247534	134	10	1942-2000	0.64	M-v	1	Williams	27889	(3412)
(3434)	13.0	0.15	20000226	130.11854	261.72020	88.38489	3.44681	0.2323071	2.6372055	130	10	1951-2000	0.80	M-v	1	Williams	29889	(3434)
(3568)	12.1	0.15	20000226	175.52669	280.56060	58.48117	19.46009	0.2463680	3.1353458	97	9	1936-2000	0.73	M-v	1	Williams	30777	(3568)
(3583)	13.3	0.15	20000226	161.92689	30.61045	33.50385	2.80309	0.1759771	2.4340529	69	9	1929-1999	0.93	M-v	1	Williams	17802	(3583)
(3601)	12.3	0.15	20000226	143.87062	351.13276	61.85949	2.29541	0.1461134	3.2502701	77	10	1973-1999	0.91	M-v	1	Williams	18778	(3601)
(3619)	13.9	0.15	20000226	249.70538	181.67145	161.50874	4.03694	0.2366254	2.3893321	77	7	1960-2000	0.85	M-v	2	Williams	30432	(3619)
(3768)	11.3	0.15	20000226	164.67278	219.84397	148.47764	14.04180	0.2176719	3.0893496	84	9	1937-2000	0.88	M-v	1	Williams	25040	(3768)
(3969)	14.3	0.15	20000226	173.54194	211.71192	172.82862	2.14083	0.1254032	2.2207272	52	10	1968-1998	1.04	M-v	2	Williams	18605	(3969)
(3985)	11.3	0.15	20000226	329.51694	149.60399	84.24079	16.27568	0.0994378	2.8504241	47	9	1952-2000	0.92	M-v	2	Williams	30250	(3985)
(4117)	12.7	0.15	20000226	269.14141	139.68752	169.25549	13.38783	0.1722893	2.8408788	57	11	1953-2000	0.79	M-v	1	Williams	21763	(4117)
(4120)	12.9	0.15	20000226	327.33579	66.34034	155.08513	6.73201	0.0865274	3.1582290	54	10	1983-2000	0.67	M-v	1	Williams	14774	(4120)
(4192)	11.6	0.15	20000226	304.65904	115.85750	213.10704	0.51466	0.1676916	3.2046291	87	10	1954-1999	0.73	M-v	1	Williams	17605	(4192)
(4323)	13.6	0.15	20000226	160.87941	102.12397	260.10952	4.41898	0.2027651	2.2460203	123	10	1951-2000	0.88	M-v	1	Williams	22576	(4323)
(4332)	11.9	0.15	20000226	343.11430	198.57811	166.22856	19.15995	0.3148548	2.5854170	81	8	1933-1999	0.70	M-v	1	Williams	28280	(4332)
(4339)	13.6	0.15	20000226	159.00934	72.52510	300.66996	2.16766	0.1776078	2.1946017	126	5	1946-2000	0.80	M-v	1	Williams	32507	(4339)
(4542)	11.0	0.15	20000226	289.66540	147.03519	104.58674	11.30221	0.0589337	3.0105656	54	10	1952-2000	0.79	M-v	1	Williams	31413	(4542)
(4666)	13.0	0.15	20000226	295.60220	41.27595	230.43921	24.54708	0.2337547	2.3392387	30	7	1986-1998	0.72	M-v	2	Williams	17418	(4666)
(4687)	12.3	0.15	20000226	209.87486	177.15512	268.08415	3.88822	0.1478422	3.1094036	63	10	1978-1999	0.73	M-v	1	Williams	22388	(4687)
(4697)	13.8	0.15	20000226	207.93214	52.07720	263.32562	1.74093	0.1751492	2.4325971	76	9	1971-2000	0.73	M-v	1	Williams	31413	(4697)
(4812)	14.4	0.15	20000226	165.70401	72.73479	4.02322	4.67931	0.2071835	2.3688233	55	8	1950-1999	0.75	M-v	2	Williams	31413	(4812)
(4814)	12.7	0.15	20000226	281.83369	194.47287	134.33471	1.43678	0.1985479	3.2193620	77	12	1953-1999	0.72	M-v	1	Williams	28816	(4814)
(4816)	12.8	0.15	20000226	141.61485	82.84777	275.28775	11.82660	0.2751507	2.5876594	80	7	1981-2000	0.74	M-v	1	Williams	18267	(4816)
(4949)	13.6	0.15	20000226	121.95054	275.20010	108.80810	4.81103	0.1686032	2.2720412	97	7	1978-2000	0.69	M-v	1	Williams	31413	(4949)
(5050)	13.4	0.15	20000226	116.20374	138.41045	264.38470	0.86727	0.1189889	2.4004295	95	11	1953-2000	0.73	M-v	1	Williams	29891	(5050)
(5096)	12.8	0.15	20000226	147.79797	109.04243	323.65727	7.23943	0.1486654	2.3520879	87	8	1981-1999	0.81	M-v	1	Williams	31413	(5096)
(5283)	9.3	0.15	20000226	31.11218	355.20481	71.16323	17.49038	0.1506535	5.1979247	112	9	1951-2000	0.62	M-v	0	Williams	27544	(5283)
(5429)	12.2	0.15	20000226	45.46507	298.08630	183.12369	0.76160	0.1446489	3.2083062	89	8	1954-2000	1.00	M-v	1	Williams	22476	(5429)
(5447)	12.1	0.15	20000226	101.09343	122.22027	343.97248	9.81248	0.0854095	2.9735773	65	8	1981-1999	0.86	M-v	1	Williams	21557	(5447)
(5693)	17.0	0.15	20000226	133.92625	258.68394	97.20486	5.05583	0.5853083	1.2715782	153	8	1984-1999	0.60	M-v	2	Williams	23116	(5693)
(5748)	13.0	0.15	20000226	126.54474	263.96456	176.66945	12.92258	0.1478807	2.5598399	60	6	1983-1999	0.79	M-v	1	Williams	22679	(5748)
(5771)	12.4	0.15	20000226	76.36490	101.31269	288.71444	8.23621	0.2318027	3.1226658	89	6	1987-2000	0.64	M-v	1	Williams	32508	(5771)
(5784)	12.7	0.15	20000226	32.07155	228.08194	290.41005	9.44963	0.1233986	2.6408464	57	7	1978-2000	0.65	M-v	1	Williams	22805	(5784)
(5807)	12.5	0.15	20000226	206.13955	197.77265	130.14261	2.09157	0.1150351	3.0467820	63	9	1979-2000	0.68	M-v	1	Williams	22939	(5807)
(6058)	13.5	0.15	20000226	227.56123	53.03858	265.93115	4.59694	0.1701254	2.2296034	75	9	1955-2000	0.80	M-v	1	Williams	23852	(6058)
(6159)	12.8	0.15	20000226	155.14896	56.92955	30.43624	6.86571	0.0614148	2.2917450	95	7	1987-1999	0.77	M-v	1	Williams	24225	(6159)
(6172)	15.3	0.15	20000226	61.15423	193.37023	218.71469	15.81695	0.4319688	2.5771602	36	6	1953-2000	0.71	M-v	1	Williams	24375	(6172)
(6255)	12.5	0.15	20000226	85.52188	195.38533	275.78988	5.11653	0.0343042	2.7422019	55	10	1975-2000	0.80	M-v	1	Williams	24731	(6255)
(6269)	13.5	0.15	20000226	227.15999	182.99609	158.03098	6.20319	0.1310991	2.3959184	53	7	1986-1997	0.80	M-v	1	Williams	30432	(6269)
(6349)	12.0	0.15	20000226	16.35673	235.93715	328.30443	10.81009	0.1365884	2.6683118	50	6	1947-1999	0.67	M-v	1	Williams	32737	(6349)
(6375)	12.4	0.15	20000226	197.71359	259.78553	42.26202	1.60546	0.1692113	3.1643229	95	10	1969-2000	0.78	M-v	1	Williams	25198	(6375)
(6395)	13.7	0.15	20000226	168.17569	179.09858	227.97812	1.49713	0.2012563	2.4138407	51	8	1949-1999	0.76	M-v	1	Williams	25412	(6395)
(6466)	12.8	0.15	20000226	99.29495	72.34055	125.93343	13.75232	0.1177315	2.5590407	91	5	1979-1999	0.73	M-v	2	Williams	25412	(6466)
(6709)	13.7	0.15	20000226	66.46680	342.96591	99.01771	1.82764	0.1608179	2.3487118	106	7	1955-2000	0.80	M-v	1	Williams	26155	(6709)
(6737)	13.3	0.15	20000226	32.43101	67.17562	53.49681	0.81322	0.1237392	2.3281524	88	7	1977-2000	0.63	M-v	1	Williams	26161	(6737)

(6738)	14.2	0.15	20000226	39.13788	4.65892	99.54723	0.47906	0.1583662	2.3390393	110	8	1975-2000	0.72	M-v	1	Williams	26161	(6738)
(6851)	14.3	0.15	20000226	161.17661	309.64510	126.13395	3.80903	0.1245924	2.1960391	86	7	1978-1999	0.77	M-v	1	Williams	29076	(6851)
(6864)	13.9	0.15	20000226	104.58890	212.41266	229.27938	2.79614	0.1011130	2.2689615	106	6	1981-1999	0.80	M-v	1	Williams	33064	(6864)
(6871)	14.8	0.15	20000226	157.83194	207.64733	186.28917	3.77245	0.0467217	2.1963619	65	7	1975-1998	0.71	M-v	1	Williams	26734	(6871)
(6896)	13.8	0.15	20000226	190.86790	33.40218	343.30632	4.97021	0.2175912	2.2945848	58	5	1955-1999	0.70	M-v	2	Williams	26889	(6896)
(6994)	12.6	0.15	20000226	298.83672	166.96109	13.02484	0.78352	0.0200190	3.0507989	121	9	1950-2000	0.64	M-v	1	Williams	27696	(6994)
(6999)	14.5	0.15	20000226	77.26105	338.53195	155.59950	5.56832	0.0982798	2.2811270	54	6	1977-1999	0.74	M-v	1	Williams	27101	(6999)
(7006)	15.5	0.15	20000226	9.00020	355.89312	159.30352	4.69617	0.1220002	2.4391462	33	6	1977-2000	0.72	M-v	2	Williams	32737	(7006)
(7045)	14.2	0.15	20000226	359.42045	189.42815	352.83333	4.82694	0.1303567	2.3951319	66	8	1974-2000	0.66	M-v	1	Williams	27434	(7045)
(7126)	13.5	0.15	20000226	187.96999	106.03738	220.12437	1.25435	0.0708442	2.8437709	71	10	1988-2000	0.81	M-v	1	Williams	27702	(7126)
(7181)	12.0	0.15	20000226	123.63082	146.72588	291.57772	11.63019	0.1288957	3.0943842	54	7	1953-1999	0.66	M-v	1	Williams	27900	(7181)
(7353)	12.0	0.15	20000226	222.74944	14.39213	316.91652	14.37818	0.1756721	2.5678074	49	8	1985-2000	0.85	M-v	2	Williams	28576	(7353)
(7461)	13.1	0.15	20000226	222.91134	109.57096	282.52541	0.08712	0.1606101	3.2201917	42	7	1984-1999	0.71	M-v	1	Williams	29079	(7461)
(7501)	12.2	0.15	20000226	236.26398	186.73514	192.36552	1.52867	0.1076518	3.3312730	85	6	1989-1999	0.72	M-v	1	Williams	29090	(7501)
(7582)	11.8	0.15	20000226	225.79236	270.33922	139.56951	9.24456	0.1412171	3.1533428	85	6	1983-1999	0.68	M-v	1	Williams	29597	(7582)
(7739)	14.4	0.15	20000226	10.87118	16.09817	158.67937	3.38742	0.1260658	2.3250904	78	7	1954-2000	0.66	M-v	1	Williams	30254	(7739)
(7873)	13.1	0.15	20000226	169.18332	218.39619	137.52396	5.09808	0.1109223	2.6359174	71	8	1983-2000	0.71	M-v	1	Williams	30637	(7873)
(7874)	12.5	0.15	20000226	17.09949	246.52883	293.81860	26.89253	0.1681304	2.5967548	52	5	1953-1999	0.65	M-v	2	Williams	30637	(7874)
(7887)	12.0	0.15	20000226	175.88266	102.19977	295.31763	13.76906	0.0984055	2.5796333	84	6	1973-1999	0.64	M-v	1	Williams	30640	(7887)
(7923)	12.4	0.15	20000226	112.07673	326.89227	97.36620	3.26828	0.0870712	2.8922927	41	8	1978-2000	0.84	M-v	1	Williams	30742	(7923)
(7944)	13.3	0.15	20000226	185.57948	78.60498	239.52591	0.40522	0.1488550	3.2009626	63	8	1979-2000	0.60	M-v	1	Williams	30746	(7944)
(7970)	14.6	0.15	20000226	252.99435	289.61325	348.31398	4.15955	0.2443899	2.5756650	58	7	1960-2000	0.69	M-v	1	Williams	30752	(7970)
(8052)	13.0	0.15	20000226	251.65897	70.53080	213.99361	9.00683	0.0564314	3.0290032	58	8	1960-2000	0.91	M-v	1	Williams	30864	(8052)
(8061)	13.5	0.15	20000226	124.42613	265.47599	115.44771	2.23436	0.1921746	3.1684464	45	6	1975-2000	0.87	M-v	1	Williams	33538	(8061)
(9197)	14.8	0.15	20000226	171.85354	328.72685	2.37039	1.00464	0.1106450	2.1629511	114	9	1956-2000	0.74	M-v	1	Williams	32423	(9197)
(9281)	14.9	0.15	20000226	96.02479	136.86694	272.48344	2.20022	0.1707411	2.4495645	65	4	1979-2000	0.74	M-v	2	Williams	32601	(9281)
(9286)	15.0	0.15	20000226	52.38328	85.73878	1.21281	1.59221	0.2130396	2.4420159	65	6	1977-2000	0.92	M-v	1	Williams	32602	(9286)
(9422)	14.2	0.15	20000226	65.50384	43.75795	27.32428	1.44467	0.1563026	2.4611546	92	5	1979-2000	0.68	M-v	1	Williams	32635	(9422)
(9485)	14.8	0.15	20000226	54.91834	219.14249	219.75162	3.17951	0.1802324	2.6178178	56	5	1960-2000	0.67	M-v	1	Williams	32649	(9485)
(9492)	14.7	0.15	20000226	129.35136	252.72102	136.50730	2.90373	0.1351935	2.1841884	77	6	1971-2000	0.65	M-v	1	Williams	32651	(9492)
(9525)	14.5	0.15	20000226	110.55912	61.58645	329.80045	7.46772	0.0985060	2.4586266	78	5	1977-2000	0.67	M-v	2	Williams	36061	(9525)
(9556)	13.4	0.15	20000226	358.57625	315.65291	206.85586	23.57506	0.1795342	2.3194775	53	5	1986-1999	0.79	M-v	2	Williams	32877	(9556)
(9593)	14.1	0.15	20000226	100.89236	306.72013	109.81138	6.00951	0.1550652	2.2954734	62	6	1989-2000	0.63	M-v	1	Williams	32887	(9593)
(9601)	12.7	0.15	20000226	255.16476	208.50972	76.60517	7.32999	0.1905956	2.2571023	68	6	1974-2000	0.69	M-v	1	Williams	32889	(9601)
(9602)	13.9	0.15	20000226	206.70294	335.96286	357.09242	2.23194	0.1606503	2.2820605	50	7	1977-2000	0.75	M-v	1	Williams	32889	(9602)
(9604)	14.8	0.15	20000226	106.02904	274.24285	130.75633	5.36570	0.1345193	2.4109628	75	6	1977-2000	0.75	M-v	1	Williams	32890	(9604)
(9639)	14.2	0.15	20000226	129.03639	151.94014	233.40644	2.31807	0.0565230	2.3987706	80	5	1994-2000	0.74	M-v	1	Williams	32898	(9639)
(9669)	13.1	0.15	20000226	86.86974	126.71829	268.85068	0.44405	0.1971969	3.2074338	136	6	1986-2000	0.52	M-v	0	Williams	32906	(9669)
(9695)	14.7	0.15	20000226	75.64294	274.55906	173.29681	4.14643	0.0979373	2.2838375	62	6	1953-2000	0.63	M-v	1	Williams	32912	(9695)
(9698)	14.2	0.15	20000226	328.65841	187.63463	7.79416	7.36332	0.0513287	2.3664180	79	6	1971-2000	0.73	M-v	2	Williams	32913	(9698)
(9701)	15.3	0.15	20000226	305.32762	356.41016	203.61927	2.60234	0.1305063	2.3337814	70	5	1973-2000	0.82	M-v	1	Williams	32914	(9701)
(9702)	15.0	0.15	20000226	204.47857	110.27033	200.19663	3.03325	0.1041394	2.3271092	87	6	1973-2000	0.85	M-v	1	Williams	32914	(9702)
(9732)	14.0	0.15	20000226	212.06812	68.21362	300.10256	7.62110	0.1236481	2.2425559	53	5	1984-1999	0.70	M-v	2	Williams	33195	(9732)
(9737)	13.6	0.15	20000226	219.11549	57.04914	231.03986	11.33164	0.1792966	2.4568565	80	7	1982-2000	0.65	M-v	1	Williams	33196	(9737)
(9756)	13.7	0.15	20000226	308.57997	35.36704	180.29561	4.45561	0.1117386	2.7332771	70	6	1988-2000	0.79	M-v	1	Williams	33200	(9756)
(9778)	14.7	0.15	20000226	135.05107	190.76748	189.79749	1.80202	0.1862072	2.4275515	46	7	1979-2000	0.75	M-v	1	Williams	33206	(9778)
(9786)	13.6	0.15	20000226	136.47702	43.49735	306.07762	1.05614	0.0803816	2.8386441	118	6	1987-2000	0.68	M-v	1	Williams	33208	(9786)
(9795)	13.9	0.15	20000226	169.62856	151.09581	181.23149	1.83504	0.0720581	2.9045431	66	5	1995-2000	0.69	M-v	1	Williams	38016	(9795)
(9810)	14.2	0.15	20000226	146.47014	188.59950	181.95690	3.89941	0.1651779	2.2558385	68	6	1954-2000	0.75	M-v	2	Williams	33214	(9810)
(9978)	12.9	0.15	20000226	122.04857	128.48862	287.48055	9.35561	0.0945887	2.9924501	43	4	1989-1999	0.62	M-v	2	Williams	33666	(9978)
(10033)	12.6	0.15	20000226	312.90760	195.65559	67.99171	11.17113	0.0732312	3.0222654	39	5	1981-2000	0.68	M-v	1	Williams	33866	(10033)
(10048)	12.4	0.15	20000226	203.87790	351.66160	349.78910	16.55793	0.0734929	3.0876752	54	5	1986-2000	0.81	M-v	1	Williams	33869	(10048)
(10052)	13.5	0.15	20000226	156.43403	43.04667	340.93602	1.23579	0.0752802	2.9035124	55	6	1980-2000	0.60	M-v	1	Williams	33870	(10052)

(10068)	14.2	0.15	20000226	211.46186	72.78505	225.22457	5.79348	0.1080097	2.3723812	105	5	1989-2000	0.63	M-v	1	Williams	33874	(10068)
(10223)	12.9	0.15	20000226	337.02229	161.18621	52.89255	1.83112	0.1411210	3.1212757	52	7	1978-2000	0.74	M-v	1	Williams	33912	(10223)
(10237)	15.0	0.15	20000226	271.72688	136.43623	114.49534	1.14653	0.0571736	2.2062556	61	6	1977-2000	0.66	M-v	1	Williams	33915	(10237)
(10410)	12.0	0.15	20000226	247.57981	267.31845	36.34950	7.94153	0.1475063	3.1590375	33	5	1978-2000	0.70	M-v	1	Williams	34162	(10410)
(10451)	12.9	0.15	20000226	201.49345	340.07431	8.89658	11.59426	0.0580539	2.6967125	49	4	1975-2000	0.68	M-v	1	Williams	34424	(10451)
(10492)	12.6	0.15	20000226	125.39438	262.98076	148.82487	10.66181	0.0614002	3.0297038	54	5	1986-2000	0.67	M-v	1	Williams	34434	(10492)
(11310)	12.8	0.15	20000226	126.15624	296.00981	126.79928	13.36472	0.1618908	2.6861769	47	5	1986-2000	0.74	M-v	1	Williams	35568	(11310)
(11382)	15.2	0.15	20000226	179.47040	193.45252	148.42616	3.78341	0.1563074	2.1905294	55	5	1971-2000	0.66	M-v	2	Williams	35586	(11382)
(12848)	13.8	0.15	20000226	121.68711	249.60941	172.96099	15.06027	0.0950167	2.6027249	46	6	1950-2000	0.67	M-v	1	Williams	37077	(12848)
1966 PP	13.3	0.15	20000226	269.32348	164.20488	51.20488	2.62934	0.1627759	2.7075764	51	3	1966-2000	0.66	M-v	4	Williams	37616	1966 PP
1973 SU ₁	10.9	0.15	20000226	322.86768	336.37195	141.75034	7.08476	0.0646013	5.2197921	71	3	1973-2000	0.76	M-v	4	Williams	37617	1973 SU ₁
1975 PJ	14.5	0.15	19750727	355.67733	81.25285	235.06799	2.89663	0.0958649	2.7640946	3	1	2 days	1.20		E	Williams		1975 PJ
1975 ST	14.0	0.15	20000226	273.14936	97.98612	187.30828	11.19128	0.2401912	2.6734646	25	5	1975-2000	0.42	M-v	1	Spahr	34001	1975 ST
1975 TE	14.2	0.15	20000226	105.48199	325.55655	24.40284	4.34171	0.2174407	2.2436498	68	3	1985-2000	0.67	M-v	2	Williams	38017	1975 TE
1975 VZ ₈	12.8	0.15	20000226	138.65359	71.25485	302.80893	11.66287	0.1743711	2.7561366	43	3	1975-2000	0.68	M-v	3	Spahr	38017	1975 VZ ₈
1976 QA	14.2	0.15	20000226	190.24502	12.96985	324.48767	2.76334	0.1954309	2.3472163	44	5	1976-2000	0.91	M-v	2	Spahr	33539	1976 QA
1976 QK ₂	14.4	0.15	20000226	207.30409	220.77523	82.28651	6.68774	0.3088802	2.6189789	20	4	1976-2000	0.70	M-v	3	Williams	30648	1976 QK ₂
1976 YN ₇	12.9	0.15	20000226	143.24541	273.04596	100.42163	13.53074	0.1878876	2.6957266	36	4	1976-2000	0.71	M-v	1	Williams	38017	1976 YN ₇
1977 DG ₃	14.2	0.15	20000226	324.85792	44.81067	145.39367	6.20224	0.0879251	2.4507492	73	4	1977-2000	0.62	M-v	2	Williams	37255	1977 DG ₃
1977 PC ₁	13.5	0.15	20000226	96.40943	83.57524	288.58475	5.97442	0.2316741	2.3272614	49	4	1977-2000	0.55	M-v	2	Williams	37617	1977 PC ₁
1977 QN ₁	12.8	0.15	20000226	150.63070	308.83172	343.59111	12.92239	0.1811626	2.6179910	52	3	1977-2000	0.65	M-v	3	Williams	38017	1977 QN ₁
1977 QD ₂	14.3	0.15	20000226	157.74246	0.16941	350.30522	5.61058	0.1915442	2.3001422	110	7	1977-2000	0.70	M-v	2	Williams	33738	1977 QD ₂
1977 QO ₃	14.3	0.15	20000226	57.94217	91.58546	276.28938	1.12005	0.2364592	2.3599631	97	3	1977-2000	0.54	M-v	2	Spahr	38017	1977 QO ₃
1977 RS ₁₇	13.0	0.15	20000226	139.49030	205.16804	175.16243	1.92583	0.0272392	2.9404318	43	6	1977-2000	0.72	M-v	1	Spahr	34572	1977 RS ₁₇
1977 TU ₃	12.6	0.15	20000226	77.66920	174.82049	215.23385	14.75666	0.1971929	3.0442934	71	3	1977-2000	0.68	M-v	2	Spahr	38017	1977 TU ₃
1978 NF	14.0	0.15	20000226	104.49661	194.03227	111.74043	14.36201	0.1657865	2.5531205	66	3	1978-2000	0.60	M-v	2	Spahr	38017	1978 NF
1978 PV ₂	14.0	0.15	20000226	207.80573	4.74533	319.35724	5.37349	0.2683805	2.2066847	27	3	1978-2000	0.79	M-v	3	Spahr	35676	1978 PV ₂
1978 PG ₄	14.3	0.15	20000226	158.23744	36.92409	303.05495	6.11980	0.2217790	2.2324303	88	3	1978-2000	0.59	M-v	2	Spahr	38017	1978 PG ₄
1978 RX ₁	14.6	0.15	20000226	147.46233	220.70197	137.77212	3.96774	0.2067519	2.2370418	78	3	1988-2000	0.74	M-v	2	Williams	33738	1978 RX ₁
1978 RN ₅	13.6	0.15	20000226	277.51890	14.47768	356.38326	11.15934	0.3323454	2.7218308	40	6	1960-1999	0.89	M-v	2	Marsden	34572	1978 RN ₅
1978 RH ₉	15.0	0.15	20000226	230.21978	151.71238	149.29745	4.12307	0.1422356	2.2053307	36	4	1978-2000	0.67	M-v	1	Spahr	33332	1978 RH ₉
1978 RK ₉	14.5	0.15	20000226	347.91300	121.40974	347.49626	4.80369	0.1589492	2.2695195	48	2	1978-2000	0.61	M-v	4	Williams	37617	1978 RK ₉
1978 SH ₃	14.7	0.15	20000226	154.21790	159.63820	213.81034	3.94145	0.1732705	2.2248841	80	4	1978-2000	0.77	M-v	3	Spahr	33539	1978 SH ₃
1978 SQ ₄	14.4	0.15	20000226	329.05150	38.08646	354.55393	4.50135	0.2218089	2.3490484	56	6	1978-1998	0.74	M-v	2	Marsden	32041	1978 SQ ₄
1978 SF ₅	14.9	0.15	20000226	107.04611	307.64317	32.34500	6.49027	0.1986335	2.2759154	37	3	1978-2000	0.68	M-v	2	Williams	38017	1978 SF ₅
1978 SJ ₇	13.5	0.15	20000226	129.99046	329.10891	1.39727	14.56440	0.1404479	2.9263057	68	4	1978-2000	0.66	M-v	3	Williams	38017	1978 SJ ₇
1978 UW ₄	14.1	0.15	20000226	271.31629	290.72346	230.58333	5.83117	0.0515354	2.2978293	58	3	1978-2000	0.56	M-v	2	Williams	37618	1978 UW ₄
1978 UN ₅	14.6	0.15	20000226	145.32766	301.36996	11.00643	5.16827	0.2569776	2.5364258	66	7	1954-2000	0.72	M-v	2	Williams	38017	1978 UN ₅
1978 VA	14.2	0.15	20000226	18.79340	43.62326	59.40447	25.00974	0.3373772	2.5928478	33	2	1978-2000	0.46	M-v	2	Spahr	38017	1978 VA
1978 VL ₃	14.5	0.15	20000226	145.09314	273.54492	47.84725	3.51583	0.1558613	2.2825837	39	3	1978-2000	0.59	M-v	3	Williams	38017	1978 VL ₃
1978 VV ₃	12.9	0.15	20000226	301.67183	80.95099	63.01879	12.26529	0.0935853	3.0390327	66	3	1978-2000	0.49	M-v	4	Spahr	38017	1978 VV ₃
1978 VY ₃	14.7	0.15	20000226	120.66928	102.71953	269.25498	3.25486	0.1432713	2.5503770	72	7	1978-2000	0.70	M-v	2	Spahr	33065	1978 VY ₃
1978 VH ₅	13.3	0.15	20000226	359.63518	195.82868	249.05479	8.94210	0.0137137	3.0243859	69	3	1978-2000	0.64	M-v	3	Spahr	38017	1978 VH ₅
1978 VO ₅	14.8	0.15	20000226	71.79692	119.36909	272.12706	2.57910	0.1126646	2.2928307	32	2	1978-2000	0.47	M-v	4	Williams	37618	1978 VO ₅
1978 VO ₆	14.5	0.15	20000226	196.77026	54.91335	272.67533	3.64782	0.1030102	2.2492001	37	4	1978-2000	0.60	M-v	3	Spahr	35677	1978 VO ₆
1978 VX ₆	13.8	0.15	20000226	346.07026	72.17330	62.49575	12.17954	0.1335879	2.5867174	27	2	1978-2000	0.53	M-v	4	Williams	37618	1978 VX ₆
1978 VD ₈	15.7	0.15	20000226	207.77431	252.82433	58.22431	3.26815	0.0544767	2.2571267	37	4	1978-2000	0.73	M-v	1	Williams	35677	1978 VD ₈
1978 VQ ₈	14.2	0.15	20000226	303.15373	317.52914	222.91678	4.38303	0.1263760	2.5834600	25	2	1978-2000	0.38	M-v	4	Spahr	37618	1978 VQ ₈
1978 VZ ₈	15.1	0.15	20000226	22.78575	353.50912	59.06286	3.80734	0.1254310	2.6144370	58	3	1978-2000	0.57	M-v	3	Williams	38017	1978 VZ ₈
1978 VC ₉	14.5	0.15	20000226	358.85539	209.68651	268.42745	1.40015	0.1167225	2.5876500	23	2	1978-2000	0.38	M-v	4	Williams	38017	1978 VC ₉
1978 VQ ₉	13.7	0.15	20000226	153.61691	250.55001	67.95562	13.26983	0.2087014	2.5607354	49	3	1978-2000	0.79	M-v	4	Williams	38017	1978 VQ ₉
1978 VW ₉	14.4	0.15	20000226	205.38036	281.26808	40.22559	2.83285	0.1621695	2.5176561	26	4	1978-2000	0.79	M-v	4	Marsden	27302	1978 VW ₉
1978 WU	14.4	0.15	20000226	140.49524	106.42100	240.36901	8.59054	0.2060400	2.5431029	49	4	1978-2000	0.64	M-v	3	Williams	38017	1978 WU

1979 DA	14.1	0.15	20000226	285.09036	137.63813	46.00465	13.55127	0.2459599	2.6639673	61	2	1979-2000	0.65	M-v	3	Williams	37618	1979 DA
1979 MM ₁	13.0	0.15	20000226	151.13915	257.89190	129.24948	16.61692	0.1046901	3.1822133	34	3	1979-2000	0.70	M-v	3	Spahr	34281	1979 MM ₁
1979 MQ ₃	14.1	0.15	20000226	26.60478	273.72898	140.54421	10.20930	0.2188598	2.4618641	46	3	1979-2000	0.59	M-v	2	Williams	37618	1979 MQ ₃
1979 ML ₆	15.0	0.15	20000226	160.51722	188.42476	146.76645	4.62780	0.1426581	2.4058060	58	3	1979-2000	0.66	M-v	4	Williams	32917	1979 ML ₆
1979 MW ₆	14.9	0.15	20000226	225.83932	73.75204	198.63498	2.59840	0.0385774	2.7340469	33	4	1979-2000	0.70	M-v	1	Spahr	34572	1979 MW ₆
1979 MD ₈	13.7	0.15	20000226	346.07851	231.49521	257.55967	7.67430	0.1023641	2.7606827	76	4	1979-2000	0.68	M-v	3	Spahr	38017	1979 MD ₈
1979 QT ₁	14.6	0.15	20000226	315.14487	68.74946	169.42353	1.33327	0.1746450	2.3532688	33	4	1979-2000	0.67	M-v	2	Spahr	38017	1979 QT ₁
1979 QA ₂	14.3	0.15	20000226	282.25547	204.11607	21.17055	1.29618	0.1425285	2.3908511	53	4	1979-2000	0.60	M-v	2	Williams	38017	1979 QA ₂
1979 SO	13.5	0.15	20000226	150.30533	350.36419	8.68792	8.17627	0.2293644	2.7757424	59	4	1979-2000	0.65	M-v	2	Williams	33739	1979 SO
1980 FQ ₁	13.6	0.15	20000226	88.66017	217.25732	183.81089	10.72042	0.1070563	2.9674616	49	3	1980-2000	0.53	M-v	3	Spahr	38018	1980 FQ ₁
1980 LC ₁	13.0	0.15	20000226	228.53570	232.34855	99.31312	13.55244	0.2713002	2.5769747	36	5	1980-2000	0.90	M-v	2	Spahr	38018	1980 LC ₁
1980 VH	13.5	0.15	20000226	71.63806	102.47578	260.83591	7.86589	0.2473574	2.7814695	42	3	1980-2000	0.64	M-v	2	Williams	37619	1980 VH
1980 XB	13.9	0.15	20000226	10.64365	40.96901	70.93870	23.88155	0.3732465	2.4337505	106	2	1980-2000	0.51	M-v	2	Williams	37619	1980 XB
1981 DN	15.5	0.15	20000226	351.81894	212.31271	306.49342	7.05332	0.2119555	2.4494941	50	3	1977-2000	0.75	M-v	2	Williams	38018	1981 DN
1981 DR	13.9	0.15	20000226	49.00233	105.80560	304.71026	10.95185	0.0450262	2.9283505	59	3	1981-2000	0.78	M-v	2	Williams	38018	1981 DR
1981 DF ₁	13.6	0.15	20000226	164.92244	340.56543	318.12653	11.51732	0.0601990	2.9361597	42	3	1981-2000	0.76	M-v	3	Williams	38018	1981 DF ₁
1981 DN ₁	13.8	0.15	20000226	53.92871	53.11458	307.37908	9.92315	0.2061848	2.5566365	73	2	1981-2000	0.67	M-v	3	Williams	38018	1981 DN ₁
1981 EK ₁	14.5	0.15	20000226	37.89906	130.37847	352.04392	8.28744	0.1090345	2.4264706	45	3	1981-2000	0.57	M-v	3	Williams	38018	1981 EK ₁
1981 EU ₄	12.5	0.15	20000226	138.12385	30.71062	261.33751	9.01334	0.0746288	2.9846560	100	3	1981-2000	0.67	M-v	3	Spahr	38018	1981 EU ₄
1981 EH ₆	15.5	0.15	20000226	349.24570	235.41546	262.78276	4.08802	0.3558091	2.8671768	27	2	1981-2000	0.79	M-v	3	Spahr	37619	1981 EH ₆
1981 EB ₈	14.9	0.15	20000226	51.91067	113.64230	319.78616	7.63957	0.1614082	2.4605727	64	3	1981-2000	0.72	M-v	2	Williams	38018	1981 EB ₈
1981 EX ₈	14.0	0.15	20000226	145.29386	2.84341	294.13408	3.54659	0.1498175	2.5333354	28	2	1981-2000	0.94	M-v	5	Williams	37620	1981 EX ₈
1981 EJ ₁₃	14.4	0.15	20000226	18.54414	147.28684	320.12101	7.94438	0.0984012	2.4717124	83	3	1981-2000	0.77	M-v	3	Williams	38018	1981 EJ ₁₃
1981 EC ₁₄	15.2	0.15	20000226	283.74935	285.54651	318.81737	4.03192	0.0799607	2.4484326	23	4	1979-2000	0.85	M-v	3	Spahr	22270	1981 EC ₁₄
1981 EL ₁₆	14.8	0.15	20000226	157.77207	343.96486	334.60632	7.07293	0.1324109	2.2021329	46	3	1981-2000	0.74	M-v	4	Williams	38018	1981 EL ₁₆
1981 EC ₁₇	15.6	0.15	20000226	296.55242	245.25448	319.06120	3.75994	0.0649714	2.1816241	36	2	1981-2000	0.59	M-v	4	Williams	37620	1981 EC ₁₇
1981 EK ₁₇	14.3	0.15	20000226	233.74674	75.93852	206.42233	5.67494	0.1236801	2.4638154	34	3	1981-2000	0.73	M-v	3	Spahr	38018	1981 EK ₁₇
1981 ED ₁₈	13.8	0.15	20000226	311.64375	10.02889	193.88726	2.62940	0.0343957	2.8467725	54	3	1981-2000	0.87	M-v	4	Williams	35677	1981 ED ₁₈
1981 EC ₂₂	16.1	0.15	20000226	350.86137	352.09009	174.61243	1.62904	0.0303032	2.1644974	34	4	1981-2000	0.88	M-v	2	Spahr	32739	1981 EC ₂₂
1981 EB ₂₃	14.2	0.15	20000226	179.81119	326.18068	24.92087	2.70369	0.2107523	2.4396089	42	6	1971-2000	0.92	M-v	2	Williams	33739	1981 EB ₂₃
1981 EP ₂₅	14.2	0.15	20000226	328.52876	277.31269	233.12338	1.49419	0.0904982	2.8938771	41	5	1978-2000	0.77	M-v	2	Spahr	38018	1981 EP ₂₅
1981 EU ₂₅	14.6	0.15	20000226	259.79036	124.32510	171.47039	4.95185	0.2174487	2.4378902	22	4	1978-2000	1.03	M-v	3	Spahr	30867	1981 EU ₂₅
1981 EW ₂₅	15.2	0.15	20000226	7.11173	111.27904	357.86516	12.59233	0.2145696	2.4687257	36	2	1981-2000	0.77	M-v	3	Williams	37620	1981 EW ₂₅
1981 EX ₂₆	14.4	0.15	20000226	299.56386	78.97039	199.26164	2.98237	0.2502019	2.4238466	42	5	1981-2000	0.88	M-v	2	Spahr	34482	1981 EX ₂₆
1981 EK ₂₇	14.5	0.15	20000226	356.17591	73.57679	354.24331	5.39637	0.0841158	2.2268356	116	3	1981-2000	0.71	M-v	2	Williams	38018	1981 EK ₂₇
1981 EH ₂₈	14.8	0.15	20000226	44.48973	81.50942	26.22419	2.31844	0.0697491	2.4494995	43	3	1981-2000	0.90	M-v	4	Williams	35677	1981 EH ₂₈
1981 EZ ₂₉	15.6	0.15	20000226	235.05248	279.68166	351.58624	4.29043	0.1639266	2.1832777	48	4	1981-2000	0.83	M-v	2	Williams	35678	1981 EZ ₂₉
1981 EQ ₃₀	13.9	0.15	20000226	78.24825	316.91842	1.68900	12.65460	0.2647521	2.5912305	67	3	1981-2000	0.69	M-v	2	Williams	38018	1981 EQ ₃₀
1981 ET ₃₀	15.9	0.15	20000226	134.73964	9.42170	174.24911	6.28401	0.0523908	2.3119616	22	3	1981-1999	0.94	M-v	4	Williams	37620	1981 ET ₃₀
1981 EF ₃₁	15.3	0.15	20000226	312.61489	260.99962	161.28692	4.23824	0.0541079	2.2647787	56	3	1981-1999	0.82	M-v	2	Marsden	35415	1981 EF ₃₁
1981 EH ₃₁	15.4	0.15	20000226	51.11109	251.71586	169.81182	8.61742	0.2051303	2.4715441	25	3	1979-2000	0.72	M-v	4	Spahr	38018	1981 EH ₃₁
1981 EB ₃₆	15.4	0.15	20000226	17.91048	108.86731	3.95163	2.12845	0.1623217	2.4580564	68	3	1977-2000	0.71	M-v	3	Williams	38018	1981 EB ₃₆
1981 EM ₃₇	15.2	0.15	20000226	105.69335	116.68535	262.59031	2.96370	0.1583896	2.1811657	34	4	1981-2000	0.78	M-v	2	Spahr	38018	1981 EM ₃₇
1981 ER ₄₀	15.8	0.15	20000226	346.52616	210.44588	312.45807	1.37549	0.1164203	2.4526301	16	4	1977-2000	0.84	M-v	2	Spahr	22271	1981 ER ₄₀
1981 EH ₄₅	15.1	0.15	20000226	18.45817	161.63345	294.52794	5.88824	0.1105798	2.4796069	17	2	1981-2000	0.76	M-v	4	Williams	37620	1981 EH ₄₅
1981 EV ₄₅	15.0	0.15	20000226	222.13607	338.12599	294.58936	2.64541	0.1656356	2.9067182	21	3	1981-2000	0.90	M-v	4	Spahr	38018	1981 EV ₄₅
1981 ER ₄₇	14.1	0.15	20000226	63.56778	343.71503	36.18692	2.48104	0.1756243	2.5140544	68	6	1951-2000	0.64	M-v	3	Williams	38018	1981 ER ₄₇
1981 FP	15.7	0.15	20000226	325.76255	19.23261	181.55478	2.40797	0.1400538	2.4430493	25	3	1977-2000	0.79	M-v	4	Spahr	22697	1981 FP
1981 QL ₂	14.9	0.15	20000226	131.98874	6.10592	358.66902	5.77256	0.1897230	2.2659268	67	4	1981-2000	0.74	M-v	2	Williams	33540	1981 QL ₂
1981 QS ₂	14.6	0.15	20000226	303.49580	270.52531	130.39848	2.80635	0.1886060	2.3983759	57	3	1981-1999	0.77	M-v	3	Marsden	35057	1981 QS ₂
1981 QD ₄	12.9	0.15	20000226	241.12774	281.13108	328.79805	13.70704	0.0553178	2.5804868	34	4	1981-2000	0.39	M-v	1	Williams	38019	1981 QD ₄
1981 RX ₁	13.3	0.15	20000226	55.17283	104.64240	270.81195	12.14387	0.2082004	2.6801444	45	2	1981-2000	0.50	M-v	3	Williams	37621	1981 RX ₁
1981 RL ₂	13.6	0.15	20000226	70.65868	87.34138	290.10972	10.71445	0.2511059	2.6640233	64	3	1981-2000	0.49	M-v	2	Spahr	37621	1981 RL ₂

1981 RW ₄	13.9	0.15	20000226	119.32513	334.05410	43.31399	3.88234	0.2250172	2.6135899	53	3	1981-2000	0.62	M-v	3	Williams	33540	1981 RW ₄
1981 SE ₇	13.0	0.15	20000226	105.55913	270.46377	67.54416	6.55326	0.1196419	2.6728033	33	3	1981-2000	0.61	M-v	3	Williams	38019	1981 SE ₇
1981 UB ₂₃	13.5	0.15	20000226	42.28787	264.16763	129.72446	3.12076	0.1922178	2.7122203	66	4	1963-2000	0.58	M-v	3	Williams	38019	1981 UB ₂₃
1981 UC ₂₃	13.6	0.15	20000226	348.60332	304.88750	203.09487	8.77534	0.0337142	3.1692068	47	3	1981-2000	0.69	M-v	4	Williams	37621	1981 UC ₂₃
1981 UZ ₂₄	14.3	0.15	20000226	158.46509	269.33539	45.51846	8.35853	0.1270895	2.3002639	53	4	1981-2000	0.74	M-v	3	Williams	38019	1981 UZ ₂₄
1981 UC ₂₆	13.6	0.15	20000226	166.05871	223.24231	159.59713	3.81490	0.1208756	3.0622879	14	5	1949-1999	0.55	M-v	2	Williams	34003	1981 UC ₂₆
1982 KH ₁	12.6	0.15	20000226	279.93741	189.92227	76.67489	10.29301	0.1327625	2.7732229	40	5	1982-2000	0.81	M-v	2	Williams	38019	1982 KH ₁
1982 QP	13.5	0.15	20000226	190.86965	18.58451	301.67938	11.50076	0.1972669	2.4780120	27	3	1982-2000	0.67	M-v	3	Spahr	37621	1982 QP
1982 QA ₂	14.1	0.15	20000226	251.04239	5.25793	293.00352	5.81336	0.2460835	2.4347501	33	5	1978-2000	0.80	M-v	2	Spahr	30755	1982 QA ₂
1982 RK ₁	13.6	0.15	20000226	228.29805	357.44186	297.75694	4.23121	0.1063092	2.4714327	49	4	1982-2000	0.60	M-v	3	Williams	35678	1982 RK ₁
1982 ST ₇	14.3	0.15	20000226	65.43662	57.19432	332.41822	3.99898	0.2901236	2.5695546	69	4	1982-2000	0.52	M-v	2	Spahr	38019	1982 ST ₇
1982 TJ	14.9	0.15	20000226	62.41410	273.87471	99.75266	2.17586	0.3913298	2.5876593	59	2	1982-2000	0.46	M-v	3	Williams	38019	1982 TJ
1982 UD ₄	14.6	0.15	20000226	104.11361	2.03886	4.93262	1.99394	0.2355423	2.5400333	55	6	1978-2000	0.77	M-v	3	Williams	38019	1982 UD ₄
1982 US ₆	13.3	0.15	20000226	129.93359	323.18438	46.71677	8.06644	0.1573966	2.5351790	110	7	1982-2000	0.70	M-v	2	Williams	38019	1982 US ₆
1982 UH ₉	14.3	0.15	20000226	52.15283	343.81303	9.36031	7.88181	0.3413265	2.6214902	82	3	1982-2000	0.57	M-v	2	Williams	38019	1982 UH ₉
1982 UE ₁₂	13.6	0.15	20000226	93.87958	84.96154	328.66575	9.79310	0.0210090	2.5170511	125	8	1982-2000	0.71	M-v	2	Williams	38019	1982 UE ₁₂
1982 VP ₃	12.3	0.15	20000226	299.15571	200.05997	61.78210	13.57483	0.0582778	2.9441580	43	4	1982-2000	0.79	M-v	1	Spahr	38019	1982 VP ₃
1982 VK ₄	13.8	0.15	20000226	89.47742	290.00174	61.12314	13.04943	0.1732232	2.5991140	38	3	1982-2000	0.58	M-v	3	Williams	37621	1982 VK ₄
1983 GU	12.0	0.15	20000226	289.99636	176.56065	115.97554	14.43599	0.1780057	2.5992264	52	5	1983-2000	0.61	M-v	2	Spahr	35058	1983 GU
1983 XE	14.2	0.15	20000226	16.55576	192.49272	237.55832	6.24458	0.1809024	2.5239265	117	6	1951-2000	0.65	M-v	2	Spahr	38019	1983 XE
1984 CE	14.2	0.15	20000226	40.41750	292.73360	107.32553	13.31409	0.2437302	2.5651972	51	3	1984-2000	0.63	M-v	3	Spahr	38019	1984 CE
1984 EQ	12.6	0.15	20000226	46.88778	96.41795	346.58764	13.66683	0.1857931	3.0723066	43	4	1984-2000	0.66	M-v	1	Williams	38019	1984 EQ
1984 SA	14.1	0.15	20000226	189.41700	77.66968	254.35233	5.87212	0.2220049	2.2846674	65	4	1984-2000	0.64	M-v	3	Spahr	34003	1984 SA
1984 SL	12.6	0.15	20000226	136.66754	228.18428	157.37298	9.73194	0.3037763	2.7341987	58	5	1984-2000	0.84	M-v	2	Williams	35678	1984 SL
1984 SO ₄	13.3	0.15	20000226	198.80299	54.57267	286.56970	4.97674	0.1172848	2.2767033	66	5	1984-2000	0.71	M-v	2	Spahr	38019	1984 SO ₄
1984 SM ₅	13.5	0.15	20000226	245.95540	144.35871	156.35991	6.78603	0.1373884	2.2442646	69	3	1984-2000	0.64	M-v	3	Williams	35679	1984 SM ₅
1984 SZ ₅	14.5	0.15	20000226	197.09704	273.70727	13.34299	8.22416	0.2400195	2.3026115	129	5	1984-2000	0.71	M-v	2	Williams	38019	1984 SZ ₅
1984 UR	13.5	0.15	20000226	131.07279	306.81349	48.62712	7.23963	0.1834432	2.3331746	48	5	1984-2000	0.81	M-v	2	Williams	38019	1984 UR
1985 CL ₂	14.4	0.15	20000226	334.51088	18.59498	163.32080	1.61465	0.1241597	2.4167706	84	4	1985-2000	0.75	M-v	2	Williams	35679	1985 CL ₂
1985 PC	13.8	0.15	20000226	163.06813	86.79553	184.72991	3.22503	0.1109024	2.2418875	104	3	1985-2000	0.56	M-v	3	Spahr	37257	1985 PC
1985 PG	13.7	0.15	20000226	222.30484	120.99689	167.20261	7.73332	0.1788946	2.5620560	34	3	1985-2000	0.74	M-v	3	Spahr	37622	1985 PG
1985 PH	13.8	0.15	20000226	32.58685	67.83018	316.65312	12.49676	0.2819703	2.7489874	53	3	1985-2000	0.61	M-v	2	Williams	38019	1985 PH
1985 PE ₁	14.4	0.15	20000226	216.18142	8.98012	308.64443	3.14295	0.2379137	2.1633734	54	5	1979-2000	0.68	M-v	2	Spahr	33740	1985 PE ₁
1985 QP	15.2	0.15	20000226	167.78054	0.61119	357.86003	3.14619	0.1769636	2.1860670	90	5	1971-2000	0.79	M-v	2	Williams	33740	1985 QP
1985 RA	13.1	0.15	20000226	53.00385	110.10527	276.25652	7.72576	0.1752868	2.7334559	58	3	1985-2000	0.59	M-v	3	Williams	38019	1985 RA
1985 RM ₃	15.1	0.15	20000226	102.24203	241.03215	157.44964	3.77696	0.1689491	2.2142497	36	3	1985-2000	0.69	M-v	4	Williams	32441	1985 RM ₃
1985 RN ₃	14.9	0.15	20000226	185.47655	342.12340	353.67858	4.63074	0.1587572	2.1798215	58	3	1985-2000	0.60	M-v	3	Williams	33541	1985 RN ₃
1985 SX ₂	13.6	0.15	20000226	119.94391	78.07184	323.70815	3.67401	0.1400672	2.6215614	66	4	1981-2000	0.67	M-v	2	Spahr	38019	1985 SX ₂
1985 UO ₃	13.0	0.15	20000226	164.30031	331.38555	31.81773	22.65488	0.0443775	2.6131557	36	5	1985-2000	0.75	M-v	2	Spahr	33333	1985 UO ₃
1985 UA ₅	12.8	0.15	20000226	108.94424	336.83895	59.10361	15.43250	0.2046399	2.6686347	48	4	1985-2000	0.62	M-v	2	Spahr	38019	1985 UA ₅
1985 VA ₁	12.8	0.15	20000226	275.02861	189.18144	88.09082	18.90886	0.0814459	3.1483481	29	4	1985-2000	0.70	M-v	1	Spahr	34282	1985 VA ₁
1986 PE ₁	13.5	0.15	20000226	151.83028	244.91535	138.69939	8.39657	0.0963376	2.4358601	81	4	1986-2000	0.57	M-v	2	Spahr	38020	1986 PE ₁
1986 PL ₁	12.8	0.15	20000226	134.73158	183.47888	128.32568	6.30232	0.1516112	3.2098722	84	3	1986-2000	0.75	M-v	4	Spahr	38020	1986 PL ₁
1986 QR ₁	13.8	0.15	20000226	246.82915	289.27588	351.76912	4.34813	0.0951535	2.4276967	47	4	1986-2000	0.69	M-v	3	Williams	33333	1986 QR ₁
1986 QO ₂	13.1	0.15	20000226	168.21918	201.60405	120.87329	1.86022	0.1756006	3.1201555	54	4	1986-2000	0.70	M-v	1	Williams	38020	1986 QO ₂
1986 QQ ₃	14.1	0.15	20000226	65.21850	324.47813	45.88033	3.60012	0.1469537	2.5859662	68	2	1986-2000	0.59	M-v	4	Williams	38020	1986 QQ ₃
1986 TG ₁	13.2	0.15	20000226	115.45884	357.35442	359.09386	14.94008	0.1264223	2.5642033	64	5	1986-2000	0.58	M-v	2	Williams	38020	1986 TG ₁
1986 TV ₆	13.5	0.15	20000226	154.85460	355.93878	325.85423	7.44332	0.1903732	2.5568377	119	4	1986-2000	0.61	M-v	2	Williams	38020	1986 TV ₆
1986 WZ	13.9	0.15	20000226	30.92604	129.18508	256.13171	2.66251	0.1174330	2.6924290	75	2	1990-2000	0.43	M-v	3	Williams	38020	1986 WZ
1986 XT	14.7	0.15	20000226	113.88268	17.94275	355.16524	3.30577	0.2957077	2.5604377	108	8	1986-2000	0.77	M-v	2	Williams	33541	1986 XT
1987 BS ₁	13.3	0.15	20000226	83.83740	150.92082	295.07613	12.26250	0.1270323	2.5849661	70	7	1987-2000	0.74	M-v	1	Williams	34004	1987 BS ₁
1987 BX ₁	13.3	0.15	20000226	282.80757	261.41518	241.58226	6.61422	0.1685736	2.7967740	62	3	1987-2000	0.58	M-v	3	Williams	38020	1987 BX ₁
1987 CH	14.2	0.15	20000226	9.29393	351.74374	147.31664	5.43006	0.0747816	2.2031045	88	3	1987-2000	0.66	M-v	2	Williams	37257	1987 CH

1987 DK ₆	14.2	0.15	20000226	307.93496	293.27099	326.20332	2.48188	0.1821965	2.1652234	57	5	1987-2000	0.65	M-v	1	Spahr	33541	1987 DK ₆
1987 QH	14.3	0.15	20000226	157.77293	6.62354	318.58991	8.25066	0.2887583	2.3643995	67	3	1987-2000	0.73	M-v	2	Williams	38020	1987 QH
1987 QT	15.0	0.15	20000226	121.58832	45.80414	334.40599	8.34258	0.2198642	2.3810379	61	4	1987-2000	0.85	M-v	2	Williams	35679	1987 QT
1987 RR	13.1	0.15	20000226	85.03444	208.77707	156.60694	12.88233	0.1880883	3.1046630	113	3	1987-2000	0.69	M-v	2	Spahr	38020	1987 RR
1987 SJ ₂	14.2	0.15	20000226	161.65770	171.12337	140.00860	2.70039	0.1770749	2.3988027	86	4	1972-2000	0.69	M-v	2	Spahr	38020	1987 SJ ₂
1987 SL ₃	12.3	0.15	20000226	24.65117	87.89698	317.77865	9.96476	0.0914081	3.1677778	85	4	1982-2000	0.59	M-v	2	Williams	38020	1987 SL ₃
1987 SV ₃	14.1	0.15	20000226	199.58504	331.83428	3.87840	9.22327	0.1603546	2.3218704	70	5	1980-2000	0.72	M-v	1	Williams	33541	1987 SV ₃
1987 SF ₆	14.5	0.15	20000226	97.52741	181.20831	172.91666	5.73585	0.2324026	2.4398404	61	2	1987-2000	0.55	M-v	4	Spahr	37623	1987 SF ₆
1987 SP ₁₁	15.3	0.15	20000226	127.52911	207.70934	145.88393	3.02822	0.1829010	2.3998146	38	3	1987-2000	0.63	M-v	3	Spahr	38020	1987 SP ₁₁
1987 UT	14.4	0.15	20000226	183.63047	49.04579	296.23197	4.12718	0.2405535	2.3323967	41	4	1987-2000	0.67	M-v	1	Spahr	33542	1987 UT
1987 VG	14.2	0.15	20000226	69.84630	27.06628	350.28018	5.10089	0.1983992	2.4832392	42	4	1977-2000	0.69	M-v	3	Williams	38020	1987 VG
1988 AX ₁	13.2	0.15	20000226	329.18329	161.32913	307.47555	12.95598	0.1525133	2.5984910	93	2	1987-2000	0.81	M-v	3	Spahr	37623	1988 AX ₁
1988 BG	12.8	0.15	20000226	348.41482	126.48834	293.35001	12.35225	0.1613109	2.6243980	80	2	1988-1999	0.73	M-v	3	Williams	38020	1988 BG
1988 BO ₃	13.9	0.15	20000226	344.62576	263.82734	195.05659	8.30551	0.1254114	2.5760402	75	4	1988-2000	0.68	M-v	3	Williams	38020	1988 BO ₃
1988 BY ₃	14.0	0.15	20000226	31.81023	297.90872	164.22023	6.98950	0.1095499	2.5156354	102	7	1978-2000	0.67	M-v	2	Williams	38020	1988 BY ₃
1988 BH ₅	13.5	0.15	20000226	313.03456	268.51354	264.91440	11.61930	0.1162033	2.5795360	64	7	1984-2000	0.69	M-v	2	Spahr	38020	1988 BH ₅
1988 BL ₅	14.0	0.15	20000226	79.68491	145.60819	282.93254	11.83715	0.1196490	2.5211882	26	5	1984-2000	0.75	M-v	3	Spahr	38020	1988 BL ₅
1988 CF	14.1	0.15	20000226	326.65481	149.79305	356.71911	5.38214	0.2269594	2.5757615	59	4	1988-2000	0.80	M-v	3	Williams	38020	1988 CF
1988 CY	12.8	0.15	20000226	341.09296	82.46581	144.12283	15.25445	0.1107709	3.1861585	25	3	1984-1999	0.74	M-v	3	Spahr	36064	1988 CY
1988 CS ₅	14.5	0.15	20000226	31.50826	96.12901	300.72464	10.23249	0.1941570	2.6282121	35	2	1988-2000	0.76	M-v	3	Williams	37623	1988 CS ₅
1988 CO ₇	15.3	0.15	20000226	65.92336	288.32642	88.74015	1.06162	0.0670922	2.1205908	115	4	1988-2000	0.59	M-v	3	Spahr	38020	1988 CO ₇
1988 DE	13.2	0.15	20000226	311.34386	174.30953	352.91556	13.27875	0.0968987	2.5806455	85	4	1988-2000	0.67	M-v	2	Williams	38020	1988 DE
1988 GQ	13.3	0.15	20000226	273.48316	102.85595	121.80765	11.71581	0.2399856	2.6056893	57	4	1988-2000	0.55	M-v	2	Spahr	38020	1988 GQ
1988 MH	12.4	0.15	20000226	230.36657	36.29741	292.76796	13.02610	0.1933702	2.5950005	68	5	1988-2000	0.70	M-v	2	Williams	35679	1988 MH
1988 PL	14.9	0.15	20000226	194.34734	135.55599	206.32054	1.96609	0.1386554	2.1852391	47	6	1971-2000	0.83	M-v	2	Spahr	34487	1988 PL
1988 PU	12.6	0.15	20000226	254.71670	20.90788	251.54174	11.62404	0.1389835	2.7005180	43	3	1988-2000	0.72	M-v	3	Spahr	38020	1988 PU
1988 PV ₁	14.3	0.15	20000226	90.80857	79.92231	289.26053	4.57464	0.1674136	2.2906956	56	3	1988-2000	0.63	M-v	3	Spahr	38020	1988 PV ₁
1988 PL ₂	15.4	0.15	20000226	147.32572	7.32935	339.03185	7.23795	0.2212611	2.2468111	48	3	1988-2000	0.77	M-v	3	Williams	33067	1988 PL ₂
1988 RF ₄	14.9	0.15	20000226	136.81469	336.52007	341.94286	4.72188	0.1748938	2.2729619	58	4	1988-2000	0.87	M-v	3	Williams	38020	1988 RF ₄
1988 RQ ₈	14.5	0.15	20000226	187.71490	288.40707	37.92479	4.92870	0.1807137	2.2253116	68	7	1949-2000	0.76	M-v	2	Williams	33741	1988 RQ ₈
1988 RA ₁₃	14.9	0.15	20000226	266.97838	84.69843	194.70811	4.45745	0.1476631	2.1678557	31	3	1988-2000	0.60	M-v	4	Spahr	33542	1988 RA ₁₃
1988 RF ₁₃	14.0	0.15	20000226	215.71428	270.76462	31.42575	17.12122	0.1440371	2.7540487	43	5	1988-2000	0.60	M-v	2	Williams	37258	1988 RF ₁₃
1988 SL ₁	16.2	0.15	20000226	170.39851	126.36777	216.04812	0.22666	0.1824495	2.2188375	44	6	1988-2000	0.67	M-v	2	Williams	35680	1988 SL ₁
1988 SU ₁	13.1	0.15	20000226	230.35414	148.98376	41.37514	11.52432	0.0368397	3.0004412	72	2	1988-2000	0.52	M-v	3	Williams	38020	1988 SU ₁
1988 SB ₂	13.9	0.15	20000226	123.08701	248.78867	111.60410	6.70938	0.1333598	2.2628750	70	3	1988-2000	0.59	M-v	2	Williams	38020	1988 SB ₂
1988 TJ	14.4	0.15	20000226	63.15362	40.35381	354.51946	5.69440	0.1420714	2.3239289	34	3	1988-2000	0.71	M-v	2	Williams	38021	1988 TJ
1988 TK	13.4	0.15	20000226	224.59246	308.24322	2.85385	9.57253	0.2006524	2.7516356	28	6	1988-2000	0.72	M-v	1	Spahr	35059	1988 TK
1988 TU	14.2	0.15	20000226	44.64920	180.25536	224.20513	2.96831	0.2214983	2.3441998	61	3	1981-2000	0.70	M-v	2	Williams	37624	1988 TU
1988 TV ₁	15.2	0.15	20000226	45.39062	167.70536	231.88906	2.42874	0.2415549	2.3477464	68	2	1988-2000	0.75	M-v	4	Spahr	38021	1988 TV ₁
1988 TR ₂	13.0	0.15	20000226	27.40844	38.30039	26.47716	15.61065	0.2702052	3.0440206	73	3	1988-2000	0.74	M-v	2	Williams	38021	1988 TR ₂
1988 VV	14.6	0.15	20000226	50.69579	177.88788	225.20703	4.18002	0.1465920	2.3468334	81	3	1988-2000	0.75	M-v	2	Spahr	38021	1988 VV
1988 VJ ₁	14.1	0.15	20000226	152.87614	118.68309	235.30176	5.09990	0.2183991	2.2613580	55	3	1988-2000	0.79	M-v	2	Williams	35680	1988 VJ ₁
1988 VR ₂	13.5	0.15	20000226	73.00625	0.62736	88.19378	13.23023	0.2724554	2.9357379	64	4	1988-2000	0.81	M-v	2	Spahr	38021	1988 VR ₂
1988 VA ₅	14.8	0.15	20000226	99.55436	324.94533	35.15852	1.93937	0.2220820	2.3258532	73	4	1977-2000	0.73	M-v	2	Williams	38021	1988 VA ₅
1988 VN ₇	15.3	0.15	20000226	101.93224	327.46412	62.31695	8.18519	0.1700796	2.2956345	25	4	1981-2000	0.52	M-v	3	Williams	38021	1988 VN ₇
1988 XV ₁	12.2	0.15	20000226	56.47810	301.20495	73.14593	19.35012	0.2385799	3.1097736	60	2	1988-2000	0.62	M-v	3	Williams	38021	1988 XV ₁
1988 XE ₂	13.3	0.15	20000226	220.54808	234.24389	83.27477	7.77097	0.2454968	2.2334811	55	5	1984-2000	0.74	M-v	1	Williams	34005	1988 XE ₂
1988 XY ₄	12.7	0.15	20000226	116.25017	296.05503	65.62998	10.36947	0.0933552	2.9852621	47	3	1988-2000	0.47	M-v	3	Williams	38021	1988 XY ₄
1989 AA	14.6	0.15	20000226	13.97991	249.41473	264.65603	18.11970	0.0831355	1.9313644	21	3	1989-2000	0.80	M-v	3	Williams	37624	1989 AA
1989 BB	13.1	0.15	20000226	342.69750	168.20224	322.12618	9.39622	0.1537399	2.4071043	66	4	1978-2000	0.56	M-v	3	Williams	37624	1989 BB
1989 BH	13.4	0.15	20000226	0.82524	47.79610	109.32341	10.03091	0.1722551	2.3608592	70	3	1989-2000	0.62	M-v	2	Williams	38021	1989 BH
1989 CB ₆	15.3	0.15	20000226	9.63114	7.40122	113.35127	2.26058	0.1384812	2.3923765	68	3	1989-2000	0.48	M-v	3	Williams	38021	1989 CB ₆
1989 DB	13.7	0.15	20000226	341.98113	150.79340	35.40483	3.33379	0.1738901	2.3730913	94	4	1978-2000	0.81	M-v	2	Williams	38021	1989 DB

1989 EB ₁	12.3	0.15	20000226	357.80343	162.25928	330.17806	17.04222	0.0946918	3.1389355	32	3	1986-2000	0.69	M-v	3	Williams	37624	1989 EB ₁
1989 GM ₁	13.4	0.15	20000226	78.71423	130.32126	219.54408	11.78422	0.2087124	2.6094878	66	3	1989-2000	0.65	M-v	1	Spahr	38021	1989 GM ₁
1989 GN ₃	12.7	0.15	20000226	6.96993	306.34496	186.86241	12.13710	0.1860974	3.1941336	62	3	1989-2000	0.69	M-v	3	Williams	38021	1989 GN ₃
1989 HC	12.1	0.15	20000226	185.40038	263.84818	82.67539	22.60297	0.0149164	3.2051065	36	4	1989-2000	0.82	M-v	1	Williams	38021	1989 HC
1989 LH	14.3	0.15	20000226	331.36027	13.06150	225.46518	10.03904	0.2186819	2.3975317	27	4	1989-2000	0.80	M-v	3	Williams	35680	1989 LH
1989 LT	14.1	0.15	20000226	316.04715	247.45138	0.84641	1.69616	0.1441639	2.4116517	51	8	1970-2000	0.70	M-v	1	Spahr	34489	1989 LT
1989 PU	13.6	0.15	20000226	213.39015	193.96483	138.04939	29.66740	0.2447969	2.5391784	44	5	1989-2000	0.70	M-v	2	Spahr	38021	1989 PU
1989 QH	14.9	0.15	20000226	105.91313	28.40658	306.88083	2.78499	0.1507532	2.1714268	52	3	1989-2000	0.72	M-v	3	Williams	38021	1989 QH
1989 RX	12.8	0.15	20000226	113.33821	131.54930	237.14645	7.16961	0.2002081	2.6892530	81	3	1989-2000	0.65	M-v	2	Spahr	38021	1989 RX
1989 RP ₁	13.1	0.15	20000226	174.33938	155.53091	162.73814	12.98341	0.2335452	2.6496963	53	4	1976-2000	0.71	M-v	2	Williams	37625	1989 RP ₁
1989 SD	14.6	0.15	20000226	103.00757	343.41872	30.22791	2.35924	0.1490731	2.1517604	68	4	1989-2000	0.56	M-v	2	Williams	38021	1989 SD
1989 SJ ₂	13.9	0.15	20000226	249.49993	120.30918	172.20113	13.27789	0.1522016	2.5809152	33	5	1989-2000	0.96	M-v	2	Spahr	33543	1989 SJ ₂
1989 SZ ₃	13.6	0.15	20000226	189.33214	219.38839	113.61848	4.02984	0.1168731	2.6386112	41	4	1989-2000	0.91	M-v	2	Spahr	34005	1989 SZ ₃
1989 ST ₄	13.6	0.15	20000226	198.87332	228.58911	47.42162	6.57158	0.0793827	2.7424595	75	3	1989-2000	0.79	M-v	4	Williams	38021	1989 ST ₄
1989 SZ ₄	14.5	0.15	20000226	28.28020	22.83644	55.25594	3.70834	0.0706552	2.1827186	49	3	1989-2000	0.57	M-v	2	Williams	38021	1989 SZ ₄
1989 SW ₈	13.6	0.15	20000226	130.34402	189.41993	183.14844	13.40816	0.1904900	2.6742622	70	5	1989-2000	0.64	M-v	2	Spahr	34005	1989 SW ₈
1989 SA ₁₀	14.9	0.15	20000226	284.06678	75.64746	4.65409	7.65774	0.0809003	2.2965151	46	3	1989-1998	0.67	M-v	2	Marsden	35681	1989 SA ₁₀
1989 SY ₁₃	13.8	0.15	20000226	25.52758	216.54384	296.63690	12.05576	0.1100038	2.6542977	25	4	1989-2000	0.74	M-v	2	Williams	33543	1989 SY ₁₃
1989 TN ₁	14.5	0.15	20000226	81.31854	56.38752	342.27526	11.15402	0.2344418	2.7469364	67	3	1989-2000	0.70	M-v	2	Williams	38021	1989 TN ₁
1989 TR ₂	12.3	0.15	20000226	353.37299	28.96737	51.95478	13.84278	0.1289758	2.9031425	82	2	1989-2000	0.52	M-v	3	Williams	38021	1989 TR ₂
1989 TX ₂	13.7	0.15	20000226	98.62019	274.18354	185.27021	15.12649	0.0775332	2.6026191	36	5	1989-2000	0.89	M-v	2	Spahr	33335	1989 TX ₂
1989 TA ₄	14.7	0.15	20000226	49.43373	4.67671	55.74529	5.13867	0.0896579	2.7869096	38	3	1989-2000	1.05	M-v	3	Williams	38021	1989 TA ₄
1989 TU ₄	14.9	0.15	20000226	168.25734	197.16059	106.04813	4.55351	0.1683851	2.7250933	41	4	1989-2000	0.89	M-v	1	Spahr	33335	1989 TU ₄
1989 TR ₁₁	13.5	0.15	20000226	170.51213	324.56117	14.47678	12.79860	0.1974128	2.6470532	45	4	1979-2000	0.74	M-v	2	Spahr	33543	1989 TR ₁₁
1989 TF ₁₄	13.6	0.15	20000226	267.43222	200.90874	72.07630	3.34628	0.0769913	2.5713986	39	5	1989-2000	0.64	M-v	2	Williams	38021	1989 TF ₁₄
1989 UA ₁	14.4	0.15	20000226	69.59295	0.41702	4.43139	5.26733	0.1862437	2.2068713	54	3	1989-2000	0.69	M-v	3	Williams	38021	1989 UA ₁
1989 UP ₁	13.5	0.15	20000226	336.72680	305.04372	81.87531	6.71183	0.2002587	2.3255674	32	6	1982-1999	0.82	M-v	2	Marsden	35418	1989 UP ₁
1989 VR ₁	14.4	0.15	20000226	357.43979	302.85929	152.79805	6.15842	0.1192045	2.2241769	45	2	1989-2000	0.73	M-v	4	Williams	37625	1989 VR ₁
1989 VS ₂	13.0	0.15	20000226	194.59441	267.30463	60.96090	14.11752	0.1896177	2.6559863	24	4	1989-2000	0.67	M-v	2	Williams	33543	1989 VS ₂
1989 WH	14.2	0.15	20000226	87.83381	196.96902	223.82956	8.62559	0.1442828	2.7595716	56	3	1989-2000	0.80	M-v	3	Spahr	35681	1989 WH
1989 WU	13.9	0.15	20000226	15.92550	174.26164	270.37652	4.95827	0.1547826	2.2317978	97	3	1989-2000	0.61	M-v	3	Williams	38022	1989 WU
1989 WA ₁	13.7	0.15	20000226	310.01844	59.97392	69.72895	9.88022	0.0634066	2.2553830	60	5	1967-2000	0.65	M-v	2	Williams	38022	1989 WA ₁
1989 WZ ₁	13.8	0.15	20000226	293.65832	353.11058	57.95822	3.27470	0.1921760	2.3849196	33	2	1989-1998	0.85	M-v	4	Marsden	32301	1989 WZ ₁
1989 YO ₂	14.9	0.15	20000226	53.84495	313.18451	110.29229	6.60376	0.1388468	2.2359585	57	3	1982-2000	0.65	M-v	3	Williams	37625	1989 YO ₂
1989 YE ₄	14.7	0.15	20000226	334.41984	1.27548	126.27075	5.85337	0.0987494	2.2799090	47	2	1989-2000	0.57	M-v	4	Williams	37625	1989 YE ₄
1989 YE ₆	14.3	0.15	20000226	13.48153	193.37933	256.27378	7.37192	0.0774386	2.2554055	74	3	1989-2000	0.63	M-v	3	Spahr	38022	1989 YE ₆
1990 BA ₂	12.6	0.15	20000226	328.19181	190.21308	302.20449	10.52818	0.1461083	3.0417167	77	3	1990-2000	0.70	M-v	3	Williams	38022	1990 BA ₂
1990 CE	14.7	0.15	20000226	331.91305	335.03201	160.25794	5.37990	0.0949720	2.2785102	44	3	1990-2000	0.57	M-v	4	Spahr	38022	1990 CE
1990 DZ	13.3	0.15	20000226	329.80149	218.72862	338.00706	5.58905	0.1724979	2.9381591	44	4	1990-2000	0.60	M-v	2	Williams	38022	1990 DZ
1990 EB	13.6	0.15	20000226	233.30493	54.02222	150.07665	12.08547	0.1492598	2.3759336	51	3	1990-2000	0.69	M-v	3	Spahr	37626	1990 EB
1990 EJ	12.4	0.15	20000226	272.15489	213.36074	345.75573	8.84886	0.1549044	3.1046614	64	3	1990-2000	0.71	M-v	3	Williams	38022	1990 EJ
1990 EV ₁	13.9	0.15	20000226	285.82893	329.88862	189.05222	9.16541	0.1321801	2.3477819	68	3	1990-2000	0.62	M-v	2	Spahr	38022	1990 EV ₁
1990 EU ₄	14.6	0.15	20000226	308.96466	178.76133	337.92716	3.94345	0.0786552	2.3187068	53	4	1981-2000	0.62	M-v	2	Williams	38022	1990 EU ₄
1990 ES ₆	13.0	0.15	20000226	123.11089	195.07041	204.28733	1.42602	0.0551234	2.9017193	50	4	1978-2000	0.60	M-v	2	Williams	38022	1990 ES ₆
1990 FD ₃	12.2	0.15	20000226	190.98112	98.81492	158.47740	15.67730	0.0364585	3.1444274	71	3	1990-2000	0.65	M-v	3	Spahr	38022	1990 FD ₃
1990 HE	14.3	0.15	20000226	159.17876	255.78916	35.61343	24.80375	0.1153864	1.9406189	68	3	1990-2000	0.72	M-v	2	Williams	38022	1990 HE
1990 HG	13.8	0.15	20000226	305.00196	166.63716	49.17775	23.75646	0.0757455	2.2807579	29	5	1981-2000	0.92	M-v	2	Williams	33543	1990 HG
1990 OB ₁	13.6	0.15	20000226	283.28658	37.85500	231.64367	8.63035	0.2121943	2.3284580	25	2	1990-2000	0.54	M-v	4	Spahr	37626	1990 OB ₁
1990 OH ₂	12.7	0.15	20000226	284.92005	280.01894	349.41796	4.77732	0.1840701	3.1685563	35	6	1985-2000	0.66	M-v	1	Williams	34005	1990 OH ₂
1990 OK ₃	14.5	0.15	20000226	191.29164	204.29497	127.84890	3.08673	0.2150302	2.4075782	35	6	1990-2000	0.69	M-v	1	Williams	30091	1990 OK ₃
1990 QX ₅	14.2	0.15	20000226	23.92068	68.81165	332.28854	11.89583	0.2686505	2.6716375	23	3	1990-2000	0.82	M-v	3	Williams	25649	1990 QX ₅
1990 QY ₅	13.9	0.15	20000226	43.37929	26.20657	332.77162	12.53465	0.1885334	2.6828818	76	2	1990-2000	0.61	M-v	3	Williams	38022	1990 QY ₅
1990 QB ₆	13.7	0.15	20000226	220.58935	318.60336	359.02510	12.38921	0.2319751	2.4034826	40	5	1979-2000	0.73	M-v	2	Williams	33742	1990 QB ₆

1990 QT ₆	14.6	0.15	20000226	275.93894	239.72349	3.74744	1.98265	0.1413176	2.4110383	44	2	1990-2000	0.64	M-v	5	Williams	37626	1990 QT ₆
1990 QE ₇	13.9	0.15	20000226	22.24971	319.45773	142.95665	2.13639	0.1208826	2.5339979	121	5	1990-2000	0.68	M-v	2	Williams	38022	1990 QE ₇
1990 QN ₇	14.0	0.15	20000226	270.09038	225.98862	37.84310	2.72428	0.1913133	2.3784006	50	5	1990-2000	0.65	M-v	2	Williams	38022	1990 QN ₇
1990 QA ₈	15.7	0.15	20000226	111.04324	216.18602	148.51274	3.20396	0.2534175	2.5328098	30	4	1982-2000	1.01	M-v	3	Spahr	32512	1990 QA ₈
1990 QX ₈	13.6	0.15	20000226	315.71418	341.31667	17.86445	2.11577	0.0710380	2.8930420	66	4	1990-1999	0.81	M-v	1	Marsden	35419	1990 QX ₈
1990 RN ₃	13.4	0.15	20000226	267.43764	94.05781	180.19968	5.48048	0.2019202	2.3776187	44	5	1990-2000	0.84	M-v	1	Williams	33544	1990 RN ₃
1990 RO ₇	14.5	0.15	20000226	113.90834	190.00647	162.08619	3.26195	0.0454287	2.5528457	74	4	1990-2000	0.69	M-v	3	Spahr	38022	1990 RO ₇
1990 RT ₈	15.0	0.15	20000226	192.34814	158.08474	153.82973	3.03377	0.2112668	2.4527885	21	4	1990-2000	0.56	M-v	2	Spahr	33335	1990 RT ₈
1990 SC ₃	14.1	0.15	20000226	218.74011	187.67897	124.46428	4.63943	0.1826763	2.4254424	17	4	1975-2000	1.12	M-v	3	Spahr	31005	1990 SC ₃
1990 SX ₃	13.3	0.15	20000226	96.80160	60.17377	308.31424	12.31883	0.2179638	2.5847846	93	3	1990-2000	0.51	M-v	2	Williams	38022	1990 SX ₃
1990 SY ₃	13.3	0.15	20000226	65.28910	85.46039	275.18126	11.10637	0.2006319	2.6661607	55	3	1990-2000	0.48	M-v	3	Williams	38022	1990 SY ₃
1990 ST ₄	14.4	0.15	20000226	81.69953	196.17583	177.12787	5.14602	0.3358048	2.5886547	39	3	1986-2000	0.77	M-v	3	Williams	37627	1990 ST ₄
1990 SD ₅	14.5	0.15	20000226	285.36779	213.60218	36.08362	3.26493	0.1633842	2.4054427	46	6	1989-2000	0.59	M-v	1	Williams	33335	1990 SD ₅
1990 SN ₆	13.9	0.15	20000226	255.27106	182.09313	122.30455	4.85948	0.0799355	2.3814225	41	5	1990-2000	0.78	M-v	1	Spahr	38022	1990 SN ₆
1990 SC ₈	15.0	0.15	20000226	120.08058	199.06363	147.96452	7.69826	0.1721852	2.5530260	46	4	1990-2000	0.77	M-v	3	Spahr	38022	1990 SC ₈
1990 SW ₈	13.8	0.15	20000226	3.55583	206.00320	160.68832	12.06024	0.1362601	2.7897105	73	3	1990-1999	0.64	M-v	3	Williams	38022	1990 SW ₈
1990 SV ₁₂	13.2	0.15	20000226	219.55496	320.01638	63.40706	2.27614	0.1744084	3.1760737	35	6	1985-1999	0.67	M-v	1	Marsden	34576	1990 SV ₁₂
1990 ST ₁₄	14.4	0.15	20000226	47.11900	342.24310	50.71431	6.82295	0.2390040	2.6639254	56	3	1990-2000	0.59	M-v	3	Williams	38022	1990 ST ₁₄
1990 SP ₁₅	11.8	0.15	20000226	305.08616	71.02247	193.13890	15.65584	0.0766784	3.2242412	32	4	1990-2000	0.70	M-v	1	Spahr	38022	1990 SP ₁₅
1990 SU ₁₆	13.7	0.15	20000226	197.33712	175.16611	110.12155	6.22246	0.1287970	2.4717453	65	3	1990-2000	0.44	M-v	3	Williams	38022	1990 SU ₁₆
1990 SK ₂₈	13.7	0.15	20000226	132.86343	19.14955	346.91149	2.50701	0.1561580	2.5232672	88	4	1990-2000	0.56	M-v	2	Williams	38023	1990 SK ₂₈
1990 TY	13.7	0.15	20000226	188.36647	272.78689	184.19877	22.23911	0.2453899	2.3126685	52	4	1955-1999	0.77	M-v	2	Williams	34833	1990 TY
1990 TZ ₁	13.7	0.15	20000226	35.09412	95.35240	279.18811	2.27969	0.0886688	2.7222438	117	4	1950-1999	0.53	M-v	3	Spahr	38023	1990 TZ ₁
1990 TN ₃	14.6	0.15	20000226	151.44914	4.36442	21.31605	20.89439	0.0938427	1.9627938	30	4	1989-2000	0.72	M-v	2	Spahr	33544	1990 TN ₃
1990 TO ₄	13.8	0.15	20000226	68.11571	5.68527	83.06237	10.40641	0.1649210	2.5458108	36	4	1982-2000	0.75	M-v	2	Williams	38023	1990 TO ₄
1990 TT ₄	13.0	0.15	20000226	238.30745	235.11526	163.45122	10.82437	0.2262254	3.1508506	55	3	1990-1999	0.83	M-v	3	Marsden	35061	1990 TT ₄
1990 TF ₈	13.9	0.15	20000226	55.50091	247.92174	217.01901	13.90104	0.1373575	2.5447859	42	4	1953-2000	0.70	M-v	1	Williams	38023	1990 TF ₈
1990 TW ₁₁	15.2	0.15	20000226	57.24388	65.04901	346.00670	2.44610	0.2404281	2.6122001	59	4	1990-2000	0.68	M-v	2	Williams	38023	1990 TW ₁₁
1990 TD ₁₂	14.4	0.15	20000226	14.67925	171.99525	252.27586	2.90123	0.1994123	2.6832278	101	4	1985-2000	0.47	M-v	1	Spahr	38023	1990 TD ₁₂
1990 UC ₁	13.8	0.15	20000226	239.00041	301.29719	9.07779	10.29523	0.2157751	2.3953878	24	3	1990-2000	0.69	M-v	3	Williams	33743	1990 UC ₁
1990 UA ₂	15.3	0.15	20000226	101.11842	279.29051	113.98989	4.33046	0.2653820	2.5616667	41	5	1990-2000	0.70	M-v	2	Spahr	32742	1990 UA ₂
1990 UC ₂	13.9	0.15	20000226	169.39234	277.84482	82.14524	9.29165	0.1644969	2.4558913	34	3	1990-2000	0.75	M-v	3	Spahr	33743	1990 UC ₂
1990 UJ ₄	13.2	0.15	20000226	289.23940	192.79235	63.68190	11.13757	0.1240576	2.4453551	36	4	1989-2000	0.69	M-v	3	Williams	38023	1990 UJ ₄
1990 UK ₅	14.7	0.15	20000226	72.77827	301.46526	112.73153	6.01908	0.2289952	2.5986229	42	3	1990-2000	0.75	M-v	2	Williams	38023	1990 UK ₅
1990 VE	12.8	0.15	20000226	9.00312	345.13869	70.56133	6.93155	0.1810200	2.7628397	99	3	1990-2000	0.56	M-v	2	Williams	38023	1990 VE
1990 VM ₂	13.7	0.15	20000226	64.50805	285.10361	103.08980	4.65110	0.1976718	2.6698006	69	3	1990-2000	0.63	M-v	2	Williams	38023	1990 VM ₂
1990 VV ₂	13.1	0.15	20000226	10.69948	176.40486	227.13013	8.60693	0.1587236	2.7683792	83	2	1990-2000	0.55	M-v	3	Williams	38023	1990 VV ₂
1990 VE ₄	13.8	0.15	20000226	8.05286	16.03033	53.55057	12.51599	0.2177656	2.7452274	73	3	1990-2000	0.55	M-v	2	Williams	38023	1990 VE ₄
1990 VS ₄	14.3	0.15	20000226	144.40735	138.60050	206.89731	11.91782	0.1931735	2.5676525	93	5	1990-2000	0.64	M-v	1	Spahr	38023	1990 VS ₄
1990 VN ₅	14.3	0.15	20000226	163.10585	260.21858	83.67938	15.74743	0.1659670	2.5387724	36	4	1990-2000	0.64	M-v	1	Marsden	23975	1990 VN ₅
1990 VG ₆	13.1	0.15	20000226	32.18779	348.90168	165.23355	8.07363	0.1165464	2.5277783	49	5	1990-2000	0.69	M-v	1	Williams	34006	1990 VG ₆
1990 VP ₆	12.7	0.15	20000226	172.69286	122.39456	203.19996	12.74097	0.0608212	2.5894854	116	4	1990-2000	0.60	M-v	2	Spahr	38023	1990 VP ₆
1990 VW ₈	13.6	0.15	20000226	41.00657	238.65660	222.89720	12.96065	0.1635534	2.5887081	53	3	1990-2000	0.64	M-v	2	Spahr	38023	1990 VW ₈
1990 WG ₁	13.9	0.15	20000226	19.23290	3.84566	69.02607	22.88868	0.0385342	2.6912272	59	2	1990-2000	0.56	M-v	3	Williams	38023	1990 WG ₁
1990 WO ₄	14.6	0.15	20000226	9.45327	270.83921	202.15909	4.62426	0.2360415	2.6846330	49	3	1990-2000	0.58	M-v	2	Spahr	38023	1990 WO ₄
1990 YP	14.2	0.15	20000226	2.47800	175.34636	303.01282	13.31345	0.2643863	2.7544783	59	3	1990-2000	0.61	M-v	3	Williams	38023	1990 YP
1990 YR	12.8	0.15	20000226	31.82716	10.34246	29.69355	7.36102	0.1853789	2.7848763	41	2	1990-2000	0.57	M-v	4	Williams	37627	1990 YR
1991 AK ₁	14.3	0.15	20000226	20.63260	191.15748	269.09917	3.40453	0.2791706	2.7224130	60	2	1991-2000	0.40	M-v	3	Williams	37627	1991 AK ₁
1991 AF ₂	14.4	0.15	20000226	62.45947	246.23106	184.95998	12.23827	0.1593874	2.6215497	50	3	1990-2000	0.69	M-v	2	Williams	38023	1991 AF ₂
1991 AG ₂	13.9	0.15	20000226	39.33802	242.86238	153.97440	14.76157	0.3025159	2.7142140	56	4	1981-2000	0.67	M-v	2	Spahr	38023	1991 AG ₂
1991 BZ	13.7	0.15	20000226	16.97861	126.75812	288.96712	5.99335	0.2455229	2.8076364	91	3	1980-2000	0.58	M-v	2	Williams	38023	1991 BZ
1991 CL	12.4	0.15	20000226	320.07781	50.42046	128.66101	13.92954	0.1574934	2.7648025	60	5	1989-2000	0.69	M-v	2	Williams	38023	1991 CL
1991 DY	13.2	0.15	20000226	8.96319	341.98528	188.80814	7.10043	0.1449536	2.6679003	38	5	1991-2000	0.76	M-v	1	Spahr	33336	1991 DY

1991 EL ₄	13.2	0.15	20000226	303.96495	86.40749	181.56044	12.81914	0.1686345	2.6730891	42	5	1991-2000	0.62	M-v	1	Spahr	38023	1991 EL ₄
1991 FS	14.8	0.15	20000226	219.46007	109.08429	35.72947	4.79086	0.1771142	2.3103761	37	3	1991-1999	0.67	M-v	3	Marsden	35420	1991 FS
1991 GT ₄	14.4	0.15	20000226	100.26072	134.87519	190.67473	4.97379	0.1970570	2.2857910	83	3	1991-2000	0.60	M-v	2	Spahr	38023	1991 GT ₄
1991 GF ₈	13.9	0.15	20000226	49.99813	106.70557	8.02985	9.09909	0.1174900	2.7737457	37	4	1991-2000	0.84	M-v	1	Williams	38023	1991 GF ₈
1991 LF ₂	13.2	0.15	20000226	102.69350	230.84288	186.73869	1.81386	0.0953099	2.9292278	29	5	1980-2000	0.60	M-v	1	Spahr	38024	1991 LF ₂
1991 LJ ₃	15.5	0.15	20000226	224.67442	70.40246	202.45476	2.83220	0.1489225	2.2020070	31	4	1991-2000	0.70	M-v	1	Spahr	38024	1991 LJ ₃
1991 NQ ₆	14.8	0.15	20000226	126.32483	100.31452	276.07149	4.63240	0.1664136	2.2681093	48	4	1991-2000	0.68	M-v	2	Spahr	33545	1991 NQ ₆
1991 NV ₆	13.4	0.15	20000226	149.33614	36.13316	308.05278	6.55265	0.1378723	3.1705735	28	3	1991-2000	0.82	M-v	5	Williams	34181	1991 NV ₆
1991 OV	14.9	0.15	20000226	187.95987	145.94936	166.10362	5.16229	0.1898350	2.2656874	89	3	1991-2000	0.66	M-v	3	Spahr	38024	1991 OV
1991 PV	15.4	0.15	20000226	195.40146	94.68090	221.47865	1.84913	0.2035145	2.2461004	52	4	1991-2000	0.57	M-v	2	Spahr	35683	1991 PV
1991 PM ₄	14.4	0.15	20000226	184.83953	331.52954	315.81278	4.77205	0.1525767	2.2958783	60	4	1991-2000	0.62	M-v	2	Spahr	38024	1991 PM ₄
1991 PO ₄	13.0	0.15	20000226	136.36006	228.54722	155.26937	2.07046	0.1958725	3.1772082	49	6	1969-2000	0.75	M-v	1	Williams	34287	1991 PO ₄
1991 PT ₄	13.8	0.15	20000226	124.19006	130.58177	227.55000	0.93528	0.2600993	3.3232081	62	5	1971-2000	0.84	M-v	1	Williams	33743	1991 PT ₄
1991 PA ₅	15.2	0.15	20000226	180.54134	0.04633	307.88649	3.15943	0.1645738	2.2781879	59	3	1991-2000	0.52	M-v	3	Williams	38024	1991 PA ₅
1991 PF ₅	14.6	0.15	20000226	257.04692	295.88649	312.43493	4.62196	0.1215564	2.2336897	92	3	1991-2000	0.69	M-v	2	Williams	38024	1991 PF ₅
1991 PO ₅	13.4	0.15	20000226	142.83902	118.86915	249.31246	0.58331	0.1704254	3.1953218	45	5	1991-2000	0.65	M-v	1	Williams	33545	1991 PO ₅
1991 PX ₅	14.1	0.15	20000226	126.98179	341.76763	340.75085	5.68613	0.0418558	2.3591953	46	3	1991-2000	0.69	M-v	4	Williams	38024	1991 PX ₅
1991 PE ₆	12.6	0.15	20000226	245.97922	257.19234	27.36745	2.63401	0.1569064	3.0466690	28	3	1991-2000	0.86	M-v	3	Williams	30871	1991 PE ₆
1991 PH ₇	15.5	0.15	20000226	126.03949	333.19075	19.10023	2.61372	0.2416136	2.3295952	19	3	1984-2000	0.70	M-v	3	Spahr	35286	1991 PH ₇
1991 PL ₈	14.0	0.15	20000226	226.48283	257.86267	31.08371	1.40697	0.1633855	3.0902190	27	5	1991-2000	0.58	M-v	1	Spahr	35683	1991 PL ₈
1991 PP ₈	13.5	0.15	20000226	187.95684	252.16950	78.84056	2.42812	0.1657456	3.1262814	31	5	1989-2000	0.55	M-v	1	Williams	35683	1991 PP ₈
1991 PT ₉	13.6	0.15	20000226	184.23865	357.50780	286.96679	24.76737	0.2186546	2.2855026	77	3	1991-2000	0.59	M-v	2	Williams	38024	1991 PT ₉
1991 PD ₁₁	14.4	0.15	20000226	253.70140	135.09885	141.62424	6.34459	0.1990376	2.2076114	69	3	1991-2000	0.71	M-v	2	Williams	38024	1991 PD ₁₁
1991 PP ₁₂	15.1	0.15	20000226	103.75986	70.75615	310.02788	1.86776	0.2419206	2.3412126	31	3	1991-2000	0.69	M-v	3	Williams	32447	1991 PP ₁₂
1991 PR ₁₆	14.8	0.15	20000226	185.68748	187.42853	138.46430	1.42347	0.1955139	2.2719348	54	5	1970-2000	0.69	M-v	2	Spahr	34493	1991 PR ₁₆
1991 PH ₁₈	14.2	0.15	20000226	104.01907	150.27166	156.16596	12.35481	0.2142021	2.4417698	61	3	1991-2000	0.66	M-v	1	Spahr	38024	1991 PH ₁₈
1991 PL ₁₈	15.1	0.15	20000226	207.16446	7.27274	301.03345	3.93758	0.1618610	2.2517207	28	3	1991-2000	0.68	M-v	4	Spahr	33336	1991 PL ₁₈
1991 PO ₁₈	13.9	0.15	20000226	227.61913	290.67481	345.34074	5.66238	0.2136085	2.2487423	67	3	1991-2000	0.56	M-v	3	Williams	38024	1991 PO ₁₈
1991 QJ	14.3	0.15	20000226	194.57773	162.45272	161.14390	5.98886	0.2060245	2.2519069	53	4	1981-2000	0.72	M-v	2	Williams	33545	1991 QJ
1991 RA	14.5	0.15	20000226	174.38420	310.34086	356.88017	21.12280	0.0411544	1.8531285	55	3	1991-2000	0.52	M-v	3	Williams	38024	1991 RA
1991 RV	14.8	0.15	20000226	115.61197	228.89244	127.92282	2.93317	0.2366404	2.3635200	37	2	1991-2000	0.62	M-v	4	Williams	37627	1991 RV
1991 RF ₁	14.9	0.15	20000226	234.96991	133.91242	147.61957	3.07165	0.2267684	2.2359061	52	3	1991-2000	0.66	M-v	3	Williams	33228	1991 RF ₁
1991 RC ₂	14.1	0.15	20000226	86.00260	82.98486	333.26562	7.38226	0.1267339	2.3200416	86	3	1991-2000	0.60	M-v	2	Williams	38024	1991 RC ₂
1991 RU ₂	14.6	0.15	20000226	3.38613	271.93537	254.91325	4.47446	0.0922623	2.2777850	59	4	1991-2000	0.70	M-v	2	Williams	38024	1991 RU ₂
1991 RO ₃	15.1	0.15	20000226	223.40320	290.75132	329.05024	6.29499	0.0760447	2.3376444	41	3	1991-2000	0.74	M-v	3	Williams	38024	1991 RO ₃
1991 RP ₃	15.7	0.15	20000226	137.81575	121.40565	220.19276	4.90823	0.2382000	2.3436678	23	3	1991-2000	0.67	M-v	2	Spahr	33545	1991 RP ₃
1991 RN ₄	14.2	0.15	20000226	83.58763	226.72664	159.20619	6.27902	0.2318929	2.3806566	84	3	1991-2000	0.65	M-v	3	Williams	38024	1991 RN ₄
1991 RE ₇	11.9	0.15	20000226	236.31948	280.12569	8.01208	17.59028	0.1582875	3.1782220	37	5	1991-2000	0.65	M-v	1	Williams	34007	1991 RE ₇
1991 RG ₇	14.7	0.15	20000226	48.87576	149.20453	262.30742	3.73869	0.1790943	2.4529903	57	6	1983-2000	0.70	M-v	2	Spahr	38024	1991 RG ₇
1991 RL ₈	15.0	0.15	20000226	157.78055	337.70039	21.64631	7.37627	0.1905377	2.2964107	68	4	1991-2000	0.70	M-v	2	Williams	35683	1991 RL ₈
1991 RC ₉	14.5	0.15	20000226	162.36179	337.60913	18.94193	4.05967	0.0975002	2.2905721	57	3	1991-2000	0.48	M-v	3	Williams	33545	1991 RC ₉
1991 RR ₉	14.6	0.15	20000226	131.57577	5.69857	347.23686	3.29230	0.2497680	2.3409683	42	3	1991-2000	0.62	M-v	2	Williams	33545	1991 RR ₉
1991 RT ₉	14.5	0.15	20000226	119.54657	22.81836	314.74045	1.64032	0.2257378	2.3834055	33	3	1980-2000	0.41	M-v	4	Williams	37628	1991 RT ₉
1991 RU ₉	15.2	0.15	20000226	168.82061	64.34390	281.05062	1.16458	0.1667716	2.3277708	44	3	1991-2000	0.69	M-v	3	Spahr	33546	1991 RU ₉
1991 RB ₁₀	14.3	0.15	20000226	172.79515	36.76918	300.51927	4.54992	0.1378616	2.2955230	78	4	1991-2000	0.68	M-v	2	Williams	33546	1991 RB ₁₀
1991 RR ₁₀	14.9	0.15	20000226	130.90935	21.02494	5.06976	6.80200	0.1223334	2.3119195	72	3	1991-2000	0.69	M-v	3	Williams	35683	1991 RR ₁₀
1991 RF ₁₁	14.3	0.15	20000226	55.53567	74.58822	323.74229	4.61647	0.2159176	2.4406441	62	3	1991-2000	0.53	M-v	2	Williams	38025	1991 RF ₁₁
1991 RA ₁₄	13.2	0.15	20000226	17.89182	37.76811	338.96438	7.85384	0.2665611	3.9651788	48	2	1991-2000	0.54	M-v	3	Williams	38025	1991 RA ₁₄
1991 RH ₁₄	14.3	0.15	20000226	47.95182	121.16061	326.35984	6.56215	0.0734480	2.3386536	83	3	1991-2000	0.63	M-v	3	Williams	38025	1991 RH ₁₄
1991 RR ₁₆	12.4	0.15	20000226	165.88809	288.88818	23.77433	8.06331	0.0816390	3.4002914	38	4	1985-2000	0.61	M-v	2	Williams	38025	1991 RR ₁₆
1991 RA ₁₇	14.7	0.15	20000226	164.65866	303.51849	35.61475	7.23820	0.1602404	2.3007557	87	4	1991-2000	0.70	M-v	2	Spahr	33546	1991 RA ₁₇
1991 RF ₁₇	14.9	0.15	20000226	100.70104	326.78991	36.34036	7.20400	0.1338523	2.3884318	37	2	1991-2000	0.73	M-v	4	Williams	37628	1991 RF ₁₇
1991 RG ₁₇	14.6	0.15	20000226	131.39348	233.44245	127.75299	3.40907	0.1177697	2.3344796	88	3	1991-2000	0.67	M-v	3	Williams	38025	1991 RG ₁₇

1991 RW ₁₇	14.4	0.15	20000226	199.20467	121.22476	195.85781	3.20565	0.0763768	2.2684629	93	3	1991-2000	0.63	M-v	3	Williams	37261	1991 RW ₁₇
1991 RX ₁₇	13.8	0.15	20000226	160.84467	148.16430	177.73935	4.36060	0.1437368	2.3168452	104	3	1991-2000	0.77	M-v	3	Marsden	38025	1991 RX ₁₇
1991 RE ₁₉	14.1	0.15	20000226	114.07611	6.94776	327.49883	6.14712	0.1358679	2.3956695	40	3	1991-2000	0.59	M-v	4	Williams	37628	1991 RE ₁₉
1991 RA ₂₀	14.0	0.15	20000226	119.52315	13.84616	310.14209	5.85071	0.1562185	2.4024506	26	2	1991-2000	0.44	M-v	5	Williams	37628	1991 RA ₂₀
1991 RJ ₂₀	14.9	0.15	20000226	89.44652	228.68946	131.84501	3.05590	0.2283087	2.4088403	42	4	1991-2000	0.58	M-v	3	Williams	38025	1991 RJ ₂₀
1991 RW ₂₁	14.2	0.15	20000226	45.88697	71.44876	341.12530	9.86984	0.2550721	2.4229258	43	3	1991-2000	0.47	M-v	2	Williams	38025	1991 RW ₂₁
1991 RP ₂₃	13.6	0.15	20000226	74.06761	266.25264	9.88680	15.02473	0.0903777	2.5924292	38	2	1991-1998	0.67	M-v	4	Marsden	32303	1991 RP ₂₃
1991 RA ₂₄	14.9	0.15	20000226	79.92613	13.24195	11.20600	2.26548	0.2216768	2.3891323	39	2	1991-2000	0.58	M-v	4	Williams	37628	1991 RA ₂₄
1991 RK ₂₆	14.7	0.15	20000226	203.96136	296.81220	20.95311	7.25127	0.1948402	2.2714410	40	5	1991-2000	0.62	M-v	2	Williams	35684	1991 RK ₂₆
1991 RH ₂₇	14.2	0.15	20000226	221.67905	167.39276	149.64941	4.83860	0.1864879	2.2450526	29	4	1991-2000	0.70	M-v	2	Williams	33546	1991 RH ₂₇
1991 RJ ₄₁	14.8	0.15	20000226	144.39113	8.80360	12.90431	7.68047	0.1272349	2.2833830	76	3	1991-2000	0.62	M-v	3	Williams	35063	1991 RJ ₄₁
1991 SA	14.8	0.15	20000226	159.29493	56.31983	267.68629	5.65520	0.2583823	2.3275526	64	3	1991-2000	0.76	M-v	2	Spahr	38025	1991 SA
1991 SB	13.8	0.15	20000226	62.01828	179.63243	216.63841	2.48502	0.1328825	2.4205759	57	4	1984-2000	0.64	M-v	2	Spahr	38025	1991 SB
1991 SZ	13.8	0.15	20000226	123.80518	261.76765	52.94596	7.23611	0.1510005	2.3975850	54	3	1991-2000	0.60	M-v	3	Williams	38025	1991 SZ
1991 SE ₁	15.0	0.15	20000226	98.71773	274.12376	95.47044	7.47247	0.1368014	2.3680543	51	3	1991-2000	0.58	M-v	2	Williams	38025	1991 SE ₁
1991 SV ₁	14.2	0.15	20000226	135.20850	317.15865	17.79650	6.82302	0.1518274	2.3751400	39	3	1984-2000	0.72	M-v	4	Williams	38025	1991 SV ₁
1991 SE ₂	14.7	0.15	20000226	139.25525	144.97940	168.28338	2.41243	0.2315335	2.3591570	33	4	1991-2000	0.73	M-v	1	Spahr	38025	1991 SE ₂
1991 TK	14.0	0.15	20000226	320.87436	46.66204	107.83040	5.12458	0.0629066	2.3916409	88	4	1991-2000	0.76	M-v	3	Williams	38025	1991 TK
1991 TS	14.3	0.15	20000226	127.24659	192.56743	130.52943	6.33977	0.1062978	2.4145558	41	3	1991-2000	0.67	M-v	3	Spahr	38025	1991 TS
1991 TX	13.9	0.15	20000226	96.42114	284.41108	76.97369	24.16974	0.2819968	2.4061740	36	3	1991-2000	0.65	M-v	2	Williams	37261	1991 TX
1991 TQ ₁	13.0	0.15	20000226	118.40165	6.90208	21.25139	24.65370	0.2170080	2.3289531	24	3	1991-2000	0.61	M-v	2	Spahr	38025	1991 TQ ₁
1991 TJ ₂	13.6	0.15	20000226	273.71881	255.53723	53.71590	5.81579	0.2265945	2.1764204	30	7	1968-2000	0.74	M-v	1	Spahr	33744	1991 TJ ₂
1991 TQ ₂	14.9	0.15	20000226	41.86557	164.76383	270.63598	2.76161	0.2186079	2.4175212	118	4	1991-2000	0.51	M-v	2	Williams	38025	1991 TQ ₂
1991 TH ₃	15.3	0.15	20000226	6.10282	192.93716	213.14790	7.50551	0.2873623	2.5372702	62	4	1991-1999	0.56	M-v	2	Spahr	36879	1991 TH ₃
1991 TU ₅	15.1	0.15	20000226	11.38932	103.79223	344.89492	3.29187	0.0893437	2.4335676	41	3	1991-2000	0.48	M-v	3	Williams	38025	1991 TU ₅
1991 TK ₈	14.8	0.15	20000226	92.49322	257.35597	151.69236	6.07053	0.1304296	2.3403954	75	3	1991-2000	0.66	M-v	2	Williams	37261	1991 TK ₈
1991 UR	14.1	0.15	20000226	169.14595	331.24149	10.69486	6.92603	0.1280089	2.3185939	86	3	1991-2000	0.63	M-v	3	Williams	38025	1991 UR
1991 UE ₁	15.0	0.15	20000226	65.43795	59.83627	353.98080	1.53965	0.2311890	2.4193686	41	3	1991-2000	0.49	M-v	4	Williams	26562	1991 UE ₁
1991 UF ₁	15.1	0.15	20000226	95.04059	308.31447	93.41824	3.40469	0.2102593	2.3773267	33	5	1991-2000	0.81	M-v	2	Spahr	32744	1991 UF ₁
1991 UK ₁	14.4	0.15	20000226	181.65480	11.21044	333.26314	4.87971	0.2133953	2.2785929	39	3	1991-2000	0.85	M-v	3	Williams	33744	1991 UK ₁
1991 UJ ₂	13.9	0.15	20000226	221.07054	264.75731	31.52738	5.33656	0.1578044	2.3052378	84	3	1991-2000	0.55	M-v	2	Williams	38025	1991 UJ ₂
1991 UN ₃	13.5	0.15	20000226	158.53414	304.84354	84.33334	4.56415	0.0968447	2.2947066	84	4	1991-2000	0.82	M-v	2	Spahr	35421	1991 UN ₃
1991 UZ ₃	15.3	0.15	20000226	77.53550	291.07553	130.71499	1.77264	0.1713818	2.3846104	35	4	1991-2000	0.69	M-v	1	Williams	34578	1991 UZ ₃
1991 VY	13.7	0.15	20000226	42.43536	356.97734	68.48141	5.85355	0.0922091	2.4531869	78	4	1991-2000	0.58	M-v	3	Spahr	38025	1991 VY
1991 VE ₂	12.9	0.15	20000226	355.10255	210.10432	228.37523	14.71175	0.0992295	2.5500873	125	4	1991-2000	0.51	M-v	2	Williams	38025	1991 VE ₂
1991 VA ₃	12.9	0.15	20000226	24.54601	114.97307	254.40005	11.45196	0.2171399	2.6016470	116	3	1991-2000	0.51	M-v	2	Williams	37261	1991 VA ₃
1991 VO ₃	14.4	0.15	20000226	50.84432	36.46789	59.65295	4.17250	0.1511222	2.3839832	52	3	1991-2000	0.64	M-v	2	Williams	38025	1991 VO ₃
1991 VG ₄	13.6	0.15	20000226	10.28262	180.70889	252.23773	11.82490	0.1447048	2.5326814	47	3	1991-2000	0.57	M-v	3	Williams	37629	1991 VG ₄
1991 VJ ₄	13.1	0.15	20000226	226.53905	278.21202	42.60572	7.02683	0.1487664	2.2864623	41	4	1956-2000	0.60	M-v	2	Williams	38025	1991 VJ ₄
1991 VY ₄	13.8	0.15	20000226	36.33963	334.12839	98.59163	3.73439	0.1502001	2.4595985	89	4	1991-2000	0.62	M-v	1	Williams	38025	1991 VY ₄
1991 VA ₅	13.4	0.15	20000226	19.79956	32.60665	79.01145	14.44054	0.1737579	2.4418284	53	2	1991-2000	0.63	M-v	3	Williams	37629	1991 VA ₅
1991 VM ₅	13.6	0.15	20000226	168.49897	267.29236	70.06696	6.34627	0.2112667	2.3240593	92	4	1977-2000	0.67	M-v	3	Spahr	38025	1991 VM ₅
1991 XC	13.7	0.15	20000226	56.64095	92.29165	0.98056	21.37370	0.3027111	2.4401359	53	4	1991-2000	0.51	M-v	2	Spahr	33337	1991 XC
1991 YC	13.3	0.15	20000226	333.34884	24.71357	109.14896	14.93876	0.2107727	2.5782464	76	5	1988-2000	0.56	M-v	2	Williams	38025	1991 YC
1992 AJ ₁	13.0	0.15	20000226	285.43929	306.31037	272.81528	5.06674	0.1070575	2.5216565	105	4	1992-2000	0.58	M-v	3	Williams	38025	1992 AJ ₁
1992 AV ₁	14.1	0.15	20000226	23.18199	328.98789	110.65183	24.76888	0.0732736	1.9463092	71	3	1992-2000	0.59	M-v	2	Williams	38026	1992 AV ₁
1992 AT ₂	13.8	0.15	20000226	227.67020	330.92877	293.21470	3.72349	0.1849957	2.5394088	72	4	1984-2000	0.64	M-v	3	Spahr	38026	1992 AT ₂
1992 BD	14.8	0.15	20000226	19.86686	21.17461	79.16802	28.98984	0.0650447	1.8965029	75	4	1975-2000	0.48	M-v	2	Williams	38026	1992 BD
1992 BC ₁	13.8	0.15	20000226	115.02365	273.70086	135.70395	22.81879	0.3342729	2.3778605	36	3	1992-2000	0.66	M-v	4	Spahr	34183	1992 BC ₁
1992 BP ₂	14.3	0.15	20000226	43.12198	244.30322	217.12013	5.53779	0.0867585	2.4768592	70	4	1992-2000	0.58	M-v	2	Williams	38026	1992 BP ₂
1992 BQ ₂	14.0	0.15	20000226	347.49622	283.54025	236.52749	4.34717	0.0642250	2.4890133	54	4	1992-2000	0.66	M-v	3	Spahr	38026	1992 BQ ₂
1992 BK ₄	15.0	0.15	20000226	51.47484	41.20894	22.98596	2.79975	0.0761132	2.5384049	24	2	1992-2000	0.51	M-v	5	Williams	37629	1992 BK ₄
1992 CH	13.1	0.15	20000226	348.07770	168.70992	311.80784	12.62184	0.1097113	2.6299719	83	5	1992-2000	0.63	M-v	2	Williams	38026	1992 CH

1992 CS ₂	13.9	0.15	20000226	262.76143	331.90425	261.31327	4.55751	0.0667613	2.5192512	71	4	1992-2000	0.72	M-v	2	Spahr	38026	1992 CS ₂
1992 DD ₄	15.1	0.15	20000226	345.80336	297.71189	156.38714	4.17189	0.0668056	2.7074579	20	3	1992-1999	0.63	M-v	4	Williams	38026	1992 DD ₄
1992 DX ₅	13.3	0.15	20000226	353.82086	208.04017	100.22911	2.61798	0.1062036	3.2453803	53	3	1992-1999	0.75	M-v	4	Marsden	35063	1992 DX ₅
1992 DY ₅	13.6	0.15	20000226	325.14168	295.94876	100.03814	3.40226	0.1005758	2.9478245	15	3	1992-1999	0.67	M-v	5	Williams	37630	1992 DY ₅
1992 DD ₈	14.0	0.15	20000226	77.54554	91.02060	253.77102	4.84953	0.1051660	2.7619216	43	2	1992-2000	0.61	M-v	5	Spahr	38026	1992 DD ₈
1992 EX	13.6	0.15	20000226	305.14781	25.72770	136.85648	10.23512	0.0890328	2.6580276	52	3	1992-2000	0.65	M-v	3	Spahr	38026	1992 EX
1992 EA ₁	13.8	0.15	20000226	332.15364	225.41353	259.13792	11.94614	0.1568311	2.6703080	49	3	1992-2000	0.51	M-v	3	Spahr	37630	1992 EA ₁
1992 EZ ₆	14.3	0.15	20000226	252.00860	151.63647	129.77550	11.25056	0.2331589	2.5505938	32	4	1992-2000	0.56	M-v	2	Williams	30687	1992 EZ ₆
1992 EP ₇	13.7	0.15	20000226	209.52353	143.99695	138.15759	13.58023	0.2254924	2.6563704	36	5	1988-2000	0.66	M-v	2	Spahr	38026	1992 EP ₇
1992 EC ₈	14.9	0.15	20000226	358.93629	283.63974	171.35170	3.00953	0.0746396	2.6581731	31	3	1992-2000	0.73	M-v	4	Williams	37630	1992 EC ₈
1992 EV ₈	14.8	0.15	20000226	36.84548	317.99111	128.92710	8.88294	0.0476747	2.5898407	17	3	1992-2000	0.61	M-v	3	Williams	33230	1992 EV ₈
1992 EP ₁₀	14.1	0.15	20000226	314.76185	39.63566	163.10671	14.77765	0.0489848	2.5332750	46	4	1992-2000	0.53	M-v	3	Spahr	38026	1992 EP ₁₀
1992 ER ₁₁	13.6	0.15	20000226	322.01109	89.77713	148.14255	4.90930	0.1671288	2.4711880	31	4	1992-2000	0.55	M-v	1	Williams	38026	1992 ER ₁₁
1992 EK ₁₂	15.1	0.15	20000226	102.15501	243.44677	157.79852	11.95421	0.1387508	2.5279070	40	4	1992-2000	0.58	M-v	3	Spahr	33070	1992 EK ₁₂
1992 EN ₁₂	14.2	0.15	20000226	13.45625	28.92992	97.89951	3.08563	0.0727483	2.5555655	81	3	1992-2000	0.69	M-v	3	Williams	38026	1992 EN ₁₂
1992 EQ ₁₃	14.2	0.15	20000226	58.07899	96.71823	280.34043	4.14715	0.0845845	2.7262814	42	3	1992-2000	0.59	M-v	2	Williams	38026	1992 EQ ₁₃
1992 ED ₁₄	13.1	0.15	20000226	160.81006	170.66119	174.99376	8.18034	0.2072362	2.5516368	48	4	1992-2000	0.71	M-v	3	Williams	38026	1992 ED ₁₄
1992 EK ₁₄	13.6	0.15	20000226	145.39012	19.03034	336.31387	3.59895	0.2559833	2.5504201	81	5	1980-2000	0.66	M-v	2	Williams	38026	1992 EK ₁₄
1992 ET ₁₄	14.0	0.15	20000226	358.58762	200.51372	223.60695	2.76503	0.0868884	2.7590341	54	4	1992-1999	0.50	M-v	1	Williams	37262	1992 ET ₁₄
1992 EW ₁₆	13.6	0.15	20000226	208.88077	333.14619	327.24948	4.06524	0.1215951	2.5822151	72	3	1992-2000	0.60	M-v	3	Williams	38026	1992 EW ₁₆
1992 EW ₁₇	13.9	0.15	20000226	249.88592	74.54058	179.51532	13.89997	0.1233291	2.5817048	26	3	1992-2000	0.82	M-v	3	Spahr	38026	1992 EW ₁₇
1992 ED ₁₈	13.8	0.15	20000226	239.44478	26.31458	182.18699	12.17014	0.0312034	2.7045350	42	4	1992-2000	0.63	M-v	1	Spahr	37630	1992 ED ₁₈
1992 EF ₂₂	14.7	0.15	20000226	55.58683	35.61205	34.75969	4.52580	0.1295236	2.5662976	35	4	1990-2000	0.57	M-v	1	Williams	37630	1992 EF ₂₂
1992 EW ₂₄	14.8	0.15	20000226	358.44226	28.05370	85.41674	3.99600	0.1572170	2.6115548	25	2	1992-2000	0.42	M-v	4	Williams	37631	1992 EW ₂₄
1992 EA ₂₆	14.6	0.15	20000226	347.61846	157.40694	346.89932	10.50041	0.1538988	2.5772588	43	3	1992-2000	0.71	M-v	3	Williams	38026	1992 EA ₂₆
1992 EZ ₂₈	14.2	0.15	20000226	263.73544	84.54782	168.91151	13.40717	0.1243897	2.5592860	19	4	1989-2000	0.63	M-v	2	Spahr	38026	1992 EZ ₂₈
1992 EV ₃₂	14.2	0.15	20000226	16.18118	194.15606	209.35521	3.43131	0.1102851	2.7583370	43	3	1992-1999	0.54	M-v	4	Williams	38026	1992 EV ₃₂
1992 FC ₂	13.9	0.15	20000226	318.27955	207.34471	354.07379	1.86852	0.2203251	2.5765136	100	4	1992-2000	0.44	M-v	3	Williams	37631	1992 FC ₂
1992 GO	13.0	0.15	20000226	205.76459	129.29918	152.99145	13.43458	0.1621646	2.6778005	35	3	1992-2000	0.65	M-v	3	Spahr	37631	1992 GO
1992 GN ₂	14.2	0.15	20000226	267.79519	239.07972	354.13062	1.57591	0.1454114	2.6736756	45	3	1992-2000	0.63	M-v	4	Williams	37631	1992 GN ₂
1992 HD ₄	13.9	0.15	20000226	333.35873	340.82872	213.12901	7.15381	0.1369003	2.5791281	60	3	1992-2000	0.73	M-v	3	Williams	38026	1992 HD ₄
1992 JQ	13.4	0.15	20000226	296.50884	54.07297	184.69714	12.34618	0.1831683	2.6176894	65	5	1992-2000	0.72	M-v	2	Williams	38026	1992 JQ
1992 JH ₃	14.2	0.15	20000226	278.67638	60.69005	208.98946	3.51256	0.2224461	2.6120144	48	5	1992-2000	0.79	M-v	1	Williams	35685	1992 JH ₃
1992 KF	13.3	0.15	20000226	316.94300	173.51293	66.30846	15.18906	0.1267460	2.5773127	26	4	1981-2000	0.79	M-v	3	Spahr	33547	1992 KF
1992 LQ	12.7	0.15	20000226	136.97982	212.30814	75.45805	11.48334	0.0734944	2.9967565	81	2	1992-2000	0.57	M-v	4	Williams	38027	1992 LQ
1992 OT ₉	13.1	0.15	20000226	183.83388	248.55998	103.27089	7.69321	0.0521806	2.7947558	43	4	1989-2000	0.82	M-v	1	Spahr	38027	1992 OT ₉
1992 PP ₁	15.0	0.15	20000226	331.47186	162.46032	289.62515	3.60954	0.1469093	2.2407265	33	2	1992-1999	0.77	M-v	5	Williams	37631	1992 PP ₁
1992 PU ₁	13.5	0.15	20000226	185.59895	74.57610	170.69144	4.01472	0.1299979	3.1532208	44	3	1992-1999	0.75	M-v	4	Williams	38027	1992 PU ₁
1992 PC ₃	12.2	0.15	20000226	145.46327	61.50608	273.48478	11.60675	0.1611646	3.0485730	86	3	1992-2000	0.70	M-v	3	Williams	38027	1992 PC ₃
1992 PZ ₃	14.1	0.15	20000226	48.35118	53.58671	323.15573	6.73752	0.1822170	2.2447142	66	4	1972-2000	0.55	M-v	1	Williams	38027	1992 PZ ₃
1992 PZ ₅	16.6	0.15	19920806	11.82300	311.37024	342.85946	6.31513	0.3579171	2.1289506	8	1	28 days	1.01		D	Williams		1992 PZ ₅
1992 RB ₃	13.3	0.15	20000226	155.93905	109.49954	246.47008	0.54240	0.1091474	2.9697669	98	5	1987-2000	0.69	M-v	1	Williams	33745	1992 RB ₃
1992 RH ₃	15.5	0.15	20000226	130.64870	133.01993	214.57736	1.12558	0.1339792	2.1490705	42	3	1992-2000	0.49	M-v	4	Williams	38027	1992 RH ₃
1992 RO ₃	14.3	0.15	20000226	200.02080	81.00251	199.32475	0.43645	0.1380459	3.0278266	32	4	1992-2000	0.71	M-v	2	Spahr	38027	1992 RO ₃
1992 RG ₅	14.6	0.15	20000226	196.48784	195.66427	98.81974	2.18639	0.1188622	3.0325282	33	6	1992-2000	0.55	M-v	1	Williams	35686	1992 RG ₅
1992 RJ ₅	14.2	0.15	20000226	136.31618	276.70447	81.39009	3.38167	0.1738140	3.0693106	35	4	1992-2000	0.98	M-v	2	Spahr	33338	1992 RJ ₅
1992 RM ₇	13.9	0.15	20000226	90.79379	345.93377	65.43033	2.26729	0.1569372	3.0933354	75	5	1992-2000	0.65	M-v	1	Williams	34499	1992 RM ₇
1992 ST ₁₃	13.5	0.15	20000226	117.41720	246.71728	160.08926	6.29204	0.1070985	2.9964893	27	4	1992-2000	0.64	M-v	2	Williams	33935	1992 ST ₁₃
1992 SY ₂₄	12.9	0.15	20000226	156.33140	10.21627	350.72324	10.31698	0.1082082	2.9982950	32	3	1992-2000	0.76	M-v	3	Williams	33745	1992 SY ₂₄
1992 US ₁	14.5	0.15	20000226	63.89968	317.37291	46.88395	7.81851	0.1346190	2.2850978	150	4	1964-2000	0.56	M-v	2	Williams	38027	1992 US ₁
1992 UJ ₂	12.6	0.15	20000226	204.30948	104.55357	227.57438	9.11739	0.1100717	2.9937246	23	3	1992-2000	0.61	M-v	3	Spahr	34009	1992 UJ ₂
1992 UQ ₂	12.0	0.15	20000226	332.76937	322.41503	44.33797	24.58619	0.2177985	2.4623124	18	3	1992-1998	0.52	M-v	3	Marsden	31383	1992 UQ ₂
1992 UR ₂	13.9	0.15	20000226	338.08549	49.06751	46.81808	23.22611	0.2463826	2.3225184	39	2	1992-2000	0.53	M-v	3	Williams	37263	1992 UR ₂

1992 UT ₂	14.1	0.15	20000226	84.46074	260.15539	71.51531	6.93039	0.2107871	2.2761526	111	4	1978–2000	0.57	M-v	2	Spahr	38027	1992 UT ₂
1992 UW ₂	14.3	0.15	20000226	80.95255	284.74361	54.05601	5.93518	0.2154438	2.2805428	133	3	1992–2000	0.56	M-v	2	Spahr	38027	1992 UW ₂
1992 UR ₄	15.5	0.15	20000226	25.97052	140.43997	291.25015	1.61515	0.2344621	2.2812511	52	2	1992–2000	0.63	M-v	3	Williams	38027	1992 UR ₄
1992 UJ ₅	15.2	0.15	20000226	45.71975	190.00458	234.82423	0.52312	0.1995859	2.2510404	84	4	1992–2000	0.54	M-v	2	Williams	38027	1992 UJ ₅
1992 UC ₆	14.6	0.15	20000226	58.17244	143.76056	240.74908	7.00211	0.1125981	2.2923241	74	3	1991–2000	0.59	M-v	3	Spahr	38027	1992 UC ₆
1992 UE ₆	14.0	0.15	20000226	54.79308	354.05636	64.12780	8.01754	0.1401295	2.2504965	73	3	1992–2000	0.71	M-v	2	Williams	38027	1992 UE ₆
1992 UQ ₆	13.9	0.15	20000226	48.15108	56.25060	335.06261	6.46262	0.1792290	2.2962169	40	2	1992–2000	0.37	M-v	3	Williams	37631	1992 UQ ₆
1992 UR ₈	13.8	0.15	20000226	215.05456	187.26624	22.70958	7.60022	0.0677269	2.3292492	86	4	1985–2000	0.48	M-v	3	Williams	38027	1992 UR ₈
1992 VN	14.1	0.15	20000226	50.37633	152.52895	259.42761	7.66179	0.1247230	2.2561829	34	3	1992–2000	0.58	M-v	3	Williams	38027	1992 VN
1992 WM	14.1	0.15	20000226	345.60846	66.11096	50.92898	7.55334	0.0773925	2.2802615	46	2	1992–2000	0.67	M-v	4	Williams	38027	1992 WM
1992 WR	14.7	0.15	20000226	359.51381	33.85233	56.00466	5.66015	0.1361652	2.3100161	98	3	1978–2000	0.41	M-v	3	Williams	38028	1992 WR
1992 WZ	14.0	0.15	20000226	50.66923	351.99965	58.44400	5.84732	0.1315781	2.2718234	76	4	1985–2000	0.63	M-v	3	Williams	38028	1992 WZ
1992 WE ₁	14.6	0.15	20000226	78.96389	263.84728	89.36144	4.90537	0.2019841	2.2899970	66	4	1978–2000	0.64	M-v	3	Spahr	38028	1992 WE ₁
1992 WK ₁	12.3	0.15	20000226	119.54734	324.68424	76.37055	18.17966	0.2071453	3.1544852	63	4	1990–2000	0.68	M-v	3	Spahr	38028	1992 WK ₁
1992 WP ₁	12.7	0.15	20000226	129.59044	322.14077	96.03538	12.89584	0.1120981	3.0569994	56	3	1992–2000	0.70	M-v	3	Spahr	35064	1992 WP ₁
1992 WX ₁	14.9	0.15	20000226	114.89216	101.01810	285.93098	3.10799	0.1269495	2.1791370	26	4	1992–2000	0.80	M-v	2	Spahr	32515	1992 WX ₁
1992 WA ₄	12.9	0.15	20000226	125.56970	307.75272	73.10601	6.39398	0.1584150	3.1988463	56	6	1986–2000	0.85	M-v	2	Williams	33745	1992 WA ₄
1992 WK ₉	13.4	0.15	20000226	121.74574	322.98077	53.94038	0.86382	0.2248228	3.1457423	33	5	1992–2000	0.77	M-v	1	Williams	36511	1992 WK ₉
1992 YC	14.4	0.15	20000226	53.56351	129.64311	264.88650	24.56804	0.2828962	2.2825298	54	2	1992–2000	0.65	M-v	3	Spahr	38028	1992 YC
1992 YK	13.4	0.15	20000226	351.69283	81.93329	9.88451	6.93940	0.0665876	2.3692001	85	3	1992–2000	0.56	M-v	3	Spahr	38028	1992 YK
1992 YP	14.3	0.15	20000226	56.59477	292.66110	113.02039	5.53519	0.1263544	2.2817426	39	2	1992–2000	0.50	M-v	4	Spahr	37632	1992 YP
1992 YP ₁	14.5	0.15	20000226	340.68827	63.36976	73.92956	4.36898	0.0755912	2.3035905	46	2	1992–2000	0.52	M-v	5	Williams	37632	1992 YP ₁
1992 YY ₁	14.3	0.15	20000226	94.12988	277.65253	89.97642	5.05417	0.1508806	2.2903614	49	3	1992–2000	0.69	M-v	2	Williams	38028	1992 YY ₁
1992 YG ₂	15.3	0.15	20000226	119.06286	83.69277	302.95525	3.41488	0.1527922	2.2085958	39	4	1992–2000	0.83	M-v	2	Spahr	32515	1992 YG ₂
1992 YR ₂	14.3	0.15	20000226	205.38044	170.75611	69.31971	5.14546	0.0604937	2.3747981	85	3	1992–2000	0.61	M-v	3	Spahr	38028	1992 YR ₂
1992 YB ₄	15.3	0.15	20000226	18.82549	73.04764	5.21650	2.91139	0.2055259	2.3345843	38	3	1992–2000	0.59	M-v	3	Williams	37632	1992 YB ₄
1993 BB	15.1	0.15	20000226	348.07788	24.99854	144.73755	5.79517	0.1389085	2.2976813	37	2	1993–2000	0.71	M-v	4	Williams	37632	1993 BB
1993 BD	14.7	0.15	20000226	8.22172	6.96108	112.93850	6.94844	0.1377792	2.3291116	80	3	1993–2000	0.55	M-v	3	Williams	38028	1993 BD
1993 BJ ₂	13.1	0.15	20000226	181.28017	159.14332	122.63692	6.98323	0.1370891	2.4056476	63	3	1993–2000	0.56	M-v	3	Marsden	38028	1993 BJ ₂
1993 BM ₃	15.0	0.15	20000226	285.08640	185.31724	29.63035	6.56240	0.0586373	2.3336768	50	3	1993–2000	0.72	M-v	3	Williams	33071	1993 BM ₃
1993 BV ₄	15.1	0.15	20000226	359.51488	0.51995	132.41110	6.44923	0.1402371	2.3244672	30	2	1993–2000	0.68	M-v	4	Spahr	37632	1993 BV ₄
1993 BT ₁₄	14.3	0.15	20000226	327.18872	314.04106	230.11125	2.55349	0.1236460	2.3106492	54	4	1991–2000	0.52	M-v	3	Williams	38028	1993 BT ₁₄
1993 DX ₂	14.4	0.15	20000226	151.20409	195.94628	130.79702	7.51356	0.1354164	2.3538654	47	3	1993–2000	0.64	M-v	3	Spahr	38028	1993 DX ₂
1993 EK	15.0	0.15	20000226	59.24903	125.37551	339.24828	6.92075	0.1770172	2.2843349	48	5	1988–2000	0.81	M-v	2	Spahr	35686	1993 EK
1993 FL ₁	13.8	0.15	20000226	304.02175	179.81910	38.90607	7.26886	0.0590142	2.3364481	58	3	1993–2000	0.71	M-v	3	Williams	38028	1993 FL ₁
1993 FQ ₁	13.6	0.15	20000226	245.04667	123.06090	138.57806	6.84820	0.1010350	2.3935984	83	3	1993–2000	0.58	M-v	2	Williams	38028	1993 FQ ₁
1993 FV ₄	15.6	0.15	20000226	315.17436	54.57575	138.48278	2.70078	0.1475900	2.3705793	31	2	1993–2000	0.63	M-v	5	Spahr	37633	1993 FV ₄
1993 FY ₅	15.5	0.15	20000226	32.03708	103.41526	25.49010	4.56473	0.0775944	2.3239594	29	3	1993–2000	0.70	M-v	4	Williams	33071	1993 FY ₅
1993 FZ ₆	14.6	0.15	20000226	237.52546	208.84930	69.47963	3.30400	0.1999814	2.3993453	44	4	1993–2000	0.71	M-v	1	Williams	33338	1993 FZ ₆
1993 FE ₈	14.4	0.15	20000226	143.95995	248.03655	85.25392	4.20967	0.1691040	2.4675897	53	3	1993–2000	0.52	M-v	3	Williams	38028	1993 FE ₈
1993 FL ₈	14.0	0.15	20000226	251.42187	229.45182	36.32377	7.33583	0.1008662	2.3710242	44	4	1976–2000	0.62	M-v	1	Williams	34289	1993 FL ₈
1993 FK ₉	15.0	0.15	20000226	74.53789	37.59593	37.51943	5.75388	0.0881616	2.3434287	42	3	1993–2000	0.86	M-v	2	Williams	38028	1993 FK ₉
1993 FL ₉	14.5	0.15	20000226	198.51161	164.12678	141.49993	5.53361	0.1466008	2.4145490	22	3	1993–2000	0.61	M-v	5	Williams	30079	1993 FL ₉
1993 FN ₉	14.8	0.15	20000226	59.24419	49.78557	47.12317	4.05017	0.0515108	2.3378649	60	5	1991–2000	0.71	M-v	1	Williams	35687	1993 FN ₉
1993 FW ₉	14.3	0.15	20000226	202.53278	222.23730	67.95256	3.08283	0.1647066	2.4518098	62	3	1993–2000	0.69	M-v	4	Spahr	38028	1993 FW ₉
1993 FP ₁₀	15.1	0.15	20000226	37.85801	304.30823	134.36046	3.22594	0.1446636	2.4100747	40	4	1993–2000	0.49	M-v	1	Spahr	38028	1993 FP ₁₀
1993 FH ₁₁	14.0	0.15	20000226	133.78955	342.45676	21.14759	10.66292	0.1508232	2.3989856	46	3	1993–2000	0.54	M-v	2	Williams	35687	1993 FH ₁₁
1993 FS ₁₁	14.3	0.15	20000226	45.54968	307.42565	160.90281	6.84596	0.0619200	2.3441410	59	3	1993–2000	0.68	M-v	3	Spahr	38028	1993 FS ₁₁
1993 FE ₁₂	14.4	0.15	20000226	13.54301	345.19045	101.01472	3.66949	0.1530529	2.4488275	74	4	1991–2000	0.54	M-v	2	Williams	38028	1993 FE ₁₂
1993 FH ₁₂	15.0	0.15	20000226	300.80302	101.24043	105.97918	3.22464	0.1473630	2.3849135	21	2	1993–2000	0.63	M-v	4	Williams	37633	1993 FH ₁₂
1993 FO ₁₂	14.6	0.15	20000226	298.70724	183.97100	51.07367	4.72961	0.1007967	2.3341406	30	4	1991–2000	0.49	M-v	2	Williams	35687	1993 FO ₁₂
1993 FQ ₁₂	14.8	0.15	20000226	289.13038	102.80130	114.13297	3.45177	0.1144748	2.3926862	36	2	1993–2000	0.64	M-v	5	Williams	37633	1993 FQ ₁₂
1993 FC ₁₃	14.6	0.15	20000226	315.03958	89.09130	91.39254	3.42700	0.1315555	2.3956314	77	3	1993–2000	0.61	M-v	2	Williams	38028	1993 FC ₁₃

1993 FR ₁₃	15.0	0.15	20000226	27.73250	46.63437	50.66883	6.16012	0.1200479	2.3922961	43	3	1993-2000	0.59	M-v	3	Williams	38028	1993 FR ₁₃
1993 FV ₁₃	13.8	0.15	20000226	60.24500	330.34131	23.71644	15.20901	0.1492984	2.6267391	83	2	1993-2000	0.46	M-v	4	Williams	38028	1993 FV ₁₃
1993 FP ₁₄	14.1	0.15	20000226	289.67088	249.36615	38.30335	7.35828	0.1696238	2.2642941	20	3	1993-2000	0.77	M-v	5	Spahr	33746	1993 FP ₁₄
1993 FH ₁₆	15.3	0.15	20000226	350.33027	39.42172	106.60075	3.27773	0.1206891	2.3850323	29	3	1993-2000	0.68	M-v	4	Williams	38028	1993 FH ₁₆
1993 FV ₁₆	15.0	0.15	20000226	194.84325	211.82911	102.45799	2.42530	0.1717879	2.4114548	45	5	1979-2000	0.62	M-v	1	Williams	35687	1993 FV ₁₆
1993 FB ₁₈	14.0	0.15	20000226	275.44045	204.98317	95.56356	4.48405	0.1547911	2.2681347	32	7	1987-2000	0.75	M-v	2	Spahr	33746	1993 FB ₁₈
1993 FB ₁₉	14.5	0.15	20000226	57.52382	273.30423	144.41119	6.58871	0.0839311	2.4437902	16	3	1991-2000	0.55	M-v	4	Williams	23523	1993 FB ₁₉
1993 FE ₂₀	14.8	0.15	20000226	42.47957	339.05668	104.25339	5.32899	0.0619956	2.4191563	62	3	1993-2000	0.67	M-v	3	Williams	38028	1993 FE ₂₀
1993 FH ₂₀	14.9	0.15	20000226	92.10187	116.57517	285.05730	1.73113	0.1711849	2.3722829	31	4	1993-2000	0.68	M-v	1	Spahr	33071	1993 FH ₂₀
1993 FJ ₂₀	15.7	0.15	20000226	321.90523	286.73640	244.66827	1.59043	0.1330502	2.3951098	28	2	1993-2000	0.64	M-v	4	Spahr	38028	1993 FJ ₂₀
1993 FO ₂₀	14.9	0.15	20000226	295.80620	105.09604	122.02368	3.25990	0.0788589	2.3569003	23	3	1993-2000	0.58	M-v	4	Williams	33233	1993 FO ₂₀
1993 FU ₂₀	14.9	0.15	20000226	358.79360	339.73318	152.54440	5.82470	0.1689692	2.3864959	32	2	1993-2000	0.58	M-v	4	Williams	37633	1993 FU ₂₀
1993 FX ₂₁	14.7	0.15	20000226	158.20743	81.00311	200.47300	3.06830	0.0411040	2.5758182	47	3	1993-1999	0.68	M-v	4	Williams	38028	1993 FX ₂₁
1993 FB ₂₂	15.1	0.15	20000226	44.55634	74.14065	8.16960	1.17929	0.1565259	2.3962894	48	3	1991-2000	0.57	M-v	3	Williams	38028	1993 FB ₂₂
1993 FP ₂₃	14.8	0.15	20000226	52.32083	110.92183	308.13266	1.93143	0.1598247	2.4446840	50	3	1993-2000	0.56	M-v	2	Williams	38028	1993 FP ₂₃
1993 FF ₂₄	15.0	0.15	20000226	212.09537	317.26554	330.73105	2.08338	0.1798942	2.4450475	27	4	1990-2000	0.62	M-v	2	Williams	33683	1993 FF ₂₄
1993 FD ₂₅	14.2	0.15	20000226	232.72739	287.76303	352.88343	6.26845	0.1115220	2.3984358	36	3	1953-2000	0.54	M-v	4	Williams	37633	1993 FD ₂₅
1993 FR ₂₅	14.9	0.15	20000226	343.75362	276.43867	240.32651	1.53334	0.1534897	2.3780751	32	2	1993-2000	0.45	M-v	4	Williams	37633	1993 FR ₂₅
1993 FS ₂₆	13.7	0.15	20000226	290.28482	287.97225	285.80415	2.60516	0.0853892	2.3973643	110	4	1993-2000	0.63	M-v	3	Williams	38028	1993 FS ₂₆
1993 FM ₂₈	15.3	0.15	20000226	344.73168	179.83015	293.47127	1.68392	0.1518118	2.4571490	70	3	1993-2000	0.57	M-v	3	Williams	38028	1993 FM ₂₈
1993 FP ₂₉	12.9	0.15	20000226	225.20392	3.93622	202.51982	13.18064	0.1141292	2.5792716	56	2	1993-2000	0.60	M-v	3	Williams	38028	1993 FP ₂₉
1993 FX ₂₉	15.0	0.15	20000226	317.50984	309.12395	249.36403	4.25310	0.0477591	2.3567752	22	3	1993-2000	0.64	M-v	4	Williams	32930	1993 FX ₂₉
1993 FS ₃₁	14.4	0.15	20000226	214.11879	240.68895	51.88207	4.62325	0.0746365	2.4052902	71	3	1993-2000	0.71	M-v	3	Williams	38028	1993 FS ₃₁
1993 FB ₃₂	14.9	0.15	20000226	100.72885	227.03270	160.44290	3.58126	0.1838878	2.4220407	45	5	1949-2000	0.70	M-v	2	Williams	33339	1993 FB ₃₂
1993 FJ ₃₃	14.0	0.15	20000226	81.09169	308.47971	48.03973	4.15891	0.1121047	2.5767444	50	4	1993-2000	0.40	M-v	1	Williams	38029	1993 FJ ₃₃
1993 FL ₃₃	14.7	0.15	20000226	78.96335	340.35671	49.98286	4.37228	0.1760050	2.4617853	49	3	1979-2000	0.61	M-v	4	Williams	38029	1993 FL ₃₃
1993 FP ₃₃	14.6	0.15	20000226	9.56460	290.24315	140.07656	3.75528	0.1332319	2.5225160	44	2	1993-2000	0.53	M-v	4	Williams	37634	1993 FP ₃₃
1993 FH ₃₄	15.0	0.15	20000226	334.56165	49.81226	39.88751	5.90193	0.0244551	2.5998217	37	2	1993-1999	0.62	M-v	5	Williams	38029	1993 FH ₃₄
1993 FY ₃₄	14.9	0.15	20000226	241.57855	85.71732	172.24768	6.25125	0.1002215	2.4254141	34	5	1993-2000	0.53	M-v	1	Spahr	38029	1993 FY ₃₄
1993 FQ ₃₅	14.6	0.15	20000226	82.63380	357.31259	37.93181	3.42615	0.1890008	2.4347291	31	2	1993-2000	0.67	M-v	4	Williams	37634	1993 FQ ₃₅
1993 FY ₃₅	14.0	0.15	20000226	326.65056	70.90359	17.61392	13.93707	0.1330784	2.5901517	42	2	1993-1999	0.52	M-v	4	Williams	37634	1993 FY ₃₅
1993 FC ₃₇	15.1	0.15	20000226	275.01870	45.43494	178.78458	6.05193	0.1105747	2.4164923	25	4	1993-2000	0.57	M-v	1	Spahr	38029	1993 FC ₃₇
1993 FD ₃₇	14.4	0.15	20000226	334.33445	290.86539	173.51879	2.99189	0.1064801	2.5275526	59	3	1993-2000	0.63	M-v	2	Williams	38029	1993 FD ₃₇
1993 FL ₃₉	15.0	0.15	20000226	263.77609	244.72117	37.03608	2.66053	0.2096409	2.3484202	30	5	1993-2000	0.51	M-v	1	Williams	30688	1993 FL ₃₉
1993 FD ₄₀	15.7	0.15	20000226	293.28736	47.65661	177.08388	6.77813	0.0633207	2.3610678	27	4	1993-2000	0.61	M-v	1	Spahr	30471	1993 FD ₄₀
1993 FJ ₄₀	14.0	0.15	20000226	62.07314	314.94311	170.12973	5.70551	0.0505512	2.2783739	19	3	1993-2000	0.47	M-v	2	Spahr	35687	1993 FJ ₄₀
1993 FW ₄₁	15.3	0.15	20000226	196.98520	317.59277	5.41333	3.67668	0.0637612	2.3600928	41	3	1993-2000	0.71	M-v	4	Williams	33339	1993 FW ₄₁
1993 FY ₄₁	15.1	0.15	20000226	31.98869	67.66117	15.54998	1.90374	0.1187468	2.4219894	43	5	1993-2000	0.68	M-v	1	Williams	38029	1993 FY ₄₁
1993 FT ₄₂	14.5	0.15	20000226	14.08913	81.13697	29.05252	2.39245	0.1676936	2.3913036	54	3	1993-2000	0.50	M-v	3	Williams	37634	1993 FT ₄₂
1993 FH ₄₃	14.3	0.15	20000226	251.35407	252.70739	48.00352	0.52215	0.2314421	2.3321488	28	6	1950-2000	0.79	M-v	2	Williams	25082	1993 FH ₄₃
1993 FA ₄₅	14.3	0.15	20000226	267.28037	269.10846	10.51175	4.46317	0.2681537	2.3509326	12	3	1990-2000	0.46	M-v	3	Williams	23528	1993 FA ₄₅
1993 FV ₄₅	14.3	0.15	20000226	160.68015	139.10264	170.15226	5.62464	0.2732039	2.5404334	71	4	1993-2000	0.59	M-v	2	Spahr	38029	1993 FV ₄₅
1993 FC ₄₆	15.6	0.15	20000226	230.62398	32.02158	241.91529	0.37516	0.1751755	2.4289138	47	4	1993-2000	0.49	M-v	1	Spahr	33071	1993 FC ₄₆
1993 FS ₄₆	15.0	0.15	20000226	48.29963	288.65237	180.34860	5.22712	0.0915634	2.3244360	36	3	1993-2000	0.76	M-v	4	Spahr	35687	1993 FS ₄₆
1993 FD ₄₇	14.5	0.15	20000226	75.09697	54.53392	156.58941	1.40681	0.1086717	3.1015824	16	2	1993-1999	0.64	M-v	5	Williams	37634	1993 FD ₄₇
1993 FS ₄₇	14.6	0.15	20000226	31.85605	77.51128	9.18614	6.53079	0.0756566	2.4199364	42	3	1993-2000	0.64	M-v	3	Williams	37634	1993 FS ₄₇
1993 FV ₅₀	15.5	0.15	20000226	1.99275	262.00687	234.11827	1.43046	0.1619289	2.3641031	62	2	1993-2000	0.54	M-v	3	Williams	37635	1993 FV ₅₀
1993 FR ₅₂	16.6	0.15	20000226	351.22690	4.74214	153.85371	4.09226	0.2100556	2.3430917	28	3	1993-2000	0.55	M-v	4	Williams	26402	1993 FR ₅₂
1993 FL ₅₄	14.3	0.15	20000226	297.49801	254.92992	11.26320	21.35228	0.3276356	2.3257898	22	3	1990-2000	0.66	M-v	3	Williams	35687	1993 FL ₅₄
1993 FZ ₅₅	13.6	0.15	20000226	224.08880	176.44598	137.29721	6.11551	0.2424606	2.3665061	31	6	1972-2000	0.50	M-v	1	Williams	33549	1993 FZ ₅₅
1993 FW ₇₃	15.6	0.15	20000226	236.36127	55.70375	216.11916	3.75500	0.1924972	2.4323387	16	3	1993-2000	0.59	M-v	3	Spahr	33339	1993 FW ₇₃
1993 FV ₈₀	14.8	0.15	20000226	76.58654	281.94839	45.69623	2.58771	0.1820049	2.6817219	67	3	1993-1999	0.72	M-v	3	Williams	38029	1993 FV ₈₀
1993 FL ₈₁	14.8	0.15	20000226	250.08848	104.83274	147.67757	3.02060	0.1224305	2.4121402	25	3	1993-2000	0.68	M-v	3	Williams	34501	1993 FL ₈₁

1993 GB	13.8	0.15	20000226	293.39968	171.99693	25.37344	9.83647	0.1908346	2.4404844	68	3	1993-2000	0.74	M-v	3	Williams	38029	1993 GB
1993 GC	13.0	0.15	20000226	183.54732	20.90546	200.46164	12.29841	0.1076121	2.6953571	96	3	1993-2000	0.59	M-v	3	Williams	38029	1993 GC
1993 GK ₁	14.9	0.15	20000226	323.31079	211.35635	324.73510	1.93584	0.1620601	2.4011822	71	4	1993-2000	0.73	M-v	3	Williams	38029	1993 GK ₁
1993 HX	13.8	0.15	20000226	235.12986	145.15742	133.70933	3.05083	0.0457796	2.4080556	88	3	1993-2000	0.70	M-v	2	Williams	37264	1993 HX
1993 HC ₁	14.9	0.15	20000226	4.62362	158.44806	20.12414	26.61206	0.1900087	2.2934240	23	6	1976-2000	0.61	M-v	2	Spahr	32746	1993 HC ₁
1993 HW ₁	13.4	0.15	20000226	319.21715	176.64715	76.02215	12.51742	0.2053850	2.2990390	34	5	1989-2000	0.66	M-v	2	Williams	38029	1993 HW ₁
1993 HL ₃	15.2	0.15	20000226	60.89799	302.53463	124.53802	3.31658	0.1501575	2.3984964	57	4	1989-2000	0.60	M-v	1	Williams	37635	1993 HL ₃
1993 HZ ₅	15.1	0.15	20000226	327.75343	68.03009	68.12511	26.23309	0.1014073	1.8520367	84	3	1993-2000	0.73	M-v	1	Williams	38029	1993 HZ ₅
1993 KR	13.7	0.15	20000226	8.84969	305.53675	229.40877	20.98393	0.2521866	2.3315811	36	4	1993-2000	0.72	M-v	2	Williams	35688	1993 KR
1993 KX ₁	12.9	0.15	20000226	290.23849	191.47575	93.77186	25.62409	0.2006271	2.3430419	29	3	1993-2000	0.64	M-v	3	Spahr	38029	1993 KX ₁
1993 KZ ₁	13.3	0.15	20000226	307.77507	169.26160	89.94633	25.56299	0.2007085	2.3474378	47	4	1993-2000	0.80	M-v	3	Williams	38029	1993 KZ ₁
1993 LF	12.2	0.15	20000226	205.06697	183.50124	119.55693	15.58922	0.1097648	2.5526666	65	3	1993-2000	0.53	M-v	2	Williams	38029	1993 LF
1993 LF ₁	13.3	0.15	20000226	219.35801	279.57844	330.91725	12.03847	0.1469993	2.5604937	30	2	1993-2000	0.46	M-v	3	Williams	37635	1993 LF ₁
1993 LW ₁	13.5	0.15	20000226	262.59868	205.14305	62.20199	12.33548	0.2416970	2.4266832	32	4	1989-2000	0.70	M-v	2	Williams	35688	1993 LW ₁
1993 NB	12.7	0.15	20000226	238.25272	204.82954	130.16604	14.18910	0.2257548	2.4416973	51	5	1955-2000	0.84	M-v	2	Spahr	38029	1993 NB
1993 NS ₁	13.9	0.15	20000226	15.14876	271.76970	117.38984	8.68498	0.2751023	3.0857578	41	3	1989-2000	0.68	M-v	3	Williams	38029	1993 NS ₁
1993 NW ₁	14.0	0.15	20000226	120.73841	79.89135	215.51560	1.52709	0.0386435	2.8998588	55	3	1993-1999	0.63	M-v	4	Williams	38029	1993 NW ₁
1993 OC ₂	14.0	0.15	20000226	276.61364	225.01806	334.70089	18.40303	0.0541495	1.9340973	50	3	1993-2000	0.62	M-v	3	Williams	38029	1993 OC ₂
1993 OD ₂	12.8	0.15	20000226	215.62285	169.91769	140.16278	16.09142	0.2317535	2.5944506	44	3	1993-2000	0.58	M-v	2	Williams	37636	1993 OD ₂
1993 OO ₄	15.0	0.15	20000226	191.23780	188.61499	128.67512	3.88277	0.0640114	2.5962669	32	5	1960-2000	0.77	M-v	1	Williams	35688	1993 OO ₄
1993 OY ₁₂	13.4	0.15	20000226	274.28715	301.25824	286.83451	13.76308	0.0764457	2.5694528	49	2	1993-2000	0.64	M-v	4	Williams	37636	1993 OY ₁₂
1993 PF	13.8	0.15	20000226	104.33853	138.83964	281.90972	14.00233	0.0583733	2.5706037	29	4	1993-2000	0.71	M-v	1	Williams	38029	1993 PF
1993 PV ₅	12.9	0.15	20000226	51.74332	47.92649	317.63811	9.71043	0.1243258	3.0675707	76	4	1988-2000	0.56	M-v	1	Williams	38029	1993 PV ₅
1993 QV ₁	13.8	0.15	20000226	154.65370	157.46117	205.09307	1.77686	0.0982268	2.6836886	28	3	1993-2000	0.78	M-v	4	Williams	35688	1993 QV ₁
1993 QN ₃	13.6	0.15	20000226	212.42719	133.67300	159.88426	4.82765	0.0575544	2.6993822	60	3	1993-2000	0.56	M-v	2	Williams	38029	1993 QN ₃
1993 QH ₄	13.7	0.15	20000226	32.89559	248.11734	128.40693	2.20263	0.2273607	3.1800249	66	3	1993-2000	0.67	M-v	2	Williams	38030	1993 QH ₄
1993 QM ₄	14.1	0.15	20000226	84.82891	72.58630	10.90480	1.96342	0.0591348	2.6702389	35	4	1993-2000	0.73	M-v	3	Williams	35918	1993 QM ₄
1993 QO ₄	13.9	0.15	20000226	59.43922	211.81627	149.77938	1.78826	0.2202217	3.0934765	60	3	1993-1999	0.74	M-v	3	Williams	38030	1993 QO ₄
1993 QQ ₅	14.4	0.15	20000226	147.58434	155.39740	192.30245	4.68992	0.1256926	2.7462325	30	3	1993-2000	0.64	M-v	4	Spahr	35688	1993 QQ ₅
1993 QP ₉	14.7	0.15	20000226	102.73166	255.02520	134.31105	5.20567	0.0777986	2.7952341	41	3	1993-2000	0.69	M-v	4	Williams	38030	1993 QP ₉
1993 RS	14.2	0.15	20000226	144.81306	45.57212	351.61683	22.48385	0.0475112	1.8834164	38	3	1993-2000	0.69	M-v	2	Spahr	38030	1993 RS
1993 RD ₂	12.9	0.15	20000226	217.43184	152.72283	174.81050	15.33132	0.1238834	2.6053985	36	3	1993-2000	0.68	M-v	3	Spahr	38030	1993 RD ₂
1993 RA ₃	12.9	0.15	20000226	199.04313	99.85410	203.56106	12.22716	0.1709102	2.6833863	30	3	1993-2000	0.76	M-v	3	Spahr	37636	1993 RA ₃
1993 RC ₅	13.6	0.15	20000226	21.53241	181.60759	212.91742	2.89388	0.1078789	3.1957651	54	2	1993-2000	0.52	M-v	3	Williams	38030	1993 RC ₅
1993 SK ₂	14.1	0.15	20000226	220.27061	313.44427	359.26468	14.12627	0.2472393	2.6111294	23	5	1989-2000	0.63	M-v	2	Williams	34848	1993 SK ₂
1993 SA ₄	12.7	0.15	20000226	167.75127	172.33360	178.26828	8.60512	0.1830907	2.7185441	50	6	1962-2000	0.74	M-v	1	Williams	33747	1993 SA ₄
1993 SA ₆	13.9	0.15	20000226	340.57138	323.10327	151.87111	1.80554	0.1313232	3.0557975	48	3	1993-2000	0.73	M-v	2	Spahr	38030	1993 SA ₆
1993 SN ₇	13.8	0.15	20000226	8.35992	113.64602	318.90390	1.22522	0.1342942	3.1276825	73	3	1993-2000	0.63	M-v	3	Spahr	37636	1993 SN ₇
1993 TR ₁	12.1	0.15	20000226	42.60812	358.83439	33.64369	13.85371	0.0577018	3.1674383	49	2	1993-2000	0.60	M-v	4	Williams	37637	1993 TR ₁
1993 TJ ₂	13.6	0.15	20000226	36.50643	0.20047	35.49656	2.59902	0.1966065	3.1896637	65	3	1993-2000	0.54	M-v	3	Williams	38030	1993 TJ ₂
1993 TH ₁₄	13.3	0.15	20000226	328.93489	68.66393	157.23714	3.59969	0.1929125	2.5908360	36	5	1989-2000	0.83	M-v	2	Williams	38030	1993 TH ₁₄
1993 TX ₁₄	14.8	0.15	20000226	57.80520	221.12421	142.06393	1.41375	0.1848741	3.1636960	50	3	1993-1999	0.70	M-v	4	Williams	38030	1993 TX ₁₄
1993 TA ₁₅	15.6	0.15	20000226	272.16130	75.63109	30.91639	5.05826	0.1161027	2.1901766	45	2	1993-1998	0.75	M-v	5	Marsden	32307	1993 TA ₁₅
1993 TM ₁₅	14.0	0.15	20000226	121.29422	269.47355	73.09134	3.08771	0.0781983	2.9560959	36	3	1993-2000	0.73	M-v	5	Williams	38030	1993 TM ₁₅
1993 TU ₁₅	14.1	0.15	20000226	0.50653	255.10543	197.79104	1.33587	0.1237832	3.0995025	41	3	1993-2000	0.66	M-v	4	Williams	38030	1993 TU ₁₅
1993 TD ₁₇	14.5	0.15	20000226	222.60330	199.42404	87.75083	1.78136	0.0405580	2.7769392	55	5	1993-2000	0.55	M-v	1	Williams	35689	1993 TD ₁₇
1993 TK ₁₇	13.9	0.15	20000226	58.42810	322.89091	24.78206	22.30397	0.0622817	3.2561889	47	2	1993-1999	0.63	M-v	4	Williams	38030	1993 TK ₁₇
1993 TL ₁₇	14.2	0.15	20000226	357.63815	357.62106	183.70817	9.66870	0.1701473	2.7105298	27	5	1991-2000	0.84	M-v	2	Spahr	38030	1993 TL ₁₇
1993 TV ₁₉	13.2	0.15	20000226	186.69991	213.29620	84.10336	3.43907	0.0182304	2.8896206	92	3	1993-2000	0.60	M-v	3	Williams	38030	1993 TV ₁₉
1993 TJ ₂₁	12.4	0.15	20000226	204.21042	200.74649	25.83269	17.84366	0.1378272	3.1106748	49	3	1991-2000	0.78	M-v	3	Williams	37637	1993 TJ ₂₁
1993 TH ₂₄	14.3	0.15	20000226	137.52109	289.69612	63.76400	3.17544	0.0757131	2.8630196	27	3	1993-2000	0.76	M-v	5	Spahr	35689	1993 TH ₂₄
1993 TM ₂₄	14.4	0.15	20000226	93.99126	348.52858	56.89537	4.62411	0.1825667	2.8761208	50	4	1993-2000	0.58	M-v	2	Williams	35689	1993 TM ₂₄
1993 TJ ₂₇	14.3	0.15	20000226	349.67204	300.95053	184.48784	10.50487	0.0396066	2.9704092	26	3	1993-2000	0.61	M-v	4	Williams	38030	1993 TJ ₂₇

1993 TL ₂₈	14.2	0.15	20000226	359.10535	357.50487	122.38681	2.41114	0.1632254	3.0231643	36	3	1993-2000	0.65	M-v	4	Spahr	38030	1993 TL ₂₈
1993 TU ₂₉	13.8	0.15	20000226	104.67256	256.18078	117.87409	3.28031	0.0571098	2.9360503	54	3	1993-2000	0.70	M-v	4	Williams	38030	1993 TU ₂₉
1993 TZ ₂₉	13.9	0.15	20000226	331.57579	73.51829	81.41936	3.24308	0.0120033	2.9130795	55	4	1993-2000	0.81	M-v	1	Spahr	38030	1993 TZ ₂₉
1993 TM ₃₁	13.9	0.15	20000226	58.92164	316.32883	115.20111	3.04293	0.0335870	2.9072415	68	3	1993-2000	0.77	M-v	2	Williams	38030	1993 TM ₃₁
1993 TQ ₃₆	13.2	0.15	20000226	111.98960	328.33772	66.33085	10.50609	0.1376724	2.7986748	59	6	1986-2000	0.75	M-v	1	Williams	35689	1993 TQ ₃₆
1993 TK ₃₇	13.8	0.15	20000226	74.74605	211.66468	181.04639	11.49143	0.1461685	3.0121249	52	4	1972-2000	0.71	M-v	2	Spahr	38030	1993 TK ₃₇
1993 UK	12.7	0.15	20000226	164.93381	254.92413	80.70237	3.32547	0.0667387	2.8536103	103	3	1993-2000	0.72	M-v	3	Williams	38030	1993 UK
1993 UL	13.9	0.15	20000226	210.32908	131.14775	196.47431	12.70475	0.1914813	2.6707149	37	6	1992-2000	0.73	M-v	1	Spahr	33550	1993 UL
1993 US	14.5	0.15	20000226	198.09202	169.43519	166.70954	1.85902	0.0937712	2.6894955	61	7	1953-2000	0.77	M-v	1	Spahr	34010	1993 US
1993 UT	13.6	0.15	20000226	200.65193	244.22319	63.46415	32.32125	0.3363437	2.7194317	43	5	1984-2000	0.62	M-v	2	Spahr	35066	1993 UT
1993 UY ₂	12.5	0.15	20000226	59.60049	295.91232	52.42509	23.65087	0.1781712	3.1691971	63	2	1993-2000	0.42	M-v	3	Williams	38030	1993 UY ₂
1993 UW ₆	13.4	0.15	20000226	128.41500	234.46082	97.88348	6.17014	0.1139153	3.0052524	49	3	1993-2000	0.60	M-v	4	Williams	38030	1993 UW ₆
1993 UZ ₇	13.1	0.15	20000226	36.24082	264.38364	144.16192	7.32484	0.1418904	3.1605195	84	3	1993-2000	0.72	M-v	2	Spahr	38030	1993 UZ ₇
1993 VU ₁	13.2	0.15	20000226	123.39927	113.91415	243.33363	10.28361	0.1623104	2.9607114	42	4	1976-2000	0.48	M-v	2	Spahr	38030	1993 VU ₁
1993 VH ₅	14.4	0.15	20000226	143.70727	228.86067	124.48449	3.98053	0.2126582	2.8340062	36	4	1993-2000	0.76	M-v	3	Williams	35689	1993 VH ₅
1993 XG	12.5	0.15	20000226	130.23234	295.25706	98.37248	13.82281	0.1234434	2.8687939	53	4	1993-2000	0.67	M-v	2	Spahr	38030	1993 XG
1993 YF	14.0	0.15	20000226	69.02495	306.78731	113.34360	2.56707	0.1710299	3.1178037	47	5	1976-2000	0.76	M-v	1	Williams	38030	1993 YF
1994 AM	12.8	0.15	20000226	292.44666	313.81024	277.32973	14.64296	0.2031260	3.1243020	47	3	1994-2000	0.62	M-v	3	Spahr	38031	1994 AM
1994 AF ₃	12.9	0.15	20000226	83.34687	155.85842	284.76055	11.48064	0.1849004	3.0535192	36	4	1989-2000	0.74	M-v	2	Williams	34291	1994 AF ₃
1994 AU ₆	13.2	0.15	20000226	155.85805	207.15820	123.41720	2.46822	0.1845188	3.1831228	35	3	1994-2000	0.67	M-v	4	Spahr	38031	1994 AU ₆
1994 AL ₁₆	13.1	0.15	20000226	70.05905	283.09794	180.28731	9.81833	0.0626926	3.0586261	31	4	1989-2000	0.64	M-v	2	Spahr	34011	1994 AL ₁₆
1994 BD ₁	15.0	0.15	20000226	15.89665	45.13652	7.65894	6.46953	0.1452887	2.1984203	72	2	1994-2000	0.63	M-v	4	Williams	38031	1994 BD ₁
1994 BD ₄	13.2	0.15	20000226	45.29907	306.24289	157.21893	5.95613	0.0879599	3.1546456	53	4	1981-2000	0.53	M-v	1	Williams	37265	1994 BD ₄
1994 BJ ₄	13.3	0.15	20000226	328.76259	290.26637	276.08090	8.44990	0.0450478	3.0717613	37	5	1991-2000	0.73	M-v	1	Spahr	38031	1994 BJ ₄
1994 CG ₁	14.5	0.15	20000226	143.58092	286.20497	11.18910	5.00559	0.1987404	2.2523685	53	3	1994-2000	0.60	M-v	3	Williams	38031	1994 CG ₁
1994 CM ₁₃	14.1	0.15	20000226	3.59586	325.77335	22.72838	6.74128	0.1462128	2.4846271	25	4	1976-1998	0.82	M-v	3	Marsden	32051	1994 CM ₁₃
1994 CD ₁₈	14.7	0.15	20000226	72.21470	20.57382	358.38613	8.13631	0.1915609	2.1920998	42	3	1989-2000	0.64	M-v	4	Williams	38031	1994 CD ₁₈
1994 EW	17.3	0.15	20000226	206.63003	60.20884	246.73870	0.26274	0.1982468	2.1315330	36	3	1994-2000	0.51	M-v	5	Spahr	33072	1994 EW
1994 EK ₁	14.4	0.15	20000226	210.71906	187.43945	25.44416	7.42865	0.0600344	2.3439934	43	2	1994-1999	0.39	M-v	4	Williams	38031	1994 EK ₁
1994 EL ₁	13.8	0.15	20000226	39.94437	317.14698	112.78996	4.93123	0.1381323	2.1884526	78	3	1994-2000	0.61	M-v	2	Williams	38031	1994 EL ₁
1994 ER ₅	15.3	0.15	20000226	246.25948	159.50522	35.51952	3.83496	0.1214359	2.2652877	54	2	1994-1999	0.68	M-v	4	Williams	38031	1994 ER ₅
1994 EJ ₆	15.2	0.15	20000226	18.94822	353.96847	74.39600	4.96618	0.0473227	2.2240327	86	3	1994-2000	0.55	M-v	3	Williams	38031	1994 EJ ₆
1994 EZ ₆	14.6	0.15	20000226	106.50564	222.42042	97.16698	5.96203	0.1523873	2.3102585	83	3	1994-2000	0.60	M-v	2	Spahr	38031	1994 EZ ₆
1994 FB	14.8	0.15	20000226	351.88109	258.93228	193.59533	2.28072	0.0505185	2.2435622	110	5	1991-2000	0.65	M-v	2	Spahr	38031	1994 FB
1994 GN	14.1	0.15	20000226	189.07180	203.46854	71.99123	5.54965	0.1407913	2.2681568	56	4	1994-2000	0.65	M-v	3	Williams	38031	1994 GN
1994 GB ₁	13.4	0.15	20000226	204.16770	238.23057	40.38539	5.52003	0.1978569	2.2700004	72	3	1994-2000	0.60	M-v	3	Williams	38031	1994 GB ₁
1994 GR ₂	16.2	0.15	20000226	172.56412	203.66341	109.23079	3.10942	0.1872047	2.2346522	29	3	1994-2000	0.59	M-v	3	Williams	32747	1994 GR ₂
1994 GK ₉	14.3	0.15	20000226	258.62886	337.38339	226.80251	5.86327	0.1300526	2.2550562	78	3	1994-2000	0.55	M-v	2	Spahr	38031	1994 GK ₉
1994 GO ₉	13.7	0.15	20000226	152.68601	228.78585	96.14021	8.86526	0.1866175	2.2881259	59	3	1994-2000	0.63	M-v	2	Williams	37638	1994 GO ₉
1994 GU ₉	13.3	0.15	20000226	191.87884	124.40264	125.70688	21.96319	0.1220144	2.3002632	61	4	1990-2000	0.60	M-v	2	Spahr	38031	1994 GU ₉
1994 JB	14.9	0.15	20000226	99.33312	223.03366	65.94455	3.15980	0.1887610	2.5485269	57	3	1994-1999	0.65	M-v	2	Williams	38031	1994 JB
1994 JC	15.1	0.15	20000226	346.50031	137.55633	37.63749	30.97671	0.5142973	3.3748701	53	2	1994-2000	0.83	M-v	2	Williams	38031	1994 JC
1994 NA	14.5	0.15	20000226	187.69898	154.79275	113.33393	7.20442	0.1101137	2.4467371	61	3	1994-2000	0.60	M-v	3	Spahr	38031	1994 NA
1994 NQ	13.8	0.15	20000226	170.92530	238.04245	104.22870	24.08360	0.2771065	2.3589480	23	3	1994-2000	0.71	M-v	3	Williams	34011	1994 NQ
1994 NS	14.6	0.15	20000226	274.92658	78.88446	203.79571	6.48282	0.2396672	2.1671218	39	6	1988-2000	0.71	M-v	2	Williams	33550	1994 NS
1994 PG	13.9	0.15	20000226	336.19435	14.48919	157.69912	12.45399	0.0925133	2.3919119	70	3	1994-2000	0.62	M-v	3	Williams	38031	1994 PG
1994 PH	14.8	0.15	20000226	188.81178	334.99624	352.72752	4.64773	0.1953528	2.3477221	30	3	1994-2000	0.89	M-v	3	Williams	35690	1994 PH
1994 PL ₁	14.8	0.15	20000226	241.89097	117.85468	147.26013	22.04033	0.1642416	2.2635741	22	2	1994-2000	0.48	M-v	3	Williams	37638	1994 PL ₁
1994 PN ₁	12.8	0.15	20000226	18.26725	307.36424	108.96125	24.65481	0.1964460	2.7923823	50	3	1994-2000	0.63	M-v	2	Williams	38031	1994 PN ₁
1994 PE ₂	14.3	0.15	20000226	77.35684	14.82473	335.78901	5.31102	0.3017504	2.7021868	41	3	1994-2000	0.70	M-v	3	Williams	38031	1994 PE ₂
1994 PF ₂	15.3	0.15	20000226	171.18556	171.26454	155.77433	1.53203	0.2459918	2.4193030	40	4	1994-2000	0.83	M-v	2	Williams	35690	1994 PF ₂
1994 PU ₂	15.9	0.15	20000226	107.50578	55.58540	317.22462	2.27967	0.1983781	2.5211014	41	4	1978-2000	0.77	M-v	3	Williams	32747	1994 PU ₂
1994 PB ₃	14.8	0.15	20000226	44.62006	301.21645	158.17303	6.10373	0.0950494	2.4314168	53	3	1994-2000	0.72	M-v	3	Williams	32666	1994 PB ₃

1994 PL ₄	14.3	0.15	20000226	183.36025	153.37659	152.34838	8.66855	0.1321829	2.4308545	64	3	1994-2000	0.58	M-v	3	Spahr	38031	1994 PL ₄
1994 PF ₅	15.0	0.15	20000226	213.71792	161.28108	150.35217	6.47030	0.1266366	2.3298282	20	3	1994-2000	0.77	M-v	4	Spahr	35690	1994 PF ₅
1994 PK ₈	14.5	0.15	20000226	262.68512	350.12969	258.05466	1.03001	0.1540320	2.3378425	71	3	1994-2000	0.77	M-v	3	Williams	38031	1994 PK ₈
1994 PS ₁₀	15.8	0.15	20000226	169.61168	16.05475	327.48464	2.23261	0.1922766	2.3920863	34	4	1993-2000	0.59	M-v	2	Williams	33747	1994 PS ₁₀
1994 PJ ₁₁	14.5	0.15	20000226	219.08051	310.58980	309.01505	1.52196	0.1898068	2.4264751	41	4	1989-2000	0.69	M-v	2	Williams	38031	1994 PJ ₁₁
1994 PL ₁₁	14.5	0.15	20000226	185.60783	13.19291	302.69027	5.34756	0.1091359	2.4105799	52	4	1993-2000	0.75	M-v	3	Spahr	38032	1994 PL ₁₁
1994 PL ₁₂	14.3	0.15	20000226	328.00384	268.30253	260.67632	1.48520	0.1341783	2.4263111	56	3	1994-2000	0.70	M-v	3	Williams	38032	1994 PL ₁₂
1994 PM ₁₄	15.4	0.15	20000226	170.45614	165.10834	164.69640	1.95895	0.2247363	2.4193862	36	4	1991-2000	0.71	M-v	2	Spahr	35690	1994 PM ₁₄
1994 PQ ₁₅	14.2	0.15	20000226	185.28551	5.80587	312.21808	3.03008	0.2272984	2.3975736	62	5	1992-2000	0.60	M-v	2	Williams	38032	1994 PQ ₁₅
1994 PC ₁₆	15.2	0.15	20000226	208.97106	84.01632	202.46108	2.67439	0.1543447	2.4065341	36	4	1994-2000	0.87	M-v	2	Spahr	38032	1994 PC ₁₆
1994 PE ₁₆	15.0	0.15	20000226	66.29761	97.48836	311.86195	4.17872	0.1231343	2.5576908	55	3	1994-2000	0.85	M-v	3	Spahr	38032	1994 PE ₁₆
1994 PP ₁₆	15.3	0.15	20000226	275.70795	136.00699	131.98441	1.07505	0.1254527	2.2687393	29	4	1960-2000	0.77	M-v	1	Williams	35691	1994 PP ₁₆
1994 PE ₁₈	14.8	0.15	20000226	241.56090	338.51062	316.75522	0.64547	0.1520483	2.2944598	34	4	1991-2000	0.74	M-v	2	Spahr	35691	1994 PE ₁₈
1994 PG ₁₈	13.9	0.15	20000226	333.96709	2.81772	157.19213	6.42791	0.0658642	2.4539510	92	3	1994-2000	0.65	M-v	3	Williams	38032	1994 PG ₁₈
1994 PG ₁₉	14.7	0.15	20000226	93.46298	53.93564	335.24747	4.60998	0.1478430	2.5324311	59	4	1994-2000	0.74	M-v	3	Williams	38032	1994 PG ₁₉
1994 PH ₁₉	14.4	0.15	20000226	314.17086	236.32904	299.14829	1.32110	0.1221700	2.4583123	54	2	1994-2000	0.63	M-v	4	Williams	37638	1994 PH ₁₉
1994 PE ₂₀	15.8	0.15	20000226	146.42785	69.96114	279.57619	1.24823	0.2115250	2.4611054	40	3	1994-2000	0.63	M-v	3	Williams	33747	1994 PE ₂₀
1994 PL ₂₀	15.3	0.15	20000226	21.82885	328.62525	166.38284	2.50288	0.1126880	2.4069838	36	4	1994-2000	0.71	M-v	2	Spahr	37265	1994 PL ₂₀
1994 PX ₂₀	15.2	0.15	20000226	245.57106	286.58870	341.04309	1.75964	0.1049306	2.3643679	44	3	1994-2000	0.65	M-v	3	Williams	33340	1994 PX ₂₀
1994 PY ₂₁	14.5	0.15	20000226	246.39678	118.60069	142.60669	3.22787	0.1337587	2.3710571	33	4	1994-2000	0.74	M-v	2	Spahr	38032	1994 PY ₂₁
1994 PR ₂₂	14.5	0.15	20000226	271.71305	208.21455	18.51473	1.25108	0.2183596	2.3708129	22	2	1994-2000	0.73	M-v	4	Williams	37639	1994 PR ₂₂
1994 PL ₂₃	14.7	0.15	20000226	32.97398	59.46642	36.23807	1.22695	0.1488581	2.5362836	112	5	1988-2000	0.68	M-v	2	Williams	38032	1994 PL ₂₃
1994 PW ₂₆	14.1	0.15	20000226	23.21672	261.66200	143.66617	9.22737	0.2603238	2.7739921	53	3	1994-2000	0.79	M-v	2	Williams	38032	1994 PW ₂₆
1994 PW ₂₇	14.1	0.15	20000226	219.18872	322.00715	357.53836	3.37361	0.0943243	2.3001179	57	6	1966-2000	0.77	M-v	1	Williams	34582	1994 PW ₂₇
1994 PQ ₃₂	15.4	0.15	20000226	181.59554	141.18031	190.33509	5.53464	0.1248258	2.3896249	29	5	1979-2000	0.81	M-v	2	Spahr	33551	1994 PQ ₃₂
1994 PL ₃₅	15.0	0.15	20000226	75.32756	196.89829	204.25484	2.84242	0.1272719	2.5290697	43	3	1994-2000	0.70	M-v	3	Spahr	38032	1994 PL ₃₅
1994 PA ₃₆	14.8	0.15	20000226	104.82839	155.62522	166.06831	2.22416	0.0915371	2.6556739	53	2	1994-1999	0.70	M-v	5	Williams	38032	1994 PA ₃₆
1994 PF ₃₇	14.3	0.15	20000226	1.85648	332.64504	157.89284	5.85643	0.0903428	2.4460273	36	2	1994-2000	0.62	M-v	4	Williams	37639	1994 PF ₃₇
1994 PK ₃₇	14.6	0.15	20000226	307.53045	254.58871	296.69198	4.01347	0.1625235	2.3754659	52	2	1994-2000	0.59	M-v	4	Spahr	37639	1994 PK ₃₇
1994 PN ₃₇	14.6	0.15	20000226	225.46594	126.35503	157.42835	6.09490	0.1843749	2.3432831	37	3	1994-2000	0.81	M-v	3	Spahr	38032	1994 PN ₃₇
1994 PU ₃₇	14.9	0.15	20000226	81.10429	241.46942	158.06320	3.05288	0.1614770	2.5272930	54	3	1994-2000	0.69	M-v	3	Williams	32748	1994 PU ₃₇
1994 PY ₃₇	16.4	0.15	20000226	226.36958	333.40436	301.85108	1.63725	0.1891550	2.3578087	36	3	1994-2000	0.72	M-v	3	Williams	35691	1994 PY ₃₇
1994 PD ₃₈	13.4	0.15	20000226	91.61938	71.65194	153.09475	7.57940	0.1608006	3.0948429	53	4	1992-1999	0.74	M-v	2	Marsden	35691	1994 PD ₃₈
1994 PV ₃₉	14.4	0.15	20000226	245.48353	330.30296	275.31700	1.30671	0.1824226	2.3785461	49	4	1990-2000	0.66	M-v	2	Spahr	38032	1994 PV ₃₉
1994 QV	13.2	0.15	20000226	88.87695	6.21670	354.02559	13.66733	0.2890381	2.6437534	64	5	1971-2000	0.63	M-v	2	Williams	38032	1994 QV
1994 RZ	15.3	0.15	20000226	99.42149	44.25097	342.44814	2.45325	0.2632197	2.5529580	74	6	1986-2000	0.71	M-v	2	Williams	33073	1994 RZ
1994 RL ₁	14.3	0.15	20000226	136.93686	153.75043	188.39470	12.94249	0.2085929	2.5439212	88	5	1986-2000	0.66	M-v	2	Spahr	38032	1994 RL ₁
1994 RY ₁	13.5	0.15	20000226	95.41730	180.72598	169.77028	16.42661	0.2894733	2.6267093	46	3	1994-2000	0.75	M-v	2	Spahr	38032	1994 RY ₁
1994 RG ₇	14.3	0.15	20000226	81.91363	324.81951	315.39991	1.47684	0.0288099	3.0710739	28	3	1994-1999	0.49	M-v	3	Williams	37640	1994 RG ₇
1994 RR ₁₁	14.0	0.15	20000226	43.42439	157.48403	238.79414	7.62789	0.1657947	2.7365707	88	5	1983-2000	0.60	M-v	1	Spahr	38032	1994 RR ₁₁
1994 RT ₁₁	15.0	0.15	20000226	214.19529	104.68290	246.53578	5.57090	0.1391148	2.2754565	26	4	1980-1998	0.57	M-v	4	Spahr	35691	1994 RT ₁₁
1994 RW ₁₁	14.5	0.15	20000226	213.91224	94.84079	211.36652	4.59483	0.2115368	2.3643922	32	4	1994-2000	0.69	M-v	1	Spahr	35691	1994 RW ₁₁
1994 RN ₁₂	14.2	0.15	20000226	222.37436	166.67267	157.66505	4.96247	0.1713562	2.2756060	27	4	1991-2000	0.82	M-v	2	Williams	33488	1994 RN ₁₂
1994 ST ₇	14.9	0.15	20000226	240.85547	128.00836	158.46237	2.63000	0.1620286	2.3595895	34	5	1976-2000	0.63	M-v	1	Spahr	38032	1994 ST ₇
1994 TJ	14.9	0.15	20000226	158.67726	0.84454	345.64974	5.60559	0.0933121	2.4798679	54	3	1994-2000	0.65	M-v	3	Williams	35691	1994 TJ
1994 TT	14.4	0.15	20000226	109.96882	33.07813	358.37211	5.94592	0.2334462	2.5455740	65	5	1990-2000	0.68	M-v	2	Williams	35691	1994 TT
1994 TJ ₁	14.7	0.15	20000226	114.85829	194.26115	182.13171	6.34402	0.2460980	2.5641035	74	7	1986-2000	0.66	M-v	2	Spahr	35691	1994 TJ ₁
1994 TO ₂	13.0	0.15	20000226	82.14936	319.61484	31.62354	9.64500	0.1632009	2.7560764	31	3	1994-2000	0.64	M-v	3	Williams	38033	1994 TO ₂
1994 TB ₃	13.8	0.15	20000226	100.31385	12.39320	14.62442	14.60098	0.1501761	2.6003328	61	3	1994-2000	0.67	M-v	2	Williams	38033	1994 TB ₃
1994 TD ₃	12.8	0.15	20000226	92.16106	325.50534	18.31231	8.74856	0.1063427	2.7789054	56	3	1980-2000	0.57	M-v	4	Williams	38033	1994 TD ₃
1994 TQ ₃	13.1	0.15	20000226	159.46180	322.63521	19.46505	12.91004	0.1207679	2.5323501	56	5	1970-2000	0.70	M-v	3	Williams	34507	1994 TQ ₃
1994 TT ₃	14.1	0.15	20000226	190.18559	127.42415	208.15944	22.73283	0.2683689	2.4404117	27	5	1986-2000	0.85	M-v	2	Williams	33551	1994 TT ₃
1994 TZ ₁₄	14.4	0.15	20000226	116.44885	200.92659	182.78347	5.05211	0.2052848	2.5522531	94	4	1994-2000	0.62	M-v	1	Spahr	33551	1994 TZ ₁₄

1994 TF ₁₅	14.2	0.15	20000226	258.83725	3.21933	316.75934	2.54519	0.2225299	2.2312025	35	5	1994-2000	0.69	M-v	2	Spahr	33748	1994 TF ₁₅
1994 TH ₁₅	14.6	0.15	20000226	61.09592	183.01625	210.15319	10.35369	0.3603069	2.7355735	70	2	1994-2000	0.67	M-v	4	Spahr	37641	1994 TH ₁₅
1994 TN ₁₅	15.9	0.15	20000226	128.21472	171.05892	191.97392	1.25228	0.1078661	2.5531943	23	4	1978-2000	0.72	M-v	3	Spahr	32748	1994 TN ₁₅
1994 TO ₁₅	13.9	0.15	20000226	286.04733	204.16129	22.61724	8.31773	0.2456655	2.4410674	54	6	1989-2000	0.69	M-v	2	Williams	38033	1994 TO ₁₅
1994 TW ₁₅	15.3	0.15	20000226	116.35950	150.54168	221.10088	3.57880	0.2264210	2.5553467	82	4	1992-2000	0.70	M-v	2	Spahr	34291	1994 TW ₁₅
1994 TQ ₁₆	15.5	0.15	20000226	215.39025	301.55695	33.27776	7.07382	0.1402388	2.3489524	16	3	1976-1994	0.35	M-v	4	Spahr	24902	1994 TQ ₁₆
1994 UQ	13.1	0.15	20000226	226.13635	197.27306	61.53081	13.77963	0.1291678	2.6779591	50	3	1994-2000	0.56	M-v	3	Williams	38033	1994 UQ
1994 UY	14.2	0.15	20000226	138.25096	48.99503	318.58910	2.88755	0.1735647	2.5227291	79	5	1950-2000	0.59	M-v	3	Spahr	33748	1994 UY
1994 UC ₁	13.5	0.15	20000226	243.21874	248.27938	35.08549	1.61115	0.1139948	2.4562186	89	5	1977-2000	0.69	M-v	1	Williams	34011	1994 UC ₁
1994 US ₂	13.7	0.15	20000226	112.27836	18.68389	56.03422	3.11007	0.1518273	2.4696153	40	5	1992-2000	0.77	M-v	2	Spahr	35692	1994 US ₂
1994 UA ₆	14.5	0.15	20000226	52.18706	8.45016	26.75432	8.65113	0.2280615	2.7871244	28	2	1994-2000	0.43	M-v	4	Williams	37641	1994 UA ₆
1994 UE ₈	14.7	0.15	20000226	229.59595	339.59981	262.33678	3.31766	0.1898665	2.6306457	28	3	1994-2000	0.55	M-v	4	Williams	38033	1994 UE ₈
1994 VB	14.3	0.15	20000226	158.97372	300.92751	36.42248	13.60407	0.1974121	2.5397341	65	4	1994-2000	0.65	M-v	1	Williams	33341	1994 VB
1994 VD	14.8	0.15	20000226	99.85728	149.93865	227.14154	11.30776	0.1949153	2.6532919	60	3	1994-2000	0.77	M-v	3	Spahr	35692	1994 VD
1994 VR	13.7	0.15	20000226	87.46397	315.52513	45.92812	11.19849	0.1863711	2.8025698	35	5	1975-2000	0.50	M-v	1	Williams	38033	1994 VR
1994 VE ₁	13.6	0.15	20000226	144.24446	192.07777	170.47322	2.44567	0.1612808	2.5518276	75	3	1994-2000	0.53	M-v	3	Williams	35692	1994 VE ₁
1994 VH ₁	13.6	0.15	20000226	3.69362	54.28465	87.12653	4.10958	0.0596783	2.6347467	121	3	1994-2000	0.60	M-v	3	Williams	38033	1994 VH ₁
1994 VL ₁	13.7	0.15	20000226	122.22368	275.11946	65.56261	12.03682	0.2146599	2.6894586	35	2	1994-2000	0.60	M-v	4	Williams	37641	1994 VL ₁
1994 VA ₂	13.8	0.15	20000226	120.07474	324.34227	71.38314	14.03078	0.1655104	2.5319376	36	4	1978-2000	0.67	M-v	3	Spahr	38033	1994 VA ₂
1994 VH ₂	14.1	0.15	20000226	49.99288	62.60502	42.21116	15.90055	0.0582187	2.5902409	45	3	1994-2000	0.50	M-v	2	Spahr	38033	1994 VH ₂
1994 VR ₂	13.1	0.15	20000226	353.78785	123.85632	42.44133	12.91444	0.0946627	2.5458993	46	3	1994-2000	0.77	M-v	3	Spahr	38033	1994 VR ₂
1994 VV ₂	13.1	0.15	20000226	90.80208	290.38678	73.51335	10.05524	0.1812243	2.7727518	61	3	1994-2000	0.52	M-v	3	Williams	37642	1994 VV ₂
1994 VU ₆	13.5	0.15	20000226	119.97253	144.25957	209.77711	13.05113	0.2123458	2.6357397	80	3	1994-2000	0.78	M-v	2	Williams	38033	1994 VU ₆
1994 WT	14.4	0.15	20000226	156.14737	305.38323	57.32705	5.56718	0.2197605	2.5221624	26	4	1986-2000	0.83	M-v	4	Spahr	35692	1994 WT
1994 WG ₁	14.0	0.15	20000226	91.09616	310.45084	60.66578	10.10719	0.1756434	2.7807678	42	2	1994-2000	0.52	M-v	4	Williams	37642	1994 WG ₁
1994 WH ₁	13.0	0.15	20000226	333.56066	319.14680	253.06740	12.46715	0.1116918	2.5418868	52	3	1994-2000	0.53	M-v	3	Williams	35692	1994 WH ₁
1994 WS ₁	13.2	0.15	20000226	6.53893	154.87731	281.39801	8.88635	0.1611405	3.0137134	42	4	1989-2000	0.80	M-v	3	Williams	38033	1994 WS ₁
1994 WC ₂	12.4	0.15	20000226	106.51105	248.02264	89.49146	10.28924	0.1711201	2.7763691	56	3	1994-2000	0.62	M-v	3	Spahr	38033	1994 WC ₂
1994 WK ₂	13.2	0.15	20000226	3.82936	38.25779	104.68174	9.78452	0.2234246	2.7331100	56	4	1982-2000	0.52	M-v	2	Williams	37642	1994 WK ₂
1994 WR ₃	12.5	0.15	20000226	107.05524	338.93599	78.69279	14.86152	0.1584532	2.5842419	59	4	1994-2000	0.80	M-v	2	Spahr	34582	1994 WR ₃
1994 WA ₄	13.3	0.15	20000226	35.69376	252.34434	209.10292	11.71368	0.0833919	2.7032176	71	3	1994-2000	0.58	M-v	2	Spahr	38033	1994 WA ₄
1994 WE ₄	12.8	0.15	20000226	93.28933	268.38877	66.00903	11.09066	0.1144558	3.0012338	73	4	1978-2000	0.61	M-v	1	Williams	38033	1994 WE ₄
1994 XP	13.5	0.15	20000226	134.08523	156.50461	225.61880	7.28627	0.2086701	2.5582766	100	4	1953-2000	0.68	M-v	2	Spahr	34509	1994 XP
1994 XR ₄	13.4	0.15	20000226	157.09853	269.54069	97.98180	23.24418	0.1624118	2.5986557	20	3	1994-2000	0.58	M-v	4	Williams	33489	1994 XR ₄
1994 YL	13.8	0.15	20000226	342.46728	34.02258	52.56665	12.52271	0.0723683	3.0422799	96	2	1994-2000	0.45	M-v	4	Williams	38033	1994 YL
1994 YR	14.2	0.15	20000226	165.24251	243.07874	102.33057	4.29378	0.2901311	2.6214291	44	4	1994-2000	0.62	M-v	1	Spahr	33552	1994 YR
1994 YU	13.4	0.15	20000226	107.74229	59.31947	286.94630	9.80116	0.1220837	2.9779170	54	3	1994-2000	0.66	M-v	3	Williams	38033	1994 YU
1994 YF ₁	13.3	0.15	20000226	3.51980	163.22570	291.01625	8.94178	0.0268691	2.9912703	57	3	1994-2000	0.66	M-v	3	Williams	38033	1994 YF ₁
1994 YC ₂	13.6	0.15	20000226	98.69004	119.37900	271.75413	11.23664	0.1825368	2.6571933	55	3	1994-2000	0.55	M-v	2	Williams	38033	1994 YC ₂
1994 YK ₂	14.0	0.15	20000226	357.99820	70.75945	74.34258	7.62442	0.1390568	2.8370372	36	3	1994-2000	0.71	M-v	3	Williams	38033	1994 YK ₂
1995 BW	13.9	0.15	20000226	129.03534	7.33660	29.02426	2.95351	0.0850453	2.7358422	39	5	1995-2000	0.72	M-v	1	Spahr	38033	1995 BW
1995 BX	13.6	0.15	20000226	39.42599	19.28539	34.28422	1.47792	0.1926678	3.0605580	71	3	1995-2000	0.62	M-v	2	Williams	38033	1995 BX
1995 BZ	13.3	0.15	20000226	338.48277	99.78179	115.41048	10.30235	0.1656967	2.7386097	43	3	1994-2000	0.49	M-v	3	Spahr	38033	1995 BZ
1995 BE ₂	13.2	0.15	20000226	279.07306	71.44684	133.37669	11.46207	0.0512498	3.0350928	31	2	1995-2000	0.63	M-v	4	Spahr	37642	1995 BE ₂
1995 BQ ₂	13.1	0.15	20000226	339.66218	239.90631	226.64191	25.49313	0.1999759	3.1441725	79	2	1995-2000	0.48	M-v	2	Spahr	38033	1995 BQ ₂
1995 BY ₂	12.6	0.15	20000226	115.33220	295.35831	115.38546	13.72221	0.1637083	2.6865788	33	3	1995-2000	0.55	M-v	3	Spahr	38033	1995 BY ₂
1995 BQ ₈	14.0	0.15	20000226	56.37238	330.77063	95.11128	3.16512	0.0463034	2.9859112	50	4	1995-2000	0.58	M-v	1	Williams	38033	1995 BQ ₈
1995 BU ₈	15.0	0.15	20000226	1.54035	63.93701	53.54789	1.96917	0.1100989	3.0110183	32	3	1995-2000	0.69	M-v	4	Williams	38033	1995 BU ₈
1995 BJ ₁₁	13.1	0.15	20000226	207.65623	156.55331	138.27753	4.22925	0.1388951	3.0238876	42	3	1995-2000	0.50	M-v	4	Williams	38033	1995 BJ ₁₁
1995 BS ₁₁	14.0	0.15	20000226	81.92904	54.15743	13.33384	1.79698	0.0401472	2.9112796	53	4	1990-2000	0.73	M-v	5	Williams	35692	1995 BS ₁₁
1995 BW ₁₁	13.3	0.15	20000226	209.42510	189.28581	90.72425	1.87138	0.0454765	3.0766029	51	3	1995-2000	0.48	M-v	3	Williams	37643	1995 BW ₁₁
1995 BP ₁₅	12.2	0.15	20000226	188.28870	166.14218	127.30808	18.73444	0.1914574	3.1065339	22	3	1995-2000	0.62	M-v	3	Williams	31106	1995 BP ₁₅
1995 CC	13.2	0.15	20000226	34.05585	339.19739	89.56382	3.91163	0.0706372	3.1511652	46	3	1995-2000	0.63	M-v	3	Williams	38034	1995 CC

1995 CJ	12.9	0.15	20000226	273.19933	115.10254	126.76103	14.50767	0.2140284	3.0534691	56	5	1991-2000	0.48	M-v	1	Williams	38034	1995 CJ
1995 CC ₂	14.8	0.15	20000226	270.05678	291.77868	292.26051	17.12134	0.0447344	1.9332416	56	2	1995-2000	0.51	M-v	3	Williams	37643	1995 CC ₂
1995 DG	12.4	0.15	20000226	24.03112	291.81328	148.96653	17.00518	0.2125536	3.1298826	80	3	1995-2000	0.62	M-v	2	Spahr	38034	1995 DG
1995 DL	12.9	0.15	20000226	292.32026	202.51179	348.81599	4.27884	0.0944306	3.1717777	60	3	1995-2000	0.67	M-v	4	Williams	38034	1995 DL
1995 DW	13.4	0.15	20000226	191.73821	243.35095	89.57455	3.00938	0.0446139	2.9217770	23	4	1991-2000	0.83	M-v	1	Spahr	33749	1995 DW
1995 DO ₂	13.7	0.15	20000226	58.50503	15.96100	118.64483	3.65354	0.1346779	2.7552518	67	4	1995-2000	0.63	M-v	1	Spahr	34292	1995 DO ₂
1995 DZ ₃	12.5	0.15	20000226	130.50260	13.87325	321.31829	16.92305	0.2679393	3.0995774	66	4	1992-2000	0.55	M-v	2	Williams	38034	1995 DZ ₃
1995 DR ₁₃	13.2	0.15	20000226	302.46175	63.43789	125.62429	1.76994	0.1448685	3.1144991	45	3	1995-2000	0.55	M-v	4	Spahr	38034	1995 DR ₁₃
1995 EP ₁	12.4	0.15	20000226	348.00121	209.03314	350.07688	11.89399	0.1075327	2.8610709	47	4	1990-2000	0.60	M-v	3	Spahr	38034	1995 EP ₁
1995 EY ₇	13.0	0.15	20000226	88.93330	254.51177	206.77001	8.06198	0.0915803	2.8082936	46	4	1995-2000	0.70	M-v	1	Spahr	38034	1995 EY ₇
1995 EZ ₇	13.0	0.15	20000226	11.47157	332.59981	209.35278	9.54315	0.0719719	2.8468376	32	5	1987-2000	0.73	M-v	1	Spahr	35693	1995 EZ ₇
1995 FA ₈	13.9	0.15	20000226	68.49831	288.21705	136.42083	7.58556	0.0763282	3.1631289	53	4	1992-2000	0.52	M-v	2	Williams	38034	1995 FA ₈
1995 GV ₂	14.3	0.15	20000226	170.23103	267.77501	140.17884	4.85912	0.0362351	2.7556943	52	5	1991-1999	0.75	M-v	2	Williams	35068	1995 GV ₂
1995 GL ₇	14.0	0.15	20000226	139.13443	294.95132	69.89989	6.15311	0.1199366	3.0328423	35	3	1995-2000	0.58	M-v	4	Spahr	33553	1995 GL ₇
1995 HR	12.6	0.15	20000226	274.83566	76.78164	199.19916	11.15041	0.1867334	3.1327254	25	6	1977-2000	0.55	M-v	1	Spahr	28889	1995 HR
1995 KK	15.9	0.15	20000226	133.98007	318.49987	257.51298	3.78993	0.1975959	2.3391856	20	2	1995-1999	0.62	M-v	4	Williams	37643	1995 KK
1995 KM ₁	15.4	0.15	20000226	94.93442	182.55128	117.82324	4.00326	0.2216979	2.3046507	97	3	1995-1999	0.63	M-v	3	Marsden	37267	1995 KM ₁
1995 ME ₄	11.6	0.15	20000226	29.46604	177.60631	256.38207	9.28888	0.1214279	5.2839306	35	3	1995-2000	0.55	M-v	3	Spahr	37644	1995 ME ₄
1995 OV ₃	16.2	0.15	20000226	30.63723	276.29567	151.49765	2.48657	0.1951492	2.3004449	31	2	1995-2000	0.32	M-v	3	Williams	37644	1995 OV ₃
1995 ON ₄	14.4	0.15	20000226	113.68162	104.84276	135.97448	2.77627	0.1111643	2.5657724	68	3	1995-1999	0.62	M-v	2	Marsden	36885	1995 ON ₄
1995 PA	15.7	0.15	20000226	57.00579	316.19617	159.91392	3.50837	0.2049232	2.3383485	102	2	1995-2000	0.55	M-v	3	Williams	38034	1995 PA
1995 QH	14.0	0.15	20000226	55.01643	137.52064	272.78956	4.35950	0.1574140	2.2828545	52	2	1995-2000	0.54	M-v	3	Spahr	38034	1995 QH
1995 QB ₂	14.4	0.15	20000226	93.72272	77.48083	302.74276	3.55564	0.1839937	2.2375192	70	4	1955-2000	0.61	M-v	2	Williams	38034	1995 QB ₂
1995 QD ₂	15.6	0.15	20000226	116.23679	105.09645	289.78082	3.77686	0.1119012	2.1771342	95	4	1995-2000	0.58	M-v	1	Spahr	32749	1995 QD ₂
1995 QA ₃	13.8	0.15	20000226	131.25695	336.93729	340.17879	7.49331	0.1081154	2.3035267	48	2	1995-2000	0.63	M-v	3	Williams	37644	1995 QA ₃
1995 QC ₆	12.4	0.15	20000226	27.66037	143.86879	296.26528	13.42408	0.1012817	5.2740864	25	2	1995-2000	0.27	M-v	3	Spahr	37645	1995 QC ₆
1995 QP ₁₀	13.4	0.15	20000226	164.06754	327.12716	162.75503	13.37752	0.1181482	3.0965404	57	4	1987-1999	0.58	M-v	1	Marsden	35427	1995 QP ₁₀
1995 RA	13.1	0.15	20000226	75.89856	58.20512	303.21999	22.98824	0.2324407	2.3444016	58	3	1995-2000	0.40	M-v	2	Williams	38034	1995 RA
1995 RD	14.7	0.15	20000226	47.33625	335.58025	84.00306	8.02701	0.1057121	2.2773462	49	2	1995-2000	0.49	M-v	4	Williams	38034	1995 RD
1995 SE	16.5	0.15	20000226	47.75423	342.42230	74.43494	3.19149	0.2154522	2.3276570	54	2	1995-2000	0.58	M-v	4	Williams	37645	1995 SE
1995 SP	14.7	0.15	20000226	63.87140	37.46174	13.38102	9.24850	0.1899156	2.3228702	81	3	1995-2000	0.55	M-v	2	Williams	38034	1995 SP
1995 SA ₁	13.6	0.15	20000226	348.90823	220.28236	265.53197	22.62360	0.1563080	2.3244957	50	2	1995-2000	0.52	M-v	3	Spahr	38034	1995 SA ₁
1995 SE ₁	15.0	0.15	20000226	28.75036	188.70104	217.29896	4.06304	0.1267828	2.3563294	72	2	1995-2000	0.51	M-v	3	Williams	38034	1995 SE ₁
1995 SQ ₁	13.9	0.15	20000226	25.29503	121.88901	313.78499	23.71538	0.2222611	2.3673619	52	3	1991-2000	0.66	M-v	2	Williams	38034	1995 SQ ₁
1995 SU ₃	13.4	0.15	20000226	168.45841	317.04545	329.85028	6.62707	0.1911761	2.2478390	44	4	1981-2000	0.63	M-v	3	Williams	38034	1995 SU ₃
1995 SW ₃	14.9	0.15	20000226	87.62931	15.40137	337.15066	6.75405	0.3384584	2.3483904	24	2	1995-2000	0.35	M-v	3	Williams	37645	1995 SW ₃
1995 SG ₄	15.0	0.15	20000226	108.33895	41.76595	312.74050	21.69994	0.2268051	2.2850920	34	3	1995-2000	0.65	M-v	3	Williams	38034	1995 SG ₄
1995 SN ₄	14.5	0.15	20000226	115.71251	323.43406	30.89686	5.26127	0.1434993	2.2514208	44	2	1995-2000	0.56	M-v	4	Williams	37646	1995 SN ₄
1995 SX ₄	13.8	0.15	20000226	86.78172	79.57060	303.31174	6.25237	0.1663847	2.2567142	71	3	1975-2000	0.54	M-v	3	Williams	37646	1995 SX ₄
1995 SB ₂₅	15.3	0.15	20000226	94.67531	346.54033	19.24452	8.09398	0.1424942	2.3067481	26	2	1995-2000	0.52	M-v	3	Williams	37646	1995 SB ₂₅
1995 SY ₂₇	15.3	0.15	20000226	332.09452	132.77791	18.15990	7.14811	0.0471995	2.2787136	23	2	1995-2000	0.38	M-v	4	Williams	37646	1995 SY ₂₇
1995 SY ₃₀	15.4	0.15	20000226	332.67735	308.25207	160.06382	7.09296	0.0648254	2.3324131	47	3	1995-1999	0.60	M-v	4	Williams	38034	1995 SY ₃₀
1995 SH ₃₂	15.5	0.15	20000226	15.36935	136.80164	337.55301	3.42802	0.0942730	2.1810855	57	3	1995-2000	0.40	M-v	3	Williams	38034	1995 SH ₃₂
1995 SU ₅₂	14.3	0.15	20000226	130.90302	41.42216	288.11968	5.25693	0.1567562	2.2654195	26	2	1995-2000	0.61	M-v	4	Williams	38034	1995 SU ₅₂
1995 SD ₅₃	15.1	0.15	20000226	42.05534	206.39934	178.96754	5.41951	0.1505869	2.4185766	60	3	1995-2000	0.57	M-v	3	Williams	38034	1995 SD ₅₃
1995 SO ₅₄	14.6	0.15	20000226	79.46777	268.93563	127.64915	3.43675	0.1749850	2.2922591	75	4	1988-2000	0.49	M-v	2	Williams	38034	1995 SO ₅₄
1995 TB	15.6	0.15	20000226	26.71624	78.72328	2.56437	4.75663	0.1855541	2.3475554	75	3	1995-2000	0.55	M-v	2	Williams	38034	1995 TB
1995 TR	13.8	0.15	20000226	142.11827	84.16086	219.03350	5.48788	0.1159262	2.3787619	70	5	1983-2000	0.56	M-v	1	Spahr	38035	1995 TR
1995 TA ₁	15.1	0.15	20000226	262.12728	5.13926	177.38057	1.84731	0.0679686	2.4206420	62	3	1995-1999	0.54	M-v	3	Williams	37267	1995 TA ₁
1995 TS ₃	17.1	0.15	20000226	54.10840	75.88532	256.66648	0.64400	0.1910177	2.5761800	18	2	1995-1999	0.23	M-v	3	Williams	37647	1995 TS ₃
1995 TE ₈	14.0	0.15	20000226	109.40540	171.30801	178.99204	7.52895	0.2185148	2.3118404	66	3	1995-2000	0.57	M-v	2	Spahr	38035	1995 TE ₈
1995 UD	14.5	0.15	20000226	83.98536	128.08689	265.65190	3.41269	0.1117990	2.2916911	33	2	1995-2000	0.44	M-v	4	Spahr	37647	1995 UD
1995 UR	14.1	0.15	20000226	49.01604	155.15070	297.85807	25.31777	0.2059583	2.3011681	42	3	1995-2000	0.67	M-v	3	Williams	38035	1995 UR

1995 UA ₁	15.0	0.15	20000226	329.85362	180.34839	334.35321	6.45380	0.0518616	2.3083837	56	3	1995-2000	0.82	M-v	4	Williams	38035	1995 UA ₁
1995 UQ ₁	14.8	0.15	20000226	69.41930	182.49839	214.24327	4.57839	0.2316444	2.3608219	68	3	1995-2000	0.42	M-v	2	Spahr	38035	1995 UQ ₁
1995 UA ₂	15.3	0.15	20000226	63.69076	303.04075	111.90687	10.15275	0.1241768	2.3082393	46	2	1995-2000	0.64	M-v	5	Williams	37648	1995 UA ₂
1995 UJ ₂	14.6	0.15	20000226	79.03916	3.23771	12.22246	3.35657	0.2187847	2.3665136	80	3	1995-2000	0.39	M-v	2	Williams	38035	1995 UJ ₂
1995 UW ₂	14.7	0.15	20000226	49.52725	130.77776	261.01126	1.48871	0.1958570	2.4402067	127	4	1991-2000	0.46	M-v	2	Spahr	38035	1995 UW ₂
1995 UQ ₃	13.9	0.15	20000226	260.56108	12.00480	242.95103	2.14670	0.0729863	2.1822983	115	3	1995-2000	0.57	M-v	2	Williams	38035	1995 UQ ₃
1995 UX ₃	14.1	0.15	20000226	76.05806	356.11461	18.28035	6.65907	0.1289055	2.4069578	42	3	1991-2000	0.56	M-v	3	Williams	38035	1995 UX ₃
1995 UE ₄	14.2	0.15	20000226	30.48894	211.81919	226.70975	6.44367	0.0731044	2.3782474	35	2	1995-2000	0.47	M-v	4	Spahr	37648	1995 UE ₄
1995 UQ ₄	12.8	0.15	20000226	95.09204	318.24294	52.75105	13.73330	0.1948887	2.3596189	60	3	1955-2000	0.45	M-v	3	Williams	37648	1995 UQ ₄
1995 UW ₄	14.7	0.15	20000226	192.56726	279.49053	48.73021	8.11459	0.1353414	2.1888028	72	3	1995-2000	0.66	M-v	3	Williams	33553	1995 UW ₄
1995 UC ₅	14.8	0.15	20000226	36.34275	87.08590	281.24388	5.26297	0.0556856	2.6800598	34	2	1995-1999	0.57	M-v	5	Williams	36340	1995 UC ₅
1995 UG ₅	15.2	0.15	20000226	136.79916	326.96826	30.51164	4.19091	0.1687842	2.2108776	48	5	1994-2000	0.75	M-v	1	Williams	35427	1995 UG ₅
1995 UM ₅	15.9	0.15	20000226	298.45728	265.63861	316.00772	4.12076	0.0436683	2.1706893	25	3	1995-2000	0.69	M-v	4	Williams	35693	1995 UM ₅
1995 UG ₇	14.4	0.15	20000226	116.84957	277.85249	34.72542	6.57600	0.1294273	2.4356504	46	3	1991-2000	0.57	M-v	3	Williams	38035	1995 UG ₇
1995 UL ₇	14.0	0.15	20000226	81.78069	341.41787	25.19017	2.39601	0.2193401	2.4030174	48	3	1991-2000	0.47	M-v	3	Marsden	38035	1995 UL ₇
1995 UP ₇	13.4	0.15	20000226	5.25747	249.97174	175.83693	5.48920	0.1145569	2.5607683	79	4	1993-2000	0.54	M-v	2	Williams	38035	1995 UP ₇
1995 UB ₈	14.4	0.15	20000226	31.98302	27.40311	65.53975	4.14750	0.1225424	2.3332607	89	3	1995-2000	0.60	M-v	2	Williams	38035	1995 UB ₈
1995 UL ₈	15.3	0.15	20000226	40.14808	44.03181	41.97793	2.82966	0.1718430	2.3570078	68	3	1995-2000	0.56	M-v	4	Williams	38035	1995 UL ₈
1995 UN ₈	14.3	0.15	20000226	148.83962	290.38811	28.58276	6.79937	0.2078951	2.2991590	49	3	1995-2000	0.53	M-v	4	Williams	38035	1995 UN ₈
1995 UT ₈	14.8	0.15	20000226	98.50156	310.83181	99.85776	4.25044	0.1252275	2.2414509	33	3	1995-2000	0.82	M-v	3	Williams	32749	1995 UT ₈
1995 UV ₈	14.1	0.15	20000226	1.61849	7.09968	68.55304	3.09276	0.2540659	2.5588205	81	2	1995-2000	0.59	M-v	3	Williams	38035	1995 UV ₈
1995 UY ₈	14.8	0.15	20000226	14.53858	7.57126	64.75767	4.34473	0.1613773	2.4651352	96	2	1995-2000	0.49	M-v	3	Williams	38035	1995 UY ₈
1995 UQ ₁₂	14.8	0.15	20000226	60.22283	45.34889	11.35628	2.49485	0.1987553	2.3265666	54	3	1995-2000	0.46	M-v	4	Williams	37648	1995 UQ ₁₂
1995 US ₁₂	16.0	0.15	20000226	40.62667	70.63564	12.33843	2.61765	0.1836060	2.3238723	23	2	1995-2000	0.37	M-v	5	Williams	37649	1995 US ₁₂
1995 UC ₁₇	14.3	0.15	20000226	102.41955	305.06008	64.27740	7.59472	0.1330984	2.3413500	41	3	1995-2000	0.61	M-v	2	Williams	37649	1995 UC ₁₇
1995 UP ₄₄	14.0	0.15	20000226	147.55239	64.78739	239.09010	5.79969	0.1273494	2.3385337	54	3	1995-2000	0.61	M-v	3	Williams	38035	1995 UP ₄₄
1995 UX ₄₈	14.5	0.15	20000226	73.49190	58.71132	6.73123	0.85623	0.1202247	2.2761899	43	3	1995-2000	0.79	M-v	2	Williams	36886	1995 UX ₄₈
1995 VC	14.7	0.15	20000226	28.26389	43.38127	38.25980	3.10254	0.1579662	2.4473007	44	2	1995-2000	0.62	M-v	4	Williams	37649	1995 VC
1995 VD	15.0	0.15	20000226	42.29345	88.15685	7.39513	2.72931	0.1074285	2.3440193	77	3	1995-2000	0.64	M-v	3	Williams	38035	1995 VD
1995 VZ	14.6	0.15	20000226	74.32578	213.33542	184.85594	1.90545	0.2157438	2.3699580	65	4	1995-2000	0.67	M-v	2	Williams	37649	1995 VZ
1995 VH ₁	15.0	0.15	20000226	96.16238	139.76138	240.44862	8.29857	0.2110373	2.3192120	27	2	1995-2000	0.38	M-v	4	Spahr	37649	1995 VH ₁
1995 VM ₁	13.5	0.15	20000226	123.57502	288.32239	77.33893	6.81078	0.1954579	2.2744415	45	2	1995-2000	0.53	M-v	3	Williams	37650	1995 VM ₁
1995 VN ₁	13.0	0.15	20000226	21.41196	328.83498	69.82512	14.80745	0.1701329	2.5958764	39	3	1980-2000	0.54	M-v	3	Williams	37650	1995 VN ₁
1995 VW ₁	14.0	0.15	20000226	63.28518	188.93957	273.41670	7.99960	0.1476643	2.3530771	56	4	1989-2000	0.69	M-v	1	Williams	38035	1995 VW ₁
1995 VH ₂	14.7	0.15	20000226	87.56730	220.00903	149.62453	2.89348	0.2179176	2.3892186	60	4	1980-2000	0.51	M-v	1	Spahr	38035	1995 VH ₂
1995 VJ ₂	14.1	0.15	20000226	48.80825	334.09953	67.47417	15.38470	0.1147050	2.4691705	94	3	1995-2000	0.59	M-v	2	Williams	38035	1995 VJ ₂
1995 VZ ₄	15.7	0.15	20000226	156.38677	231.72527	111.78010	3.54200	0.0797575	2.2190036	39	3	1995-2000	0.69	M-v	4	Williams	32749	1995 VZ ₄
1995 VZ ₆	15.9	0.15	20000226	29.30508	206.59089	216.87368	1.75282	0.1799135	2.4791661	42	2	1995-2000	0.59	M-v	3	Spahr	38035	1995 VZ ₆
1995 VQ ₁₂	15.4	0.15	20000226	97.76686	196.08507	201.97087	7.48274	0.1132879	2.2551690	33	5	1978-2000	0.74	M-v	1	Spahr	38035	1995 VQ ₁₂
1995 VL ₁₅	15.3	0.15	20000226	261.15179	198.14292	55.82157	4.85490	0.1652721	2.2178166	21	3	1995-2000	0.57	M-v	3	Williams	36341	1995 VL ₁₅
1995 VP ₁₇	15.7	0.15	20000226	9.47981	47.37133	44.64768	2.21296	0.0423786	2.4443157	31	3	1995-2000	0.57	M-v	4	Williams	38035	1995 VP ₁₇
1995 VD ₁₉	14.7	0.15	20000226	347.87929	296.59775	272.28676	4.94716	0.1422085	2.2822393	33	4	1995-2000	0.65	M-v	1	Williams	34512	1995 VD ₁₉
1995 WK	14.9	0.15	20000226	45.96314	354.32228	66.69865	7.51361	0.1207910	2.4264102	41	2	1995-2000	0.62	M-v	4	Williams	37650	1995 WK
1995 WM	14.4	0.15	20000226	41.50234	198.22584	229.45286	6.09429	0.0978649	2.4241195	59	3	1995-2000	0.65	M-v	3	Spahr	37650	1995 WM
1995 WQ	14.6	0.15	20000226	21.67766	27.77177	26.30554	3.26557	0.2283313	2.5602002	90	3	1995-2000	0.51	M-v	2	Williams	38035	1995 WQ
1995 WC ₁	14.8	0.15	20000226	86.44532	145.23824	235.49633	1.47452	0.2176021	2.3664738	39	2	1995-2000	0.58	M-v	4	Spahr	37650	1995 WC ₁
1995 WK ₁	14.0	0.15	20000226	338.37425	53.23422	43.39831	4.87906	0.1329856	2.6220876	77	2	1995-2000	0.49	M-v	4	Williams	38035	1995 WK ₁
1995 WP ₁	14.4	0.15	20000226	346.40736	166.48461	327.22327	5.00384	0.1838744	2.4628215	49	3	1995-2000	0.50	M-v	3	Williams	37651	1995 WP ₁
1995 WQ ₁	14.5	0.15	20000226	55.68482	132.11810	264.91655	3.77207	0.2328668	2.5383544	54	2	1995-2000	0.49	M-v	4	Williams	38035	1995 WQ ₁
1995 WT ₁	14.4	0.15	20000226	97.36436	142.85485	252.44429	5.04969	0.1649199	2.2992048	42	3	1995-2000	0.59	M-v	2	Williams	32465	1995 WT ₁
1995 WA ₂	15.2	0.15	20000226	23.16969	255.34804	216.33117	3.12070	0.1921213	2.3514644	75	3	1995-2000	0.62	M-v	2	Williams	38036	1995 WA ₂
1995 WS ₂	14.7	0.15	20000226	123.47595	327.48253	45.44078	6.96441	0.2026065	2.2635644	18	4	1978-2000	0.91	M-v	3	Spahr	29946	1995 WS ₂
1995 WX ₂	15.2	0.15	20000226	341.68613	287.61306	228.23625	4.32040	0.0788348	2.2887725	66	3	1995-2000	0.74	M-v	3	Williams	38036	1995 WX ₂

1995 WE ₃	14.5	0.15	20000226	250.80783	131.87168	65.68626	4.39380	0.0934335	2.5405203	62	3	1995-1999	0.52	M-v	3	Williams	38036	1995 WE ₃
1995 WK ₄	15.3	0.15	20000226	64.50653	291.94308	106.88287	3.29462	0.1749586	2.4269728	63	2	1995-2000	0.51	M-v	4	Spahr	38036	1995 WK ₄
1995 WX ₄	14.8	0.15	20000226	64.06158	177.32476	225.58902	4.05000	0.1926862	2.4186223	42	5	1976-2000	0.62	M-v	2	Spahr	38036	1995 WX ₄
1995 WY ₄	14.8	0.15	20000226	72.28692	305.06562	90.95384	3.27075	0.2180733	2.3774353	57	4	1994-2000	0.56	M-v	2	Williams	37651	1995 WY ₄
1995 WE ₅	14.3	0.15	20000226	91.51324	1.74399	55.61592	5.74465	0.1115817	2.2775597	34	4	1995-2000	0.64	M-v	1	Williams	38036	1995 WE ₅
1995 WG ₅	14.1	0.15	20000226	35.96153	243.02228	198.52694	5.74282	0.0801749	2.3793920	49	4	1991-2000	0.56	M-v	2	Spahr	38036	1995 WG ₅
1995 WH ₅	15.2	0.15	20000226	95.39305	150.12397	258.28580	3.99149	0.1064957	2.3136752	50	3	1995-2000	0.66	M-v	3	Spahr	35694	1995 WH ₅
1995 WK ₅	14.6	0.15	20000226	115.75730	341.50436	42.41852	3.45811	0.1237405	2.3112162	77	3	1995-2000	0.61	M-v	3	Spahr	38036	1995 WK ₅
1995 WU ₅	15.2	0.15	20000226	238.20286	317.45001	320.97522	1.68118	0.0177469	2.2647643	24	3	1995-2000	0.57	M-v	4	Spahr	34013	1995 WU ₅
1995 WE ₆	14.8	0.15	20000226	46.78887	15.84428	21.97352	2.25259	0.2083269	2.3958979	114	4	1991-2000	0.54	M-v	2	Williams	38036	1995 WE ₆
1995 WT ₆	14.7	0.15	20000226	14.04540	145.51469	313.06113	5.23752	0.1139294	2.3954197	54	2	1995-2000	0.53	M-v	3	Williams	38036	1995 WT ₆
1995 WV ₆	15.2	0.15	20000226	0.01461	98.06243	32.88640	3.01844	0.1448679	2.4012481	39	2	1995-2000	0.57	M-v	3	Williams	37651	1995 WV ₆
1995 WT ₇	13.1	0.15	20000226	270.91621	95.43525	75.22029	12.68805	0.1447496	2.6737341	58	3	1988-2000	0.63	M-v	3	Spahr	38036	1995 WT ₇
1995 WV ₇	13.0	0.15	20000226	353.06333	31.43215	73.92895	11.43460	0.1078680	2.5414687	86	3	1991-2000	0.53	M-v	3	Williams	38036	1995 WV ₇
1995 WY ₇	14.6	0.15	20000226	114.09622	27.20205	347.53013	4.44400	0.2611998	2.2989341	32	3	1995-2000	0.62	M-v	3	Williams	32241	1995 WY ₇
1995 WZ ₇	13.8	0.15	20000226	54.58465	93.63439	277.68581	10.71714	0.1777417	2.5828361	55	3	1992-2000	0.58	M-v	3	Williams	37651	1995 WZ ₇
1995 WR ₈	15.0	0.15	20000226	52.32559	132.85187	271.22053	11.77891	0.2490489	2.4659831	35	2	1995-2000	0.51	M-v	4	Spahr	37651	1995 WR ₈
1995 WT ₈	15.1	0.15	20000226	224.83571	31.07700	248.28403	4.70736	0.1630509	2.2337574	38	4	1978-2000	0.65	M-v	2	Spahr	38036	1995 WT ₈
1995 WB ₉	13.5	0.15	20000226	328.81656	244.17054	228.93151	26.32978	0.1347200	2.6279240	126	2	1995-2000	0.45	M-v	3	Spahr	38036	1995 WB ₉
1995 WL ₁₃	13.5	0.15	20000226	43.33666	274.87393	134.91310	4.15855	0.0783175	2.4655036	67	3	1995-2000	0.46	M-v	2	Williams	38036	1995 WL ₁₃
1995 WR ₁₇	16.6	0.15	20000226	359.17896	140.48789	0.98912	2.63084	0.1736411	2.3163920	40	3	1995-2000	0.49	M-v	3	Williams	38036	1995 WR ₁₇
1995 WN ₂₀	15.6	0.15	20000226	296.29448	94.47963	122.96788	3.06562	0.0816355	2.2487986	24	3	1995-2000	0.64	M-v	4	Williams	35927	1995 WN ₂₀
1995 WO ₄₁	14.0	0.15	20000226	212.35548	1.59680	286.67862	5.69095	0.1934160	2.5616201	58	3	1995-2000	0.61	M-v	3	Spahr	38036	1995 WO ₄₁
1995 WW ₄₂	15.0	0.15	20000226	77.97196	353.92759	68.88280	5.62899	0.1671750	2.3146477	30	4	1995-2000	0.58	M-v	1	Spahr	32750	1995 WW ₄₂
1995 WX ₄₂	13.4	0.15	20000226	26.31765	315.98586	97.19624	14.69029	0.1374758	2.5570673	57	4	1987-2000	0.51	M-v	2	Spahr	38036	1995 WX ₄₂
1995 XE	13.0	0.15	20000226	269.61571	278.09764	278.44255	13.92913	0.0480938	2.5722696	67	3	1995-2000	0.61	M-v	2	Williams	38036	1995 XE
1995 XV	14.5	0.15	20000226	45.97533	297.81918	97.66662	3.73236	0.1974779	2.5380112	52	2	1995-2000	0.44	M-v	4	Williams	38036	1995 XV
1995 XG ₁	13.7	0.15	20000226	244.57627	303.34710	276.43115	12.78156	0.1323305	2.5551037	71	3	1995-2000	0.64	M-v	2	Williams	38036	1995 XG ₁
1995 XH ₁	14.6	0.15	20000226	145.23321	92.16900	275.55087	4.12944	0.1604743	2.2555809	75	4	1988-2000	0.64	M-v	2	Spahr	35694	1995 XH ₁
1995 XT ₁	15.1	0.15	20000226	15.89933	163.72598	277.70834	3.91836	0.2399272	2.5734864	70	2	1995-2000	0.53	M-v	3	Williams	38036	1995 XT ₁
1995 YJ	14.3	0.15	20000226	335.85669	233.77564	241.32842	3.86698	0.1752354	2.6219989	60	2	1995-2000	0.51	M-v	4	Spahr	38036	1995 YJ
1995 YR	14.1	0.15	20000226	301.56754	138.04962	66.69962	9.45969	0.0771515	2.2967684	42	4	1995-2000	0.60	M-v	2	Williams	38036	1995 YR
1995 YT	15.2	0.15	20000226	94.20781	205.41835	165.06584	2.07168	0.2575251	2.4023526	54	4	1976-2000	0.73	M-v	3	Spahr	38036	1995 YT
1995 YU	14.6	0.15	20000226	110.38848	270.75065	92.20283	5.67166	0.2173482	2.4199889	61	4	1987-2000	0.80	M-v	2	Williams	38036	1995 YU
1995 YY	14.2	0.15	20000226	244.35716	171.91530	109.12082	5.70516	0.0661846	2.2707160	46	3	1995-2000	0.72	M-v	3	Williams	38036	1995 YY
1995 YA ₁	14.6	0.15	20000226	350.19325	15.41419	105.84409	13.19526	0.2548752	2.5875532	53	2	1995-2000	0.48	M-v	3	Spahr	37652	1995 YA ₁
1995 YF ₁	13.4	0.15	20000226	171.47573	356.46674	267.88543	8.17040	0.1143879	2.7810223	68	3	1995-2000	0.61	M-v	3	Spahr	38036	1995 YF ₁
1995 YH ₁	14.3	0.15	20000226	147.10303	100.78401	277.11824	3.49382	0.1310870	2.2837837	85	4	1991-2000	0.69	M-v	2	Spahr	38036	1995 YH ₁
1995 YX ₁	14.2	0.15	20000226	47.64297	271.19756	218.54406	2.20679	0.1003717	2.3042914	53	3	1995-2000	0.68	M-v	3	Spahr	33750	1995 YX ₁
1995 YY ₁	14.2	0.15	20000226	309.21936	137.90690	105.43045	6.21614	0.1305637	2.2754081	31	5	1993-2000	0.73	M-v	2	Spahr	38037	1995 YY ₁
1995 YT ₂	15.6	0.15	20000226	23.17542	342.20102	78.90914	5.27317	0.2804143	2.5831730	77	2	1995-2000	0.53	M-v	2	Williams	38037	1995 YT ₂
1995 YZ ₂	14.1	0.15	20000226	322.26644	237.72110	290.40975	24.96562	0.2285510	2.5761765	50	2	1995-2000	0.45	M-v	3	Williams	37653	1995 YZ ₂
1995 YH ₃	14.7	0.15	20000226	138.24674	263.98275	113.17633	8.75162	0.2304581	2.2853097	25	5	1991-2000	0.59	M-v	1	Spahr	33075	1995 YH ₃
1995 YL ₃	14.9	0.15	20000226	95.13663	296.49293	126.00126	5.02956	0.1388114	2.3338977	55	5	1993-2000	0.69	M-v	1	Williams	35694	1995 YL ₃
1995 YX ₃	13.8	0.15	20000226	50.13042	253.79671	106.06482	13.48665	0.1482214	2.7861456	64	3	1995-2000	0.62	M-v	2	Williams	38037	1995 YX ₃
1995 YM ₄	14.3	0.15	20000226	19.76430	320.74204	102.35731	5.02443	0.2740313	2.5789628	62	2	1995-2000	0.47	M-v	3	Spahr	38037	1995 YM ₄
1995 YY ₅	15.4	0.15	20000226	176.30647	227.23501	95.06618	3.96601	0.1754835	2.2341461	77	3	1995-2000	0.55	M-v	3	Williams	33075	1995 YY ₅
1995 YE ₆	16.2	0.15	20000226	307.37964	0.17707	216.98110	2.62603	0.1403886	2.2324979	37	3	1995-2000	0.40	M-v	3	Spahr	29946	1995 YE ₆
1995 YH ₁₂	15.6	0.15	20000226	49.84643	342.91866	76.25375	3.11210	0.1689758	2.3870775	55	2	1995-2000	0.66	M-v	4	Williams	37654	1995 YH ₁₂
1995 YK ₂₀	14.4	0.15	20000226	181.73705	351.83075	283.19085	5.56516	0.0724309	2.7060063	41	3	1995-2000	0.66	M-v	5	Williams	38037	1995 YK ₂₀
1995 YS ₂₁	13.4	0.15	20000226	87.22766	239.62675	107.46638	4.83216	0.1028651	2.7324854	78	4	1992-2000	0.68	M-v	2	Spahr	38037	1995 YS ₂₁
1996 AP	13.7	0.15	20000226	55.44998	288.56382	109.43498	13.48872	0.1728672	2.5921864	63	3	1996-2000	0.61	M-v	2	Williams	38037	1996 AP
1996 AR	16.0	0.15	20000226	41.85209	21.59523	86.95660	3.93676	0.1837796	2.4194744	64	4	1991-2000	0.44	M-v	2	Williams	35694	1996 AR

1996 AS	14.3	0.15	20000226	17.50697	358.86750	136.73319	5.03425	0.0489694	2.4051845	78	5	1989-2000	0.64	M-v	1	Williams	33075	1996 AS
1996 AT	13.8	0.15	20000226	276.86110	156.17080	125.82516	3.57252	0.1057774	2.2409764	19	5	1976-2000	0.77	M-v	2	Spahr	33553	1996 AT
1996 AO ₁	14.9	0.15	20000226	101.36003	326.32686	69.51961	3.91898	0.1928277	2.3919971	120	5	1993-2000	0.63	M-v	1	Williams	33342	1996 AO ₁
1996 AV ₁	15.1	0.15	20000226	320.38043	78.13709	123.31398	2.08572	0.1318253	2.4281756	43	4	1994-2000	0.62	M-v	2	Williams	35694	1996 AV ₁
1996 AX ₁	15.7	0.15	20000226	36.86143	149.23039	268.49288	10.66722	0.4317352	2.4588984	109	2	1996-2000	0.56	M-v	2	Williams	38037	1996 AX ₁
1996 AA ₂	14.0	0.15	20000226	314.13877	58.99452	80.47012	16.45728	0.0671173	2.5225329	66	2	1996-2000	0.55	M-v	4	Williams	37654	1996 AA ₂
1996 AP ₂	13.9	0.15	20000226	38.21897	130.11072	310.13280	11.05276	0.1236073	2.5667336	98	3	1995-2000	0.61	M-v	2	Williams	38037	1996 AP ₂
1996 AR ₂	13.7	0.15	20000226	60.14348	67.12065	315.29972	12.00410	0.2058797	2.6908423	44	3	1994-2000	0.56	M-v	3	Williams	38037	1996 AR ₂
1996 AP ₃	13.3	0.15	20000226	168.01353	65.73829	273.59537	6.82816	0.1931893	2.2872632	95	4	1988-2000	0.61	M-v	2	Williams	38037	1996 AP ₃
1996 AU ₃	12.1	0.15	20000226	134.93103	195.65010	133.94081	15.11717	0.1808776	2.6402920	54	3	1996-2000	0.56	M-v	2	Williams	37654	1996 AU ₃
1996 AX ₃	13.4	0.15	20000226	241.30924	265.49113	332.20451	5.33547	0.0757910	2.6550839	78	3	1995-2000	0.61	M-v	3	Williams	38037	1996 AX ₃
1996 AW ₄	14.7	0.15	20000226	353.75302	116.58094	75.54722	3.27829	0.1665501	2.3578735	33	4	1942-2000	0.75	M-v	2	Williams	38037	1996 AW ₄
1996 AD ₁₀	13.1	0.15	20000226	238.80076	303.49666	293.23554	12.18105	0.1428234	2.6796251	46	3	1996-2000	0.51	M-v	2	Williams	37654	1996 AD ₁₀
1996 AP ₁₅	14.9	0.15	20000226	285.91940	140.73273	135.91044	3.70719	0.1772690	2.3433473	22	6	1950-2000	0.66	M-v	2	Williams	34583	1996 AP ₁₅
1996 AL ₁₉	15.4	0.15	20000226	62.68825	259.16274	199.04582	5.89012	0.0782944	2.4106265	28	3	1996-2000	0.70	M-v	3	Spahr	35694	1996 AL ₁₉
1996 BU	14.7	0.15	20000226	109.42471	116.39680	277.13849	7.02560	0.1175197	2.4006306	35	3	1995-2000	0.59	M-v	3	Spahr	38037	1996 BU
1996 BZ	14.7	0.15	20000226	2.94765	26.93705	120.95314	6.42770	0.1379079	2.4440775	67	3	1996-2000	0.64	M-v	3	Williams	38037	1996 BZ
1996 BB ₁	14.6	0.15	20000226	58.65808	164.36046	236.48403	3.81047	0.1845448	2.5590614	75	3	1996-2000	0.59	M-v	2	Spahr	38037	1996 BB ₁
1996 BF ₁	14.5	0.15	20000226	97.01039	14.15028	305.19390	3.77176	0.1177048	2.7456249	47	3	1996-1999	0.61	M-v	3	Williams	38037	1996 BF ₁
1996 BB ₂	14.6	0.15	20000226	39.48737	160.42170	319.05281	10.24948	0.1714016	2.4151779	36	5	1983-2000	0.67	M-v	2	Spahr	38037	1996 BB ₂
1996 BG ₂	12.7	0.15	20000226	345.68247	127.01202	329.49309	21.45008	0.0575516	2.6725740	60	4	1992-2000	0.72	M-v	3	Williams	38037	1996 BG ₂
1996 BH ₂	13.4	0.15	20000226	61.67287	105.96331	320.84050	8.36204	0.0368953	2.5971675	102	3	1996-2000	0.57	M-v	1	Williams	38037	1996 BH ₂
1996 BV ₂	12.7	0.15	20000226	30.65341	333.40792	116.79910	16.09742	0.1125662	2.5757020	59	3	1996-2000	0.47	M-v	2	Williams	37655	1996 BV ₂
1996 BY ₂	13.8	0.15	20000226	47.44232	287.51064	158.19645	4.09996	0.1914747	2.4796418	105	3	1996-2000	0.73	M-v	2	Williams	37269	1996 BY ₂
1996 BO ₃	14.0	0.15	20000226	342.56915	334.86690	136.52148	12.98896	0.0962468	2.7499921	50	3	1996-2000	0.50	M-v	3	Spahr	38037	1996 BO ₃
1996 BJ ₄	13.4	0.15	20000226	110.07605	244.38753	102.32592	13.43709	0.2085632	2.6394647	72	3	1996-2000	0.61	M-v	2	Williams	38037	1996 BJ ₄
1996 BM ₅	14.1	0.15	20000226	255.17431	276.61981	357.33619	3.40975	0.0614487	2.3777383	43	4	1994-2000	0.52	M-v	1	Williams	38037	1996 BM ₅
1996 BM ₁₇	14.5	0.15	20000226	34.57046	50.11579	43.76695	4.92832	0.1307045	2.5206068	75	3	1996-2000	0.64	M-v	2	Williams	38037	1996 BM ₁₇
1996 CK ₁	14.0	0.15	20000226	7.50885	67.68111	25.60164	5.11088	0.1709481	2.7151754	50	3	1992-2000	0.71	M-v	3	Williams	38037	1996 CK ₁
1996 CD ₂	13.1	0.15	20000226	217.65082	323.60717	304.60307	12.31510	0.1358264	2.6893255	53	3	1996-2000	0.71	M-v	2	Williams	38037	1996 CD ₂
1996 CJ ₂	13.0	0.15	20000226	308.01251	80.54771	72.14727	10.28584	0.1001362	2.7578279	55	2	1996-2000	0.67	M-v	4	Williams	37655	1996 CJ ₂
1996 CW ₃	13.8	0.15	20000226	49.71937	110.32201	317.12171	11.18872	0.0163352	2.6457964	82	3	1996-2000	0.57	M-v	2	Williams	38037	1996 CW ₃
1996 CE ₅	14.5	0.15	20000226	55.57993	109.79645	314.58935	21.70256	0.1180459	2.5701211	38	3	1996-2000	0.53	M-v	2	Williams	38037	1996 CE ₅
1996 CT ₇	14.4	0.15	20000226	102.12687	192.36242	210.89206	6.13541	0.1314781	2.4255386	94	4	1996-2000	0.81	M-v	1	Spahr	35695	1996 CT ₇
1996 CR ₈	14.9	0.15	20000226	7.16047	132.87311	35.31711	2.65930	0.1294298	2.4325616	29	4	1977-2000	0.64	M-v	2	Spahr	34293	1996 CR ₈
1996 CX ₈	14.2	0.15	20000226	111.80259	11.52164	10.33255	6.88908	0.0449691	2.5952040	79	4	1976-2000	0.67	M-v	3	Williams	38037	1996 CX ₈
1996 DH	16.5	0.15	20000226	225.14256	351.32380	309.39170	17.22962	0.2767067	1.5869951	130	3	1996-2000	0.51	M-v	3	Williams	38037	1996 DH
1996 DJ	14.9	0.15	20000226	331.12882	235.28544	302.20561	28.69635	0.3539542	2.6156440	50	2	1996-2000	0.43	M-v	3	Williams	37655	1996 DJ
1996 DO	14.2	0.15	20000226	357.67748	146.40830	350.30815	3.47232	0.1162996	2.6288794	69	3	1996-2000	0.53	M-v	3	Williams	38037	1996 DO
1996 DU	13.9	0.15	20000226	330.42101	35.98793	154.44138	13.18914	0.2189456	2.5754493	44	3	1971-2000	0.43	M-v	3	Williams	37655	1996 DU
1996 DZ	13.4	0.15	20000226	322.04640	140.73770	93.65678	2.12991	0.1639367	2.4383206	40	5	1985-2000	0.66	M-v	1	Williams	34013	1996 DZ
1996 DD ₁	14.5	0.15	20000226	351.94475	343.79874	115.44573	22.79845	0.0656323	2.6739325	77	3	1996-2000	0.66	M-v	2	Spahr	38037	1996 DD ₁
1996 DL ₁	15.2	0.15	20000226	12.74386	168.31549	317.36956	4.63043	0.1548059	2.5316996	117	4	1994-2000	0.60	M-v	2	Williams	38038	1996 DL ₁
1996 DV ₁	14.5	0.15	20000226	311.78684	209.97922	317.43109	4.41682	0.0308149	2.7605096	43	3	1996-2000	0.71	M-v	3	Williams	38038	1996 DV ₁
1996 DK ₂	14.5	0.15	20000226	300.50322	103.49083	131.69792	5.27858	0.1971424	2.5647778	40	4	1992-2000	0.58	M-v	3	Williams	30784	1996 DK ₂
1996 DM ₂	13.6	0.15	20000226	264.79641	117.48234	106.41030	5.81578	0.0526477	2.7370830	89	3	1996-2000	0.53	M-v	3	Williams	38038	1996 DM ₂
1996 DQ ₂	13.7	0.15	20000226	288.11451	144.91433	97.81886	5.14115	0.0509314	2.5251101	74	5	1980-2000	0.55	M-v	3	Williams	38038	1996 DQ ₂
1996 DY ₂	13.4	0.15	20000226	45.54143	332.88996	70.42738	3.07669	0.0733067	2.8857750	70	3	1996-2000	0.64	M-v	3	Williams	38038	1996 DY ₂
1996 DB ₃	14.2	0.15	20000226	316.03163	199.18182	320.88117	13.88591	0.0780518	2.5820791	56	3	1996-2000	0.70	M-v	3	Williams	38038	1996 DB ₃
1996 DC ₃	14.5	0.15	20000226	356.57308	102.54644	5.98746	4.16433	0.1452161	2.6005379	47	3	1996-2000	0.54	M-v	3	Williams	37656	1996 DC ₃
1996 DT ₃	14.8	0.15	20000226	73.75645	117.97683	316.36561	2.67126	0.0742400	2.4722615	52	4	1994-2000	0.77	M-v	1	Williams	35695	1996 DT ₃
1996 EB	13.8	0.15	20000226	53.79928	345.91456	73.47591	14.73440	0.1461454	2.6021822	63	4	1996-2000	0.73	M-v	2	Williams	38038	1996 EB
1996 EW	14.3	0.15	20000226	345.62957	2.66190	163.59736	13.69381	0.1182780	2.5509053	52	4	1988-2000	0.67	M-v	3	Williams	38038	1996 EW

1996 EB ₁	13.9	0.15	20000226	75.26281	40.18232	2.51670	3.77284	0.1007826	2.7621241	115	3	1996-2000	0.69	M-v	2	Williams	38038	1996 EB ₁
1996 EG ₁	13.4	0.15	20000226	219.95242	71.06026	202.30606	13.14307	0.0766672	2.9208423	33	3	1996-2000	0.63	M-v	4	Spahr	37656	1996 EG ₁
1996 EL ₁	13.5	0.15	20000226	40.63997	120.01683	340.90195	13.23100	0.1494334	2.5826085	84	3	1996-2000	0.65	M-v	2	Williams	38038	1996 EL ₁
1996 EP ₁	13.8	0.15	20000226	149.57825	184.70115	184.03886	4.99855	0.2242689	2.5591855	44	4	1973-2000	0.80	M-v	4	Williams	34196	1996 EP ₁
1996 EY ₅	15.1	0.15	20000226	78.30637	40.16054	20.53248	2.22909	0.1571143	2.5790828	46	5	1986-2000	0.87	M-v	2	Williams	35695	1996 EY ₅
1996 EK ₆	13.5	0.15	20000226	205.33346	121.91646	173.63680	7.41828	0.1067834	2.7036471	56	4	1993-2000	0.71	M-v	3	Williams	38038	1996 EK ₆
1996 FA ₄	13.9	0.15	20000226	29.99894	77.83479	41.57936	13.24121	0.1112288	2.6495383	61	4	1981-2000	0.70	M-v	1	Williams	38038	1996 FA ₄
1996 FJ ₅	12.5	0.15	20000226	133.84104	16.00281	12.90572	15.51296	0.1239781	2.5744269	67	5	1977-2000	0.66	M-v	2	Williams	38038	1996 FJ ₅
1996 GP ₁	13.5	0.15	20000226	47.98237	73.87198	3.19755	22.14179	0.0431315	2.6545677	76	3	1996-2000	0.54	M-v	2	Williams	37269	1996 GP ₁
1996 GN ₂	14.3	0.15	20000226	91.34805	219.39008	191.75507	9.08751	0.1279275	2.7286931	58	3	1996-2000	0.67	M-v	3	Spahr	33343	1996 GN ₂
1996 GT ₂	12.8	0.15	20000226	261.57731	57.93409	129.52628	17.66914	0.1626720	3.1226304	50	3	1996-2000	0.52	M-v	3	Spahr	37656	1996 GT ₂
1996 GL ₃	14.5	0.15	20000226	49.82198	356.84150	92.33704	3.84077	0.0346997	2.7384176	55	3	1996-2000	0.69	M-v	2	Williams	38038	1996 GL ₃
1996 GE ₆	13.6	0.15	20000226	6.15942	13.83823	62.53305	6.70469	0.1448689	3.0646285	65	3	1979-2000	0.51	M-v	3	Williams	38038	1996 GE ₆
1996 GN ₇	14.0	0.15	20000226	36.74735	253.08012	150.82045	2.06341	0.1673500	3.1981215	48	3	1996-2000	0.43	M-v	3	Williams	38038	1996 GN ₇
1996 GV ₁₇	13.5	0.15	20000226	208.97414	73.79967	210.18987	12.39884	0.1044370	2.9842881	29	3	1996-2000	0.65	M-v	3	Williams	38038	1996 GV ₁₇
1996 GG ₁₈	13.8	0.15	20000226	353.75644	306.93171	213.77046	4.59979	0.0126690	2.7610477	45	3	1996-2000	0.66	M-v	4	Williams	35695	1996 GG ₁₈
1996 GE ₂₀	13.6	0.15	20000226	204.91918	259.43892	67.94844	4.61780	0.0567363	2.7046858	45	4	1993-2000	0.79	M-v	3	Williams	38038	1996 GE ₂₀
1996 GG ₂₀	13.6	0.15	20000226	150.71312	215.99905	137.61159	2.54552	0.1285244	2.9133204	29	5	1978-2000	0.72	M-v	1	Williams	33343	1996 GG ₂₀
1996 HP	13.8	0.15	20000226	20.72030	112.58408	52.47913	14.45967	0.0920879	2.5825058	54	3	1996-2000	0.61	M-v	3	Spahr	33554	1996 HP
1996 HV	15.5	0.15	20000226	293.29215	168.05171	61.25130	9.17969	0.1636280	2.7789107	38	3	1996-2000	0.57	M-v	3	Spahr	33494	1996 HV
1996 HY	13.8	0.15	20000226	354.10660	122.74246	63.03451	12.45049	0.1298352	2.6406056	57	3	1996-2000	0.73	M-v	3	Spahr	38038	1996 HY
1996 HL ₁	13.5	0.15	20000226	115.01283	259.50742	181.78313	7.53849	0.1289691	2.5314890	33	5	1971-2000	0.92	M-v	2	Spahr	34294	1996 HL ₁
1996 HP ₁	15.0	0.15	20000226	336.03429	355.41227	198.19125	11.08752	0.1203330	2.6165666	63	4	1996-2000	0.62	M-v	1	Spahr	34014	1996 HP ₁
1996 HM ₂	13.9	0.15	20000226	359.23370	100.00750	48.91881	2.68365	0.1416435	2.6791898	60	3	1996-2000	0.58	M-v	3	Williams	38038	1996 HM ₂
1996 HY ₁₀	13.6	0.15	20000226	248.29322	186.30682	40.96722	9.99072	0.0391412	3.0676710	34	3	1996-2000	0.68	M-v	3	Williams	38038	1996 HY ₁₀
1996 HB ₁₂	12.2	0.15	20000226	211.74045	248.07347	41.31378	13.64275	0.1405310	2.9866440	56	3	1996-2000	0.72	M-v	3	Williams	38038	1996 HB ₁₂
1996 HF ₁₄	14.2	0.15	20000226	52.98888	37.99275	36.95270	2.46159	0.0710491	2.9470305	36	3	1996-2000	0.76	M-v	3	Williams	38038	1996 HF ₁₄
1996 HT ₁₅	13.4	0.15	20000226	74.74967	255.28071	161.53432	2.21259	0.0782758	2.9409631	69	3	1996-2000	0.65	M-v	3	Williams	38038	1996 HT ₁₅
1996 HT ₁₆	14.0	0.15	20000226	104.25345	211.95921	181.79146	1.71959	0.0544518	2.9267534	26	3	1996-2000	0.62	M-v	4	Williams	33343	1996 HT ₁₆
1996 HX ₁₆	14.2	0.15	20000226	87.31498	345.28562	63.41249	2.79157	0.0999360	2.9251031	57	3	1996-2000	0.63	M-v	3	Williams	37270	1996 HX ₁₆
1996 HY ₁₇	14.6	0.15	20000226	167.94942	186.13382	147.41362	2.32256	0.2076131	3.0765881	26	3	1996-2000	0.75	M-v	3	Spahr	30785	1996 HY ₁₇
1996 HP ₁₈	12.9	0.15	20000226	107.62410	329.59011	46.58635	22.76797	0.2222330	3.1433731	47	4	1992-2000	0.77	M-v	2	Williams	38038	1996 HP ₁₈
1996 HL ₂₀	13.4	0.15	20000226	287.04411	90.52428	70.37040	2.46715	0.1156021	3.2267756	64	3	1996-1999	0.55	M-v	3	Williams	38038	1996 HL ₂₀
1996 HW ₂₀	14.2	0.15	20000226	159.43352	187.30179	146.07176	2.00837	0.2011591	3.1582887	32	5	1992-2000	0.51	M-v	1	Williams	27938	1996 HW ₂₀
1996 HZ ₂₁	14.5	0.15	20000226	336.17628	142.86932	37.82928	14.98661	0.0877689	2.6244167	35	3	1996-2000	0.58	M-v	3	Williams	38038	1996 HZ ₂₁
1996 HD ₂₂	14.1	0.15	20000226	3.22909	107.66783	40.96601	13.43102	0.1097133	2.6184475	57	4	1992-2000	0.75	M-v	3	Williams	38038	1996 HD ₂₂
1996 HC ₂₅	14.4	0.15	20000226	270.63152	92.01152	152.98104	2.55124	0.0335279	2.8379087	42	3	1996-2000	0.73	M-v	4	Williams	38038	1996 HC ₂₅
1996 JC	13.9	0.15	20000226	268.19484	137.29577	35.64028	0.90011	0.1374417	3.0924394	37	2	1996-1999	0.40	M-v	4	Williams	38038	1996 JC
1996 JE ₂	13.9	0.15	20000226	268.84458	111.92650	108.21845	17.56155	0.1842497	3.0853756	61	2	1996-2000	0.52	M-v	3	Spahr	37656	1996 JE ₂
1996 JT ₇	14.2	0.15	20000226	112.75668	305.96059	76.83587	7.87419	0.1533569	3.0512870	41	4	1982-2000	0.76	M-v	2	Spahr	35696	1996 JT ₇
1996 JX ₇	14.7	0.15	20000226	300.66179	51.93861	105.22335	2.77980	0.2092900	3.0709713	27	3	1990-1999	0.81	M-v	3	Williams	27452	1996 JX ₇
1996 JK ₁₃	14.1	0.15	20000226	206.51093	182.55538	121.17082	3.04701	0.0530312	2.8550956	47	4	1996-2000	0.51	M-v	1	Williams	35929	1996 JK ₁₃
1996 KA	12.9	0.15	20000226	308.10895	266.21249	241.49134	11.77008	0.2337599	3.1968124	118	3	1996-2000	0.55	M-v	3	Spahr	37270	1996 KA
1996 KN	13.4	0.15	20000226	92.95476	4.95435	38.72685	1.89620	0.1692778	3.1473151	70	4	1995-2000	0.66	M-v	1	Williams	35696	1996 KN
1996 LF	12.9	0.15	20000226	274.94356	98.09087	77.50665	16.35717	0.1356141	3.1777304	63	3	1990-2000	0.59	M-v	2	Williams	38039	1996 LF
1996 LJ ₁	14.2	0.15	20000226	287.89629	48.82737	219.31565	14.37325	0.1262929	2.7746420	54	4	1996-2000	0.43	M-v	1	Spahr	33751	1996 LJ ₁
1996 LS ₂	12.6	0.15	20000226	199.94241	203.49299	103.99454	9.85178	0.1951110	3.0763951	31	3	1996-2000	0.50	M-v	3	Williams	38039	1996 LS ₂
1996 NS	13.4	0.15	20000226	253.39667	158.22239	135.73745	9.83092	0.0932353	3.0448238	57	4	1996-2000	0.55	M-v	2	Williams	34014	1996 NS
1996 OJ	14.0	0.15	20000226	252.98609	159.46600	126.64440	2.15251	0.1744845	3.1083869	58	4	1991-2000	0.56	M-v	1	Williams	31009	1996 OJ
1996 PF ₁	13.5	0.15	20000226	282.21519	255.72987	359.88168	4.89587	0.1300464	3.1063407	57	5	1989-2000	0.67	M-v	1	Williams	33751	1996 PF ₁
1996 RQ	14.6	0.15	20000226	133.79663	41.97861	273.06054	18.23968	0.0721124	1.9241871	55	3	1988-2000	0.61	M-v	3	Williams	37657	1996 RQ
1996 RN ₂	14.4	0.15	20000226	134.61890	40.78646	283.12724	18.36819	0.0530434	1.9249563	54	2	1996-2000	0.60	M-v	3	Williams	38039	1996 RN ₂
1996 RD ₁₂	12.2	0.15	20000226	18.10968	77.41886	3.71972	9.55716	0.0816641	5.2380063	38	3	1996-2000	0.45	M-v	3	Williams	38039	1996 RD ₁₂

1996 RC ₂₄	12.5	0.15	20000226	338.30381	66.00060	164.68036	7.57672	0.1097616	3.1367212	43	3	1996–2000	0.80	M-v	3	Spahr	38039	1996 RC ₂₄
1996 TJ ₁₀	14.6	0.15	20000226	137.84261	307.64733	12.34748	19.01345	0.0807228	1.9571117	51	3	1996–2000	0.66	M-v	2	Williams	38039	1996 TJ ₁₀
1996 TB ₁₅	15.3	0.15	20000226	341.35800	138.51272	347.24793	19.90412	0.0513185	1.9230819	32	4	1977–2000	0.63	M-v	3	Williams	38039	1996 TB ₁₅
1996 TT ₃₈	13.2	0.15	20000226	336.91569	127.05711	98.22551	2.35853	0.1502175	3.2012864	44	6	1982–2000	0.65	M-v	1	Williams	35697	1996 TT ₃₈
1996 UD	14.0	0.15	20000226	327.15372	7.29652	47.07549	6.43312	0.1700304	2.3290668	64	4	1989–1999	0.65	M-v	2	Marsden	35429	1996 UD
1996 UG	14.4	0.15	20000226	351.58416	345.86443	38.16025	8.15583	0.1838026	2.3147863	29	3	1989–1998	0.62	M-v	3	Marsden	31792	1996 UG
1996 US	13.9	0.15	20000226	316.67532	321.17271	20.58759	5.21064	0.2594407	2.6026626	45	3	1996–1999	0.70	M-v	4	Marsden	34585	1996 US
1996 UX ₃	11.4	0.15	20000226	29.51241	234.50986	211.17639	19.99078	0.1631768	5.1758409	52	4	1996–2000	0.67	M-v	2	Spahr	38039	1996 UX ₃
1996 VX	15.8	0.15	20000226	300.36485	137.39091	45.78747	5.91511	0.2930334	2.0207869	67	3	1986–2000	0.60	M-v	3	Spahr	37657	1996 VX
1996 VM ₁	13.4	0.15	20000226	250.60524	62.68319	54.47828	7.06124	0.1008024	2.4467713	54	4	1990–1999	0.63	M-v	1	Marsden	36074	1996 VM ₁
1996 VF ₃	13.7	0.15	20000226	299.79510	33.15972	44.95065	8.90803	0.2212426	2.3906309	72	3	1981–1998	0.59	M-v	2	Marsden	32311	1996 VF ₃
1996 WL ₃	16.4	0.15	20000226	54.06762	339.26394	0.67130	5.64212	0.2329730	2.2047019	37	2	1996–1999	0.49	M-v	3	Williams	38039	1996 WL ₃
1996 XH ₁	14.8	0.15	20000226	13.90981	90.12926	78.23557	24.63364	0.1583261	1.8885348	14	3	1987–2000	0.86	M-v	3	Williams	38039	1996 XH ₁
1996 XM ₂	14.2	0.15	20000226	84.34171	248.91436	82.74486	5.01080	0.2406214	2.2118888	137	3	1996–2000	0.51	M-v	2	Spahr	38039	1996 XM ₂
1996 XM ₅	14.0	0.15	20000226	219.62959	291.84787	292.99295	3.89915	0.1097395	2.2633780	73	3	1996–2000	0.52	M-v	3	Spahr	38039	1996 XM ₅
1996 XM ₁₃	14.0	0.15	20000226	70.00265	193.96141	79.29894	3.47083	0.0612136	2.6515927	55	3	1996–1999	0.65	M-v	3	Marsden	35430	1996 XM ₁₃
1996 XT ₁₄	16.4	0.15	20000226	157.69966	265.27563	83.54375	24.74426	0.0938415	1.9029902	77	3	1996–2000	0.46	M-v	2	Marsden	32311	1996 XT ₁₄
1996 XU ₁₄	15.0	0.15	20000226	101.77117	62.21662	320.87297	16.30741	0.1108889	1.9629644	47	3	1993–2000	0.51	M-v	3	Williams	37658	1996 XU ₁₄
1996 XC ₁₅	14.1	0.15	20000226	292.54109	78.85755	69.34811	0.90152	0.1137918	2.2858835	90	3	1987–2000	0.51	M-v	3	Williams	38039	1996 XC ₁₅
1996 XX ₃₁	13.4	0.15	20000226	122.37600	296.43844	349.63748	12.32849	0.1444914	2.3781609	82	4	1995–2000	0.52	M-v	1	Williams	38039	1996 XX ₃₁
1996 YW	14.9	0.15	20000226	25.77929	1.92209	72.26797	4.16871	0.0907161	2.1578293	73	2	1996–2000	0.47	M-v	3	Williams	38039	1996 YW
1996 YQ ₁	14.3	0.15	20000226	317.27156	306.13138	122.74219	8.21415	0.2486687	2.5323134	29	4	1993–1999	0.72	M-v	2	Williams	37658	1996 YQ ₁
1996 YR ₁	15.1	0.15	20000226	310.48547	164.97826	304.78912	6.34594	0.0888760	2.4516481	43	2	1996–1999	0.72	M-v	4	Williams	36889	1996 YR ₁
1996 YE ₂	14.2	0.15	20000226	356.14681	135.49564	298.13384	4.66151	0.0927370	2.3174551	55	2	1996–2000	0.58	M-v	4	Williams	38039	1996 YE ₂
1997 AD ₂	14.0	0.15	20000226	179.65559	225.22068	33.97404	5.10548	0.0632157	2.3257640	69	3	1997–2000	0.54	M-v	3	Spahr	38040	1997 AD ₂
1997 AJ ₂	14.1	0.15	20000226	353.93316	344.32641	106.50303	4.73482	0.0735146	2.2865649	75	2	1996–2000	0.53	M-v	3	Williams	38040	1997 AJ ₂
1997 AS ₂	14.9	0.15	20000226	65.72265	61.92523	305.24573	24.81168	0.2017203	2.2652677	36	2	1997–1999	0.53	M-v	3	Williams	38040	1997 AS ₂
1997 AT ₂	15.1	0.15	20000226	90.81430	344.95463	17.80882	4.49423	0.1715056	2.1491926	49	4	1964–2000	0.56	M-v	2	Williams	38040	1997 AT ₂
1997 AK ₅	15.1	0.15	20000226	248.64081	229.68720	337.19029	5.55858	0.0731663	2.2979779	45	3	1997–2000	0.53	M-v	2	Williams	38040	1997 AK ₅
1997 AN ₅	14.8	0.15	20000226	30.77768	349.81448	62.12427	5.65188	0.1263184	2.2548918	81	2	1997–2000	0.41	M-v	2	Spahr	38040	1997 AN ₅
1997 AV ₅	14.6	0.15	20000226	259.34882	249.87140	304.45429	3.47211	0.0934164	2.3104732	41	2	1996–2000	0.55	M-v	4	Spahr	38040	1997 AV ₅
1997 AX ₅	15.4	0.15	20000226	20.12685	121.14373	299.88764	5.27721	0.1778899	2.2458571	75	2	1997–2000	0.53	M-v	3	Williams	38040	1997 AX ₅
1997 AQ ₆	14.0	0.15	20000226	83.63310	7.36668	68.27531	24.38280	0.0296747	1.8252186	56	3	1997–2000	0.56	M-v	3	Williams	38040	1997 AQ ₆
1997 AM ₇	15.2	0.15	20000226	282.66044	209.11060	328.57315	3.46724	0.0922708	2.2903870	42	3	1989–2000	0.70	M-v	4	Williams	38040	1997 AM ₇
1997 AY ₇	14.0	0.15	20000226	106.17117	31.49710	299.04091	6.38095	0.1288392	2.3381985	49	3	1997–2000	0.51	M-v	2	Williams	37659	1997 AY ₇
1997 AU ₁₂	14.3	0.15	20000226	343.17674	135.62722	323.17857	6.17641	0.0397801	2.3023211	56	2	1997–2000	0.61	M-v	4	Williams	38040	1997 AU ₁₂
1997 AZ ₁₂	15.3	0.15	20000226	313.76717	30.11443	114.09742	8.88381	0.1595625	2.2652814	23	2	1997–2000	0.48	M-v	3	Williams	37659	1997 AZ ₁₂
1997 AM ₁₃	14.4	0.15	20000226	276.60168	104.93586	54.62422	7.17740	0.0416698	2.3622620	73	2	1997–2000	0.51	M-v	4	Williams	38040	1997 AM ₁₃
1997 AQ ₁₅	15.0	0.15	20000226	77.16620	286.90289	67.27307	3.99197	0.2107285	2.2356693	95	3	1996–2000	0.63	M-v	3	Williams	38040	1997 AQ ₁₅
1997 AZ ₁₇	14.0	0.15	20000226	320.54348	77.75698	55.49593	2.98743	0.1068411	2.2920629	127	3	1997–2000	0.48	M-v	3	Spahr	38040	1997 AZ ₁₇
1997 AR ₂₂	14.5	0.15	20000226	39.55771	5.36128	33.28203	5.51652	0.1239216	2.2899124	99	4	1985–2000	0.52	M-v	3	Williams	38040	1997 AR ₂₂
1997 AS ₂₂	13.6	0.15	20000226	267.08559	160.75693	14.95441	6.79482	0.0478919	2.3560299	76	2	1997–2000	0.57	M-v	4	Williams	38040	1997 AS ₂₂
1997 AN ₂₃	15.3	0.15	20000226	19.27189	117.33752	309.65658	3.99014	0.0840811	2.2355019	54	2	1997–2000	0.60	M-v	3	Williams	38040	1997 AN ₂₃
1997 BG	14.6	0.15	20000226	206.57346	190.05143	132.06481	32.39350	0.1615407	1.9930436	78	3	1997–2000	0.43	M-v	2	Marsden	37272	1997 BG
1997 BC ₃	14.3	0.15	20000226	264.37470	190.42864	351.51746	6.45145	0.0441766	2.3649106	49	3	1991–2000	0.64	M-v	3	Williams	38040	1997 BC ₃
1997 BD ₃	15.0	0.15	20000226	344.73543	335.23144	140.45221	2.53453	0.0799572	2.2633141	56	2	1997–2000	0.57	M-v	4	Spahr	38040	1997 BD ₃
1997 BG ₃	15.0	0.15	20000226	304.63500	57.31963	103.87411	7.27038	0.0525296	2.2614723	47	3	1997–2000	0.66	M-v	3	Spahr	38040	1997 BG ₃
1997 BV ₃	14.8	0.15	20000226	290.03587	89.77401	108.53967	4.27751	0.1080058	2.2370796	55	3	1997–2000	0.58	M-v	3	Williams	38040	1997 BV ₃
1997 BX ₆	15.2	0.15	20000226	178.91738	337.98911	324.79958	2.96117	0.0305347	2.1414103	43	3	1997–2000	0.61	M-v	4	Williams	37660	1997 BX ₆
1997 BM ₈	14.2	0.15	20000226	125.97635	32.23430	306.63748	4.42321	0.1558350	2.2165021	48	3	1995–2000	0.49	M-v	3	Williams	38040	1997 BM ₈
1997 CB	13.9	0.15	20000226	110.75801	191.20344	156.58351	11.34226	0.2793686	2.3478294	80	3	1997–2000	0.45	M-v	2	Spahr	38040	1997 CB
1997 CS	12.8	0.15	20000226	146.41379	236.48243	349.03010	10.05653	0.0891212	3.0062935	78	3	1992–2000	0.59	M-v	2	Williams	38040	1997 CS
1997 CZ	13.7	0.15	20000226	50.10375	267.93748	119.30434	7.15759	0.0919371	2.3963860	41	2	1997–2000	0.52	M-v	3	Spahr	37660	1997 CZ

1997 CB ₁	14.6	0.15	20000226	43.37246	254.52903	165.00064	4.88746	0.1183524	2.2215151	53	2	1997-2000	0.65	M-v	4	Williams	37660	1997 CB ₁
1997 CO ₁	14.5	0.15	20000226	264.99400	246.01688	310.05794	1.55491	0.1550364	2.3559850	64	3	1997-2000	0.51	M-v	3	Spahr	38041	1997 CO ₁
1997 CD ₄	14.6	0.15	20000226	102.08942	144.91435	208.63370	2.32815	0.1353076	2.3232909	40	2	1997-2000	0.51	M-v	4	Spahr	38041	1997 CD ₄
1997 CG ₄	15.2	0.15	20000226	77.94301	29.02344	341.13310	7.24819	0.1346166	2.2847449	67	2	1997-2000	0.52	M-v	4	Williams	37661	1997 CG ₄
1997 CM ₄	15.1	0.15	20000226	54.01601	39.11398	359.25870	4.90767	0.1051658	2.2461302	56	2	1997-2000	0.48	M-v	4	Williams	38041	1997 CM ₄
1997 CT ₅	14.3	0.15	20000226	348.35051	130.86949	325.13839	6.95634	0.0552258	2.2727006	84	2	1997-2000	0.40	M-v	2	Spahr	38041	1997 CT ₅
1997 CZ ₁₆	15.1	0.15	20000226	23.91379	134.10186	310.73230	6.25049	0.0469368	2.2802654	40	2	1997-2000	0.55	M-v	4	Williams	38041	1997 CZ ₁₆
1997 CC ₁₇	14.8	0.15	20000226	239.94054	234.98988	31.36736	2.12033	0.1877753	2.2134325	82	4	1994-2000	0.81	M-v	3	Williams	38041	1997 CC ₁₇
1997 CL ₂₀	14.7	0.15	20000226	221.46316	219.72048	54.16599	3.04900	0.2409056	2.3052531	54	3	1997-2000	0.65	M-v	3	Williams	38041	1997 CL ₂₀
1997 CZ ₂₁	15.6	0.15	20000226	304.82722	201.89526	10.37629	2.62023	0.0518735	2.1147745	37	3	1997-2000	0.61	M-v	3	Williams	32956	1997 CZ ₂₁
1997 CC ₂₂	15.0	0.15	20000226	282.51321	211.33044	358.69842	4.09791	0.1016121	2.2376178	61	3	1997-2000	0.70	M-v	3	Williams	37662	1997 CC ₂₂
1997 CE ₂₂	14.6	0.15	20000226	335.76500	124.55663	354.09527	6.98536	0.1522458	2.3312377	83	3	1995-2000	0.68	M-v	3	Williams	37662	1997 CE ₂₂
1997 CB ₂₆	14.0	0.15	20000226	10.43272	112.16885	321.03381	5.94900	0.0676544	2.3532853	67	2	1997-2000	0.48	M-v	3	Williams	38041	1997 CB ₂₆
1997 CK ₂₆	14.3	0.15	20000226	256.61400	140.25715	62.98469	6.46103	0.0548086	2.3706703	60	3	1995-2000	0.45	M-v	3	Williams	38041	1997 CK ₂₆
1997 CL ₂₆	14.8	0.15	20000226	288.85014	92.85764	73.51541	5.10518	0.1513789	2.3867486	52	2	1997-1999	0.54	M-v	4	Williams	38041	1997 CL ₂₆
1997 CK ₂₇	15.4	0.15	20000226	358.53270	344.79689	107.42277	5.49032	0.0948784	2.2769452	38	2	1997-2000	0.65	M-v	4	Williams	37662	1997 CK ₂₇
1997 CY ₂₈	14.4	0.15	20000226	13.57083	108.88161	328.35382	7.36251	0.0772972	2.3203867	34	3	1995-2000	0.62	M-v	2	Williams	37662	1997 CY ₂₈
1997 CF ₂₉	14.1	0.15	20000226	314.05766	15.32819	170.13616	2.29958	0.1321114	2.2969630	63	3	1997-2000	0.56	M-v	3	Williams	38041	1997 CF ₂₉
1997 CQ ₂₉	6.9	0.15	20000226	42.05537	334.55425	132.59317	2.90122	0.1193790	45.0583941	33	4	1997-2000	0.45	M-v	4	Marsden	33752	1997 CQ ₂₉
1997 CR ₂₉	7.2	0.15	20000226	49.86393	300.57033	127.17791	19.15459	0.2149892	47.0617134	29	4	1997-2000	0.40	M-v	3	Marsden	33752	1997 CR ₂₉
1997 CS ₂₉	5.1	0.15	20000226	345.58550	188.23048	304.35711	2.24066	0.0092479	43.9944622	70	4	1997-2000	0.41	M-v	4	Williams	38041	1997 CS ₂₉
1997 CT ₂₉	6.6	0.15	20000226	210.01895	214.02053	74.73272	1.01558	0.0288963	43.7372507	27	4	1997-2000	0.42	M-v	5	Williams	34586	1997 CT ₂₉
1997 DW	14.1	0.15	20000226	158.73251	265.43848	338.17614	8.28541	0.1098323	2.7721826	42	2	1997-1999	0.66	M-v	4	Williams	38041	1997 DW
1997 EE	15.1	0.15	20000226	9.81468	60.17051	43.36985	4.02128	0.0956963	2.2527983	57	2	1997-2000	0.69	M-v	3	Williams	37663	1997 EE
1997 EG	14.6	0.15	20000226	334.59685	134.03390	7.75000	7.16536	0.0893641	2.2686941	31	2	1997-2000	0.55	M-v	4	Williams	37663	1997 EG
1997 EH	14.8	0.15	20000226	302.87060	64.86131	79.25843	3.52380	0.1173360	2.4200782	51	2	1997-2000	0.66	M-v	4	Williams	38041	1997 EH
1997 EV	15.4	0.15	20000226	353.22657	66.23731	18.48036	23.52665	0.2389518	2.3418501	85	2	1997-2000	0.61	M-v	3	Williams	37272	1997 EV
1997 EO ₂	14.7	0.15	20000226	15.13420	65.93306	34.45576	5.07998	0.0896760	2.2720109	51	2	1997-2000	0.47	M-v	3	Williams	37663	1997 EO ₂
1997 EQ ₂	14.6	0.15	20000226	68.87253	277.97080	127.41548	5.95288	0.1061021	2.3010116	57	3	1997-2000	0.67	M-v	2	Spahr	38041	1997 EQ ₂
1997 EY ₂	15.1	0.15	20000226	352.04532	30.15178	118.67558	3.20103	0.0657367	2.1897066	76	3	1997-2000	0.52	M-v	3	Williams	38041	1997 EY ₂
1997 EN ₅	15.7	0.15	20000226	34.00727	23.11987	7.29248	2.03673	0.0922049	2.6288005	43	2	1997-1999	0.61	M-v	4	Williams	37663	1997 EN ₅
1997 ER ₅	14.8	0.15	20000226	45.51895	231.98331	165.04105	2.24639	0.1425681	2.4808554	60	2	1997-2000	0.61	M-v	4	Spahr	38041	1997 ER ₅
1997 EB ₆	14.8	0.15	20000226	246.74430	191.09845	48.76900	3.70776	0.1288615	2.3006048	45	3	1997-2000	0.70	M-v	3	Williams	37664	1997 EB ₆
1997 EC ₆	14.8	0.15	20000226	259.29184	154.03798	46.76021	3.34426	0.1144990	2.4123593	31	2	1997-1999	0.44	M-v	4	Williams	37664	1997 EC ₆
1997 EJ ₁₁	16.2	0.15	20000226	263.17357	82.33660	164.35255	5.20074	0.0846879	2.1869982	39	3	1995-2000	0.50	M-v	3	Williams	35699	1997 EJ ₁₁
1997 EX ₁₃	15.2	0.15	20000226	29.46355	96.94047	308.49376	2.14454	0.1589025	2.3756883	95	2	1997-2000	0.54	M-v	3	Spahr	38042	1997 EX ₁₃
1997 EM ₁₅	15.8	0.15	20000226	250.45286	262.55995	1.43824	6.31301	0.1559277	2.2409455	49	3	1997-2000	0.79	M-v	3	Williams	33344	1997 EM ₁₅
1997 EO ₁₇	14.2	0.15	20000226	95.33795	320.26374	63.69815	7.47807	0.1670494	2.2813759	43	3	1997-2000	0.59	M-v	2	Williams	38042	1997 EO ₁₇
1997 ET ₁₇	14.6	0.15	20000226	62.21152	163.51551	251.62116	1.27050	0.1517161	2.1901591	52	2	1997-2000	0.47	M-v	4	Williams	37664	1997 ET ₁₇
1997 EE ₂₃	13.8	0.15	20000226	9.54508	0.55235	99.35656	7.82424	0.0728686	2.3912344	102	3	1997-2000	0.53	M-v	3	Williams	38042	1997 EE ₂₃
1997 EP ₂₅	14.4	0.15	20000226	343.62540	121.23610	352.16058	2.24005	0.0889647	2.2707386	50	2	1997-2000	0.40	M-v	3	Williams	38042	1997 EP ₂₅
1997 ER ₂₅	15.0	0.15	20000226	201.64440	187.51250	42.12194	6.15723	0.0175559	2.5507400	21	2	1997-1999	0.42	M-v	4	Williams	37665	1997 ER ₂₅
1997 EO ₃₀	13.8	0.15	20000226	20.84553	312.03014	110.83593	7.06597	0.0878296	2.3591350	71	2	1997-2000	0.46	M-v	3	Williams	38042	1997 EO ₃₀
1997 EF ₃₂	15.3	0.15	20000226	109.40766	19.7339	355.41948	1.54569	0.2391485	2.4184761	25	2	1997-2000	0.53	M-v	4	Williams	37665	1997 EF ₃₂
1997 EY ₄₅	14.4	0.15	20000226	334.57846	43.57276	81.83367	3.24506	0.1517168	2.3873897	86	3	1995-2000	0.48	M-v	2	Spahr	38042	1997 EY ₄₅
1997 EF ₄₆	14.9	0.15	20000226	290.00482	96.89088	90.79831	7.24833	0.0578701	2.3797816	38	3	1996-2000	0.54	M-v	4	Williams	38042	1997 EF ₄₆
1997 EB ₅₇	13.8	0.15	20000226	53.82770	199.56924	148.81460	2.55585	0.1081604	2.9555639	43	2	1997-2000	0.81	M-v	3	Spahr	38042	1997 EB ₅₇
1997 FM	13.5	0.15	20000226	180.05561	160.95946	120.14370	13.67730	0.1331397	2.6856490	44	3	1997-2000	0.71	M-v	2	Spahr	38042	1997 FM
1997 FR	15.7	0.15	20000226	285.68043	206.89484	0.47742	3.77581	0.1076134	2.2830497	65	2	1997-2000	0.70	M-v	4	Williams	37665	1997 FR
1997 FW	14.3	0.15	20000226	31.26243	0.97508	62.44625	11.10245	0.2430614	2.3871651	43	2	1997-2000	0.44	M-v	3	Williams	37665	1997 FW
1997 FC ₁	14.7	0.15	20000226	304.01134	51.30857	127.17666	7.14510	0.0921126	2.3447789	49	3	1997-2000	0.58	M-v	3	Spahr	38042	1997 FC ₁
1997 FN ₁	14.3	0.15	20000226	258.71826	9.26322	231.39465	4.23429	0.2331998	2.3408672	53	3	1997-2000	0.46	M-v	3	Spahr	38042	1997 FN ₁
1997 FQ ₁	15.1	0.15	20000226	251.91889	292.71280	315.51359	3.46198	0.1236622	2.3404862	66	3	1997-2000	0.56	M-v	3	Williams	38042	1997 FQ ₁

1997 FT ₁	14.2	0.15	20000226	47.34855	287.37028	114.66457	12.44104	0.1502098	2.6231657	46	3	1995-2000	0.51	M-v	3	Spahr	38042	1997 FT ₁
1997 FM ₂	14.7	0.15	20000226	2.90942	57.36329	24.96160	6.51385	0.1870202	2.4393771	78	2	1997-2000	0.59	M-v	3	Williams	37665	1997 FM ₂
1997 FU ₂	13.0	0.15	20000226	57.69928	341.30672	358.81599	10.76712	0.0979698	3.0510566	64	3	1988-2000	0.66	M-v	3	Williams	38042	1997 FU ₂
1997 FY ₂	14.9	0.15	20000226	267.15343	235.89498	355.08416	5.48701	0.0984710	2.3070895	57	3	1997-2000	0.65	M-v	4	Williams	38042	1997 FY ₂
1997 FQ ₃	15.1	0.15	20000226	182.10343	332.03412	1.88418	2.45467	0.1609433	2.2524999	87	4	1991-2000	0.72	M-v	2	Williams	33555	1997 FQ ₃
1997 FW ₃	15.5	0.15	20000226	206.92339	322.75025	347.36489	4.14242	0.1151351	2.2476398	38	3	1997-2000	0.65	M-v	3	Williams	33344	1997 FW ₃
1997 FZ ₃	14.2	0.15	20000226	65.71946	148.06122	194.92851	1.57544	0.1248663	2.9463196	55	3	1996-1999	0.51	M-v	4	Williams	38042	1997 FZ ₃
1997 FD ₄	15.3	0.15	20000226	71.83676	245.09533	180.96867	6.49356	0.0490959	2.2510809	56	3	1997-2000	0.77	M-v	2	Williams	38042	1997 FD ₄
1997 FG ₄	14.3	0.15	20000226	100.52631	137.81895	195.95649	4.52572	0.0327844	2.6837256	79	3	1997-1999	0.65	M-v	3	Williams	38042	1997 FG ₄
1997 FJ ₄	14.2	0.15	20000226	134.98156	313.92230	320.50523	1.13815	0.0057045	2.8812521	51	4	1994-1999	0.79	M-v	1	Williams	36891	1997 FJ ₄
1997 FB ₅	14.7	0.15	20000226	87.57777	347.37026	13.63287	2.31535	0.1145833	2.5722688	47	3	1997-2000	0.68	M-v	3	Williams	37666	1997 FB ₅
1997 GA	15.9	0.15	20000226	197.93938	46.19078	243.23167	4.76514	0.0709023	2.3596804	24	3	1997-2000	0.76	M-v	3	Spahr	33497	1997 GA
1997 GE ₁	15.9	0.15	20000226	81.02916	187.05038	200.00270	1.93685	0.2044930	2.3300837	32	2	1997-2000	0.50	M-v	5	Spahr	37666	1997 GE ₁
1997 GT ₃	13.5	0.15	20000226	106.72132	275.75062	17.53916	9.58756	0.0819124	3.0691043	71	2	1997-2000	0.67	M-v	3	Williams	38042	1997 GT ₃
1997 GU ₃	13.4	0.15	20000226	86.76268	305.82392	34.67426	6.49540	0.0654619	2.7751745	59	2	1997-2000	0.46	M-v	3	Spahr	38042	1997 GU ₃
1997 GL ₆	15.4	0.15	20000226	105.97148	216.42271	190.39817	3.27313	0.1347147	2.2758860	44	3	1997-2000	0.64	M-v	3	Williams	33076	1997 GL ₆
1997 GU ₆	14.7	0.15	20000226	205.93461	269.16081	23.72203	8.08234	0.1100425	2.4398015	63	4	1993-2000	0.72	M-v	1	Williams	35699	1997 GU ₆
1997 GW ₆	14.1	0.15	20000226	110.49358	128.33776	218.26559	16.92949	0.1414927	2.7492215	60	3	1997-2000	0.67	M-v	3	Spahr	38042	1997 GW ₆
1997 GZ ₆	15.8	0.15	20000226	323.87324	128.15578	44.71729	3.46366	0.0988239	2.3326710	41	4	1995-2000	0.53	M-v	1	Williams	38042	1997 GZ ₆
1997 GB ₇	14.5	0.15	20000226	264.02601	186.31812	47.22878	3.30956	0.1024127	2.3756585	90	3	1997-2000	0.63	M-v	3	Williams	38042	1997 GB ₇
1997 GD ₇	14.2	0.15	20000226	163.98520	159.55559	75.61437	2.00150	0.0801584	3.2127290	42	2	1997-1999	0.58	M-v	4	Williams	37667	1997 GD ₇
1997 GQ ₇	12.6	0.15	20000226	26.84615	2.41305	46.35212	15.94592	0.1587517	2.7730126	112	4	1985-2000	0.55	M-v	2	Williams	38043	1997 GQ ₇
1997 GC ₈	15.1	0.15	20000226	164.75739	331.51595	35.04238	8.60921	0.1400610	2.2481921	51	3	1997-2000	0.60	M-v	3	Williams	35699	1997 GC ₈
1997 GG ₈	15.2	0.15	20000226	20.26332	248.04479	218.60847	5.82374	0.0606880	2.4021416	42	3	1997-2000	0.58	M-v	3	Spahr	37667	1997 GG ₈
1997 GM ₈	14.7	0.15	20000226	129.00966	145.64282	222.71518	5.84003	0.1476125	2.4422876	59	3	1997-2000	0.46	M-v	3	Williams	33344	1997 GM ₈
1997 GZ ₉	15.7	0.15	20000226	349.62157	81.49443	21.22776	5.48398	0.1732200	2.4127174	51	2	1997-2000	0.75	M-v	4	Williams	38043	1997 GZ ₉
1997 GP ₁₂	14.3	0.15	20000226	112.53858	318.43689	49.73116	3.17599	0.2139545	2.3843864	33	4	1991-2000	0.59	M-v	1	Williams	38043	1997 GP ₁₂
1997 GP ₁₃	14.7	0.15	20000226	269.95256	11.18806	205.22917	3.54258	0.0504863	2.3514221	53	3	1997-2000	0.61	M-v	3	Spahr	38043	1997 GP ₁₃
1997 GF ₁₄	14.9	0.15	20000226	10.16865	162.47489	281.71620	1.99219	0.1470112	2.4352603	60	2	1997-2000	0.61	M-v	4	Williams	38043	1997 GF ₁₄
1997 GL ₁₄	15.5	0.15	20000226	220.06721	345.62744	299.83232	2.72876	0.1394406	2.3282153	36	3	1997-2000	0.73	M-v	3	Spahr	38043	1997 GL ₁₄
1997 GT ₁₄	15.5	0.15	20000226	233.32458	56.26355	215.28684	7.27871	0.1011710	2.3062784	30	4	1991-2000	0.61	M-v	1	Spahr	35699	1997 GT ₁₄
1997 GC ₁₅	15.6	0.15	20000226	205.56367	304.26362	355.46004	4.02436	0.1234475	2.3203101	45	3	1997-2000	0.74	M-v	4	Spahr	34586	1997 GC ₁₅
1997 GL ₁₅	13.8	0.15	20000226	81.79095	5.98628	8.59071	5.79368	0.2201699	2.5303214	57	4	1987-2000	0.65	M-v	1	Williams	37667	1997 GL ₁₅
1997 GT ₁₅	14.5	0.15	20000226	176.90197	189.18212	62.50211	1.43852	0.0522908	2.7476757	54	3	1997-1999	0.56	M-v	3	Williams	38043	1997 GT ₁₅
1997 GX ₁₅	15.4	0.15	20000226	146.06723	152.30447	171.68036	3.84836	0.0526571	2.4600444	30	3	1997-2000	0.61	M-v	3	Spahr	38043	1997 GX ₁₅
1997 GK ₁₆	14.0	0.15	20000226	76.05323	225.21676	120.73203	1.50399	0.2071207	2.8860808	58	4	1989-2000	0.54	M-v	1	Williams	38043	1997 GK ₁₆
1997 GD ₁₇	14.9	0.15	20000226	31.51705	148.96755	276.17460	1.74090	0.1856663	2.4175911	67	4	1980-2000	0.60	M-v	2	Spahr	38043	1997 GD ₁₇
1997 GF ₁₇	14.3	0.15	20000226	288.61179	9.12805	213.87138	5.24232	0.1351073	2.2492587	83	3	1997-2000	0.53	M-v	3	Williams	38043	1997 GF ₁₇
1997 GT ₁₈	15.1	0.15	20000226	135.70045	199.58539	177.21133	1.84130	0.1410096	2.2167392	74	6	1975-2000	0.63	M-v	2	Spahr	33077	1997 GT ₁₈
1997 GC ₁₉	14.9	0.15	20000226	172.82385	317.62373	356.30065	6.98539	0.1205849	2.4217662	63	3	1997-2000	0.65	M-v	3	Williams	38043	1997 GC ₁₉
1997 GV ₂₀	14.8	0.15	20000226	290.97411	280.18320	231.69378	2.88479	0.1603307	2.5277562	52	3	1997-1999	0.53	M-v	4	Williams	37668	1997 GV ₂₀
1997 GX ₂₀	15.5	0.15	20000226	154.42027	154.06036	215.17110	3.23239	0.1007882	2.1653585	51	3	1997-2000	0.70	M-v	3	Spahr	35304	1997 GX ₂₀
1997 GK ₂₁	15.5	0.15	20000226	274.64515	65.54297	192.92829	2.54135	0.1712840	2.2462319	51	5	1981-2000	0.66	M-v	2	Spahr	33344	1997 GK ₂₁
1997 GL ₂₁	13.8	0.15	20000226	339.72662	80.70905	358.97109	1.48231	0.0225419	2.9484707	77	3	1997-1999	0.57	M-v	3	Williams	37274	1997 GL ₂₁
1997 GX ₂₁	13.3	0.15	20000226	70.82854	261.67061	99.13443	3.65630	0.0740606	2.8969779	74	3	1997-2000	0.58	M-v	3	Spahr	38043	1997 GX ₂₁
1997 GH ₂₂	14.2	0.15	20000226	207.55985	298.14140	34.09054	8.18787	0.2676747	2.3158763	52	5	1980-2000	0.66	M-v	1	Williams	33752	1997 GH ₂₂
1997 GW ₂₂	14.6	0.15	20000226	6.61158	21.76194	76.32758	3.02469	0.0975168	2.5186574	63	3	1997-2000	0.61	M-v	3	Williams	38043	1997 GW ₂₂
1997 GZ ₂₂	14.4	0.15	20000226	324.94926	273.83309	192.87695	5.54339	0.0556489	2.8010012	66	3	1997-2000	0.66	M-v	3	Williams	37668	1997 GZ ₂₂
1997 GJ ₂₃	14.4	0.15	20000226	175.08647	265.01656	42.37398	13.14289	0.1753229	2.6043925	76	3	1997-2000	0.56	M-v	2	Williams	38043	1997 GJ ₂₃
1997 GK ₂₃	14.3	0.15	20000226	150.58016	102.06376	176.35606	2.09124	0.0261128	2.9022489	60	4	1992-1999	0.70	M-v	1	Williams	38043	1997 GK ₂₃
1997 GX ₂₃	14.2	0.15	20000226	190.52597	259.83899	60.45271	9.55185	0.2184008	2.4540592	87	4	1993-2000	0.58	M-v	1	Williams	35699	1997 GX ₂₃
1997 GD ₂₄	15.3	0.15	20000226	296.94047	349.33155	192.74277	6.53139	0.0926803	2.4435070	22	4	1960-2000	0.60	M-v	2	Williams	38043	1997 GD ₂₄
1997 GR ₂₄	13.8	0.15	20000226	156.50073	126.25690	195.27210	12.18640	0.1921716	2.6904988	109	3	1997-2000	0.50	M-v	2	Spahr	38043	1997 GR ₂₄

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1997 GR ₂₅	14.3	0.15	20000226	211.67049	216.49964	70.14552	3.62648	0.1762776	2.4225331	42	3	1997-2000	0.76	M-v	3	Williams	38043	1997 GR ₂₅
1997 GA ₂₆	14.4	0.15	20000226	280.41855	191.57537	51.68341	7.19795	0.1560136	2.2354475	119	3	1997-2000	0.59	M-v	3	Williams	38043	1997 GA ₂₆
1997 GB ₂₆	14.2	0.15	20000226	308.32068	105.55808	41.89169	14.22189	0.1389756	2.5257508	59	3	1983-2000	0.60	M-v	2	Williams	37669	1997 GB ₂₆
1997 GP ₂₇	15.5	0.15	20000226	232.42122	339.84213	287.86437	1.95552	0.1382920	2.2997723	26	3	1997-2000	0.63	M-v	3	Williams	32963	1997 GP ₂₇
1997 GO ₂₈	14.7	0.15	20000226	238.40074	181.06458	83.90593	3.42571	0.1867306	2.4114185	60	2	1997-2000	0.79	M-v	4	Williams	37669	1997 GO ₂₈
1997 GC ₃₃	15.0	0.15	20000226	51.52227	92.19643	346.56896	2.74356	0.1234686	2.2674636	59	3	1997-2000	0.73	M-v	2	Williams	38043	1997 GC ₃₃
1997 GL ₃₄	14.2	0.15	20000226	294.34495	130.19159	45.24143	2.95583	0.1216820	2.4122269	75	3	1997-2000	0.69	M-v	4	Williams	38043	1997 GL ₃₄
1997 GR ₃₅	13.6	0.15	20000226	72.34410	173.55051	219.17121	11.55950	0.2878161	2.6563704	33	2	1997-2000	0.54	M-v	4	Spahr	37670	1997 GR ₃₅
1997 GV ₃₅	15.3	0.15	20000226	238.52154	71.34129	211.06301	6.54958	0.1043546	2.3160988	38	4	1991-2000	0.62	M-v	1	Spahr	35700	1997 GV ₃₅
1997 GX ₃₅	14.8	0.15	20000226	182.35010	150.94123	180.54091	4.94159	0.1091387	2.3634021	58	3	1997-2000	0.71	M-v	3	Spahr	33344	1997 GX ₃₅
1997 GA ₃₇	15.2	0.15	20000226	82.50887	210.45559	207.35163	5.38383	0.1062916	2.2355300	48	4	1995-2000	0.63	M-v	1	Williams	32520	1997 GA ₃₇
1997 GC ₃₈	15.2	0.15	20000226	129.45181	204.47219	186.90619	5.58133	0.0438208	2.2657885	75	4	1993-2000	0.74	M-v	2	Spahr	35700	1997 GC ₃₈
1997 GD ₃₈	15.3	0.15	20000226	165.24426	301.36970	58.35956	7.89257	0.1258708	2.2909769	37	3	1997-2000	0.57	M-v	3	Spahr	33556	1997 GD ₃₈
1997 GM ₄₀	13.6	0.15	20000226	0.62324	54.59008	66.33312	8.50307	0.1915167	2.3213486	59	3	1953-2000	0.57	M-v	2	Williams	38044	1997 GM ₄₀
1997 GO ₄₀	15.8	0.15	20000226	282.30535	105.06481	62.07256	3.92305	0.1363747	2.6068516	34	2	1997-1999	0.61	M-v	4	Williams	37670	1997 GO ₄₀
1997 GD ₄₂	14.4	0.15	20000226	310.95780	357.32036	177.09162	5.77128	0.0768757	2.3956223	59	3	1997-2000	0.73	M-v	3	Spahr	38044	1997 GD ₄₂
1997 GD ₄₃	15.8	0.15	20000226	317.42676	234.89997	275.66324	1.25207	0.1362387	2.3831291	24	2	1997-1999	0.76	M-v	6	Williams	37670	1997 GD ₄₃
1997 HQ	13.8	0.15	20000226	44.80259	217.03065	210.86867	5.93321	0.0936260	2.4637452	64	3	1997-2000	0.45	M-v	2	Spahr	38044	1997 HQ
1997 HF ₇	14.6	0.15	20000226	71.48057	9.82596	54.80838	1.46517	0.1783850	2.3280533	35	3	1997-2000	0.58	M-v	3	Williams	32478	1997 HF ₇
1997 HW ₇	14.7	0.15	20000226	99.19996	121.68354	240.42336	2.44544	0.1895763	2.7267342	55	5	1992-2000	0.68	M-v	1	Spahr	38044	1997 HW ₇
1997 HX ₇	14.2	0.15	20000226	164.99158	88.34285	223.57536	14.30088	0.1215614	2.5981953	38	5	1990-2000	0.64	M-v	1	Spahr	38044	1997 HX ₇
1997 HG ₁₀	15.6	0.15	20000226	181.06503	278.63995	54.97760	3.78801	0.0865704	2.3368499	57	4	1991-2000	0.81	M-v	1	Williams	35700	1997 HG ₁₀
1997 HR ₁₀	15.1	0.15	20000226	183.48623	29.24037	214.77028	1.18277	0.0260415	2.9031165	39	2	1997-1999	0.50	M-v	5	Williams	37671	1997 HR ₁₀
1997 HP ₁₁	13.9	0.15	20000226	349.12380	103.81595	327.65837	1.45997	0.0815798	2.9246940	93	4	1993-2000	0.53	M-v	1	Williams	38044	1997 HP ₁₁
1997 HD ₁₃	15.2	0.15	20000226	337.84851	154.22839	352.22494	0.48007	0.1484544	2.3718317	46	2	1997-2000	0.49	M-v	4	Williams	38044	1997 HD ₁₃
1997 JL	14.8	0.15	20000226	206.82048	162.58175	127.66655	3.32517	0.0818427	2.4723545	44	3	1997-2000	0.69	M-v	3	Spahr	38044	1997 JL
1997 JR	13.8	0.15	20000226	164.69138	280.99404	58.97629	13.68159	0.2587077	2.4216752	84	3	1997-2000	0.71	M-v	2	Williams	38044	1997 JR
1997 JZ	15.0	0.15	20000226	217.74067	73.88689	217.78095	13.63014	0.1284922	2.3896907	64	3	1997-2000	0.63	M-v	2	Spahr	35700	1997 JZ
1997 JT ₃	15.4	0.15	20000226	208.65578	246.06541	70.64544	2.88149	0.2229316	2.4097700	38	5	1990-2000	0.60	M-v	1	Spahr	35700	1997 JT ₃
1997 JU ₇	14.1	0.15	20000226	99.40401	208.99219	202.27705	14.44689	0.1783938	2.3853584	56	3	1997-2000	0.63	M-v	2	Spahr	38044	1997 JU ₇
1997 JV ₇	14.4	0.15	20000226	12.59759	330.83694	169.61230	6.69301	0.0886318	2.2989333	93	3	1997-2000	0.63	M-v	3	Williams	38044	1997 JV ₇
1997 JB ₁₀	15.2	0.15	20000226	345.08492	51.67280	115.72421	2.95045	0.0895598	2.2805238	59	4	1993-2000	0.76	M-v	1	Williams	35700	1997 JB ₁₀
1997 JH ₁₀	15.2	0.15	20000226	342.55051	324.67666	202.98875	2.37416	0.0869235	2.3076889	42	3	1997-2000	0.70	M-v	4	Williams	38044	1997 JH ₁₀
1997 JA ₁₁	13.1	0.15	20000226	65.22640	233.24320	149.91113	14.97144	0.3090115	3.1378445	75	3	1997-2000	0.61	M-v	2	Spahr	38044	1997 JA ₁₁
1997 JY ₁₃	14.5	0.15	20000226	354.26229	353.61970	138.03353	1.33006	0.1492782	2.3753498	67	3	1997-2000	0.58	M-v	3	Williams	38044	1997 JY ₁₃
1997 JC ₁₄	14.1	0.15	20000226	156.48672	152.96361	195.88057	10.10047	0.2056975	2.5506802	53	4	1996-2000	0.63	M-v	1	Spahr	34296	1997 JC ₁₄
1997 JD ₁₄	13.6	0.15	20000226	112.72169	162.98346	208.71631	14.04623	0.0158638	2.5450654	62	3	1997-2000	0.66	M-v	3	Spahr	38044	1997 JD ₁₄
1997 JJ ₁₄	16.8	0.15	20000226	233.34986	129.57392	151.30358	2.34151	0.1917867	2.3920613	32	4	1994-2000	0.46	M-v	2	Williams	30293	1997 JJ ₁₄
1997 JJ ₁₅	14.4	0.15	20000226	241.69694	84.05033	211.66124	5.48643	0.1366462	2.2783847	48	3	1997-2000	0.81	M-v	3	Spahr	38044	1997 JJ ₁₅
1997 JT ₁₅	12.8	0.15	20000226	114.41488	207.14934	116.02898	3.09909	0.0353867	2.9150252	116	3	1997-2000	0.51	M-v	3	Williams	38044	1997 JT ₁₅
1997 JU ₁₅	15.7	0.15	20000226	282.69197	130.65364	85.50338	3.28499	0.1414464	2.3950764	35	2	1997-2000	0.69	M-v	4	Williams	37672	1997 JU ₁₅
1997 JN ₁₆	13.9	0.15	20000226	143.43896	151.19830	196.81566	4.17246	0.1785319	2.6092098	79	3	1997-2000	0.72	M-v	3	Spahr	38044	1997 JN ₁₆
1997 JE ₁₈	15.1	0.15	20000226	277.95966	99.11598	125.34924	2.94826	0.1651984	2.4016355	32	3	1993-2000	0.92	M-v	4	Spahr	38044	1997 JE ₁₈
1997 KA	12.7	0.15	20000226	198.85173	62.83319	254.34878	12.90704	0.1505775	2.6535755	64	3	1997-2000	0.64	M-v	3	Williams	38044	1997 KA
1997 KC	13.7	0.15	20000226	255.76970	140.50186	97.98928	14.46213	0.2018163	2.4404504	104	3	1997-2000	0.63	M-v	2	Williams	38044	1997 KC
1997 KG	13.8	0.15	20000226	77.42977	280.68118	95.48448	3.32851	0.0869643	2.8864165	103	3	1997-2000	0.58	M-v	3	Williams	38044	1997 KG
1997 KS	13.7	0.15	20000226	238.72417	73.60110	225.20250	5.72623	0.1357498	2.4571993	39	4	1995-2000	0.70	M-v	2	Spahr	35611	1997 KS
1997 KU ₂	13.6	0.15	20000226	308.34723	27.64762	130.56638	13.80148	0.1106415	2.5973874	71	3	1997-2000	0.66	M-v	3	Spahr	38044	1997 KU ₂
1997 KH ₄	13.7	0.15	20000226	348.39856	73.20817	103.46841	6.32227	0.0794887	2.2606243	56	3	1997-2000	0.57	M-v	2	Williams	38044	1997 KH ₄
1997 LO ₃	14.5	0.15	20000226	283.04483	91.97439	142.17114	2.82720	0.2052815	2.3300046	68	3	1979-2000	0.67	M-v	3	Spahr	38044	1997 LO ₃
1997 LZ ₄	14.4	0.15	20000226	118.19397	140.48989	227.77671	4.57774	0.1687888	2.6895546	74	3	1997-2000	0.58	M-v	3	Spahr	38044	1997 LZ ₄
1997 LA ₆	14.1	0.15	20000226	64.24052	298.11466	102.57206	16.72628	0.1672253	2.7741519	62	2	1997-2000	0.48	M-v	4	Williams	37672	1997 LA ₆
1997 LH ₉	14.7	0.15	20000226	204.39242	101.06652	183.46098	3.75440	0.0987235	2.5416459	33	4	1994-2000	1.05	M-v	1	Spahr	38044	1997 LH ₉

1997 LE ₁₀	12.8	0.15	20000226	312.09691	338.25976	139.26121	11.25735	0.0537407	3.0238544	82	3	1997-2000	0.51	M-v	3	Williams	37672	1997 LE ₁₀
1997 MG ₁	12.9	0.15	20000226	45.77135	206.55476	189.86333	10.56327	0.1110857	2.9989964	79	3	1997-2000	0.47	M-v	2	Spahr	38044	1997 MG ₁
1997 MS ₃	14.5	0.15	20000226	163.65981	197.69093	137.30731	5.44198	0.1079109	2.7596837	46	4	1979-2000	0.54	M-v	1	Williams	34296	1997 MS ₃
1997 MQ ₄	14.0	0.15	20000226	152.39308	290.88594	89.96031	13.42443	0.1864110	2.5648283	55	4	1995-2000	0.78	M-v	1	Spahr	38045	1997 MQ ₄
1997 MV ₄	13.0	0.15	20000226	114.65744	241.42451	112.12983	9.74829	0.0744582	3.0318326	68	3	1997-2000	0.56	M-v	3	Williams	37673	1997 MV ₄
1997 MY ₄	14.9	0.15	20000226	286.23497	85.01580	153.07682	2.81071	0.1470972	2.4101616	35	3	1997-2000	0.53	M-v	4	Williams	35700	1997 MY ₄
1997 MC ₈	14.9	0.15	20000226	255.92795	38.99524	223.67614	1.30778	0.0366410	2.7035498	41	4	1993-2000	0.51	M-v	1	Spahr	36077	1997 MC ₈
1997 MR ₈	14.2	0.15	20000226	288.47561	89.87117	131.67091	12.87772	0.2177810	2.5979078	47	3	1996-2000	0.58	M-v	2	Spahr	38045	1997 MR ₈
1997 NP	13.7	0.15	20000226	103.26543	115.09830	295.76538	4.73561	0.1005759	2.9113994	47	3	1997-2000	0.62	M-v	3	Spahr	35700	1997 NP
1997 NU ₁	14.1	0.15	20000226	130.69407	140.94362	230.11132	1.09794	0.1028199	2.8515287	69	3	1997-2000	0.69	M-v	3	Williams	34015	1997 NU ₁
1997 NE ₃	13.7	0.15	20000226	350.55080	247.84745	293.58329	6.55649	0.1550972	2.3966205	71	3	1997-2000	0.61	M-v	3	Spahr	38045	1997 NE ₃
1997 NG ₆	13.2	0.15	20000226	97.19468	242.64071	108.23555	11.68637	0.0740706	2.9917451	54	3	1997-2000	0.41	M-v	3	Spahr	38045	1997 NG ₆
1997 NU ₆	13.6	0.15	20000226	252.09153	355.53164	237.74904	8.37700	0.0934028	2.8049260	86	3	1997-2000	0.63	M-v	3	Spahr	38045	1997 NU ₆
1997 OA	12.8	0.15	20000226	144.22276	186.41838	92.79771	23.26545	0.0575326	3.2008938	61	2	1997-2000	0.51	M-v	3	Spahr	37673	1997 OA
1997 OJ	13.4	0.15	20000226	174.48857	229.31113	58.65141	1.26680	0.1672158	3.1703187	78	3	1997-2000	0.58	M-v	3	Williams	38045	1997 OJ
1997 OM	14.9	0.15	20000226	159.43072	202.35041	144.61442	2.64600	0.0782813	2.8500642	47	4	1978-2000	0.66	M-v	1	Williams	35700	1997 OM
1997 OJ ₁	14.4	0.15	20000226	164.58188	248.24962	97.84003	3.13884	0.0504983	2.9114365	40	4	1996-2000	0.62	M-v	1	Williams	33345	1997 OJ ₁
1997 OL ₂	14.0	0.15	20000226	141.85671	71.31530	292.09386	2.80713	0.1488671	3.0465838	30	3	1997-2000	0.54	M-v	4	Spahr	35700	1997 OL ₂
1997 PJ	14.4	0.15	20000226	199.34818	115.98329	188.48334	7.25642	0.1216740	2.7395907	45	5	1992-2000	0.84	M-v	1	Spahr	33077	1997 PJ
1997 PZ ₁	14.5	0.15	20000226	139.82353	213.56424	155.48001	2.89420	0.1007137	2.9677837	56	3	1997-2000	0.60	M-v	3	Williams	33500	1997 PZ ₁
1997 PE ₂	13.5	0.15	20000226	206.46077	184.43052	143.36542	18.57755	0.3093739	2.6117994	51	4	1993-2000	0.49	M-v	2	Williams	38045	1997 PE ₂
1997 PE ₃	14.2	0.15	20000226	311.38243	240.36947	340.23384	9.49298	0.1956733	2.6872741	62	3	1997-2000	0.47	M-v	3	Marsden	33262	1997 PE ₃
1997 PC ₄	15.0	0.15	20000226	226.40964	142.67974	162.49469	5.33621	0.2339044	2.6052801	35	6	1971-2000	0.51	M-v	1	Spahr	33557	1997 PC ₄
1997 PJ ₄	12.5	0.15	20000226	111.95155	146.06091	282.30180	12.71231	0.1366633	2.6691476	62	3	1997-2000	0.70	M-v	3	Williams	34296	1997 PJ ₄
1997 PU ₄	14.2	0.15	20000226	167.70965	70.65660	289.90934	4.17100	0.0578876	2.7646107	43	5	1993-2000	0.62	M-v	1	Spahr	33557	1997 PU ₄
1997 QF	13.3	0.15	20000226	240.88972	137.63312	139.23212	14.08418	0.0675524	2.8718656	100	3	1997-2000	0.57	M-v	3	Williams	38045	1997 QF
1997 QK	13.2	0.15	20000226	165.45226	38.35245	296.63879	9.14465	0.1415438	3.0283818	117	3	1997-2000	0.45	M-v	2	Spahr	38045	1997 QK
1997 QP	13.0	0.15	20000226	329.59920	261.41445	328.08006	13.61750	0.0670146	2.5830454	64	3	1997-2000	0.53	M-v	3	Williams	33753	1997 QP
1997 QS	14.4	0.15	20000226	194.43712	279.05503	30.48131	2.49710	0.0813067	2.9341234	62	6	1978-2000	0.70	M-v	1	Williams	35701	1997 QS
1997 QE ₁	12.8	0.15	20000226	5.40555	2.23473	91.59743	16.27929	0.1372553	2.6329510	74	3	1982-2000	0.49	M-v	3	Williams	37674	1997 QE ₁
1997 QF ₂	13.3	0.15	20000226	148.33984	5.40797	5.45861	12.92525	0.1444110	3.0620043	38	3	1997-2000	0.74	M-v	3	Williams	34016	1997 QF ₂
1997 QS ₂	14.0	0.15	20000226	79.30340	7.46502	72.07717	6.45924	0.1614425	3.1485325	60	3	1997-2000	0.58	M-v	3	Williams	34016	1997 QS ₂
1997 QW ₃	15.5	0.15	20000226	171.31405	262.91862	109.31131	1.25712	0.2689565	3.0769908	20	1	94 days	0.73	M-v	5	Williams	31010	1997 QW ₃
1997 RF	13.4	0.15	20000226	53.34059	297.31750	170.82774	23.51404	0.1924465	3.2243965	36	4	1988-2000	0.52	M-v	1	Williams	38045	1997 RF
1997 RA ₁	13.7	0.15	20000226	160.39932	11.08354	355.32382	8.85766	0.0301509	3.0623359	77	3	1997-2000	0.66	M-v	3	Williams	33753	1997 RA ₁
1997 RJ ₁	13.6	0.15	20000226	140.51629	236.31947	128.17798	6.37892	0.1434086	3.2004577	33	6	1977-2000	0.71	M-v	1	Williams	33557	1997 RJ ₁
1997 RQ ₃	13.0	0.15	20000226	181.54620	194.78547	133.88771	2.43232	0.1842808	3.1739190	40	6	1980-2000	0.68	M-v	1	Williams	33557	1997 RQ ₃
1997 RQ ₅	13.5	0.15	20000226	300.74427	39.32465	190.33002	0.57599	0.0952909	3.1268487	65	4	1991-2000	0.50	M-v	1	Williams	35701	1997 RQ ₅
1997 RO ₈	15.8	0.15	19970929	350.67360	41.03938	337.25806	4.41832	0.1694616	2.5936722	12	1	50 days	0.23			Williams		1997 RO ₈
1997 RQ ₈	15.6	0.15	19970929	4.72831	99.24481	258.48522	1.81272	0.1933345	2.5370879	17	1	52 days	0.39			Williams		1997 RQ ₈
1997 RR ₈	12.8	0.15	20000226	261.62632	70.16642	193.50945	10.05193	0.0691115	2.9809385	44	4	1992-2000	0.54	M-v	1	Williams	35701	1997 RR ₈
1997 RY ₈	13.5	0.15	20000226	39.78006	336.31033	172.29419	10.55127	0.0999678	3.0317936	53	3	1997-2000	0.51	M-v	3	Spahr	34016	1997 RY ₈
1997 SR	14.0	0.15	20000226	210.89782	353.41739	324.33037	11.91801	0.1738579	2.7173674	57	3	1997-2000	0.51	M-v	3	Spahr	33753	1997 SR
1997 SF ₁	16.0	0.15	19970929	346.85657	205.26067	197.91239	24.12194	0.2537510	2.2739998	17	1	14 days	0.37			Williams		1997 SF ₁
1997 SM ₁	12.5	0.15	20000226	342.05284	5.33443	199.20186	13.38849	0.1065518	2.6822325	50	3	1997-2000	0.54	M-v	3	Spahr	34297	1997 SM ₁
1997 SN ₁	13.8	0.15	20000226	273.06934	299.30726	336.63200	12.26598	0.1678787	2.6877744	42	3	1997-2000	0.31	M-v	3	Spahr	38045	1997 SN ₁
1997 SC ₃	15.5	0.15	19970929	7.61248	357.43213	1.08461	4.81567	0.1961658	2.5963440	18	1	40 days	1.03			Williams		1997 SC ₃
1997 SM ₃	13.0	0.15	20000226	312.94494	265.47686	325.65132	14.70117	0.0918510	2.6353581	41	3	1997-2000	0.67	M-v	3	Spahr	38045	1997 SM ₃
1997 SZ ₄	13.5	0.15	20000226	189.03433	322.21629	8.47139	21.38287	0.0840578	3.1601226	21	3	1997-2000	0.48	M-v	3	Spahr	35701	1997 SZ ₄
1997 SG ₇	14.1	0.15	20000226	312.57761	170.05072	19.88688	1.21338	0.1162351	3.1467156	44	3	1997-2000	0.57	M-v	4	Williams	38045	1997 SG ₇
1997 SN ₁₀	13.0	0.15	20000226	219.30536	91.15841	194.01571	4.66007	0.1573939	3.1268501	32	4	1991-2000	0.49	M-v	1	Spahr	38045	1997 SN ₁₀
1997 SF ₁₁	13.8	0.15	20000226	63.14457	264.79080	215.69350	12.67855	0.0567514	3.1013903	49	4	1995-2000	0.59	M-v	1	Williams	35701	1997 SF ₁₁
1997 SG ₂₅	14.1	0.15	20000226	313.93210	197.22522	68.73258	3.04641	0.1845255	2.4054151	31	4	1985-2000	0.72	M-v	1	Spahr	38045	1997 SG ₂₅

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1997 SF ₂₈	12.2	0.15	20000226	40.30152	79.37524	344.90572	6.75013	0.0978562	5.1237701	27	3	1997-2000	0.63	M-v	3	Williams	38045	1997 SF ₂₈
1997 SS ₃₁	13.2	0.15	20000226	78.01027	192.40255	238.49939	4.32016	0.1655234	3.1845972	59	3	1997-2000	0.71	M-v	3	Spahr	38045	1997 SS ₃₁
1997 SQ ₃₂	14.6	0.15	20000226	229.43183	19.07199	356.67135	2.21218	0.2360169	2.3815954	32	4	1975-1999	0.43	M-v	2	Williams	34519	1997 SQ ₃₂
1997 SM ₃₃	15.4	0.15	20000226	226.39962	183.68666	199.24198	8.77586	0.2178018	2.4458607	17	1	66 days	0.52	M-v	5	Williams		1997 SM ₃₃
1997 TC	13.7	0.15	20000226	234.49687	263.09028	21.43875	2.13211	0.0756921	2.9375950	61	5	1993-2000	0.73	M-v	1	Williams	35701	1997 TC
1997 TR	13.3	0.15	20000226	178.82494	327.66198	5.69594	8.86493	0.1160710	3.0699549	68	3	1997-2000	0.60	M-v	3	Williams	35701	1997 TR
1997 TV	13.4	0.15	20000226	256.75461	266.48399	359.24727	9.05707	0.0608358	3.1613259	59	5	1986-2000	0.75	M-v	1	Williams	35701	1997 TV
1997 TD ₆	15.1	0.15	19970929	355.68645	354.71439	23.60267	16.23200	0.1815859	2.7395172	10	1	25 days	0.33			Williams		1997 TD ₆
1997 TR ₆	15.5	0.15	20000226	201.40566	217.10033	140.58776	3.02529	0.4036522	2.6954583	29	2	1997-1999	0.41	M-v	4	Williams	34875	1997 TR ₆
1997 TZ ₇	13.1	0.15	20000226	170.37703	286.38458	50.30396	16.91343	0.2493638	3.1123160	91	5	1981-2000	0.69	M-v	1	Williams	33754	1997 TZ ₇
1997 TS ₁₇	13.6	0.15	20000226	218.22514	108.44809	205.79949	9.91894	0.0569355	3.1675048	29	4	1985-2000	0.82	M-v	2	Spahr	34519	1997 TS ₁₇
1997 TS ₁₈	13.7	0.15	20000226	239.61158	302.69363	334.33954	8.35872	0.1327236	2.7642549	48	3	1997-2000	0.50	M-v	3	Williams	37275	1997 TS ₁₈
1997 TN ₁₉	16.0	0.15	19971019	42.15480	123.10381	198.97257	24.47542	0.2350140	2.3126705	16	1	25 days	0.49			Williams		1997 TN ₁₉
1997 TS ₂₄	15.9	0.15	19971019	0.29350	3.00005	8.60489	7.27531	0.1408608	2.3428825	20	1	26 days	1.07			Williams		1997 TS ₂₄
1997 TA ₂₆	14.0	0.15	20000226	66.96429	86.91265	24.04536	18.27454	0.1385659	3.2073720	31	2	1997-1999	0.76	M-v	4	Williams	34017	1997 TA ₂₆
1997 TZ ₂₇	11.8	0.15	20000226	35.82425	9.94909	49.10178	7.25001	0.0610292	5.2088082	37	4	1996-2000	0.73	M-v	2	Williams	37674	1997 TZ ₂₇
1997 TB ₂₈	11.6	0.15	20000226	341.91375	47.15051	77.18057	7.76562	0.0751201	5.1572840	32	4	1996-2000	0.66	M-v	2	Marsden	37674	1997 TB ₂₈
1997 TD ₂₈	11.4	0.15	20000226	341.06450	53.89214	61.42656	7.86626	0.0739908	5.2608026	28	4	1996-2000	0.48	M-v	2	Williams	37675	1997 TD ₂₈
1997 TV ₂₈			19970929	324.07171	29.21014	33.06953	15.90986	0.0964511	5.2116546	15	1	24 days	0.57			Williams		1997 TV ₂₈
1997 UJ	11.9	0.15	20000226	51.78171	205.06927	224.13323	11.10923	0.0638206	5.1139801	45	3	1997-2000	0.63	M-v	3	Spahr	38045	1997 UJ
1997 UT ₂	12.8	0.15	20000226	210.00408	265.81068	23.26675	16.99629	0.2226662	3.1607690	38	5	1974-2000	0.67	M-v	2	Williams	38045	1997 UT ₂
1997 UO ₇	15.6	0.15	20000226	217.80886	222.55881	171.13799	4.18173	0.1475282	2.4573649	37	3	1993-1999	0.61	M-v	4	Williams	35702	1997 UO ₇
1997 UB ₈	14.8	0.15	20000226	217.34062	221.47774	202.86255	22.75635	0.3120045	2.3325041	41	3	1990-1999	0.60	M-v	2	Williams	35072	1997 UB ₈
1997 UB ₁₁	12.1	0.15	20000226	116.51354	27.69707	0.60188	21.38245	0.0409381	3.2154421	42	3	1997-2000	0.68	M-v	2	Williams	34018	1997 UB ₁₁
1997 UC ₁₁	13.6	0.15	20000226	297.53516	264.16644	7.54931	23.20235	0.2096298	2.3612897	33	3	1997-2000	0.51	M-v	3	Williams	34018	1997 UC ₁₁
1997 UC ₂₂	11.8	0.15	20000226	153.21106	51.45379	292.73955	17.63524	0.1536729	3.2077565	97	3	1997-2000	0.64	M-v	3	Williams	38046	1997 UC ₂₂
1997 UJ ₂₂	15.5	0.15	19971108	20.84685	192.44156	172.85926	4.75771	0.2474310	2.6134171	25	1	33 days	1.07			Williams		1997 UJ ₂₂
1997 UZ ₂₃	11.2	0.15	19970929	229.79194	314.84439	189.64606	28.49930	0.0262956	5.1479119	21	1	32 days	0.57			Williams		1997 UZ ₂₃
1997 UD ₂₅	12.8	0.15	20000226	166.33203	306.21261	93.62489	3.50505	0.0574546	2.8900763	55	5	1987-2000	0.75	M-v	1	Spahr	35432	1997 UD ₂₅
1997 UE ₂₅	13.2	0.15	20000226	162.07085	276.36182	103.62875	3.35579	0.1577047	3.1336663	38	4	1991-1999	0.68	M-v	3	Williams	35702	1997 UE ₂₅
1997 VA ₁	15.8	0.15	19971019	18.72870	34.83325	314.82460	1.60749	0.2048705	2.3854095	18	1	8 days	0.65			Williams		1997 VA ₁
1997 VM ₂	13.4	0.15	20000226	273.99724	74.70619	186.83600	10.20521	0.0160714	3.0840097	28	4	1981-2000	0.63	M-v	1	Spahr	33558	1997 VM ₂
1997 VV ₄	15.7	0.15	20000226	213.14104	176.77265	205.70072	2.07465	0.2224569	2.5863299	29	1	119 days	0.73	M-v	5	Williams	31423	1997 VV ₄
1997 VC ₅	13.2	0.15	20000226	239.88319	265.60040	63.56752	10.63453	0.0864569	3.0804665	37	3	1997-2000	0.58	M-v	3	Spahr	34298	1997 VC ₅
1997 WG ₁	12.9	0.15	20000226	153.65022	124.29245	242.03539	9.87799	0.1134284	2.9916352	37	5	1982-2000	0.72	M-v	1	Spahr	34299	1997 WG ₁
1997 WU ₂₂	15.3	0.15	20000226	299.68838	334.14590	260.90647	15.98231	0.4424322	1.4674754	217	3	1990-2000	0.51	M-v	3	Spahr	38046	1997 WU ₂₂
1997 WP ₂₈	13.8	0.15	20000226	162.80276	101.78884	275.30837	8.85549	0.1038880	2.9778196	37	4	1989-2000	0.62	M-v	1	Spahr	33755	1997 WP ₂₈
1997 WB ₃₇	11.8	0.15	20000226	332.73051	144.29634	86.67080	11.86824	0.0981604	3.2174583	91	3	1997-2000	0.51	M-v	2	Spahr	38046	1997 WB ₃₇
1997 XF ₁₁	16.7	0.15	20000226	192.15823	102.48000	214.11745	4.09540	0.4836320	1.4416637	153	3	1990-2000	0.63	M-v	3	Spahr	37275	1997 XF ₁₁
1998 AZ	13.3	0.15	20000226	44.72858	271.96630	326.91145	10.05286	0.0759236	3.0660102	26	3	1997-1999	0.58	M-v	3	Williams	37675	1998 AZ
1998 BE ₁₅	14.1	0.15	20000226	216.13852	310.24666	124.35808	13.34245	0.0614738	2.6542547	40	2	1997-1999	0.62	M-v	4	Williams	37675	1998 BE ₁₅
1998 DC ₆	12.9	0.15	20000226	207.40667	299.57540	108.48975	0.08177	0.2238777	3.1958504	47	6	1984-1999	0.59	M-v	1	Marsden	35705	1998 DC ₆
1998 DR ₇	15.6	0.15	19980308	66.89563	30.31563	56.12938	4.08098	0.1612525	2.2858874	30	1	40 days	1.24			Marsden		1998 DR ₇
1998 DK ₁₀	13.8	0.15	20000226	210.22550	297.03824	167.82459	9.18170	0.1233671	2.7522763	51	3	1995-1999	0.59	M-v	3	Marsden	35316	1998 DK ₁₀
1998 DU ₂₀	14.8	0.15	20000226	251.73889	205.49038	164.74491	2.75029	0.2416002	2.3282796	25	1	128 days	0.63	M-v	4	Williams	32315	1998 DU ₂₀
1998 DQ ₂₇	15.5	0.15	20000226	96.56565	292.42586	15.97293	4.88793	0.1799551	2.2177376	66	2	1998-1999	0.67	M-v	4	Williams	38046	1998 DQ ₂₇
1998 DJ ₃₃	14.6	0.15	20000226	201.20917	54.57356	110.03130	5.76325	0.1091810	2.2749514	34	4	1974-1999	0.62	M-v	3	Williams	35947	1998 DJ ₃₃
1998 DZ ₃₃	14.4	0.15	20000226	164.15687	14.07192	165.70532	12.18009	0.1459521	2.5761622	52	3	1995-1999	0.65	M-v	3	Marsden	36078	1998 DZ ₃₃
1998 DH ₃₄	11.7	0.15	20000226	331.20992	217.45201	76.43643	3.21130	0.0503214	3.9542846	73	4	1981-1999	0.64	M-v	1	Williams	35436	1998 DH ₃₄
1998 DK ₃₄	14.0	0.15	20000226	143.44052	23.71241	122.53715	0.92147	0.1388168	3.1782850	25	3	1990-1998	0.67	M-v	5	Marsden	35619	1998 DK ₃₄
1998 DM ₃₄	12.9	0.15	19980308	246.97847	279.23600	11.05628	8.91252	0.0768587	3.1894104	12	1	35 days	0.81			Marsden		1998 DM ₃₄
1998 DQ ₃₄	16.4	0.15	19980308	351.26485	161.19463	22.54449	3.92711	0.2369045	2.5916515	24	1	36 days	0.88			Marsden		1998 DQ ₃₄
1998 DV ₃₄	14.3	0.15	20000226	102.06994	73.39416	155.14377	3.62053	0.0383764	2.7471119	56	5	1992-1999	0.73	M-v	1	Marsden	35076	1998 DV ₃₄

1998 DW ₃₄	13.4	0.15	20000226	252.57411	251.25384	163.97329	17.44557	0.1361485	2.8037228	56	2	1998–1999	0.78	M-v	4	Marsden	34905	1998 DW ₃₄
1998 DY ₃₄	13.9	0.15	19980308	58.16975	86.51925	20.71424	2.00530	0.0601201	2.8873802	35	1	35 days	0.60			Marsden		1998 DY ₃₄
1998 DB ₃₅	15.2	0.15	20000226	110.26705	239.43472	25.55219	3.34538	0.1657210	2.4453745	49	2	1998–1999	0.67	M-v	4	Marsden	36527	1998 DB ₃₅
1998 DC ₃₅	14.3	0.15	20000226	212.93220	359.69913	156.30549	4.83022	0.0728585	2.3254699	84	2	1998–1999	0.65	M-v	3	Williams	38046	1998 DC ₃₅
1998 DD ₃₅	15.2	0.15	19980308	15.52586	21.17318	128.14060	2.85167	0.1496847	2.3668455	22	1	35 days	0.51			Marsden		1998 DD ₃₅
1998 DE ₃₅	14.0	0.15	19980308	61.76528	328.13491	132.53713	3.46580	0.0823118	2.6535119	22	1	35 days	0.68			Marsden		1998 DE ₃₅
1998 DF ₃₅	15.6	0.15	19980308	350.60770	155.28014	28.33292	1.41856	0.1506333	2.2697928	21	1	35 days	0.73			Marsden		1998 DF ₃₅
1998 EJ ₈	14.3	0.15	20000226	63.82903	128.17484	171.11050	6.67727	0.1523819	2.5368563	88	2	1998–1999	0.69	M-v	3	Marsden	36893	1998 EJ ₈
1998 EV ₉	15.7	0.15	19980308	34.84644	320.76231	164.70054	3.47466	0.1487709	2.3702646	29	1	28 days	0.74			Marsden		1998 EV ₉
1998 EQ ₁₀	14.4	0.15	20000226	63.48775	249.39898	70.17225	4.45147	0.1842279	2.2975190	53	3	1995–1999	0.65	M-v	2	Williams	38046	1998 EQ ₁₀
1998 EQ ₁₁	13.8	0.15	20000226	149.75117	114.05747	41.39546	5.15324	0.0344017	3.0029625	29	2	1993–1998	0.93	M-v	4	Marsden	36078	1998 EQ ₁₁
1998 ES ₁₁	15.1	0.15	19980308	13.68262	107.14179	46.22605	4.21494	0.0798812	2.5192747	30	1	36 days	1.42			Marsden		1998 ES ₁₁
1998 ER ₁₂	15.5	0.15	19980308	12.41193	26.01792	127.92972	3.11963	0.1512996	2.3229831	22	1	33 days	0.88			Marsden		1998 ER ₁₂
1998 EU ₁₂	14.9	0.15	20000226	123.50433	253.37205	18.40435	6.26393	0.1728475	2.2937806	44	2	1998–1999	0.63	M-v	4	Marsden	37676	1998 EU ₁₂
1998 EV ₁₂	15.0	0.15	20000226	134.92928	126.68680	113.78868	3.14898	0.1549260	2.4252673	60	2	1998–1999	0.61	M-v	4	Marsden	36527	1998 EV ₁₂
1998 EW ₁₂	15.1	0.15	20000226	111.37747	290.55601	3.58608	5.57629	0.1744953	2.2158060	91	2	1998–2000	0.57	M-v	4	Williams	38046	1998 EW ₁₂
1998 EZ ₁₂	13.8	0.15	20000226	74.12879	251.04829	12.89678	9.38066	0.0949842	2.7559485	42	1	60 days	0.77	M-v	5	Marsden	32316	1998 EZ ₁₂
1998 ED ₁₃	14.2	0.15	19980308	120.71472	344.99130	52.14228	3.50242	0.1639875	2.2731655	22	1	33 days	1.18			Marsden		1998 ED ₁₃
1998 EJ ₁₃	15.2	0.15	19980308	326.35904	172.84755	42.64605	2.82981	0.1309455	2.3880601	21	1	33 days	1.10			Marsden		1998 EJ ₁₃
1998 EY ₁₃	15.5	0.15	19980308	80.33829	70.48070	13.43242	7.14576	0.0739228	2.2719122	24	1	48 days	0.78			Marsden		1998 EY ₁₃
1998 ER ₁₄	14.3	0.15	20000226	102.45150	217.28128	93.56088	4.69907	0.1815479	2.1553351	56	2	1998–2000	0.58	M-v	4	Williams	37676	1998 ER ₁₄
1998 FP ₁₀	15.5	0.15	20000226	95.06210	274.76104	357.54445	12.62983	0.2116743	2.6838213	54	2	1998–1999	0.73	M-v	4	Williams	38046	1998 FP ₁₀
1998 FA ₁₁	15.2	0.15	20000226	88.49944	206.88445	145.40559	5.50352	0.1910301	2.2470844	51	3	1997–2000	0.54	M-v	2	Spahr	38047	1998 FA ₁₁
1998 FC ₁₂	14.6	0.15	20000226	126.78134	150.64331	157.98049	4.47579	0.2455883	2.0782013	55	3	1980–2000	0.62	M-v	2	Spahr	38047	1998 FC ₁₂
1998 FQ ₁₂	15.0	0.15	19980308	45.75174	289.58423	174.95335	12.20417	0.2155179	2.6177541	21	1	14 days	0.85			Marsden		1998 FQ ₁₂
1998 FD ₁₅	14.0	0.15	20000226	156.90774	24.62897	215.48769	2.30660	0.1657027	2.3081080	112	5	1977–1999	0.63	M-v	3	Spahr	37276	1998 FD ₁₅
1998 FM ₂₇	13.0	0.15	20000226	206.69346	205.07956	236.79360	3.13010	0.1202188	3.0514029	57	5	1980–1999	0.76	M-v	1	Marsden	35077	1998 FM ₂₇
1998 FW ₂₈	14.4	0.15	19980308	30.92851	87.39021	44.79447	3.12974	0.1002873	2.5975785	15	1	14 days	0.91			Marsden		1998 FW ₂₈
1998 FX ₂₈	13.2	0.15	19980308	176.42926	281.05547	72.57466	3.09896	0.0600928	2.8206016	16	1	14 days	0.68			Marsden		1998 FX ₂₈
1998 FA ₂₉	14.3	0.15	19980308	301.35057	214.20624	23.15230	2.06674	0.0820738	2.5447752	15	1	14 days	0.99			Marsden		1998 FA ₂₉
1998 FC ₂₉	13.1	0.15	20000226	299.45831	183.75115	171.89468	14.18099	0.1266276	3.1636098	47	2	1998–1999	0.72	M-v	4	Marsden	35437	1998 FC ₂₉
1998 FD ₂₉	15.2	0.15	19980308	339.10997	33.66193	163.17779	1.90031	0.1247092	2.3040217	16	1	14 days	0.74			Marsden		1998 FD ₂₉
1998 FD ₃₀	14.4	0.15	20000226	123.78324	71.94230	215.80691	4.01082	0.1734792	2.1775229	48	2	1998–2000	0.53	M-v	4	Williams	37677	1998 FD ₃₀
1998 FZ ₃₀	14.1	0.15	19980308	101.72887	346.60266	66.07371	2.00942	0.1587717	2.4180780	15	1	14 days	0.71			Marsden		1998 FZ ₃₀
1998 FB ₃₁	14.1	0.15	19980308	24.60740	335.42877	166.35979	13.30331	0.0936747	2.5689877	16	1	14 days	0.86			Marsden		1998 FB ₃₁
1998 FD ₃₁	12.4	0.15	19980308	173.11800	190.47783	166.99121	28.50655	0.1562314	3.1104348	16	1	14 days	0.62			Marsden		1998 FD ₃₁
1998 FF ₃₁	13.5	0.15	19980308	7.91821	21.61796	138.61502	6.19190	0.1198645	3.1672462	15	1	14 days	0.83			Marsden		1998 FF ₃₁
1998 FG ₃₁	15.2	0.15	19980308	316.01895	207.08703	21.22861	5.80125	0.1567392	2.2901495	16	1	14 days	0.75			Marsden		1998 FG ₃₁
1998 FK ₃₁	15.4	0.15	19980328	9.81796	157.49578	8.28133	12.53301	0.1002103	2.4124823	27	1	28 days	0.79			Marsden		1998 FK ₃₁
1998 FM ₃₁	15.3	0.15	19980308	315.73865	193.44586	41.61754	2.66983	0.2006719	2.4442319	15	1	14 days	1.43			Marsden		1998 FM ₃₁
1998 FO ₃₁	14.4	0.15	19980308	66.49075	302.75884	150.88308	3.24680	0.1095326	2.5263620	15	1	14 days	0.91			Marsden		1998 FO ₃₁
1998 FQ ₃₁	13.2	0.15	19980308	66.12417	317.46230	133.19684	1.96268	0.1408071	3.1962231	16	1	14 days	1.12			Marsden		1998 FQ ₃₁
1998 FC ₃₃	13.6	0.15	19980308	119.06219	235.57610	173.50696	22.28641	0.0524114	2.5902881	31	1	14 days	0.55			Marsden		1998 FC ₃₃
1998 FF ₃₃	15.0	0.15	20000226	146.12426	79.65544	160.78477	3.94642	0.1888309	2.3664683	67	2	1998–1999	0.68	M-v	4	Marsden	36358	1998 FF ₃₃
1998 FH ₃₃	14.3	0.15	19980308	99.82786	272.76099	148.26120	4.38129	0.1101523	2.3326667	16	1	14 days	0.57			Marsden		1998 FH ₃₃
1998 FJ ₃₉	15.2	0.15	19980308	336.76088	40.82417	158.84309	3.53257	0.1135362	2.3283896	15	1	14 days	0.93			Marsden		1998 FJ ₃₉
1998 FS ₃₉	14.3	0.15	19980308	120.15756	244.49465	152.16468	4.75477	0.1780339	2.2598263	14	1	14 days	1.20			Marsden		1998 FS ₃₉
1998 FN ₄₁	15.2	0.15	20000226	102.23251	294.07884	357.46396	2.47773	0.2184443	2.3831566	72	2	1998–1999	0.68	M-v	4	Williams	36894	1998 FN ₄₁
1998 FZ ₄₆	15.7	0.15	20000226	140.81755	280.96742	352.68308	3.96262	0.1264962	2.1674032	74	2	1998–1999	0.68	M-v	4	Williams	38047	1998 FZ ₄₆
1998 FC ₅₁	14.9	0.15	19980308	0.90917	53.93206	123.68737	2.50810	0.1304770	3.1247316	17	1	27 days	0.81			Williams		1998 FC ₅₁
1998 FM ₅₇	15.1	0.15	20000226	117.89814	298.29540	350.33387	3.60696	0.2006615	2.3143923	61	2	1998–1999	0.54	M-v	4	Williams	37678	1998 FM ₅₇
1998 FL ₆₀	15.0	0.15	20000226	100.97576	130.83361	173.87441	6.63280	0.2709649	2.3936367	40	3	1995–1999	0.76	M-v	3	Williams	37678	1998 FL ₆₀
1998 FK ₆₅	15.0	0.15	20000226	138.94188	64.30304	216.33080	4.84090	0.1780044	2.2294405	108	2	1998–2000	0.54	M-v	3	Williams	38048	1998 FK ₆₅

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1998 FV ₇₈	14.3	0.15	20000226	131.76136	209.37792	80.34757	5.22235	0.1639041	2.2355563	70	2	1998–1999	0.45	M-v	3	Williams	38048	1998 FV ₇₈
1998 FL ₉₀	14.0	0.15	19980328	134.03064	7.61202	18.80426	8.63545	0.1971337	2.3223255	15	1	10 days	0.84			Marsden		1998 FL ₉₀
1998 FP ₉₀	13.5	0.15	19980308	95.03313	64.68529	4.07572	21.93513	0.0531326	2.6742014	28	1	51 days	1.15			Marsden		1998 FP ₉₀
1998 FV ₉₀	14.7	0.15	20000226	77.84259	217.16608	96.35962	5.06953	0.2530679	2.3298737	42	3	1995–1999	0.77	M-v	3	Williams	38048	1998 FV ₉₀
1998 FT ₉₂	15.7	0.15	19980328	354.48965	158.53428	26.43364	6.09483	0.1124950	2.2754571	15	1	10 days	1.11			Marsden		1998 FT ₉₂
1998 FO ₁₀₃	14.6	0.15	20000226	106.70331	335.27056	320.56771	5.09584	0.1759832	2.3052883	56	2	1998–1999	0.67	M-v	4	Williams	38048	1998 FO ₁₀₃
1998 FB ₁₁₈	15.0	0.15	20000226	117.06885	306.47814	350.56716	6.19912	0.1240355	2.2867616	51	2	1998–2000	0.61	M-v	4	Williams	38048	1998 FB ₁₁₈
1998 FB ₁₂₀	15.6	0.15	19980308	345.39560	120.75885	70.32214	2.59497	0.1665108	2.3203556	14	1	14 days	1.15			Marsden		1998 FB ₁₂₀
1998 FC ₁₂₀	13.1	0.15	19980308	110.20279	357.59694	52.31111	3.16612	0.1160722	2.8780977	15	1	14 days	0.99			Marsden		1998 FC ₁₂₀
1998 FQ ₁₂₀	14.0	0.15	19980308	60.20168	98.04372	5.48984	13.56077	0.0535236	2.6369383	14	1	14 days	0.70			Marsden		1998 FQ ₁₂₀
1998 FR ₁₂₀	13.2	0.15	19980308	219.64674	312.39987	10.98547	12.76257	0.1778631	2.6691523	13	1	14 days	0.77			Marsden		1998 FR ₁₂₀
1998 FH ₁₂₄	13.8	0.15	19980328	57.22586	13.70292	84.62627	3.88735	0.1830438	2.9994402	14	1	10 days	0.79		E	Marsden		1998 FH ₁₂₄
1998 FN ₁₂₆	14.7	0.15	20000226	136.15766	1.00286	292.71583	2.72763	0.1599838	2.1563910	122	3	1976–2000	0.63	M-v	2	Spahr	38049	1998 FN ₁₂₆
1998 FN ₁₂₇	13.6	0.15	19980328	93.17384	298.05995	123.69706	4.63539	0.1906434	2.6697994	13	1	10 days	0.78			Marsden		1998 FN ₁₂₇
1998 FO ₁₂₇	14.0	0.15	19980328	223.57187	200.93577	115.45734	4.25877	0.0534971	2.7025960	12	1	10 days	0.98		E	Marsden		1998 FO ₁₂₇
1998 FC ₁₂₈	14.4	0.15	19980328	356.50577	48.30130	131.78312	5.06795	0.0120862	2.7965561	14	1	9 days	0.96		E	Marsden		1998 FC ₁₂₈
1998 FT ₁₂₉	15.3	0.15	19980328	32.99464	62.96247	67.33393	2.96621	0.1705546	2.4495563	14	1	12 days	1.09			Marsden		1998 FT ₁₂₉
1998 FL ₁₃₃	15.5	0.15	19980308	312.11701	203.33283	27.53817	3.17320	0.1379212	2.1983314	12	1	14 days	0.72			Marsden		1998 FL ₁₃₃
1998 FM ₁₃₃	15.0	0.15	19980308	39.33228	104.26826	16.56940	4.21706	0.1159162	2.3829438	13	1	14 days	0.89			Marsden		1998 FM ₁₃₃
1998 FN ₁₃₃	15.6	0.15	19980308	318.73624	202.76210	19.97818	2.90952	0.1106879	2.5433808	15	1	14 days	1.23			Marsden		1998 FN ₁₃₃
1998 GF	14.9	0.15	20000226	283.75948	122.21843	35.26947	22.40661	0.0313677	1.9403988	103	3	1990–2000	0.56	M-v	2	Williams	38049	1998 GF
1998 GK	14.6	0.15	20000226	216.85158	211.96183	33.90017	24.78513	0.1589336	1.9326894	84	3	1980–2000	0.60	M-v	2	Williams	38049	1998 GK
1998 HN ₁	16.2	0.15	20000226	306.45183	286.54749	208.43921	21.21478	0.0810554	1.9436162	63	2	1998–1999	0.68	M-v	4	Williams	36896	1998 HN ₁
1998 HO ₃	14.9	0.15	20000226	104.22104	84.61103	191.28060	14.79241	0.1301823	2.6071830	46	2	1998–1999	0.63	M-v	3	Williams	37680	1998 HO ₃
1998 HL ₁₄	12.2	0.15	20000226	161.13601	49.04445	50.77097	22.88985	0.1054148	3.1944907	70	4	1987–1999	0.67	M-v	2	Marsden	36532	1998 HL ₁₄
1998 HG ₂₆	15.0	0.15	20000226	64.14961	233.52597	127.54779	3.74122	0.2014291	2.3598156	68	3	1997–2000	0.54	M-v	2	Spahr	38049	1998 HG ₂₆
1998 HO ₂₇	13.2	0.15	20000226	60.17603	256.74569	98.38028	6.10272	0.0777124	2.3793910	95	3	1954–2000	0.49	M-v	2	Williams	38049	1998 HO ₂₇
1998 HO ₃₀	14.4	0.15	20000226	102.45574	254.81280	75.87510	3.39314	0.2064581	2.1387794	89	2	1998–2000	0.55	M-v	4	Williams	38049	1998 HO ₃₀
1998 HU ₃₁	15.6	0.15	20000226	349.11945	246.56323	222.02498	20.93002	0.0918865	1.9285003	65	2	1998–2000	0.61	M-v	3	Williams	37680	1998 HU ₃₁
1998 HD ₃₂	14.9	0.15	20000226	62.21670	125.09382	221.89223	4.12933	0.1905441	2.2787024	102	3	1997–1999	0.66	M-v	2	Williams	38049	1998 HD ₃₂
1998 HU ₃₂	15.0	0.15	20000226	116.15202	253.86816	40.17056	2.54896	0.1614275	2.3116724	84	2	1998–1999	0.61	M-v	4	Williams	38049	1998 HU ₃₂
1998 HO ₃₃	13.9	0.15	20000226	80.62350	116.49300	211.22791	23.43135	0.1937858	2.3281589	127	2	1998–2000	0.60	M-v	3	Williams	38049	1998 HO ₃₃
1998 HL ₃₄	15.4	0.15	20000226	105.72300	257.20837	53.01923	4.09161	0.1564268	2.2561429	76	2	1998–1999	0.68	M-v	4	Williams	38049	1998 HL ₃₄
1998 HR ₃₇	14.2	0.15	20000226	292.10819	97.74988	334.49575	3.43345	0.1609667	2.4438680	49	2	1998–1999	0.82	M-v	4	Williams	37680	1998 HR ₃₇
1998 HC ₄₂	15.8	0.15	20000226	98.41803	263.53801	67.24800	7.16349	0.2063996	2.2417655	48	2	1998–1999	0.67	M-v	4	Williams	38049	1998 HC ₄₂
1998 HU ₅₀	15.5	0.15	20000226	141.90269	20.66957	251.29871	3.13200	0.1842474	2.3033889	50	2	1998–1999	0.73	M-v	4	Williams	37680	1998 HU ₅₀
1998 HW ₅₀	14.5	0.15	20000226	107.54024	329.26572	350.37620	4.04328	0.1940648	2.2464846	60	2	1998–1999	0.59	M-v	4	Williams	38050	1998 HW ₅₀
1998 HU ₅₁	14.2	0.15	20000226	111.66819	248.71983	59.30866	5.18648	0.2108955	2.3616666	73	2	1998–2000	0.49	M-v	4	Spahr	38050	1998 HU ₅₁
1998 HH ₅₂	14.3	0.15	20000226	77.45207	327.21874	35.81099	7.11688	0.2383379	2.1549615	46	3	1983–2000	0.61	M-v	3	Williams	38050	1998 HH ₅₂
1998 HP ₅₃	14.4	0.15	20000226	59.94367	143.30216	140.13787	2.81030	0.0660158	2.9297817	29	2	1998–1999	0.87	M-v	5	Williams	37681	1998 HP ₅₃
1998 HL ₉₃	14.9	0.15	20000226	136.79496	46.73670	248.62928	3.42803	0.1742887	2.2505504	69	2	1998–2000	0.66	M-v	4	Williams	38050	1998 HL ₉₃
1998 HV ₉₅	15.1	0.15	20000226	73.06460	262.84366	85.86269	5.29950	0.1782636	2.3174467	76	3	1997–2000	0.64	M-v	2	Williams	38050	1998 HV ₉₅
1998 HA ₉₈	14.3	0.15	20000226	79.02704	298.37571	19.78422	11.65051	0.1988846	2.6421902	86	3	1995–2000	0.61	M-v	2	Williams	38050	1998 HA ₉₈
1998 HJ ₉₈	15.2	0.15	20000226	162.42581	270.20655	357.43226	3.42737	0.0942834	2.1991813	56	2	1998–1999	0.68	M-v	4	Williams	37682	1998 HJ ₉₈
1998 HC ₉₉	14.6	0.15	20000226	106.49042	264.22777	65.26793	4.46141	0.1831877	2.2469831	69	3	1996–2000	0.64	M-v	2	Williams	38050	1998 HC ₉₉
1998 HH ₉₉	14.6	0.15	20000226	105.12414	232.62804	90.86841	3.21904	0.1302698	2.2563908	113	3	1996–2000	0.54	M-v	2	Spahr	37279	1998 HH ₉₉
1998 HQ ₁₀₀	14.6	0.15	20000226	168.18740	173.50783	85.56635	2.60106	0.0421965	2.1827543	93	3	1973–2000	0.64	M-v	3	Williams	38050	1998 HQ ₁₀₀
1998 HW ₁₀₀	15.9	0.15	20000226	168.97437	61.23371	203.41047	3.72521	0.1730081	2.2111272	45	2	1998–1999	0.42	M-v	4	Williams	37682	1998 HW ₁₀₀
1998 HY ₁₀₀	15.1	0.15	20000226	166.80372	203.86981	53.72805	3.20334	0.1178762	2.2447406	61	2	1998–1999	0.55	M-v	4	Williams	38050	1998 HY ₁₀₀
1998 HF ₁₀₂	15.1	0.15	20000226	193.99740	330.31824	275.86490	1.69448	0.1203824	2.1474298	79	2	1998–1999	0.56	M-v	3	Williams	38050	1998 HF ₁₀₂
1998 HD ₁₂₄	13.5	0.15	20000226	130.10558	209.45240	101.59135	9.31147	0.2809902	2.3075168	52	2	1998–2000	0.50	M-v	4	Williams	37683	1998 HD ₁₂₄
1998 HY ₁₄₇	15.4	0.15	20000226	192.13073	205.30660	45.55132	1.58127	0.1237155	2.1446706	77	2	1998–1999	0.69	M-v	4	Williams	38050	1998 HY ₁₄₇
1998 HK ₁₄₈	15.2	0.15	20000226	170.17707	192.19302	62.77046	3.66213	0.1641942	2.3031001	53	3	1991–1999	0.66	M-v	3	Williams	38050	1998 HK ₁₄₈

1998 HS ₁₄₈	15.2	0.15	20000226	117.25647	282.89449	7.49837	0.81242	0.1457274	2.5455173	39	2	1998-1999	0.75	M-v	4	Williams	38050	1998 HS ₁₄₈
1998 HW ₁₅₀	14.4	0.15	20000226	70.27751	205.55746	162.60747	5.13605	0.2384067	2.2992681	48	2	1998-2000	0.65	M-v	4	Spahr	37685	1998 HW ₁₅₀
1998 JQ	14.0	0.15	20000226	105.35996	306.19162	7.50135	7.44521	0.1425562	2.3211158	84	3	1994-2000	0.54	M-v	1	Williams	38051	1998 JQ
1998 JS	14.3	0.15	20000226	116.25304	44.63197	266.83619	4.58463	0.1604070	2.2691588	69	2	1998-2000	0.51	M-v	4	Spahr	38051	1998 JS
1998 JT	14.3	0.15	20000226	97.36409	86.00022	251.32506	6.11778	0.2205329	2.2539906	90	3	1985-2000	0.52	M-v	2	Spahr	38051	1998 JT
1998 JJ ₁	15.4	0.15	20000226	30.80278	201.23602	229.27836	19.89564	0.0929302	1.9328678	71	2	1998-2000	0.41	M-v	2	Spahr	38051	1998 JJ ₁
1998 JZ ₁	14.9	0.15	20000226	172.79425	246.56822	41.34703	5.81823	0.2912389	2.1556862	52	3	1976-2000	0.68	M-v	3	Williams	38051	1998 JZ ₁
1998 JB ₂	14.2	0.15	20000226	112.47503	245.39044	61.15341	5.53922	0.1024069	2.3874014	92	2	1998-2000	0.56	M-v	3	Williams	38051	1998 JB ₂
1998 JF ₂	14.4	0.15	20000226	43.97164	288.60987	104.00513	4.72370	0.1299639	2.1985228	83	2	1998-2000	0.62	M-v	3	Williams	37685	1998 JF ₂
1998 JK ₄	14.3	0.15	20000226	141.19953	72.14393	221.28038	3.52709	0.1553939	2.2655022	110	3	1991-2000	0.64	M-v	3	Spahr	38051	1998 JK ₄
1998 KB	15.3	0.15	20000226	85.81910	129.19440	194.78211	0.99322	0.1313664	2.5416401	61	2	1998-1999	0.54	M-v	3	Williams	38051	1998 KB
1998 KZ	15.3	0.15	20000226	118.75721	306.28155	49.03675	22.94383	0.0666255	1.9460856	47	3	1996-2000	0.69	M-v	2	Williams	38051	1998 KZ
1998 KP ₁	14.5	0.15	20000226	94.74346	120.63527	191.65226	1.23096	0.1784868	2.5324176	91	2	1998-2000	0.55	M-v	3	Williams	38051	1998 KP ₁
1998 KR ₁	12.9	0.15	20000226	74.79887	270.87748	51.30543	13.25767	0.2025417	2.6967611	88	3	1968-2000	0.52	M-v	2	Williams	37280	1998 KR ₁
1998 KS ₁	14.6	0.15	20000226	121.64021	83.81671	233.70153	4.71292	0.1715034	2.2268403	92	3	1992-2000	0.60	M-v	2	Spahr	38051	1998 KS ₁
1998 KK ₂	13.9	0.15	20000226	99.96424	254.54520	80.64987	14.73328	0.2821866	2.4578869	72	2	1998-2000	0.57	M-v	3	Williams	38051	1998 KK ₂
1998 KB ₄	14.9	0.15	20000226	83.79010	178.31325	165.16085	2.77341	0.1744241	2.4008932	59	3	1997-1999	0.71	M-v	3	Williams	37686	1998 KB ₄
1998 KS ₄	14.0	0.15	20000226	43.73237	294.74296	79.24144	7.98578	0.1235387	2.4465600	96	3	1993-2000	0.69	M-v	2	Williams	38051	1998 KS ₄
1998 KU ₄	14.3	0.15	20000226	93.84237	272.40046	75.30355	7.73240	0.1510817	2.2900106	96	2	1998-2000	0.49	M-v	3	Williams	38051	1998 KU ₄
1998 KE ₅	12.7	0.15	20000226	58.72734	183.81247	176.13493	14.75676	0.2130218	3.1414476	70	3	1993-2000	0.55	M-v	1	Spahr	38051	1998 KE ₅
1998 KA ₆	14.2	0.15	20000226	100.49112	183.51983	144.97703	5.06135	0.1788440	2.9869072	39	2	1998-1999	0.65	M-v	3	Williams	38051	1998 KA ₆
1998 KT ₆	15.6	0.15	20000226	137.22083	207.64138	92.41548	6.24586	0.1485381	2.2880651	47	4	1994-2000	0.62	M-v	2	Williams	38051	1998 KT ₆
1998 KX ₆	14.9	0.15	20000226	115.05292	203.88931	131.85067	2.95024	0.1912096	2.2560445	56	3	1997-2000	0.65	M-v	3	Spahr	38051	1998 KX ₆
1998 KT ₈	14.3	0.15	20000226	105.04595	163.81439	117.66279	9.13649	0.1899766	2.8028983	57	3	1997-1999	0.52	M-v	3	Williams	38051	1998 KT ₈
1998 KK ₉	14.9	0.15	20000226	137.27997	196.55274	100.38045	3.50593	0.1430488	2.3241358	99	2	1998-2000	0.57	M-v	3	Williams	38051	1998 KK ₉
1998 KZ ₉	15.0	0.15	20000226	134.34729	263.13812	52.02790	4.30689	0.1763463	2.2738987	43	2	1998-2000	0.58	M-v	4	Williams	37687	1998 KZ ₉
1998 KJ ₁₀	15.2	0.15	20000226	18.53733	248.96491	148.01383	5.97373	0.0432733	2.3127368	38	3	1996-1999	0.68	M-v	3	Spahr	38051	1998 KJ ₁₀
1998 KW ₂₆	14.7	0.15	20000226	117.32359	236.81990	74.25195	13.34985	0.2856702	2.5644737	70	2	1998-2000	0.73	M-v	4	Williams	37688	1998 KW ₂₆
1998 KV ₃₂	14.5	0.15	20000226	138.87639	31.37663	261.94268	6.29130	0.1863865	2.3536083	86	3	1995-2000	0.66	M-v	3	Spahr	37280	1998 KV ₃₂
1998 KZ ₃₃	14.5	0.15	20000226	66.87718	283.20319	67.04744	13.64963	0.2248415	2.6031755	80	3	1978-2000	0.65	M-v	2	Williams	38051	1998 KZ ₃₃
1998 KE ₃₇	14.3	0.15	20000226	181.42427	41.61091	216.57612	3.57659	0.1195594	2.2031204	74	2	1998-2000	0.69	M-v	3	Spahr	37281	1998 KE ₃₇
1998 KD ₃₈	13.1	0.15	20000226	34.86913	284.35842	78.02037	14.76506	0.2305602	2.8950262	49	3	1955-2000	0.61	M-v	2	Williams	38052	1998 KD ₃₈
1998 KQ ₄₄	15.1	0.15	20000226	180.84921	13.84583	218.76688	5.51380	0.1029145	2.4027999	63	2	1998-1999	0.69	M-v	4	Williams	38052	1998 KQ ₄₄
1998 KQ ₄₅	14.6	0.15	20000226	196.74263	164.64416	66.19090	2.88135	0.1053100	2.2850365	70	2	1998-2000	0.65	M-v	4	Williams	38052	1998 KQ ₄₅
1998 KY ₄₆	15.3	0.15	20000226	165.24096	196.38132	73.66852	2.97895	0.1364675	2.2995329	39	3	1991-1999	0.72	M-v	4	Williams	37689	1998 KY ₄₆
1998 KL ₄₈	14.7	0.15	20000226	91.52176	244.64830	116.48111	7.05538	0.1451661	2.2745972	52	5	1991-2000	0.62	M-v	1	Spahr	38052	1998 KL ₄₈
1998 KS ₄₈	13.7	0.15	20000226	107.89462	197.24193	115.65993	6.81397	0.2207616	2.6382328	53	3	1977-2000	0.69	M-v	3	Williams	37690	1998 KS ₄₈
1998 KT ₄₈	13.4	0.15	20000226	81.71531	243.72039	100.97446	13.72350	0.1972583	2.6356262	58	3	1986-2000	0.60	M-v	1	Williams	37690	1998 KT ₄₈
1998 KS ₅₁	13.6	0.15	20000226	101.06940	139.32266	178.69281	10.96371	0.1890551	2.5436885	87	3	1978-2000	0.64	M-v	2	Spahr	38052	1998 KS ₅₁
1998 KT ₅₅	12.7	0.15	20000226	108.80861	218.14102	91.39878	17.52863	0.2335453	2.6564662	75	3	1980-2000	0.61	M-v	2	Spahr	38052	1998 KT ₅₅
1998 KG ₅₆	14.7	0.15	20000226	322.32373	19.71788	123.63743	24.34678	0.0545618	1.9710378	36	2	1998-2000	0.55	M-v	4	Williams	37690	1998 KG ₅₆
1998 KD ₅₈	15.0	0.15	20000226	13.11798	194.72050	218.69515	15.07770	0.1126863	2.5369852	51	2	1998-2000	0.45	M-v	3	Williams	38052	1998 KD ₅₈
1998 KG ₆₄	14.8	0.15	20000226	159.19547	127.98471	140.17750	2.26218	0.1496290	2.3321015	68	3	1995-1999	0.60	M-v	3	Williams	38052	1998 KG ₆₄
1998 LP ₂	14.8	0.15	20000226	126.30103	73.79276	223.96484	13.47902	0.1087505	2.5274211	50	2	1998-1999	0.68	M-v	3	Williams	38052	1998 LP ₂
1998 MD	14.9	0.15	20000226	104.45180	70.57330	288.48343	5.62358	0.2855665	2.5180491	59	4	1994-2000	0.65	M-v	3	Spahr	38052	1998 MD
1998 MF ₅	14.0	0.15	20000226	40.44900	85.40169	304.94371	6.33554	0.1286073	3.0278198	37	2	1998-2000	0.47	M-v	3	Williams	37692	1998 MF ₅
1998 MK ₅	12.6	0.15	20000226	74.99032	264.63646	118.97582	13.81373	0.1833428	2.6272519	78	2	1998-2000	0.56	M-v	3	Williams	37692	1998 MK ₅
1998 MO ₅	13.8	0.15	20000226	122.46631	211.59658	112.73251	24.46845	0.2263254	2.3660790	67	2	1998-2000	0.51	M-v	3	Spahr	37692	1998 MO ₅
1998 MA ₈	13.2	0.15	20000226	123.38914	53.54061	253.14306	15.90801	0.0974855	2.8956961	64	3	1977-2000	0.50	M-v	3	Spahr	38052	1998 MA ₈
1998 MW ₁₃	14.9	0.15	20000226	93.12777	66.77455	310.26901	5.01165	0.2356180	2.4037915	39	2	1998-2000	0.54	M-v	4	Williams	37694	1998 MW ₁₃
1998 MR ₁₅	14.4	0.15	20000226	62.65917	184.62255	176.78058	14.29285	0.1976225	2.5788202	34	2	1998-2000	0.69	M-v	4	Spahr	37694	1998 MR ₁₅
1998 MN ₁₆	13.8	0.15	20000226	74.73584	271.80651	115.30037	14.21366	0.1757869	2.5900465	76	3	1995-2000	0.65	M-v	1	Williams	38053	1998 MN ₁₆
1998 MP ₂₂	14.1	0.15	20000226	155.77211	221.70713	82.21195	7.93530	0.2303513	2.2584621	52	2	1998-2000	0.70	M-v	3	Williams	37694	1998 MP ₂₂

1998 MZ ₂₃	13.2	0.15	20000226	95.68693	79.70117	293.52923	5.55542	0.1494219	2.4677658	104	3	1994-2000	0.62	M-v	2	Williams	38053	1998 MZ ₂₃
1998 MP ₂₄	14.7	0.15	20000226	78.40937	74.28340	301.08116	2.19531	0.1741368	2.5145717	40	3	1993-2000	0.64	M-v	3	Williams	38053	1998 MP ₂₄
1998 MH ₂₇	14.4	0.15	20000226	167.19331	183.44683	100.66365	6.50044	0.1803782	2.3289275	41	2	1998-2000	0.56	M-v	4	Williams	37695	1998 MH ₂₇
1998 MV ₂₇	13.2	0.15	20000226	108.73664	47.49719	286.75052	12.68057	0.1853531	2.5775763	54	2	1998-2000	0.44	M-v	3	Williams	37695	1998 MV ₂₇
1998 ML ₃₁	15.2	0.15	20000226	155.42152	206.39729	106.06803	6.56220	0.2179439	2.2953187	34	3	1997-2000	0.63	M-v	3	Williams	38053	1998 ML ₃₁
1998 MS ₃₁	13.8	0.15	20000226	99.41617	248.26844	79.69531	4.78043	0.1167418	2.7365639	99	2	1998-2000	0.50	M-v	3	Spahr	37695	1998 MS ₃₁
1998 MB ₃₂	13.0	0.15	20000226	244.44326	89.05733	95.89022	15.72305	0.0452123	2.5688377	55	2	1998-2000	0.71	M-v	3	Spahr	37695	1998 MB ₃₂
1998 MC ₃₂	14.2	0.15	20000226	137.07380	36.83804	298.23984	7.24237	0.2117747	2.3151867	71	3	1995-2000	0.66	M-v	3	Spahr	37696	1998 MC ₃₂
1998 MD ₃₂	14.2	0.15	20000226	235.40221	260.37034	322.46672	2.98744	0.0916228	2.2249365	29	2	1998-2000	0.68	M-v	5	Williams	37696	1998 MD ₃₂
1998 MQ ₃₂	14.1	0.15	20000226	109.12730	55.10406	279.27033	12.40477	0.2019087	2.6324143	42	2	1998-2000	0.60	M-v	3	Williams	37696	1998 MQ ₃₂
1998 MN ₃₃	13.2	0.15	20000226	46.95557	83.57231	291.03276	8.75652	0.1301449	3.0099228	46	2	1998-2000	0.75	M-v	3	Williams	37696	1998 MN ₃₃
1998 ML ₃₅	13.4	0.15	20000226	36.19467	82.06697	293.88029	20.63511	0.0966404	3.1614233	38	2	1998-2000	0.76	M-v	3	Williams	37696	1998 ML ₃₅
1998 MJ ₃₇	13.8	0.15	20000226	100.59820	227.96927	111.97356	15.62722	0.2181968	2.7329777	30	2	1998-2000	0.60	M-v	3	Spahr	37697	1998 MJ ₃₇
1998 MR ₃₇	14.0	0.15	20000226	156.49539	245.17598	64.81994	4.21318	0.2129407	2.3434728	51	4	1991-2000	0.61	M-v	2	Williams	38053	1998 MR ₃₇
1998 MV ₃₇	13.8	0.15	20000226	108.87214	248.98613	103.37429	14.45946	0.1607724	2.4732019	67	3	1994-2000	0.61	M-v	2	Williams	38053	1998 MV ₃₇
1998 MZ ₃₇	14.8	0.15	20000226	145.12807	211.32323	103.91910	6.48086	0.1150156	2.3623966	31	3	1997-2000	0.70	M-v	4	Williams	38053	1998 MZ ₃₇
1998 MB ₃₈	13.1	0.15	20000226	178.86044	318.64258	301.26586	10.74031	0.0596370	2.7267148	77	4	1972-2000	0.58	M-v	3	Williams	38053	1998 MB ₃₈
1998 MZ ₄₁	14.2	0.15	20000226	91.86164	256.18911	83.02974	13.50461	0.1849736	2.5992093	58	3	1995-2000	0.56	M-v	2	Williams	38053	1998 MZ ₄₁
1998 MV ₄₂	13.9	0.15	20000226	12.06776	177.37527	276.20738	4.05125	0.1247036	2.2768286	75	3	1992-2000	0.75	M-v	3	Williams	38053	1998 MV ₄₂
1998 MC ₄₅	13.3	0.15	20000226	30.20269	186.44301	208.48000	13.30706	0.1637181	2.6089310	108	3	1995-2000	0.48	M-v	2	Williams	38053	1998 MC ₄₅
1998 NA	13.2	0.15	20000226	116.86314	37.81099	334.09409	9.18605	0.1773255	2.5779513	126	3	1992-2000	0.62	M-v	2	Williams	38053	1998 NA
1998 NF	14.3	0.15	20000226	182.60507	163.29661	76.14309	3.54126	0.1338565	2.4168467	53	2	1998-1999	0.57	M-v	3	Williams	38053	1998 NF
1998 OS	15.2	0.15	20000226	298.57748	222.83178	264.86247	6.09810	0.0710802	2.7629308	41	2	1998-1999	0.59	M-v	4	Williams	38053	1998 OS
1998 OD ₁	14.9	0.15	20000226	130.01813	84.72098	265.48038	5.41343	0.1434088	2.3856226	82	3	1991-2000	0.52	M-v	3	Spahr	37698	1998 OD ₁
1998 OT ₁	15.1	0.15	20000226	150.19773	29.12365	303.27933	6.51623	0.1129547	2.2648653	61	2	1998-2000	0.48	M-v	3	Spahr	37699	1998 OT ₁
1998 OJ ₂	14.6	0.15	20000226	189.04617	139.66568	151.17071	5.95600	0.0514527	2.4114486	66	2	1998-2000	0.54	M-v	4	Spahr	38053	1998 OJ ₂
1998 OB ₄	15.7	0.15	20000226	46.53909	242.63439	202.97836	2.50734	0.0899008	2.2182674	58	4	1994-2000	0.50	M-v	2	Spahr	38053	1998 OB ₄
1998 OV ₄	13.8	0.15	20000226	95.76610	207.34244	143.76540	7.98894	0.1780084	2.7303393	42	2	1998-2000	0.50	M-v	3	Spahr	37699	1998 OV ₄
1998 OY ₄	14.3	0.15	20000226	56.56720	196.17102	231.86838	8.10466	0.1774457	2.5541926	54	3	1990-2000	0.53	M-v	2	Spahr	38053	1998 OY ₄
1998 OW ₆	14.5	0.15	20000226	113.39002	212.55303	142.88253	19.03187	0.2859483	2.5980129	47	3	1992-2000	0.72	M-v	2	Spahr	33559	1998 OW ₆
1998 OZ ₆	14.0	0.15	20000226	105.42167	104.83744	264.89853	4.33834	0.2383100	2.6297991	81	3	1997-2000	0.60	M-v	2	Spahr	38053	1998 OZ ₆
1998 OJ ₇	14.7	0.15	20000226	143.79348	109.68047	226.15610	5.25830	0.1555372	2.4111796	82	2	1998-2000	0.58	M-v	3	Spahr	37700	1998 OJ ₇
1998 OP ₇	15.1	0.15	20000226	136.73441	118.10702	223.70411	1.57407	0.2113544	2.3948139	42	4	1976-2000	0.67	M-v	2	Spahr	38053	1998 OP ₇
1998 OL ₈	12.8	0.15	20000226	46.38503	237.40318	145.59054	9.65896	0.1144456	3.2242595	60	2	1998-2000	0.55	M-v	3	Spahr	38053	1998 OL ₈
1998 OP ₈	14.7	0.15	20000226	0.06662	201.08677	287.06044	4.39610	0.0888067	2.2625106	64	2	1998-2000	0.56	M-v	3	Williams	37700	1998 OP ₈
1998 OZ ₈	14.2	0.15	20000226	187.94590	338.13097	309.79767	3.56765	0.1402718	2.2684829	49	3	1996-2000	0.52	M-v	3	Williams	37282	1998 OZ ₈
1998 OG ₉	13.9	0.15	20000226	58.47924	227.79140	154.20335	2.46908	0.0507971	2.8922135	68	3	1991-2000	0.64	M-v	3	Spahr	38054	1998 OG ₉
1998 OF ₁₀	15.0	0.15	20000226	208.30174	119.61990	150.46793	5.78211	0.1447105	2.2161357	44	2	1998-2000	0.75	M-v	4	Spahr	37700	1998 OF ₁₀
1998 OQ ₁₀	14.4	0.15	20000226	307.35833	247.41660	300.82744	0.51604	0.0273469	2.1548736	81	3	1995-2000	0.59	M-v	3	Williams	37700	1998 OQ ₁₀
1998 OK ₁₁	14.7	0.15	20000226	252.64221	95.19498	135.82252	4.95777	0.0608200	2.2197067	40	2	1998-2000	0.54	M-v	4	Spahr	37701	1998 OK ₁₁
1998 OL ₁₁	14.7	0.15	20000226	85.47445	60.47880	316.59352	12.42961	0.2112647	2.7599008	56	2	1998-2000	0.58	M-v	3	Williams	37701	1998 OL ₁₁
1998 ON ₁₁	13.3	0.15	20000226	22.39299	178.39721	237.54270	1.08089	0.0167286	2.9104092	102	2	1998-2000	0.58	M-v	3	Spahr	38054	1998 ON ₁₁
1998 OZ ₁₁	15.0	0.15	20000226	116.25402	36.69928	338.22591	7.37123	0.1226730	2.2831610	65	2	1998-2000	0.68	M-v	3	Williams	37701	1998 OZ ₁₁
1998 OA ₁₂	14.4	0.15	20000226	54.28311	80.55461	314.85898	13.84523	0.2383711	2.7601501	56	2	1998-2000	0.62	M-v	3	Williams	38054	1998 OA ₁₂
1998 OD ₁₂	14.4	0.15	20000226	248.92888	219.22983	352.35230	5.94117	0.0757458	2.3932410	60	3	1997-2000	0.69	M-v	3	Williams	37701	1998 OD ₁₂
1998 ON ₁₂	14.6	0.15	20000226	147.90148	175.16840	153.42527	2.71998	0.2114847	2.3898551	61	2	1998-2000	0.61	M-v	3	Spahr	37701	1998 ON ₁₂
1998 OR ₁₂	13.3	0.15	20000226	38.34048	274.91449	131.19163	3.00007	0.0641891	2.9279520	51	3	1989-2000	0.71	M-v	3	Williams	37702	1998 OR ₁₂
1998 OS ₁₂	14.5	0.15	20000226	94.42913	57.77611	320.21242	12.66400	0.2230102	2.6540778	52	2	1998-2000	0.70	M-v	3	Williams	37702	1998 OS ₁₂
1998 OA ₁₃	14.6	0.15	20000226	149.12229	24.57074	319.58131	6.26367	0.1735732	2.2687015	75	5	1988-2000	0.58	M-v	2	Williams	37702	1998 OA ₁₃
1998 OB ₁₃	12.9	0.15	20000226	353.80282	292.36839	148.78875	14.70116	0.0838053	3.1864610	78	2	1998-2000	0.63	M-v	3	Spahr	37702	1998 OB ₁₃
1998 OD ₁₃	15.6	0.15	20000226	124.14041	323.68073	36.79725	1.25223	0.2109686	2.4237193	62	4	1993-2000	0.75	M-v	2	Williams	35709	1998 OD ₁₃
1998 ON ₁₃	13.8	0.15	20000226	139.15966	35.68822	318.18520	9.52807	0.0681544	2.2635455	126	3	1981-2000	0.55	M-v	2	Williams	38054	1998 ON ₁₃
1998 OS ₁₃	14.7	0.15	20000226	73.24713	83.24281	319.75799	12.45179	0.1986817	2.6710025	46	2	1998-2000	0.59	M-v	4	Williams	37703	1998 OS ₁₃

1998 OC ₁₄	14.0	0.15	20000226	43.18621	283.64803	142.29926	12.48688	0.1396694	2.7034612	58	2	1998-2000	0.62	M-v	3	Williams	37703	1998 OC ₁₄
1998 OQ ₁₄	15.0	0.15	20000226	242.08809	279.34054	329.83413	2.78182	0.0874911	2.1668242	44	2	1998-2000	0.59	M-v	4	Williams	37703	1998 OQ ₁₄
1998 OU ₁₄	15.1	0.15	20000226	234.52662	257.15053	342.03616	0.36796	0.1047115	2.3112431	55	2	1998-2000	0.65	M-v	4	Williams	37703	1998 OU ₁₄
1998 OB ₁₅	14.0	0.15	20000226	95.27566	6.43151	343.08867	1.85114	0.0676848	2.8939126	56	2	1998-2000	0.68	M-v	3	Williams	37703	1998 OB ₁₅
1998 PF	14.9	0.15	20000226	279.37488	53.56593	152.47456	41.95813	0.2876703	2.0081988	110	2	1998-2000	0.59	M-v	3	Spahr	38054	1998 PF
1998 PH	13.9	0.15	20000226	348.10770	203.15818	278.41600	13.90654	0.1932877	2.6441977	87	3	1995-2000	0.44	M-v	2	Williams	38054	1998 PH
1998 PJ	15.2	0.15	20000226	143.20959	16.31848	315.64392	1.76773	0.2309218	2.3769115	83	2	1998-2000	0.58	M-v	3	Williams	37704	1998 PJ
1998 PL	14.7	0.15	20000226	133.09604	213.86240	125.22717	6.95920	0.1696469	2.2740512	69	3	1997-2000	0.57	M-v	2	Spahr	38054	1998 PL
1998 PR	14.3	0.15	20000226	71.92235	56.09933	334.35310	4.24863	0.0649906	2.7573557	56	2	1998-2000	0.58	M-v	3	Williams	38054	1998 PR
1998 PV	13.6	0.15	20000226	34.54868	276.17464	122.45151	8.22323	0.1526198	2.7412050	68	2	1998-2000	0.50	M-v	3	Spahr	37704	1998 PV
1998 PX	15.6	0.15	20000226	135.28088	19.32790	342.61593	4.49285	0.1704053	2.2572382	39	3	1996-2000	0.49	M-v	3	Williams	32758	1998 PX
1998 PL ₁	13.7	0.15	20000226	76.64940	170.17364	244.05831	4.72376	0.1240114	2.4496423	74	3	1987-2000	0.58	M-v	2	Williams	37704	1998 PL ₁
1998 PP ₁	12.4	0.15	20000226	32.15098	113.38087	290.31370	9.52919	0.0699559	3.2358638	70	2	1998-2000	0.52	M-v	3	Williams	37705	1998 PP ₁
1998 QB	14.2	0.15	20000226	268.49307	266.79041	315.76439	6.03020	0.0741496	2.3366077	79	3	1997-2000	0.62	M-v	3	Williams	38054	1998 QB
1998 QE	14.1	0.15	20000226	33.82624	94.34418	341.76770	2.32108	0.0499454	2.6611293	84	2	1998-2000	0.51	M-v	3	Williams	38054	1998 QE
1998 QH	14.8	0.15	20000226	197.61592	300.46392	335.64432	7.44066	0.1028254	2.4023478	64	2	1998-2000	0.64	M-v	4	Williams	38054	1998 QH
1998 QR	14.2	0.15	20000226	309.16316	340.42965	176.63372	4.17863	0.0987486	2.3321807	75	3	1981-2000	0.65	M-v	3	Spahr	38054	1998 QR
1998 QW	13.4	0.15	20000226	134.18253	109.50291	212.39054	14.41424	0.1527517	2.6024669	63	3	1990-2000	0.63	M-v	2	Spahr	38054	1998 QW
1998 QY	14.6	0.15	20000226	141.44534	161.43026	148.11132	14.08123	0.1663697	2.5654117	57	2	1998-2000	0.60	M-v	3	Williams	38054	1998 QY
1998 QK ₁	14.8	0.15	20000226	143.73476	39.24386	310.70404	6.45227	0.1397735	2.2964952	71	3	1991-2000	0.64	M-v	3	Spahr	38054	1998 QK ₁
1998 QP ₁	15.5	0.15	20000226	178.85695	326.60760	338.62112	7.22770	0.1841900	2.2562800	52	3	1997-2000	0.65	M-v	3	Williams	38054	1998 QP ₁
1998 QR ₁	14.2	0.15	20000226	291.27096	291.02046	261.08118	5.50546	0.0873784	2.4559661	74	3	1995-2000	0.57	M-v	3	Spahr	38054	1998 QR ₁
1998 QV ₁	13.7	0.15	20000226	86.63740	205.37717	139.81829	6.34572	0.1588150	3.1186072	40	3	1993-2000	0.65	M-v	4	Williams	38054	1998 QV ₁
1998 QM ₂	13.9	0.15	20000226	210.65565	65.20644	211.69648	5.18283	0.0859285	2.3473494	82	2	1998-2000	0.59	M-v	4	Spahr	37705	1998 QM ₂
1998 QN ₂	14.3	0.15	20000226	178.24961	40.95904	265.96872	5.75728	0.1983921	2.2276568	69	4	1968-2000	0.72	M-v	3	Spahr	38054	1998 QN ₂
1998 QU ₂	13.6	0.15	20000226	105.81641	202.73400	162.73072	15.62713	0.2106683	2.5649388	73	3	1994-2000	0.58	M-v	2	Williams	38054	1998 QU ₂
1998 QJ ₄	15.0	0.15	20000226	89.07885	359.84154	60.68101	3.47869	0.2060347	2.3665289	69	3	1991-2000	0.67	M-v	2	Williams	38054	1998 QJ ₄
1998 QN ₄	14.3	0.15	20000226	274.86257	196.43862	13.30382	6.45589	0.0841093	2.3340985	59	3	1997-2000	0.66	M-v	3	Williams	38054	1998 QN ₄
1998 QA ₅	14.7	0.15	20000226	53.11636	199.83860	236.72863	6.13801	0.0876583	2.4055429	58	2	1998-2000	0.66	M-v	4	Spahr	37706	1998 QA ₅
1998 QS ₅	14.4	0.15	20000226	83.56153	56.04708	338.40721	6.71606	0.2285201	2.7359878	75	2	1998-2000	0.58	M-v	3	Williams	37706	1998 QS ₅
1998 QX ₆	15.0	0.15	20000226	146.34447	11.01887	311.19280	13.23626	0.1529352	2.3430570	63	2	1998-2000	0.58	M-v	3	Williams	37706	1998 QX ₆
1998 QN ₇	12.1	0.15	20000226	84.35635	349.47478	324.05805	17.02508	0.1094077	3.4072429	65	3	1996-2000	0.66	M-v	3	Williams	38054	1998 QN ₇
1998 QQ ₇	14.4	0.15	20000226	219.84218	263.07772	349.41478	3.35016	0.1473671	2.1715740	38	2	1998-2000	0.62	M-v	4	Williams	37707	1998 QQ ₇
1998 QU ₇	13.5	0.15	20000226	62.95996	228.79969	132.82755	11.99935	0.0957408	3.0402041	51	2	1998-2000	0.63	M-v	3	Spahr	37707	1998 QU ₇
1998 QN ₈	13.5	0.15	20000226	117.36814	9.48185	315.35792	3.45847	0.1063199	2.6719769	46	3	1997-2000	0.57	M-v	4	Williams	37707	1998 QN ₈
1998 QO ₈	14.6	0.15	20000226	127.19625	217.86521	131.06343	6.69705	0.1444389	2.3539940	27	2	1998-2000	0.58	M-v	4	Spahr	37707	1998 QO ₈
1998 QQ ₈	13.1	0.15	20000226	82.89133	231.76022	121.29103	6.86265	0.0743313	2.7993472	67	3	1997-2000	0.59	M-v	3	Spahr	38054	1998 QQ ₈
1998 QH ₁₀	14.3	0.15	20000226	99.43770	65.49889	295.35891	7.76910	0.0593572	2.5340195	39	2	1998-2000	0.49	M-v	3	Williams	37708	1998 QH ₁₀
1998 QO ₁₀	14.5	0.15	20000226	157.83353	126.50193	198.84448	4.35915	0.1777196	2.2759467	65	3	1995-2000	0.52	M-v	2	Spahr	38054	1998 QO ₁₀
1998 QA ₁₁	15.1	0.15	20000226	239.09015	279.74826	349.83672	5.69875	0.0952665	1.9798971	43	3	1981-2000	0.40	M-v	3	Williams	37708	1998 QA ₁₁
1998 QS ₁₁	14.4	0.15	20000226	324.68513	237.70401	273.26806	4.30979	0.0642695	2.3160242	49	3	1995-2000	0.62	M-v	3	Williams	38054	1998 QS ₁₁
1998 QZ ₁₁	14.0	0.15	20000226	73.79754	105.55285	297.03068	10.77509	0.1847546	2.5701318	67	3	1990-2000	0.52	M-v	1	Spahr	38054	1998 QZ ₁₁
1998 QC ₁₂	13.5	0.15	20000226	156.52064	11.28197	289.08060	8.25738	0.0721631	2.5281622	58	2	1998-2000	0.46	M-v	3	Williams	37709	1998 QC ₁₂
1998 QN ₁₂	14.5	0.15	20000226	101.87351	163.55084	197.60221	4.68531	0.2395877	2.6826974	36	2	1998-2000	0.44	M-v	3	Spahr	37709	1998 QN ₁₂
1998 QR ₁₂	15.8	0.15	20000226	110.18230	78.41686	299.11614	7.94240	0.2361490	2.4335724	27	3	1996-2000	0.58	M-v	3	Spahr	32760	1998 QR ₁₂
1998 QV ₁₂	14.4	0.15	20000226	96.84441	81.51237	298.28408	5.59117	0.0841740	2.4169536	57	4	1983-2000	0.61	M-v	1	Williams	38055	1998 QV ₁₂
1998 QB ₁₃	14.6	0.15	20000226	356.56375	333.08298	147.91969	6.88924	0.0698730	2.3348165	47	2	1998-2000	0.53	M-v	4	Spahr	37709	1998 QB ₁₃
1998 QS ₁₃	15.8	0.15	20000226	146.94320	344.87519	336.40696	0.70760	0.2271399	2.4178790	37	3	1979-2000	0.59	M-v	2	Williams	38055	1998 QS ₁₃
1998 QA ₁₄	13.5	0.15	20000226	300.30897	349.89179	157.11728	13.51734	0.1179632	2.6824365	63	2	1998-2000	0.62	M-v	3	Spahr	37709	1998 QA ₁₄
1998 QB ₁₄	15.2	0.15	20000226	100.70021	206.84763	181.64503	5.74315	0.2369622	2.4649897	26	3	1975-2000	0.60	M-v	3	Spahr	32692	1998 QB ₁₄
1998 QE ₁₄	13.6	0.15	20000226	112.49794	149.73605	162.23982	11.89457	0.1343076	3.0498765	58	2	1998-2000	0.65	M-v	3	Spahr	38055	1998 QE ₁₄
1998 QJ ₁₆	12.9	0.15	20000226	4.61844	173.21459	284.13345	7.21546	0.1855177	2.7915693	73	4	1949-2000	0.58	M-v	2	Williams	38055	1998 QJ ₁₆
1998 QK ₁₆	14.1	0.15	20000226	124.51723	26.75087	305.62245	12.80617	0.1781421	2.6401737	63	3	1993-2000	0.61	M-v	3	Williams	38055	1998 QK ₁₆

1998 QT ₁₆	14.6	0.15	20000226	100.75506	33.32553	341.88450	3.28758	0.2030470	2.5483930	61	4	1986-2000	0.58	M-v	2	Williams	38055	1998 QT ₁₆
1998 QC ₁₇	13.7	0.15	20000226	282.64946	59.42945	127.79151	6.91530	0.0533528	2.3922056	68	3	1982-2000	0.68	M-v	3	Williams	38055	1998 QC ₁₇
1998 QE ₁₇	13.1	0.15	20000226	77.41592	72.09379	338.48966	10.65213	0.3043015	2.6261656	54	3	1943-2000	0.61	M-v	2	Williams	37710	1998 QE ₁₇
1998 QP ₁₇	15.5	0.15	20000226	196.27588	240.13815	14.61571	0.09637	0.2451589	2.3753591	38	3	1995-1999	0.60	M-v	3	Williams	38055	1998 QP ₁₇
1998 QR ₁₇	13.3	0.15	20000226	143.83181	357.14228	304.09529	4.14202	0.0400915	2.7498880	65	2	1998-2000	0.53	M-v	4	Williams	37710	1998 QR ₁₇
1998 QZ ₁₇	14.2	0.15	20000226	349.86653	274.49972	218.68846	4.94275	0.0683624	2.3417130	57	3	1997-2000	0.57	M-v	3	Spahr	37710	1998 QZ ₁₇
1998 QL ₁₈	13.4	0.15	20000226	34.65604	68.20977	340.73318	4.38073	0.1654538	3.1546582	66	4	1993-2000	0.57	M-v	1	Williams	38055	1998 QL ₁₈
1998 QT ₁₈	14.1	0.15	20000226	179.22188	63.34281	238.16215	2.85273	0.1489797	2.2856085	75	3	1981-2000	0.60	M-v	3	Spahr	38055	1998 QT ₁₈
1998 QW ₁₈	14.0	0.15	20000226	24.21867	260.93929	172.98861	12.44240	0.0618585	2.7379646	41	2	1998-2000	0.67	M-v	3	Spahr	37711	1998 QW ₁₈
1998 QB ₁₉	13.3	0.15	20000226	69.26961	242.97989	128.14045	11.04824	0.1159036	2.9940770	52	2	1998-2000	0.58	M-v	3	Spahr	37711	1998 QB ₁₉
1998 QK ₁₉	13.8	0.15	20000226	164.19479	181.48690	122.27433	7.71658	0.1137101	2.4174585	59	4	1983-2000	0.55	M-v	2	Spahr	38055	1998 QK ₁₉
1998 QL ₁₉	14.2	0.15	20000226	142.83105	277.16375	52.13108	3.39011	0.1831217	2.4295581	71	4	1987-2000	0.70	M-v	2	Williams	38055	1998 QL ₁₉
1998 QY ₁₉	14.7	0.15	20000226	33.16052	302.10818	162.92072	7.84957	0.1292236	2.3058267	50	3	1993-2000	0.78	M-v	3	Williams	38055	1998 QY ₁₉
1998 QD ₂₀	13.8	0.15	20000226	43.44319	220.95423	186.19002	11.02914	0.0934035	2.9386643	51	2	1998-2000	0.69	M-v	3	Williams	37711	1998 QD ₂₀
1998 QM ₂₀	12.5	0.15	20000226	301.10960	325.93810	169.62936	11.65848	0.0354243	3.0274943	100	3	1996-2000	0.52	M-v	3	Spahr	38055	1998 QM ₂₀
1998 QW ₂₀	14.3	0.15	20000226	20.68120	285.11944	159.89717	8.78859	0.1323038	2.7446472	37	2	1998-2000	0.63	M-v	3	Spahr	37711	1998 QW ₂₀
1998 QD ₂₁	14.7	0.15	20000226	10.65036	287.29930	182.59518	1.99407	0.0475521	2.4065163	49	2	1998-2000	0.64	M-v	4	Spahr	38055	1998 QD ₂₁
1998 QX ₂₁	14.1	0.15	20000226	214.72413	298.65272	317.46565	5.40867	0.1100180	2.3586332	62	4	1951-2000	0.60	M-v	2	Williams	38055	1998 QX ₂₁
1998 QA ₂₂	12.8	0.15	20000226	116.84503	148.02693	161.06741	15.53896	0.0643477	3.1821626	66	3	1987-2000	0.58	M-v	3	Spahr	37711	1998 QA ₂₂
1998 QO ₂₂	14.7	0.15	20000226	135.91524	310.95368	33.51292	3.72881	0.2059982	2.4002429	42	2	1998-2000	0.69	M-v	4	Williams	37712	1998 QO ₂₂
1998 QQ ₂₂	14.5	0.15	20000226	84.45159	323.19369	72.13036	4.15966	0.2107405	2.5880625	38	2	1998-2000	0.76	M-v	4	Spahr	37712	1998 QQ ₂₂
1998 QW ₂₂	14.2	0.15	20000226	50.11422	70.33551	14.26055	3.87148	0.0902723	2.2999652	85	3	1997-2000	0.67	M-v	2	Williams	38055	1998 QW ₂₂
1998 QA ₂₃	14.9	0.15	20000226	88.57509	356.16646	60.93876	3.47094	0.2127401	2.3374297	35	6	1977-2000	0.87	M-v	2	Williams	35710	1998 QA ₂₃
1998 QB ₂₃	13.5	0.15	20000226	33.07978	23.35211	25.92858	5.78511	0.1523684	3.1694606	62	2	1998-2000	0.56	M-v	3	Williams	38055	1998 QB ₂₃
1998 QE ₂₃	14.2	0.15	20000226	44.91087	30.21330	59.06184	3.26018	0.1696393	2.4038905	60	3	1980-2000	0.72	M-v	2	Williams	38055	1998 QE ₂₃
1998 QF ₂₃	14.4	0.15	20000226	87.98562	28.44579	348.53886	10.47138	0.1161133	2.6530493	56	2	1998-2000	0.58	M-v	3	Williams	37712	1998 QF ₂₃
1998 QL ₂₃	13.8	0.15	20000226	59.86815	32.96134	352.42533	5.17544	0.1997492	3.1409595	93	3	1993-2000	0.58	M-v	1	Williams	38055	1998 QL ₂₃
1998 QT ₂₃	12.9	0.15	20000226	16.58098	279.70929	151.34695	10.64682	0.0992599	3.0132133	52	2	1998-2000	0.61	M-v	3	Spahr	37713	1998 QT ₂₃
1998 QA ₂₄	15.0	0.15	20000226	91.39519	200.75466	211.03960	5.31521	0.1246120	2.3042700	51	4	1988-2000	0.76	M-v	1	Williams	33081	1998 QA ₂₄
1998 QB ₂₄	14.6	0.15	20000226	93.11245	127.34785	272.79381	5.70618	0.1160643	2.3925257	52	2	1998-2000	0.64	M-v	4	Spahr	37713	1998 QB ₂₄
1998 QC ₂₄	13.2	0.15	20000226	100.78674	41.15859	303.28683	10.97330	0.0673977	2.9411858	36	2	1998-2000	0.53	M-v	3	Williams	37713	1998 QC ₂₄
1998 QE ₂₄	14.2	0.15	20000226	201.72374	327.88744	292.54541	5.53545	0.1158909	2.4755875	49	2	1998-2000	0.73	M-v	4	Williams	37713	1998 QE ₂₄
1998 QF ₂₄	14.7	0.15	20000226	74.53479	94.22203	297.65735	6.73360	0.1427563	2.7485657	54	2	1998-2000	0.62	M-v	3	Williams	37713	1998 QF ₂₄
1998 QN ₂₄	14.6	0.15	20000226	97.41293	194.51759	182.62939	5.95108	0.0713731	2.5248014	31	3	1997-2000	0.61	M-v	3	Spahr	37714	1998 QN ₂₄
1998 QT ₂₄	15.0	0.15	20000226	311.79868	231.59291	307.76167	5.06798	0.0768535	2.2497437	59	2	1998-2000	0.60	M-v	4	Williams	37714	1998 QT ₂₄
1998 QZ ₂₅	14.1	0.15	20000226	87.09516	38.27084	15.24366	2.81768	0.1601553	2.4605329	61	4	1983-2000	0.68	M-v	1	Williams	37283	1998 QZ ₂₅
1998 QE ₂₆	14.4	0.15	20000226	115.28972	7.03435	343.14161	11.55175	0.1225286	2.7460199	35	2	1998-2000	0.66	M-v	4	Williams	37714	1998 QE ₂₆
1998 QK ₂₆	14.1	0.15	20000226	50.57055	186.61786	206.00362	0.40897	0.2149750	3.1343636	58	3	1982-2000	0.57	M-v	2	Williams	38055	1998 QK ₂₆
1998 QL ₂₆	14.6	0.15	20000226	72.46318	265.27396	126.72987	4.33507	0.1233590	2.6495452	67	3	1997-2000	0.59	M-v	3	Spahr	38055	1998 QL ₂₆
1998 QN ₂₆	14.7	0.15	20000226	84.44506	49.70237	329.16155	9.65643	0.2479736	2.6275704	50	2	1998-2000	0.57	M-v	3	Williams	37715	1998 QN ₂₆
1998 QX ₂₇	14.2	0.15	20000226	78.28568	51.40348	316.19331	7.97381	0.1523140	3.0440950	42	2	1998-2000	0.70	M-v	3	Williams	38055	1998 QX ₂₇
1998 QJ ₂₈	13.0	0.15	20000226	253.14409	312.76720	265.09309	33.57881	0.1798825	2.7601727	49	2	1998-2000	0.53	M-v	3	Spahr	37715	1998 QJ ₂₈
1998 QM ₂₈	14.4	0.15	20000226	155.59135	264.10295	63.76643	0.29804	0.0813651	2.6466007	93	2	1998-2000	0.58	M-v	4	Williams	37715	1998 QM ₂₈
1998 QO ₂₈	14.7	0.15	20000226	142.43766	71.05782	271.79204	4.05841	0.0477422	2.7665096	29	2	1998-2000	0.53	M-v	4	Spahr	37715	1998 QO ₂₈
1998 QM ₃₀	14.7	0.15	20000226	136.71448	356.59954	347.83979	5.24146	0.1577263	2.4423670	83	3	1997-2000	0.46	M-v	3	Williams	38055	1998 QM ₃₀
1998 QP ₃₁	14.4	0.15	20000226	350.90047	31.20520	107.66517	6.48933	0.0799360	2.3066055	84	2	1998-2000	0.57	M-v	3	Williams	37716	1998 QP ₃₁
1998 QQ ₃₁	14.4	0.15	20000226	250.44267	220.72378	5.28370	7.18930	0.0617364	2.3463378	35	2	1998-2000	0.59	M-v	4	Williams	37716	1998 QQ ₃₁
1998 QW ₃₁	14.7	0.15	20000226	132.28977	21.09059	349.38291	6.61518	0.2199878	2.2877280	54	3	1991-2000	0.70	M-v	2	Williams	33559	1998 QW ₃₁
1998 QB ₃₂	12.5	0.15	20000226	39.63289	37.87098	346.17849	10.91023	0.2865965	3.9750750	76	4	1974-2000	0.61	M-v	1	Spahr	37717	1998 QB ₃₂
1998 QD ₃₂	13.0	0.15	20000226	76.94707	230.92906	143.51736	17.60178	0.2676642	3.0762433	54	4	1981-2000	0.61	M-v	1	Spahr	37717	1998 QD ₃₂
1998 QE ₃₂	14.9	0.15	20000226	122.58723	241.47053	132.16618	7.11438	0.1292291	2.3123446	58	3	1991-2000	0.62	M-v	3	Williams	34924	1998 QE ₃₂
1998 QS ₃₂	14.8	0.15	20000226	186.06554	322.32472	327.22008	6.45945	0.1850466	2.3068424	37	2	1998-2000	0.51	M-v	4	Williams	37717	1998 QS ₃₂
1998 QJ ₃₃	14.5	0.15	20000226	127.84114	64.56073	304.18361	6.12494	0.1317587	2.3196331	47	3	1977-2000	0.80	M-v	3	Williams	33559	1998 QJ ₃₃

1998 QK ₃₄	13.3	0.15	20000226	118.75581	13.50647	334.82383	14.52869	0.1275466	2.5950573	69	2	1998-2000	0.60	M-v	3	Williams	38056	1998 QK ₃₄
1998 QW ₃₄	13.0	0.15	20000226	137.82739	130.25060	175.58636	14.82945	0.2005903	2.7709135	54	3	1992-2000	0.74	M-v	3	Spahr	38056	1998 QW ₃₄
1998 QY ₃₄	15.0	0.15	20000226	147.81997	44.75073	291.23454	6.45624	0.1312227	2.3912512	53	3	1994-2000	0.56	M-v	3	Spahr	38056	1998 QY ₃₄
1998 QB ₃₅	14.0	0.15	20000226	1.53847	163.25637	317.42092	13.10443	0.1193083	2.5341710	62	3	1988-2000	0.59	M-v	3	Williams	38056	1998 QB ₃₅
1998 QE ₃₅	15.1	0.15	20000226	111.17957	243.00443	141.71269	3.47960	0.1790871	2.3917301	43	5	1991-2000	0.73	M-v	2	Williams	38056	1998 QE ₃₅
1998 QN ₃₅	14.3	0.15	20000226	74.47867	307.38588	69.63517	3.10631	0.1020941	2.9211876	32	2	1998-2000	0.67	M-v	4	Williams	37717	1998 QN ₃₅
1998 QO ₃₆	15.0	0.15	20000226	110.44888	128.62806	253.92463	3.59724	0.1894651	2.4468495	48	4	1995-2000	0.67	M-v	1	Spahr	33082	1998 QO ₃₆
1998 QS ₃₆	14.9	0.15	20000226	84.15207	77.24705	318.28785	14.08029	0.1488576	2.6265005	50	2	1998-2000	0.58	M-v	3	Williams	37718	1998 QS ₃₆
1998 QL ₃₇	14.4	0.15	20000226	300.27086	345.71325	206.32365	4.29952	0.0898790	2.2572365	63	4	1978-2000	0.73	M-v	2	Spahr	38056	1998 QL ₃₇
1998 QM ₃₇	13.9	0.15	20000226	350.03301	200.15990	299.31453	5.67582	0.0651369	2.3836929	72	2	1998-2000	0.50	M-v	3	Williams	37718	1998 QM ₃₇
1998 QP ₃₇	14.3	0.15	20000226	278.92813	278.00433	289.19139	3.35797	0.1052343	2.2871764	49	2	1998-2000	0.71	M-v	4	Williams	37718	1998 QP ₃₇
1998 QS ₃₇	15.3	0.15	20000226	100.70215	165.87113	243.55695	1.94429	0.1255817	2.2572329	41	4	1987-2000	0.89	M-v	2	Spahr	35710	1998 QS ₃₇
1998 QU ₃₇	14.2	0.15	20000226	110.70942	79.01994	279.92902	1.76300	0.2214348	2.6678883	62	2	1998-2000	0.64	M-v	4	Spahr	37718	1998 QU ₃₇
1998 QY ₃₇	14.9	0.15	20000226	146.47517	14.88838	335.81873	5.72306	0.1787028	2.2937117	69	3	1991-2000	0.55	M-v	3	Williams	33082	1998 QY ₃₇
1998 QC ₃₈	14.4	0.15	20000226	311.04451	191.35858	345.32842	6.83460	0.0499246	2.3221698	62	3	1997-2000	0.58	M-v	4	Williams	37719	1998 QC ₃₈
1998 QF ₃₈	15.1	0.15	20000226	163.72400	188.41146	136.89439	8.07985	0.1526581	2.2893514	46	3	1991-2000	0.62	M-v	3	Spahr	38056	1998 QF ₃₈
1998 QL ₃₈	15.1	0.15	20000226	134.98880	36.74874	331.85180	5.57398	0.1544721	2.2774679	48	3	1991-2000	0.57	M-v	3	Williams	38056	1998 QL ₃₈
1998 QR ₃₈	12.9	0.15	20000226	73.41990	51.97510	318.56210	9.07650	0.0996929	3.1291930	63	4	1982-2000	0.68	M-v	2	Williams	37719	1998 QR ₃₈
1998 QA ₃₉	13.8	0.15	20000226	146.34149	349.71331	319.75445	12.87962	0.1663101	2.6707963	46	3	1989-2000	0.69	M-v	3	Williams	38056	1998 QA ₃₉
1998 QE ₃₉	13.9	0.15	20000226	78.98916	352.38152	19.56878	0.46459	0.2134351	3.0786286	88	3	1982-2000	0.55	M-v	3	Williams	38056	1998 QE ₃₉
1998 QC ₄₀	14.3	0.15	20000226	106.41931	190.19394	194.56110	1.63158	0.1779220	2.4755059	47	4	1995-2000	0.46	M-v	1	Spahr	35710	1998 QC ₄₀
1998 QH ₄₀	14.8	0.15	20000226	104.26737	142.86703	259.23349	2.94730	0.2222249	2.3972196	34	3	1987-2000	0.78	M-v	2	Spahr	34301	1998 QH ₄₀
1998 QN ₄₀	14.6	0.15	20000226	55.96366	186.59071	250.94765	4.24421	0.0344271	2.3761727	51	2	1998-2000	0.58	M-v	3	Williams	37720	1998 QN ₄₀
1998 QT ₄₀	14.1	0.15	20000226	22.52431	214.97631	224.78450	4.43006	0.0420351	2.7989766	59	2	1998-2000	0.64	M-v	4	Williams	37720	1998 QT ₄₀
1998 QX ₄₀	15.4	0.15	20000226	163.52584	139.37382	183.06797	5.12359	0.2604851	2.3126114	51	5	1949-2000	0.85	M-v	3	Williams	35711	1998 QX ₄₀
1998 QZ ₄₀	14.6	0.15	20000226	288.78259	240.52704	316.52497	4.50042	0.1165153	2.3125210	44	2	1998-2000	0.62	M-v	4	Williams	37720	1998 QZ ₄₀
1998 QY ₄₁	13.7	0.15	20000226	91.04575	216.38299	139.26677	10.83899	0.1168793	2.9951785	45	2	1998-2000	0.61	M-v	3	Spahr	37721	1998 QY ₄₁
1998 QB ₄₂	13.5	0.15	20000226	99.69469	329.27524	4.17641	8.97740	0.0907744	3.1653181	32	3	1981-2000	0.81	M-v	4	Williams	38056	1998 QB ₄₂
1998 QD ₄₂	14.9	0.15	20000226	97.65461	325.34956	88.76682	4.73322	0.0839448	2.1941650	43	5	1982-2000	0.80	M-v	1	Williams	38056	1998 QD ₄₂
1998 QE ₄₂	14.6	0.15	20000226	147.81129	309.19295	40.99735	4.13473	0.1664999	2.2718868	50	3	1988-2000	0.70	M-v	3	Williams	33560	1998 QE ₄₂
1998 QN ₄₂	13.7	0.15	20000226	123.71728	9.94826	326.33908	8.52101	0.1845958	2.7248185	84	3	1996-2000	0.67	M-v	2	Williams	38056	1998 QN ₄₂
1998 QU ₄₂	13.3	0.15	20000226	8.24463	110.96502	336.55579	9.71858	0.0775727	3.0020768	52	2	1998-2000	0.60	M-v	3	Williams	37721	1998 QU ₄₂
1998 QB ₄₃	13.9	0.15	20000226	19.95664	249.50445	218.34362	7.72734	0.2370915	2.7405504	68	3	1996-2000	0.64	M-v	2	Spahr	38056	1998 QB ₄₃
1998 QD ₄₃	13.6	0.15	20000226	65.17882	232.14245	147.40605	10.82379	0.0724764	3.1014512	47	2	1998-2000	0.72	M-v	3	Spahr	37721	1998 QD ₄₃
1998 QK ₄₃	13.9	0.15	20000226	158.89833	194.32398	120.86006	6.37226	0.1475878	2.4352462	57	2	1998-2000	0.60	M-v	4	Spahr	38056	1998 QK ₄₃
1998 QY ₄₃	15.5	0.15	20000226	229.67424	252.26310	16.39747	3.92737	0.0371108	2.2171413	42	3	1997-2000	0.71	M-v	3	Williams	37721	1998 QY ₄₃
1998 QD ₄₄	15.5	0.15	20000226	154.65627	341.45625	2.83640	4.03837	0.1653709	2.2638323	74	3	1997-2000	0.44	M-v	3	Williams	35711	1998 QD ₄₄
1998 QF ₄₄	14.7	0.15	20000226	82.62781	40.89179	1.02686	3.58685	0.1528623	2.5880160	64	3	1996-2000	0.58	M-v	3	Williams	37722	1998 QF ₄₄
1998 QH ₄₄	15.0	0.15	20000226	178.74584	177.96312	142.99820	7.41676	0.1770847	1.936126	53	3	1985-2000	0.67	M-v	3	Williams	38056	1998 QH ₄₄
1998 QN ₄₄	14.9	0.15	20000226	191.47411	299.46847	348.84574	6.64795	0.1177609	2.3540172	54	3	1997-2000	0.59	M-v	3	Williams	37722	1998 QN ₄₄
1998 QQ ₄₄	14.1	0.15	20000226	62.86655	240.38885	150.11905	3.99727	0.1346671	3.0606218	41	3	1993-2000	0.69	M-v	3	Spahr	38056	1998 QQ ₄₄
1998 QS ₄₄	12.6	0.15	20000226	243.03547	241.43083	329.63622	6.15340	0.0773670	2.7640329	70	3	1996-2000	0.54	M-v	2	Williams	38056	1998 QS ₄₄
1998 QU ₄₄	14.9	0.15	20000226	115.45246	81.37839	294.21539	2.49837	0.1131226	2.4331109	50	2	1998-2000	0.57	M-v	4	Spahr	37722	1998 QU ₄₄
1998 QD ₄₅	14.4	0.15	20000226	108.53209	112.95851	283.58690	5.61860	0.1263204	2.3378297	64	3	1991-2000	0.60	M-v	2	Williams	38056	1998 QD ₄₅
1998 QJ ₄₅	14.3	0.15	20000226	93.15565	214.83885	178.51403	13.58544	0.1957665	2.6180264	49	3	1977-2000	0.76	M-v	3	Spahr	38056	1998 QJ ₄₅
1998 QN ₄₅	14.5	0.15	20000226	315.35430	346.68227	188.62175	12.02427	0.1085778	2.3755428	40	2	1998-2000	0.88	M-v	4	Spahr	37723	1998 QN ₄₅
1998 QO ₄₅	13.9	0.15	20000226	166.06231	133.95375	183.03632	12.45842	0.0737244	2.4339400	39	2	1998-2000	0.51	M-v	3	Spahr	37723	1998 QO ₄₅
1998 QP ₄₅	13.1	0.15	20000226	303.29987	340.04219	191.65536	12.25779	0.1712560	2.5881626	63	2	1998-2000	0.53	M-v	3	Williams	37723	1998 QP ₄₅
1998 QS ₄₅	14.8	0.15	20000226	151.39325	65.40475	268.50098	3.96928	0.1188369	2.4226445	48	4	1982-2000	0.52	M-v	2	Williams	38056	1998 QS ₄₅
1998 QY ₄₅	13.6	0.15	20000226	120.01875	351.55549	331.63254	9.01373	0.1268694	2.9982145	37	2	1998-2000	0.53	M-v	4	Williams	37723	1998 QY ₄₅
1998 QA ₄₆	15.0	0.15	20000226	205.92714	326.82236	324.98246	6.40824	0.0957082	2.2191467	47	3	1997-2000	0.57	M-v	3	Williams	37724	1998 QA ₄₆
1998 QG ₄₆	14.1	0.15	20000226	83.68113	205.53253	156.38634	2.49902	0.2107441	3.1603140	54	2	1998-2000	0.71	M-v	4	Spahr	37724	1998 QG ₄₆
1998 QJ ₄₆	14.7	0.15	20000226	128.80392	358.91169	344.25284	7.51720	0.2011250	2.5811032	53	3	1986-2000	0.63	M-v	3	Williams	37724	1998 QJ ₄₆

1998 QN ₄₆	15.0	0.15	20000226	135.95692	190.54418	166.74739	2.80763	0.1801519	2.3820029	56	4	1976-2000	0.76	M-v	3	Williams	33083	1998 QN ₄₆
1998 QT ₄₇	13.8	0.15	20000226	59.49303	267.49235	161.40795	12.93475	0.1685556	2.6407469	52	2	1998-2000	0.55	M-v	3	Williams	37725	1998 QT ₄₇
1998 QW ₄₇	15.5	0.15	20000226	140.66857	61.85332	290.37854	2.25007	0.1521780	2.3779327	32	4	1994-2000	0.64	M-v	2	Williams	35711	1998 QW ₄₇
1998 QY ₄₇	14.8	0.15	20000226	77.99668	248.76533	178.41838	6.28780	0.0704688	2.3187336	44	3	1997-2000	0.67	M-v	2	Williams	38057	1998 QY ₄₇
1998 QB ₄₈	13.7	0.15	20000226	212.31138	76.75329	186.52723	9.19254	0.0102473	2.5709457	45	4	1980-2000	0.53	M-v	2	Williams	37725	1998 QB ₄₈
1998 QF ₄₈	14.1	0.15	20000226	192.39754	356.29493	298.59209	6.37901	0.1315144	2.3248301	64	2	1998-2000	0.61	M-v	3	Williams	38057	1998 QF ₄₈
1998 QK ₄₈	13.8	0.15	20000226	32.68514	105.71801	324.47047	9.04087	0.0791881	2.9669654	55	2	1998-2000	0.70	M-v	3	Williams	37725	1998 QK ₄₈
1998 QU ₄₈	15.0	0.15	20000226	68.52389	259.84518	174.54657	4.42505	0.0255455	2.2986085	39	2	1998-2000	0.58	M-v	4	Williams	37726	1998 QU ₄₈
1998 QW ₄₈	13.9	0.15	20000226	206.99803	80.27647	164.47619	12.42005	0.1423023	2.6935347	60	2	1998-2000	0.70	M-v	3	Spahr	38057	1998 QW ₄₈
1998 QE ₄₉	13.6	0.15	20000226	77.57998	346.83102	41.22124	1.57722	0.0712208	2.7802852	68	4	1992-2000	0.61	M-v	2	Williams	38057	1998 QE ₄₉
1998 QF ₄₉	13.5	0.15	20000226	65.55036	270.40269	148.24916	8.71980	0.2283718	2.7651703	78	3	1977-2000	0.50	M-v	1	Williams	38057	1998 QF ₄₉
1998 QO ₄₉	14.3	0.15	20000226	93.46538	238.04939	148.91347	15.81726	0.1255296	2.5912909	43	2	1998-2000	0.63	M-v	3	Spahr	37726	1998 QO ₄₉
1998 QF ₅₀	14.2	0.15	20000226	121.92456	326.69293	8.73269	8.31385	0.1479358	2.7617230	40	3	1989-2000	0.61	M-v	3	Williams	37284	1998 QF ₅₀
1998 QL ₅₀	15.4	0.15	20000226	110.78765	333.30600	60.02395	3.34133	0.1150746	2.3176063	34	3	1997-2000	0.70	M-v	3	Williams	32713	1998 QL ₅₀
1998 QN ₅₀	14.3	0.15	20000226	221.93912	141.22337	118.58339	5.28849	0.1405678	2.2896712	50	4	1983-2000	0.75	M-v	3	Spahr	38057	1998 QN ₅₀
1998 QR ₅₀	14.0	0.15	20000226	68.18587	344.41197	41.14888	2.79680	0.1466503	3.0816255	50	2	1998-2000	0.67	M-v	4	Williams	37726	1998 QR ₅₀
1998 QW ₅₀	13.9	0.15	20000226	34.25595	78.07724	351.96381	15.51673	0.2084912	3.1585033	46	3	1995-2000	0.72	M-v	2	Williams	37727	1998 QW ₅₀
1998 QX ₅₀	13.9	0.15	20000226	164.40569	315.75434	353.24113	7.41685	0.1331039	2.4800124	75	4	1977-2000	0.70	M-v	3	Williams	38057	1998 QX ₅₀
1998 QY ₅₀	15.5	0.15	20000226	125.30791	29.52279	350.17400	6.55951	0.1213780	2.3080661	28	3	1977-2000	0.87	M-v	3	Williams	33084	1998 QY ₅₀
1998 QZ ₅₀	14.4	0.15	20000226	104.19363	216.79509	146.50581	5.72983	0.1742261	2.7700294	64	4	1992-2000	0.67	M-v	3	Spahr	38057	1998 QZ ₅₀
1998 QC ₅₁	15.0	0.15	20000226	117.12079	238.74841	159.32264	4.30584	0.1277176	2.2449986	47	3	1993-2000	0.63	M-v	3	Williams	38057	1998 QC ₅₁
1998 QE ₅₁	15.9	0.15	20000226	192.40834	329.45003	331.33629	2.26571	0.2523388	2.1838934	47	4	1994-2000	0.67	M-v	3	Williams	35631	1998 QE ₅₁
1998 QK ₅₁	14.5	0.15	20000226	340.43116	347.47485	176.33494	5.62730	0.0391974	2.2700850	56	2	1998-2000	0.56	M-v	4	Williams	37727	1998 QK ₅₁
1998 QP ₅₁	14.9	0.15	20000226	195.39945	26.17310	268.74588	2.60902	0.0765944	2.3472054	47	3	1994-2000	0.63	M-v	4	Spahr	38057	1998 QP ₅₁
1998 QR ₅₁	13.8	0.15	20000226	60.91779	122.54355	338.19334	22.72311	0.2809022	2.4441416	45	4	1992-2000	0.72	M-v	2	Williams	33560	1998 QR ₅₁
1998 QT ₅₁	14.1	0.15	20000226	179.30932	355.51600	316.79052	6.45762	0.1492906	2.3044793	81	4	1935-2000	0.67	M-v	3	Williams	38057	1998 QT ₅₁
1998 QV ₅₁	14.3	0.15	20000226	160.96070	11.01182	316.30012	7.61634	0.1369663	2.3930078	86	4	1987-2000	0.62	M-v	2	Williams	38057	1998 QV ₅₁
1998 QC ₅₂	13.3	0.15	20000226	310.54371	345.21725	181.30205	22.08694	0.0108795	2.5944045	64	4	1973-2000	0.82	M-v	2	Spahr	38057	1998 QC ₅₂
1998 QG ₅₂	14.9	0.15	20000226	258.80523	338.37383	263.49314	3.35450	0.1162234	2.2073320	54	2	1998-2000	0.63	M-v	4	Spahr	37727	1998 QG ₅₂
1998 QH ₅₂	13.9	0.15	20000226	343.11119	190.27211	319.19932	7.55508	0.0547166	2.4548702	82	2	1998-2000	0.61	M-v	3	Williams	38057	1998 QH ₅₂
1998 QM ₅₂	14.7	0.15	20000226	88.88378	270.85326	143.59920	6.79256	0.0985210	2.3460976	46	3	1991-2000	0.78	M-v	2	Williams	38057	1998 QM ₅₂
1998 QU ₅₂	13.4	0.15	20000226	83.46053	106.71648	271.69199	7.49979	0.1180461	3.0308346	62	2	1998-2000	0.53	M-v	3	Spahr	38057	1998 QU ₅₂
1998 QJ ₅₃	14.6	0.15	20000226	137.27779	20.80797	324.18953	6.79075	0.2196590	2.5889789	52	3	1996-2000	0.57	M-v	3	Williams	35711	1998 QJ ₅₃
1998 QL ₅₃	13.7	0.15	20000226	248.67046	32.39612	199.78571	13.78732	0.0997124	2.6209320	65	2	1998-2000	0.69	M-v	4	Spahr	37728	1998 QL ₅₃
1998 QM ₅₃	13.8	0.15	20000226	63.71130	67.05651	342.95795	9.29984	0.0859058	3.0186324	63	2	1998-2000	0.65	M-v	3	Williams	37728	1998 QM ₅₃
1998 QR ₅₃	14.0	0.15	20000226	65.09647	75.08479	335.31803	8.35828	0.1424962	2.7473646	68	2	1998-2000	0.82	M-v	3	Williams	37729	1998 QR ₅₃
1998 QE ₅₄	13.8	0.15	20000226	299.50063	254.28716	311.73129	5.32101	0.1283933	2.3194774	99	4	1972-2000	0.65	M-v	3	Williams	38057	1998 QE ₅₄
1998 QG ₅₄	14.6	0.15	20000226	126.35399	140.50507	225.24979	5.95132	0.1736958	2.5418544	90	4	1978-2000	0.82	M-v	2	Spahr	38057	1998 QG ₅₄
1998 QK ₅₄	13.7	0.15	20000226	95.90110	107.99294	272.62687	3.36057	0.0809341	2.7825456	70	2	1998-2000	0.61	M-v	3	Spahr	37729	1998 QK ₅₄
1998 QV ₅₄	15.0	0.15	20000226	221.02333	311.50950	322.96194	5.40124	0.2138596	2.2188774	53	3	1997-2000	0.79	M-v	4	Williams	37730	1998 QV ₅₄
1998 QZ ₅₄	14.4	0.15	20000226	54.76763	129.21764	329.45445	6.11899	0.1111515	2.4466799	62	3	1996-2000	0.79	M-v	2	Williams	38057	1998 QZ ₅₄
1998 QA ₅₅	15.2	0.15	20000226	155.25673	170.24415	190.55639	5.63994	0.2237229	2.2461988	70	4	1993-2000	0.66	M-v	2	Spahr	35711	1998 QA ₅₅
1998 QB ₅₅	13.6	0.15	20000226	74.28143	53.77627	343.89250	8.96335	0.0781880	2.9871498	52	3	1988-2000	0.54	M-v	3	Williams	37730	1998 QB ₅₅
1998 QH ₅₅	15.0	0.15	20000226	111.09388	74.68663	340.29811	5.70866	0.0574277	2.2344707	61	3	1991-2000	0.75	M-v	3	Spahr	33348	1998 QH ₅₅
1998 QT ₅₅	15.3	0.15	20000226	235.77134	245.16856	41.04411	2.08704	0.1656383	2.2251906	45	3	1997-2000	0.55	M-v	2	Williams	38057	1998 QT ₅₅
1998 QZ ₅₅	13.8	0.15	20000226	101.73120	72.31773	299.04510	2.70192	0.1322299	2.7678539	77	2	1998-2000	0.55	M-v	4	Williams	37730	1998 QZ ₅₅
1998 QA ₅₆	15.5	0.15	20000226	165.98566	146.13457	187.04363	5.28160	0.1918785	2.2836780	60	5	1991-2000	0.64	M-v	2	Spahr	35711	1998 QA ₅₆
1998 QG ₅₆	14.0	0.15	20000226	127.20195	28.94982	358.29514	16.97053	0.2258852	2.5468796	18	1	80 days	0.51	M-v	5	Williams		1998 QG ₅₆
1998 QE ₅₇	14.9	0.15	20000226	192.44639	120.49815	177.69041	4.86172	0.1476402	2.2933619	40	3	1991-2000	0.76	M-v	4	Williams	35711	1998 QE ₅₇
1998 QL ₅₇	14.8	0.15	20000226	109.50222	199.22305	200.88136	1.47491	0.0207628	2.2569573	79	3	1996-2000	0.59	M-v	3	Williams	38057	1998 QL ₅₇
1998 QM ₅₇	14.6	0.15	20000226	74.61081	71.87036	330.26904	1.88225	0.0730430	2.7206609	47	4	1993-2000	0.68	M-v	2	Williams	38057	1998 QM ₅₇
1998 QP ₅₇	13.3	0.15	20000226	14.32544	269.45500	185.03995	3.13885	0.1757128	3.1504436	65	3	1993-2000	0.61	M-v	3	Spahr	38057	1998 QP ₅₇
1998 QX ₅₇	14.9	0.15	20000226	68.22221	267.65632	177.06247	3.35799	0.1297902	2.3683753	51	3	1971-2000	0.55	M-v	2	Spahr	35711	1998 QX ₅₇

1998 QO ₆₀	13.1	0.15	20000226	209.28860	283.51760	7.89395	11.21957	0.1865972	2.6702309	55	2	1998-2000	0.51	M-v	3	Williams	38057	1998 QO ₆₀
1998 QP ₆₀	15.0	0.15	20000226	112.07896	127.09741	248.37774	5.66756	0.1216380	2.4363350	63	2	1998-2000	0.53	M-v	3	Spahr	37730	1998 QP ₆₀
1998 QQ ₆₀	15.0	0.15	20000226	69.44130	74.48091	315.65641	16.22389	0.1897268	2.9764318	32	2	1998-2000	0.63	M-v	3	Spahr	37730	1998 QQ ₆₀
1998 QY ₆₀	14.2	0.15	20000226	341.30899	313.03078	164.85347	14.54571	0.0368296	2.6222454	33	2	1998-2000	0.61	M-v	4	Williams	37730	1998 QY ₆₀
1998 QK ₆₁	14.4	0.15	20000226	4.01080	339.92860	158.10260	6.81952	0.0353402	2.2849345	95	2	1998-2000	0.47	M-v	3	Williams	37731	1998 QK ₆₁
1998 QN ₆₉	14.5	0.15	20000226	82.10066	118.18813	276.22225	13.86629	0.1132308	2.6080632	27	2	1998-2000	0.54	M-v	3	Spahr	37731	1998 QN ₆₉
1998 QP ₆₉	14.3	0.15	20000226	105.83517	125.54790	244.81516	14.13815	0.1452668	2.5913879	46	3	1990-2000	0.73	M-v	2	Spahr	38057	1998 QP ₆₉
1998 QF ₇₀	12.6	0.15	20000226	350.80965	239.88853	212.89835	15.67739	0.0942941	3.1928881	76	3	1996-2000	0.59	M-v	3	Spahr	38057	1998 QF ₇₀
1998 QJ ₇₀	12.4	0.15	20000226	71.54869	87.12041	289.32949	16.98362	0.2074795	3.1955248	84	2	1998-2000	0.64	M-v	3	Williams	37731	1998 QJ ₇₀
1998 QP ₇₀	14.7	0.15	20000226	108.90442	139.42044	219.38417	12.02214	0.1879352	2.6910876	51	3	1997-2000	0.70	M-v	3	Spahr	38057	1998 QP ₇₀
1998 QU ₇₀	14.9	0.15	20000226	58.58219	196.08689	230.63281	10.27117	0.1406884	2.5895288	33	3	1997-2000	0.84	M-v	3	Spahr	38057	1998 QU ₇₀
1998 QX ₇₀	13.9	0.15	20000226	63.43870	129.13623	263.60544	9.53385	0.1267854	2.9863297	40	2	1998-2000	0.65	M-v	3	Spahr	37732	1998 QX ₇₀
1998 QC ₇₁	14.1	0.15	20000226	106.00460	112.25495	237.40961	7.23159	0.2841808	2.8496910	58	3	1979-2000	0.72	M-v	2	Spahr	38057	1998 QC ₇₁
1998 QU ₇₁	14.3	0.15	20000226	66.98731	145.54317	274.69450	9.56062	0.1737275	2.6083363	32	2	1998-2000	0.59	M-v	4	Spahr	37732	1998 QU ₇₁
1998 QT ₇₂	15.4	0.15	20000226	170.76613	35.65124	284.37681	6.22115	0.1384848	2.2885115	42	3	1960-2000	0.73	M-v	4	Spahr	35712	1998 QT ₇₂
1998 QE ₇₃	12.2	0.15	20000226	137.60719	9.39943	294.61817	8.74029	0.0641292	3.0028629	72	3	1993-2000	0.54	M-v	3	Williams	38057	1998 QE ₇₃
1998 QJ ₇₃	14.1	0.15	20000226	353.99523	279.42430	204.67857	11.73882	0.1031994	2.6201119	36	2	1998-2000	0.68	M-v	4	Spahr	37733	1998 QJ ₇₃
1998 QV ₇₃	13.1	0.15	20000226	13.06099	214.58851	260.51779	14.23888	0.1792668	2.6495397	58	3	1990-2000	0.66	M-v	2	Spahr	38058	1998 QV ₇₃
1998 QO ₇₄	13.8	0.15	20000226	71.77036	130.39343	285.50862	11.45447	0.1392635	2.6093161	95	2	1998-2000	0.58	M-v	3	Williams	38058	1998 QO ₇₄
1998 QY ₇₄	14.5	0.15	20000226	11.12046	190.55106	278.78538	12.6945	0.0560392	2.6273961	49	2	1998-2000	0.63	M-v	3	Spahr	38058	1998 QY ₇₄
1998 QB ₇₅	13.9	0.15	20000226	95.03720	103.64210	294.98064	11.61125	0.1785143	2.5456964	48	3	1986-2000	0.61	M-v	3	Williams	37733	1998 QB ₇₅
1998 QT ₇₆	14.6	0.15	20000226	322.40863	273.16411	275.02625	5.92424	0.0860174	2.1952896	71	2	1998-2000	0.57	M-v	3	Williams	38058	1998 QT ₇₆
1998 QR ₇₇	13.8	0.15	20000226	304.91764	316.87475	214.41359	12.42616	0.1090174	2.6728799	36	4	1990-2000	0.69	M-v	3	Spahr	38058	1998 QR ₇₇
1998 QS ₇₇	13.8	0.15	20000226	72.82702	106.75874	285.73687	9.03695	0.0892482	2.9604041	43	2	1998-2000	0.59	M-v	3	Williams	38058	1998 QS ₇₇
1998 QW ₇₇	12.5	0.15	20000226	208.42821	286.90176	323.92177	11.94603	0.1637112	2.6733983	69	3	1992-2000	0.66	M-v	3	Williams	38058	1998 QW ₇₇
1998 QX ₇₇	13.5	0.15	20000226	119.49855	40.79181	324.08379	13.65859	0.1494790	2.5984927	84	3	1996-2000	0.61	M-v	2	Williams	38058	1998 QX ₇₇
1998 QF ₈₀	13.2	0.15	20000226	146.95862	41.19031	293.87836	11.69603	0.2654801	2.3440183	96	3	1955-2000	0.56	M-v	2	Williams	37734	1998 QF ₈₀
1998 QC ₈₄	14.1	0.15	20000226	97.52692	64.12687	282.83744	12.64363	0.2866668	3.0517960	55	2	1998-2000	0.55	M-v	3	Spahr	37735	1998 QC ₈₄
1998 QL ₈₄	13.5	0.15	20000226	77.54621	108.99193	295.27772	11.93204	0.1763916	2.6709273	95	3	1996-2000	0.48	M-v	2	Williams	37735	1998 QL ₈₄
1998 QT ₈₄	13.4	0.15	20000226	3.75643	214.16136	236.96856	12.98642	0.1280035	3.0903548	77	3	1996-2000	0.68	M-v	3	Spahr	38058	1998 QT ₈₄
1998 QF ₈₅	13.9	0.15	20000226	66.44622	139.82582	253.96443	13.67242	0.2067270	3.0515905	43	2	1998-2000	0.63	M-v	3	Spahr	37735	1998 QF ₈₅
1998 QJ ₈₅	13.7	0.15	20000226	271.07321	261.82249	299.10757	13.91454	0.0507401	2.5631472	67	2	1998-2000	0.59	M-v	3	Williams	38058	1998 QJ ₈₅
1998 QL ₈₅	13.9	0.15	20000226	21.87835	153.69390	282.75927	15.46607	0.0359785	2.9228774	43	2	1998-2000	0.66	M-v	3	Williams	37735	1998 QL ₈₅
1998 QN ₈₅	13.8	0.15	20000226	78.97719	123.05874	255.38290	15.84419	0.2377065	3.1069960	39	2	1998-2000	0.75	M-v	3	Spahr	37736	1998 QN ₈₅
1998 QO ₈₅	13.6	0.15	20000226	332.46178	232.43903	268.17162	11.65147	0.1134402	2.6923280	69	2	1998-2000	0.67	M-v	3	Spahr	37736	1998 QO ₈₅
1998 QS ₈₅	13.8	0.15	20000226	177.04724	330.72250	302.87342	12.53920	0.1540121	2.6917023	48	2	1998-2000	0.65	M-v	4	Williams	37736	1998 QS ₈₅
1998 QW ₈₅	15.3	0.15	20000226	171.15623	13.62931	306.86059	10.39663	0.0667907	2.3397354	64	2	1998-2000	0.71	M-v	4	Williams	37736	1998 QW ₈₅
1998 QZ ₈₅	14.1	0.15	20000226	155.12235	100.05476	230.27847	6.60687	0.1405113	2.3915177	68	3	1987-2000	0.58	M-v	3	Spahr	38058	1998 QZ ₈₅
1998 QB ₈₆	13.1	0.15	20000226	238.33850	241.54375	324.51900	31.50440	0.3041587	2.7861590	34	4	1992-1999	0.93	M-v	2	Williams	38058	1998 QB ₈₆
1998 QG ₈₆	13.8	0.15	20000226	94.97950	72.99301	284.82776	15.40259	0.1957624	3.0513456	38	2	1998-2000	0.64	M-v	3	Spahr	37736	1998 QG ₈₆
1998 QN ₈₆	13.5	0.15	20000226	30.63860	169.42539	286.43314	12.14142	0.1916203	2.7725876	100	3	1997-2000	0.61	M-v	2	Spahr	38058	1998 QN ₈₆
1998 QR ₈₆	13.2	0.15	20000226	73.84644	118.47074	286.27327	8.08335	0.1597119	2.7592285	100	3	1989-2000	0.62	M-v	2	Williams	38058	1998 QR ₈₆
1998 QW ₈₆	13.7	0.15	20000226	111.17033	61.21016	299.85690	7.86049	0.2663867	2.7174989	65	2	1998-2000	0.67	M-v	3	Williams	37737	1998 QW ₈₆
1998 QA ₈₇	13.5	0.15	20000226	140.00650	50.12592	285.03816	13.26619	0.1893897	2.5685297	84	2	1998-2000	0.61	M-v	3	Williams	38058	1998 QA ₈₇
1998 QB ₈₇	13.9	0.15	20000226	36.52647	182.44093	263.98342	11.54967	0.1335565	2.7648648	50	2	1998-2000	0.58	M-v	3	Spahr	37737	1998 QB ₈₇
1998 QO ₈₇	13.1	0.15	20000226	53.37545	100.89146	303.11953	15.77484	0.1320675	3.1738834	56	3	1989-2000	0.56	M-v	2	Williams	38058	1998 QO ₈₇
1998 QQ ₈₇	13.7	0.15	20000226	78.80906	117.64732	265.22305	10.37687	0.1173187	2.9958391	51	2	1998-2000	0.76	M-v	3	Spahr	38058	1998 QQ ₈₇
1998 QA ₈₈	14.1	0.15	20000226	98.44205	136.28367	249.18482	13.18112	0.1130758	2.6336711	45	2	1998-2000	0.82	M-v	3	Spahr	37737	1998 QA ₈₈
1998 QF ₈₉	12.8	0.15	20000226	135.85534	36.91840	276.75510	9.75992	0.0950290	2.9842319	58	2	1998-2000	0.59	M-v	3	Williams	37737	1998 QF ₈₉
1998 QW ₈₉	13.7	0.15	20000226	139.42643	89.15080	245.96406	12.08068	0.1932368	2.5968425	59	3	1990-2000	0.66	M-v	2	Spahr	37738	1998 QW ₈₉
1998 QP ₉₀	13.8	0.15	20000226	168.93748	339.34918	322.32531	15.21577	0.1550530	2.5711967	43	4	1982-2000	0.59	M-v	3	Williams	38058	1998 QP ₉₀
1998 QS ₉₀	15.1	0.15	20000226	157.00495	353.39986	12.93106	9.50787	0.1682071	2.1647973	81	3	1997-2000	0.77	M-v	3	Williams	35712	1998 QS ₉₀
	14.8	0.15	20000226	193.78505	257.93437	35.56587	6.11222	0.1964453	2.3130544	67	4	1977-2000	0.79	M-v	3	Williams	35712	1998 QS ₉₀

1998 QV ₉₀	14.9	0.15	20000226	230.38560	213.50242	59.19807	4.97115	0.1649272	2.1672937	56	2	1998-2000	0.59	M-v	4	Williams	37738	1998 QV ₉₀
1998 QY ₉₀	14.2	0.15	20000226	143.67476	173.93196	171.63252	11.89649	0.1268357	2.5223315	63	3	1990-2000	0.60	M-v	3	Williams	37739	1998 QY ₉₀
1998 QA ₉₁	13.3	0.15	20000226	151.79127	154.44890	166.87661	13.80570	0.2019108	2.6006645	69	6	1981-2000	0.78	M-v	2	Spahr	37739	1998 QA ₉₁
1998 QO ₉₁	13.3	0.15	20000226	157.50573	165.44706	166.08413	14.01103	0.1756166	2.5463864	46	2	1998-2000	0.65	M-v	3	Williams	37740	1998 QO ₉₁
1998 QM ₉₂	14.0	0.15	20000226	128.32214	101.40746	280.70211	3.62369	0.2520735	2.5724596	40	4	1981-2000	0.76	M-v	2	Spahr	33756	1998 QM ₉₂
1998 QN ₉₂	12.9	0.15	20000226	117.20624	1.30034	8.50655	13.79954	0.1677477	2.9677539	57	3	1992-2000	0.70	M-v	3	Williams	38058	1998 QN ₉₂
1998 QU ₉₂	13.8	0.15	20000226	145.56815	305.87380	70.44783	6.77885	0.1615378	2.3954985	51	5	1976-2000	0.71	M-v	2	Spahr	38058	1998 QU ₉₂
1998 QO ₉₃	13.0	0.15	20000226	81.59091	227.64865	237.98580	12.85503	0.1267496	2.5750174	65	6	1992-2000	0.68	M-v	1	Williams	35713	1998 QO ₉₃
1998 QP ₉₃	13.7	0.15	20000226	146.62147	269.27058	108.86619	6.95983	0.1206356	2.4127358	50	3	1982-2000	0.79	M-v	3	Williams	37740	1998 QP ₉₃
1998 QR ₉₃	13.1	0.15	20000226	120.84690	333.03531	58.04874	13.93795	0.1654511	2.6832264	58	3	1989-2000	0.66	M-v	2	Spahr	38058	1998 QR ₉₃
1998 QS ₉₃	14.8	0.15	20000226	108.18355	216.16871	141.34309	15.67650	0.2085168	2.5668823	42	3	1994-2000	0.71	M-v	3	Spahr	38058	1998 QS ₉₃
1998 QM ₉₄	14.3	0.15	20000226	116.37592	157.70479	203.77194	2.59501	0.0913943	2.5293873	45	3	1982-2000	0.67	M-v	4	Spahr	38058	1998 QM ₉₄
1998 QX ₉₄	14.4	0.15	20000226	135.45055	26.22200	299.99638	13.52639	0.1328886	2.6322595	37	2	1998-2000	0.59	M-v	4	Williams	37740	1998 QX ₉₄
1998 QC ₉₅	13.0	0.15	20000226	243.57420	256.22893	304.26474	12.78475	0.2265934	2.6419430	49	2	1998-2000	0.54	M-v	3	Williams	38058	1998 QC ₉₅
1998 QH ₉₅	14.7	0.15	20000226	63.68134	151.16613	273.15000	12.93684	0.1498589	2.5780158	33	2	1998-2000	0.63	M-v	4	Spahr	37740	1998 QH ₉₅
1998 QK ₉₅	13.2	0.15	20000226	65.23821	135.97459	254.65136	9.39285	0.1184724	2.9799047	60	2	1998-2000	0.48	M-v	3	Spahr	38058	1998 QK ₉₅
1998 QM ₉₅	14.3	0.15	20000226	57.96406	114.90325	286.37027	9.31035	0.1491306	2.9811176	49	2	1998-2000	0.65	M-v	3	Spahr	37740	1998 QM ₉₅
1998 QO ₉₅	14.5	0.15	20000226	108.47929	184.97861	206.27229	6.95021	0.1515717	2.3637538	60	5	1980-2000	0.59	M-v	2	Williams	35713	1998 QO ₉₅
1998 QF ₉₆	14.6	0.15	20000226	213.15397	31.61803	229.96944	5.86667	0.1681549	2.3373918	38	4	1991-2000	0.61	M-v	2	Spahr	38058	1998 QF ₉₆
1998 QQ ₉₇	14.3	0.15	20000226	39.89578	136.99736	285.76131	10.84347	0.1118318	3.0041820	34	2	1998-2000	0.69	M-v	3	Spahr	37741	1998 QQ ₉₇
1998 QA ₉₈	13.4	0.15	20000226	18.83777	187.33598	310.93256	6.59362	0.1618489	2.4516843	93	3	1997-2000	0.70	M-v	2	Spahr	38058	1998 QA ₉₈
1998 QD ₉₉	13.0	0.15	20000226	84.52087	283.92694	93.27856	3.29909	0.0705902	2.9087126	107	3	1989-2000	0.67	M-v	2	Williams	38058	1998 QD ₉₉
1998 QE ₉₉	13.3	0.15	20000226	23.83359	77.62740	356.31583	16.55690	0.1732464	3.3700096	53	3	1992-2000	0.74	M-v	3	Williams	38058	1998 QE ₉₉
1998 QJ ₉₉	14.9	0.15	20000226	130.24046	269.25750	99.30964	3.58747	0.2113548	2.4005072	57	3	1993-2000	0.83	M-v	3	Williams	33562	1998 QJ ₉₉
1998 QF ₁₀₀	14.4	0.15	20000226	45.16272	294.38327	154.80117	12.23682	0.1580816	2.6362655	44	2	1998-2000	0.73	M-v	4	Spahr	37741	1998 QF ₁₀₀
1998 QO ₁₀₀	14.5	0.15	20000226	57.67214	294.41285	124.72188	5.65195	0.0590234	2.7174738	57	2	1998-2000	0.71	M-v	3	Spahr	37742	1998 QO ₁₀₀
1998 QP ₁₀₀	14.3	0.15	20000226	84.45278	332.75340	52.49455	5.12994	0.0793683	2.8007565	60	3	1994-2000	0.74	M-v	3	Williams	38058	1998 QP ₁₀₀
1998 QW ₁₀₀	13.0	0.15	20000226	302.55790	87.97150	82.22831	2.97135	0.0203254	2.7042467	67	2	1998-2000	0.51	M-v	3	Spahr	38058	1998 QW ₁₀₀
1998 QH ₁₀₁	15.3	0.15	20000226	54.13624	1.70299	103.07809	2.08477	0.0233618	2.1571384	33	3	1997-2000	0.57	M-v	3	Williams	35713	1998 QH ₁₀₁
1998 QQ ₁₀₁	12.5	0.15	20000226	79.54961	213.08792	165.12843	16.84635	0.1915717	3.0860384	82	3	1971-2000	0.67	M-v	2	Spahr	38058	1998 QQ ₁₀₁
1998 QG ₁₀₂	13.6	0.15	20000226	34.16330	293.55409	142.28117	5.87934	0.0700237	2.8369440	68	2	1998-2000	0.63	M-v	3	Spahr	37742	1998 QG ₁₀₂
1998 QP ₁₀₂	12.9	0.15	20000226	203.73305	89.69051	154.07566	10.16689	0.0421473	3.0422140	69	2	1998-2000	0.66	M-v	3	Williams	37742	1998 QP ₁₀₂
1998 QL ₁₀₃	15.2	0.15	20000226	3.18392	73.31750	83.30834	4.37286	0.0591001	2.1874511	55	4	1992-2000	0.71	M-v	3	Williams	38058	1998 QL ₁₀₃
1998 QM ₁₀₃	13.8	0.15	20000226	141.21568	227.21473	91.61670	3.24731	0.0609352	2.8887417	44	3	1982-2000	0.58	M-v	4	Williams	38058	1998 QM ₁₀₃
1998 QQ ₁₀₃	14.9	0.15	20000226	131.89784	350.48048	31.02258	4.47762	0.1145044	2.2790403	84	4	1991-2000	0.69	M-v	2	Spahr	38058	1998 QQ ₁₀₃
1998 QU ₁₀₃	13.7	0.15	20000226	68.33017	303.11207	107.19335	4.97769	0.0970608	2.7840413	90	3	1980-2000	0.60	M-v	2	Williams	37742	1998 QU ₁₀₃
1998 QF ₁₀₄	13.4	0.15	20000226	190.08392	272.25796	13.21657	14.94438	0.1004743	2.5356279	80	5	1978-2000	0.74	M-v	3	Williams	38058	1998 QF ₁₀₄
1998 QK ₁₀₄	15.3	0.15	20000226	178.21970	183.83278	131.67633	5.82313	0.1616249	2.3216509	58	2	1998-2000	0.58	M-v	4	Spahr	37743	1998 QK ₁₀₄
1998 QQ ₁₀₄	13.6	0.15	20000226	244.71338	140.04516	69.75725	5.72497	0.0292229	3.0861813	45	3	1996-2000	0.63	M-v	3	Williams	38058	1998 QQ ₁₀₄
1998 QL ₁₀₅	14.6	0.15	20000226	332.70562	105.46420	69.82555	5.00849	0.1041725	2.2293403	62	2	1998-2000	0.73	M-v	4	Williams	38059	1998 QL ₁₀₅
1998 QN ₁₀₅	14.7	0.15	20000226	127.64203	337.62934	42.58101	5.00491	0.1525999	2.3155257	65	4	1991-2000	0.79	M-v	2	Williams	34591	1998 QN ₁₀₅
1998 QB ₁₀₆	15.1	0.15	20000226	137.35215	267.00430	106.11434	3.97726	0.1975314	2.2767087	46	4	1981-2000	0.86	M-v	2	Williams	33563	1998 QB ₁₀₆
1998 QM ₁₀₆	13.7	0.15	20000226	121.57330	326.10118	14.31378	11.33210	0.1656161	2.7467290	54	3	1989-2000	0.68	M-v	3	Williams	38059	1998 QM ₁₀₆
1998 RG	14.1	0.15	20000226	29.03927	326.93905	126.19068	10.08286	0.1238371	2.7643773	62	2	1998-2000	0.46	M-v	3	Williams	37743	1998 RG
1998 RH	14.3	0.15	20000226	304.77687	89.96584	107.30632	7.41530	0.0574546	2.3485040	58	2	1998-2000	0.51	M-v	3	Williams	37743	1998 RH
1998 RM	13.1	0.15	20000226	324.88955	271.28182	207.24343	16.60514	0.0884505	2.8031860	104	3	1992-2000	0.49	M-v	2	Spahr	38059	1998 RM
1998 RS	13.5	0.15	20000226	81.59325	193.59581	185.99889	15.87264	0.1064948	3.0681028	64	2	1998-2000	0.57	M-v	3	Spahr	37744	1998 RS
1998 RJ ₁	13.1	0.15	20000226	37.14795	259.39097	168.69936	1.14255	0.2192364	3.1943822	101	3	1993-2000	0.62	M-v	2	Spahr	38059	1998 RJ ₁
1998 RP ₁	14.8	0.15	20000226	147.01741	301.59819	14.96753	1.75833	0.2158325	2.7606943	53	2	1998-2000	0.51	M-v	4	Williams	38059	1998 RP ₁
1998 RD ₂	15.9	0.15	20000226	64.97489	303.32539	129.91507	3.00614	0.1460480	2.3732740	23	3	1993-2000	0.72	M-v	3	Williams	35713	1998 RD ₂
1998 RE ₂	12.8	0.15	20000226	51.39780	281.39650	133.30807	10.63644	0.0914042	3.0588403	59	3	1995-2000	0.50	M-v	1	Spahr	38059	1998 RE ₂
1998 RL ₂	15.8	0.15	20000226	236.13955	146.47279	125.46752	5.56053	0.1221142	2.1832158	48	2	1998-2000	0.69	M-v	4	Spahr	37745	1998 RL ₂
1998 RQ ₂	15.4	0.15	20000226	103.15466	46.42557	17.71947	6.13000	0.0572181	2.1464415	59	4	1995-2000	0.58	M-v	2	Williams	38059	1998 RQ ₂

1998 RA ₅	13.4	0.15	20000226	122.75475	12.81187	313.60268	5.85156	0.0234631	3.0471577	65	2	1998-2000	0.74	M-v	4	Williams	37745	1998 RA ₅
1998 RC ₅	14.6	0.15	20000226	70.95955	81.95496	350.91695	6.10932	0.2339475	2.5615836	42	4	1990-2000	0.73	M-v	3	Williams	35713	1998 RC ₅
1998 RP ₅	13.6	0.15	20000226	305.33062	1.34995	185.59751	13.99212	0.1112426	2.5614665	63	3	1988-2000	0.66	M-v	3	Spahr	38059	1998 RP ₅
1998 RQ ₅	15.1	0.15	20000226	193.94104	308.23494	13.34448	0.81579	0.0378672	2.2460089	49	3	1991-2000	0.76	M-v	4	Williams	35713	1998 RQ ₅
1998 RB ₆	15.0	0.15	20000226	112.14481	195.51730	169.54651	8.43037	0.1551417	2.5856136	29	3	1990-2000	0.71	M-v	3	Spahr	38059	1998 RB ₆
1998 RJ ₆	14.7	0.15	20000226	275.63549	223.98101	346.05575	4.63073	0.0824242	2.3126213	63	2	1998-2000	0.59	M-v	4	Williams	37746	1998 RJ ₆
1998 RL ₆	14.0	0.15	20000226	235.95192	264.51634	11.22468	2.65440	0.1026604	2.2955919	76	3	1997-2000	0.53	M-v	2	Williams	37746	1998 RL ₆
1998 RV ₁₂	14.3	0.15	20000226	87.04240	206.44202	186.80686	5.88567	0.0263178	2.7905870	42	2	1998-2000	0.55	M-v	4	Spahr	37746	1998 RV ₁₂
1998 RS ₁₄	15.0	0.15	20000226	58.96634	54.62893	4.83991	9.01016	0.1413057	3.0107813	38	4	1977-2000	0.70	M-v	1	Williams	35713	1998 RS ₁₄
1998 RH ₁₆	14.0	0.15	20000226	109.03875	63.40407	229.70296	4.52753	0.1039872	3.2236812	45	4	1982-1999	0.67	M-v	2	Williams	37747	1998 RH ₁₆
1998 RJ ₁₇	14.4	0.15	20000226	62.84461	261.71543	178.99993	10.55576	0.2304248	2.4251297	43	4	1987-2000	0.75	M-v	1	Spahr	38059	1998 RJ ₁₇
1998 RM ₁₉	14.9	0.15	20000226	49.62085	70.69353	352.14957	6.13459	0.1512529	2.7504073	40	2	1998-2000	0.69	M-v	3	Williams	37748	1998 RM ₁₉
1998 RL ₂₀	13.9	0.15	20000226	25.32771	319.93536	102.32894	7.45196	0.0568716	2.7625167	42	2	1998-2000	0.58	M-v	3	Spahr	37748	1998 RL ₂₀
1998 RU ₂₂	13.4	0.15	20000226	48.58065	343.35600	25.56976	2.98575	0.2381223	3.9884151	50	2	1998-2000	0.65	M-v	3	Williams	37748	1998 RU ₂₂
1998 RF ₂₃	14.4	0.15	20000226	77.34219	264.83678	123.57685	6.23841	0.1130239	2.7505621	40	3	1997-2000	0.68	M-v	3	Spahr	38059	1998 RF ₂₃
1998 RC ₂₄	14.7	0.15	20000226	45.01975	250.39885	172.90514	4.06589	0.1001550	2.7554758	44	3	1992-2000	0.70	M-v	3	Spahr	38059	1998 RC ₂₄
1998 RR ₂₉	15.3	0.15	20000226	98.65938	243.44070	137.86017	4.25853	0.1326413	2.6027518	38	4	1992-2000	0.70	M-v	1	Spahr	38059	1998 RR ₂₉
1998 RM ₃₄	14.7	0.15	20000226	328.85686	35.03960	140.05849	7.38457	0.0349134	2.2473342	82	3	1997-2000	0.51	M-v	3	Williams	38059	1998 RM ₃₄
1998 RE ₃₇	14.1	0.15	20000226	65.55612	115.33909	289.48090	5.11900	0.2192660	3.0338148	60	2	1998-2000	0.67	M-v	3	Williams	37748	1998 RE ₃₇
1998 RO ₃₈	14.2	0.15	20000226	240.84936	247.69202	6.75524	3.78852	0.1267226	2.2104789	67	3	1988-2000	0.76	M-v	3	Williams	38059	1998 RO ₃₈
1998 RA ₃₉	14.5	0.15	20000226	85.72729	229.96154	159.91944	10.17528	0.1277998	2.7304565	38	3	1997-2000	0.46	M-v	3	Spahr	38059	1998 RA ₃₉
1998 RD ₄₀	14.9	0.15	20000226	207.41662	169.84257	96.26723	4.44853	0.1669250	2.3789144	35	3	1994-2000	0.65	M-v	4	Williams	38059	1998 RD ₄₀
1998 RJ ₄₀	14.9	0.15	20000226	24.88587	350.07385	126.07235	7.17784	0.0567110	2.3343672	72	2	1998-2000	0.65	M-v	4	Williams	38059	1998 RJ ₄₀
1998 RQ ₄₂	14.8	0.15	20000226	169.74282	33.05912	297.81418	4.35947	0.1281661	2.2813708	55	3	1991-2000	0.65	M-v	3	Williams	38059	1998 RQ ₄₂
1998 RV ₄₂	13.3	0.15	20000226	117.74165	118.44365	231.54501	6.25849	0.0738348	2.7734466	75	2	1998-2000	0.54	M-v	3	Spahr	38059	1998 RV ₄₂
1998 RB ₄₃	16.2	0.15	20000226	118.41420	62.23047	312.95570	4.24154	0.1445754	2.4735768	39	3	1994-2000	0.63	M-v	4	Williams	33564	1998 RB ₄₃
1998 RD ₄₃	14.7	0.15	20000226	114.36628	46.40976	309.51943	3.89137	0.0829591	2.7323314	45	3	1993-2000	0.66	M-v	4	Williams	38059	1998 RD ₄₃
1998 RD ₄₄	14.7	0.15	20000226	105.87940	337.68408	26.56732	5.86743	0.0994329	2.7353035	51	3	1992-2000	0.66	M-v	3	Williams	38059	1998 RD ₄₄
1998 RP ₄₄	14.5	0.15	20000226	28.13858	332.28849	140.79823	8.25468	0.0625515	2.3844004	52	2	1998-2000	0.70	M-v	4	Williams	37749	1998 RP ₄₄
1998 RT ₄₄	13.5	0.15	20000226	272.79144	38.14804	157.40335	13.70746	0.1044893	2.6881466	50	2	1998-2000	0.64	M-v	4	Spahr	37749	1998 RT ₄₄
1998 RJ ₄₅	13.8	0.15	20000226	50.87850	113.84822	292.22429	1.73635	0.0883975	3.1162658	42	2	1998-2000	0.69	M-v	4	Williams	37749	1998 RJ ₄₅
1998 RO ₄₅	14.9	0.15	20000226	192.94044	112.30767	183.74022	5.97376	0.0996907	2.3620039	46	3	1997-2000	0.77	M-v	4	Spahr	38059	1998 RO ₄₅
1998 RF ₄₆	14.1	0.15	20000226	205.11118	327.47713	298.70094	2.98014	0.0538854	2.6427924	39	2	1998-2000	0.51	M-v	5	Williams	37749	1998 RF ₄₆
1998 RJ ₄₆	14.4	0.15	20000226	17.46250	269.09677	202.61674	7.14474	0.1805384	2.7629871	39	2	1998-2000	0.54	M-v	3	Spahr	37750	1998 RJ ₄₆
1998 RT ₄₆	14.4	0.15	20000226	155.50221	21.07624	311.38010	5.59096	0.1472645	2.4250579	78	4	1987-2000	0.69	M-v	3	Williams	37750	1998 RT ₄₆
1998 RW ₄₆	15.1	0.15	20000226	144.44596	104.71746	249.61135	3.63196	0.2255237	2.3612885	43	4	1969-2000	0.64	M-v	2	Spahr	35714	1998 RW ₄₆
1998 RK ₄₇	14.0	0.15	20000226	188.52028	351.59257	311.70639	6.22197	0.1364799	2.3330246	106	4	1987-2000	0.72	M-v	2	Williams	38059	1998 RK ₄₇
1998 RQ ₄₇	14.1	0.15	20000226	214.23702	322.46067	308.50615	4.84542	0.1221665	2.3818370	53	2	1998-2000	0.53	M-v	4	Williams	37750	1998 RQ ₄₇
1998 RU ₄₇	13.2	0.15	20000226	327.00380	297.91038	198.38252	12.43216	0.0519180	2.9804242	66	3	1996-2000	0.65	M-v	3	Williams	37750	1998 RU ₄₇
1998 RC ₄₈	15.1	0.15	20000226	143.44492	107.49754	217.52289	3.57375	0.2599220	2.5821006	46	4	1993-2000	0.60	M-v	2	Spahr	35714	1998 RC ₄₈
1998 RJ ₄₈	13.7	0.15	20000226	305.91560	181.32682	345.05244	11.24488	0.0597232	2.7731642	59	3	1996-2000	0.73	M-v	4	Williams	37751	1998 RJ ₄₈
1998 RS ₄₈	14.1	0.15	20000226	64.54134	178.12893	233.98524	1.84643	0.2143696	2.9652991	78	4	1978-2000	0.69	M-v	2	Williams	38059	1998 RS ₄₈
1998 RZ ₄₈	15.6	0.15	20000226	109.65201	170.25451	196.26869	2.80206	0.2493552	2.7177727	39	3	1989-2000	0.70	M-v	4	Spahr	35714	1998 RZ ₄₈
1998 RJ ₄₉	14.5	0.15	20000226	31.70154	121.69045	341.95376	1.61763	0.0876693	2.5215723	62	2	1998-2000	0.59	M-v	3	Williams	37751	1998 RJ ₄₉
1998 RO ₄₉	14.7	0.15	20000226	53.45256	301.96014	110.66431	1.47262	0.2559391	3.2630006	55	4	1994-2000	0.68	M-v	1	Williams	38059	1998 RO ₄₉
1998 RQ ₄₉	15.0	0.15	20000226	218.30417	116.57861	152.02432	5.26746	0.1652394	2.2838293	43	2	1998-2000	0.58	M-v	4	Spahr	37751	1998 RQ ₄₉
1998 RJ ₅₀	13.7	0.15	20000226	61.39620	283.10439	126.40104	1.82844	0.2105744	3.0584753	78	4	1973-2000	0.61	M-v	1	Williams	38059	1998 RJ ₅₀
1998 RS ₅₀	15.0	0.15	20000226	196.04255	126.29119	170.74507	2.61913	0.1804841	2.2533983	38	2	1998-2000	0.47	M-v	5	Spahr	37752	1998 RS ₅₀
1998 RT ₅₀	13.9	0.15	20000226	238.79886	251.30449	349.97212	8.11037	0.1684127	2.3773359	56	5	1975-2000	0.63	M-v	1	Williams	38059	1998 RT ₅₀
1998 RD ₅₁	13.4	0.15	20000226	201.92628	36.75612	234.24025	5.10676	0.0564790	2.6488704	94	4	1981-2000	0.56	M-v	2	Spahr	38059	1998 RD ₅₁
1998 RJ ₅₁	14.9	0.15	20000226	125.31992	86.88765	270.29839	4.14874	0.0488892	2.6005527	35	2	1998-2000	0.72	M-v	5	Spahr	37752	1998 RJ ₅₁
1998 RY ₅₁	14.2	0.15	20000226	13.82355	250.28438	224.12916	3.08675	0.0908585	2.6253376	46	2	1998-2000	0.63	M-v	4	Spahr	37752	1998 RY ₅₁
1998 RA ₅₂	14.7	0.15	20000226	38.93031	48.16042	55.14453	4.21898	0.1720319	2.5597986	26	3	1978-2000	0.75	M-v	3	Williams	32996	1998 RA ₅₂

1998 RJ ₅₂	14.2	0.15	20000226	94.29925	328.44063	48.32274	6.89450	0.0572949	2.7397591	52	3	1996-2000	0.56	M-v	3	Williams	38059	1998 RJ ₅₂
1998 RQ ₅₂	13.7	0.15	20000226	254.73883	60.15055	149.15658	9.50396	0.1786819	2.6758195	46	3	1992-2000	0.71	M-v	3	Williams	38059	1998 RQ ₅₂
1998 RD ₅₃	13.1	0.15	20000226	325.21639	138.59626	357.56598	9.80905	0.0477405	2.9905038	56	2	1998-2000	0.54	M-v	3	Williams	37752	1998 RD ₅₃
1998 RG ₅₃	14.2	0.15	20000226	128.95704	166.26718	176.64396	5.67332	0.0357086	2.7236384	40	2	1998-2000	0.63	M-v	4	Williams	37752	1998 RG ₅₃
1998 RL ₅₃	13.8	0.15	20000226	35.92571	81.32867	346.78900	9.62537	0.0811678	3.0678269	64	3	1996-2000	0.62	M-v	3	Williams	38060	1998 RL ₅₃
1998 RC ₅₄	14.1	0.15	20000226	66.00441	73.05195	325.78765	7.94994	0.1264119	3.0867527	38	2	1998-2000	0.62	M-v	4	Williams	37753	1998 RC ₅₄
1998 RG ₅₄	14.8	0.15	20000226	265.61894	284.00593	301.55715	3.84264	0.1654919	2.3405241	41	2	1998-2000	0.74	M-v	4	Williams	37753	1998 RG ₅₄
1998 RL ₅₄	13.6	0.15	20000226	56.00735	116.36328	299.02278	4.91388	0.1690317	3.0864986	61	4	1982-2000	0.54	M-v	1	Spahr	37753	1998 RL ₅₄
1998 RN ₅₄	15.1	0.15	20000226	256.08363	297.23446	306.82650	5.77785	0.0712342	2.3161879	50	3	1977-2000	0.76	M-v	3	Williams	38060	1998 RN ₅₄
1998 RK ₅₅	15.2	0.15	20000226	232.25058	305.49458	323.02366	5.03466	0.1544842	2.2234728	51	2	1998-2000	0.62	M-v	4	Williams	37753	1998 RK ₅₅
1998 RP ₅₅	14.4	0.15	20000226	174.44933	16.73215	296.84946	4.70187	0.0067081	2.5562561	38	2	1998-2000	0.69	M-v	4	Spahr	37753	1998 RP ₅₅
1998 RZ ₅₅	13.8	0.15	20000226	286.10260	267.73433	321.22229	4.01518	0.0907857	2.1657331	102	2	1998-2000	0.56	M-v	4	Williams	38060	1998 RZ ₅₅
1998 RT ₅₆	14.3	0.15	20000226	33.70142	250.45477	214.58906	3.09330	0.1323996	2.6040490	61	3	1973-2000	0.66	M-v	3	Williams	37753	1998 RT ₅₆
1998 RU ₅₆	13.7	0.15	20000226	359.16939	273.07758	211.74236	3.26322	0.0664219	2.6977839	90	3	1992-2000	0.64	M-v	3	Spahr	38060	1998 RU ₅₆
1998 RB ₅₇	14.9	0.15	20000226	19.02869	163.70575	326.45517	2.13611	0.1334918	2.4117487	33	3	1994-2000	0.62	M-v	5	Spahr	35715	1998 RB ₅₇
1998 RJ ₅₇	14.0	0.15	20000226	95.14824	201.18229	158.73380	2.09942	0.1103916	3.0695900	33	2	1998-2000	0.64	M-v	4	Spahr	37754	1998 RJ ₅₇
1998 RY ₅₇	15.0	0.15	20000226	209.70851	174.28138	111.41171	1.90005	0.0324862	2.3899272	50	3	1997-2000	0.65	M-v	3	Spahr	38060	1998 RY ₅₇
1998 RM ₅₈	14.1	0.15	20000226	162.80041	312.21208	350.21064	1.66643	0.0139956	2.8685295	42	4	1993-2000	0.83	M-v	2	Williams	38060	1998 RM ₅₈
1998 RN ₅₈	13.7	0.15	20000226	94.79152	114.62919	275.69247	1.15165	0.1296405	2.6669300	100	2	1998-2000	0.62	M-v	3	Williams	37754	1998 RN ₅₈
1998 RQ ₅₈	13.0	0.15	20000226	180.18075	81.42969	185.72430	9.96922	0.0276792	3.2077513	54	2	1998-2000	0.61	M-v	4	Williams	37754	1998 RQ ₅₈
1998 RR ₅₉	15.2	0.15	20000226	214.65919	335.41132	311.50584	3.57463	0.0742473	2.3044195	33	3	1997-2000	0.65	M-v	3	Spahr	38060	1998 RR ₅₉
1998 RU ₅₉	14.2	0.15	20000226	195.51767	296.23160	346.75397	11.49956	0.1651675	2.4589733	46	3	1994-2000	0.66	M-v	4	Williams	38060	1998 RU ₅₉
1998 RX ₅₉	14.9	0.15	20000226	236.22443	48.23974	211.33247	5.63658	0.1035483	2.3319827	37	3	1997-2000	0.79	M-v	3	Spahr	38060	1998 RX ₅₉
1998 RO ₆₀	14.9	0.15	20000226	196.16551	59.43390	253.20613	3.68690	0.1497244	2.2025799	55	3	1995-2000	0.72	M-v	3	Spahr	37755	1998 RO ₆₀
1998 RW ₆₀	15.0	0.15	20000226	193.60679	349.54611	312.25182	5.33922	0.1484484	2.3298754	51	2	1998-2000	0.64	M-v	4	Williams	37755	1998 RW ₆₀
1998 RY ₆₀	13.7	0.15	20000226	156.74647	336.58813	346.88592	13.65500	0.1771795	2.5446343	83	2	1998-2000	0.65	M-v	3	Spahr	38060	1998 RY ₆₀
1998 RL ₆₁	14.6	0.15	20000226	241.77541	284.17570	336.23206	5.25565	0.1361478	2.2325579	66	4	1987-2000	0.54	M-v	1	Williams	38060	1998 RL ₆₁
1998 RR ₆₁	13.3	0.15	20000226	51.10637	164.09708	238.45076	2.92900	0.1309161	3.4628610	50	3	1985-2000	0.62	M-v	3	Spahr	38060	1998 RR ₆₁
1998 RU ₆₁	14.7	0.15	20000226	351.74505	184.32983	338.46310	3.45470	0.0816878	2.3050492	40	3	1991-2000	0.75	M-v	5	Williams	35715	1998 RU ₆₁
1998 RB ₆₂	13.4	0.15	20000226	99.98207	9.83862	353.52312	9.60475	0.1045939	2.9788733	66	3	1996-2000	0.62	M-v	2	Williams	38060	1998 RB ₆₂
1998 RD ₆₂	13.9	0.15	20000226	100.98480	85.24929	345.97309	4.14675	0.1667671	2.2466853	42	3	1991-2000	0.68	M-v	2	Spahr	38060	1998 RD ₆₂
1998 RK ₆₂	14.8	0.15	20000226	102.70600	196.84316	175.54368	13.56345	0.1869389	2.7886647	33	3	1997-2000	0.75	M-v	4	Spahr	33351	1998 RK ₆₂
1998 RX ₆₂	15.3	0.15	20000226	201.30496	167.04210	118.36302	2.76877	0.1967934	2.2901699	45	2	1998-2000	0.66	M-v	4	Spahr	37755	1998 RX ₆₂
1998 RY ₆₂	13.9	0.15	20000226	60.37239	17.10285	17.18128	9.23565	0.0895210	3.1664673	32	2	1998-2000	0.74	M-v	4	Williams	37755	1998 RY ₆₂
1998 RZ ₆₂	14.9	0.15	20000226	138.07160	297.39956	54.62247	3.19932	0.1987690	2.4510103	45	4	1993-2000	0.64	M-v	2	Spahr	38060	1998 RZ ₆₂
1998 RG ₆₃	15.6	0.15	20000226	135.92809	204.56015	136.36340	5.69653	0.2665755	2.5569656	39	3	1990-2000	0.66	M-v	4	Williams	37755	1998 RG ₆₃
1998 RH ₆₃	14.9	0.15	20000226	162.53573	242.00356	108.07171	3.14761	0.1873579	2.2080259	46	4	1995-2000	0.68	M-v	2	Williams	35632	1998 RH ₆₃
1998 RP ₆₄	13.2	0.15	20000226	74.68763	204.65419	179.58789	23.20444	0.0920598	3.1291571	51	3	1987-2000	0.52	M-v	2	Spahr	38060	1998 RP ₆₄
1998 RQ ₆₄	14.0	0.15	20000226	99.06791	187.44310	170.30036	1.97383	0.0284936	3.0548290	42	4	1993-2000	0.61	M-v	1	Spahr	38060	1998 RQ ₆₄
1998 RS ₆₄	14.5	0.15	20000226	303.23752	180.97534	2.39753	15.38137	0.0521312	2.5850322	33	3	1973-2000	0.85	M-v	4	Williams	38060	1998 RS ₆₄
1998 RE ₆₅	14.8	0.15	20000226	89.49093	128.31611	266.87260	0.96638	0.0912093	2.6965949	48	2	1998-2000	0.69	M-v	4	Spahr	37756	1998 RE ₆₅
1998 RK ₆₅	13.4	0.15	20000226	178.75407	304.59685	352.40182	2.53910	0.0613430	2.6734348	60	2	1998-2000	0.53	M-v	4	Williams	37756	1998 RK ₆₅
1998 RL ₆₅	14.2	0.15	20000226	90.12085	36.61334	345.66347	1.38090	0.0777758	2.8803444	53	3	1993-2000	0.61	M-v	4	Williams	38060	1998 RL ₆₅
1998 RR ₆₅	13.9	0.15	20000226	344.35869	141.94458	353.65447	5.00919	0.0550581	2.7938859	58	3	1977-2000	0.63	M-v	4	Williams	38060	1998 RR ₆₅
1998 RS ₆₅	14.4	0.15	20000226	170.34217	320.32894	343.39549	3.58123	0.1106228	2.6402611	58	3	1995-2000	0.61	M-v	4	Williams	38060	1998 RS ₆₅
1998 RU ₆₅	15.9	0.15	20000226	135.81821	33.89462	333.77023	1.60918	0.1891186	2.3998694	29	3	1993-2000	0.48	M-v	4	Williams	33004	1998 RU ₆₅
1998 RW ₆₅	14.4	0.15	20000226	119.89983	68.64404	279.81327	0.98457	0.0763312	2.8800813	34	3	1993-2000	0.67	M-v	6	Williams	34592	1998 RW ₆₅
1998 RY ₆₅	16.8	0.15	19980924	42.10684	113.47067	186.37905	5.24199	0.2385626	2.3384631	22	1	43 days	0.69			Williams		1998 RY ₆₅
1998 RJ ₆₆	14.9	0.15	20000226	138.55648	124.21447	214.74152	2.36727	0.2891479	2.5700568	53	4	1996-2000	0.62	M-v	2	Spahr	35715	1998 RJ ₆₆
1998 RK ₆₆	13.6	0.15	20000226	101.78805	121.29322	250.17736	2.10654	0.0976133	2.8668392	78	3	1996-2000	0.59	M-v	3	Williams	38060	1998 RK ₆₆
1998 RO ₆₆	13.8	0.15	20000226	39.15187	103.11210	340.48387	7.08260	0.1883356	3.0891837	55	2	1998-2000	0.60	M-v	3	Williams	37756	1998 RO ₆₆
1998 RP ₆₆	14.4	0.15	20000226	229.51511	340.07369	264.22625	2.77936	0.0381352	2.7972948	31	3	1993-2000	0.83	M-v	4	Williams	38060	1998 RP ₆₆
1998 RQ ₆₆	14.8	0.15	20000226	107.31628	162.53789	232.00491	3.11479	0.0299357	2.4548086	32	2	1998-2000	0.74	M-v	4	Spahr	37757	1998 RQ ₆₆

1998 RT ₆₆	13.0	0.15	20000226	109.82118	137.68812	215.47677	7.30989	0.0816290	3.0307558	74	2	1998-2000	0.61	M-v	3	Spahr	38060	1998 RT ₆₆
1998 RV ₆₆	14.6	0.15	20000226	205.78704	47.98554	253.05503	3.32174	0.1783856	2.1929205	50	3	1988-2000	0.62	M-v	3	Spahr	38060	1998 RV ₆₆
1998 RZ ₆₆	13.6	0.15	20000226	237.73639	289.91930	289.74854	5.60578	0.0457220	3.1753794	45	2	1998-2000	0.77	M-v	4	Williams	37757	1998 RZ ₆₆
1998 RG ₆₇	13.7	0.15	20000226	94.48974	70.71374	293.78214	3.63882	0.1533371	3.1609850	48	2	1998-2000	0.66	M-v	4	Spahr	37757	1998 RG ₆₇
1998 RM ₆₇	14.1	0.15	20000226	74.19706	170.11124	291.17194	3.26417	0.1702228	2.2916103	52	4	1981-2000	0.74	M-v	2	Williams	34022	1998 RM ₆₇
1998 RO ₆₇	14.9	0.15	20000226	222.39983	61.52565	214.04592	6.31581	0.1056825	2.3452073	45	3	1997-2000	0.65	M-v	3	Williams	38060	1998 RO ₆₇
1998 RN ₆₈	14.7	0.15	20000226	111.48188	22.44904	348.99869	2.31771	0.1293937	2.7124945	63	4	1994-2000	0.64	M-v	1	Williams	38060	1998 RN ₆₈
1998 RQ ₆₈	14.4	0.15	20000226	103.37515	29.06808	340.09987	1.43165	0.0943095	2.8749580	50	3	1993-2000	0.59	M-v	4	Williams	38060	1998 RQ ₆₈
1998 RS ₆₈	14.1	0.15	20000226	131.50001	21.86958	1.63756	9.14763	0.1007586	2.3145048	62	4	1982-2000	0.57	M-v	2	Williams	38060	1998 RS ₆₈
1998 RC ₆₉	13.0	0.15	20000226	103.98175	324.71770	21.43175	0.52886	0.1928385	3.1763578	69	3	1992-2000	0.56	M-v	3	Williams	38060	1998 RC ₆₉
1998 RD ₆₉	15.3	0.15	20000226	270.90687	165.25119	69.00067	0.94465	0.1283258	2.2457507	53	3	1995-2000	0.61	M-v	3	Williams	38060	1998 RD ₆₉
1998 RG ₆₉	13.8	0.15	20000226	115.48282	199.47631	163.37624	3.02720	0.1063788	2.7308847	50	2	1998-2000	0.51	M-v	4	Spahr	37757	1998 RG ₆₉
1998 RH ₆₉	15.2	0.15	19980924	330.45070	32.86652	25.67246	1.05944	0.3044897	2.9875573	27	1	32 days	0.72		D	Williams		1998 RH ₆₉
1998 RP ₇₀	12.9	0.15	20000226	257.10701	127.24087	58.87218	7.65002	0.1119633	3.3884310	111	3	1996-2000	0.62	M-v	3	Spahr	38060	1998 RP ₇₀
1998 RT ₇₀	14.9	0.15	20000226	98.29467	259.48724	118.72954	5.85544	0.0167821	2.7304202	26	2	1998-2000	0.70	M-v	4	Spahr	37757	1998 RT ₇₀
1998 RW ₇₀	14.8	0.15	20000226	147.78842	243.49599	131.70427	4.48711	0.1469319	2.1981604	53	4	1990-2000	0.71	M-v	2	Williams	38060	1998 RW ₇₀
1998 RB ₇₁	14.3	0.15	20000226	37.11900	307.93978	152.86129	8.91974	0.2157819	2.7986870	62	4	1975-2000	0.64	M-v	1	Williams	35715	1998 RB ₇₁
1998 RD ₇₁	14.9	0.15	20000226	78.14221	273.29359	151.98270	7.54708	0.1323383	2.5338584	41	3	1997-2000	0.65	M-v	4	Williams	33006	1998 RD ₇₁
1998 RE ₇₁	14.0	0.15	20000226	39.07064	302.73528	136.15986	5.61865	0.1672748	3.0561893	65	2	1998-2000	0.61	M-v	3	Spahr	37757	1998 RE ₇₁
1998 RK ₇₁	15.1	0.15	20000226	39.04764	95.45864	28.68121	6.09414	0.0590101	2.2294684	35	2	1998-2000	0.65	M-v	4	Williams	37758	1998 RK ₇₁
1998 RL ₇₁	14.8	0.15	20000226	117.65303	282.00535	112.48346	3.11605	0.2031199	2.3958658	43	4	1996-2000	0.74	M-v	2	Williams	35715	1998 RL ₇₁
1998 RM ₇₁	14.5	0.15	20000226	26.82956	306.23316	156.33469	5.58485	0.1217344	2.7608295	50	3	1989-2000	0.71	M-v	3	Spahr	38060	1998 RM ₇₁
1998 RZ ₇₁	13.1	0.15	20000226	101.01171	306.32512	63.56699	2.76122	0.0419789	2.8793122	76	3	1996-2000	0.46	M-v	3	Williams	38060	1998 RZ ₇₁
1998 RA ₇₂	13.9	0.15	20000226	59.28079	323.62794	91.53678	1.26662	0.1960425	3.1106083	66	3	1996-2000	0.59	M-v	3	Spahr	37758	1998 RA ₇₂
1998 RD ₇₂	16.6	0.15	19980924	342.88591	329.11926	61.95588	1.26336	0.2168264	2.3531707	33	1	43 days	0.67			Williams		1998 RD ₇₂
1998 RG ₇₂	14.3	0.15	20000226	160.45783	150.06420	168.73626	7.45485	0.1202497	2.5831056	43	2	1998-2000	0.60	M-v	4	Spahr	38060	1998 RG ₇₂
1998 RM ₇₂	14.8	0.15	20000226	157.97701	180.61585	152.57504	2.22968	0.0620977	2.5112913	46	4	1996-2000	0.59	M-v	1	Spahr	38060	1998 RM ₇₂
1998 RR ₇₂	13.9	0.15	20000226	92.81910	234.85228	146.93324	2.64169	0.1105234	2.8888168	50	2	1998-2000	0.53	M-v	4	Williams	37758	1998 RR ₇₂
1998 RX ₇₂	13.4	0.15	20000226	79.84156	211.55205	182.95391	8.64245	0.2481437	3.0586296	89	4	1982-2000	0.56	M-v	1	Spahr	37758	1998 RX ₇₂
1998 RH ₇₃	14.9	0.15	20000226	123.30800	192.07901	198.38306	6.51386	0.1202868	2.3618714	55	4	1993-2000	0.69	M-v	2	Spahr	33756	1998 RH ₇₃
1998 RL ₇₃	14.0	0.15	20000226	192.66899	0.63726	292.70812	2.18627	0.0851145	2.5443784	68	2	1998-2000	0.61	M-v	4	Spahr	37759	1998 RL ₇₃
1998 RN ₇₃	14.8	0.15	20000226	146.18357	88.62927	253.29634	2.69109	0.1819723	2.5167518	48	2	1998-2000	0.71	M-v	4	Spahr	37759	1998 RN ₇₃
1998 RQ ₇₃	13.9	0.15	20000226	92.35941	139.60281	238.11909	3.17531	0.1530127	3.0011654	38	2	1998-2000	0.71	M-v	4	Spahr	37759	1998 RQ ₇₃
1998 RS ₇₃	14.9	0.15	20000226	128.80221	113.97227	243.81337	2.56134	0.2336371	2.5944327	54	5	1977-2000	0.64	M-v	2	Spahr	34302	1998 RS ₇₃
1998 RC ₇₄	13.6	0.15	20000226	124.37285	123.62467	234.42787	6.42676	0.0936136	2.7270323	69	2	1998-2000	0.66	M-v	3	Williams	37759	1998 RC ₇₄
1998 RF ₇₄	13.8	0.15	20000226	159.76693	353.29372	332.33612	5.99626	0.0335860	2.6736572	81	3	1996-2000	0.57	M-v	3	Williams	37760	1998 RF ₇₄
1998 RH ₇₄	12.6	0.15	20000226	132.65910	47.90013	275.99631	3.79851	0.1527376	3.0369067	81	2	1998-2000	0.62	M-v	3	Spahr	38060	1998 RH ₇₄
1998 RP ₇₄	14.7	0.15	20000226	244.83377	283.51713	335.32620	4.58810	0.1377882	2.2738293	68	4	1990-2000	0.59	M-v	2	Williams	38061	1998 RP ₇₄
1998 RT ₇₄	14.5	0.15	20000226	3.96501	195.66508	314.16159	1.80521	0.1101736	2.4284376	42	4	1987-2000	0.72	M-v	3	Williams	38061	1998 RT ₇₄
1998 RV ₇₄	15.2	0.15	20000226	134.88703	29.50148	321.12922	1.57860	0.1906763	2.5931501	52	3	1997-2000	0.66	M-v	3	Spahr	34022	1998 RV ₇₄
1998 RX ₇₄	14.4	0.15	20000226	49.96909	142.01887	315.72200	1.41478	0.1616057	2.6440038	42	3	1991-2000	0.70	M-v	3	Spahr	33009	1998 RX ₇₄
1998 RG ₇₅	13.6	0.15	20000226	42.53550	279.46821	182.37296	13.04246	0.1291167	2.6187201	61	3	1996-2000	0.48	M-v	2	Williams	37760	1998 RG ₇₅
1998 RH ₇₅	13.9	0.15	20000226	285.94617	27.68360	181.66065	12.36996	0.1299316	2.4702561	46	2	1998-2000	0.61	M-v	4	Williams	37760	1998 RH ₇₅
1998 RK ₇₅	13.1	0.15	20000226	328.92480	150.33011	13.84808	11.48738	0.1061123	2.6653275	64	3	1985-2000	0.60	M-v	3	Williams	37760	1998 RK ₇₅
1998 RW ₇₅	13.1	0.15	20000226	313.11132	78.64350	80.41181	2.56776	0.1242084	3.0439097	69	3	1996-2000	0.57	M-v	3	Williams	38061	1998 RW ₇₅
1998 RH ₇₆	13.1	0.15	20000226	69.74860	335.82392	68.02676	3.23758	0.1043304	2.9443995	89	3	1989-2000	0.62	M-v	2	Williams	38061	1998 RH ₇₆
1998 RL ₇₆	13.5	0.15	20000226	118.26236	252.81826	95.26300	3.28787	0.0906620	2.8824248	54	3	1992-2000	0.60	M-v	4	Williams	37761	1998 RL ₇₆
1998 RB ₇₇	13.2	0.15	20000226	72.26626	282.44581	130.16758	4.70305	0.0915221	2.7551234	98	4	1989-2000	0.56	M-v	1	Williams	38061	1998 RB ₇₇
1998 RF ₇₇	13.1	0.15	20000226	129.36155	282.69012	33.68377	7.16917	0.1289465	3.1702372	50	2	1998-2000	0.59	M-v	3	Williams	37761	1998 RF ₇₇
1998 RJ ₇₇	14.5	0.15	20000226	138.67279	206.32804	145.96700	5.77471	0.0684149	2.5385965	61	3	1997-2000	0.60	M-v	3	Spahr	38061	1998 RJ ₇₇
1998 RR ₇₇	14.7	0.15	20000226	6.32516	29.47874	132.62872	3.67759	0.1890874	2.2496020	56	2	1998-2000	0.69	M-v	4	Williams	38061	1998 RR ₇₇
1998 RY ₇₇	14.2	0.15	20000226	305.93290	52.42562	152.22213	5.26018	0.1107372	2.2949547	74	2	1998-2000	0.63	M-v	4	Williams	38061	1998 RY ₇₇
1998 RA ₇₈	13.6	0.15	20000226	9.39169	17.03806	90.26747	3.27758	0.0551951	2.9316271	60	3	1996-2000	0.64	M-v	4	Williams	37761	1998 RA ₇₈

1998 RC ₇₈	14.2	0.15	20000226	94.53420	252.86857	133.59144	4.46251	0.1059243	2.7980376	55	2	1998-2000	0.58	M-v	4	Spahr	37762	1998 RC ₇₈
1998 RF ₇₈	13.1	0.15	20000226	31.43484	305.88462	124.30971	4.57735	0.0113955	3.1403073	72	2	1998-2000	0.58	M-v	3	Spahr	38061	1998 RF ₇₈
1998 RL ₇₈	15.4	0.15	20000226	170.28362	283.80397	53.26375	4.53095	0.1700631	2.2716857	33	4	1981-2000	0.59	M-v	2	Williams	34927	1998 RL ₇₈
1998 RM ₇₈	13.6	0.15	20000226	340.01611	121.86402	40.58922	7.14459	0.0813255	2.4644880	48	3	1985-2000	0.62	M-v	3	Williams	38061	1998 RM ₇₈
1998 RN ₇₈	13.9	0.15	20000226	233.40737	163.96376	86.52756	4.36138	0.0955939	2.5242475	64	4	1990-2000	0.64	M-v	1	Williams	38061	1998 RN ₇₈
1998 RO ₇₈	14.7	0.15	20000226	170.16323	228.33927	90.16092	3.47405	0.2183759	2.3783855	55	4	1994-2000	0.63	M-v	2	Williams	38061	1998 RO ₇₈
1998 RU ₇₈	13.7	0.15	20000226	88.83573	246.40171	125.37758	6.01731	0.1841542	3.1361432	52	2	1998-2000	0.58	M-v	4	Spahr	37762	1998 RU ₇₈
1998 RV ₇₈	14.3	0.15	20000226	97.33188	345.23924	35.68560	10.76458	0.0666088	2.7687005	42	2	1998-2000	0.70	M-v	4	Williams	37762	1998 RV ₇₈
1998 RX ₇₈	14.7	0.15	20000226	75.35745	279.04566	131.56171	6.68355	0.0504702	2.7051661	49	2	1998-2000	0.76	M-v	4	Williams	37762	1998 RX ₇₈
1998 RY ₇₈	13.1	0.15	20000226	13.16693	343.43487	111.34637	6.29176	0.0781246	3.1550074	58	2	1998-2000	0.69	M-v	4	Williams	37763	1998 RY ₇₈
1998 RA ₇₉	15.5	0.15	20000226	118.40567	222.71894	151.11480	8.03787	0.1895737	2.5862522	31	3	1996-2000	0.65	M-v	4	Spahr	35716	1998 RA ₇₉
1998 RX ₇₉	13.5	0.15	20000226	91.32534	77.80929	340.98004	8.28873	0.1887458	2.5737881	60	3	1994-2000	0.69	M-v	2	Spahr	37763	1998 RX ₇₉
1998 RZ ₇₉	13.0	0.15	20000226	37.48326	357.29035	92.50017	4.97541	0.0636930	2.7888611	112	3	1997-2000	0.56	M-v	2	Williams	38061	1998 RZ ₇₉
1998 RA ₈₀	14.8	0.15	20000226	237.54965	211.31957	58.63922	5.76765	0.1210933	2.2399969	38	3	1995-2000	0.62	M-v	3	Williams	38061	1998 RA ₈₀
1998 RB ₈₀	13.2	0.15	20000226	254.23768	125.72907	95.92227	6.08485	0.1037210	2.7360293	77	3	1989-2000	0.76	M-v	3	Williams	38061	1998 RB ₈₀
1998 RM ₈₀	13.3	0.15	20000226	100.23440	344.00330	16.64084	9.34557	0.1342106	3.1737485	58	2	1998-2000	0.59	M-v	3	Williams	37764	1998 RM ₈₀
1998 SA ₁	13.4	0.15	20000226	94.93026	210.47355	164.57148	1.36997	0.1988716	3.1805370	70	3	1996-2000	0.48	M-v	3	Spahr	38061	1998 SA ₁
1998 SK ₁	13.4	0.15	20000226	31.40855	36.21746	64.03286	1.60268	0.1373144	3.1370504	97	3	1992-2000	0.60	M-v	2	Williams	38061	1998 SK ₁
1998 SN ₁	14.2	0.15	20000226	262.36527	49.20008	191.71260	7.05152	0.1035950	2.5295862	40	2	1998-2000	0.66	M-v	4	Spahr	37765	1998 SN ₁
1998 SR ₁	14.6	0.15	20000226	154.73090	253.99652	95.92655	4.56103	0.1958390	2.3192241	55	4	1991-2000	0.58	M-v	2	Williams	35716	1998 SR ₁
1998 SV ₁	13.9	0.15	20000226	63.31536	338.48983	82.92953	6.50144	0.0718505	2.7601023	59	2	1998-2000	0.55	M-v	3	Williams	37765	1998 SV ₁
1998 SN ₂	14.6	0.15	20000226	100.66627	269.67931	119.69952	0.22658	0.1813869	3.0873303	35	3	1997-2000	0.51	M-v	2	Williams	35716	1998 SN ₂
1998 SQ ₂	14.4	0.15	20000226	153.50400	37.45821	296.58194	16.74815	0.3205169	2.5323965	38	3	1996-2000	0.56	M-v	3	Spahr	33105	1998 SQ ₂
1998 SS ₂	13.2	0.15	20000226	169.54505	57.44397	259.25053	12.34405	0.1821575	2.5755486	103	2	1998-2000	0.56	M-v	3	Williams	38061	1998 SS ₂
1998 ST ₂	14.6	0.15	20000226	131.32396	71.09342	295.61825	12.64844	0.0784055	2.5536063	46	2	1998-2000	0.69	M-v	4	Spahr	37765	1998 ST ₂
1998 SU ₂	14.7	0.15	20000226	123.42528	6.99704	356.14893	1.69664	0.0409945	2.6776687	54	3	1985-2000	0.56	M-v	3	Williams	37765	1998 SU ₂
1998 SZ ₂	13.7	0.15	20000226	130.11331	239.00153	97.35546	13.03884	0.1266159	2.7860291	54	2	1998-2000	0.50	M-v	3	Williams	38061	1998 SZ ₂
1998 SN ₃	15.0	0.15	20000226	18.52236	22.80817	90.68126	5.97479	0.1152468	2.7287598	57	2	1998-2000	0.56	M-v	3	Williams	37765	1998 SN ₃
1998 SE ₄	13.5	0.15	20000226	96.64377	9.19565	6.38052	10.81223	0.1137237	2.9779881	60	2	1998-2000	0.51	M-v	3	Williams	37766	1998 SE ₄
1998 SG ₄	15.8	0.15	20000226	288.47065	291.23745	293.20879	2.92915	0.0899314	2.1621296	63	2	1998-2000	0.53	M-v	5	Spahr	37766	1998 SG ₄
1998 SL ₄	14.7	0.15	20000226	218.14402	307.02422	347.98718	2.08190	0.1552919	2.1683281	91	3	1997-2000	0.60	M-v	3	Williams	38061	1998 SL ₄
1998 SX ₄	13.2	0.15	20000226	95.55701	192.62627	174.04039	11.87520	0.1178648	3.1788355	61	3	1992-2000	0.53	M-v	3	Spahr	38061	1998 SX ₄
1998 SG ₅	13.2	0.15	20000226	113.95471	179.49477	183.27501	12.77888	0.1726494	2.6692019	111	3	1979-2000	0.66	M-v	2	Spahr	38061	1998 SG ₅
1998 SO ₉	14.2	0.15	20000226	91.59579	193.13797	202.34868	5.35842	0.1016890	2.8062831	70	2	1998-2000	0.61	M-v	3	Spahr	37766	1998 SO ₉
1998 SG ₁₀	13.7	0.15	20000226	332.73026	118.83301	60.64175	6.62296	0.1400809	2.3174625	93	4	1977-2000	0.67	M-v	2	Williams	38061	1998 SG ₁₀
1998 SU ₁₀	13.6	0.15	20000226	59.00426	194.92857	201.25687	0.54699	0.1528983	3.1359162	83	2	1998-2000	0.58	M-v	3	Spahr	38061	1998 SU ₁₀
1998 SL ₁₂	13.6	0.15	20000226	172.36362	145.91532	153.74785	2.29896	0.0730000	2.8406393	68	4	1993-2000	0.60	M-v	2	Spahr	38061	1998 SL ₁₂
1998 SX ₁₂	13.5	0.15	20000226	119.74221	241.02992	149.34365	27.58406	0.0245535	2.6508673	37	2	1998-2000	0.43	M-v	3	Williams	37766	1998 SX ₁₂
1998 SY ₁₂	13.8	0.15	20000226	195.22240	173.62016	107.43903	14.60297	0.1369383	2.5435332	43	2	1998-2000	0.34	M-v	3	Williams	38061	1998 SY ₁₂
1998 SX ₁₆	14.8	0.15	20000226	249.78859	75.31170	176.52949	5.08593	0.0527671	2.3635041	86	3	1997-2000	0.60	M-v	3	Spahr	38061	1998 SX ₁₆
1998 SQ ₁₈	14.6	0.15	20000226	156.85209	176.52239	169.47596	5.95445	0.1367830	2.3785885	75	5	1971-2000	0.64	M-v	2	Spahr	33017	1998 SQ ₁₈
1998 SU ₂₁	15.0	0.15	20000226	52.15815	277.33093	186.28435	3.08781	0.1142724	2.2750521	46	3	1997-2000	0.84	M-v	3	Spahr	35716	1998 SU ₂₁
1998 SX ₂₁	14.7	0.15	20000226	161.56422	186.35782	148.89643	2.62997	0.1844630	2.4192736	58	3	1993-2000	0.59	M-v	3	Williams	34592	1998 SX ₂₁
1998 SK ₂₂	14.0	0.15	20000226	79.40861	187.48068	188.48884	4.95793	0.1685115	3.1606208	61	3	1996-2000	0.68	M-v	3	Spahr	38061	1998 SK ₂₂
1998 SN ₂₂	13.4	0.15	20000226	353.87331	309.75470	191.44947	13.05722	0.0992977	2.6852544	82	4	1992-2000	0.64	M-v	3	Spahr	38061	1998 SN ₂₂
1998 SP ₂₂	12.8	0.15	20000226	243.92361	231.44274	2.27100	6.77697	0.0686196	2.7303370	75	3	1996-2000	0.55	M-v	2	Williams	37767	1998 SP ₂₂
1998 SR ₂₂	13.8	0.15	20000226	87.96319	14.34550	0.02646	6.78786	0.1238407	3.1533794	69	2	1998-2000	0.69	M-v	4	Williams	38061	1998 SR ₂₂
1998 SW ₂₂	14.2	0.15	20000226	125.22373	226.88647	160.95714	12.03143	0.1242725	2.7060747	42	3	1993-2000	0.53	M-v	3	Williams	33354	1998 SW ₂₂
1998 SV ₂₃	14.0	0.15	20000226	57.21476	27.35244	19.34603	18.34859	0.1248359	3.1266740	34	3	1987-2000	0.57	M-v	3	Williams	38061	1998 SV ₂₃
1998 SA ₂₄	13.6	0.15	20000226	22.92009	348.70701	104.11493	5.66328	0.0555621	2.8157479	74	3	1992-2000	0.69	M-v	3	Williams	38061	1998 SA ₂₄
1998 SD ₂₄	15.4	0.15	20000226	228.07569	306.27718	25.03726	21.53563	0.0616039	1.9254069	48	3	1990-2000	0.75	M-v	3	Spahr	33566	1998 SD ₂₄
1998 SE ₂₄	15.1	0.15	20000226	130.03356	215.24214	153.36714	4.21972	0.2061697	2.4077417	38	4	1993-2000	0.50	M-v	2	Spahr	35717	1998 SE ₂₄
1998 SG ₂₄	14.7	0.15	20000226	87.19647	352.49908	61.91359	3.92001	0.0790229	2.4079921	56	4	1972-2000	0.55	M-v	1	Williams	38061	1998 SG ₂₄

1998 SJ ₂₄	13.3	0.15	20000226	90.86053	296.48750	76.99654	3.76409	0.0646524	2.8733443	69	2	1998-2000	0.50	M-v	3	Williams	38061	1998 SJ ₂₄
1998 SM ₂₄	14.7	0.15	20000226	76.21783	4.05035	44.71016	3.52695	0.1055144	2.6597109	50	2	1998-2000	0.67	M-v	4	Williams	37767	1998 SM ₂₄
1998 SQ ₂₄	15.2	0.15	20000226	79.13041	24.82478	33.58202	6.39637	0.1488315	2.5495615	42	3	1978-2000	0.79	M-v	3	Spahr	33566	1998 SQ ₂₄
1998 SV ₂₄	14.7	0.15	20000226	92.62193	322.75993	91.05766	4.37020	0.1458706	2.5676205	36	4	1977-2000	0.84	M-v	2	Spahr	34928	1998 SV ₂₄
1998 SA ₂₅	14.1	0.15	20000226	77.59907	316.83026	138.38351	5.93707	0.0496199	2.2956729	39	3	1993-2000	0.60	M-v	2	Williams	34303	1998 SA ₂₅
1998 SH ₂₅	12.8	0.15	20000226	210.20486	207.59182	71.88528	6.33506	0.0210640	2.7413128	121	3	1997-2000	0.57	M-v	2	Williams	38062	1998 SH ₂₅
1998 SN ₂₅	13.8	0.15	20000226	36.09163	319.63484	140.00388	5.51562	0.0782372	2.7819648	93	3	1993-2000	0.62	M-v	2	Williams	38062	1998 SN ₂₅
1998 SJ ₂₆	12.9	0.15	20000226	43.48328	38.82334	46.34510	14.95308	0.1894401	3.1332439	48	2	1998-2000	0.61	M-v	3	Williams	37768	1998 SJ ₂₆
1998 SN ₂₆	13.7	0.15	20000226	142.67003	342.05460	319.95524	5.10708	0.0498868	3.1187092	54	2	1998-2000	0.53	M-v	4	Williams	37768	1998 SN ₂₆
1998 SN ₂₇	12.6	0.15	20000226	275.00800	296.70663	281.60800	27.11917	0.0986335	2.6510752	67	3	1987-2000	0.62	M-v	2	Spahr	38062	1998 SN ₂₇
1998 SS ₂₇	12.5	0.15	20000226	200.06298	351.84045	305.13428	27.63742	0.0492987	2.6093454	80	2	1998-2000	0.57	M-v	3	Williams	37768	1998 SS ₂₇
1998 SA ₂₈	13.5	0.15	20000226	180.38681	277.60118	27.48107	4.35105	0.0651843	2.7513306	95	3	1996-2000	0.59	M-v	2	Spahr	38062	1998 SA ₂₈
1998 SB ₂₈	13.5	0.15	20000226	152.29070	286.05329	24.57657	10.45806	0.1401571	3.0434864	79	2	1998-2000	0.61	M-v	3	Williams	38062	1998 SB ₂₈
1998 SG ₃₀	15.8	0.15	20000226	274.81175	223.53347	16.20727	2.29223	0.1045730	2.2159629	44	5	1977-2000	0.81	M-v	1	Williams	38062	1998 SG ₃₀
1998 SK ₃₅	14.7	0.15	20000226	146.64068	312.18991	4.55857	6.52483	0.1161074	2.6715519	56	2	1998-2000	0.63	M-v	3	Williams	37768	1998 SK ₃₅
1998 SV ₃₆	15.2	0.15	20000226	274.10603	35.53865	187.53113	2.95195	0.1705988	2.3946426	33	4	1994-2000	0.65	M-v	2	Spahr	38062	1998 SV ₃₆
1998 SZ ₃₆	15.1	0.15	20000226	305.57833	159.57908	39.98117	1.22298	0.0992513	2.4330801	46	3	1960-2000	0.65	M-v	5	Williams	38062	1998 SZ ₃₆
1998 SR ₃₇	13.9	0.15	20000226	148.85428	132.76010	216.27767	5.35838	0.0841537	2.6248265	66	2	1998-2000	0.63	M-v	3	Spahr	37769	1998 SR ₃₇
1998 SS ₃₇	15.6	0.15	20000226	211.48871	92.43633	217.58644	3.50715	0.1361580	2.2129209	39	3	1991-2000	0.80	M-v	3	Spahr	35717	1998 SS ₃₇
1998 SP ₄₂	14.8	0.15	20000226	95.39065	71.66917	351.34129	2.09308	0.1209825	2.3156272	69	5	1989-2000	0.63	M-v	2	Spahr	36085	1998 SP ₄₂
1998 SC ₄₃	14.5	0.15	20000226	154.43757	293.36026	33.37204	4.25720	0.1343760	2.6305546	57	3	1992-2000	0.65	M-v	4	Williams	38062	1998 SC ₄₃
1998 SE ₄₃	14.3	0.15	20000226	325.04575	187.87241	8.43880	7.02059	0.0411344	2.2852932	67	2	1998-2000	0.58	M-v	4	Williams	37769	1998 SE ₄₃
1998 SG ₄₃	13.7	0.15	20000226	141.05523	288.74902	84.01709	3.60973	0.0292556	2.3247894	86	4	1991-2000	0.60	M-v	1	Williams	38062	1998 SG ₄₃
1998 SE ₄₄	12.8	0.15	20000226	27.52432	263.69166	171.44760	7.14435	0.1239646	3.1627048	69	2	1998-2000	0.59	M-v	3	Williams	37769	1998 SE ₄₄
1998 SO ₄₅	15.8	0.15	20000226	348.68375	63.17995	104.63679	1.24682	0.1229221	2.3442486	39	4	1991-2000	0.67	M-v	2	Williams	35717	1998 SO ₄₅
1998 SY ₄₅	13.9	0.15	20000226	62.48251	205.91223	208.61461	10.26062	0.0713499	3.2066423	38	2	1998-2000	0.62	M-v	3	Spahr	37770	1998 SY ₄₅
1998 SE ₄₇	13.3	0.15	20000226	45.13861	53.82522	33.60217	5.76391	0.0673244	3.0012001	54	3	1993-2000	0.59	M-v	2	Williams	38062	1998 SE ₄₇
1998 SL ₄₇	14.9	0.15	20000226	246.80788	232.24572	16.09387	2.31191	0.1280801	2.2617378	51	3	1997-2000	0.64	M-v	3	Williams	38062	1998 SL ₄₇
1998 SP ₄₈	14.8	0.15	20000226	319.77463	325.35548	225.36992	4.08354	0.0369669	2.5413027	42	3	1992-2000	0.44	M-v	3	Williams	33757	1998 SP ₄₈
1998 SC ₄₉	13.8	0.15	20000226	45.71559	264.06161	157.92427	2.30073	0.0492117	2.8636861	67	3	1993-2000	0.75	M-v	4	Spahr	38062	1998 SC ₄₉
1998 SF ₄₉	12.5	0.15	20000226	349.66357	109.58825	19.64011	2.38963	0.0707673	3.3356173	87	2	1998-2000	0.59	M-v	4	Williams	37770	1998 SF ₄₉
1998 SM ₄₉	14.8	0.15	20000226	89.28323	309.09527	73.51784	0.43327	0.2433850	3.1437363	97	3	1995-2000	0.52	M-v	2	Spahr	33757	1998 SM ₄₉
1998 SO ₅₀	14.9	0.15	20000226	24.37309	142.47346	11.02789	4.86243	0.1703902	2.3798155	27	3	1989-2000	0.69	M-v	4	Spahr	35717	1998 SO ₅₀
1998 ST ₅₀	13.0	0.15	20000226	309.38999	169.25087	9.71046	3.78910	0.1688488	3.1368831	55	5	1989-2000	0.53	M-v	1	Williams	38062	1998 ST ₅₀
1998 SP ₅₃	14.0	0.15	20000226	102.56807	54.73515	309.25345	4.56886	0.1373005	2.8427533	71	2	1998-2000	0.66	M-v	4	Williams	38062	1998 SP ₅₃
1998 SQ ₅₃	14.3	0.15	20000226	90.24340	22.31961	342.77456	13.01488	0.1934097	3.0848568	46	3	1960-2000	0.64	M-v	3	Williams	38062	1998 SQ ₅₃
1998 SW ₅₃	15.4	0.15	20000226	227.99050	13.99840	270.89323	2.60428	0.0690598	2.1407044	49	4	1991-2000	0.74	M-v	3	Williams	35717	1998 SW ₅₃
1998 SY ₅₃	14.7	0.15	20000226	138.14140	159.30710	196.11625	9.28117	0.0989932	2.4440645	68	3	1997-2000	0.50	M-v	3	Williams	38062	1998 SY ₅₃
1998 SL ₅₄	14.2	0.15	20000226	164.98584	90.59970	228.03135	1.77814	0.1783840	2.4248230	83	3	1997-2000	0.71	M-v	3	Williams	38062	1998 SL ₅₄
1998 SN ₅₄	14.1	0.15	20000226	305.27278	216.70338	340.99102	6.74292	0.0515314	2.3288801	91	3	1991-2000	0.61	M-v	3	Williams	38062	1998 SN ₅₄
1998 SZ ₅₄	14.0	0.15	20000226	119.61753	291.99460	35.66214	1.64444	0.1637454	3.0838151	37	3	1960-2000	0.55	M-v	5	Williams	38062	1998 SZ ₅₄
1998 SA ₅₅	14.1	0.15	20000226	117.91232	180.91742	169.71822	2.34691	0.0820104	2.8289040	48	3	1996-2000	0.64	M-v	4	Spahr	38062	1998 SA ₅₅
1998 SL ₅₅	14.4	0.15	20000226	94.05811	220.47712	167.27895	1.19489	0.0324547	2.6400683	45	2	1998-2000	0.59	M-v	5	Spahr	37770	1998 SL ₅₅
1998 SV ₅₅	13.4	0.15	20000226	39.97517	249.36019	174.98863	1.46293	0.1293288	3.1836380	63	2	1998-2000	0.61	M-v	4	Spahr	37771	1998 SV ₅₅
1998 SA ₅₆	14.8	0.15	20000226	77.64591	222.91397	160.75089	1.41501	0.1988557	3.0946631	58	4	1995-2000	0.68	M-v	1	Spahr	38062	1998 SA ₅₆
1998 SP ₅₆	13.5	0.15	20000226	137.09358	309.99227	15.51698	3.66811	0.0746041	2.8067499	60	2	1998-2000	0.54	M-v	3	Williams	38062	1998 SP ₅₆
1998 ST ₅₆	14.1	0.15	20000226	181.90695	279.22107	15.02329	2.67537	0.1832612	2.4295329	69	2	1998-2000	0.65	M-v	4	Williams	38062	1998 ST ₅₆
1998 SZ ₅₆	14.3	0.15	20000226	60.19378	283.07744	123.74918	3.05647	0.0759231	2.9341547	42	2	1998-2000	0.72	M-v	4	Williams	37771	1998 SZ ₅₆
1998 SG ₅₇	14.0	0.15	20000226	60.23422	11.33241	39.21041	1.51833	0.0623822	2.8625024	47	2	1998-2000	0.74	M-v	4	Williams	37771	1998 SG ₅₇
1998 SK ₅₇	15.1	0.15	20000226	271.30258	219.65248	14.17635	5.46921	0.1014523	2.2198068	50	2	1998-2000	0.64	M-v	4	Williams	37771	1998 SK ₅₇
1998 SL ₅₇	14.4	0.15	20000226	337.07844	147.39144	23.33845	4.48182	0.0834373	2.3069181	75	2	1998-2000	0.64	M-v	4	Williams	37772	1998 SL ₅₇
1998 SN ₅₇	13.4	0.15	20000226	93.44788	328.03188	56.33561	2.18674	0.1608100	2.7776497	90	3	1975-2000	0.53	M-v	2	Williams	38062	1998 SN ₅₇
1998 SQ ₅₇	13.9	0.15	20000226	25.33519	0.60613	85.02252	3.28969	0.1425167	3.0879754	45	2	1998-2000	0.59	M-v	4	Williams	37772	1998 SQ ₅₇

1998 SV ₅₇	15.0	0.15	20000226	50.81934	15.83652	99.32321	2.46442	0.1777979	2.3264578	35	5	1989-2000	0.79	M-v	2	Spahr	34592	1998 SV ₅₇
1998 SY ₅₇	13.2	0.15	20000226	146.84625	238.25820	76.66162	3.05310	0.0655491	2.8946670	71	3	1996-2000	0.57	M-v	3	Williams	38062	1998 SY ₅₇
1998 SD ₅₈	12.4	0.15	20000226	9.20736	278.79152	178.79133	9.68786	0.0439966	3.0171041	105	3	1993-2000	0.60	M-v	2	Spahr	38062	1998 SD ₅₈
1998 SE ₅₈	13.6	0.15	20000226	246.35040	227.48492	358.12759	2.19974	0.1278406	2.6575956	72	3	1990-2000	0.66	M-v	2	Williams	38062	1998 SE ₅₈
1998 SH ₅₈	13.9	0.15	20000226	134.91059	170.05204	178.40330	8.30677	0.1756695	2.5731285	85	3	1997-2000	0.69	M-v	3	Spahr	38062	1998 SH ₅₈
1998 SN ₅₈	15.2	0.15	20000226	156.43948	173.28640	167.49559	2.26510	0.2351913	2.3529079	56	4	1991-2000	0.64	M-v	2	Spahr	35718	1998 SN ₅₈
1998 SR ₅₈	14.8	0.15	20000226	61.85211	274.36781	182.18767	6.44910	0.0526797	2.3055710	56	3	1997-2000	0.69	M-v	2	Spahr	38062	1998 SR ₅₈
1998 SB ₅₉	14.6	0.15	20000226	99.73252	198.32984	168.10686	4.21304	0.1422843	3.0053454	41	3	1977-2000	0.64	M-v	4	Spahr	38062	1998 SB ₅₉
1998 SE ₅₉	12.7	0.15	20000226	217.57657	133.12971	99.55287	2.83598	0.0977223	3.2307851	70	2	1998-2000	0.63	M-v	4	Williams	38062	1998 SE ₅₉
1998 SF ₅₉	13.7	0.15	20000226	210.53753	77.56273	177.30975	10.64137	0.0422736	2.9743841	44	4	1993-2000	0.71	M-v	1	Williams	38062	1998 SF ₅₉
1998 SZ ₅₉	14.6	0.15	20000226	237.68249	106.10425	153.63572	7.18972	0.0823989	2.4100337	48	4	1993-2000	0.66	M-v	2	Spahr	38062	1998 SZ ₅₉
1998 SG ₆₀	12.8	0.15	20000226	43.25955	333.30730	94.39710	2.52485	0.1676238	3.1989276	87	3	1981-2000	0.56	M-v	2	Williams	38062	1998 SG ₆₀
1998 ST ₆₀	13.9	0.15	20000226	126.53651	270.03217	71.70935	3.06624	0.0740286	2.8749728	45	2	1998-2000	0.52	M-v	4	Williams	37772	1998 ST ₆₀
1998 SU ₆₀	15.5	0.15	20000226	210.69397	244.47045	66.56272	3.11980	0.0670316	2.1513791	40	5	1976-2000	0.69	M-v	2	Williams	34929	1998 SU ₆₀
1998 SA ₆₁	13.8	0.15	20000226	74.97898	354.32928	42.84021	2.69836	0.0677375	2.8964114	65	2	1998-2000	0.63	M-v	4	Williams	38063	1998 SA ₆₁
1998 SF ₆₁	14.0	0.15	20000226	84.89718	117.11992	319.59017	6.35610	0.0736530	2.3342357	41	5	1984-2000	0.71	M-v	1	Spahr	38063	1998 SF ₆₁
1998 SL ₆₁	14.5	0.15	20000226	207.59318	25.66350	266.43115	4.70060	0.1833401	2.2885438	46	5	1977-2000	0.75	M-v	2	Spahr	38063	1998 SL ₆₁
1998 SO ₆₁	13.3	0.15	20000226	190.61575	11.92601	274.80397	3.26035	0.0367494	2.7845540	84	3	1994-2000	0.67	M-v	3	Spahr	38063	1998 SO ₆₁
1998 SR ₆₁	13.8	0.15	20000226	28.12544	119.50641	337.13362	11.22995	0.0407813	2.7837554	52	2	1998-2000	0.69	M-v	3	Williams	37773	1998 SR ₆₁
1998 SS ₆₁	13.9	0.15	20000226	79.65433	210.87556	209.09008	12.46746	0.1153713	2.6069944	81	3	1994-2000	0.73	M-v	2	Spahr	38063	1998 SS ₆₁
1998 SU ₆₁	13.8	0.15	20000226	113.17996	6.71861	340.17827	10.40941	0.1087532	3.0767951	32	2	1998-2000	0.69	M-v	4	Williams	37773	1998 SU ₆₁
1998 SP ₆₂	14.5	0.15	20000226	83.93205	22.02927	21.58427	5.84031	0.0588931	2.7523258	42	2	1998-2000	0.72	M-v	4	Williams	37773	1998 SP ₆₂
1998 SU ₆₂	13.8	0.15	20000226	104.56134	10.93723	343.73945	0.95377	0.0718013	2.9807704	55	4	1993-2000	0.70	M-v	1	Williams	38063	1998 SU ₆₂
1998 SK ₆₃	13.1	0.15	20000226	5.24705	36.24717	79.44763	3.88705	0.1048159	3.0377183	101	2	1998-2000	0.61	M-v	3	Williams	38063	1998 SK ₆₃
1998 SM ₆₃	13.9	0.15	20000226	73.62415	116.85455	324.53937	5.67985	0.0618354	2.3040824	97	3	1991-2000	0.60	M-v	1	Spahr	38063	1998 SM ₆₃
1998 SQ ₆₃	14.7	0.15	20000226	159.80580	296.56057	56.49160	2.79673	0.0734497	2.3366160	50	3	1997-2000	0.55	M-v	3	Williams	35718	1998 SQ ₆₃
1998 SR ₆₃	14.3	0.15	20000226	122.29085	224.44855	105.78801	1.97532	0.2534101	3.0378579	66	3	1976-2000	0.56	M-v	3	Spahr	38063	1998 SR ₆₃
1998 SY ₆₃	12.8	0.15	20000226	325.97603	145.78603	54.11651	6.97490	0.0938281	2.3150985	66	3	1979-2000	0.62	M-v	3	Williams	37773	1998 SY ₆₃
1998 SN ₆₄	13.8	0.15	20000226	166.85872	132.87274	187.15908	12.20317	0.2020315	2.5556846	61	3	1997-2000	0.74	M-v	3	Spahr	38063	1998 SN ₆₄
1998 SV ₆₄	14.7	0.15	20000226	32.79761	73.55926	76.77343	5.04106	0.1170256	2.2472401	29	4	1978-2000	0.74	M-v	2	Williams	34592	1998 SV ₆₄
1998 SZ ₆₄	14.2	0.15	20000226	281.07217	114.48197	128.40196	4.27367	0.0936607	2.2580399	42	4	1991-2000	0.56	M-v	2	Williams	35718	1998 SZ ₆₄
1998 SB ₆₅	13.5	0.15	20000226	289.43480	151.08068	62.67331	8.60415	0.1457047	2.5639298	45	2	1998-2000	0.65	M-v	4	Williams	37774	1998 SB ₆₅
1998 SG ₆₅	14.5	0.15	20000226	158.97760	219.43490	140.04066	2.86497	0.1006791	2.3457410	40	4	1993-2000	0.75	M-v	2	Williams	34592	1998 SG ₆₅
1998 SU ₆₅	14.2	0.15	20000226	335.58329	119.81855	80.88009	4.66752	0.1494630	2.2267065	45	2	1998-2000	0.62	M-v	3	Williams	37774	1998 SU ₆₅
1998 SA ₆₆	15.4	0.15	20000226	192.81438	173.12501	134.07221	4.19159	0.2348159	2.3172186	41	2	1998-2000	0.71	M-v	5	Spahr	37774	1998 SA ₆₆
1998 SJ ₆₆	13.5	0.15	20000226	93.00263	258.42853	124.19184	6.06981	0.0645095	3.1401109	48	2	1998-2000	0.70	M-v	4	Spahr	37774	1998 SJ ₆₆
1998 SP ₆₆	14.6	0.15	20000226	251.72645	199.90365	67.96449	6.38902	0.1723473	2.1882103	40	3	1995-2000	0.81	M-v	3	Williams	38063	1998 SP ₆₆
1998 SX ₆₆	13.7	0.15	20000226	110.86434	263.71368	110.03030	3.20937	0.1014007	2.9186837	47	5	1989-2000	0.83	M-v	1	Williams	38063	1998 SX ₆₆
1998 SD ₆₇	14.2	0.15	20000226	174.70094	298.70736	48.58781	5.93869	0.1922637	2.2285791	66	3	1988-2000	0.69	M-v	3	Williams	38063	1998 SD ₆₇
1998 SE ₆₇	14.2	0.15	20000226	179.58718	207.48146	114.50273	4.92021	0.1880875	2.3908170	48	2	1998-2000	0.63	M-v	4	Williams	37775	1998 SE ₆₇
1998 SS ₆₇	15.0	0.15	20000226	201.90278	238.24782	76.96042	5.38138	0.2037738	2.1923168	43	3	1991-2000	0.81	M-v	3	Spahr	38063	1998 SS ₆₇
1998 SQ ₇₀	13.6	0.15	20000226	103.66918	239.14370	135.54188	2.33686	0.1172678	2.9579680	73	4	1978-2000	0.72	M-v	4	Williams	38063	1998 SQ ₇₀
1998 SB ₇₁	13.0	0.15	20000226	200.11752	238.84255	34.17184	10.70323	0.0541369	2.9867049	61	2	1998-2000	0.74	M-v	3	Williams	37775	1998 SB ₇₁
1998 SL ₇₁	14.5	0.15	20000226	66.64761	265.09253	155.83619	2.34978	0.1462114	3.0176847	44	3	1996-2000	0.76	M-v	3	Williams	33283	1998 SL ₇₁
1998 SB ₇₂	13.8	0.15	20000226	123.05497	254.77973	84.40965	2.60585	0.1689062	3.1037270	51	2	1998-2000	0.68	M-v	4	Williams	37775	1998 SB ₇₂
1998 SY ₇₂	14.4	0.15	20000226	323.22384	32.86597	176.52781	6.35231	0.0561205	2.2305425	37	3	1990-2000	0.79	M-v	4	Spahr	33283	1998 SY ₇₂
1998 SJ ₇₃	14.8	0.15	20000226	128.39369	248.40105	132.76569	3.41588	0.1868129	2.4627320	50	4	1996-2000	0.63	M-v	2	Spahr	35718	1998 SJ ₇₃
1998 SM ₇₃	14.3	0.15	20000226	39.71634	301.66831	165.13037	5.39080	0.1210048	2.7232016	57	3	1989-2000	0.93	M-v	2	Spahr	38063	1998 SM ₇₃
1998 SV ₇₃	15.1	0.15	20000226	179.66488	287.46593	43.04851	7.10493	0.1595657	2.2998803	58	4	1991-2000	0.74	M-v	2	Spahr	34593	1998 SV ₇₃
1998 SB ₇₄	14.2	0.15	20000226	52.50331	304.72718	130.22629	3.56078	0.1548192	3.0975276	34	2	1998-2000	0.65	M-v	3	Williams	37775	1998 SB ₇₄
1998 SK ₇₄	14.3	0.15	20000226	53.03749	332.10449	119.93289	4.56228	0.1502809	2.7841281	30	3	1993-2000	0.77	M-v	3	Spahr	33359	1998 SK ₇₄
1998 SL ₇₄	13.6	0.15	20000226	4.66731	96.48685	37.07274	12.29671	0.0510220	2.7375915	50	3	1996-2000	0.77	M-v	3	Williams	38063	1998 SL ₇₄
1998 SU ₇₄	13.9	0.15	20000226	287.88138	155.17526	64.85083	5.75481	0.1441312	2.4422848	64	3	1970-2000	0.69	M-v	3	Williams	37776	1998 SU ₇₄

1998 SK ₇₅	14.0	0.15	20000226	325.73059	57.27163	131.97762	4.96427	0.0741011	2.4573483	81	3	1996-2000	0.66	M-v	3	Williams	37287	1998 SK ₇₅
1998 SW ₇₅	14.9	0.15	20000226	288.63214	101.20532	134.47498	3.09512	0.1296911	2.2062279	49	5	1978-2000	0.65	M-v	2	Williams	35718	1998 SW ₇₅
1998 SH ₇₉	14.2	0.15	20000226	167.43001	254.80147	76.60830	4.73187	0.1515758	2.2886277	64	3	1991-2000	0.62	M-v	2	Williams	38063	1998 SH ₇₉
1998 SA ₈₀	15.5	0.15	20000226	23.15006	281.55426	202.06622	3.75644	0.0585507	2.3644386	36	5	1991-2000	0.64	M-v	1	Spahr	35634	1998 SA ₈₀
1998 SQ ₈₁	14.1	0.15	20000226	58.95259	249.40261	163.44796	2.30787	0.0581028	2.8638790	53	2	1998-2000	0.77	M-v	4	Spahr	37776	1998 SQ ₈₁
1998 SM ₈₇	13.5	0.15	20000226	154.80683	81.98312	217.08563	8.60343	0.0910761	3.0808419	34	3	1960-2000	0.80	M-v	4	Williams	38063	1998 SM ₈₇
1998 SU ₉₀	16.9	0.15	19980924	356.68711	359.87463	7.05570	3.79092	0.1148251	2.4689729	14	1	32 days	0.72			Williams		1998 SU ₉₀
1998 SP ₉₇	15.9	0.15	20000226	113.82090	25.31238	15.20176	6.65569	0.1011629	2.3409814	24	3	1993-2000	0.58	M-v	4	Williams	33359	1998 SP ₉₇
1998 SQ ₉₇	13.4	0.15	20000226	84.01852	194.68431	182.10586	17.38917	0.1151369	3.1300445	44	3	1987-2000	0.82	M-v	3	Spahr	38063	1998 SQ ₉₇
1998 SA ₁₀₁	14.5	0.15	20000226	256.65501	268.52182	341.49390	6.12186	0.2031992	2.2018387	61	3	1991-2000	0.59	M-v	2	Williams	37776	1998 SA ₁₀₁
1998 SH ₁₀₅	14.9	0.15	20000226	335.58617	53.60645	137.72242	4.79094	0.0701350	2.1679334	50	2	1998-2000	0.76	M-v	4	Williams	37777	1998 SH ₁₀₅
1998 SH ₁₀₆	12.9	0.15	20000226	107.91248	320.33835	22.67329	11.51058	0.1975510	3.1897034	62	3	1996-2000	0.52	M-v	3	Williams	37777	1998 SH ₁₀₆
1998 SZ ₁₀₆	14.1	0.15	20000226	53.60890	239.55468	199.42460	2.75156	0.0601369	2.7080851	80	4	1993-2000	0.58	M-v	2	Williams	38063	1998 SZ ₁₀₆
1998 SM ₁₀₇	13.8	0.15	20000226	158.14901	356.01001	333.78478	2.67133	0.0966839	2.5722281	63	3	1994-2000	0.55	M-v	3	Williams	38063	1998 SM ₁₀₇
1998 SR ₁₀₇	14.2	0.15	20000226	344.11915	187.65343	351.51254	4.00427	0.0878603	2.2754275	49	2	1998-2000	0.55	M-v	3	Williams	37777	1998 SR ₁₀₇
1998 SX ₁₀₇	13.9	0.15	20000226	88.12166	44.22971	353.07466	6.14560	0.0703548	2.7904335	43	2	1998-2000	0.63	M-v	3	Williams	37777	1998 SX ₁₀₇
1998 SA ₁₀₉	14.2	0.15	20000226	70.88056	149.53068	313.10464	3.65438	0.1146153	2.2923028	35	3	1993-2000	0.59	M-v	2	Spahr	34023	1998 SA ₁₀₉
1998 SD ₁₁₀	14.1	0.15	20000226	328.67637	329.97047	224.87283	8.34498	0.0361093	2.2754613	50	3	1997-2000	0.67	M-v	3	Spahr	38063	1998 SD ₁₁₀
1998 SQ ₁₁₀	14.9	0.15	20000226	232.32040	286.67909	353.45184	5.50134	0.1670970	2.1785483	29	2	1998-2000	0.61	M-v	4	Williams	37778	1998 SQ ₁₁₀
1998 SX ₁₁₀	16.7	0.15	19980924	308.79858	227.18827	205.98953	7.73338	0.1157063	2.2352080	16	1	20 days	0.88			Williams		1998 SX ₁₁₀
1998 SR ₁₁₁	13.3	0.15	20000226	18.36498	104.09979	16.98245	13.42908	0.1007069	2.6743015	66	3	1996-2000	0.59	M-v	3	Williams	38063	1998 SR ₁₁₁
1998 SA ₁₁₂	13.5	0.15	20000226	37.98535	281.76567	155.98734	5.99532	0.1368699	3.1698613	62	2	1998-2000	0.56	M-v	3	Spahr	37778	1998 SA ₁₁₂
1998 SR ₁₁₄	15.3	0.15	20000226	219.27756	170.16811	117.74458	3.00811	0.1348403	2.2513933	50	2	1998-2000	0.57	M-v	4	Williams	37778	1998 SR ₁₁₄
1998 SV ₁₁₄	14.1	0.15	20000226	87.11331	256.72324	121.50573	1.91135	0.1862559	3.1648231	47	2	1998-2000	0.54	M-v	4	Williams	37778	1998 SV ₁₁₄
1998 SJ ₁₁₅	13.9	0.15	20000226	65.18767	103.33751	314.80282	1.00997	0.1023238	2.9455142	62	2	1998-2000	0.65	M-v	4	Williams	37779	1998 SJ ₁₁₅
1998 SL ₁₁₅	14.5	0.15	20000226	178.18883	286.19341	13.87550	2.68012	0.0541257	2.7996078	29	3	1993-2000	0.57	M-v	4	Williams	38063	1998 SL ₁₁₅
1998 SM ₁₁₅	13.5	0.15	20000226	40.06435	110.77437	335.78454	0.39277	0.1871105	3.1395422	111	4	1976-2000	0.61	M-v	2	Williams	38063	1998 SM ₁₁₅
1998 SP ₁₁₅	13.4	0.15	20000226	109.60247	68.19055	283.31692	1.47417	0.2299862	3.0541965	87	4	1993-2000	0.59	M-v	2	Williams	38063	1998 SP ₁₁₅
1998 SY ₁₁₅	13.9	0.15	20000226	235.40020	242.29782	10.39674	13.44788	0.1468577	2.5281558	44	4	1990-2000	0.63	M-v	3	Williams	38063	1998 SY ₁₁₅
1998 SB ₁₁₆	14.0	0.15	20000226	85.76187	170.29558	217.71117	5.41253	0.2316516	3.0899376	60	3	1987-2000	0.61	M-v	3	Spahr	37779	1998 SB ₁₁₆
1998 SH ₁₁₆	13.4	0.15	20000226	90.24464	156.44215	241.65525	5.07678	0.0625342	2.7826716	74	3	1992-2000	0.54	M-v	3	Williams	37779	1998 SH ₁₁₆
1998 SM ₁₁₆	13.1	0.15	20000226	70.31887	193.70644	229.59607	5.42393	0.1046426	2.7974626	110	2	1998-2000	0.47	M-v	3	Williams	37779	1998 SM ₁₁₆
1998 SR ₁₁₆	13.6	0.15	20000226	37.88441	180.72964	293.18995	3.60368	0.0960455	2.5665173	72	3	1993-2000	0.64	M-v	2	Williams	37779	1998 SR ₁₁₆
1998 SR ₁₁₇	13.7	0.15	20000226	108.06909	16.88593	5.22540	10.73122	0.0524743	2.7460490	45	3	1996-2000	0.67	M-v	3	Williams	38063	1998 SR ₁₁₇
1998 SS ₁₁₇	14.1	0.15	20000226	252.82168	307.03846	303.86070	2.64950	0.1581548	2.3313748	63	3	1991-2000	0.68	M-v	2	Williams	38063	1998 SS ₁₁₇
1998 SZ ₁₁₇	14.0	0.15	20000226	168.11128	307.96964	4.18399	6.68839	0.0846880	2.7384120	35	2	1998-2000	0.54	M-v	4	Williams	37780	1998 SZ ₁₁₇
1998 SC ₁₁₈	16.2	0.15	20000226	155.61535	103.63689	246.30580	1.25116	0.2079574	2.3628265	29	3	1994-2000	0.77	M-v	4	Spahr	34023	1998 SC ₁₁₈
1998 SK ₁₁₈	13.8	0.15	20000226	246.21658	250.25317	10.78444	6.98829	0.1025552	2.3413025	35	3	1991-2000	0.54	M-v	3	Williams	37780	1998 SK ₁₁₈
1998 SR ₁₁₈	14.5	0.15	20000226	113.38800	199.47550	189.73652	2.36463	0.0564281	2.5436406	52	4	1980-2000	0.66	M-v	4	Williams	38063	1998 SR ₁₁₈
1998 SB ₁₁₉	14.9	0.15	20000226	289.84571	187.95795	26.66233	2.65998	0.1307481	2.4254082	59	3	1960-2000	0.61	M-v	4	Williams	38063	1998 SB ₁₁₉
1998 ST ₁₁₉	14.0	0.15	20000226	51.69781	41.35307	56.72148	4.83513	0.1290717	2.5979127	53	3	1997-2000	0.70	M-v	2	Williams	37781	1998 ST ₁₁₉
1998 SN ₁₂₁	14.1	0.15	20000226	74.27147	113.61783	289.44738	3.68420	0.1498774	3.1391076	56	2	1998-2000	0.65	M-v	4	Spahr	37781	1998 SN ₁₂₁
1998 SC ₁₂₂	14.5	0.15	20000226	97.09588	65.72438	351.01676	4.34344	0.1542839	2.5322457	58	6	1954-2000	0.68	M-v	2	Williams	38063	1998 SC ₁₂₂
1998 SH ₁₂₂	13.6	0.15	20000226	96.21272	148.08075	220.14658	5.02651	0.1568919	3.1946925	42	3	1996-2000	0.73	M-v	3	Spahr	38063	1998 SH ₁₂₂
1998 SJ ₁₂₂	13.6	0.15	20000226	74.56736	181.95388	217.06724	5.69336	0.1375548	3.1671720	66	2	1998-2000	0.64	M-v	3	Williams	37781	1998 SJ ₁₂₂
1998 SK ₁₂₂	14.3	0.15	20000226	81.77359	227.11323	227.09242	3.33006	0.0952644	2.2665013	39	4	1988-2000	0.66	M-v	2	Spahr	34024	1998 SK ₁₂₂
1998 SD ₁₂₄	14.7	0.15	20000226	269.33380	68.38662	172.11343	4.85235	0.1266429	2.3084908	44	2	1998-2000	0.73	M-v	4	Williams	37782	1998 SD ₁₂₄
1998 SR ₁₂₄	14.7	0.15	20000226	16.40280	336.81381	153.27758	1.83946	0.0058429	2.4795976	70	4	1992-2000	0.72	M-v	2	Williams	38064	1998 SR ₁₂₄
1998 SU ₁₂₄	13.7	0.15	20000226	59.50807	285.03037	141.65764	2.80625	0.0478200	2.8327087	72	3	1996-2000	0.58	M-v	3	Spahr	37782	1998 SU ₁₂₄
1998 SK ₁₂₅	14.7	0.15	20000226	167.10415	179.51397	155.14336	6.37236	0.1259132	2.3992621	30	3	1979-2000	0.70	M-v	4	Spahr	33288	1998 SK ₁₂₅
1998 SA ₁₂₆	14.1	0.15	20000226	84.21519	285.75254	103.20531	4.82039	0.0986034	2.9944553	65	3	1993-2000	0.78	M-v	4	Williams	38064	1998 SA ₁₂₆
1998 SV ₁₂₆	14.2	0.15	20000226	62.17578	318.19407	104.06686	5.90730	0.0434174	2.8065389	57	3	1996-2000	0.73	M-v	3	Williams	38064	1998 SV ₁₂₆
1998 SX ₁₂₆	13.2	0.15	20000226	193.45478	224.17257	58.46078	8.32069	0.0848832	2.7207922	66	3	1992-2000	0.53	M-v	3	Williams	37782	1998 SX ₁₂₆

1998 SC ₁₂₇	14.0	0.15	20000226	79.77431	260.69257	127.30240	6.19259	0.1627979	3.1787407	41	2	1998-2000	0.60	M-v	4	Williams	37782	1998 SC ₁₂₇
1998 SU ₁₂₈	13.5	0.15	20000226	169.22470	235.55940	70.66655	3.02473	0.0558839	2.8755567	79	3	1993-2000	0.61	M-v	3	Williams	38064	1998 SU ₁₂₈
1998 SV ₁₂₈	12.8	0.15	20000226	116.97897	315.30784	34.91984	9.16831	0.0167946	3.1688120	50	3	1996-2000	0.63	M-v	3	Williams	37783	1998 SV ₁₂₈
1998 SB ₁₂₉	13.8	0.15	20000226	259.12676	76.98770	166.61482	6.55934	0.1006119	2.4342485	64	2	1998-2000	0.65	M-v	4	Spahr	37783	1998 SB ₁₂₉
1998 SN ₁₂₉	14.5	0.15	20000226	155.76256	174.31490	156.60475	1.71530	0.1109989	2.6440301	58	4	1996-2000	0.70	M-v	1	Spahr	37783	1998 SN ₁₂₉
1998 SO ₁₂₉	13.3	0.15	20000226	98.00766	336.38851	45.27379	2.60914	0.0554220	2.9377390	95	3	1996-2000	0.58	M-v	3	Williams	38064	1998 SO ₁₂₉
1998 SQ ₁₂₉	14.6	0.15	20000226	193.88492	281.61354	28.25102	6.17673	0.1599354	2.3219029	67	3	1997-2000	0.60	M-v	3	Spahr	35719	1998 SQ ₁₂₉
1998 SU ₁₂₉	12.3	0.15	20000226	185.81151	146.20921	125.54964	1.80193	0.1400585	3.0922246	87	3	1992-2000	0.55	M-v	3	Williams	38064	1998 SU ₁₂₉
1998 SW ₁₂₉	13.9	0.15	20000226	35.12796	94.68803	20.70876	13.13717	0.1428449	2.6762739	37	3	1996-2000	0.59	M-v	3	Spahr	33569	1998 SW ₁₂₉
1998 SE ₁₃₀	13.4	0.15	20000226	183.98065	99.39495	191.42772	1.86920	0.0498495	2.9328243	63	2	1998-2000	0.67	M-v	4	Spahr	38064	1998 SE ₁₃₀
1998 SS ₁₃₀	14.4	0.15	20000226	275.15039	262.10942	344.35081	2.55095	0.1306712	2.2052051	58	3	1991-2000	0.51	M-v	3	Williams	38064	1998 SS ₁₃₀
1998 SB ₁₃₁	13.6	0.15	20000226	122.64787	79.89196	288.42176	1.72570	0.0539133	2.7322554	82	2	1998-2000	0.62	M-v	3	Spahr	37783	1998 SB ₁₃₁
1998 SD ₁₃₁	13.3	0.15	20000226	336.86834	147.98343	356.51253	4.86035	0.0844435	3.1448392	121	3	1995-2000	0.57	M-v	4	Williams	38064	1998 SD ₁₃₁
1998 SL ₁₃₁	16.5	0.15	19980924	24.89331	114.26845	227.41730	4.70387	0.1537393	2.2542547	24	1	33 days	1.06			Williams		1998 SL ₁₃₁
1998 ST ₁₃₁	13.9	0.15	20000226	351.79178	257.05539	292.25244	4.92119	0.1234493	2.1829617	44	4	1991-2000	0.69	M-v	2	Spahr	38064	1998 ST ₁₃₁
1998 SV ₁₃₁	14.0	0.15	20000226	148.54684	124.63947	224.65984	12.93880	0.0650971	2.5957277	53	4	1990-2000	0.65	M-v	2	Spahr	38064	1998 SV ₁₃₁
1998 SE ₁₃₂	12.4	0.15	20000226	178.68663	80.84990	219.94175	12.46227	0.0697981	2.8484330	99	3	1992-2000	0.60	M-v	2	Spahr	38064	1998 SE ₁₃₂
1998 SG ₁₃₂	14.0	0.15	20000226	288.78432	255.52628	338.89767	5.42432	0.1294444	2.2472290	96	4	1990-2000	0.56	M-v	2	Williams	38064	1998 SG ₁₃₂
1998 SJ ₁₃₂	14.3	0.15	20000226	44.91500	138.36249	316.60685	4.44639	0.0483865	2.7336775	54	2	1998-2000	0.77	M-v	3	Spahr	37784	1998 SJ ₁₃₂
1998 SK ₁₃₂	13.9	0.15	20000226	344.02273	215.30319	315.74212	4.42323	0.0950529	2.5237577	75	3	1992-2000	0.68	M-v	3	Williams	38064	1998 SK ₁₃₂
1998 SR ₁₃₂	15.0	0.15	20000226	64.30249	183.95396	287.59988	3.00705	0.0864546	2.2940051	29	3	1993-2000	0.74	M-v	3	Spahr	33291	1998 SR ₁₃₂
1998 ST ₁₃₂	13.8	0.15	20000226	39.83868	146.04332	307.37202	3.36042	0.0231774	2.7910750	79	3	1989-2000	0.64	M-v	3	Williams	38064	1998 ST ₁₃₂
1998 SV ₁₃₂	13.2	0.15	20000226	107.49226	136.37251	234.50930	6.47139	0.0670936	2.9987536	65	2	1998-2000	0.51	M-v	3	Spahr	37784	1998 SV ₁₃₂
1998 SX ₁₃₂	14.1	0.15	20000226	274.20182	261.45563	330.42519	3.11449	0.0267898	2.5179803	97	3	1996-2000	0.60	M-v	3	Williams	38064	1998 SX ₁₃₂
1998 SA ₁₃₃	14.4	0.15	20000226	226.92749	278.96558	6.44734	8.88044	0.1459165	2.2618268	59	5	1981-2000	0.61	M-v	1	Williams	38064	1998 SA ₁₃₃
1998 SG ₁₃₃	14.3	0.15	20000226	35.35851	263.24919	208.14536	13.07606	0.0473365	2.6045999	55	3	1977-2000	0.74	M-v	3	Spahr	38064	1998 SG ₁₃₃
1998 SX ₁₃₃	15.1	0.15	19980924	322.90805	51.12528	18.07658	25.51654	0.1675379	2.7706383	25	1	32 days	0.75			Williams		1998 SX ₁₃₃
1998 SZ ₁₃₃	14.4	0.15	20000226	87.14520	232.86631	200.34934	5.67351	0.0971780	2.4488155	53	4	1977-2000	0.63	M-v	1	Spahr	38064	1998 SZ ₁₃₃
1998 SH ₁₃₄	13.5	0.15	20000226	38.57771	286.96760	154.18245	0.91168	0.1214479	3.2371043	82	3	1981-2000	0.72	M-v	3	Williams	37784	1998 SH ₁₃₄
1998 SN ₁₃₄	14.1	0.15	20000226	112.99639	12.01134	30.01142	5.05633	0.0807471	2.4325341	48	3	1960-2000	0.64	M-v	3	Williams	38064	1998 SN ₁₃₄
1998 SV ₁₃₄	12.9	0.15	20000226	111.68444	226.91875	117.09101	1.78373	0.2184152	3.1785927	96	3	1992-2000	0.55	M-v	3	Williams	38064	1998 SV ₁₃₄
1998 SN ₁₃₅	13.8	0.15	20000226	120.79488	356.39387	40.49585	7.74047	0.0538340	2.3742535	49	4	1987-2000	0.55	M-v	2	Spahr	38064	1998 SN ₁₃₅
1998 SK ₁₃₇	14.6	0.15	20000226	237.54697	156.67661	94.48271	5.69861	0.0821824	2.6327203	34	2	1998-2000	0.54	M-v	4	Williams	37785	1998 SK ₁₃₇
1998 SQ ₁₃₇	13.8	0.15	20000226	185.69982	215.93124	80.49056	5.50722	0.0465396	2.7951608	49	2	1998-2000	0.69	M-v	4	Williams	37785	1998 SQ ₁₃₇
1998 SX ₁₃₇	13.4	0.15	20000226	41.20132	17.31931	68.93335	3.18166	0.0206865	2.8633053	74	3	1993-2000	0.64	M-v	2	Williams	37785	1998 SX ₁₃₇
1998 SC ₁₃₈	14.2	0.15	20000226	82.85804	225.65403	178.06179	1.96265	0.0655944	2.8998767	65	4	1971-2000	0.67	M-v	2	Spahr	38064	1998 SC ₁₃₈
1998 SE ₁₃₈	14.0	0.15	20000226	174.61735	293.21995	15.69094	5.62468	0.0851505	2.7418947	45	2	1998-2000	0.77	M-v	4	Williams	37786	1998 SE ₁₃₈
1998 SN ₁₃₈	13.9	0.15	20000226	25.70812	98.42011	14.67435	4.21705	0.2046754	3.1061038	53	3	1992-2000	0.71	M-v	3	Williams	38064	1998 SN ₁₃₈
1998 SY ₁₃₈	14.8	0.15	20000226	274.71946	229.97174	8.98639	7.28092	0.0782210	2.3919924	49	2	1998-2000	0.83	M-v	4	Williams	37786	1998 SY ₁₃₈
1998 SB ₁₃₉	13.6	0.15	20000226	120.78760	116.11286	252.19019	3.33611	0.0861789	2.7846029	77	3	1996-2000	0.56	M-v	3	Williams	37787	1998 SB ₁₃₉
1998 SC ₁₃₉	14.8	0.15	20000226	225.94423	48.57743	236.09441	4.16228	0.1216669	2.3216670	69	2	1998-2000	0.69	M-v	4	Williams	37787	1998 SC ₁₃₉
1998 SQ ₁₃₉	13.3	0.15	20000226	66.09302	168.06543	250.29046	8.37822	0.0784751	3.0741676	50	2	1998-2000	0.55	M-v	3	Spahr	37787	1998 SQ ₁₃₉
1998 SR ₁₃₉	13.2	0.15	20000226	264.45693	312.17996	275.26511	6.11958	0.1342301	2.7470210	69	2	1998-2000	0.57	M-v	3	Spahr	38064	1998 SR ₁₃₉
1998 SB ₁₄₀	14.2	0.15	20000226	261.90907	264.94996	345.12748	6.06447	0.0941790	2.3984149	41	2	1998-2000	0.53	M-v	4	Williams	37787	1998 SB ₁₄₀
1998 SE ₁₄₀	14.2	0.15	20000226	156.98886	344.75494	359.30075	9.31435	0.1095010	2.5458341	41	4	1992-2000	0.75	M-v	4	Williams	35720	1998 SE ₁₄₀
1998 SW ₁₄₀	13.6	0.15	20000226	148.56700	68.19718	263.71919	0.94190	0.0441840	2.9413161	66	2	1998-2000	0.65	M-v	3	Spahr	37788	1998 SW ₁₄₀
1998 SX ₁₄₀	14.4	0.15	20000226	247.99047	271.24489	342.94510	1.83889	0.1784490	2.4017551	65	3	1989-2000	0.66	M-v	3	Williams	37788	1998 SX ₁₄₀
1998 SZ ₁₄₀	13.2	0.15	20000226	182.50531	81.44089	223.28488	1.74983	0.0086022	2.8571648	81	3	1993-2000	0.68	M-v	3	Williams	38064	1998 SZ ₁₄₀
1998 SD ₁₄₁	12.9	0.15	20000226	158.64843	288.50479	20.84994	10.56153	0.1121375	3.0238568	63	2	1998-2000	0.54	M-v	3	Williams	37788	1998 SD ₁₄₁
1998 SV ₁₄₁	15.3	0.15	20000226	270.24914	160.84985	98.27620	4.67164	0.0791031	2.1708976	40	4	1985-2000	0.75	M-v	2	Williams	35635	1998 SV ₁₄₁
1998 SL ₁₄₂	12.9	0.15	20000226	259.33819	168.23779	48.62448	11.38103	0.0443749	3.0429371	54	3	1996-2000	0.68	M-v	4	Williams	37788	1998 SL ₁₄₂
1998 ST ₁₄₂	15.0	0.15	20000226	206.91651	318.20005	356.65292	1.34864	0.1319715	2.2087074	69	4	1991-2000	0.62	M-v	2	Williams	35720	1998 ST ₁₄₂
1998 SP ₁₄₃	14.0	0.15	20000226	13.02817	99.49206	23.67521	3.87936	0.0368973	2.7597085	50	3	1993-2000	0.72	M-v	3	Williams	38064	1998 SP ₁₄₃

1998 SY ₁₄₃	15.2	0.15	20000226	199.47751	330.65131	349.03220	2.30588	0.1464278	2.2212757	47	3	1997-2000	0.47	M-v	3	Spahr	38064	1998 SY ₁₄₃
1998 SA ₁₄₄	13.4	0.15	20000226	309.67400	26.87324	151.42790	2.24810	0.0604348	2.9190913	44	3	1996-2000	0.60	M-v	3	Spahr	38064	1998 SA ₁₄₄
1998 SB ₁₄₄	14.9	0.15	20000226	142.28665	225.57734	129.24774	1.49608	0.1726854	2.5484102	38	4	1996-2000	0.67	M-v	2	Williams	35720	1998 SB ₁₄₄
1998 SD ₁₄₄	14.0	0.15	20000226	37.96885	279.27030	199.38581	21.75469	0.0795084	2.5442506	37	3	1990-2000	0.80	M-v	3	Williams	38064	1998 SD ₁₄₄
1998 SQ ₁₄₄	13.4	0.15	20000226	95.25493	158.75705	236.95233	0.68629	0.0825334	2.8569879	68	3	1993-2000	0.59	M-v	4	Spahr	38064	1998 SQ ₁₄₄
1998 SA ₁₄₅	13.4	0.15	20000226	115.45382	322.86329	21.48369	15.19124	0.2239312	3.1646952	57	2	1998-2000	0.72	M-v	3	Williams	37789	1998 SA ₁₄₅
1998 SO ₁₄₅	14.6	0.15	20000226	187.11123	250.57438	68.12530	1.84662	0.1364035	2.3919784	53	4	1994-2000	0.72	M-v	2	Williams	35720	1998 SO ₁₄₅
1998 SW ₁₄₅	14.2	0.15	20000226	22.46154	40.14017	112.45939	1.78034	0.1439020	2.3886575	47	4	1985-2000	0.75	M-v	2	Spahr	34025	1998 SW ₁₄₅
1998 SY ₁₄₅	14.9	0.15	20000226	192.45535	271.59453	29.85785	2.36657	0.2164449	2.4172096	36	3	1997-2000	0.78	M-v	4	Spahr	34593	1998 SY ₁₄₅
1998 SS ₁₄₆	12.9	0.15	20000226	205.75181	85.49070	190.69709	9.64554	0.0258929	2.9896025	47	2	1998-2000	0.76	M-v	4	Spahr	37789	1998 SS ₁₄₆
1998 ST ₁₄₆	14.2	0.15	20000226	179.02292	286.05048	61.86592	2.31273	0.1644775	2.2002818	49	3	1997-2000	0.68	M-v	3	Williams	38064	1998 ST ₁₄₆
1998 SU ₁₄₆	13.8	0.15	20000226	66.91086	220.60371	195.95265	10.75278	0.0551451	3.0833704	35	2	1998-2000	0.79	M-v	3	Spahr	37789	1998 SU ₁₄₆
1998 SY ₁₄₆	14.2	0.15	20000226	143.25958	173.49443	175.57381	2.56272	0.0409523	2.7863694	29	3	1993-2000	0.61	M-v	4	Williams	33298	1998 SY ₁₄₆
1998 SE ₁₄₇	13.8	0.15	20000226	49.38939	9.34947	73.51679	1.40955	0.1295341	3.0856150	74	3	1989-2000	0.74	M-v	2	Williams	38064	1998 SE ₁₄₇
1998 SU ₁₄₇	13.7	0.15	20000226	169.68173	256.51823	71.35748	3.41498	0.0480972	2.6666074	47	3	1994-2000	0.65	M-v	4	Williams	37789	1998 SU ₁₄₇
1998 SX ₁₄₇	14.8	0.15	20000226	214.60129	172.24918	113.82923	2.23268	0.1882241	2.3870752	37	4	1994-2000	0.64	M-v	1	Williams	35720	1998 SX ₁₄₇
1998 SQ ₁₅₄	14.0	0.15	20000226	316.33879	233.80025	303.47647	3.03723	0.1014633	2.6834363	66	3	1987-2000	0.65	M-v	3	Williams	37789	1998 SQ ₁₅₄
1998 SW ₁₅₆	14.5	0.15	20000226	161.51017	350.59211	336.92112	6.30448	0.1457800	2.5733014	41	2	1998-2000	0.76	M-v	4	Williams	37790	1998 SW ₁₅₆
1998 SD ₁₅₉	13.6	0.15	20000226	43.88181	130.34432	323.23614	3.27620	0.0539180	2.7318061	74	2	1998-2000	0.55	M-v	3	Williams	38064	1998 SD ₁₅₉
1998 ST ₁₆₀	14.0	0.15	20000226	165.73143	120.11430	183.83851	2.48201	0.0761031	2.9778812	35	4	1991-2000	0.62	M-v	1	Williams	38064	1998 ST ₁₆₀
1998 SE ₁₆₁	13.8	0.15	20000226	67.58413	190.80264	224.13446	10.20076	0.1003154	3.0579103	54	2	1998-2000	0.63	M-v	3	Spahr	37790	1998 SE ₁₆₁
1998 SA ₁₆₃	13.9	0.15	20000226	330.27762	336.53420	198.15930	5.74854	0.0957193	2.6731521	61	3	1996-2000	0.66	M-v	3	Spahr	37790	1998 SA ₁₆₃
1998 SE ₁₆₃	14.7	0.15	20000226	226.03907	158.21174	120.11929	5.35375	0.1836253	2.2944804	63	4	1993-2000	0.63	M-v	1	Williams	38065	1998 SE ₁₆₃
1998 SU ₁₆₃	13.5	0.15	20000226	221.30320	223.84126	51.60955	9.65658	0.1467659	2.5539268	53	3	1997-2000	0.70	M-v	3	Williams	37790	1998 SU ₁₆₃
1998 SX ₁₆₃	13.1	0.15	20000226	146.43084	282.54505	46.70526	11.50788	0.0905679	3.0897965	51	3	1996-2000	0.42	M-v	3	Williams	38065	1998 SX ₁₆₃
1998 SG ₁₆₄	12.5	0.15	20000226	259.93012	81.27318	141.25496	7.29832	0.0908871	3.1546757	58	4	1974-2000	0.60	M-v	2	Spahr	37790	1998 SG ₁₆₄
1998 SK ₁₆₄	13.0	0.15	20000226	329.12164	83.30167	104.07841	7.54794	0.1447505	2.6636328	87	3	1994-2000	0.64	M-v	2	Williams	38065	1998 SK ₁₆₄
1998 SV ₁₆₄	13.7	0.15	20000226	228.81265	168.56870	98.44990	7.95921	0.0712591	2.4103173	67	3	1990-2000	0.54	M-v	2	Williams	37791	1998 SV ₁₆₄
1998 TA	13.6	0.15	20000226	256.67772	258.09557	0.31848	7.34516	0.0894900	2.3149755	132	2	1998-2000	0.63	M-v	4	Williams	38065	1998 TA
1998 TF	13.3	0.15	20000226	20.59811	122.79162	16.90492	7.90230	0.1776807	2.7168312	82	2	1998-2000	0.55	M-v	3	Williams	37791	1998 TF
1998 TK	12.6	0.15	20000226	281.44930	343.19735	220.97651	10.08055	0.0671662	3.0450643	64	3	1996-2000	0.60	M-v	3	Williams	37791	1998 TK
1998 TD ₁	18.8	0.15	19981014	341.84866	19.47523	32.30776	8.41362	0.1089300	2.2030590	12	1	15 days	0.27			Williams		1998 TD ₁
1998 TU ₁	13.9	0.15	20000226	119.52767	161.33872	216.45224	13.07645	0.1820673	2.5832601	56	3	1994-2000	0.65	M-v	2	Spahr	38065	1998 TU ₁
1998 TY ₁	14.8	0.15	20000226	113.42313	288.72942	77.70356	7.15543	0.0746913	2.7325820	26	2	1998-2000	0.56	M-v	4	Williams	37791	1998 TY ₁
1998 TZ ₁	13.8	0.15	20000226	135.29875	207.10788	171.68403	12.74044	0.0133505	2.5678271	58	5	1973-2000	0.70	M-v	2	Williams	38065	1998 TZ ₁
1998 TC ₂	14.2	0.15	20000226	29.09364	105.83047	349.54964	4.47122	0.1223773	3.2083117	37	2	1998-2000	0.62	M-v	4	Williams	37792	1998 TC ₂
1998 TP ₂	13.3	0.15	20000226	126.52775	82.05047	283.65673	1.76883	0.2339291	2.6868985	70	3	1982-2000	0.59	M-v	2	Williams	37792	1998 TP ₂
1998 TX ₂	14.3	0.15	20000226	346.48592	147.21334	6.76589	4.20748	0.1454773	3.0639430	43	4	1960-2000	0.58	M-v	2	Williams	38065	1998 TX ₂
1998 TG ₃	13.6	0.15	20000226	166.52219	109.14409	203.68571	21.43632	0.2989429	2.4121713	56	3	1983-2000	0.59	M-v	2	Spahr	38065	1998 TG ₃
1998 TB ₄	18.3	0.15	19981014	23.85756	313.71674	9.58410	6.77639	0.3240418	2.5769600	12	1	16 days	0.26			Williams		1998 TB ₄
1998 TN ₄	15.8	0.15	19981014	337.39446	62.91539	327.81118	1.31998	0.0198446	2.8621391	11	1	15 days	0.25			Williams		1998 TN ₄
1998 TH ₅	14.1	0.15	20000226	101.87913	241.80857	135.09687	2.85127	0.1911648	3.1198480	66	4	1995-2000	0.51	M-v	1	Williams	35721	1998 TH ₅
1998 TN ₅	12.4	0.15	20000226	328.01318	315.67895	212.98104	13.17759	0.0937432	3.1178178	79	2	1998-2000	0.54	M-v	4	Williams	37792	1998 TN ₅
1998 TX ₅	12.9	0.15	20000226	186.27500	26.09966	269.02196	1.89569	0.1265334	2.7843762	110	3	1993-2000	0.59	M-v	3	Spahr	38065	1998 TX ₅
1998 TA ₆	13.2	0.15	20000226	30.51619	308.63911	183.92879	12.68114	0.1156374	2.6619524	38	3	1997-2000	0.51	M-v	2	Spahr	38065	1998 TA ₆
1998 TC ₆	14.7	0.15	20000226	132.07748	235.93297	160.36450	2.99621	0.0348566	2.3987941	35	3	1990-2000	0.55	M-v	4	Spahr	34305	1998 TC ₆
1998 TQ ₆	14.0	0.15	20000226	170.36827	242.43877	113.15299	7.75297	0.1424870	2.3492203	58	2	1998-2000	0.47	M-v	3	Williams	37792	1998 TQ ₆
1998 TU ₆	14.1	0.15	20000226	150.43640	247.35179	84.16548	2.74922	0.1286114	2.9313784	59	3	1997-2000	0.70	M-v	3	Williams	38065	1998 TU ₆
1998 TV ₆	12.6	0.15	20000226	267.36348	3.04425	214.82111	15.59995	0.0461720	3.1854310	83	3	1981-2000	0.66	M-v	3	Spahr	38065	1998 TV ₆
1998 TC ₁₀	13.4	0.15	20000226	55.39820	9.07808	62.43662	1.53737	0.1434902	3.2355913	61	2	1998-2000	0.58	M-v	3	Williams	37793	1998 TC ₁₀
1998 TQ ₁₂	16.0	0.15	19981014	63.25121	285.77709	33.65939	7.39445	0.1124571	2.3436935	14	1	16 days	0.13			Williams		1998 TQ ₁₂
1998 TX ₁₂	14.7	0.15	20000226	0.62006	333.73361	212.03499	1.82465	0.1689594	2.3406107	27	3	1994-2000	0.64	M-v	4	Spahr	33303	1998 TX ₁₂
1998 TR ₁₇	15.1	0.15	20000226	151.80554	169.48835	182.04977	1.32474	0.1132077	2.6224999	29	4	1993-2000	0.69	M-v	2	Williams	35721	1998 TR ₁₇

1998 TY ₂₀	14.2	0.15	20000226	57.20404	144.82161	295.24487	0.79447	0.0705632	2.8781923	47	4	1993-2000	0.67	M-v	1	Williams	36085	1998 TY ₂₀
1998 TT ₂₆	13.9	0.15	20000226	258.62125	12.88217	222.62613	9.15358	0.0414840	2.9691501	31	3	1996-2000	0.74	M-v	4	Spahr	38065	1998 TT ₂₆
1998 TV ₂₆	15.1	0.15	20000226	269.18669	217.67398	31.41520	4.23944	0.1694079	2.4227692	27	2	1998-2000	0.47	M-v	4	Williams	37793	1998 TV ₂₆
1998 TD ₂₇	13.5	0.15	20000226	253.98748	211.42069	39.71839	6.24467	0.0457386	2.7620392	77	3	1995-2000	0.52	M-v	3	Williams	38065	1998 TD ₂₇
1998 TH ₂₉	13.9	0.15	20000226	48.87777	92.60966	355.12708	1.51793	0.0502416	2.9373199	64	4	1990-2000	0.60	M-v	2	Williams	38065	1998 TH ₂₉
1998 TN ₃₀	15.1	0.15	20000226	164.37245	105.57345	236.82032	0.41907	0.2002551	2.4250431	40	4	1979-2000	0.67	M-v	2	Williams	38065	1998 TN ₃₀
1998 TQ ₃₀	14.7	0.15	20000226	176.48292	88.59429	234.16885	1.80015	0.1445663	2.5388001	48	4	1978-2000	0.71	M-v	3	Williams	38065	1998 TQ ₃₀
1998 TR ₃₀	13.5	0.15	20000226	245.89169	28.25149	213.79208	5.35331	0.0269260	2.9912956	67	3	1996-2000	0.62	M-v	3	Spahr	38065	1998 TR ₃₀
1998 TT ₃₀	14.3	0.15	20000226	253.43889	259.13129	17.15457	5.28380	0.1600534	2.2143187	37	3	1997-2000	0.48	M-v	3	Williams	38065	1998 TT ₃₀
1998 TV ₃₀	14.4	0.15	20000226	173.73942	345.90359	345.04059	2.13050	0.1373629	2.5488957	44	3	1986-2000	0.70	M-v	4	Williams	37793	1998 TV ₃₀
1998 TQ ₃₁	14.6	0.15	20000226	253.23780	61.32217	200.11684	7.10983	0.0984792	2.2840171	30	2	1998-2000	0.62	M-v	4	Spahr	37793	1998 TQ ₃₁
1998 TA ₃₂	13.7	0.15	20000226	219.80589	2.37103	279.77382	2.87464	0.0557276	2.6170375	65	2	1998-2000	0.63	M-v	4	Williams	37793	1998 TA ₃₂
1998 TD ₃₂	14.5	0.15	20000226	31.84453	171.39697	333.07597	4.21608	0.0853993	2.3697669	34	3	1978-2000	0.68	M-v	3	Spahr	38065	1998 TD ₃₂
1998 TM ₃₂	14.5	0.15	20000226	226.95800	342.90179	297.94754	1.30727	0.1133718	2.4117687	73	2	1998-2000	0.59	M-v	4	Williams	37793	1998 TM ₃₂
1998 TW ₃₂	13.3	0.15	20000226	130.96772	168.80352	206.23780	14.89479	0.0861858	2.5802617	38	3	1994-2000	0.65	M-v	3	Spahr	37794	1998 TW ₃₂
1998 TN ₃₃	13.5	0.15	20000226	109.61815	293.81998	89.96871	3.16656	0.0718770	2.8896297	52	3	1995-2000	0.54	M-v	3	Williams	38065	1998 TN ₃₃
1998 TR ₃₃	13.6	0.15	20000226	164.91343	213.03540	102.47111	2.71386	0.1493002	2.8694361	54	4	1993-2000	0.55	M-v	2	Williams	38065	1998 TR ₃₃
1998 TD ₃₄	13.4	0.15	20000226	101.10236	190.47582	195.78205	10.05872	0.1049932	2.9989394	46	3	1996-2000	0.62	M-v	3	Spahr	38065	1998 TD ₃₄
1998 TG ₃₄	14.3	0.15	20000226	205.42688	122.62475	183.62010	6.61360	0.1928344	2.3026966	46	3	1997-2000	0.52	M-v	3	Spahr	38065	1998 TG ₃₄
1998 TJ ₃₄	13.5	0.15	20000226	96.13759	212.83384	173.38698	5.96016	0.1618498	3.0931969	59	2	1998-2000	0.60	M-v	4	Williams	37794	1998 TJ ₃₄
1998 TK ₃₄	15.5	0.15	20000226	220.70429	113.21583	182.23853	5.77630	0.2108988	2.2343435	32	4	1991-2000	0.69	M-v	1	Spahr	35721	1998 TK ₃₄
1998 UE	13.4	0.15	20000226	22.86627	182.96037	319.82295	25.22371	0.1560924	2.3271869	54	3	1982-2000	0.68	M-v	2	Spahr	38065	1998 UE
1998 UZ	13.5	0.15	20000226	49.45015	266.82220	215.05593	12.07647	0.1991005	2.6219684	75	6	1953-2000	0.52	M-v	1	Williams	35721	1998 UZ
1998 UB ₁	15.7	0.15	20000226	130.80794	150.16889	202.74680	0.49360	0.2203226	2.8455694	37	3	1993-2000	0.58	M-v	4	Williams	35721	1998 UB ₁
1998 UJ ₁	14.7	0.15	20000226	209.61572	198.89211	72.27715	7.17168	0.1672953	2.5335220	31	3	1997-2000	0.83	M-v	3	Williams	38065	1998 UJ ₁
1998 UX ₁	12.8	0.15	20000226	142.93272	209.02787	142.95815	11.11723	0.1269821	3.0134687	54	2	1998-2000	0.57	M-v	4	Spahr	37794	1998 UX ₁
1998 UO ₂	14.1	0.15	20000226	216.04586	242.84643	26.71396	12.99818	0.1589766	2.7403355	37	3	1992-2000	0.55	M-v	3	Williams	38065	1998 UO ₂
1998 UC ₃	14.1	0.15	20000226	111.42279	55.09280	327.56870	1.27717	0.0680079	2.8610416	75	3	1993-2000	0.64	M-v	4	Williams	37794	1998 UC ₃
1998 UO ₆	14.9	0.15	20000226	129.47449	225.88119	137.58138	2.74165	0.0877423	2.8445916	44	2	1998-2000	0.48	M-v	5	Spahr	37795	1998 UO ₆
1998 UP ₆	13.2	0.15	20000226	172.72342	299.87104	23.74638	17.56197	0.2552456	2.6028846	68	4	1981-2000	0.69	M-v	2	Williams	36905	1998 UP ₆
1998 US ₆	14.7	0.15	20000226	76.76424	26.21006	39.60576	5.17063	0.1107391	2.6599314	27	3	1996-2000	0.59	M-v	4	Williams	33050	1998 US ₆
1998 UZ ₆	13.0	0.15	20000226	11.20800	18.82295	148.87375	12.83082	0.1000666	2.6879628	55	5	1989-2000	0.59	M-v	1	Spahr	35636	1998 UZ ₆
1998 UD ₇	13.9	0.15	20000226	180.54938	271.36364	34.11746	3.06615	0.2870110	2.5915747	67	6	1980-2000	0.63	M-v	2	Williams	38065	1998 UD ₇
1998 UG ₇	13.9	0.15	20000226	2.45318	108.93027	24.96977	1.63745	0.0092638	2.9620318	78	2	1998-2000	0.58	M-v	3	Williams	37795	1998 UG ₇
1998 UL ₈	13.2	0.15	20000226	61.63316	2.75387	87.49127	2.55602	0.1455900	3.1004944	85	4	1987-2000	0.53	M-v	1	Williams	38065	1998 UL ₈
1998 UF ₉	15.5	0.15	20000226	350.85904	162.36716	5.84778	4.71242	0.0804785	2.2379389	33	4	1980-2000	0.28	M-v	1	Williams	33051	1998 UF ₉
1998 UF ₁₄	13.3	0.15	20000226	133.18019	283.94781	69.43671	3.05743	0.0938937	2.9356491	65	3	1996-2000	0.58	M-v	3	Williams	37795	1998 UF ₁₄
1998 UG ₁₅	14.5	0.15	20000226	281.96076	105.43710	114.06258	7.50962	0.0550976	2.3323883	46	2	1998-2000	0.42	M-v	4	Williams	37796	1998 UG ₁₅
1998 UN ₁₅	13.1	0.15	20000226	119.51956	268.56884	88.49666	1.91224	0.1978245	3.1658141	33	3	1996-2000	0.63	M-v	4	Spahr	37796	1998 UN ₁₅
1998 UP ₁₅	14.4	0.15	20000226	23.15495	74.65518	84.63275	3.13110	0.0982785	2.4429398	45	5	1977-2000	0.76	M-v	2	Spahr	35722	1998 UP ₁₅
1998 UQ ₁₅	13.0	0.15	20000226	97.08481	324.97972	86.98405	3.55295	0.0753198	2.7805319	40	3	1979-2000	0.53	M-v	3	Williams	37288	1998 UQ ₁₅
1998 UB ₁₆	14.2	0.15	20000226	300.76452	154.22070	51.87110	12.70455	0.1355412	2.6611026	46	2	1998-2000	0.62	M-v	4	Williams	38065	1998 UB ₁₆
1998 UB ₁₇	14.1	0.15	20000226	184.28774	241.73619	97.39808	24.38155	0.2631036	2.2746379	24	3	1994-2000	0.68	M-v	3	Williams	33761	1998 UB ₁₇
1998 UG ₁₇	14.4	0.15	20000226	119.82542	66.84748	310.10683	4.39437	0.0815590	2.7173378	48	3	1993-2000	0.76	M-v	4	Williams	33372	1998 UG ₁₇
1998 UW ₁₈	13.4	0.15	20000226	84.01857	8.29731	41.06524	5.77606	0.1501532	3.1728133	39	4	1994-2000	0.64	M-v	2	Williams	35722	1998 UW ₁₈
1998 UJ ₁₉	15.6	0.15	20000226	302.26205	226.20893	29.78753	22.24742	0.0576862	1.9319910	27	1	76 days	0.76	M-v	5	Williams		1998 UJ ₁₉
1998 UL ₁₉	15.2	0.15	20000226	114.77930	324.58759	39.60911	17.67634	0.3117292	2.7737210	29	1	72 days	0.77	M-v	4	Williams		1998 UL ₁₉
1998 UW ₁₉	13.9	0.15	20000226	109.06801	1.35023	20.53840	1.82459	0.0589820	3.1100794	80	3	1995-2000	0.73	M-v	3	Williams	38066	1998 UW ₁₉
1998 UY ₁₉	11.9	0.15	20000226	257.89503	4.11980	233.35643	16.86089	0.1548507	3.1088138	65	2	1998-2000	0.63	M-v	4	Spahr	37796	1998 UY ₁₉
1998 UZ ₁₉	14.6	0.15	20000226	128.91391	358.56883	16.33317	1.54729	0.1735718	2.7297825	31	3	1993-2000	0.50	M-v	4	Spahr	33573	1998 UZ ₁₉
1998 UM ₂₀	13.7	0.15	20000226	57.72377	337.07182	91.43546	2.61797	0.1737882	3.2234357	65	3	1977-2000	0.71	M-v	2	Williams	38066	1998 UM ₂₀
1998 UP ₂₁	13.7	0.15	20000226	46.60434	257.06997	178.77015	9.03884	0.0997923	3.0012081	36	3	1977-2000	0.63	M-v	2	Spahr	38066	1998 UP ₂₁
1998 UY ₂₁	14.5	0.15	20000226	269.79740	3.67728	232.59275	9.45745	0.1600795	2.4338421	33	2	1998-2000	0.73	M-v	4	Spahr	37796	1998 UY ₂₁

1998 UZ ₂₁	13.9	0.15	20000226	164.78090	256.58305	53.63966	10.07427	0.1524258	2.7224948	48	2	1998–2000	0.71	M-v	4	Williams	38066	1998 UZ ₂₁
1998 UR ₂₃	14.7	0.15	20000226	262.42586	96.01018	155.60636	6.38833	0.1880600	2.1945497	33	2	1998–2000	0.72	M-v	4	Spahr	37796	1998 UR ₂₃
1998 UT ₂₃	14.3	0.15	20000226	317.16233	78.55262	132.59920	6.10751	0.0991827	2.2356808	51	2	1998–2000	0.70	M-v	4	Williams	37797	1998 UT ₂₃
1998 UM ₂₄	14.0	0.15	20000226	219.41293	65.86882	222.85829	8.85875	0.1614196	2.5671346	37	3	1984–2000	0.80	M-v	3	Spahr	38066	1998 UM ₂₄
1998 UO ₂₄	14.3	0.15	20000226	89.49188	227.97684	203.06652	6.47343	0.1243053	2.7008246	34	4	1989–2000	0.85	M-v	2	Spahr	35723	1998 UO ₂₄
1998 UZ ₂₄	13.7	0.15	20000226	131.44974	318.85962	63.41692	6.23673	0.1688838	2.7529423	55	5	1975–2000	0.67	M-v	1	Williams	35723	1998 UZ ₂₄
1998 UL ₂₅	14.5	0.15	20000226	157.84482	154.65743	178.26355	5.95151	0.2754576	2.5370949	38	3	1990–2000	0.67	M-v	3	Williams	35723	1998 UL ₂₅
1998 UC ₂₆	14.4	0.15	20000226	217.42946	101.66860	181.42701	7.08678	0.0319127	2.7770188	33	3	1993–2000	0.76	M-v	3	Spahr	33315	1998 UC ₂₆
1998 UM ₂₆	14.3	0.15	20000226	224.71820	169.64364	126.67266	4.92680	0.1695508	2.2545725	48	3	1991–2000	0.69	M-v	3	Williams	38066	1998 UM ₂₆
1998 UA ₂₇	13.8	0.15	20000226	292.44837	133.74118	110.84092	4.65951	0.1413298	2.2265851	53	3	1991–2000	0.70	M-v	3	Williams	38066	1998 UA ₂₇
1998 UZ ₂₇	13.5	0.15	20000226	260.32820	107.78921	140.35979	6.20768	0.0889975	2.6430953	76	2	1998–2000	0.59	M-v	4	Williams	37797	1998 UZ ₂₇
1998 UU ₂₈	13.2	0.15	20000226	134.15634	274.93518	75.21209	10.82967	0.1028337	3.0632868	44	3	1982–2000	0.64	M-v	3	Williams	38066	1998 UU ₂₈
1998 UH ₃₁	12.0	0.15	20000226	122.97008	347.75054	62.13236	14.31050	0.1390445	2.6276929	50	5	1951–2000	0.75	M-v	2	Williams	38066	1998 UH ₃₁
1998 UR ₃₁	13.8	0.15	20000226	320.01614	176.94741	62.92124	8.18159	0.1703669	2.2219304	55	3	1980–2000	0.69	M-v	3	Williams	37797	1998 UR ₃₁
1998 UF ₃₃	13.2	0.15	20000226	178.87800	249.35729	46.43267	11.37663	0.1775549	2.5537050	40	2	1998–2000	0.57	M-v	4	Williams	37798	1998 UF ₃₃
1998 UE ₃₄	13.2	0.15	20000226	73.03607	157.74800	245.93075	9.41839	0.0407515	3.0615219	34	2	1998–2000	0.60	M-v	3	Spahr	37798	1998 UE ₃₄
1998 UG ₃₄	14.4	0.15	20000226	196.57612	327.59859	329.31996	2.23852	0.1687543	2.4434070	55	4	1990–2000	0.65	M-v	3	Williams	38066	1998 UG ₃₄
1998 UV ₃₅	15.4	0.15	20000226	256.52712	224.57430	45.22767	4.72989	0.0714794	2.2212294	26	4	1988–2000	0.78	M-v	2	Williams	35637	1998 UV ₃₅
1998 UJ ₄₀	13.3	0.15	20000226	311.91470	323.52282	234.46810	11.16723	0.1131262	2.6076524	44	2	1998–2000	0.56	M-v	4	Spahr	37798	1998 UJ ₄₀
1998 UU ₄₀	14.6	0.15	20000226	126.09474	89.31995	267.50913	1.04927	0.1721069	2.8307576	40	4	1993–2000	0.67	M-v	2	Spahr	35723	1998 UU ₄₀
1998 UF ₄₁	13.4	0.15	20000226	108.26286	176.28719	194.31102	9.56462	0.1434462	2.9888268	49	2	1998–2000	0.77	M-v	3	Spahr	37798	1998 UF ₄₁
1998 UF ₄₂	14.0	0.15	20000226	210.10377	225.77384	58.86104	2.28686	0.1291153	2.5623008	46	2	1998–2000	0.64	M-v	4	Williams	37798	1998 UF ₄₂
1998 UR ₄₃	8.1	0.15	20000226	339.67593	17.64483	53.92939	8.73873	0.2270550	39.8798039	19	2	1998–2000	0.32	M-v	5	Marsden	36820	1998 UR ₄₃
1998 UF ₄₄	16.4	0.15	19981014	357.39500	179.63306	215.63772	31.30870	0.1438189	2.5876502	14	1	13 days	0.80			Williams		1998 UF ₄₄
1998 VU	14.1	0.15	20000226	121.48538	311.33577	47.93086	11.39363	0.1047289	3.0329162	49	2	1998–2000	0.53	M-v	3	Williams	37798	1998 VU
1998 VV ₂	11.7	0.15	20000226	181.25303	46.18264	233.58132	8.78670	0.1144708	3.9709301	56	3	1989–2000	0.66	M-v	3	Spahr	37799	1998 VV ₂
1998 VB ₃	15.0	0.15	19981103	71.64269	354.24494	327.70327	1.16577	0.1127743	2.9143345	25	1	10 days	0.80			Williams		1998 VB ₃
1998 VJ ₅	13.2	0.15	20000226	169.18568	287.25163	22.10209	11.49005	0.2407280	2.8619528	60	3	1993–2000	0.63	M-v	4	Williams	38066	1998 VJ ₅
1998 VS ₅	13.8	0.15	20000226	32.71162	94.60565	27.05370	22.40704	0.0186493	2.6494101	30	2	1998–2000	0.56	M-v	4	Williams	37799	1998 VS ₅
1998 VX ₅	13.5	0.15	20000226	138.11834	318.38469	32.23468	2.81324	0.1674216	3.0103382	58	3	1996–2000	0.58	M-v	3	Williams	38066	1998 VX ₅
1998 VZ ₅	15.1	0.15	20000226	220.37307	257.37355	77.90221	7.27647	0.1353512	2.2890767	67	2	1998–2000	0.68	M-v	4	Spahr	37799	1998 VZ ₅
1998 VF ₆	13.1	0.15	20000226	42.17795	150.17142	306.32668	4.41840	0.1006396	3.1533591	66	4	1976–2000	0.56	M-v	1	Williams	34028	1998 VF ₆
1998 VM ₆	11.7	0.15	20000226	22.05545	127.28882	309.34963	6.28374	0.2201418	5.2307997	56	2	1998–2000	0.51	M-v	3	Williams	37799	1998 VM ₆
1998 VK ₇	14.9	0.15	20000226	200.08252	46.06524	264.74633	5.37154	0.1678219	2.2811175	36	3	1960–2000	0.74	M-v	4	Spahr	34595	1998 VK ₇
1998 VQ ₇	13.5	0.15	20000226	223.04982	212.55106	70.10281	7.36432	0.1030751	2.3751191	50	3	1990–2000	0.60	M-v	2	Williams	38066	1998 VQ ₇
1998 VC ₈	13.8	0.15	20000226	82.98119	212.39298	189.59002	10.76445	0.1268387	2.9871431	53	2	1998–2000	0.65	M-v	4	Williams	37800	1998 VC ₈
1998 VN ₈	14.7	0.15	20000226	160.58175	2.74937	341.25619	2.77256	0.1655649	2.4410585	58	6	1975–2000	0.63	M-v	1	Williams	35724	1998 VN ₈
1998 VW ₈	14.5	0.15	20000226	225.00374	325.62256	322.05841	4.06917	0.1668576	2.3115316	59	2	1998–2000	0.57	M-v	4	Williams	37800	1998 VW ₈
1998 VD ₉	12.9	0.15	20000226	130.22205	138.43499	211.63834	16.40499	0.1258316	2.8891798	43	3	1993–2000	0.65	M-v	3	Spahr	38066	1998 VD ₉
1998 VU ₉	14.5	0.15	20000226	89.77077	127.88262	297.88886	2.58562	0.0849311	2.5181262	32	3	1992–2000	0.76	M-v	4	Williams	35724	1998 VU ₉
1998 VZ ₁₀	16.2	0.15	19981014	337.52394	205.60035	222.30533	3.59401	0.2506257	2.5391672	19	1	31 days	0.47			Williams		1998 VZ ₁₀
1998 VC ₁₁	15.4	0.15	19981014	103.06265	68.40437	209.51620	4.51379	0.1025616	2.1959657	19	1	23 days	0.66			Williams		1998 VC ₁₁
1998 VN ₁₁	14.2	0.15	20000226	247.66894	176.84188	108.09621	1.98321	0.1445776	2.1400711	38	3	1979–2000	0.60	M-v	2	Williams	38066	1998 VN ₁₁
1998 VW ₁₁	13.6	0.15	19981014	294.82527	271.18030	197.33908	13.04301	0.1061956	2.7836087	15	1	22 days	0.51			Williams		1998 VW ₁₁
1998 VW ₁₂	14.3	0.15	20000226	87.44469	259.54379	136.04444	1.97284	0.1981518	3.1145895	32	3	1976–2000	0.68	M-v	5	Williams	34931	1998 VW ₁₂
1998 VD ₁₃	13.7	0.15	20000226	139.25337	304.40367	44.99623	3.25356	0.0715221	2.8893440	54	2	1998–2000	0.58	M-v	3	Williams	37800	1998 VD ₁₃
1998 VL ₁₃	14.7	0.15	19981014	56.16227	274.26225	42.05882	8.06769	0.1930170	2.3600480	22	1	48 days	0.41			Williams		1998 VL ₁₃
1998 VR ₁₃	12.8	0.15	20000226	77.54705	2.03490	6.26810	4.91966	0.2367881	4.0016166	39	2	1998–2000	0.62	M-v	4	Williams	37800	1998 VR ₁₃
1998 VN ₁₄	14.8	0.15	19981014	6.35067	356.27835	30.62759	14.94326	0.0997187	2.6324933	18	1	30 days	0.89			Williams		1998 VN ₁₄
1998 VR ₁₄	14.0	0.15	19981014	12.09624	343.29337	36.06123	27.74988	0.1374084	3.1554560	24	1	27 days	0.70			Williams		1998 VR ₁₄
1998 VP ₁₅	14.5	0.15	20000226	300.68918	18.06282	211.65286	4.38979	0.1620736	2.3054062	46	3	1980–2000	0.73	M-v	4	Williams	38066	1998 VP ₁₅
1998 VL ₁₆	13.3	0.15	20000226	108.21029	301.58205	71.08548	10.09545	0.1135928	3.0538509	40	3	1977–2000	0.51	M-v	3	Williams	38066	1998 VL ₁₆
1998 VM ₁₆	12.7	0.15	20000226	1.81203	67.77510	64.78718	13.45253	0.1483824	3.2209299	53	3	1975–2000	0.55	M-v	3	Williams	37800	1998 VM ₁₆

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1998 VR ₁₇	15.0	0.15	20000226	181.84464	309.25888	12.82057	2.48944	0.2244904	2.3973231	31	4	1994–2000	0.68	M-v	2	Spahr	34537	1998 VR ₁₇
1998 VW ₁₇	13.2	0.15	20000226	145.99345	96.98522	230.73058	14.55003	0.1159990	3.1343011	32	2	1998–2000	0.46	M-v	4	Spahr	37801	1998 VW ₁₇
1998 VO ₁₈	12.9	0.15	20000226	73.84748	69.62974	346.56529	5.54867	0.0938984	3.1610632	57	4	1978–2000	0.60	M-v	2	Williams	38066	1998 VO ₁₈
1998 VA ₁₉	15.4	0.15	19981103	51.23969	109.33656	222.37228	6.54740	0.1841318	2.5316625	22	1	38 days	0.63			Williams		1998 VA ₁₉
1998 VC ₁₉	14.7	0.15	19981014	22.99213	174.16637	193.29352	2.78101	0.1155093	3.0165514	15	1	25 days	0.77			Williams		1998 VC ₁₉
1998 VN ₂₁	16.0	0.15	20000226	135.66318	52.76620	314.33718	2.73938	0.2597468	2.5698273	27	4	1969–2000	0.69	M-v	2	Spahr	35342	1998 VN ₂₁
1998 VS ₂₁	14.1	0.15	20000226	247.86893	329.20846	291.85822	3.39068	0.0328285	2.6939300	45	2	1998–2000	0.69	M-v	4	Williams	37801	1998 VS ₂₁
1998 VM ₂₅	15.2	0.15	19981103	327.77173	227.18976	217.56769	3.88708	0.1204258	2.2918518	27	1	37 days	0.46			Williams		1998 VM ₂₅
1998 VQ ₂₅	14.4	0.15	20000226	307.36549	173.32381	58.75922	4.38357	0.0819164	2.2995271	51	2	1998–2000	0.62	M-v	4	Williams	37801	1998 VQ ₂₅
1998 VR ₂₇	12.3	0.15	20000226	350.59653	270.79100	239.65244	5.30937	0.0885766	3.1473486	76	3	1983–2000	0.64	M-v	3	Williams	38066	1998 VR ₂₇
1998 VB ₂₈	13.3	0.15	20000226	118.48804	29.39859	333.89692	4.43693	0.1581862	3.1526658	65	4	1981–2000	0.55	M-v	1	Williams	38066	1998 VB ₂₈
1998 VG ₂₈	13.1	0.15	19981103	11.25825	146.03418	245.49482	13.22771	0.2044354	3.1402232	19	1	30 days	0.55			Williams		1998 VG ₂₈
1998 VQ ₂₉	13.0	0.15	20000226	161.02195	85.80625	257.16802	11.85891	0.2016214	2.6179039	57	2	1998–2000	0.62	M-v	3	Spahr	38066	1998 VQ ₂₉
1998 VU ₂₉	13.1	0.15	20000226	88.31484	169.32770	260.35191	9.10459	0.1446016	2.8066124	74	4	1979–2000	0.75	M-v	2	Spahr	37801	1998 VU ₂₉
1998 VY ₂₉	10.6	0.15	20000226	37.14200	163.41388	258.43760	12.03311	0.2040326	5.1714787	84	3	1986–2000	0.72	M-v	2	Williams	38066	1998 VY ₂₉
1998 VF ₃₀	10.5	0.15	20000226	24.66739	3.50600	67.00336	25.63331	0.1304992	5.2211691	50	2	1998–2000	0.65	M-v	3	Williams	37801	1998 VF ₃₀
1998 VK ₃₀	13.6	0.15	20000226	125.93429	271.38590	108.63239	3.08688	0.0867254	2.8563347	47	4	1989–2000	0.66	M-v	1	Williams	35724	1998 VK ₃₀
1998 VU ₃₀	9.4	0.15	20000226	27.29647	179.22555	253.42454	16.26936	0.0458107	5.2037877	64	4	1962–2000	0.64	M-v	1	Spahr	37802	1998 VU ₃₀
1998 VZ ₃₀	13.0	0.15	20000226	17.31710	101.65943	70.19268	14.13057	0.1007473	2.5678871	41	3	1992–2000	0.61	M-v	2	Spahr	37802	1998 VZ ₃₀
1998 VN ₃₁	13.7	0.15	20000226	57.86315	183.48600	239.04644	6.54755	0.0449419	3.1522807	38	2	1998–2000	0.68	M-v	3	Spahr	37802	1998 VN ₃₁
1998 VP ₃₁	12.8	0.15	20000226	256.23573	350.18206	243.14478	8.23879	0.2167578	2.7356076	71	4	1987–2000	0.65	M-v	2	Spahr	37802	1998 VP ₃₁
1998 VM ₃₂	13.4	0.15	20000226	289.69426	333.45019	285.63771	8.28748	0.2140302	2.2876919	71	4	1980–2000	0.70	M-v	1	Spahr	38066	1998 VM ₃₂
1998 VS ₃₂	11.9	0.15	20000226	316.60547	164.75118	91.60374	15.28553	0.0873688	3.1473371	42	5	1971–2000	0.68	M-v	2	Spahr	34932	1998 VS ₃₂
1998 VE ₃₃	13.8	0.15	20000226	256.13871	59.98227	220.44338	12.99005	0.1465467	2.5656717	33	4	1981–2000	0.64	M-v	2	Spahr	34029	1998 VE ₃₃
1998 VH ₃₄	13.2	0.15	20000226	119.68001	49.97588	303.18480	6.97483	0.1541059	3.1696161	51	2	1998–2000	0.59	M-v	3	Williams	36820	1998 VH ₃₄
1998 VR ₃₄	14.3	0.15	20000226	219.20893	331.72522	315.06255	1.13169	0.0366113	2.8733916	44	4	1996–2000	0.55	M-v	1	Williams	38066	1998 VR ₃₄
1998 VV ₃₄	13.6	0.15	20000226	183.29619	358.52031	352.35992	7.03128	0.1435865	2.2200060	53	4	1978–2000	0.70	M-v	3	Williams	35725	1998 VV ₃₄
1998 VL ₃₇	14.0	0.15	20000226	208.09752	260.70384	27.96424	13.49545	0.1506665	2.6220159	33	3	1971–2000	0.65	M-v	3	Williams	38066	1998 VL ₃₇
1998 VZ ₃₇	14.3	0.15	20000226	6.85289	107.04778	54.83390	13.56751	0.1272912	2.6101116	31	3	1996–2000	0.74	M-v	3	Spahr	38066	1998 VZ ₃₇
1998 VQ ₃₈	13.6	0.15	20000226	18.48305	269.00807	241.61304	8.45798	0.0749212	2.5868744	49	3	1997–2000	0.73	M-v	3	Spahr	38066	1998 VQ ₃₈
1998 VT ₄₂	15.6	0.15	19981103	98.91014	233.89922	44.59693	6.32843	0.2185755	2.2153992	20	1	33 days	0.81			Williams		1998 VT ₄₂
1998 WB	13.3	0.15	20000226	95.82129	261.75492	127.00704	22.57194	0.1318691	3.1312879	39	2	1998–2000	0.47	M-v	3	Williams	37803	1998 WB
1998 WH	14.0	0.15	20000226	352.57562	130.40341	77.97402	5.79824	0.1513907	2.4124935	34	4	1978–2000	0.59	M-v	2	Spahr	34029	1998 WH
1998 WP	13.6	0.15	20000226	155.16586	110.67333	246.57674	10.77022	0.2726940	2.6582613	38	3	1989–2000	0.73	M-v	3	Spahr	34310	1998 WP
1998 WQ	14.0	0.15	20000226	211.66437	128.27569	195.18381	5.94730	0.2170183	2.2812145	55	3	1939–2000	0.49	M-v	3	Spahr	34029	1998 WQ
1998 WO ₁	13.0	0.15	20000226	154.26714	190.91016	152.22510	2.62626	0.1917636	3.1602616	52	5	1975–2000	0.58	M-v	1	Williams	38066	1998 WO ₁
1998 WE ₃	14.3	0.15	20000226	96.40946	77.68395	339.41419	4.49712	0.0290279	2.7407325	21	3	1993–2000	0.42	M-v	4	Williams	35725	1998 WE ₃
1998 WU ₃	14.0	0.15	20000226	161.84058	308.14859	53.28613	7.06209	0.1823426	2.4468746	43	3	1990–2000	0.73	M-v	3	Williams	35725	1998 WU ₃
1998 WH ₄	13.3	0.15	20000226	93.75800	0.05016	72.63736	4.30875	0.0619853	2.6847612	60	3	1996–2000	0.63	M-v	3	Williams	38066	1998 WH ₄
1998 WX ₄	9.2	0.15	20000226	60.89435	285.15785	120.55674	28.74924	0.0235444	5.2906250	55	3	1992–2000	0.52	M-v	2	Williams	38066	1998 WX ₄
1998 WN ₅	14.4	0.15	20000226	153.92789	344.79358	356.27627	0.90559	0.1092152	2.9712358	50	3	1992–2000	0.65	M-v	4	Williams	35725	1998 WN ₅
1998 WY ₅	13.3	0.15	20000226	100.05814	300.68408	106.41542	2.68707	0.1146086	3.1499227	36	5	1981–2000	0.63	M-v	2	Williams	34029	1998 WY ₅
1998 WC ₆	14.6	0.15	20000226	208.43592	225.28258	96.53154	4.34323	0.1889454	2.2197040	34	4	1988–2000	0.71	M-v	2	Williams	35725	1998 WC ₆
1998 WN ₆	12.9	0.15	20000226	314.53082	66.98946	179.51138	10.07810	0.0646978	3.0197165	27	5	1985–2000	0.79	M-v	1	Spahr	35638	1998 WN ₆
1998 WB ₇	13.6	0.15	20000226	169.83012	356.97372	326.61242	0.93261	0.1116664	2.9474511	65	3	1993–2000	0.63	M-v	3	Williams	37804	1998 WB ₇
1998 WG ₇	14.0	0.15	20000226	216.09710	216.08951	97.16635	6.10113	0.2307086	2.3790990	36	5	1986–2000	0.64	M-v	1	Williams	35726	1998 WG ₇
1998 WC ₈	13.3	0.15	20000226	109.98974	290.18999	108.26224	8.82087	0.2628089	2.7316192	39	4	1989–2000	0.79	M-v	2	Spahr	35726	1998 WC ₈
1998 WD ₈	13.7	0.15	20000226	87.76218	33.66095	70.09398	6.21377	0.0243001	2.7426797	34	3	1993–2000	0.72	M-v	4	Spahr	33765	1998 WD ₈
1998 WJ ₈	12.4	0.15	20000226	146.36682	257.35427	80.02470	17.20755	0.0797661	3.1255125	87	3	1996–2000	0.46	M-v	2	Williams	38067	1998 WJ ₈
1998 WK ₉	14.6	0.15	20000226	109.65745	301.05166	103.32108	4.84734	0.0969310	2.7986582	49	3	1996–2000	0.58	M-v	3	Williams	34030	1998 WK ₉
1998 WO ₉	14.9	0.15	20000226	200.80957	270.84123	67.44759	5.12870	0.0697829	2.2995230	46	3	1997–2000	0.59	M-v	4	Williams	35726	1998 WO ₉
1998 WR ₉	14.5	0.15	20000226	177.99025	109.08756	217.53567	1.36063	0.1064940	2.7430844	35	3	1993–2000	0.68	M-v	4	Williams	35726	1998 WR ₉
1998 WS ₉	13.7	0.15	20000226	242.74010	221.60314	69.41673	6.79507	0.1000075	2.3576452	74	2	1998–2000	0.56	M-v	4	Williams	37804	1998 WS ₉

1998 WW ₁₀	14.5	0.15	20000226	153.67172	284.29255	77.75725	4.38247	0.1243452	2.5674638	62	3	1973-2000	0.65	M-v	3	Williams	35726	1998 WW ₁₀
1998 WF ₁₁	13.8	0.15	20000226	113.15090	267.39764	124.89587	3.18163	0.0728026	2.8960274	33	3	1996-2000	0.67	M-v	4	Williams	35726	1998 WF ₁₁
1998 WN ₁₁	11.4	0.15	20000226	29.44509	318.75582	110.37888	4.50972	0.1692076	5.1857957	58	3	1996-2000	0.69	M-v	3	Spahr	38067	1998 WN ₁₁
1998 WP ₁₁	13.4	0.15	20000226	196.39348	237.89245	70.62402	14.63333	0.1596541	2.6302346	43	2	1998-2000	0.64	M-v	4	Williams	37804	1998 WP ₁₁
1998 WG ₁₂	14.7	0.15	20000226	205.23716	98.52564	225.50095	5.94605	0.1432077	2.3221647	50	4	1980-2000	0.70	M-v	1	Spahr	35726	1998 WG ₁₂
1998 WJ ₁₂	14.2	0.15	20000226	120.06339	140.42509	237.08477	8.08486	0.1148229	2.9911635	49	3	1977-2000	0.84	M-v	4	Spahr	35726	1998 WJ ₁₂
1998 WX ₁₂	13.9	0.15	20000226	130.27456	60.97809	318.52344	3.75841	0.1057257	2.7650030	29	1	66 days	0.61	M-v	5	Williams		1998 WX ₁₂
1998 WQ ₁₄	13.4	0.15	20000226	331.91442	307.88856	229.89669	8.13327	0.0630226	3.0826189	39	2	1998-2000	0.77	M-v	4	Spahr	37804	1998 WQ ₁₄
1998 WA ₁₅	11.0	0.15	20000226	30.49071	209.61027	218.88642	11.21396	0.1178970	5.2033652	72	4	1990-2000	0.69	M-v	1	Spahr	38067	1998 WA ₁₅
1998 WD ₁₅	14.3	0.15	20000226	80.26552	300.24362	130.68564	3.07941	0.0669908	2.9242115	36	4	1995-2000	0.61	M-v	1	Williams	35726	1998 WD ₁₅
1998 WP ₁₅	12.8	0.15	20000226	60.93463	3.85028	74.18694	17.18810	0.0557796	3.1979313	65	2	1998-2000	0.63	M-v	3	Spahr	37804	1998 WP ₁₅
1998 WR ₁₅	13.0	0.15	20000226	147.74798	195.66743	131.34116	5.54774	0.2034564	3.1805052	37	4	1986-2000	0.66	M-v	3	Spahr	36086	1998 WR ₁₅
1998 WS ₁₆	13.5	0.15	20000226	207.18614	242.90450	59.36950	2.82010	0.0491098	2.8574118	69	3	1996-2000	0.69	M-v	2	Williams	38067	1998 WS ₁₆
1998 WG ₁₇	14.8	0.15	20000226	225.26997	118.32300	173.27253	0.39338	0.1506529	2.5742223	27	3	1992-2000	0.65	M-v	2	Williams	34311	1998 WG ₁₇
1998 WA ₁₈	13.0	0.15	20000226	82.40789	129.48435	293.72362	4.90238	0.0682429	3.1083960	46	4	1992-2000	0.69	M-v	1	Spahr	38067	1998 WA ₁₈
1998 WR ₁₈	13.6	0.15	20000226	244.92192	18.71934	255.43278	6.71075	0.0962035	2.6963585	41	2	1998-2000	0.62	M-v	4	Williams	37805	1998 WR ₁₈
1998 WV ₁₈	11.6	0.15	20000226	298.76252	309.87846	243.79426	11.25275	0.1403656	3.9381084	69	2	1998-2000	0.64	M-v	3	Spahr	37805	1998 WV ₁₈
1998 WJ ₁₉	14.5	0.15	20000226	269.25654	55.11489	206.40463	2.17756	0.1657770	2.4582729	31	3	1994-2000	0.53	M-v	5	Williams	35727	1998 WJ ₁₉
1998 WT ₂₀	14.0	0.15	20000226	317.00926	30.02002	206.71032	4.23441	0.1356062	2.1989156	43	3	1991-2000	0.60	M-v	3	Spahr	38067	1998 WT ₂₀
1998 WU ₂₀	13.9	0.15	20000226	328.46726	8.43516	217.12732	7.54177	0.0509253	2.2220221	48	5	1987-2000	0.78	M-v	2	Williams	35727	1998 WU ₂₀
1998 WW ₂₀	13.2	0.15	20000226	260.49071	177.46741	64.68767	11.56839	0.0720935	2.9833816	46	3	1996-2000	0.63	M-v	4	Williams	37805	1998 WW ₂₀
1998 WR ₂₁	9.8	0.15	20000226	72.49378	135.64889	241.65848	14.99557	0.0687415	5.2306417	86	3	1986-2000	0.68	M-v	3	Spahr	38067	1998 WR ₂₁
1998 WZ ₂₁	14.3	0.15	20000226	130.85500	226.82876	162.61402	0.99480	0.0193640	2.6552354	36	3	1993-2000	0.62	M-v	4	Spahr	35727	1998 WZ ₂₁
1998 WA ₂₂	14.9	0.15	20000226	209.53610	227.91527	78.41549	3.46307	0.2161582	2.3839793	50	4	1971-2000	0.62	M-v	1	Williams	35727	1998 WA ₂₂
1998 WX ₂₂	14.6	0.15	20000226	191.80656	95.66211	212.70389	2.10916	0.2150115	2.6792272	34	4	1992-2000	0.66	M-v	2	Spahr	35727	1998 WX ₂₂
1998 WO ₂₅	14.7	0.15	19981103	79.06961	264.87206	42.42411	9.03686	0.1249715	3.0838191	12	1	35 days	0.21			Williams		1998 WO ₂₅
1998 WV ₂₈	16.4	0.15	19981103	340.01768	191.36117	237.58654	3.74772	0.1819383	2.5588742	16	1	33 days	1.00			Williams		1998 WV ₂₈
1998 WU ₃₀	13.1	0.15	20000226	88.40158	295.16271	120.33313	14.56949	0.0766955	3.0684973	38	2	1998-2000	0.61	M-v	3	Williams	37178	1998 WU ₃₀
1998 WY ₃₀	15.1	0.15	20000226	250.98069	288.51576	5.13976	6.09293	0.2038131	2.1969438	33	3	1991-2000	0.59	M-v	3	Williams	34031	1998 WY ₃₀
1998 WE ₃₁	13.4	0.15	20000226	54.68641	297.90188	132.05393	19.74940	0.1185330	3.2319798	40	2	1998-2000	0.51	M-v	3	Williams	37805	1998 WE ₃₁
1998 WA ₃₂	13.0	0.15	20000226	199.22410	84.80348	226.92947	1.26199	0.0422555	2.9110471	43	4	1992-2000	0.68	M-v	1	Williams	38067	1998 WA ₃₂
1998 WK ₃₂	13.6	0.15	20000226	201.00153	325.12688	18.73097	7.20932	0.1953144	2.5659271	31	6	1977-2000	0.76	M-v	2	Spahr	36004	1998 WK ₃₂
1998 XN	13.7	0.15	20000226	287.78484	283.17105	294.96368	9.23670	0.1027193	3.3678227	52	2	1998-2000	0.53	M-v	4	Spahr	37805	1998 XN
1998 XP ₂	13.2	0.15	20000226	22.70679	50.42237	93.35757	1.78365	0.0905815	3.1653216	55	4	1994-2000	0.64	M-v	1	Williams	38067	1998 XP ₂
1998 XW ₃	11.9	0.15	20000226	26.81386	63.99512	64.68454	10.34410	0.0369128	3.0451472	50	3	1997-2000	0.54	M-v	3	Williams	37806	1998 XW ₃
1998 XL ₅	12.2	0.15	20000226	183.29181	175.86542	142.79417	11.12793	0.0944271	2.9889114	62	2	1998-2000	0.62	M-v	4	Williams	37806	1998 XL ₅
1998 XM ₅	12.8	0.15	20000226	2.75830	6.18729	153.20827	13.93804	0.0887573	3.0914579	55	2	1998-2000	0.59	M-v	3	Williams	37806	1998 XM ₅
1998 XT ₇	15.1	0.15	19981103	219.96401	140.00045	51.11824	15.01761	0.1278020	2.6853223	11	1	50 days	0.14			Williams		1998 XT ₇
1998 XZ ₈	12.6	0.15	20000226	112.73155	78.42232	310.83927	16.96360	0.3207497	3.1040980	87	5	1979-2000	0.64	M-v	2	Williams	35638	1998 XZ ₈
1998 XR ₉	13.4	0.15	20000226	319.88939	357.45295	231.97603	5.70196	0.1004867	2.4369869	35	6	1982-2000	0.54	M-v	2	Spahr	38067	1998 XR ₉
1998 XS ₉	14.0	0.15	20000226	228.53586	122.65328	190.69976	2.49900	0.1563784	2.2645732	55	4	1991-2000	0.59	M-v	1	Spahr	38067	1998 XS ₉
1998 XP ₁₁	13.5	0.15	20000226	343.89720	262.40322	302.73899	8.77506	0.0494589	2.9774905	39	7	1989-2000	0.79	M-v	1	Williams	35728	1998 XP ₁₁
1998 XQ ₁₂	12.4	0.15	20000226	253.34447	129.36770	126.28877	14.27695	0.1314701	3.0144004	78	3	1997-2000	0.47	M-v	3	Williams	37807	1998 XQ ₁₂
1998 XV ₁₂	13.2	0.15	20000226	57.93954	334.20835	112.32917	6.80892	0.1043661	3.3295212	30	3	1994-2000	0.82	M-v	4	Williams	33713	1998 XV ₁₂
1998 XA ₁₃	10.9	0.15	20000226	3.65198	27.75039	84.04299	12.53440	0.1622877	5.2086801	65	2	1998-2000	0.43	M-v	3	Williams	37807	1998 XA ₁₃
1998 XB ₁₄	14.3	0.15	20000226	154.61098	157.64139	191.91851	3.13490	0.1991265	2.7240425	26	5	1980-2000	0.56	M-v	1	Spahr	36541	1998 XB ₁₄
1998 XU ₂₀	15.6	0.15	20000226	150.20080	287.48240	114.86721	3.45686	0.2312974	2.5273354	16	1	83 days	0.38	M-v	5	Williams		1998 XU ₂₀
1998 XN ₂₄	15.0	0.15	19981103	193.35930	167.70318	101.50314	3.71061	0.0414534	2.6645937	12	1	54 days	0.22			Williams		1998 XN ₂₄
1998 XP ₂₇	13.6	0.15	20000226	225.75550	261.89108	44.51728	6.96897	0.1350998	2.3954244	54	4	1983-2000	0.66	M-v	2	Williams	38067	1998 XP ₂₇
1998 XR ₂₈	13.6	0.15	20000226	323.74968	337.00449	255.52810	5.67240	0.1259023	2.2927925	55	5	1986-2000	0.71	M-v	2	Spahr	34933	1998 XR ₂₈
1998 XA ₃₃	12.8	0.15	20000226	133.75440	18.60495	359.73859	9.76615	0.1132099	2.9836820	42	5	1982-2000	0.69	M-v	1	Marsden	37289	1998 XA ₃₃
1998 XZ ₄₀	12.9	0.15	20000226	121.93319	7.07411	16.38222	8.15333	0.2113667	3.1312950	37	5	1992-2000	0.62	M-v	1	Williams	35728	1998 XZ ₄₀
1998 XA ₄₂	13.7	0.15	20000226	159.43243	309.34487	91.09693	5.50666	0.0040381	2.4862519	38	5	1974-2000	0.76	M-v	4	Spahr	35728	1998 XA ₄₂

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1998 XZ ₄₃	13.0	0.15	20000226	75.60707	34.08216	68.96624	13.61321	0.0818407	2.8804301	54	3	1949-2000	0.70	M-v	2	Spahr	37807	1998 XZ ₄₃
1998 XX ₄₆	12.5	0.15	20000226	270.99320	358.92232	283.62748	12.47595	0.1626525	2.6111226	41	3	1970-2000	0.55	M-v	3	Williams	37808	1998 XX ₄₆
1998 XU ₅₀	12.6	0.15	20000226	315.55023	308.27592	301.47401	7.18996	0.2260566	2.9155466	29	5	1981-2000	0.71	M-v	2	Spahr	33716	1998 XU ₅₀
1998 XD ₅₁	11.9	0.15	20000226	12.49230	196.66465	318.52535	7.76227	0.1304576	3.9641470	59	4	1992-2000	0.77	M-v	1	Spahr	38067	1998 XD ₅₁
1998 XH ₅₉	13.3	0.15	20000226	256.36332	185.66893	114.30776	7.28293	0.2188275	2.2652335	46	5	1987-2000	0.77	M-v	2	Williams	38067	1998 XH ₅₉
1998 XT ₆₂	12.4	0.15	20000226	4.54420	200.72175	333.77084	17.39810	0.0730120	3.1240820	57	3	1994-2000	0.77	M-v	3	Williams	38067	1998 XT ₆₂
1998 XK ₇₂	13.6	0.15	20000226	124.74510	8.66665	26.16968	1.30385	0.1420708	3.0365241	57	5	1976-2000	0.59	M-v	1	Williams	34598	1998 XK ₇₂
1998 XS ₇₃	12.1	0.15	20000226	36.08484	174.33831	308.29289	7.68429	0.1539323	4.0040294	55	3	1996-2000	0.60	M-v	2	Spahr	38067	1998 XS ₇₃
1998 XZ ₇₃	12.9	0.15	20000226	177.02234	7.80538	352.47179	6.68771	0.1393660	2.7285317	33	4	1970-2000	0.79	M-v	2	Spahr	38067	1998 XZ ₇₃
1998 XO ₇₇	13.8	0.15	20000226	127.01241	295.57586	98.65933	13.48786	0.1636622	2.6322932	39	3	1997-2000	0.62	M-v	3	Spahr	38067	1998 XO ₇₇
1998 XV ₇₇	13.1	0.15	20000226	152.42501	286.35028	92.00459	13.19457	0.2074529	2.4251444	37	5	1987-2000	0.82	M-v	2	Williams	34935	1998 XV ₇₇
1998 XY ₇₇	13.2	0.15	20000226	111.87159	273.84270	160.75983	6.56745	0.0758608	2.4542829	45	5	1990-2000	0.59	M-v	2	Williams	35728	1998 XY ₇₇
1998 XW ₈₂	12.9	0.15	20000226	109.46782	225.40541	179.38193	10.25647	0.1031488	2.9855369	26	3	1992-2000	0.69	M-v	4	Spahr	33720	1998 XW ₈₂
1998 XF ₈₃	13.9	0.15	20000226	65.35820	285.83071	170.15890	10.16983	0.0838593	3.0596359	28	4	1995-2000	0.54	M-v	1	Spahr	34228	1998 XF ₈₃
1998 XO ₈₉	9.8	0.15	20000226	20.23093	208.56199	263.68198	19.52906	0.0362474	5.1582326	59	3	1997-2000	0.75	M-v	3	Spahr	37808	1998 XO ₈₉
1998 XY ₉₅	6.1	0.15	20000226	338.12284	88.75937	47.28896	6.65429	0.4213492	64.6848397	34	2	1998-2000	0.67	M-v	5	Williams	38067	1998 XY ₉₅
1998 YC ₁	13.1	0.15	20000226	15.76388	320.50809	194.53266	4.29750	0.0397952	3.1789151	51	2	1998-2000	0.49	M-v	3	Spahr	37808	1998 YC ₁
1998 YL ₁	12.7	0.15	20000226	264.89671	301.03064	320.44435	11.77372	0.1581737	2.6652087	108	2	1998-2000	0.80	M-v	4	Williams	37808	1998 YL ₁
1998 YH ₄	14.3	0.15	20000226	264.24019	167.94641	119.60376	8.43331	0.1343126	2.2298367	28	3	1994-2000	0.53	M-v	3	Williams	38067	1998 YH ₄
1998 YS ₄	13.9	0.15	19981103	154.81398	188.84819	114.10194	2.94262	0.1522189	3.0423081	16	1	54 days	0.91			Williams		1998 YS ₄
1998 YE ₅	13.1	0.15	20000226	324.14017	154.15262	105.30542	2.75876	0.1929146	3.1628336	43	5	1983-2000	0.70	M-v	1	Spahr	35442	1998 YE ₅
1998 YC ₆	12.9	0.15	20000226	272.16245	356.79645	251.61553	13.97160	0.1310942	2.7639566	65	2	1998-2000	0.63	M-v	4	Spahr	37809	1998 YC ₆
1998 YU ₆	11.9	0.15	20000226	178.89566	54.16989	267.64209	13.24472	0.1016511	3.2106957	46	3	1992-2000	0.59	M-v	3	Spahr	38067	1998 YU ₆
1998 YB ₇	12.9	0.15	20000226	112.81598	97.87329	296.06502	12.76389	0.2066957	2.6499867	70	3	1991-2000	0.66	M-v	2	Spahr	38067	1998 YB ₇
1998 YC ₈	13.1	0.15	20000226	146.58095	87.34572	281.15959	11.68651	0.2258670	2.5804090	76	3	1985-2000	0.65	M-v	3	Spahr	38067	1998 YC ₈
1998 YR ₈	13.3	0.15	20000226	15.34595	345.50518	142.17040	13.27034	0.0303897	3.1264385	46	2	1998-2000	0.50	M-v	3	Williams	37809	1998 YR ₈
1998 YE ₁₀	12.9	0.15	20000226	228.91963	214.81636	95.19204	17.74240	0.2108736	2.7275158	34	2	1998-2000	0.71	M-v	4	Williams	37809	1998 YE ₁₀
1998 YV ₁₁	13.9	0.15	20000226	269.62831	215.87882	77.99761	9.03270	0.3417936	2.2867377	27	4	1983-2000	0.90	M-v	2	Spahr	34036	1998 YV ₁₁
1998 YF ₁₂	12.7	0.15	20000226	260.97067	203.58501	95.91462	11.10315	0.0821885	3.0089521	50	3	1997-2000	0.59	M-v	3	Williams	38067	1998 YF ₁₂
1999 AK ₃	13.5	0.15	20000226	75.78682	176.05439	243.71195	13.50633	0.1640782	2.7522863	38	3	1991-2000	0.76	M-v	2	Spahr	38068	1999 AK ₃
1999 AJ ₅	13.0	0.15	20000226	144.08563	345.86530	67.88481	10.07158	0.2124752	2.6149117	66	6	1968-2000	0.70	M-v	2	Spahr	35442	1999 AJ ₅
1999 AM ₆	13.2	0.15	20000226	131.06922	80.07381	323.40171	5.63382	0.0446955	2.3677595	23	4	1992-2000	0.70	M-v	3	Williams	38068	1999 AM ₆
1999 AM ₂₀	12.6	0.15	20000226	256.38796	172.96397	124.26213	11.33049	0.0889595	2.9900808	45	4	1991-2000	0.55	M-v	1	Spahr	38068	1999 AM ₂₀
1999 BO ₁	13.1	0.15	20000226	304.17373	173.68366	108.23229	9.11558	0.1852786	2.5686928	57	5	1992-2000	0.63	M-v	1	Spahr	35731	1999 BO ₁
1999 BC ₄	12.6	0.15	20000226	350.78579	87.65075	128.09848	11.25437	0.0379706	3.0709107	58	5	1987-2000	0.57	M-v	1	Williams	34600	1999 BC ₄
1999 BH ₁₀	13.6	0.15	20000226	283.16092	147.14861	154.49379	4.01578	0.1186094	2.8020425	31	5	1987-2000	0.72	M-v	1	Williams	34600	1999 BH ₁₀
1999 BY ₂₅	12.6	0.15	20000226	214.73240	7.69197	333.02849	15.90607	0.0603645	3.1426867	39	5	1977-2000	0.63	M-v	1	Williams	35443	1999 BY ₂₅
1999 CL ₁₀	12.6	0.15	20000226	188.87502	232.01734	117.99205	8.41852	0.1892166	3.2087001	61	5	1985-2000	0.72	M-v	2	Williams	38068	1999 CL ₁₀
1999 CG ₁₇	12.5	0.15	20000226	0.16503	86.93033	116.03738	11.46671	0.0489209	3.0175866	58	4	1995-2000	0.65	M-v	1	Spahr	35443	1999 CG ₁₇
1999 CS ₁₈	12.4	0.15	20000226	297.94085	160.11089	101.04091	10.95766	0.0425152	2.9974101	57	5	1979-2000	0.69	M-v	1	Spahr	35443	1999 CS ₁₈
1999 CS ₁₉	13.1	0.15	20000226	242.88340	6.25403	314.33671	9.75775	0.0677003	2.9998931	41	7	1986-2000	0.67	M-v	1	Williams	35732	1999 CS ₁₉
1999 CD ₂₈	12.6	0.15	20000226	304.22332	213.30911	60.49476	8.10486	0.1562269	3.1247034	34	4	1990-2000	0.79	M-v	2	Spahr	36086	1999 CD ₂₈
1999 CG ₆₂	12.1	0.15	20000226	272.45417	121.43043	177.60380	16.63100	0.0190464	2.9439187	27	3	1986-2000	0.88	M-v	3	Spahr	35083	1999 CG ₆₂
1999 CD ₆₃	13.0	0.15	20000226	254.65304	143.43848	177.49506	9.24267	0.1546803	2.7974234	30	5	1987-2000	0.67	M-v	2	Williams	35733	1999 CD ₆₃
1999 CR ₆₄	12.6	0.15	20000226	254.19631	133.40858	198.46419	12.75778	0.1643961	2.5903586	33	4	1992-2000	0.72	M-v	2	Spahr	35083	1999 CR ₆₄
1999 CB ₆₇	12.5	0.15	20000226	239.39511	85.22569	258.21593	11.31573	0.2254425	2.5924372	41	7	1955-2000	0.79	M-v	2	Williams	35444	1999 CB ₆₇
1999 CV ₁₁₈	7.5	0.15	20000226	16.44863	148.82016	305.62072	5.46669	0.2889211	52.8258582	17	2	1999-2000	0.24	M-v	6	Marsden	37809	1999 CV ₁₁₈
1999 CF ₁₁₉	7.3	0.15	20000226	354.91467	203.63609	303.43715	19.70001	0.5820292	91.7039369	21	2	1999-2000	0.29	M-v	5	Marsden	37809	1999 CF ₁₁₉
1999 CG ₁₁₉	7.6	0.15	20000226	317.56194	257.45664	304.26414	16.65551	0.3391375	51.3570109	15	2	1999-2000	0.25	M-v	5	Marsden	37810	1999 CG ₁₁₉
1999 CP ₁₃₃	7.6	0.15	19990303	8.17235	171.17813	333.97956	2.94569	0.1933509	39.2191710	26	1	63 days	0.80			E Williams		1999 CP ₁₃₃
1999 DL ₈	9.6	0.15	19990303	0.00000	25.93968	114.48091	5.76412	0.0000000	42.5172093	6	1	35 days	0.40			E Marsden		1999 DL ₈
1999 DM ₈	9.7	0.15	19990211	0.00000	40.87909	99.25705	3.90092	0.0000000	42.8823144	4	1	1 days	0.09			E Marsden		1999 DM ₈
1999 DN ₈	9.8	0.15	19990211	0.00000	61.67831	78.42770	2.90618	0.0000000	44.3384019	4	1	1 days	0.08			E Marsden		1999 DN ₈

1999 DO ₈	10.0	0.15	19990211	0.00000	129.95210	10.09146	3.42945	0.0000000	41.7914891	4	1	1 days	0.06	E	Marsden	1999 DO ₈	
1999 DP ₈	8.9	0.15	19990211	13.88981	283.45070	136.92199	38.40677	0.6998768	115.7544506	4	1	1 days	0.07	E	Marsden	1999 DP ₈	
1999 DQ ₈	9.1	0.15	19990211	0.00000	10.23226	130.31655	14.18641	0.0000000	45.3181592	4	1	1 days	0.04	E	Marsden	1999 DQ ₈	
1999 DR ₈	9.3	0.15	19990211	180.17615	340.83465	339.02623	8.18344	0.1125426	45.5204131	4	1	1 days	0.06	E	Marsden	1999 DR ₈	
1999 EH ₅	12.4	0.15	20000226	123.26939	136.14804	356.36559	9.69850	0.0306803	3.0096244	66	5	1975–1999	0.69	M-v	1	Marsden	35444 1999 EH ₅
1999 FW ₂₅	12.8	0.15	20000226	249.29010	159.96539	211.44441	1.40609	0.0785631	2.8791446	41	5	1952–1999	0.79	M-v	1	Williams	37810 1999 FW ₂₅
1999 GJ ₄	15.1	0.15	20000226	69.87214	211.79433	148.37034	34.58055	0.8079857	1.3386456	97	5	1955–2000	0.69	M-v	3	Williams	38068 1999 GJ ₄
1999 GP ₉	13.9	0.15	20000226	177.06145	151.86453	328.75703	5.24402	0.0380065	2.3394545	32	4	1979–1999	0.60	M-v	2	Williams	37811 1999 GP ₉
1999 GX ₂₄	14.9	0.15	20000226	286.37304	349.16831	11.92727	3.59541	0.1550249	2.2707093	20	1	140 days	0.59	M-v	5	Williams	1999 GX ₂₄
1999 JB	16.9	0.15	20000226	116.10324	178.81938	165.40831	23.66469	0.5663055	1.4202373	91	3	1992–2000	0.55	M-v	2	Spahr	37812 1999 JB
1999 JJ	15.2	0.15	19990502	323.40990	1.47517	248.63676	18.19166	0.0463396	1.9202839	21	1	54 days	0.88			Williams	1999 JJ
1999 JM ₈	15.1	0.15	20000226	47.60136	165.98366	134.10329	13.69243	0.6436677	2.7226711	402	3	1990–2000	0.59	M-v	0	Williams	38068 1999 JM ₈
1999 JS ₂₄	12.4	0.15	19990502	324.91239	237.77220	28.21677	13.74057	0.1320506	2.9751782	35	1	56 days	0.80			Williams	1999 JS ₂₄
1999 JK ₄₉	15.1	0.15	19990522	277.16237	104.14403	226.56934	7.79208	0.1023386	2.5706859	20	1	40 days	0.92			Williams	1999 JK ₄₉
1999 JD ₅₀	14.5	0.15	19990522	107.28461	45.12406	78.17060	10.93575	0.0400208	2.5248941	23	1	30 days	0.54			Williams	1999 JD ₅₀
1999 JR ₅₀	16.4	0.15	19990522	41.48740	93.00197	77.25636	11.19176	0.2578512	2.6321347	26	1	40 days	0.96			Williams	1999 JR ₅₀
1999 JY ₅₂	14.4	0.15	19990522	183.82012	336.97741	76.88758	9.25750	0.0818155	2.7938517	19	1	36 days	0.83			Williams	1999 JY ₅₂
1999 JC ₅₄	15.7	0.15	19990522	337.28986	199.78168	69.48206	3.39916	0.1435085	2.5937459	29	1	36 days	0.83			Williams	1999 JC ₅₄
1999 JS ₅₄	14.7	0.15	20000226	143.26560	226.19347	294.07477	4.17769	0.1615001	2.2741535	38	3	1996–1999	0.75	M-v	3	Williams	37813 1999 JS ₅₄
1999 JG ₅₈	15.9	0.15	19990522	346.28468	322.68619	298.50120	1.89651	0.1382591	2.4202690	21	1	30 days	0.82			Williams	1999 JG ₅₈
1999 JL ₈₀	13.8	0.15	20000226	316.05518	204.40490	139.71723	10.57914	0.0939566	2.9861849	23	3	1995–1999	0.63	M-v	4	Williams	37813 1999 JL ₈₀
1999 JW ₈₀	14.1	0.15	19990522	46.79890	87.94776	97.44474	14.02761	0.1113391	2.6869666	19	1	33 days	0.66			Williams	1999 JW ₈₀
1999 JW ₉₅	16.3	0.15	19990522	8.03123	34.71736	190.09195	11.55830	0.1959425	2.3597722	22	1	31 days	0.73			Williams	1999 JW ₉₅
1999 JV ₉₈	13.4	0.15	20000226	299.11790	229.85659	148.88184	10.15005	0.1761927	2.7424489	55	2	1998–1999	0.73	M-v	4	Marsden	35467 1999 JV ₉₈
1999 JQ ₁₁₃	13.9	0.15	20000226	332.86368	184.85893	143.82391	1.75999	0.1642266	3.2276868	31	3	1992–1999	0.63	M-v	4	Williams	37814 1999 JQ ₁₁₃
1999 JB ₁₁₄	13.9	0.15	20000226	304.26697	209.49497	149.25223	2.64066	0.1008204	2.8971930	36	3	1994–1999	0.74	M-v	4	Williams	37814 1999 JB ₁₁₄
1999 JN ₁₁₆	15.1	0.15	19990522	88.63039	270.53959	220.36446	5.91588	0.1738818	2.5377704	19	1	39 days	1.12			Williams	1999 JN ₁₁₆
1999 JX ₁₁₈	14.1	0.15	19990522	292.79270	93.28638	226.88968	8.44802	0.1060649	2.7420722	22	1	33 days	0.92			Williams	1999 JX ₁₁₈
1999 JC ₁₂₀	15.6	0.15	19990522	278.39933	112.67190	218.86854	5.59072	0.0563969	2.1780499	22	1	33 days	0.89			Williams	1999 JC ₁₂₀
1999 JE ₁₂₁	16.8	0.15	19990522	323.69574	138.93788	164.40269	4.65987	0.2577478	2.3168260	20	1	33 days	0.60			Williams	1999 JE ₁₂₁
1999 JO ₁₂₁	16.7	0.15	19990522	25.05134	341.42737	230.98298	5.83715	0.1326411	2.2880387	21	1	33 days	0.82			Williams	1999 JO ₁₂₁
1999 JX ₁₂₁	15.4	0.15	19990522	286.05075	269.08140	83.83231	11.84043	0.2874876	2.5706805	23	1	33 days	0.99			Williams	1999 JX ₁₂₁
1999 JH ₁₂₇	14.6	0.15	20000226	328.36270	231.45853	117.77857	4.10443	0.1038926	2.7453890	28	3	1971–1999	0.73	M-v	5	Williams	37814 1999 JH ₁₂₇
1999 JA ₁₃₆	13.9	0.15	20000226	109.64559	266.79240	256.27606	8.46892	0.2077779	2.4453789	33	2	1991–1999	0.54	M-v	4	Williams	37814 1999 JA ₁₃₆
1999 KA ₈	13.0	0.15	20000226	344.63830	48.00552	250.65324	9.76024	0.1020476	3.0714285	34	2	1994–1999	0.73	M-v	4	Williams	37814 1999 KA ₈
1999 KO ₁₇	15.0	0.15	19990522	305.02791	246.53721	67.70869	13.84827	0.2189032	2.6876492	24	1	36 days	0.84			Williams	1999 KO ₁₇
1999 LE ₉	15.4	0.15	19990522	13.71173	120.71555	104.45752	13.34100	0.1214956	2.5323520	21	1	36 days	0.47			Williams	1999 LE ₉
1999 LK ₁₀	13.6	0.15	20000226	232.54724	291.53997	143.04526	12.75984	0.1517140	2.6749700	29	2	1998–1999	0.48	M-v	5	Williams	37815 1999 LK ₁₀
1999 LD ₃₁	13.7	0.15	20000226	0.82593	102.18770	296.98423	160.19361	0.9026370	24.4203946	237	2	1999–2000	0.53	M-v	1	Marsden	38069 1999 LD ₃₁
1999 MJ ₁	14.9	0.15	20000226	91.19074	155.22776	115.50592	7.63160	0.1517082	2.3849316	34	3	1996–1999	0.53	M-v	2	Williams	37815 1999 MJ ₁
1999 NC ₃	13.9	0.15	20000226	33.95235	143.85521	168.68490	5.45095	0.1461478	2.6697117	54	3	1995–1999	0.57	M-v	4	Marsden	35658 1999 NC ₃
1999 NO ₃	14.2	0.15	20000226	170.53251	12.76112	164.82134	9.53607	0.0418130	2.5334696	41	2	1998–1999	0.57	M-v	4	Marsden	35658 1999 NO ₃
1999 NS ₄	14.9	0.15	20000226	77.96283	148.70072	148.45965	2.86772	0.1805113	2.4457850	91	2	1998–1999	0.68	M-v	3	Marsden	37289 1999 NS ₄
1999 NA ₉	16.3	0.15	19990721	20.00429	156.76437	122.21799	6.87496	0.1847600	2.2542544	18	1	31 days	0.46			Williams	1999 NA ₉
1999 NP ₁₇	14.2	0.15	20000226	136.59369	244.86210	306.47835	7.81951	0.1518787	2.6003696	22	1	62 days	0.53	M-v	5	Williams	1999 NP ₁₇
1999 NS ₁₇	14.5	0.15	20000226	106.94710	208.31487	19.87153	2.57173	0.1847024	2.3506009	23	1	60 days	0.48	M-v	5	Williams	1999 NS ₁₇
1999 NX ₁₇	14.5	0.15	20000226	59.04688	222.89125	57.75030	4.56616	0.1687701	2.6405190	20	1	60 days	0.56	M-v	5	Williams	1999 NX ₁₇
1999 NB ₁₈	14.3	0.15	20000226	339.13057	327.91021	69.65045	6.75874	0.1890925	2.3020314	36	2	1998–1999	0.66	M-v	4	Williams	37815 1999 NB ₁₈
1999 NG ₁₈	11.9	0.15	20000226	346.65585	247.16056	98.30730	22.84202	0.0155282	3.2377353	36	3	1973–1999	0.42	M-v	3	Williams	37815 1999 NG ₁₈
1999 NH ₁₈	12.5	0.15	20000226	59.85900	309.88980	322.86541	9.62440	0.0609772	2.9862274	30	2	1998–1999	0.50	M-v	3	Williams	37815 1999 NH ₁₈
1999 NV ₂₃	14.7	0.15	20000226	61.55484	189.55124	110.38456	8.69407	0.1871407	2.2802779	38	1	137 days	0.53	M-v	4	Williams	38069 1999 NV ₂₃
1999 NS ₂₆	14.7	0.15	20000226	45.04002	176.78409	130.82730	3.22794	0.1280881	2.5971194	32	2	1998–1999	0.77	M-v	5	Marsden	35662 1999 NS ₂₆
1999 NQ ₂₇	15.3	0.15	20000226	26.99678	19.67433	316.06254	2.01157	0.1967350	2.6102387	24	2	1995–1999	0.75	M-v	4	Williams	37816 1999 NQ ₂₇

1999 NS ₃₃	14.5	0.15	20000226	6.68006	63.87038	291.28745	15.28456	0.2399902	2.8958708	28	2	1994–1999	0.58	M-v	5	Williams	37816	1999 NS ₃₃
1999 NF ₄₀	15.0	0.15	20000226	136.34750	109.88444	116.57788	7.58359	0.1024929	2.2004153	29	2	1998–1999	0.49	M-v	4	Williams	37816	1999 NF ₄₀
1999 NC ₄₃	15.9	0.15	20000226	17.20458	120.27497	312.03918	7.11422	0.5795975	1.7593863	75	2	1999–2000	0.47	M-v	3	Williams	38069	1999 NC ₄₃
1999 ND ₄₃	19.1	0.15	20000226	71.26545	51.81781	332.27778	5.55660	0.3140341	1.5225866	484	1	185 days	0.52	M-v	3	Williams	38069	1999 ND ₄₃
1999 OZ ₁	14.3	0.15	20000226	54.48184	80.08398	259.05647	12.94784	0.2426526	2.5615367	43	2	1995–1999	0.58	M-v	4	Williams	38069	1999 OZ ₁
1999 OM ₂	13.9	0.15	20000226	213.93203	291.57145	281.85037	17.99364	0.0590249	1.9420343	37	1	193 days	0.50	M-v	4	Williams	38070	1999 OM ₂
1999 OQ ₂	12.1	0.15	20000226	51.07204	63.93601	289.75632	11.96289	0.2531630	2.6093334	47	3	1988–2000	0.45	M-v	2	Williams	37816	1999 OQ ₂
1999 OS ₂	14.2	0.15	20000226	60.54034	56.18335	288.91062	12.09876	0.1996102	2.5559832	44	1	193 days	0.50	M-v	4	Williams	38070	1999 OS ₂
1999 OY ₂	14.1	0.15	20000226	49.01006	109.57540	223.95713	24.08210	0.3718309	3.1336676	70	1	171 days	0.48	M-v	3	Williams	38070	1999 OY ₂
1999 OC ₃	14.3	0.15	20000226	61.54195	25.83513	318.90782	17.64620	0.2321554	2.6061272	26	1	164 days	0.46	M-v	4	Williams	38070	1999 OC ₃
1999 OG ₃	14.7	0.15	20000226	55.01349	137.63685	233.28290	20.65049	0.2361875	2.2965402	87	3	1992–2000	0.55	M-v	2	Williams	38070	1999 OG ₃
1999 OJ ₃	14.1	0.15	20000226	66.21461	109.94437	226.03355	28.25475	0.2487390	2.6352162	107	2	1998–2000	0.67	M-v	3	Spahr	38070	1999 OJ ₃
1999 PB	16.0	0.15	20000226	57.00377	339.45224	328.12377	3.68947	0.1819361	2.4764143	31	1	89 days	0.51	M-v	4	Williams	36548	1999 PB
1999 PC ₁	13.0	0.15	20000226	125.70069	7.19353	293.57602	13.38748	0.1778738	2.6447022	77	2	1998–2000	0.60	M-v	3	Williams	38070	1999 PC ₁
1999 PJ ₁	18.0	0.15	20000226	50.60059	80.46673	319.58924	34.48580	0.3594902	1.6750940	231	1	171 days	0.56	M-v	3	Williams	38070	1999 PJ ₁
1999 PM ₁	14.6	0.15	20000226	20.85504	258.95690	95.84340	28.14304	0.2408782	2.6845744	22	1	203 days	0.41	M-v	3	Spahr	36548	1999 PM ₁
1999 PP ₄	13.0	0.15	20000226	47.31345	297.13374	33.06430	6.57433	0.0790880	3.1934602	59	1	137 days	0.56	M-v	4	Williams	38070	1999 PP ₄
1999 PK ₆	14.9	0.15	20000226	79.63345	156.66002	156.30589	6.54544	0.1949248	2.2791391	49	4	1992–1999	0.61	M-v	2	Marsden	37291	1999 PK ₆
1999 QQ ₁	15.7	0.15	20000226	23.50335	176.06942	228.96904	5.20808	0.3137790	2.5753460	42	1	139 days	0.73	M-v	4	Williams	38070	1999 QQ ₁
1999 QT ₁	14.0	0.15	20000226	327.08555	130.72852	316.11920	11.81090	0.1433668	2.6324908	67	1	136 days	0.60	M-v	4	Williams	37291	1999 QT ₁
1999 QU ₁	15.4	0.15	20000226	33.08684	80.42567	296.99146	5.40184	0.2692119	2.3773414	67	1	136 days	0.51	M-v	3	Williams	37291	1999 QU ₁
1999 QH ₂	15.0	0.15	20000226	37.57388	32.97870	306.86361	0.44413	0.2508543	3.1697368	68	1	83 days	0.50	M-v	4	Williams	38070	1999 QH ₂
1999 RN	15.7	0.15	20000226	353.50290	68.53409	351.60834	3.71357	0.1198449	2.3353327	70	1	107 days	0.49	M-v	4	Williams	38070	1999 RN
1999 RR ₁	15.5	0.15	20000226	153.49718	287.41071	309.39487	2.86827	0.1250541	2.2732366	38	3	1984–1999	0.51	M-v	3	Williams	38070	1999 RR ₁
1999 RS ₁	15.1	0.15	20000226	333.06726	103.79341	341.24257	3.87577	0.1234048	2.2574410	82	1	117 days	0.57	M-v	4	Williams	37291	1999 RS ₁
1999 RD ₂	12.4	0.15	20000226	320.50722	113.26764	23.51747	32.70548	0.3187063	2.7951576	88	1	147 days	0.42	M-v	3	Williams	38071	1999 RD ₂
1999 RE ₂	14.7	0.15	20000226	25.76500	215.85188	192.47479	8.47025	0.2443072	2.3781643	67	1	151 days	0.52	M-v	3	Williams	38071	1999 RE ₂
1999 RD ₃	14.9	0.15	20000226	0.12507	219.17760	196.38138	2.44404	0.1358435	2.2825067	89	3	1982–1999	0.55	M-v	3	Williams	38071	1999 RD ₃
1999 RL ₃	13.0	0.15	20000226	0.49253	69.73698	36.21859	15.39647	0.0785016	2.5867675	48	1	143 days	0.39	M-v	3	Williams	38071	1999 RL ₃
1999 RE ₉	14.5	0.15	20000226	359.17778	228.14054	166.37462	6.27038	0.1213276	2.8009596	40	1	94 days	0.56	M-v	5	Williams	38071	1999 RE ₉
1999 RC ₁₀	16.5	0.15	19990810	1.76145	356.72382	317.96919	30.88167	0.1767492	2.6609152	21	1	57 days	0.65			Williams		1999 RC ₁₀
1999 RX ₁₀	17.2	0.15	19990810	334.33642	61.52777	301.23497	1.18273	0.2119136	2.1823965	30	1	33 days	0.49			Williams		1999 RX ₁₀
1999 RL ₁₁	15.5	0.15	20000226	56.17977	158.66935	151.26721	12.59019	0.1915578	2.6288419	29	1	62 days	0.56	M-v	5	Williams		1999 RL ₁₁
1999 RB ₁₄	14.4	0.15	20000226	10.57741	25.13724	346.98835	15.70148	0.2270687	3.1658961	52	1	96 days	0.59	M-v	4	Williams	38071	1999 RB ₁₄
1999 RS ₁₅	15.8	0.15	20000226	32.73084	4.91914	5.51972	1.15134	0.1385406	2.1937416	71	3	1983–1999	0.51	M-v	3	Williams	37817	1999 RS ₁₅
1999 RJ ₁₆	14.0	0.15	19990830	139.18596	45.15354	158.21350	2.05687	0.0209131	2.9565418	37	1	49 days	0.59			Williams		1999 RJ ₁₆
1999 RP ₂₀	14.4	0.15	20000226	348.12794	65.50474	346.76649	16.69520	0.1652527	3.2014738	22	1	67 days	0.50	M-v	6	Williams		1999 RP ₂₀
1999 RU ₂₀	16.0	0.15	20000226	47.69506	147.26536	203.12357	3.15003	0.1935134	2.3835608	72	1	116 days	0.43	M-v	3	Williams	38072	1999 RU ₂₀
1999 RW ₂₀	16.0	0.15	20000226	31.20453	358.10355	9.26588	8.11871	0.1977514	2.5800432	25	1	71 days	0.43	M-v	5	Williams		1999 RW ₂₀
1999 RZ ₂₀	16.8	0.15	20000226	49.26330	1.97753	343.48103	6.63549	0.3143291	2.3691389	82	1	75 days	0.50	M-v	4	Williams		1999 RZ ₂₀
1999 RY ₂₁	14.3	0.15	20000226	290.34288	108.92121	8.91838	10.56001	0.1100032	2.5781737	55	1	107 days	0.62	M-v	4	Williams	38072	1999 RY ₂₁
1999 RL ₂₂	15.0	0.15	20000226	4.98798	46.71354	359.75525	8.06740	0.0852849	2.2835842	76	1	73 days	0.52	M-v	5	Williams	38072	1999 RL ₂₂
1999 RS ₂₄	15.5	0.15	20000226	72.51504	118.91616	193.35036	10.28785	0.2541519	2.3891349	39	1	115 days	0.51	M-v	4	Williams	38072	1999 RS ₂₄
1999 RB ₂₅	17.8	0.15	19990919	7.05329	4.59452	342.28899	7.57428	0.3006385	2.2171767	38	1	43 days	0.46			Williams		1999 RB ₂₅
1999 RC ₂₅	14.8	0.15	20000226	41.03999	170.55336	184.69570	13.74942	0.1965775	2.6245545	20	1	61 days	0.55	M-v	8	Williams	38072	1999 RC ₂₅
1999 RK ₂₆	13.6	0.15	20000226	341.64711	270.10382	153.59072	9.27635	0.1297018	3.0909401	27	1	63 days	0.43	M-v	5	Williams	38072	1999 RK ₂₆
1999 RH ₂₇	16.8	0.15	20000226	14.47196	95.36574	343.90157	4.39667	0.5766027	2.8840534	571	1	160 days	0.49	M-v	3	Williams	38072	1999 RH ₂₇
1999 RM ₂₈	16.8	0.15	20000226	11.68223	301.70004	136.19239	30.53029	0.3241141	1.8169808	38	1	154 days	0.50	M-v	4	Spahr	38072	1999 RM ₂₈
1999 RR ₂₈	18.4	0.15	20000226	25.55686	283.78586	178.85254	7.12354	0.6543713	1.8767086	110	1	154 days	0.48	M-v	4	Spahr	38073	1999 RR ₂₈
1999 RG ₃₀	14.2	0.15	20000226	69.23638	351.80828	329.31890	21.48692	0.0500569	2.5735089	27	1	89 days	0.53	M-v	4	Williams	36912	1999 RG ₃₀
1999 RT ₃₁	16.1	0.15	20000226	88.14149	27.80155	263.87973	0.30811	0.1838906	2.4455332	54	1	71 days	0.44	M-v	5	Williams	38073	1999 RT ₃₁
1999 RC ₃₂	18.4	0.15	20000226	34.50390	82.67949	352.51517	30.96793	0.4318866	1.8389590	118	1	159 days	0.55	M-v	4	Williams	38073	1999 RC ₃₂
1999 RP ₃₂	16.7	0.15	20000226	67.37104	332.81420	354.29526	2.22197	0.1985434	2.1998440	71	1	87 days	0.56	M-v	4	Williams	38073	1999 RP ₃₂

1999 RS ₃₂	16.3	0.15	19990919	19.86964	2.07788	339.14456	6.30709	0.1349217	2.2604351	37	1	49 days	0.79		Williams	1999 RS ₃₂
1999 RV ₃₂	14.8	0.15	20000226	290.34371	97.42495	8.88819	4.90687	0.0743762	2.7513592	36	4	1993–1999	0.69	M-v 1	Spahr	36398 1999 RV ₃₂
1999 RR ₃₅	13.9	0.15	20000226	177.62106	197.77078	21.93508	4.00529	0.0203216	2.7424245	50	1	94 days	0.52	M-v 4	Williams	38073 1999 RR ₃₅
1999 RY ₃₅	16.1	0.15	20000226	88.69381	303.75035	331.74895	6.11190	0.1111475	2.3651048	22	1	64 days	0.32	M-v 5	Williams	36556 1999 RY ₃₅
1999 RC ₃₆	13.1	0.15	20000226	73.84433	327.41943	8.04477	10.64323	0.1065907	3.2105372	88	3	1988–2000	0.57	M-v 3	Spahr	38074 1999 RC ₃₆
1999 RG ₃₆	13.5	0.15	20000226	352.85627	246.09194	205.22913	13.95056	0.1291115	2.6141045	87	3	1992–2000	0.59	M-v 2	Spahr	38074 1999 RG ₃₆
1999 RN ₃₆	13.2	0.15	20000226	52.99010	152.74667	217.14174	12.85151	0.1883887	2.5716541	87	2	1998–2000	0.57	M-v 3	Williams	38074 1999 RN ₃₆
1999 RQ ₃₆	21.0	0.15	20000226	81.03351	65.66675	2.17701	6.02509	0.2046044	1.1288539	187	1	110 days	0.57	M-v 5	Williams	38074 1999 RQ ₃₆
1999 RW ₃₇	14.6	0.15	20000226	4.39664	223.65599	189.07853	12.56618	0.1590224	2.6873531	51	1	126 days	0.49	M-v 4	Williams	38074 1999 RW ₃₇
1999 RC ₃₈	12.4	0.15	20000226	302.60287	289.08184	190.31551	13.39820	0.1198389	2.6293183	69	3	1965–2000	0.64	M-v 2	Williams	38074 1999 RC ₃₈
1999 RF ₃₈	15.0	0.15	20000226	12.68199	33.16779	9.10950	16.21499	0.3101566	3.0487473	46	1	61 days	0.56	M-v 4	Williams	38074 1999 RF ₃₈
1999 RN ₃₈	14.4	0.15	20000226	61.61457	222.68810	123.02414	1.52675	0.1365824	2.3058246	102	2	1998–2000	0.62	M-v 3	Williams	38074 1999 RN ₃₈
1999 RT ₃₈	14.9	0.15	20000226	43.01142	342.18208	54.50190	4.03030	0.1594873	2.2086997	103	4	1994–2000	0.54	M-v 2	Williams	38074 1999 RT ₃₈
1999 RN ₃₉	13.1	0.15	20000226	336.23578	311.75288	144.13207	10.84820	0.0893023	3.0348446	55	2	1997–2000	0.45	M-v 3	Spahr	37818 1999 RN ₃₉
1999 RW ₃₉	15.9	0.15	20000226	43.57169	12.00090	347.65150	4.46583	0.2819419	2.7216682	45	1	116 days	0.59	M-v 4	Williams	38074 1999 RW ₃₉
1999 RY ₃₉	14.4	0.15	20000226	65.25718	128.38715	208.22731	8.37647	0.1648335	2.7674738	58	1	115 days	0.46	M-v 4	Williams	38074 1999 RY ₃₉
1999 RB ₄₀	15.0	0.15	20000226	109.69989	269.21375	16.57775	14.48181	0.2126098	2.5541364	41	2	1998–1999	0.71	M-v 4	Williams	38074 1999 RB ₄₀
1999 RK ₄₀	14.4	0.15	20000226	177.31290	49.39208	167.02692	11.65555	0.0255348	2.4350270	64	5	1956–1999	0.69	M-v 2	Spahr	38074 1999 RK ₄₀
1999 RV ₄₀	14.3	0.15	20000226	181.98537	208.98972	357.31269	23.80898	0.2016403	2.3762871	40	1	71 days	0.60	M-v 5	Williams	36914 1999 RV ₄₀
1999 RJ ₄₁	17.3	0.15	19991009	330.81580	34.61263	9.00941	24.76836	0.1336270	1.8378946	42	1	54 days	0.72		Williams	1999 RJ ₄₁
1999 RH ₄₂	13.8	0.15	20000226	1.68209	112.72019	3.84492	9.06268	0.0695460	3.0042310	50	2	1998–2000	0.50	M-v 3	Williams	38074 1999 RH ₄₂
1999 RK ₄₂	14.7	0.15	20000226	9.29787	234.89899	208.29869	22.46465	0.1987619	2.3251229	64	1	119 days	0.49	M-v 3	Williams	38074 1999 RK ₄₂
1999 RL ₄₂	13.9	0.15	20000226	63.94428	308.89228	41.67620	4.55039	0.2123036	2.8035282	67	1	143 days	0.49	M-v 4	Spahr	38074 1999 RL ₄₂
1999 RQ ₄₂	13.1	0.15	20000226	353.53134	265.91204	173.20133	12.78518	0.1587683	2.5884319	40	1	144 days	0.34	M-v 4	Spahr	38074 1999 RQ ₄₂
1999 RS ₄₃	15.2	0.15	20000226	67.87941	180.73708	182.15079	4.39464	0.1641680	2.1762081	72	2	1998–2000	0.63	M-v 4	Williams	38075 1999 RS ₄₃
1999 RT ₄₃	14.2	0.15	20000226	3.16919	300.28857	134.00705	2.46885	0.1681257	3.0981872	62	1	89 days	0.53	M-v 4	Williams	38075 1999 RT ₄₃
1999 RU ₄₃	12.9	0.15	20000226	104.05620	264.89292	40.26817	22.90072	0.2161457	2.5800485	91	2	1998–2000	0.51	M-v 3	Williams	38075 1999 RU ₄₃
1999 RA ₄₄	14.2	0.15	20000226	326.02100	75.28161	52.85854	7.20903	0.1139281	2.2746891	91	3	1992–2000	0.54	M-v 2	Spahr	38075 1999 RA ₄₄
1999 RB ₄₄	13.9	0.15	20000226	24.10605	16.64479	39.38420	11.23640	0.1700058	2.5355816	66	3	1987–2000	0.42	M-v 2	Williams	38075 1999 RB ₄₄
1999 RC ₄₄	13.2	0.15	20000226	52.50087	327.85163	45.23325	11.89650	0.1687636	2.6234858	82	2	1986–2000	0.58	M-v 3	Williams	38075 1999 RC ₄₄
1999 RK ₄₄	15.0	0.15	19990919	296.90323	250.78442	192.48181	5.50232	0.2207972	2.7871440	59	1	54 days	0.62		Williams	1999 RK ₄₄
1999 RN ₄₄	15.4	0.15	20000226	65.12330	126.65614	194.02220	12.62714	0.2921199	2.3308006	48	1	140 days	0.46	M-v 3	Williams	38075 1999 RN ₄₄
1999 RR ₄₄	14.4	0.15	20000226	68.02542	138.68587	180.71649	8.13235	0.1459543	3.0986419	29	2	1977–1999	0.69	M-v 5	Williams	36915 1999 RR ₄₄
1999 RJ ₄₅	14.8	0.15	20000226	30.39147	241.78558	126.39536	15.22902	0.4435771	2.8614992	138	2	1984–2000	0.57	M-v 2	Spahr	38075 1999 RJ ₄₅
1999 RL ₄₅	18.6	0.15	20000226	33.90391	234.00650	172.11560	22.45247	0.3748449	1.8263522	54	1	147 days	0.51	M-v 4	Spahr	36915 1999 RL ₄₅
1999 RS ₄₅	16.8	0.15	19990919	343.85270	34.69099	348.15160	5.42278	0.2292238	2.6356693	29	1	54 days	0.41		Williams	1999 RS ₄₅
1999 RT ₄₇	14.4	0.15	19990810	338.58456	0.08235	338.80249	6.82573	0.0507061	3.2055939	20	1	59 days	0.47		Williams	1999 RT ₄₇
1999 RG ₄₈	16.0	0.15	20000226	108.15289	77.13669	179.23504	4.01741	0.1338347	2.1994273	23	1	85 days	0.65	M-v 5	Williams	1999 RG ₄₈
1999 RC ₄₉	16.3	0.15	20000226	20.71996	38.79005	334.05869	3.14639	0.2500947	2.3430697	27	1	95 days	0.49	M-v 4	Williams	38075 1999 RC ₄₉
1999 RU ₄₉	15.5	0.15	20000226	41.54353	169.69847	165.69705	2.46768	0.2245449	2.4099612	53	3	1973–1999	0.93	M-v 3	Williams	36411 1999 RU ₄₉
1999 RW ₄₉	14.4	0.15	20000226	346.87114	200.22972	178.73715	2.39201	0.0718510	2.8665938	20	1	62 days	0.59	M-v 6	Williams	38075 1999 RW ₄₉
1999 RS ₅₀	14.7	0.15	19990810	309.18484	302.37216	89.48314	3.21951	0.2083944	2.3609631	21	1	59 days	0.54		Williams	1999 RS ₅₀
1999 RV ₅₀	16.4	0.15	19990810	14.65566	184.77644	110.63471	5.70683	0.2217849	2.3786940	22	1	59 days	0.40		Williams	1999 RV ₅₀
1999 RC ₅₂	14.9	0.15	20000226	47.16079	313.01236	20.42921	3.54465	0.1838712	2.3108816	61	4	1971–1999	0.71	M-v 3	Marsden	38075 1999 RC ₅₂
1999 RW ₅₂	13.7	0.15	20000226	46.72974	259.97178	46.85700	1.67417	0.1887620	3.0814040	37	2	1998–1999	0.65	M-v 4	Williams	37818 1999 RW ₅₂
1999 RG ₅₅	14.0	0.15	20000226	20.86140	168.08631	177.55378	1.03141	0.1687073	3.1548266	29	3	1995–1999	0.58	M-v 3	Williams	37818 1999 RG ₅₅
1999 RS ₅₇	16.2	0.15	20000226	92.45044	170.79310	110.73648	3.54657	0.1890240	2.1484811	37	3	1992–1999	0.77	M-v 2	Williams	37818 1999 RS ₅₇
1999 RU ₅₉	13.6	0.15	20000226	348.54406	19.72515	2.33120	6.27152	0.1903856	3.1798127	32	1	119 days	0.58	M-v 4	Williams	38075 1999 RU ₅₉
1999 RZ ₇₅	14.8	0.15	19990919	10.84281	150.26419	189.39300	10.18919	0.1159351	2.9693677	34	1	44 days	0.55		Williams	1999 RZ ₇₅
1999 RX ₈₁	16.0	0.15	20000226	20.44061	152.15235	227.29923	3.03613	0.2470332	2.7239730	39	1	70 days	0.52	M-v 5	Williams	38075 1999 RX ₈₁
1999 RJ ₈₂	17.8	0.15	20000226	48.79895	115.92636	240.70330	2.61364	0.1551638	2.1500596	15	1	71 days	0.37	M-v 5	Williams	1999 RJ ₈₂
1999 RA ₈₃	15.4	0.15	20000226	67.84319	350.94298	325.84575	1.68010	0.1951054	2.4105535	70	2	1998–1999	0.65	M-v 3	Williams	38075 1999 RA ₈₃
1999 RS ₈₄	15.4	0.15	20000226	94.30885	90.44962	199.35241	5.25048	0.1836917	2.2989712	32	1	114 days	0.29	M-v 4	Williams	38076 1999 RS ₈₄

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1999 RC ₈₅	16.9	0.15	20000226	18.16243	182.94757	199.35123	1.22467	0.2327216	2.7796527	24	1	67 days	0.41	M-v	5	Williams	38076	1999 RC ₈₅
1999 RD ₈₅	14.9	0.15	20000226	298.03266	143.52935	309.59073	0.32445	0.0339852	2.9841119	27	3	1992-1999	0.56	M-v	4	Williams	38076	1999 RD ₈₅
1999 RV ₈₅	15.7	0.15	20000226	50.22143	341.66221	9.01632	6.87870	0.2001730	2.2421955	36	1	70 days	0.56	M-v	4	Williams	38076	1999 RV ₈₅
1999 RV ₈₆	14.1	0.15	20000226	56.56036	307.79768	24.31507	5.61115	0.0637602	2.7508426	31	1	107 days	0.58	M-v	4	Williams	38076	1999 RV ₈₆
1999 RL ₈₇	16.5	0.15	20000226	65.94845	46.97186	275.33828	0.46863	0.1978999	2.4131442	20	1	71 days	0.38	M-v	6	Williams		1999 RL ₈₇
1999 RW ₈₈	15.6	0.15	20000226	2.97880	209.51802	207.07144	2.44264	0.1224659	2.1645960	43	1	91 days	0.48	M-v	4	Williams	38076	1999 RW ₈₈
1999 RP ₈₉	14.1	0.15	20000226	300.14620	322.25798	147.48893	3.43462	0.1403783	2.7598639	40	4	1983-1999	0.54	M-v	1	Williams	38076	1999 RP ₈₉
1999 RS ₈₉	14.4	0.15	20000226	30.54719	220.61507	154.46708	5.81289	0.2901521	2.5356210	72	3	1995-2000	0.54	M-v	2	Williams	38076	1999 RS ₈₉
1999 RR ₉₀	15.0	0.15	20000226	60.64994	317.57525	19.99780	8.41232	0.1615811	2.2938251	58	3	1992-1999	0.52	M-v	2	Williams	38076	1999 RR ₉₀
1999 RM ₉₂	13.2	0.15	20000226	182.50937	11.07236	193.67513	0.26382	0.1064855	3.2159023	41	3	1993-1999	0.71	M-v	5	Williams	38076	1999 RM ₉₂
1999 RN ₉₃	13.9	0.15	20000226	346.61494	352.86012	59.44811	3.33171	0.0225526	2.6913696	43	3	1990-1999	0.62	M-v	3	Williams	38076	1999 RN ₉₃
1999 RO ₉₄	12.6	0.15	20000226	221.52204	151.09451	21.46254	10.66104	0.0383785	3.0310728	58	4	1976-1999	0.71	M-v	2	Williams	38076	1999 RO ₉₄
1999 RM ₉₅	12.8	0.15	20000226	211.73319	167.30886	13.56337	18.34313	0.1141343	3.2236455	23	1	66 days	0.76	M-v	5	Williams	38076	1999 RM ₉₅
1999 RL ₉₆	14.6	0.15	20000226	325.15368	26.64477	74.99425	2.69359	0.1768682	2.4275349	36	4	1988-1999	0.75	M-v	2	Williams	38077	1999 RL ₉₆
1999 RH ₉₇	15.0	0.15	19990919	206.97978	321.27635	195.65183	3.88738	0.0974920	2.5757420	25	1	55 days	0.46			Williams		1999 RH ₉₇
1999 RZ ₉₈	12.5	0.15	20000226	67.11239	310.04115	21.14445	21.86841	0.0222875	3.2296606	94	4	1982-2000	0.54	M-v	1	Williams	38077	1999 RZ ₉₈
1999 RE ₁₀₃	15.1	0.15	20000226	22.80142	61.35262	305.54894	14.56100	0.3501790	2.9817120	36	1	147 days	0.66	M-v	3	Williams	38077	1999 RE ₁₀₃
1999 RF ₁₀₄	16.2	0.15	20000226	39.84611	165.16581	192.87042	6.63859	0.1560607	2.4275507	36	1	64 days	0.39	M-v	4	Williams	36917	1999 RF ₁₀₄
1999 RD ₁₀₅	13.1	0.15	20000226	143.20637	78.66153	172.08521	5.71565	0.0908761	3.1836214	53	3	1993-2000	0.62	M-v	3	Williams	37819	1999 RD ₁₀₅
1999 RF ₁₀₅	13.8	0.15	20000226	83.55711	285.26872	24.02202	9.59691	0.1077239	3.0355012	36	1	65 days	0.46	M-v	5	Williams	38077	1999 RF ₁₀₅
1999 RL ₁₀₅	13.8	0.15	20000226	65.55443	216.39911	115.60330	2.16626	0.1001650	2.9618842	32	1	122 days	0.47	M-v	4	Williams	38077	1999 RL ₁₀₅
1999 RN ₁₀₅	14.8	0.15	20000226	337.02437	286.65115	162.90815	3.98334	0.0898208	2.3156300	29	1	124 days	0.64	M-v	5	Williams		1999 RN ₁₀₅
1999 RV ₁₀₅	14.4	0.15	20000226	14.24637	161.46865	224.38951	14.51027	0.1363016	2.6673675	34	1	106 days	0.48	M-v	4	Williams		1999 RV ₁₀₅
1999 RD ₁₀₆	16.6	0.15	20000226	41.84534	142.56265	220.08776	5.04515	0.1472532	2.2038980	18	1	70 days	0.49	M-v	6	Williams		1999 RD ₁₀₆
1999 RO ₁₀₇	13.9	0.15	19990919	334.63223	145.56489	247.76085	8.45608	0.0971084	3.1644205	36	1	58 days	0.82			Williams		1999 RO ₁₀₇
1999 RX ₁₀₈	14.5	0.15	20000226	46.60811	115.04281	233.04465	11.50518	0.1383127	2.6358889	55	1	136 days	0.51	M-v	3	Williams	38077	1999 RX ₁₀₈
1999 RO ₁₀₉	14.6	0.15	20000226	62.79250	355.47773	331.18547	12.76718	0.1671317	2.6326028	50	2	1997-1999	0.39	M-v	3	Williams	36917	1999 RO ₁₀₉
1999 RR ₁₀₉	14.4	0.15	20000226	19.74291	52.58070	334.85527	10.58926	0.1844609	2.7528147	61	1	136 days	0.45	M-v	3	Williams	37297	1999 RR ₁₀₉
1999 RS ₁₀₉	16.8	0.15	19990919	18.18807	34.92633	301.87764	4.77049	0.1920795	2.2851793	35	1	58 days	0.62			Williams		1999 RS ₁₀₉
1999 RV ₁₀₉	15.4	0.15	19990919	93.08684	308.11285	313.33960	5.94471	0.1014763	2.4172678	46	1	58 days	0.61			Williams		1999 RV ₁₀₉
1999 RW ₁₁₄	13.3	0.15	20000226	126.48990	298.51239	301.59075	7.99894	0.0902368	3.0521299	41	3	1997-1999	0.49	M-v	3	Williams	38077	1999 RW ₁₁₄
1999 RE ₁₁₇	14.5	0.15	20000226	300.06802	159.17086	284.49624	5.89414	0.0749226	2.3353354	51	2	1998-1999	0.65	M-v	4	Williams	37819	1999 RE ₁₁₇
1999 RY ₁₁₉	15.1	0.15	20000226	51.33879	174.19391	152.20089	7.09754	0.1331619	2.3170632	74	4	1995-1999	0.60	M-v	1	Marsden	36562	1999 RY ₁₁₉
1999 RE ₁₂₀	14.9	0.15	20000226	227.30355	246.68658	270.37487	0.95020	0.0290480	2.1798625	42	3	1990-1999	0.54	M-v	3	Williams	37819	1999 RE ₁₂₀
1999 RY ₁₂₃	15.1	0.15	19990919	44.30279	4.41606	301.82416	13.53304	0.0852813	2.7549816	30	1	43 days	0.48			Williams		1999 RY ₁₂₃
1999 RL ₁₂₄	13.7	0.15	20000226	23.22780	52.17977	327.78241	12.35537	0.2024415	2.6401477	72	1	138 days	0.46	M-v	3	Williams	37298	1999 RL ₁₂₄
1999 RQ ₁₂₄	15.1	0.15	20000226	36.95623	41.29078	318.80695	12.22377	0.1690928	2.6577027	46	1	97 days	0.54	M-v	3	Williams	36918	1999 RQ ₁₂₄
1999 RF ₁₂₅	15.5	0.15	20000226	54.75324	17.42453	318.37716	2.27807	0.1977114	2.2496595	31	1	99 days	0.35	M-v	3	Williams		1999 RF ₁₂₅
1999 RD ₁₂₉	15.5	0.15	19990810	40.72615	315.76222	315.55617	2.82779	0.1614245	2.2805008	28	1	37 days	0.48			Williams		1999 RD ₁₂₉
1999 RJ ₁₂₉	16.6	0.15	19990810	331.39936	214.88074	154.92980	2.89566	0.2273919	2.4283354	25	1	36 days	0.70			Williams		1999 RJ ₁₂₉
1999 RV ₁₂₉	14.2	0.15	19990810	286.32278	268.55465	143.50441	11.08192	0.0930045	3.0464956	22	1	41 days	0.45			Williams		1999 RV ₁₂₉
1999 RL ₁₃₀	14.9	0.15	20000226	1.23566	238.59640	159.68350	4.93160	0.1951802	2.4232067	41	4	1988-1999	0.66	M-v	2	Spahr	38078	1999 RL ₁₃₀
1999 RM ₁₃₀	14.0	0.15	19990830	137.94759	221.81528	324.89201	5.76643	0.1252403	2.8571881	28	1	53 days	0.45			Williams		1999 RM ₁₃₀
1999 RB ₁₃₄	14.3	0.15	20000226	284.41811	227.26971	244.21785	5.76105	0.1098176	2.3695326	38	3	1996-1999	0.63	M-v	4	Marsden	36440	1999 RB ₁₃₄
1999 RN ₁₃₈	14.3	0.15	20000226	96.34482	346.00478	289.85618	12.78069	0.2139835	2.4704933	44	1	112 days	0.46	M-v	4	Williams	36919	1999 RN ₁₃₈
1999 RP ₁₃₉	15.7	0.15	19990830	317.16322	250.72615	150.02636	26.49724	0.2544972	3.1553207	25	1	53 days	0.72			Williams		1999 RP ₁₃₉
1999 RL ₁₄₀	15.9	0.15	19990830	331.75411	337.16479	38.18436	0.23213	0.1954288	2.6074055	20	1	23 days	0.47			Williams		1999 RL ₁₄₀
1999 RY ₁₄₁	16.0	0.15	20000226	14.84189	194.14987	203.94782	2.18203	0.1155264	2.2126941	67	2	1998-1999	0.55	M-v	4	Williams	38078	1999 RY ₁₄₁
1999 RT ₁₄₃	15.0	0.15	20000226	29.48911	186.56946	188.44359	6.50141	0.1251633	2.3541132	74	3	1994-1999	0.52	M-v	2	Williams	37298	1999 RT ₁₄₃
1999 RV ₁₄₃	15.3	0.15	20000226	247.37007	319.01974	195.32293	5.74648	0.0492430	2.3407359	45	2	1998-1999	0.63	M-v	4	Williams	38078	1999 RV ₁₄₃
1999 RW ₁₄₃	15.9	0.15	20000226	80.52900	78.31744	227.42500	2.28188	0.2055563	2.2453939	58	1	137 days	0.48	M-v	4	Williams	38078	1999 RW ₁₄₃
1999 RV ₁₄₄	14.5	0.15	19990830	35.91877	72.72831	203.79325	9.26737	0.2772646	3.2172131	12	1	5 days	0.51			Williams		1999 RV ₁₄₄
1999 RZ ₁₄₄	15.5	0.15	19990830	60.70327	45.66647	208.14024	7.82140	0.2095774	2.3002984	13	1	5 days	0.52			Williams		1999 RZ ₁₄₄

1999 RA ₁₄₅	15.3	0.15	20000226	35.26337	162.74598	185.37473	12.56954	0.2597626	2.6326136	44	2	1998–1999	0.44	M-v	3	Williams	37298	1999 RA ₁₄₅
1999 RC ₁₄₉	16.2	0.15	19990810	338.89467	17.63699	339.61097	5.62376	0.1315687	2.3704972	23	1	37 days	0.60			Williams		1999 RC ₁₄₉
1999 RM ₁₅₁	15.1	0.15	20000226	72.60753	285.74446	15.87351	3.59786	0.1027919	2.5731634	45	3	1995–1999	0.78	M-v	3	Williams	38078	1999 RM ₁₅₁
1999 RS ₁₅₆	14.6	0.15	20000226	50.59055	147.24638	174.35273	12.29569	0.1396921	2.9728409	26	2	1998–1999	0.58	M-v	3	Williams	38079	1999 RS ₁₅₆
1999 RA ₁₅₈	14.3	0.15	20000226	348.57344	52.95834	357.37871	13.24376	0.1742746	2.6452470	42	1	107 days	0.45	M-v	4	Williams	38079	1999 RA ₁₅₈
1999 RC ₁₆₁	14.6	0.15	19990919	21.68717	116.27238	212.14187	3.73261	0.1239561	3.1040089	27	1	53 days	0.68			Williams		1999 RC ₁₆₁
1999 RR ₁₆₂	14.7	0.15	20000226	57.56957	352.03538	333.32924	13.23192	0.2028016	2.5420305	36	1	75 days	0.41	M-v	4	Williams	38079	1999 RR ₁₆₂
1999 RY ₁₆₆	14.4	0.15	20000226	108.41143	230.56438	40.97962	6.19329	0.1376614	2.2396669	38	1	122 days	0.51	M-v	4	Williams	38079	1999 RY ₁₆₆
1999 RB ₁₆₇	14.6	0.15	20000226	12.42879	6.30715	19.77604	9.41955	0.1490367	2.4665051	24	1	67 days	0.55	M-v	5	Williams		1999 RB ₁₆₇
1999 RW ₁₆₉	17.0	0.15	20000226	48.82984	64.43588	280.43604	1.76191	0.2135430	2.3764176	26	1	74 days	0.66	M-v	5	Williams		1999 RW ₁₆₉
1999 RQ ₁₇₄	16.7	0.15	20000226	55.44981	330.37236	3.41759	6.16691	0.2329781	2.3522435	29	1	70 days	0.58	M-v	5	Williams	38079	1999 RQ ₁₇₄
1999 RO ₁₇₅	15.4	0.15	19990919	316.17094	64.45855	342.61574	5.45927	0.1063369	2.7181124	25	1	39 days	0.49			Williams		1999 RO ₁₇₅
1999 RP ₁₇₅	15.1	0.15	19990919	41.53172	323.29813	342.43799	5.79476	0.0817518	3.2182681	18	1	37 days	0.48			Williams		1999 RP ₁₇₅
1999 RG ₁₇₆	15.9	0.15	20000226	67.82895	21.34291	306.92647	2.18709	0.1905745	2.1589670	75	1	144 days	0.50	M-v	4	Williams	37299	1999 RG ₁₇₆
1999 RH ₁₇₆	15.9	0.15	20000226	82.02166	101.87064	196.54696	4.75571	0.1830824	2.4290704	39	1	65 days	0.39	M-v	5	Williams	36920	1999 RH ₁₇₆
1999 RK ₁₇₆	15.7	0.15	20000226	7.99275	75.98382	314.15718	3.08766	0.1864752	2.9003343	26	1	68 days	0.66	M-v	5	Williams	38079	1999 RK ₁₇₆
1999 RM ₁₇₆	16.2	0.15	20000226	80.13229	345.72612	328.26901	3.17131	0.1471899	2.1759479	32	1	84 days	0.53	M-v	4	Williams		1999 RM ₁₇₆
1999 RN ₁₇₆	15.2	0.15	20000226	14.94615	176.54937	198.86631	3.82429	0.1692780	3.0873912	36	1	66 days	0.51	M-v	5	Williams	38079	1999 RN ₁₇₆
1999 RQ ₁₇₆	15.5	0.15	20000226	313.36384	262.25190	199.10434	4.25180	0.1127705	2.2530787	36	1	68 days	0.50	M-v	5	Williams	36920	1999 RQ ₁₇₆
1999 RC ₁₇₇	14.7	0.15	20000226	124.45151	280.78212	340.43355	3.57752	0.0552458	2.6044129	46	3	1996–1999	0.65	M-v	3	Williams	36920	1999 RC ₁₇₇
1999 RJ ₁₇₇	13.9	0.15	20000226	47.42497	339.48046	355.01100	11.64180	0.0636341	3.0358169	48	1	94 days	0.50	M-v	4	Williams	38079	1999 RJ ₁₇₇
1999 RW ₁₇₉	15.3	0.15	20000226	48.76810	203.18775	139.56316	10.43400	0.1617351	2.4262673	31	1	117 days	0.61	M-v	4	Williams	38080	1999 RW ₁₇₉
1999 RF ₁₈₂	15.5	0.15	20000226	71.78680	321.05267	350.42290	4.49591	0.1863720	2.4457957	73	3	1994–1999	0.61	M-v	3	Williams	38080	1999 RF ₁₈₂
1999 RN ₁₈₂	16.6	0.15	20000226	85.34595	330.40231	323.88947	1.67293	0.2076465	2.3690553	22	1	86 days	0.58	M-v	5	Williams		1999 RN ₁₈₂
1999 RV ₁₈₂	15.5	0.15	20000226	211.44215	209.95610	334.97283	1.97740	0.1290744	2.4006950	36	2	1998–1999	0.58	M-v	4	Williams	36921	1999 RV ₁₈₂
1999 RW ₁₈₂	16.2	0.15	20000226	69.04176	330.39705	341.44439	1.64861	0.1851597	2.5849389	31	1	68 days	0.44	M-v	5	Williams	38080	1999 RW ₁₈₂
1999 RX ₁₈₄	14.1	0.15	20000226	55.32222	276.20886	53.52981	5.55837	0.1059440	2.6734475	38	3	1982–1999	0.62	M-v	3	Williams	38080	1999 RX ₁₈₄
1999 RX ₁₈₇	14.2	0.15	20000226	254.42523	216.30463	286.66169	1.07583	0.1296280	2.7994787	37	2	1994–1999	0.67	M-v	5	Williams	36921	1999 RX ₁₈₇
1999 RY ₁₈₈	17.5	0.15	20000226	51.34419	345.65035	2.46568	4.79165	0.2312853	2.2401499	32	1	71 days	0.47	M-v	4	Williams	38080	1999 RY ₁₈₈
1999 RY ₁₈₉	17.3	0.15	20000226	41.91423	22.78304	332.98485	1.89049	0.1990246	2.3903264	18	1	68 days	0.59	M-v	4	Williams		1999 RY ₁₈₉
1999 RQ ₁₉₄	12.8	0.15	20000226	1.27992	66.34320	343.50410	16.19379	0.2549296	2.9955179	60	1	145 days	0.51	M-v	3	Williams	37300	1999 RQ ₁₉₄
1999 RB ₁₉₅	15.2	0.15	20000226	44.85417	114.02233	237.09860	5.65095	0.2175140	2.3177381	30	3	1992–1999	0.70	M-v	3	Williams	38080	1999 RB ₁₉₅
1999 RT ₁₉₆	14.3	0.15	20000226	350.69692	149.15499	265.83887	6.32632	0.0939724	2.2909303	30	3	1989–1999	0.67	M-v	3	Williams	38080	1999 RT ₁₉₆
1999 RC ₁₉₈	12.1	0.15	20000226	335.25495	106.70305	333.32516	14.29921	0.2145167	3.1301473	55	1	136 days	0.46	M-v	4	Williams	37300	1999 RC ₁₉₈
1999 RG ₁₉₉	14.7	0.15	20000226	23.34507	38.15085	354.88788	13.02820	0.2703683	2.6459049	50	1	146 days	0.44	M-v	3	Williams	38081	1999 RG ₁₉₉
1999 RM ₁₉₉	14.0	0.15	20000226	57.06321	359.21242	339.82835	10.85066	0.2673774	2.3947627	48	4	1973–1999	0.57	M-v	2	Williams	38081	1999 RM ₁₉₉
1999 RN ₁₉₉	15.6	0.15	20000226	32.96790	112.54601	268.83573	4.09287	0.1651266	2.3353674	43	2	1992–1999	0.48	M-v	4	Williams	37300	1999 RN ₁₉₉
1999 RO ₁₉₉	13.8	0.15	20000226	343.29651	212.82156	228.73614	7.94481	0.2215560	2.7280618	55	1	137 days	0.42	M-v	4	Williams	38081	1999 RO ₁₉₉
1999 RP ₁₉₉	12.8	0.15	20000226	109.89701	341.45652	293.43292	7.00425	0.1335436	2.7307177	75	3	1997–2000	0.48	M-v	2	Williams	38081	1999 RP ₁₉₉
1999 RZ ₁₉₉	14.7	0.15	20000226	22.16618	114.94018	262.47694	11.51291	0.1623211	2.6572186	46	1	117 days	0.52	M-v	3	Williams	38081	1999 RZ ₁₉₉
1999 RG ₂₀₀	14.4	0.15	20000226	14.97026	143.33291	233.82890	12.57009	0.1122335	2.9451073	32	1	90 days	0.60	M-v	4	Williams		1999 RG ₂₀₀
1999 RL ₂₀₀	14.4	0.15	20000226	12.49231	143.22718	246.51216	12.94345	0.1246593	2.5955837	36	2	1998–1999	0.46	M-v	3	Williams	37301	1999 RL ₂₀₀
1999 RY ₂₀₀	14.7	0.15	20000226	12.43906	165.91345	223.77503	15.88080	0.1333204	2.6555022	36	1	60 days	0.50	M-v	4	Williams	38081	1999 RY ₂₀₀
1999 RB ₂₀₁	14.7	0.15	20000226	47.36798	112.65118	233.87702	12.06768	0.1830966	2.5652072	50	3	1991–1999	0.57	M-v	2	Williams	38081	1999 RB ₂₀₁
1999 RK ₂₀₁	14.4	0.15	19990919	312.51039	168.62707	248.44949	9.34164	0.0848179	3.0377432	37	1	58 days	0.51			Williams		1999 RK ₂₀₁
1999 RQ ₂₀₁	14.8	0.15	20000226	350.34253	194.89133	226.41590	12.61998	0.1301818	2.5985449	39	3	1991–1999	0.54	M-v	3	Williams	38081	1999 RQ ₂₀₁
1999 RF ₂₀₂	13.7	0.15	20000226	75.53603	50.49832	258.33688	9.36859	0.1084257	3.0001781	57	2	1998–1999	0.63	M-v	3	Williams	37301	1999 RF ₂₀₂
1999 RJ ₂₀₂	14.4	0.15	20000226	90.75203	10.77816	276.49055	6.72697	0.2220556	2.5442740	53	2	1998–1999	0.62	M-v	4	Williams	38081	1999 RJ ₂₀₂
1999 RM ₂₀₂	15.2	0.15	19990919	2.33352	32.67730	329.28322	11.58723	0.0875527	2.7713736	29	1	50 days	0.73			Williams		1999 RM ₂₀₂
1999 RN ₂₀₂	16.3	0.15	19990919	15.52301	76.90534	265.60586	5.59441	0.1447488	2.4609779	32	1	50 days	0.88			Williams		1999 RN ₂₀₂
1999 RO ₂₀₂	14.3	0.15	19990919	359.15817	34.58773	330.72201	13.85391	0.1589652	3.0541488	15	1	42 days	0.86			Williams		1999 RO ₂₀₂
1999 RQ ₂₀₂	14.7	0.15	20000226	42.69527	41.65930	310.23349	8.22434	0.1698966	2.7369658	38	1	105 days	0.48	M-v	3	Williams	36922	1999 RQ ₂₀₂
1999 RS ₂₀₂	13.7	0.15	20000226	74.71022	70.80132	238.08807	8.78661	0.1145759	3.0304539	45	2	1998–1999	0.54	M-v	3	Williams	36922	1999 RS ₂₀₂

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1999 RB ₂₀₄	14.1	0.15	19990919	342.89655	77.75464	306.53089	9.87833	0.0548611	3.1481075	15	1	42 days	0.62		Williams		1999 RB ₂₀₄
1999 RF ₂₀₄	13.9	0.15	20000226	67.76116	61.41724	255.60222	7.96132	0.1581525	2.8150397	63	2	1998–1999	0.67	M-v	3	Williams	38081 1999 RF ₂₀₄
1999 RP ₂₀₄	14.6	0.15	19990919	10.93441	94.92438	255.41613	9.53094	0.1273311	2.9651688	27	1	58 days	0.51			Williams	1999 RP ₂₀₄
1999 RY ₂₀₄	14.1	0.15	20000226	14.54543	78.10811	308.26923	15.17589	0.1541714	3.0391924	29	1	114 days	0.39	M-v	3	Williams	38081 1999 RY ₂₀₄
1999 RV ₂₀₅	14.4	0.15	19990919	10.43063	44.60615	308.28437	9.47278	0.1034592	2.9794336	28	1	42 days	0.45			Williams	1999 RV ₂₀₅
1999 RW ₂₀₅	14.5	0.15	20000226	166.38377	348.44945	238.96303	8.46074	0.1592612	2.3691036	64	3	1981–1999	0.57	M-v	3	Williams	38081 1999 RW ₂₀₅
1999 RA ₂₀₆	15.1	0.15	20000226	56.53229	22.51368	308.50469	7.41722	0.2138980	2.7359721	36	1	105 days	0.57	M-v	4	Williams	36922 1999 RA ₂₀₆
1999 RB ₂₀₆	15.5	0.15	20000226	18.54463	97.86658	299.80187	6.24058	0.1049597	2.2863971	42	1	88 days	0.67	M-v	4	Williams	38081 1999 RB ₂₀₆
1999 RC ₂₀₆	16.6	0.15	19990919	346.32978	71.97660	313.80145	7.06450	0.2137143	2.4468848	35	1	50 days	0.59			Williams	1999 RC ₂₀₆
1999 RN ₂₀₆	15.0	0.15	20000226	44.56607	128.34596	227.26285	13.96468	0.1225885	2.6057661	36	1	65 days	0.43	M-v	4	Williams	36922 1999 RN ₂₀₆
1999 RR ₂₀₆	15.7	0.15	20000226	32.11351	137.11968	233.69875	11.58599	0.3113742	2.6829958	44	1	116 days	0.58	M-v	3	Williams	38081 1999 RR ₂₀₆
1999 RG ₂₀₇	14.7	0.15	19990919	316.03919	143.99434	275.65156	8.23074	0.0848752	3.1721842	29	1	58 days	0.54			Williams	1999 RG ₂₀₇
1999 RO ₂₀₇	14.4	0.15	19990919	274.20606	155.92486	305.21294	8.66095	0.0568963	3.0947992	33	1	42 days	0.57			Williams	1999 RO ₂₀₇
1999 RQ ₂₀₇	15.4	0.15	19990919	11.07416	47.94835	300.04200	6.68072	0.2325852	2.8050687	48	1	58 days	0.52			Williams	1999 RQ ₂₀₇
1999 RW ₂₀₇	17.2	0.15	19990919	350.71486	111.91391	268.53072	4.66636	0.2457138	2.2580760	36	1	58 days	0.53			Williams	1999 RW ₂₀₇
1999 RH ₂₀₈	14.8	0.15	20000226	1.57763	105.33626	319.33398	12.67761	0.2224314	2.6139445	61	1	147 days	0.55	M-v	4	Williams	38081 1999 RH ₂₀₈
1999 RN ₂₀₈	15.7	0.15	20000226	2.90026	185.96913	236.46117	7.44742	0.2207584	2.5246400	32	1	90 days	0.59	M-v	4	Williams	38081 1999 RN ₂₀₈
1999 RS ₂₀₈	15.4	0.15	20000226	62.28420	95.30443	231.79161	7.25380	0.2221113	2.6447745	50	3	1995–1999	0.52	M-v	2	Williams	37301 1999 RS ₂₀₈
1999 RT ₂₀₈	14.1	0.15	20000226	108.71375	58.92294	224.82943	10.45222	0.0709754	2.9670391	40	2	1998–1999	0.65	M-v	4	Williams	38081 1999 RT ₂₀₈
1999 RW ₂₀₈	13.1	0.15	20000226	7.00040	177.33770	233.78529	6.48301	0.2199814	2.7096162	64	1	168 days	0.52	M-v	4	Williams	38081 1999 RW ₂₀₈
1999 RB ₂₀₉	13.3	0.15	20000226	19.12579	63.09147	319.90234	7.61444	0.1660407	3.1511900	55	1	168 days	0.49	M-v	3	Williams	38081 1999 RB ₂₀₉
1999 RC ₂₀₉	15.4	0.15	20000226	31.26851	107.76759	274.68948	4.68398	0.1106363	2.3766935	46	1	82 days	0.58	M-v	4	Williams	38081 1999 RC ₂₀₉
1999 RE ₂₀₉	16.8	0.15	19990919	5.57303	53.20269	306.59521	5.28606	0.1538012	2.3897270	33	1	57 days	0.83			Williams	1999 RE ₂₀₉
1999 RH ₂₀₉	15.0	0.15	20000226	23.67886	166.30720	209.99752	17.77928	0.1674046	3.1601520	32	1	92 days	0.48	M-v	3	Williams	38081 1999 RH ₂₀₉
1999 RB ₂₁₀	15.1	0.15	20000226	36.73314	75.19401	304.85651	4.32952	0.2145592	2.3188733	61	1	170 days	0.48	M-v	3	Williams	38081 1999 RB ₂₁₀
1999 RB ₂₁₁	15.0	0.15	20000226	124.15503	24.52017	241.11174	7.72841	0.2243613	2.4003383	47	2	1998–1999	0.63	M-v	4	Williams	37301 1999 RB ₂₁₁
1999 RD ₂₁₁	14.7	0.15	20000226	254.66678	251.79076	276.55797	5.12726	0.0919618	2.2821413	47	2	1998–1999	0.63	M-v	4	Williams	37821 1999 RD ₂₁₁
1999 RS ₂₁₁	14.7	0.15	20000226	27.90784	87.29775	298.17545	7.17239	0.2260974	2.7752447	39	1	120 days	0.53	M-v	3	Williams	38082 1999 RS ₂₁₁
1999 RH ₂₁₂	15.3	0.15	19990919	332.49503	140.11195	259.49409	8.24076	0.0897074	3.0579772	28	1	58 days	0.63			Williams	1999 RH ₂₁₂
1999 RK ₂₁₂	14.9	0.15	19990919	165.67795	334.97918	224.95357	13.90247	0.0308598	2.6003295	39	1	58 days	0.66			Williams	1999 RK ₂₁₂
1999 RA ₂₁₃	14.1	0.15	20000226	325.40111	238.01509	224.79853	11.06676	0.1397186	2.6802406	38	2	1992–2000	0.70	M-v	4	Williams	37821 1999 RA ₂₁₃
1999 RH ₂₁₃	16.8	0.15	19990919	327.91667	51.64533	343.67455	1.23998	0.0912324	2.9161035	29	1	50 days	0.46			Williams	1999 RH ₂₁₃
1999 RP ₂₁₃	16.0	0.15	20000226	343.31576	129.30573	323.41152	6.65486	0.2418453	2.3511468	55	1	68 days	0.59	M-v	5	Williams	38082 1999 RP ₂₁₃
1999 RD ₂₁₄	16.2	0.15	20000226	36.70270	146.02085	205.90744	1.43883	0.0985937	2.8509980	38	2	1994–1999	0.46	M-v	4	Williams	36923 1999 RD ₂₁₄
1999 RF ₂₁₄	17.0	0.15	19990919	46.02985	88.22474	215.42566	1.06601	0.0800775	2.6470596	20	1	42 days	0.58			Williams	1999 RF ₂₁₄
1999 RN ₂₁₅	6.7	0.15	19991009	0.10552	228.64423	140.12425	12.30711	0.0000000	44.7026744	10	1	64 days	0.18		E	Marsden	1999 RN ₂₁₅
1999 RR ₂₁₅	8.1	0.15	19991009	0.10381	185.98595	185.69414	1.14376	0.1006715	44.9124258	12	1	65 days	0.21		E	Marsden	1999 RR ₂₁₅
1999 RT ₂₁₅	7.1	0.15	19991009	0.00000	179.84892	192.89808	21.90683	0.0000000	43.0894190	9	1	63 days	0.14		E	Marsden	1999 RT ₂₁₅
1999 RU ₂₁₅	7.2	0.15	19991009	0.00000	359.59328	14.27681	8.09641	0.0000000	40.6971966	11	1	64 days	0.21		E	Marsden	1999 RU ₂₁₅
1999 RV ₂₁₅	8.3	0.15	19991009	14.84117	2.21293	351.74138	21.91509	0.2107115	45.5391046	9	1	65 days	0.18			Marsden	1999 RV ₂₁₅
1999 RW ₂₁₅	8.0	0.15	19991009	322.40383	180.86731	253.99171	10.42417	0.2462467	39.6395654	11	1	63 days	0.27		E	Marsden	1999 RW ₂₁₅
1999 RX ₂₁₅	7.6	0.15	19990919	0.00000	223.58078	99.34916	0.89360	0.0000000	42.0589825	8	1	32 days	0.17		E	Marsden	1999 RX ₂₁₅
1999 RY ₂₁₅	7.0	0.15	19991009	35.38225	290.53959	326.60869	22.50027	0.3487665	47.8643846	14	1	66 days	0.14		E	Marsden	1999 RY ₂₁₅
1999 RZ ₂₁₅	7.8	0.15	19991009	1.25681	328.11900	341.61864	25.54474	0.7057006	104.6341600	10	1	66 days	0.18			Marsden	1999 RZ ₂₁₅
1999 SN ₁	13.0	0.15	20000226	220.08615	183.04545	39.43152	14.37845	0.1300212	2.6197131	64	1	136 days	0.54	M-v	4	Williams	38082 1999 SN ₁
1999 SU ₁	13.0	0.15	20000226	35.60485	29.49701	352.94708	12.54901	0.1392517	2.7224419	61	1	132 days	0.39	M-v	3	Williams	38082 1999 SU ₁
1999 SW ₁	12.5	0.15	20000226	338.32309	156.44468	255.83182	16.61388	0.1288481	3.1935894	46	3	1977–1999	0.55	M-v	2	Williams	37301 1999 SW ₁
1999 SA ₂	16.1	0.15	20000226	44.72004	168.46570	204.51709	22.05634	0.0827850	1.9221600	43	1	85 days	0.50	M-v	4	Williams	38082 1999 SA ₂
1999 SC ₂	13.8	0.15	20000226	15.72783	196.10636	206.18564	24.11976	0.2477207	2.3709383	68	1	113 days	0.48	M-v	3	Williams	38082 1999 SC ₂
1999 SH ₂	15.5	0.15	20000226	34.96884	254.05260	146.18373	2.44700	0.1972696	2.4105184	81	2	1995–2000	0.64	M-v	3	Williams	38082 1999 SH ₂
1999 SJ ₂	14.1	0.15	20000226	23.19583	37.66433	353.94800	13.62767	0.2753447	2.5396710	79	1	171 days	0.52	M-v	3	Williams	37302 1999 SJ ₂
1999 SO ₂	14.9	0.15	20000226	16.66340	92.37894	336.08151	21.89400	0.3674729	2.5526019	48	1	187 days	0.58	M-v	3	Williams	38083 1999 SO ₂
1999 SB ₃	14.2	0.15	20000226	23.98556	60.07454	354.48975	32.10442	0.3391695	2.7650888	64	1	95 days	0.54	M-v	4	Williams	38083 1999 SB ₃

1999 SC ₃	15.0	0.15	20000226	81.08558	50.60000	316.62595	23.14897	0.0629179	1.8658427	62	1	191 days	0.62	M-v	3	Williams	38083	1999 SC ₃
1999 SD ₃	14.6	0.15	20000226	2.57810	117.37958	327.90200	29.94993	0.3180251	2.6459301	34	1	124 days	0.50	M-v	4	Williams	38083	1999 SD ₃
1999 SL ₃	14.1	0.15	20000226	348.19364	135.18347	323.94879	22.95351	0.2311717	2.4007315	26	1	108 days	0.41	M-v	4	Williams		1999 SL ₃
1999 SP ₃	14.6	0.15	20000226	38.71588	99.88881	295.71829	26.67763	0.4081695	2.6456004	54	1	140 days	0.49	M-v	3	Williams	38083	1999 SP ₃
1999 SR ₃	14.4	0.15	20000226	43.34489	46.41270	345.43708	12.92129	0.3360590	2.6335380	33	1	122 days	0.37	M-v	4	Williams		1999 SR ₃
1999 SS ₃	11.9	0.15	20000226	19.80914	78.22386	355.76549	21.63535	0.0923725	3.1681735	54	5	1976–2000	0.70	M-v	2	Williams	38083	1999 SS ₃
1999 SB ₅	14.2	0.15	20000226	75.02709	277.30612	67.13904	22.99826	0.1027089	1.9599923	63	1	122 days	0.51	M-v	3	Williams	38083	1999 SB ₅
1999 SY ₅	13.8	0.15	20000226	34.58297	272.36982	130.55676	23.23535	0.3203159	2.3277179	36	1	129 days	0.47	M-v	3	Williams	38083	1999 SY ₅
1999 SL ₆	14.7	0.15	20000226	61.49688	214.23757	110.78435	11.07862	0.1496279	2.5854563	34	2	1998–1999	0.75	M-v	4	Williams	38083	1999 SL ₆
1999 SU ₆	13.8	0.15	20000226	82.29172	1.06523	322.51772	0.89447	0.0779273	2.9046561	75	1	102 days	0.46	M-v	4	Williams	38083	1999 SU ₆
1999 SV ₆	14.8	0.15	20000226	75.04974	71.58592	256.28951	3.74161	0.2087584	2.2544525	97	3	1992–1999	0.64	M-v	2	Williams	38083	1999 SV ₆
1999 ST ₈	14.1	0.15	20000226	27.41661	282.67209	84.65628	7.67325	0.2488671	2.5379291	34	1	83 days	0.59	M-v	4	Williams	38083	1999 ST ₈
1999 SA ₉	14.0	0.15	20000226	81.21358	165.51841	118.61604	13.04755	0.1638348	2.6264856	35	2	1998–1999	0.58	M-v	3	Williams	38083	1999 SA ₉
1999 SR ₉	14.9	0.15	20000226	94.50030	138.97158	169.68301	5.86045	0.2260721	2.2343752	65	2	1998–2000	0.66	M-v	4	Marsden	38083	1999 SR ₉
1999 ST ₉	14.5	0.15	20000226	30.63919	12.98746	358.52912	6.03001	0.1889275	3.1665004	51	1	92 days	0.64	M-v	4	Williams	38083	1999 ST ₉
1999 SK ₁₀	19.4	0.15	20000226	22.97178	268.83342	198.08686	6.95907	0.4407634	1.7632610	82	1	127 days	0.42	M-v	4	Spahr	37302	1999 SK ₁₀
1999 SN ₁₁	12.7	0.15	20000226	91.79500	268.61868	41.72338	15.86614	0.0977532	3.1100580	31	1	99 days	0.36	M-v	4	Williams	38084	1999 SN ₁₁
1999 SO ₁₁	15.0	0.15	20000226	87.72292	165.26178	155.75503	4.42293	0.2008531	2.1677760	42	2	1998–2000	0.67	M-v	4	Marsden	37822	1999 SO ₁₁
1999 SW ₁₁	14.0	0.15	20000226	27.12746	338.27166	62.51036	6.88818	0.0927669	2.3502330	91	5	1981–2000	0.54	M-v	2	Williams	38084	1999 SW ₁₁
1999 TE	16.4	0.15	20000226	40.40543	148.09659	230.97266	2.75677	0.2378769	2.2510720	53	1	137 days	0.56	M-v	3	Williams	38084	1999 TE
1999 TN	15.1	0.15	20000226	28.54547	183.11061	209.29574	7.10129	0.1976224	2.3946852	103	1	191 days	0.55	M-v	3	Williams	38084	1999 TN
1999 TQ	15.9	0.15	20000226	27.69184	192.41348	209.33069	1.68913	0.2317848	2.3988636	62	1	97 days	0.55	M-v	4	Williams	38084	1999 TQ
1999 TV	15.6	0.15	20000226	43.86455	145.65092	219.86067	2.30749	0.3012013	2.4282318	69	1	97 days	0.51	M-v	3	Williams	38084	1999 TV
1999 TW	14.7	0.15	20000226	85.66122	101.81818	214.56524	3.36772	0.2194009	2.1848393	115	2	1998–1999	0.53	M-v	4	Williams	38084	1999 TW
1999 TB ₁	15.1	0.15	20000226	33.19229	179.30244	208.77170	4.70831	0.2347535	2.3698673	103	2	1988–2000	0.57	M-v	2	Williams	38084	1999 TB ₁
1999 TF ₁	14.8	0.15	19991029	335.76487	204.46235	224.09619	2.80469	0.2504590	3.0573025	63	1	56 days	0.76			Williams		1999 TF ₁
1999 TG ₁	14.4	0.15	20000226	29.27922	71.69611	308.63533	0.96834	0.1395759	2.9268474	62	1	72 days	0.58	M-v	4	Williams	38084	1999 TG ₁
1999 TH ₁	15.4	0.15	20000226	289.31449	289.57785	211.38424	4.69333	0.0768718	2.2749887	47	1	71 days	0.62	M-v	5	Williams	38084	1999 TH ₁
1999 TJ ₁	14.0	0.15	20000226	358.14449	47.55939	15.54056	6.35920	0.0471760	2.4497982	70	1	97 days	0.52	M-v	4	Williams	38084	1999 TJ ₁
1999 TN ₁	14.0	0.15	20000226	70.66948	108.74952	205.61474	15.41745	0.2303601	3.1364751	68	3	1993–1999	0.67	M-v	1	Williams	38084	1999 TN ₁
1999 TO ₁	15.3	0.15	20000226	47.88663	349.95148	16.17952	11.28541	0.1684417	2.4159942	59	1	66 days	0.51	M-v	4	Williams	37303	1999 TO ₁
1999 TP ₁	15.5	0.15	20000226	19.22665	189.87412	216.63577	1.88036	0.1841201	2.4335509	57	2	1997–1999	0.45	M-v	4	Williams	38084	1999 TP ₁
1999 TQ ₁	15.8	0.15	19991009	20.01538	327.22250	16.23220	12.98942	0.3018138	2.6442333	54	1	33 days	0.55			Williams		1999 TQ ₁
1999 TT ₁	13.7	0.15	20000226	51.25927	323.70427	18.30802	10.62673	0.2248658	3.1468625	51	1	97 days	0.51	M-v	4	Williams	38084	1999 TT ₁
1999 TA ₂	13.7	0.15	20000226	37.73286	34.41775	309.70481	16.27626	0.3644815	2.9162191	62	1	195 days	0.44	M-v	3	Williams	37303	1999 TA ₂
1999 TE ₂	15.4	0.15	20000226	78.98774	291.29456	42.96708	4.81526	0.1598301	2.3066302	60	3	1992–1999	0.61	M-v	3	Williams	37303	1999 TE ₂
1999 TF ₂	16.2	0.15	20000226	32.95602	172.88341	217.01271	5.64134	0.2587626	2.2786876	71	1	109 days	0.54	M-v	3	Williams	38084	1999 TF ₂
1999 TG ₂	12.5	0.15	20000226	229.54870	182.97503	359.11439	8.94995	0.0816436	2.7944870	63	2	1997–2000	0.47	M-v	3	Williams	38084	1999 TG ₂
1999 TH ₂	15.2	0.15	20000226	45.35193	115.68972	242.49674	3.23486	0.1790897	2.6709006	46	3	1993–1999	0.61	M-v	3	Williams	37303	1999 TH ₂
1999 TA ₃	13.2	0.15	20000226	40.35095	80.81249	297.06902	8.74376	0.1182573	3.0017204	65	2	1998–2000	0.74	M-v	3	Williams	38085	1999 TA ₃
1999 TF ₃	16.5	0.15	19991009	322.97522	25.36007	32.82542	2.22603	0.0979405	2.8515919	7	1	15 days	0.19			Williams		1999 TF ₃
1999 TG ₃	17.2	0.15	19991009	63.94986	116.54424	176.84928	2.63870	0.1489161	2.3754793	10	1	12 days	0.15			Williams		1999 TG ₃
1999 TH ₃	17.5	0.15	19991009	3.08254	256.05961	113.61217	0.72318	0.1568911	2.5290810	7	1	15 days	0.11			Williams		1999 TH ₃
1999 TJ ₃	15.3	0.15	19991009	128.08845	207.27163	24.97142	4.63774	0.1673426	3.0585261	7	1	15 days	0.08			Williams		1999 TJ ₃
1999 TL ₃	17.0	0.15	19991009	345.41277	31.36540	13.48252	11.17123	0.2785649	2.5322848	34	1	31 days	0.52			Williams		1999 TL ₃
1999 TN ₃	14.3	0.15	20000226	352.91481	65.29999	28.54260	24.27428	0.3580727	2.7437540	92	1	145 days	0.40	M-v	3	Williams	37303	1999 TN ₃
1999 TO ₃	15.4	0.15	20000226	68.86524	58.77410	277.23806	0.96660	0.1731306	2.4184387	58	2	1998–1999	0.65	M-v	4	Williams	37303	1999 TO ₃
1999 TQ ₃	14.5	0.15	19990919	313.71270	88.72938	329.99480	9.74092	0.0707282	3.0987580	17	1	42 days	0.72			Williams		1999 TQ ₃
1999 TU ₃	13.6	0.15	20000226	279.98843	115.36081	16.19391	10.00292	0.0521999	2.9691373	63	1	68 days	0.46	M-v	5	Williams	38085	1999 TU ₃
1999 TJ ₄	13.4	0.15	20000226	137.63030	44.45777	219.98044	6.31003	0.0740600	2.9895323	68	3	1997–2000	0.56	M-v	3	Williams	38085	1999 TJ ₄
1999 TL ₄	14.9	0.15	20000226	2.25056	51.01698	15.32673	5.96750	0.1047447	2.4049862	51	1	97 days	0.45	M-v	4	Williams	38085	1999 TL ₄
1999 TW ₄	14.8	0.15	20000226	51.05040	334.65571	22.06156	17.93868	0.2133606	2.5242617	63	1	94 days	0.42	M-v	4	Williams	38085	1999 TW ₄
1999 TB ₅	18.8	0.15	20000226	25.39659	238.55843	195.78488	30.45648	0.3927746	1.9676327	92	1	129 days	0.46	M-v	4	Spahr	36926	1999 TB ₅

1999 TC ₅	18.5	0.15	20000226	15.50122	282.54292	192.61523	29.09386	0.5476625	2.0156499	56	1	126 days	0.51	M-v	4	Spahr	38085	1999 TC ₅
1999 TD ₅	19.2	0.15	20000226	27.12983	309.52567	105.30939	4.14706	0.5271815	2.4674685	156	1	118 days	0.50	M-v	3	Spahr	38085	1999 TD ₅
1999 TK ₅	13.9	0.15	20000226	86.04021	97.93761	212.65850	12.10864	0.2116592	2.5540352	114	2	1998–2000	0.56	M-v	3	Williams	38085	1999 TK ₅
1999 TO ₅	15.0	0.15	20000226	70.58527	309.86844	20.40256	5.15580	0.2137567	2.4407067	73	2	1998–2000	0.58	M-v	3	Williams	38085	1999 TO ₅
1999 TS ₅	15.5	0.15	20000226	54.32283	24.64683	337.46840	3.70631	0.1792675	2.2000571	59	1	97 days	0.57	M-v	4	Williams	38085	1999 TS ₅
1999 TT ₅	14.9	0.15	20000226	21.90304	185.20524	220.51908	5.12364	0.1992874	2.4371471	86	1	98 days	0.49	M-v	3	Williams	38085	1999 TT ₅
1999 TU ₅	13.5	0.15	20000226	6.52801	349.96657	72.06891	5.46133	0.1005725	2.8126021	61	1	93 days	0.55	M-v	4	Williams	38085	1999 TU ₅
1999 TV ₅	13.7	0.15	20000226	62.75095	136.86911	221.97285	11.22143	0.2079290	2.5749740	90	3	1974–2000	0.55	M-v	2	Spahr	38085	1999 TV ₅
1999 TZ ₅	15.5	0.15	20000226	122.05607	258.74252	21.38761	5.99523	0.1916353	2.1964051	58	2	1998–1999	0.64	M-v	4	Williams	36926	1999 TZ ₅
1999 TE ₆	14.6	0.15	20000226	332.06152	252.91338	186.58737	8.64079	0.0182131	2.5910344	81	3	1997–1999	0.52	M-v	3	Williams	36926	1999 TE ₆
1999 TG ₆	15.0	0.15	20000226	147.85763	259.18468	9.03775	4.37901	0.2223341	2.3512605	61	2	1998–1999	0.59	M-v	4	Williams	37822	1999 TG ₆
1999 TU ₆	14.8	0.15	20000226	93.61800	299.99193	15.78425	3.40679	0.1196998	2.3345731	71	3	1988–1999	0.66	M-v	3	Williams	38085	1999 TU ₆
1999 TV ₆	13.9	0.15	20000226	1.14106	232.32903	198.59202	3.57019	0.1459247	2.3697523	68	5	1977–2000	0.56	M-v	2	Williams	37304	1999 TV ₆
1999 TW ₆	15.5	0.15	19991009	36.97204	309.11463	23.11110	14.61873	0.1731762	2.7096080	41	1	45 days	0.81			Williams		1999 TW ₆
1999 TX ₆	14.1	0.15	20000226	355.25395	49.44337	24.40941	13.58311	0.1706148	2.6606821	61	2	1997–2000	0.53	M-v	3	Williams	38085	1999 TX ₆
1999 TA ₇	15.0	0.15	19991009	60.84252	125.03732	177.66212	2.44096	0.1777405	2.4304312	18	1	39 days	0.73			Williams		1999 TA ₇
1999 TH ₇	14.0	0.15	20000226	293.22931	283.70717	212.22873	5.93454	0.0578835	2.3601883	72	4	1981–2000	0.56	M-v	1	Williams	37822	1999 TH ₇
1999 TJ ₇	15.5	0.15	20000226	97.91309	99.41987	204.40556	2.64990	0.1797978	2.3799139	31	2	1991–1999	0.55	M-v	5	Williams	37822	1999 TJ ₇
1999 TM ₇	16.4	0.15	19991009	15.58179	325.44734	34.19750	3.57194	0.1726134	2.1543280	37	1	40 days	0.65			Williams		1999 TM ₇
1999 TO ₇	13.4	0.15	20000226	48.50404	324.91875	55.23165	14.40771	0.1770444	2.6279277	88	2	1992–2000	0.53	M-v	3	Williams	38086	1999 TO ₇
1999 TB ₈	14.8	0.15	20000226	20.01159	14.03599	32.41635	14.50715	0.2726023	2.6757722	102	1	165 days	0.44	M-v	3	Williams	38086	1999 TB ₈
1999 TQ ₈	13.8	0.15	20000226	141.94401	57.47412	212.02400	9.48453	0.0147518	2.9827680	59	1	79 days	0.51	M-v	4	Williams	38086	1999 TQ ₈
1999 TS ₈	15.2	0.15	20000226	68.33666	333.67646	357.03320	4.05235	0.2107122	2.5578974	83	2	1998–1999	0.53	M-v	3	Williams	38086	1999 TS ₈
1999 TT ₈	13.8	0.15	20000226	52.25084	130.37736	216.96413	8.02961	0.1577816	3.0452651	75	1	97 days	0.43	M-v	4	Williams	38086	1999 TT ₈
1999 TV ₈	13.8	0.15	20000226	309.66641	299.43022	192.10642	7.90843	0.2406415	2.7070213	40	2	1994–2000	0.56	M-v	4	Williams	37822	1999 TV ₈
1999 TW ₈	15.7	0.15	19991009	53.59078	311.95323	353.79020	11.90572	0.0324239	2.6795523	24	1	30 days	0.59			Williams		1999 TW ₈
1999 TX ₈	16.2	0.15	20000226	42.84908	37.47229	320.59099	1.69957	0.2048734	2.3605123	83	1	107 days	0.48	M-v	3	Williams	38086	1999 TX ₈
1999 TF ₉	15.9	0.15	19991029	16.72498	344.91880	21.88905	5.94755	0.1865149	2.2886042	48	1	59 days	0.53			Williams		1999 TF ₉
1999 TG ₉	16.5	0.15	19991009	23.43333	323.22484	22.33721	5.40293	0.2322160	2.2488465	48	1	39 days	0.49			Williams		1999 TG ₉
1999 TJ ₉	12.4	0.15	20000226	311.29022	253.21990	210.04598	11.22424	0.0225391	3.1770264	56	1	98 days	0.44	M-v	5	Williams	38086	1999 TJ ₉
1999 TK ₉	14.3	0.15	20000226	17.31050	23.98051	15.91757	4.48181	0.2467789	3.1068153	70	1	94 days	0.49	M-v	4	Williams	38086	1999 TK ₉
1999 TL ₉	15.0	0.15	20000226	30.08076	7.66718	22.20673	9.73747	0.1890365	2.6038805	80	1	114 days	0.52	M-v	3	Williams	38086	1999 TL ₉
1999 TN ₉	15.1	0.15	20000226	154.76773	232.90533	29.31416	7.50924	0.0916659	2.3239862	69	2	1998–1999	0.57	M-v	3	Williams	38086	1999 TN ₉
1999 TO ₉	17.1	0.15	19991009	359.86556	4.05770	20.75890	5.38458	0.2343109	2.3408470	62	1	44 days	0.59			Williams		1999 TO ₉
1999 TP ₉	15.4	0.15	20000226	57.43220	335.48203	18.97279	2.31038	0.2212089	2.3606760	64	1	96 days	0.57	M-v	4	Williams	38086	1999 TP ₉
1999 TQ ₉	13.6	0.15	20000226	25.42895	195.59939	192.08297	0.71798	0.1981778	3.0935882	104	3	1989–2000	0.56	M-v	2	Williams	38086	1999 TQ ₉
1999 TR ₉	15.1	0.15	20000226	28.71861	22.26334	19.10688	2.55229	0.2464361	2.3441384	88	3	1981–2000	0.49	M-v	2	Williams	38086	1999 TR ₉
1999 TS ₉	14.8	0.15	20000226	100.19858	272.71791	31.49337	5.69084	0.2073433	2.2730669	82	2	1998–2000	0.48	M-v	4	Williams	38086	1999 TS ₉
1999 TT ₉	15.9	0.15	20000226	18.16400	204.64330	205.32703	2.92499	0.2196145	2.4685213	46	1	61 days	0.55	M-v	5	Williams	38086	1999 TT ₉
1999 TW ₉	15.7	0.15	20000226	57.65215	23.93135	330.34044	1.89746	0.2135119	2.3909337	101	4	1951–2000	0.68	M-v	2	Williams	38086	1999 TW ₉
1999 TX ₉	13.8	0.15	20000226	39.54396	12.89516	50.11040	26.40716	0.2760817	2.3142195	61	1	108 days	0.51	M-v	4	Williams	38086	1999 TX ₉
1999 TA ₁₀	17.7	0.15	20000226	128.52767	84.63424	214.78433	20.84355	0.2415817	1.5056777	197	1	126 days	0.52	M-v	4	Spahr	37304	1999 TA ₁₀
1999 TC ₁₀	18.6	0.15	20000226	23.47193	57.71603	28.58313	19.30987	0.5855534	2.3224465	79	1	124 days	0.54	M-v	4	Williams		1999 TC ₁₀
1999 TN ₁₀	16.0	0.15	20000226	69.04395	119.67556	204.79298	4.83480	0.2886268	2.5612275	28	1	90 days	0.61	M-v	5	Williams	38086	1999 TN ₁₀
1999 TO ₁₀	16.6	0.15	19991029	8.90662	174.83616	204.94635	3.85658	0.1955467	2.5205067	22	1	50 days	0.39			Williams		1999 TO ₁₀
1999 TR ₁₀	13.0	0.15	20000226	35.84709	355.20468	20.50080	10.48409	0.0564660	3.0681609	88	1	97 days	0.43	M-v	3	Williams	38086	1999 TR ₁₀
1999 TT ₁₀	12.6	0.15	20000226	100.02114	275.24218	31.55341	11.22184	0.0888909	3.0294404	68	1	96 days	0.47	M-v	4	Williams	38086	1999 TT ₁₀
1999 TW ₁₀	15.3	0.15	20000226	355.47183	41.45650	45.30088	8.78688	0.1449890	2.3776441	63	1	66 days	0.63	M-v	4	Williams	38086	1999 TW ₁₀
1999 TY ₁₀	15.3	0.15	19991009	148.00974	83.23438	162.00433	4.67708	0.0094245	2.5479125	26	1	28 days	1.03			Williams		1999 TY ₁₀
1999 TD ₁₁	14.9	0.15	20000226	37.31489	77.26753	351.94200	1.94662	0.2988711	2.5587229	66	2	1992–2000	0.53	M-v	3	Williams	37823	1999 TD ₁₁
1999 TG ₁₁	14.6	0.15	20000226	49.32206	344.51727	9.92136	16.47499	0.2391824	2.6586667	64	1	146 days	0.53	M-v	3	Williams	38087	1999 TG ₁₁
1999 TK ₁₁	13.4	0.15	20000226	324.33271	105.38020	356.95426	6.36548	0.0843587	2.4359937	69	4	1984–2000	0.47	M-v	1	Williams	38087	1999 TK ₁₁
1999 TL ₁₁	14.3	0.15	20000226	19.96741	202.57658	208.25621	13.73724	0.1336590	2.4415824	94	3	1994–2000	0.60	M-v	2	Williams	38087	1999 TL ₁₁

1999 TM ₁₁	14.4	0.15	20000226	142.99875	136.41485	109.22730	24.45678	0.2167393	2.2940638	35	2	1998–2000	0.55	M-v	3	Spahr	36928	1999 TM ₁₁
1999 TN ₁₁	14.4	0.15	20000226	52.41903	248.10120	99.56729	22.99916	0.2952236	2.3684943	35	1	123 days	0.43	M-v	3	Spahr	38087	1999 TN ₁₁
1999 TO ₁₁	18.4	0.15	19991029	15.99594	341.89658	23.62810	4.71706	0.3273907	2.3272227	60	1	53 days	0.46			Williams		1999 TO ₁₁
1999 TQ ₁₁	12.9	0.15	20000226	28.20483	294.12036	96.79917	6.41837	0.1528389	3.1905667	86	3	1997–2000	0.53	M-v	2	Spahr	38087	1999 TQ ₁₁
1999 TR ₁₁	8.5	0.15	19991118	3.67562	353.41001	54.70676	16.93128	0.2631887	40.4415178	19	1	90 days	0.37			Marsden		1999 TR ₁₁
1999 TS ₁₁	12.9	0.15	20000226	56.18736	23.41064	326.64352	12.61519	0.1911748	2.6446591	123	2	1990–2000	0.42	M-v	3	Spahr	38087	1999 TS ₁₁
1999 TU ₁₁	12.6	0.15	20000226	84.85368	106.55198	209.17316	13.60603	0.2262628	3.1779376	65	4	1993–1999	0.59	M-v	1	Williams	38087	1999 TU ₁₁
1999 TW ₁₁	14.8	0.15	20000226	336.63574	286.04627	185.31893	4.60355	0.1076715	2.3319428	78	2	1990–2000	0.60	M-v	4	Williams	38087	1999 TW ₁₁
1999 TA ₁₂	16.2	0.15	20000226	63.25378	130.04306	208.40938	1.88623	0.2316073	2.3350812	49	1	83 days	0.44	M-v	4	Williams	38087	1999 TA ₁₂
1999 TB ₁₂	13.5	0.15	20000226	301.53349	88.12336	48.95270	14.19427	0.1014615	2.5648540	100	4	1987–2000	0.50	M-v	2	Williams	38087	1999 TB ₁₂
1999 TD ₁₂	15.3	0.15	20000226	59.58572	244.98902	111.35733	3.30421	0.1981659	2.4179178	54	1	63 days	0.52	M-v	4	Williams	38087	1999 TD ₁₂
1999 TF ₁₂	14.0	0.15	20000226	70.57055	137.48963	201.14705	10.35311	0.1408214	2.9840154	53	2	1997–1999	0.57	M-v	4	Williams	38087	1999 TF ₁₂
1999 TG ₁₂	15.6	0.15	20000226	38.99758	236.94280	151.27431	2.85514	0.1924083	2.3808628	62	1	95 days	0.55	M-v	4	Williams	38087	1999 TG ₁₂
1999 TH ₁₂	14.9	0.15	20000226	56.83912	205.78923	142.55848	6.14447	0.2145266	2.1667307	76	3	1983–2000	0.50	M-v	2	Williams	38087	1999 TH ₁₂
1999 TK ₁₂	17.9	0.15	20000226	9.18385	111.98372	359.24744	24.48027	0.3931151	1.6829372	82	1	117 days	0.65	M-v	4	Spahr	37305	1999 TK ₁₂
1999 TZ ₁₂	13.7	0.15	20000226	68.39079	274.25171	81.46242	4.69494	0.1900269	2.2517486	95	3	1992–2000	0.46	M-v	2	Williams	38087	1999 TZ ₁₂
1999 TD ₁₃	16.8	0.15	20000226	30.32872	187.63285	211.29125	5.43732	0.3176001	2.5646476	54	1	65 days	0.60	M-v	4	Williams	38087	1999 TD ₁₃
1999 TH ₁₃	14.0	0.15	20000226	139.25589	230.79553	26.72357	12.66608	0.1840929	2.7366570	41	2	1993–1999	0.57	M-v	5	Williams	38087	1999 TH ₁₃
1999 TQ ₁₃	14.5	0.15	20000226	20.77523	123.76415	262.42136	2.26734	0.1612311	3.0655234	44	1	67 days	0.53	M-v	4	Williams	38087	1999 TQ ₁₃
1999 TR ₁₃	13.7	0.15	20000226	330.30163	87.64078	14.05552	13.93150	0.1366428	2.5974804	60	2	1997–2000	0.46	M-v	4	Williams	38087	1999 TR ₁₃
1999 TT ₁₃	13.8	0.15	20000226	80.10520	288.85124	40.23100	5.24178	0.0970624	2.7003266	38	1	97 days	0.73	M-v	5	Williams	38087	1999 TT ₁₃
1999 TU ₁₃	14.8	0.15	20000226	67.57060	312.66328	36.35033	6.58054	0.1449950	2.2726145	37	2	1998–2000	0.61	M-v	4	Williams	38087	1999 TU ₁₃
1999 TX ₁₃	13.7	0.15	20000226	74.73323	125.54687	201.77263	10.55468	0.2062635	2.9019938	79	2	1998–2000	0.63	M-v	3	Williams	38087	1999 TX ₁₃
1999 TY ₁₃	14.9	0.15	20000226	27.12115	263.75268	135.85042	3.03318	0.1054198	2.6375265	56	1	64 days	0.67	M-v	4	Williams	38087	1999 TY ₁₃
1999 TK ₁₄	14.2	0.15	20000226	17.43347	265.91573	147.87450	2.45830	0.1958953	2.3792078	56	1	115 days	0.50	M-v	4	Williams	38088	1999 TK ₁₄
1999 TL ₁₄	15.1	0.15	20000226	68.10339	272.01412	67.42509	4.92269	0.2620511	2.5588021	53	3	1995–1999	0.52	M-v	3	Williams	38088	1999 TL ₁₄
1999 TO ₁₄	13.6	0.15	20000226	68.21250	218.71796	136.17464	2.87735	0.0856181	2.8449052	75	2	1998–1999	0.54	M-v	3	Williams	38088	1999 TO ₁₄
1999 TW ₁₄	13.8	0.15	20000226	102.47605	258.76821	57.85720	7.32876	0.1153108	2.5459724	72	1	95 days	0.49	M-v	4	Williams	38088	1999 TW ₁₄
1999 TD ₁₅	14.5	0.15	20000226	351.18130	231.49422	213.65231	22.73761	0.2968790	2.3557136	71	1	161 days	0.46	M-v	3	Williams	38088	1999 TD ₁₅
1999 TE ₁₅	15.1	0.15	20000226	346.21378	242.43292	189.12751	10.83019	0.1060579	2.6698625	51	2	1997–1999	0.62	M-v	4	Williams	36929	1999 TE ₁₅
1999 TP ₁₅	14.1	0.15	20000226	22.47411	8.17666	21.07280	10.27539	0.0779652	3.1905254	44	1	93 days	0.48	M-v	4	Williams	38088	1999 TP ₁₅
1999 TR ₁₅	15.5	0.15	19991009	12.52971	357.81166	11.87562	4.25837	0.1215454	2.6884646	44	1	44 days	0.57			Williams		1999 TR ₁₅
1999 TV ₁₅	13.6	0.15	20000226	192.32739	66.96670	170.87764	4.29710	0.0842615	2.2699535	81	4	1978–2000	0.59	M-v	2	Williams	38088	1999 TV ₁₅
1999 TB ₁₆	14.1	0.15	19991009	110.65372	224.01696	24.66999	17.24589	0.1620791	3.1158421	37	1	41 days	0.48			Williams		1999 TB ₁₆
1999 TK ₁₆	15.9	0.15	20000226	8.19334	350.77527	55.39299	3.18564	0.2044712	2.8804910	32	1	62 days	0.46	M-v	4	Williams	38088	1999 TK ₁₆
1999 TX ₁₆	15.7	0.15	20000226	97.44502	311.09795	54.74296	38.21160	0.3329179	1.5510216	94	1	95 days	0.57	M-v	4	Williams	38088	1999 TX ₁₆
1999 TB ₁₇	12.9	0.15	20000226	356.70209	0.33287	68.42080	3.04768	0.2006302	3.1793323	56	3	1994–2000	0.59	M-v	2	Williams	38088	1999 TB ₁₇
1999 TC ₁₇	14.1	0.15	19991029	31.71166	302.85584	57.11712	2.52994	0.0278295	2.9031050	28	1	28 days	0.50			Williams		1999 TC ₁₇
1999 TG ₁₇	13.8	0.15	20000226	66.45991	299.90524	68.42305	9.28322	0.1851854	2.6028445	63	1	119 days	0.45	M-v	4	Williams	38088	1999 TG ₁₇
1999 TY ₁₇	15.2	0.15	20000226	48.34822	335.18187	50.21527	4.55609	0.1889748	2.3464336	70	1	118 days	0.49	M-v	4	Williams	38089	1999 TY ₁₇
1999 TA ₁₈	15.5	0.15	19991009	2.11041	140.55459	237.97711	1.16652	0.1419325	2.8507256	50	1	41 days	0.60			Williams		1999 TA ₁₈
1999 TB ₁₈	15.1	0.15	19991009	302.58792	71.58728	13.19427	4.00787	0.0521980	2.7098758	64	1	45 days	0.54			Williams		1999 TB ₁₈
1999 TM ₁₈	16.2	0.15	19991009	261.70113	259.36464	231.40805	2.14121	0.0939614	2.3996757	31	1	37 days	0.69			Williams		1999 TM ₁₈
1999 TN ₁₈	17.3	0.15	19991009	347.46755	38.78481	0.82333	2.36364	0.1915578	2.4005656	36	1	44 days	0.49			Williams		1999 TN ₁₈
1999 TO ₁₈	15.2	0.15	19991009	25.35587	137.58259	206.37484	20.11338	0.2028631	3.1275959	31	1	34 days	0.41			Williams		1999 TO ₁₈
1999 TP ₁₈	14.9	0.15	19991009	33.09345	133.56163	209.14145	8.88343	0.0993036	3.1773490	39	1	41 days	0.62			Williams		1999 TP ₁₈
1999 TQ ₁₈	15.1	0.15	20000226	76.45644	300.55950	16.92861	4.25057	0.2175778	2.5958656	72	3	1997–1999	0.62	M-v	3	Williams	37306	1999 TQ ₁₈
1999 TR ₁₈	13.7	0.15	20000226	10.36795	35.46252	8.52080	1.80170	0.1091100	2.9230535	67	1	97 days	0.47	M-v	4	Williams	38089	1999 TR ₁₈
1999 TU ₁₈	14.2	0.15	20000226	56.24965	326.74125	20.75413	25.41703	0.2454307	2.3912051	96	3	1988–2000	0.62	M-v	2	Williams	38089	1999 TU ₁₈
1999 TV ₁₈	13.9	0.15	19991009	308.83512	237.09813	215.39668	9.62350	0.1450349	3.0418557	30	1	45 days	0.40			Williams		1999 TV ₁₈
1999 TY ₁₈	14.6	0.15	20000226	4.15192	229.71300	215.86852	1.37606	0.1832491	2.3870946	100	5	1982–2000	0.44	M-v	1	Williams	38089	1999 TY ₁₈
1999 TA ₁₉	13.5	0.15	19991009	284.20685	77.06165	36.06729	18.73580	0.0793413	3.1264323	15	1	13 days	0.60			Williams		1999 TA ₁₉
1999 TB ₁₉	15.2	0.15	19991009	341.80867	208.53008	205.85688	4.91589	0.1593046	2.9449080	39	1	40 days	0.80			Williams		1999 TB ₁₉

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1999 TC ₁₉	15.5	0.15	19991009	33.47841	130.56614	208.43879	11.76271	0.2016881	2.6536658	36	1	43 days	0.78		Williams		1999 TC ₁₉
1999 TG ₁₉	14.0	0.15	20000226	115.89622	354.10388	300.64037	3.66488	0.0160496	2.6969608	67	4	1991–2000	0.58	M-v	2	Williams	38089 1999 TG ₁₉
1999 TP ₁₉	15.4	0.15	19991009	63.39668	279.49118	22.88303	7.61699	0.1792302	2.5865480	35	1	45 days	0.46			Williams	1999 TP ₁₉
1999 TR ₁₉	14.5	0.15	20000226	10.66801	296.69743	101.25718	27.10429	0.1918811	2.6728357	16	1	115 days	0.44	M-v	4	Spahr	38089 1999 TR ₁₉
1999 TS ₁₉	14.4	0.15	20000226	9.58339	310.55070	102.75034	25.32668	0.2680642	2.4508466	18	1	115 days	0.29	M-v	4	Spahr	38089 1999 TS ₁₉
1999 TW ₁₉	15.9	0.15	19991009	86.54478	39.79116	252.05115	1.13679	0.0284529	2.3885388	9	1	6 days	0.34		E	Williams	1999 TW ₁₉
1999 TX ₁₉	16.7	0.15	19991009	317.51220	65.30967	8.76266	1.94764	0.1154018	2.5419580	23	1	34 days	0.46			Williams	1999 TX ₁₉
1999 TH ₂₀	14.5	0.15	20000226	54.35128	236.70083	124.50190	4.55318	0.2561494	2.5956603	57	2	1998–2000	0.62	M-v	4	Williams	38089 1999 TH ₂₀
1999 TS ₂₀	14.4	0.15	19991009	7.46161	125.71196	239.66930	9.02219	0.1097457	3.1017595	21	1	36 days	0.58			Williams	1999 TS ₂₀
1999 TX ₂₀	17.4	0.15	19991009	17.50501	106.90152	247.10818	3.02065	0.2088233	2.2734917	35	1	44 days	0.52			Williams	1999 TX ₂₀
1999 TY ₂₀	16.6	0.15	19991009	3.11649	159.13066	216.55798	7.49774	0.3095616	2.6655381	44	1	45 days	0.61			Williams	1999 TY ₂₀
1999 TA ₂₁	14.1	0.15	20000226	344.71401	89.95885	345.28337	3.28429	0.0775168	2.9442604	73	2	1994–2000	0.46	M-v	4	Williams	38089 1999 TA ₂₁
1999 TB ₂₁	15.8	0.15	20000226	341.38571	101.49845	354.71701	3.67036	0.1283300	2.3074546	45	2	1997–1999	0.60	M-v	4	Williams	38089 1999 TB ₂₁
1999 TG ₂₁	15.0	0.15	20000226	21.95876	37.00963	36.17553	25.38771	0.3103931	2.3156277	28	1	115 days	0.44	M-v	4	Williams	38089 1999 TG ₂₁
1999 TP ₂₁	15.0	0.15	20000226	31.76669	339.94060	48.28552	14.59089	0.2441383	3.1819126	43	1	72 days	0.50	M-v	4	Williams	38089 1999 TP ₂₁
1999 TS ₂₁	15.2	0.15	19991009	12.44635	333.11626	50.11298	18.51553	0.2113746	3.1569135	20	1	45 days	0.32			Williams	1999 TS ₂₁
1999 TT ₂₁	17.4	0.15	19991009	24.13005	304.54912	52.96621	9.14855	0.2661960	2.4722046	31	1	46 days	0.52			Williams	1999 TT ₂₁
1999 TU ₂₁	15.9	0.15	20000226	52.81180	319.61510	51.11879	13.79319	0.2088236	2.6015499	28	1	64 days	0.63	M-v	5	Williams	38090 1999 TU ₂₁
1999 TW ₂₄	15.6	0.15	20000226	348.66362	97.35588	335.13815	1.77514	0.1850496	2.3702986	33	2	1997–1999	0.47	M-v	4	Williams	38090 1999 TW ₂₄
1999 TX ₂₄	17.2	0.15	19991009	352.06012	152.11788	226.68874	1.52430	0.2137150	2.3858333	15	1	17 days	0.30			Williams	1999 TX ₂₄
1999 TE ₂₅	15.8	0.15	20000226	6.03224	208.84670	214.55313	5.21404	0.1232732	2.3446311	28	2	1995–1999	0.46	M-v	4	Williams	37823 1999 TE ₂₅
1999 TG ₂₅	13.5	0.15	20000226	117.00358	261.81364	13.96018	7.45434	0.1949269	2.8000621	41	2	1993–1999	0.43	M-v	5	Williams	38090 1999 TG ₂₅
1999 TJ ₂₅	15.7	0.15	19991009	27.77506	136.48728	210.46862	6.17139	0.1380823	2.3715289	39	1	46 days	0.47			Williams	1999 TJ ₂₅
1999 TL ₂₅	15.8	0.15	19991009	54.42919	303.25714	8.81574	3.40972	0.1697623	2.4245519	11	1	17 days	0.42			Williams	1999 TL ₂₅
1999 TM ₂₅	14.9	0.15	20000226	77.59778	94.55037	225.10717	3.44430	0.2111402	2.6156034	64	2	1998–1999	0.60	M-v	4	Williams	38090 1999 TM ₂₅
1999 TN ₂₅	13.7	0.15	20000226	337.73854	82.97412	6.81215	3.35272	0.1087234	2.7602859	62	1	115 days	0.42	M-v	4	Williams	38090 1999 TN ₂₅
1999 TO ₂₅	15.7	0.15	19991009	43.05392	90.70478	228.43277	3.06870	0.2411937	2.5620601	42	1	45 days	0.52			Williams	1999 TO ₂₅
1999 TQ ₂₅	14.7	0.15	20000226	200.97448	8.02475	211.31642	8.93006	0.0770409	2.4482599	47	2	1998–1999	0.58	M-v	4	Williams	38090 1999 TQ ₂₅
1999 TR ₂₅	16.0	0.15	19991009	283.86978	101.09670	14.70467	4.04250	0.1203627	2.4236300	37	1	44 days	0.39			Williams	1999 TR ₂₅
1999 TT ₂₅	15.7	0.15	20000226	55.25160	352.26678	13.99663	5.64469	0.1663538	2.1821033	46	1	96 days	0.43	M-v	4	Williams	38090 1999 TT ₂₅
1999 TU ₂₅	17.1	0.15	19991009	22.42717	340.78837	9.37830	1.33143	0.2076081	2.3830160	34	1	45 days	0.67			Williams	1999 TU ₂₅
1999 TV ₂₅	15.3	0.15	19991009	14.45908	153.09320	219.32513	1.32026	0.0293895	2.9153423	21	1	33 days	0.40			Williams	1999 TV ₂₅
1999 TW ₂₅	16.5	0.15	19991009	11.76175	113.87827	252.85177	0.45166	0.2155068	2.5622598	28	1	42 days	0.38			Williams	1999 TW ₂₅
1999 TY ₂₅	13.8	0.15	20000226	53.02353	330.61145	24.84356	16.58365	0.0923653	3.1029257	57	2	1977–2000	0.60	M-v	4	Williams	38090 1999 TY ₂₅
1999 TZ ₂₅	15.2	0.15	20000226	78.27630	320.89112	16.28579	6.89289	0.1315141	2.2783835	47	2	1998–2000	0.64	M-v	4	Williams	38090 1999 TZ ₂₅
1999 TD ₂₆	15.3	0.15	19991009	271.32643	253.89005	236.57287	1.11784	0.1172113	2.4900050	49	1	45 days	0.52			Williams	1999 TD ₂₆
1999 TF ₂₆	14.6	0.15	20000226	12.85596	193.51483	218.00637	3.56176	0.1183349	2.6965407	52	2	1997–2000	0.53	M-v	3	Williams	38090 1999 TF ₂₆
1999 TH ₂₆	14.4	0.15	20000226	316.28782	277.92242	215.31835	10.05286	0.1981358	2.3855782	66	1	98 days	0.55	M-v	4	Williams	38090 1999 TH ₂₆
1999 TP ₂₆	13.8	0.15	20000226	68.28421	123.14796	217.52571	9.40668	0.0793084	3.0888733	33	1	63 days	0.57	M-v	5	Williams	38090 1999 TP ₂₆
1999 TQ ₂₆	14.5	0.15	20000226	330.36991	133.05739	323.75567	1.12741	0.0471987	2.6243678	32	1	93 days	0.45	M-v	5	Williams	1999 TQ ₂₆
1999 TT ₂₆	16.1	0.15	19991009	32.00549	319.87090	17.97802	3.38835	0.2320323	2.6688436	28	1	44 days	0.48			Williams	1999 TT ₂₆
1999 TC ₂₇	14.2	0.15	20000226	324.28653	259.10067	223.66004	6.31984	0.1474821	2.3361515	83	3	1992–2000	0.48	M-v	2	Williams	38090 1999 TC ₂₇
1999 TG ₂₇	15.0	0.15	20000226	27.75259	8.50805	30.42990	10.16514	0.1643594	2.6671307	52	1	110 days	0.57	M-v	3	Williams	38090 1999 TG ₂₇
1999 TK ₂₇	14.0	0.15	20000226	198.95107	9.85675	222.61566	6.48209	0.0794127	3.1212187	86	4	1960–2000	0.51	M-v	3	Williams	38090 1999 TK ₂₇
1999 TN ₂₇	14.1	0.15	20000226	342.22079	228.16903	225.32450	4.48724	0.1547288	3.1451840	68	1	96 days	0.59	M-v	4	Williams	38090 1999 TN ₂₇
1999 TS ₂₇	13.0	0.15	20000226	257.37883	146.17592	32.16516	11.18316	0.0695278	2.9523770	60	1	120 days	0.51	M-v	4	Williams	38090 1999 TS ₂₇
1999 TW ₂₇	14.7	0.15	20000226	35.55565	111.43279	293.67002	1.30049	0.2071244	2.3968588	65	1	131 days	0.48	M-v	3	Williams	38090 1999 TW ₂₇
1999 TX ₂₇	12.7	0.15	20000226	33.85072	348.95997	44.68547	16.00527	0.2315755	3.1026849	37	1	73 days	0.35	M-v	4	Williams	38090 1999 TX ₂₇
1999 TY ₂₇	15.3	0.15	20000226	32.54353	33.87022	9.17061	2.85149	0.3006287	2.5969848	40	1	131 days	0.53	M-v	4	Williams	38090 1999 TY ₂₇
1999 TF ₂₈	15.7	0.15	19991009	49.30231	286.49405	30.19131	9.48813	0.2575409	2.7221504	39	1	44 days	0.63			Williams	1999 TF ₂₈
1999 TY ₃₁	15.0	0.15	19991009	14.42251	342.74910	17.89643	19.62148	0.1564295	3.1525100	21	1	32 days	0.38			Williams	1999 TY ₃₁
1999 TZ ₃₁	16.3	0.15	19991009	10.00339	123.27489	242.12288	1.47372	0.1611309	2.3987181	14	1	16 days	0.39			Williams	1999 TZ ₃₁
1999 TB ₃₂	15.4	0.15	19991009	351.78636	17.22871	13.77785	12.71268	0.1253353	2.6277096	27	1	35 days	0.54			Williams	1999 TB ₃₂

1999 TC ₃₂	16.6	0.15	19991009	38.83324	319.02791	10.43980	6.92479	0.1415574	2.2619712	28	1	43 days	0.41	Williams	1999 TC ₃₂
1999 TF ₃₂	14.7	0.15	19991009	333.43642	34.57527	16.43263	10.64809	0.0577772	3.0903656	35	1	43 days	0.62	Williams	1999 TF ₃₂
1999 TH ₃₂	15.8	0.15	19991009	279.41778	108.32462	4.28574	5.38992	0.0891285	2.2653761	36	1	45 days	0.62	Williams	1999 TH ₃₂
1999 TJ ₃₂	13.8	0.15	20000226	319.30799	114.08439	342.47800	2.02164	0.0592063	3.0240709	48	2	1996–1999	0.56	M-v 4 Williams	38091 1999 TJ ₃₂
1999 TK ₃₂	16.4	0.15	19991009	53.30061	304.92153	359.66282	3.19626	0.2250816	2.3459020	37	1	44 days	0.58	Williams	1999 TK ₃₂
1999 TM ₃₂	14.7	0.15	20000226	19.21799	206.38627	207.13994	3.74653	0.2344968	2.3447815	70	1	168 days	0.48	M-v 3 Williams	38091 1999 TM ₃₂
1999 TN ₃₂	15.4	0.15	20000226	36.90152	10.15074	14.55151	5.43647	0.2052966	2.3523405	63	4	1981–2000	0.45	M-v 2 Williams	38091 1999 TN ₃₂
1999 TQ ₃₃	14.5	0.15	20000226	311.40978	260.28846	213.91385	3.19228	0.1165448	2.6306541	41	2	1997–1999	0.54	M-v 4 Williams	37824 1999 TQ ₃₃
1999 TT ₃₃	15.6	0.15	19991009	339.55926	35.53584	11.29303	9.50695	0.1254772	2.5431391	17	1	32 days	0.47	Williams	1999 TT ₃₃
1999 TW ₃₃	15.3	0.15	19991009	66.35160	287.54990	12.85926	4.67344	0.1424201	2.7439123	31	1	43 days	0.62	Williams	1999 TW ₃₃
1999 TW ₃₄	15.5	0.15	20000226	317.80304	283.80358	206.54337	21.47042	0.1366817	1.9514285	49	1	99 days	0.53	M-v 4 Williams	38091 1999 TW ₃₄
1999 TB ₃₅	15.0	0.15	20000226	339.56909	91.15860	18.71367	20.22959	0.1048246	1.9570217	38	1	115 days	0.39	M-v 4 Williams	38091 1999 TB ₃₅
1999 TD ₃₅	14.7	0.15	20000226	144.29892	45.00002	194.97910	24.06061	0.1983292	2.2853257	23	1	69 days	0.36	M-v 4 Williams	1999 TD ₃₅
1999 TH ₃₅	14.4	0.15	20000226	297.73316	137.33091	3.52142	24.14258	0.2717006	2.3376750	37	1	91 days	0.46	M-v 4 Williams	38091 1999 TH ₃₅
1999 TX ₃₅	16.6	0.15	19991009	11.26939	348.14769	19.47066	13.18609	0.1684019	2.3388255	33	1	34 days	0.50	Williams	1999 TX ₃₅
1999 TY ₃₅	16.2	0.15	20000226	19.98828	202.96236	206.39328	2.60882	0.1914172	2.2941962	38	1	64 days	0.55	M-v 5 Williams	38091 1999 TY ₃₅
1999 UK	15.2	0.15	20000226	21.18354	138.84021	259.98106	1.22156	0.1694045	2.5459617	43	1	66 days	0.50	M-v 4 Williams	38091 1999 UK
1999 UM	16.0	0.15	19991009	299.67407	91.83171	5.43268	2.48473	0.1467292	2.4270968	40	1	43 days	0.64	Williams	1999 UM
1999 UN	15.2	0.15	19991009	39.79119	290.35088	20.05603	7.67913	0.3185998	3.0735931	40	1	38 days	0.52	Williams	1999 UN
1999 UR	21.4	0.15	20000226	36.32970	17.85309	50.85381	3.60501	0.5039685	1.8978900	65	1	117 days	0.52	M-v 4 Williams	37307 1999 UR
1999 UZ	13.4	0.15	20000226	93.03827	260.22710	43.78645	1.47158	0.1569401	3.2276762	27	2	1993–1999	0.55	M-v 5 Williams	37824 1999 UZ
1999 UA ₁	15.0	0.15	20000226	69.39955	298.76525	34.17159	7.52697	0.2521622	2.4275522	59	1	81 days	0.52	M-v 5 Williams	38092 1999 UA ₁
1999 UC ₁	13.3	0.15	20000226	63.34979	309.42127	34.87016	12.41064	0.1955114	2.5744611	119	3	1988–2000	0.48	M-v 2 Williams	38092 1999 UC ₁
1999 UD ₁	14.8	0.15	20000226	166.28497	207.54442	44.30888	6.62345	0.1331479	2.3005875	80	3	1992–1999	0.57	M-v 3 Williams	38092 1999 UD ₁
1999 UE ₁	15.1	0.15	20000226	87.72132	262.46484	62.90120	3.22187	0.1535393	2.2691024	62	2	1998–2000	0.72	M-v 4 Williams	38092 1999 UE ₁
1999 UF ₁	14.0	0.15	20000226	354.11171	42.77733	34.07978	17.11238	0.2103123	3.1188209	73	2	1977–2000	0.49	M-v 4 Williams	38092 1999 UF ₁
1999 UG ₁	16.4	0.15	19991009	29.91579	295.56241	48.76638	5.86213	0.1821680	2.3118203	43	1	47 days	0.63	Williams	1999 UG ₁
1999 UL ₁	13.9	0.15	20000226	3.52249	26.46333	33.43720	1.92170	0.2364769	3.0672407	46	2	1988–2000	0.59	M-v 4 Williams	38092 1999 UL ₁
1999 UN ₁	15.3	0.15	20000226	341.01212	84.68755	17.32564	3.42385	0.1308154	2.4312316	80	1	92 days	0.53	M-v 4 Williams	38092 1999 UN ₁
1999 UQ ₁	14.6	0.15	20000226	21.78497	11.89536	52.61936	7.38897	0.0889110	2.3233758	74	1	105 days	0.52	M-v 3 Williams	38092 1999 UQ ₁
1999 UW ₁	13.3	0.15	20000226	282.82783	150.32526	49.58862	11.74608	0.0744358	3.1633064	34	2	1998–2000	0.62	M-v 4 Williams	38092 1999 UW ₁
1999 UE ₂	14.7	0.15	20000226	76.32135	286.06688	72.89468	6.51902	0.2041367	2.2682246	64	1	118 days	0.52	M-v 4 Williams	38092 1999 UE ₂
1999 UG ₂	14.9	0.15	20000226	79.86015	174.65836	159.67369	2.77040	0.2245912	2.3526210	84	2	1998–2000	0.62	M-v 4 Williams	38092 1999 UG ₂
1999 UH ₂	15.6	0.15	20000226	62.28379	148.96029	208.84832	6.75323	0.1418124	2.2917337	41	1	79 days	0.51	M-v 5 Williams	38092 1999 UH ₂
1999 UK ₂	14.2	0.15	20000226	162.06177	220.62989	35.58827	5.96644	0.1256994	2.3257629	93	3	1980–2000	0.53	M-v 3 Williams	38092 1999 UK ₂
1999 UW ₂	14.0	0.15	20000226	293.36060	121.12715	28.78367	14.29522	0.0937096	2.5704081	52	1	120 days	0.51	M-v 4 Williams	38092 1999 UW ₂
1999 UC ₃	14.7	0.15	20000226	22.67839	318.75234	88.74234	4.76505	0.2937563	2.6100375	77	3	1978–2000	0.50	M-v 2 Spahr	38092 1999 UC ₃
1999 UE ₃	14.9	0.15	20000226	76.89186	289.23076	109.58383	5.98174	0.0918177	2.4572606	50	1	117 days	0.39	M-v 4 Williams	38092 1999 UE ₃
1999 UK ₃	12.7	0.15	20000226	335.03000	355.47345	97.39439	3.31797	0.1255646	2.9541564	55	1	105 days	0.55	M-v 4 Spahr	38092 1999 UK ₃
1999 UL ₃	14.8	0.15	20000226	8.38596	65.80753	2.55680	7.98983	0.2235237	2.7664822	52	1	135 days	0.54	M-v 4 Williams	38092 1999 UL ₃
1999 UM ₃	16.3	0.15	20000226	13.75972	36.34877	113.89013	10.67750	0.6677573	2.3823216	77	1	113 days	0.53	M-v 4 Williams	38092 1999 UM ₃
1999 UN ₃	14.8	0.15	20000226	58.70556	164.43811	220.83647	5.81104	0.1406797	2.4431702	68	3	1989–2000	0.52	M-v 3 Spahr	38092 1999 UN ₃
1999 UP ₃	13.6	0.15	20000226	22.14993	3.36943	52.94287	4.82300	0.1425987	2.7093808	91	3	1972–2000	0.46	M-v 2 Spahr	38092 1999 UP ₃
1999 US ₃	13.7	0.15	20000226	15.90643	181.42222	268.32483	28.99322	0.5196075	2.7589749	395	2	1994–2000	0.45	M-v 0 Williams	38092 1999 US ₃
1999 UT ₃	14.5	0.15	20000226	20.30733	175.99717	228.63530	11.56104	0.2213068	2.4172805	86	1	202 days	0.54	M-v 3 Marsden	38092 1999 UT ₃
1999 UA ₄	12.3	0.15	20000226	45.64318	179.26786	192.95700	9.71837	0.0663826	3.0681119	66	1	98 days	0.46	M-v 4 Williams	38092 1999 UA ₄
1999 UB ₄	16.6	0.15	19991029	337.80910	38.14252	27.89773	2.78303	0.1710971	2.3860052	32	1	27 days	0.57	Williams	1999 UB ₄
1999 UC ₄	15.4	0.15	20000226	76.12171	287.47360	33.92870	8.36806	0.1545143	2.4828100	47	2	1998–1999	0.49	M-v 3 Williams	38093 1999 UC ₄
1999 UD ₄	14.8	0.15	20000226	55.35604	322.68755	41.07206	6.83435	0.1580662	2.3933084	60	1	78 days	0.40	M-v 4 Williams	38093 1999 UD ₄
1999 UF ₄	16.0	0.15	20000226	46.19294	251.31610	116.20306	2.80266	0.1858653	2.6605103	47	1	102 days	0.36	M-v 5 Williams	1999 UF ₄
1999 UG ₄	14.0	0.15	20000226	277.61677	345.77539	177.67544	2.27343	0.1411933	2.4074377	82	3	1992–2000	0.64	M-v 3 Williams	38093 1999 UG ₄
1999 UH ₄	15.1	0.15	20000226	30.51905	194.35186	197.08848	9.39074	0.2059730	2.7900822	50	1	95 days	0.61	M-v 4 Williams	38093 1999 UH ₄
1999 UN ₄	13.5	0.15	20000226	342.86433	73.95895	24.13258	14.53752	0.1476890	2.5843612	54	1	120 days	0.43	M-v 4 Williams	38093 1999 UN ₄

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1999 UU ₄	15.7	0.15	20000226	11.30377	170.05166	243.87230	1.79742	0.1934117	2.6106606	54	1	70 days	0.47	M-v	4	Williams	38093	1999 UU ₄
1999 UV ₄	12.6	0.15	20000226	95.07736	136.11733	164.39399	10.20887	0.0608118	3.4958684	44	1	122 days	0.60	M-v	4	Williams	38093	1999 UV ₄
1999 UY ₄	17.9	0.15	19991029	344.60311	29.30264	36.24496	6.33783	0.2397294	2.3162554	24	1	16 days	0.56			Williams		1999 UY ₄
1999 UE ₅	15.2	0.15	20000226	15.99108	98.13417	347.34193	22.62910	0.2924196	2.3341787	39	1	98 days	0.53	M-v	3	Williams	38093	1999 UE ₅
1999 UF ₅	16.4	0.15	20000226	51.47118	66.64062	336.52392	19.23669	0.1875625	1.9061955	27	1	61 days	0.43	M-v	5	Williams		1999 UF ₅
1999 UH ₅	16.6	0.15	19991009	4.45199	83.71688	286.30620	26.93114	0.4267880	2.7496746	11	1	10 days	0.23			Williams		1999 UH ₅
1999 UJ ₅	14.1	0.15	20000226	61.69228	28.23314	340.10830	28.99789	0.1703648	2.6004051	31	1	72 days	0.59	M-v	5	Williams	38093	1999 UJ ₅
1999 UK ₅	16.4	0.15	20000226	40.95326	93.74942	274.54219	25.95629	0.4468078	2.5990906	25	1	80 days	0.44	M-v	4 D	Williams		1999 UK ₅
1999 UL ₅	13.3	0.15	20000226	321.82266	202.33110	296.20593	32.41072	0.1774892	2.6264752	50	1	105 days	0.41	M-v	4	Williams		1999 UL ₅
1999 UO ₅	14.9	0.15	19991009	3.25986	28.25598	336.89616	14.42010	0.1022288	2.6595531	17	1	15 days	0.85			Williams		1999 UO ₅
1999 UB ₆	14.2	0.15	20000226	228.02170	79.80604	117.88264	3.34239	0.1085213	2.2827747	35	1	96 days	0.55	M-v	4	Williams	38093	1999 UB ₆
1999 UD ₆	13.1	0.15	20000226	26.60879	354.87467	52.20133	9.36958	0.1311092	2.8925897	79	3	1994–2000	0.44	M-v	2	Williams	38093	1999 UD ₆
1999 UH ₆	15.5	0.15	20000226	61.93032	135.69712	217.62319	2.44623	0.2014168	2.3782971	40	3	1997–1999	0.52	M-v	3	Williams	37824	1999 UH ₆
1999 UL ₆	15.8	0.15	20000226	38.21503	172.01217	207.73101	4.14019	0.2538289	2.6264683	42	1	77 days	0.39	M-v	4	Williams	38093	1999 UL ₆
1999 UN ₆	14.5	0.15	20000226	33.67752	339.40863	52.61466	10.18986	0.3173921	2.7538587	82	1	123 days	0.46	M-v	3	Williams	38093	1999 UN ₆
1999 UR ₆	14.5	0.15	19991009	86.28510	82.83057	202.87587	1.09400	0.1022238	2.8396584	37	1	41 days	0.52			Williams		1999 UR ₆
1999 US ₆	15.5	0.15	20000226	87.24498	94.75517	212.40647	1.54731	0.1960681	2.6451223	45	4	1995–1999	0.67	M-v	1	Williams	38093	1999 US ₆
1999 UG ₇	14.6	0.15	20000226	60.52707	25.04172	353.53312	25.33681	0.1733124	2.3238863	31	1	98 days	0.44	M-v	4	Williams	38093	1999 UG ₇
1999 UH ₇	14.8	0.15	20000226	10.37342	102.23354	356.13848	21.89223	0.2895172	2.3865656	34	1	88 days	0.43	M-v	4	Williams		1999 UH ₇
1999 UK ₇	14.6	0.15	20000226	307.84236	202.17450	337.00756	24.18908	0.2672615	1.8531536	40	1	120 days	0.49	M-v	4	Williams	38093	1999 UK ₇
1999 US ₇	13.6	0.15	20000226	53.50264	311.18608	55.17523	7.44523	0.1315724	2.7565214	90	2	1992–2000	0.44	M-v	3	Williams	38093	1999 US ₇
1999 UO ₈	16.1	0.15	19991118	43.47600	118.30528	228.15348	1.47909	0.2081209	2.4346586	50	1	45 days	0.48		D	Williams		1999 UO ₈
1999 US ₈	14.8	0.15	20000226	338.91901	65.33939	40.71199	14.28412	0.1420518	2.6947410	43	1	84 days	0.52	M-v	4	Williams	38094	1999 US ₈
1999 UL ₉	14.4	0.15	20000226	199.98892	195.71396	40.07504	6.11599	0.0762032	2.4578598	46	3	1960–1999	0.63	M-v	4	Williams	38094	1999 UL ₉
1999 UT ₉	14.8	0.15	20000226	6.64530	100.05349	347.19332	22.97895	0.2684816	2.2745789	21	1	89 days	0.45	M-v	5	Williams		1999 UT ₉
1999 UV ₉	14.4	0.15	20000226	352.65505	101.72309	0.38305	27.27806	0.2778338	2.6264675	24	1	146 days	0.42	M-v	4	Williams		1999 UV ₉
1999 UX ₉	15.6	0.15	20000226	31.08033	140.80906	263.28184	22.25519	0.2676393	2.2837531	42	1	91 days	0.49	M-v	3	Williams	38094	1999 UX ₉
1999 UO ₁₀	15.4	0.15	19991118	6.95906	38.31309	13.78548	23.68701	0.1883796	2.3007264	17	1	58 days	0.34			Williams		1999 UO ₁₀
1999 UQ ₁₀	13.9	0.15	20000226	122.21883	298.91509	38.05979	25.37152	0.1444284	1.8363508	32	1	87 days	0.61	M-v	4	Williams		1999 UQ ₁₀
1999 UG ₁₁	13.6	0.15	20000226	17.53775	133.82259	319.40393	24.01672	0.3407368	3.1729130	54	2	1998–2000	0.54	M-v	3	Williams	38094	1999 UG ₁₁
1999 UJ ₁₁	16.2	0.15	20000226	48.00751	330.77587	41.15241	17.67755	0.2819396	2.5576305	75	1	116 days	0.50	M-v	3	Williams	38094	1999 UJ ₁₁
1999 UM ₁₁	13.4	0.15	20000226	344.12151	24.05757	61.53171	1.69391	0.1405136	3.1755907	78	3	1990–2000	0.51	M-v	4	Williams	38094	1999 UM ₁₁
1999 UO ₁₁	15.3	0.15	20000226	40.84362	196.79559	181.08083	5.06808	0.1584485	2.7731430	34	2	1994–1999	0.62	M-v	5	Williams	38094	1999 UO ₁₁
1999 UQ ₁₁	12.8	0.15	20000226	315.51914	140.11943	346.50066	13.18086	0.1450358	2.7694526	33	1	127 days	0.46	M-v	4	Williams		1999 UQ ₁₁
1999 UT ₁₁	16.7	0.15	19991029	260.48223	317.60438	199.86414	1.57816	0.1332091	2.3648809	24	1	40 days	0.56			Williams		1999 UT ₁₁
1999 UU ₁₁	16.0	0.15	19991029	36.36968	140.29955	214.85805	4.05755	0.1585591	3.1887547	26	1	40 days	0.56			Williams		1999 UU ₁₁
1999 UA ₁₂	16.5	0.15	19991029	150.12057	53.64067	199.16579	1.47471	0.0344947	3.1681312	15	1	47 days	0.19			Williams		1999 UA ₁₂
1999 UH ₁₂	17.4	0.15	19991009	82.03593	134.67935	140.10206	2.06070	0.1754106	2.3732554	12	1	17 days	0.16			Williams		1999 UH ₁₂
1999 UR ₁₂	14.2	0.15	20000226	5.05893	35.04999	13.84315	15.17731	0.1685104	2.6112835	57	1	123 days	0.56	M-v	4	Williams	38095	1999 UR ₁₂
1999 UV ₁₂	15.5	0.15	20000226	43.81648	152.81953	211.18052	6.52957	0.1249443	2.3182475	51	2	1998–1999	0.75	M-v	3	Williams	37825	1999 UV ₁₂
1999 UB ₁₃	14.6	0.15	20000226	31.23826	159.19781	209.66388	15.50978	0.1344189	2.7635903	34	1	138 days	0.63	M-v	3	Williams	38095	1999 UB ₁₃
1999 UH ₁₃	14.6	0.15	20000226	47.76586	25.05878	329.97653	2.24490	0.0885043	2.5561081	43	3	1997–1999	0.63	M-v	3	Williams	38095	1999 UH ₁₃
1999 UJ ₁₃	15.0	0.15	20000226	87.90576	80.41892	218.52570	5.73486	0.2170244	2.3983076	45	2	1998–1999	0.59	M-v	4	Williams	38095	1999 UJ ₁₃
1999 UO ₁₃	14.1	0.15	19991029	15.51002	144.38447	215.30227	6.57664	0.0243681	3.0433250	17	1	18 days	0.46			Williams		1999 UO ₁₃
1999 UU ₁₃	14.7	0.15	19991029	249.50787	266.21890	236.15971	4.44220	0.1344450	2.2930104	21	1	18 days	0.50			Williams		1999 UU ₁₃
1999 UT ₁₄	16.5	0.15	19991029	48.52954	259.71596	69.76592	3.06674	0.1640234	2.3981554	21	1	23 days	0.51			Williams		1999 UT ₁₄
1999 UV ₁₄	17.0	0.15	19991009	345.24681	204.79789	207.36449	13.91716	0.2550456	2.6653129	20	1	30 days	0.68			Williams		1999 UV ₁₄
1999 UX ₁₄	15.4	0.15	19991029	248.19834	114.68998	41.28342	12.81994	0.0987699	2.6212732	25	1	23 days	0.50			Williams		1999 UX ₁₄
1999 UZ ₁₄	15.7	0.15	19991029	4.93954	333.56672	54.59533	5.77723	0.1128093	2.9369741	26	1	31 days	0.55			Williams		1999 UZ ₁₄
1999 UA ₁₅	15.2	0.15	20000226	8.34205	17.01700	43.08507	8.81200	0.1999359	2.8073715	44	1	67 days	0.52	M-v	4	Williams	38095	1999 UA ₁₅
1999 UB ₁₅	15.9	0.15	19991029	359.92992	345.21235	49.77143	5.10369	0.0822378	2.5611577	30	1	28 days	0.59			Williams		1999 UB ₁₅
1999 UC ₁₅	16.1	0.15	19991029	344.87414	4.95244	48.57439	6.73616	0.1051008	2.3872467	35	1	48 days	0.56			Williams		1999 UC ₁₅
1999 UD ₁₅	12.6	0.15	20000226	51.60741	310.41593	48.50403	9.93319	0.0967322	3.0678031	70	2	1997–2000	0.63	M-v	3	Williams	38095	1999 UD ₁₅

1999 UE ₁₅	15.8	0.15	20000226	60.35234	296.27546	46.17428	6.44993	0.2637587	2.5575164	45	1	98 days	0.59	M-v	4	Williams	38095	1999 UE ₁₅
1999 UF ₁₅	13.1	0.15	20000226	59.42097	304.89930	42.16517	14.40610	0.1465421	2.9743134	61	1	98 days	0.57	M-v	4	Williams	38095	1999 UF ₁₅
1999 UG ₁₅	14.1	0.15	19991009	219.86235	334.30256	208.39628	18.62418	0.1530498	3.1514732	16	1	16 days	0.50			Williams		1999 UG ₁₅
1999 UJ ₁₅	14.1	0.15	20000226	208.99006	167.61616	46.76418	11.82956	0.1420353	2.6049838	25	1	67 days	0.57	M-v	5	Williams		1999 UJ ₁₅
1999 UK ₁₅	14.0	0.15	20000226	40.36775	285.20874	92.66138	2.47217	0.0871003	2.7700171	61	4	1992–2000	0.65	M-v	2	Williams	38095	1999 UK ₁₅
1999 UL ₁₅	14.3	0.15	20000226	165.70335	61.39575	193.74912	4.79328	0.0699562	2.4760963	31	1	79 days	0.41	M-v	5 D	Williams		1999 UL ₁₅
1999 UM ₁₅	14.6	0.15	20000226	199.88928	195.96083	30.44970	7.13822	0.1305988	2.2740092	64	2	1998–1999	0.62	M-v	4	Williams	38096	1999 UM ₁₅
1999 UN ₁₅	14.7	0.15	19991029	158.70256	50.89135	184.56827	1.82202	0.0149523	2.8358567	38	1	48 days	0.47			Williams		1999 UN ₁₅
1999 UZ ₁₅	15.6	0.15	19991029	59.42851	238.70926	88.90481	2.37148	0.0864122	2.7154355	21	1	23 days	0.54			Williams		1999 UZ ₁₅
1999 UA ₁₆	16.2	0.15	20000226	16.96608	339.71374	77.31391	3.10309	0.2048758	2.4475692	28	1	96 days	0.48	M-v	4	Williams		1999 UA ₁₆
1999 UC ₁₆	14.1	0.15	20000226	236.35432	352.33477	206.33681	3.97904	0.0755521	2.2436488	88	2	1998–2000	0.56	M-v	3	Williams	38096	1999 UC ₁₆
1999 UV ₁₆	15.7	0.15	20000226	48.59482	335.15502	27.05622	5.30450	0.2812696	2.5347941	43	1	97 days	0.37	M-v	4	Williams	38096	1999 UV ₁₆
1999 UE ₁₇	16.9	0.15	19991009	321.32573	227.44754	208.08335	21.17524	0.0817229	1.9112945	26	1	42 days	0.35			Williams		1999 UE ₁₇
1999 US ₁₇	16.5	0.15	19991009	62.95559	245.55737	52.49484	2.78205	0.1256741	2.3980128	9	1	18 days	0.12			Williams		1999 US ₁₇
1999 UM ₁₈	18.2	0.15	19991009	8.47376	172.98761	185.51733	5.24774	0.3277196	2.6040976	9	1	16 days	0.25			Williams		1999 UM ₁₈
1999 UW ₁₈	18.9	0.15	19991009	349.16583	5.17028	35.03497	3.99330	0.1556473	2.2891731	9	1	16 days	0.13			Williams		1999 UW ₁₈
1999 UZ ₁₈	17.4	0.15	19991009	58.00129	270.82321	34.61476	8.16100	0.2210902	2.7922434	9	1	16 days	0.17			Williams		1999 UZ ₁₈
1999 UC ₁₉	17.7	0.15	19991009	176.91500	174.47189	36.60866	5.04568	0.1371600	2.4668090	9	1	16 days	0.24			Williams		1999 UC ₁₉
1999 UD ₁₉	17.2	0.15	19991029	16.91962	332.95870	36.67620	5.42921	0.1656630	2.3074182	26	1	26 days	0.42			Williams		1999 UD ₁₉
1999 UN ₁₉	17.3	0.15	19991029	20.93546	326.02962	43.54771	4.38862	0.0871047	2.1767872	23	1	23 days	0.41			Williams		1999 UN ₁₉
1999 UD ₂₀	16.9	0.15	19991009	139.82627	50.64347	175.12875	3.16842	0.1375390	2.5299888	9	1	16 days	0.22			Williams		1999 UD ₂₀
1999 UH ₂₀	19.4	0.15	19991009	21.41887	150.08477	187.71221	3.98596	0.2647515	2.3185050	9	1	16 days	0.19			Williams		1999 UH ₂₀
1999 UK ₂₁	17.8	0.15	19991009	342.99491	188.17840	218.60610	2.37111	0.1109937	2.1930469	16	1	29 days	0.47			Williams		1999 UK ₂₁
1999 UF ₂₃	16.0	0.15	19991029	15.62558	334.15331	38.74733	13.24433	0.1809974	2.6265434	39	1	47 days	0.44		D	Williams		1999 UF ₂₃
1999 UM ₂₃	16.4	0.15	19991029	351.22727	184.68700	215.62072	20.17548	0.3644207	2.6822602	19	1	19 days	0.54			Williams		1999 UM ₂₃
1999 UO ₂₃	15.1	0.15	19990919	216.24818	296.76444	218.85310	13.05741	0.1095333	2.5410895	32	1	57 days	0.87			Williams		1999 UO ₂₃
1999 UL ₂₄	14.9	0.15	20000226	79.93171	65.01150	250.12323	9.27695	0.2179837	2.6851807	36	3	1990–1999	0.69	M-v	3	Williams	38097	1999 UL ₂₄
1999 UK ₂₅	16.4	0.15	19991029	37.99333	100.69416	222.77856	25.06434	0.3185568	2.6333470	24	1	18 days	0.60			Williams		1999 UK ₂₅
1999 UQ ₂₅	13.8	0.15	20000226	32.46296	153.50945	243.81508	4.00629	0.1445907	2.7524091	72	1	114 days	0.51	M-v	3	Spahr	38097	1999 UQ ₂₅
1999 US ₂₅	17.0	0.15	19991029	20.69111	338.25923	28.98773	4.79321	0.2819115	2.5318014	23	1	18 days	0.46			Williams		1999 US ₂₅
1999 UW ₂₅	15.8	0.15	19991009	335.43897	201.56285	214.62723	12.62253	0.1837991	2.6728702	29	1	42 days	0.59			Williams		1999 UW ₂₅
1999 UY ₂₅	15.7	0.15	19991009	282.98414	235.56729	233.03457	5.99505	0.0881662	2.3787495	34	1	45 days	0.53			Williams		1999 UY ₂₅
1999 UZ ₂₅	16.1	0.15	20000226	43.34899	126.69500	252.42469	2.70972	0.1559295	2.1895333	38	1	80 days	0.63	M-v	4	Williams		1999 UZ ₂₅
1999 UJ ₂₆	15.0	0.15	19991009	87.84267	45.70378	244.34485	4.90089	0.0582707	2.7682501	24	1	33 days	0.63			Williams		1999 UJ ₂₆
1999 UK ₂₆	15.6	0.15	19991029	295.62445	245.40037	230.01016	4.48589	0.1920725	2.3535280	40	1	56 days	0.56			Williams		1999 UK ₂₆
1999 UL ₂₆	15.3	0.15	20000226	28.15457	33.67346	354.20548	3.28698	0.2610153	2.6907952	41	1	95 days	0.51	M-v	3	Williams	38097	1999 UL ₂₆
1999 UM ₂₆	13.4	0.15	20000226	87.71107	60.14338	256.84440	2.88184	0.0939914	2.7996868	54	1	97 days	0.44	M-v	4	Williams	38097	1999 UM ₂₆
1999 UN ₂₆	15.6	0.15	19991029	8.51243	153.73571	224.69896	6.19099	0.1438258	2.7669554	22	1	25 days	0.72			Williams		1999 UN ₂₆
1999 UF ₂₇	18.1	0.15	19991029	359.60354	16.24887	356.87775	3.67956	0.2272689	2.4815099	15	1	29 days	0.22			Williams		1999 UF ₂₇
1999 UG ₂₇	17.1	0.15	19991009	16.95869	340.50758	1.62061	11.98768	0.0794410	2.9554353	9	1	20 days	0.31			Williams		1999 UG ₂₇
1999 UP ₂₇	15.8	0.15	19991009	211.39886	189.91544	329.72153	1.44984	0.1396321	2.3953475	9	1	17 days	0.18			Williams		1999 UP ₂₇
1999 UQ ₂₇	17.3	0.15	19991029	331.92480	47.13828	7.31608	7.63582	0.2234886	2.7612751	12	1	18 days	0.25			Williams		1999 UQ ₂₇
1999 UT ₂₇	15.9	0.15	19991029	338.49440	40.08566	3.90790	10.58804	0.2577697	3.6944997	9	1	18 days	0.42			Williams		1999 UT ₂₇
1999 UX ₂₇	16.1	0.15	20000226	339.79798	230.11360	198.21956	9.21196	0.1601578	2.7514478	21	2	1997–1999	0.23	M-v	4	Williams	37827	1999 UX ₂₇
1999 UD ₂₈	16.5	0.15	20000226	57.85242	138.99998	202.38337	5.53576	0.1932843	2.2334642	22	1	70 days	0.45	M-v	4	Williams		1999 UD ₂₈
1999 UK ₂₈	17.8	0.15	19991009	325.14321	262.05895	160.33968	1.41285	0.1636099	2.4288432	9	1	17 days	0.16			Williams		1999 UK ₂₈
1999 UM ₂₈	18.8	0.15	19991009	15.60618	300.38662	50.82103	2.17713	0.1942258	2.3496692	9	1	20 days	0.21			Williams		1999 UM ₂₈
1999 UO ₂₈	18.3	0.15	19991009	19.33357	194.13528	152.22444	1.40768	0.1908205	2.3570858	9	1	17 days	0.20			Williams		1999 UO ₂₈
1999 UZ ₂₈	16.4	0.15	19991029	58.12644	288.37522	25.66557	16.12347	0.0682919	3.1939931	15	1	26 days	0.31			Williams		1999 UZ ₂₈
1999 UB ₂₉	16.4	0.15	19991029	33.95919	292.87898	41.00458	5.49485	0.1807215	2.7002834	15	1	26 days	0.17			Williams		1999 UB ₂₉
1999 UQ ₂₉	15.0	0.15	20000226	76.83805	293.56413	28.69925	6.08032	0.1415106	2.4358134	54	2	1998–1999	0.63	M-v	3	Williams	37827	1999 UQ ₂₉
1999 UR ₂₉	16.6	0.15	19991009	141.82595	200.72612	24.61133	12.27628	0.1283539	2.6946494	9	1	17 days	0.11			Williams		1999 UR ₂₉
1999 UA ₃₀	16.3	0.15	19991029	338.37003	346.42438	67.07850	2.16720	0.2016296	3.1553820	15	1	23 days	0.19			Williams		1999 UA ₃₀

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1999 UF ₃₀	16.3	0.15	19991029	86.54799	242.13329	46.01779	3.63823	0.0534312	2.6686588	15	1	23 days	0.28	Williams	1999 UF ₃₀
1999 UO ₃₁	16.6	0.15	19991029	323.88510	42.04310	33.70638	12.28589	0.0908232	2.7667014	12	1	21 days	0.18	Williams	1999 UO ₃₁
1999 UP ₃₁	17.1	0.15	19991009	303.56232	60.56020	34.20308	12.88027	0.1024273	2.6024540	9	1	17 days	0.16	Williams	1999 UP ₃₁
1999 UC ₃₂	16.1	0.15	19991029	301.75757	58.55918	51.31293	1.97010	0.1573732	2.3388480	28	1	23 days	0.50	Williams	1999 UC ₃₂
1999 UL ₃₂	14.1	0.15	20000226	31.24171	333.79139	53.80921	2.82846	0.0348264	2.8880462	47	1	98 days	0.51	M-v 4 Williams	38097 1999 UL ₃₂
1999 UY ₃₂	16.6	0.15	19991029	45.20497	296.35898	32.63763	5.36675	0.1982123	2.2398161	33	1	27 days	0.47	Williams	1999 UY ₃₂
1999 UN ₃₃	14.4	0.15	19991009	171.32675	4.19617	212.73105	7.07275	0.1426920	2.8003303	30	1	41 days	0.74	Williams	1999 UN ₃₃
1999 UP ₃₃	16.1	0.15	19991009	97.07567	72.00266	215.32970	9.16742	0.0379141	2.3912654	18	1	34 days	0.41	Williams	1999 UP ₃₃
1999 UW ₃₃	17.3	0.15	19991009	21.28314	145.14736	215.53448	5.69551	0.1055000	2.2017434	27	1	37 days	0.47	Williams	1999 UW ₃₃
1999 UQ ₃₄	15.4	0.15	20000226	123.72313	247.72794	38.65091	5.24044	0.1617770	2.3286629	50	2	1998–1999	0.66	M-v 4 Williams	37827 1999 UQ ₃₄
1999 UG ₃₅	16.3	0.15	20000226	28.42324	207.91598	192.35349	1.31602	0.2042340	2.4167593	38	2	1995–1999	0.41	M-v 4 Williams	37827 1999 UG ₃₅
1999 UQ ₃₅	16.9	0.15	19991029	282.38098	254.24682	232.22036	3.61736	0.0640382	2.4065832	18	1	18 days	0.44	Williams	1999 UQ ₃₅
1999 US ₃₅	17.1	0.15	19991029	302.47632	248.80709	225.46130	12.71305	0.1421346	2.5851316	16	1	17 days	0.40	Williams	1999 US ₃₅
1999 UX ₃₅	16.7	0.15	19991029	2.63277	166.73400	201.10833	4.61497	0.1525113	2.2150526	16	1	27 days	0.37	Williams	1999 UX ₃₅
1999 VG	14.5	0.15	20000226	41.35271	175.78325	195.87026	3.59232	0.2356956	2.6934783	85	3	1981–2000	0.50	M-v 3 Williams	38098 1999 VG
1999 VJ	14.3	0.15	20000226	76.46552	333.88544	54.65213	15.74424	0.1330225	2.6291123	47	3	1990–2000	0.58	M-v 3 Williams	38098 1999 VJ
1999 VK	14.8	0.15	20000226	68.18862	313.83219	79.84165	3.47709	0.1440088	2.2067765	58	1	91 days	0.48	M-v 4 Williams	38098 1999 VK
1999 VL	15.8	0.15	20000226	28.40203	333.92557	66.90630	2.39162	0.1862407	2.3919994	45	1	71 days	0.63	M-v 4 Williams	38098 1999 VL
1999 VM	14.7	0.15	20000226	56.32552	188.09928	173.18501	2.12230	0.0824155	2.6821765	34	1	62 days	0.64	M-v 5 Williams	38098 1999 VM
1999 VR	14.0	0.15	20000226	48.53489	326.69510	44.08236	1.76355	0.2214371	3.0886503	72	1	93 days	0.53	M-v 5 Williams	1999 VR
1999 VZ	13.4	0.15	20000226	322.50282	100.40398	54.13741	23.28056	0.2717338	2.3372976	99	2	1992–2000	0.42	M-v 3 Williams	38098 1999 VZ
1999 VF ₁	14.9	0.15	20000226	49.99836	127.82041	248.12241	6.28689	0.2494677	2.4110676	95	2	1995–2000	0.42	M-v 3 Williams	38098 1999 VF ₁
1999 VK ₁	14.8	0.15	20000226	7.67878	13.57350	49.96802	4.20021	0.0714291	2.5559030	74	2	1993–2000	0.56	M-v 4 Williams	38098 1999 VK ₁
1999 VP ₁	16.8	0.15	20000226	58.54278	314.80102	34.16167	7.36451	0.1329722	2.3613198	41	1	67 days	0.43	M-v 4 Williams	38098 1999 VP ₁
1999 VQ ₁	14.5	0.15	19991029	81.13886	255.64843	33.70202	16.29833	0.2092921	3.1769483	21	1	26 days	0.53	Williams	1999 VQ ₁
1999 VA ₂	15.2	0.15	20000226	63.41794	122.60172	232.94375	23.88476	0.2903325	2.2700906	113	1	124 days	0.49	M-v 3 Spahr	38098 1999 VA ₂
1999 VC ₂	14.4	0.15	20000226	287.98520	116.41942	64.79791	7.46067	0.1698693	2.3108743	61	1	87 days	0.47	M-v 4 Williams	38098 1999 VC ₂
1999 VE ₂	15.3	0.15	20000226	38.12933	196.63011	187.83054	4.18501	0.2069182	2.5661644	42	3	1993–2000	0.50	M-v 3 Williams	37828 1999 VE ₂
1999 VG ₂	13.1	0.15	20000226	37.05013	302.48211	74.33525	11.19775	0.1077455	2.9782482	55	1	88 days	0.60	M-v 4 Williams	38098 1999 VG ₂
1999 VH ₂	14.1	0.15	20000226	33.92159	75.79130	320.54455	2.74899	0.1691686	2.5922706	62	1	92 days	0.58	M-v 4 Spahr	38098 1999 VH ₂
1999 VJ ₂	14.1	0.15	20000226	38.73030	86.67519	293.38121	8.77563	0.1293716	2.9747488	45	1	87 days	0.64	M-v 4 Williams	1999 VJ ₂
1999 VM ₂	12.9	0.15	20000226	326.57459	250.92946	241.82213	23.67490	0.0890370	2.5795696	74	1	154 days	0.45	M-v 3 Spahr	38098 1999 VM ₂
1999 VO ₂	13.4	0.15	20000226	68.37898	276.90734	115.98521	27.55340	0.3250493	2.6740171	63	3	1990–2000	0.49	M-v 1 Williams	38098 1999 VO ₂
1999 VQ ₂	14.1	0.15	20000226	357.91427	23.26533	55.80551	7.49459	0.0664631	2.3255257	66	3	1994–2000	0.42	M-v 4 Williams	38099 1999 VQ ₂
1999 VV ₂	16.1	0.15	20000226	42.09251	114.87060	267.22732	3.85995	0.2396532	2.6567345	66	1	85 days	0.52	M-v 4 Williams	38099 1999 VV ₂
1999 VX ₂	14.4	0.15	20000226	40.54845	142.57343	264.49356	6.17890	0.0892624	2.2887496	76	1	121 days	0.58	M-v 3 Spahr	38099 1999 VX ₂
1999 VY ₂	13.6	0.15	20000226	42.72393	120.86769	272.15949	7.84050	0.1706111	2.8117130	61	2	1998–2000	0.61	M-v 3 Williams	38099 1999 VY ₂
1999 VA ₃	16.1	0.15	19991009	289.31616	329.74962	162.52255	2.04331	0.1341381	3.2405225	15	1	24 days	0.23	Williams	1999 VA ₃
1999 VE ₃	17.9	0.15	19991009	338.42230	280.98555	148.13091	1.55283	0.1595602	2.3957568	18	1	24 days	0.31	Williams	1999 VE ₃
1999 VG ₃	13.8	0.15	20000226	348.77848	303.88026	147.86313	1.89012	0.1401611	3.1642271	68	2	1998–2000	0.59	M-v 3 Williams	38099 1999 VG ₃
1999 VH ₃	18.6	0.15	19991029	77.04244	140.76214	169.23827	1.95416	0.1793739	2.2515114	12	1	15 days	0.33	Williams	1999 VH ₃
1999 VG ₅	16.2	0.15	20000226	45.22921	155.38889	225.40633	0.13821	0.2477663	2.2933422	61	1	79 days	0.40	M-v 4 Williams	38099 1999 VG ₅
1999 VJ ₅	14.9	0.15	20000226	75.05295	6.42511	348.80152	3.79844	0.2167703	2.2219320	42	2	1998–2000	0.66	M-v 4 Williams	38099 1999 VJ ₅
1999 VT ₅	14.4	0.15	20000226	65.91913	4.42442	1.63927	4.96368	0.1654498	2.7346098	31	2	1997–2000	0.64	M-v 4 Williams	38100 1999 VT ₅
1999 VU ₅	14.5	0.15	20000226	63.50868	309.67782	68.29579	11.01033	0.0947866	2.3777304	63	1	92 days	0.54	M-v 4 Williams	38100 1999 VU ₅
1999 VV ₅	13.6	0.15	20000226	28.01587	339.53382	72.88087	11.38902	0.0995428	3.0103005	59	1	92 days	0.62	M-v 4 Williams	38100 1999 VV ₅
1999 VX ₅	13.0	0.15	20000226	72.51802	287.99281	77.94377	9.43404	0.0505635	3.0359034	59	1	91 days	0.43	M-v 4 Spahr	38100 1999 VX ₅
1999 VY ₅	15.5	0.15	20000226	40.19204	341.25104	66.40538	8.56060	0.1416671	2.2472816	37	1	92 days	0.64	M-v 4 Williams	1999 VY ₅
1999 VZ ₅	13.3	0.15	20000226	21.79689	340.35465	80.59859	11.82779	0.0887765	2.9956309	48	1	91 days	0.55	M-v 3 Spahr	38100 1999 VZ ₅
1999 VA ₆	14.4	0.15	20000226	3.42065	223.81643	229.92848	12.53476	0.2238151	2.7299711	53	2	1990–2000	0.51	M-v 4 Spahr	38100 1999 VA ₆
1999 VB ₆	14.9	0.15	20000226	53.25662	275.73056	110.10477	1.93752	0.1949077	2.3255445	68	4	1981–2000	0.58	M-v 1 Williams	38100 1999 VB ₆
1999 VC ₆	14.7	0.15	20000226	57.76531	179.09506	207.75178	2.21683	0.1490418	2.1823905	57	1	114 days	0.59	M-v 4 Spahr	38100 1999 VC ₆
1999 VD ₆	13.9	0.15	20000226	31.28639	302.53722	104.52686	2.02321	0.1783888	3.0909607	64	3	1995–2000	0.54	M-v 2 Williams	38100 1999 VD ₆

1999 VE ₆	14.8	0.15	20000226	18.94746	334.71376	90.80850	5.78134	0.2631629	2.9807465	43	1	91 days	0.49	M-v	3	Spahr	38100	1999 VE ₆
1999 VF ₆	14.2	0.15	20000226	45.38084	192.94153	208.98726	3.13005	0.1501710	2.2672241	61	3	1992–2000	0.58	M-v	3	Spahr	38100	1999 VF ₆
1999 VG ₆	14.5	0.15	20000226	51.53610	141.25420	234.73327	2.94258	0.2817361	2.5587188	50	2	1993–2000	0.55	M-v	4	Spahr	37828	1999 VG ₆
1999 VJ ₆	14.2	0.15	20000226	15.92580	6.35111	74.17778	5.34975	0.1045441	2.2848663	65	1	100 days	0.40	M-v	3	Williams	38100	1999 VJ ₆
1999 VM ₆	14.1	0.15	20000226	61.03553	241.62384	118.86969	5.76253	0.1711323	3.1750317	54	4	1993–1999	0.65	M-v	1	Williams	38100	1999 VM ₆
1999 VQ ₆	18.6	0.15	20000226	9.12132	254.34369	203.68468	27.62493	0.5076427	2.5966145	30	1	95 days	0.50	M-v	4	Spahr	38100	1999 VQ ₆
1999 VV ₆	14.9	0.15	20000226	60.44617	295.37912	68.75160	3.36875	0.2106515	2.4366589	82	1	111 days	0.39	M-v	4	Spahr	38100	1999 VV ₆
1999 VW ₆	12.9	0.15	20000226	48.31148	216.53296	153.98139	14.95707	0.1986403	2.5535757	87	2	1998–2000	0.62	M-v	3	Spahr	38100	1999 VW ₆
1999 VY ₆	14.6	0.15	20000226	39.13772	266.10661	118.55584	13.63064	0.2082427	2.5145274	40	1	145 days	0.75	M-v	4	Williams	38100	1999 VY ₆
1999 VB ₇	11.6	0.15	20000226	84.24984	196.26872	141.04715	22.47012	0.0454316	3.2078848	47	2	1998–2000	0.63	M-v	3	Williams	38100	1999 VB ₇
1999 VC ₇	14.5	0.15	20000226	20.26397	12.35558	41.39609	12.48444	0.1444802	2.3193582	107	1	162 days	0.48	M-v	3	Williams	38100	1999 VC ₇
1999 VE ₇	15.0	0.15	19991029	68.01286	261.92592	47.00749	2.57796	0.1664187	3.0878688	40	1	53 days	0.74			Williams		1999 VE ₇
1999 VF ₇	14.9	0.15	20000226	174.21483	189.99281	58.02996	3.61025	0.1665832	2.3159776	61	2	1998–1999	0.72	M-v	4	Williams	38100	1999 VF ₇
1999 VQ ₇	14.4	0.15	20000226	94.53087	198.67668	122.95459	2.56505	0.1343431	2.8709796	53	3	1989–1999	0.66	M-v	4	Williams	38100	1999 VQ ₇
1999 VT ₇	13.1	0.15	20000226	62.99191	306.90650	59.54834	15.61253	0.1290773	2.6074002	88	3	1978–2000	0.41	M-v	2	Williams	38100	1999 VT ₇
1999 VB ₈	15.4	0.15	20000226	15.21153	292.12153	151.80491	2.28198	0.1831763	2.3899149	61	3	1995–2000	0.52	M-v	2	Spahr	38100	1999 VB ₈
1999 VF ₈	13.0	0.15	20000226	40.44160	321.41947	92.89247	12.14235	0.2371074	3.1119807	63	1	95 days	0.45	M-v	4	Williams		1999 VF ₈
1999 VH ₈	12.7	0.15	20000226	292.05329	93.43261	118.67200	10.87981	0.0438376	2.9827239	83	1	98 days	0.50	M-v	4	Williams	38100	1999 VH ₈
1999 VJ ₈	12.8	0.15	20000226	106.42168	77.45877	292.75971	12.19824	0.2152362	2.6520417	107	2	1998–2000	0.57	M-v	3	Williams	38100	1999 VJ ₈
1999 VQ ₈	15.3	0.15	20000226	48.62754	308.45889	66.30049	12.40684	0.2996095	2.6247959	40	1	82 days	0.58	M-v	4	Williams		1999 VQ ₈
1999 VR ₈	15.0	0.15	20000226	65.76014	292.07072	87.30877	7.18439	0.1243713	2.2444778	68	1	99 days	0.50	M-v	4	Williams	38101	1999 VR ₈
1999 VT ₈	13.5	0.15	20000226	36.25202	264.61896	128.41014	14.87451	0.2529174	3.1281241	48	3	1988–2000	0.68	M-v	2	Spahr	38101	1999 VT ₈
1999 VU ₈	13.9	0.15	20000226	57.29864	233.06717	141.10153	13.94099	0.1476007	2.8459684	57	4	1996–2000	0.66	M-v	1	Spahr	38101	1999 VU ₈
1999 VV ₈	15.9	0.15	20000226	95.73918	267.48437	53.57082	5.35779	0.2559824	2.2726016	53	1	89 days	0.82	M-v	5	Williams		1999 VV ₈
1999 VW ₈	17.2	0.15	19991029	19.44064	146.81206	219.57128	9.43005	0.2419330	2.5897615	38	1	33 days	0.59			Williams		1999 VW ₈
1999 VZ ₈	13.9	0.15	20000226	359.50077	347.38554	84.32679	13.39847	0.2322103	2.5454158	48	1	144 days	0.54	M-v	4	Williams	38101	1999 VZ ₈
1999 VA ₉	12.5	0.15	20000226	4.91862	255.26533	176.85668	15.49831	0.3064669	2.6469400	38	1	118 days	0.40	M-v	4	Williams	38101	1999 VA ₉
1999 VB ₉	13.1	0.15	20000226	12.72496	259.73911	151.22061	13.26561	0.3306769	2.9240599	53	2	1974–2000	0.55	M-v	2	Spahr	37828	1999 VB ₉
1999 VE ₉	14.6	0.15	20000226	39.94921	350.91411	97.29607	1.32863	0.2154752	2.4330166	57	2	1976–2000	0.60	M-v	3	Williams	37829	1999 VE ₉
1999 VF ₉	13.1	0.15	20000226	86.94505	280.35633	50.47612	13.41109	0.1939949	2.7066021	49	1	89 days	0.42	M-v	5	Williams		1999 VF ₉
1999 VH ₉	15.2	0.15	20000226	38.31401	355.52685	43.25587	5.43973	0.1857744	2.4247915	48	1	88 days	0.44	M-v	4	Williams		1999 VH ₉
1999 VQ ₉	14.9	0.15	20000226	24.56129	202.92904	222.92944	4.16459	0.2633023	2.6056472	70	1	92 days	0.50	M-v	3	Spahr	38101	1999 VQ ₉
1999 VR ₉	13.8	0.15	20000226	45.37918	307.51275	101.21729	6.75723	0.2762141	2.5579096	69	4	1962–2000	0.54	M-v	2	Williams	38101	1999 VR ₉
1999 VY ₉	13.8	0.15	20000226	356.03292	107.12826	334.51841	9.79865	0.1723267	2.9476969	49	1	118 days	0.56	M-v	4	Williams	38101	1999 VY ₉
1999 VB ₁₀	13.7	0.15	20000226	25.23756	87.17214	311.81461	9.44181	0.2429228	2.9772455	58	1	118 days	0.49	M-v	3	Williams	38101	1999 VB ₁₀
1999 VE ₁₀	13.7	0.15	20000226	325.37399	163.37378	310.85614	7.35851	0.0407671	2.3411271	44	1	127 days	0.44	M-v	4	Williams	38101	1999 VE ₁₀
1999 VF ₁₀	14.6	0.15	20000226	48.39226	290.39722	87.43122	12.44774	0.2992859	2.6603460	49	1	102 days	0.66	M-v	4	Williams	38101	1999 VF ₁₀
1999 VH ₁₀	13.3	0.15	20000226	265.22164	69.33173	124.21855	2.12007	0.0889724	2.7989647	69	4	1989–2000	0.62	M-v	2	Spahr	38101	1999 VH ₁₀
1999 VK ₁₀	13.8	0.15	20000226	86.94151	113.98608	219.22231	11.03974	0.2783549	2.5465452	63	2	1998–2000	0.53	M-v	3	Spahr	38101	1999 VK ₁₀
1999 VL ₁₀	14.3	0.15	20000226	72.24185	134.66237	221.56078	8.26929	0.2553468	2.3174254	67	2	1998–2000	0.65	M-v	4	Spahr	38101	1999 VL ₁₀
1999 VM ₁₀	14.2	0.15	20000226	7.50144	9.05486	85.43725	8.40609	0.2856295	2.6332585	69	2	1996–2000	0.52	M-v	3	Williams	38101	1999 VM ₁₀
1999 VQ ₁₀	9.9	0.15	20000226	2.47248	183.23222	258.69264	8.44501	0.0396644	5.1782380	71	2	1998–2000	0.47	M-v	3	Williams	38101	1999 VQ ₁₀
1999 VR ₁₀	12.2	0.15	20000226	50.28146	308.28538	81.70113	11.39608	0.1195033	2.9947186	74	2	1997–2000	0.51	M-v	3	Williams	38101	1999 VR ₁₀
1999 VS ₁₀	13.5	0.15	20000226	42.12167	300.87171	107.81942	7.45423	0.1034214	2.3588554	54	1	100 days	0.55	M-v	4	Williams	38101	1999 VS ₁₀
1999 VV ₁₀	15.0	0.15	20000226	71.93185	321.38450	66.06116	23.08521	0.0701563	1.8438890	63	2	1998–2000	0.52	M-v	3	Williams	38101	1999 VV ₁₀
1999 VW ₁₀	13.6	0.15	20000226	289.60876	69.19763	113.22899	8.44545	0.1288787	2.2378894	55	2	1998–2000	0.49	M-v	3	Spahr	38101	1999 VW ₁₀
1999 VY ₁₀	14.7	0.15	20000226	331.99098	4.37190	115.14899	4.60708	0.0796201	2.3185483	65	1	106 days	0.43	M-v	4	Spahr	38101	1999 VY ₁₀
1999 VG ₁₁	14.2	0.15	20000226	212.19882	157.31951	171.09121	7.14127	0.0697922	2.3737797	72	2	1998–2000	0.58	M-v	3	Spahr	38102	1999 VG ₁₁
1999 VQ ₁₁	17.5	0.15	20000226	24.46414	352.98412	26.95761	7.94071	0.5953500	2.8095718	87	1	93 days	0.55	M-v	4	Williams	38102	1999 VQ ₁₁
1999 VR ₁₁	14.7	0.15	19991029	50.83222	251.82737	92.56179	3.16884	0.0825816	2.8993224	62	1	48 days	0.79			Williams		1999 VR ₁₁
1999 VT ₁₁	14.0	0.15	20000226	19.86892	191.72004	207.72564	10.78564	0.1220686	3.0683215	48	1	99 days	0.57	M-v	4	Williams	38102	1999 VT ₁₁
1999 VB ₁₂	12.7	0.15	20000226	279.94395	183.25240	337.56380	8.39335	0.1114686	2.5579766	41	1	149 days	0.40	M-v	4	Williams	38102	1999 VB ₁₂
1999 VC ₁₂	15.9	0.15	20000226	34.59567	109.63517	269.38320	4.84150	0.4100620	2.6742390	82	1	141 days	0.60	M-v	3	Spahr	38102	1999 VC ₁₂

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1999 VD ₁₂	13.5	0.15	20000226	7.58481	182.57444	241.87121	13.89411	0.2048590	3.1618528	79	1	121 days	0.50	M-v	3	Spahr	38102	1999 VD ₁₂
1999 VH ₁₂	14.7	0.15	20000226	57.50252	286.63951	58.82457	12.25283	0.3196443	2.6438141	96	1	122 days	0.52	M-v	4	Spahr	38102	1999 VH ₁₂
1999 VM ₁₂	14.9	0.15	20000226	14.04436	355.61933	70.32265	3.49144	0.1893576	2.6942255	59	3	1977–2000	0.52	M-v	3	Williams	38102	1999 VM ₁₂
1999 VP ₁₂	14.2	0.15	20000226	15.23192	266.66110	164.42693	3.52176	0.1411826	2.5179309	48	2	1991–2000	0.53	M-v	4	Spahr	38102	1999 VP ₁₂
1999 VQ ₁₂	12.6	0.15	20000226	274.14021	321.42653	218.16743	11.91375	0.1080230	2.6679585	69	4	1988–2000	0.56	M-v	1	Spahr	38102	1999 VQ ₁₂
1999 VR ₁₂	12.0	0.15	20000226	83.75238	265.63010	77.25786	10.81137	0.1068935	3.0193156	76	2	1978–2000	0.52	M-v	4	Spahr	38102	1999 VR ₁₂
1999 VS ₁₂	14.5	0.15	20000226	63.17614	291.36413	65.22290	9.20006	0.2821725	2.3983119	76	2	1998–2000	0.54	M-v	4	Williams	38102	1999 VS ₁₂
1999 VT ₁₂	15.2	0.15	20000226	50.20854	327.12931	62.65401	6.01469	0.1798501	2.2590983	71	1	92 days	0.49	M-v	4	Williams		1999 VT ₁₂
1999 VU ₁₂	13.5	0.15	20000226	43.60364	328.33006	65.77466	9.63569	0.1175443	2.7262664	91	1	93 days	0.50	M-v	4	Williams	38102	1999 VU ₁₂
1999 VV ₁₂	11.3	0.15	20000226	261.81578	114.15125	73.77512	21.52742	0.0961811	3.1497262	74	2	1988–2000	0.55	M-v	3	Spahr	38102	1999 VV ₁₂
1999 VW ₁₂	15.3	0.15	20000226	48.72748	61.17675	324.50804	2.47974	0.1629351	2.3302960	48	1	94 days	0.53	M-v	4	Williams		1999 VW ₁₂
1999 VF ₁₃	14.1	0.15	20000226	39.59912	13.99619	44.83496	25.89299	0.2417980	2.3529407	49	2	1988–2000	0.53	M-v	3	Williams	37829	1999 VF ₁₃
1999 VH ₁₃	14.2	0.15	20000226	17.95093	37.88788	59.39198	33.27905	0.2407064	2.6227306	35	1	85 days	0.54	M-v	4	Williams		1999 VH ₁₃
1999 VJ ₁₃	14.5	0.15	20000226	314.22952	133.04323	52.26839	25.23119	0.1057479	1.8798014	36	1	85 days	0.55	M-v	4	Williams	38102	1999 VJ ₁₃
1999 VJ ₁₄	14.3	0.15	20000226	9.97574	59.02199	56.49373	23.13209	0.2400089	2.3238883	33	1	84 days	0.55	M-v	4	Williams		1999 VJ ₁₄
1999 VQ ₁₄	18.3	0.15	19991029	339.25574	31.84036	32.19014	8.34638	0.0792542	2.5460781	7	1	26 days	0.30			Williams		1999 VQ ₁₄
1999 VX ₁₄	15.9	0.15	20000226	240.63667	244.77463	280.06660	1.95843	0.0878987	2.3156099	19	1	69 days	0.42	M-v	4	Williams		1999 VX ₁₄
1999 VA ₁₆	19.5	0.15	19991009	14.32564	34.18866	329.12164	2.18387	0.1766854	2.4678977	12	1	19 days	0.42			Williams		1999 VA ₁₆
1999 VF ₁₆	15.5	0.15	19991009	20.11716	36.52349	325.92688	2.55473	0.0788344	2.8018557	23	1	43 days	0.49			Williams		1999 VF ₁₆
1999 VH ₁₆	17.5	0.15	19991009	289.67810	129.88707	344.58063	2.66085	0.1627210	2.3857782	12	1	19 days	0.12			Williams		1999 VH ₁₆
1999 VO ₁₆	16.6	0.15	19991029	26.09743	343.59504	7.82965	4.33824	0.2143162	2.7856502	23	1	28 days	0.47			Williams		1999 VO ₁₆
1999 VQ ₁₆	16.3	0.15	19991009	86.83871	295.04041	356.05133	3.77396	0.0775996	2.6351782	9	1	16 days	0.36			Williams		1999 VQ ₁₆
1999 VR ₁₆	19.0	0.15	19991009	334.56214	136.75208	286.50969	1.46174	0.2214785	2.2213068	12	1	19 days	0.08			Williams		1999 VR ₁₆
1999 VZ ₁₆	19.3	0.15	19991009	16.76853	336.65007	19.35719	4.86506	0.2392133	2.2761271	15	1	40 days	0.38			Williams		1999 VZ ₁₆
1999 VD ₁₇	17.7	0.15	19991009	38.52462	318.33049	5.71328	3.09763	0.2486859	2.3466589	20	1	40 days	0.47			Spahr		1999 VD ₁₇
1999 VL ₁₇	17.4	0.15	19991029	354.69133	18.32052	22.15759	6.71419	0.1674464	2.3870497	20	1	26 days	0.31			Williams		1999 VL ₁₇
1999 VA ₁₈	19.2	0.15	19991029	42.40437	43.99849	286.76835	1.47364	0.2164481	2.2323885	12	1	13 days	0.18			Spahr		1999 VA ₁₈
1999 VH ₁₈	14.8	0.15	19991009	267.82802	110.88299	25.37329	11.98154	0.1272636	3.1709210	28	1	40 days	0.36			Williams		1999 VH ₁₈
1999 VT ₁₈	17.4	0.15	19991009	60.19564	50.17271	247.25987	2.72403	0.2736347	2.6227000	13	1	40 days	0.27			Williams		1999 VT ₁₈
1999 VE ₁₉	14.2	0.15	20000226	327.20153	67.08258	57.34028	6.62963	0.0465685	2.2041470	82	2	1986–2000	0.46	M-v	4	Williams	38103	1999 VE ₁₉
1999 VF ₁₉	15.3	0.15	20000226	4.23243	210.44779	233.68720	3.35056	0.1433486	2.6324291	70	4	1971–2000	0.64	M-v	2	Spahr	38103	1999 VF ₁₉
1999 VJ ₁₉	15.1	0.15	20000226	86.00185	272.76844	79.52414	4.76218	0.1717480	2.2307553	66	2	1998–2000	0.53	M-v	4	Williams	38103	1999 VJ ₁₉
1999 VL ₁₉	15.8	0.15	19991029	13.48535	135.59559	238.17315	1.71358	0.1871012	2.5619183	43	1	55 days	1.09			Williams		1999 VL ₁₉
1999 VO ₁₉	15.7	0.15	19991029	36.33600	281.57115	66.39876	9.99759	0.2203961	2.5362292	24	1	28 days	0.62			Williams		1999 VO ₁₉
1999 VS ₁₉	13.2	0.15	20000226	21.82983	184.70089	230.55174	11.56439	0.1460301	3.1366098	67	1	112 days	0.46	M-v	3	Spahr	38104	1999 VS ₁₉
1999 VW ₁₉	14.8	0.15	19991029	333.90395	318.54070	114.71485	2.13190	0.1680127	3.1739236	28	1	28 days	0.93			Williams		1999 VW ₁₉
1999 VX ₁₉	13.5	0.15	20000226	87.22285	220.43116	90.83869	3.76801	0.2832366	3.0845970	83	1	118 days	0.53	M-v	4	Spahr	38104	1999 VX ₁₉
1999 VZ ₁₉	16.5	0.15	19991029	50.09837	288.18643	33.41682	5.69649	0.2148519	2.2798166	33	1	27 days	0.53			Williams		1999 VZ ₁₉
1999 VJ ₂₀	13.8	0.15	20000226	45.03779	31.82468	332.13065	12.40925	0.1718011	2.6639264	54	2	1990–2000	0.51	M-v	3	Williams	38104	1999 VJ ₂₀
1999 VK ₂₀	13.5	0.15	20000226	2.66010	81.77493	340.83884	15.31286	0.2350419	3.0928027	32	1	145 days	0.56	M-v	4	Williams	38104	1999 VK ₂₀
1999 VL ₂₀	14.1	0.15	20000226	11.99557	112.14353	306.77452	11.10786	0.2483827	2.6244212	51	1	192 days	0.42	M-v	3	Williams	38104	1999 VL ₂₀
1999 VM ₂₀	12.8	0.15	20000226	333.02278	139.66210	320.09914	12.70482	0.1245348	2.6711146	39	1	146 days	0.50	M-v	4	Williams	38104	1999 VM ₂₀
1999 VP ₂₀	13.8	0.15	20000226	337.24630	161.31822	307.78618	9.82169	0.2350704	2.6938556	46	1	146 days	0.61	M-v	4	Williams	38104	1999 VP ₂₀
1999 VQ ₂₀	14.6	0.15	20000226	61.58534	358.10081	353.05036	10.84582	0.2233714	2.3822203	17	1	82 days	0.53	M-v	6	Williams		1999 VQ ₂₀
1999 VT ₂₀	15.0	0.15	20000226	354.35018	106.73145	2.01465	3.62085	0.1337835	2.2569997	56	1	119 days	0.57	M-v	4	Williams	38104	1999 VT ₂₀
1999 VU ₂₀	14.1	0.15	20000226	308.01495	106.80846	48.24813	4.09337	0.0818478	2.2501914	71	4	1982–2000	0.59	M-v	2	Williams	38104	1999 VU ₂₀
1999 VB ₂₁	14.2	0.15	20000226	325.63137	62.50754	84.82625	7.98627	0.1384952	2.3368184	81	1	99 days	0.56	M-v	4	Williams	38104	1999 VB ₂₁
1999 VE ₂₁	13.3	0.15	20000226	61.12975	144.40517	207.79924	15.47445	0.1162861	3.0954488	91	2	1977–2000	0.66	M-v	4	Williams	38104	1999 VE ₂₁
1999 VG ₂₁	16.3	0.15	20000226	73.68400	117.60198	223.26227	3.78010	0.1585819	2.1601452	38	1	66 days	0.53	M-v	5	Williams		1999 VG ₂₁
1999 VH ₂₁	14.1	0.15	20000226	355.11635	222.82260	209.91418	11.14517	0.1721411	2.6992506	57	1	98 days	0.49	M-v	4	Williams	38104	1999 VH ₂₁
1999 VJ ₂₁	15.9	0.15	20000226	13.35235	216.15494	200.13221	2.12182	0.1874357	2.4413840	28	2	1995–1999	0.44	M-v	5	Williams	37830	1999 VJ ₂₁
1999 VK ₂₁	14.2	0.15	20000226	29.26499	150.27609	327.13420	5.53417	0.1770156	2.5312963	70	2	1998–2000	0.62	M-v	4	Williams	38104	1999 VK ₂₁
1999 VR ₂₁	14.2	0.15	20000226	286.04256	328.96119	194.89088	6.41634	0.1347923	2.5539605	60	3	1995–1999	0.66	M-v	3	Williams	38104	1999 VR ₂₁

1999 VS ₂₁	13.2	0.15	20000226	83.11595	226.24063	97.48831	5.54088	0.1934678	3.0976220	79	2	1998–2000	0.58	M-v	3	Williams	38104	1999 VS ₂₁
1999 VT ₂₁	15.5	0.15	19991029	33.24900	241.52277	105.20312	4.08974	0.2887712	2.6813725	38	1	53 days	0.71			Williams		1999 VT ₂₁
1999 VB ₂₂	15.3	0.15	20000226	114.32501	100.92584	210.32846	0.82558	0.0547021	2.4926391	55	2	1994–1999	0.59	M-v	5	Williams	38105	1999 VB ₂₂
1999 VC ₂₂	15.2	0.15	20000226	37.47866	254.63893	139.66518	3.22575	0.1822557	2.4540361	51	1	79 days	0.52	M-v	4	Williams	38105	1999 VC ₂₂
1999 VT ₂₂	13.4	0.15	20000226	354.72416	115.88961	329.07933	8.51559	0.1410735	2.6539455	55	2	1992–2000	0.58	M-v	3	Williams	38105	1999 VT ₂₂
1999 VV ₂₂	13.6	0.15	20000226	294.99018	317.08184	221.46602	36.29035	0.1340453	2.7493653	33	1	89 days	0.54	M-v	5	Williams		1999 VV ₂₂
1999 VY ₂₂	14.8	0.15	20000226	42.09676	244.25451	139.25708	2.31892	0.1976465	2.5158611	65	4	1991–2000	0.56	M-v	2	Williams	38105	1999 VY ₂₂
1999 VZ ₂₂	14.8	0.15	20000226	60.84951	273.62857	103.67315	4.47085	0.1068756	2.2729491	73	3	1995–2000	0.46	M-v	3	Williams	38105	1999 VZ ₂₂
1999 VE ₂₃	12.9	0.15	20000226	30.30217	330.02542	64.81811	9.83273	0.2018170	2.5874014	63	2	1978–2000	0.40	M-v	2	Williams	38105	1999 VE ₂₃
1999 VO ₂₃	13.7	0.15	20000226	39.89004	172.85076	206.33913	15.18860	0.1994967	2.6212806	80	3	1986–2000	0.58	M-v	2	Williams	38105	1999 VO ₂₃
1999 VP ₂₃	13.2	0.15	20000226	60.71901	272.24983	76.17098	13.59332	0.2078718	2.6771390	84	3	1977–2000	0.49	M-v	2	Spahr	38105	1999 VP ₂₃
1999 VR ₂₃	14.4	0.15	20000226	67.41264	275.94587	71.43082	6.68612	0.2081807	2.4462430	90	2	1998–2000	0.56	M-v	3	Williams	38105	1999 VR ₂₃
1999 VT ₂₃	13.7	0.15	20000226	97.77450	163.74241	149.24562	6.52392	0.1928483	2.2672273	61	2	1998–2000	0.63	M-v	4	Williams	38105	1999 VT ₂₃
1999 VU ₂₃	13.0	0.15	20000226	342.92685	274.07176	186.75430	11.02877	0.1374936	2.5641379	54	1	93 days	0.52	M-v	4	Williams	38105	1999 VU ₂₃
1999 VV ₂₃	13.1	0.15	20000226	336.36754	304.31676	176.48946	9.45560	0.1760568	2.4322836	60	4	1989–2000	0.57	M-v	1	Spahr	38105	1999 VV ₂₃
1999 VW ₂₃	12.9	0.15	20000226	42.76009	218.79026	170.03628	9.48815	0.1708173	2.7797113	64	4	1971–2000	0.54	M-v	1	Spahr	38105	1999 VW ₂₃
1999 VX ₂₃	15.0	0.15	20000226	36.49513	130.88480	274.05512	6.26758	0.1892352	2.5830176	43	1	82 days	0.58	M-v	4	Williams		1999 VX ₂₃
1999 VZ ₂₃	14.2	0.15	20000226	35.62957	6.08222	48.34097	5.16084	0.1205526	2.1680463	59	2	1998–2000	0.47	M-v	3	Williams	38105	1999 VZ ₂₃
1999 VF ₂₄	12.9	0.15	20000226	31.94545	98.35487	274.85156	12.77904	0.1339285	2.5434400	57	4	1979–2000	0.43	M-v	2	Williams	38105	1999 VF ₂₄
1999 VJ ₂₄	13.3	0.15	20000226	27.57113	352.17650	48.89092	10.34621	0.2035786	2.4603088	74	1	113 days	0.47	M-v	3	Williams	38105	1999 VJ ₂₄
1999 VM ₂₄	13.8	0.15	20000226	57.74188	115.04056	261.29334	18.93348	0.0411625	2.2977466	60	2	1998–2000	0.46	M-v	3	Williams	38105	1999 VM ₂₄
1999 VN ₂₄	13.4	0.15	20000226	2.93553	286.32686	176.50190	22.97035	0.2945301	2.3165000	49	1	149 days	0.39	M-v	3	Spahr	38106	1999 VN ₂₄
1999 VO ₂₄	13.1	0.15	20000226	28.57670	167.20749	228.86535	11.30264	0.1878714	2.6731835	92	3	1964–2000	0.56	M-v	2	Williams	38106	1999 VO ₂₄
1999 VQ ₂₄	10.4	0.15	20000226	82.96590	277.29371	96.40578	13.44833	0.0817604	5.1899640	69	1	88 days	0.47	M-v	4	Williams		1999 VQ ₂₄
1999 VS ₂₄	15.2	0.15	20000226	3.62955	59.10175	41.26257	2.89664	0.1422535	2.4025413	61	3	1995–2000	0.59	M-v	2	Williams	38106	1999 VS ₂₄
1999 VT ₂₄	14.5	0.15	20000226	50.09325	268.02260	126.36926	2.77521	0.1870234	2.4166376	70	2	1995–2000	0.40	M-v	4	Spahr	38106	1999 VT ₂₄
1999 VU ₂₄	15.6	0.15	20000226	25.86973	3.65048	67.93703	26.27401	0.2205440	2.3104154	29	1	71 days	0.41	M-v	4	Williams		1999 VU ₂₄
1999 VV ₂₄	14.4	0.15	20000226	81.81333	98.88267	252.60298	9.40056	0.2364976	2.2798863	46	1	81 days	0.39	M-v	4	Williams		1999 VV ₂₄
1999 VW ₂₄	11.6	0.15	20000226	302.81674	258.48661	258.60697	19.63775	0.0675736	3.1545402	68	3	1992–2000	0.65	M-v	3	Williams	38106	1999 VW ₂₄
1999 VX ₂₄	14.7	0.15	20000226	43.80624	193.08669	211.59812	3.74347	0.2095984	2.2972079	61	4	1978–2000	0.58	M-v	3	Spahr	38106	1999 VX ₂₄
1999 VY ₂₄	13.9	0.15	20000226	307.39284	197.77875	328.66460	3.13300	0.1470124	2.5641495	61	4	1972–2000	0.77	M-v	4	Williams	38106	1999 VY ₂₄
1999 VZ ₂₄	13.5	0.15	20000226	6.44921	15.62475	77.16046	10.42145	0.1347483	2.7559752	57	1	100 days	0.66	M-v	4	Williams	38106	1999 VZ ₂₄
1999 VB ₂₅	14.1	0.15	20000226	46.64684	306.30265	90.93582	13.89183	0.1706962	2.6940946	48	1	89 days	0.54	M-v	4	Williams		1999 VB ₂₅
1999 VC ₂₅	15.1	0.15	20000226	32.94972	316.79223	102.62251	6.21619	0.1767206	2.4698308	45	2	1993–2000	0.53	M-v	3	Spahr	38106	1999 VC ₂₅
1999 VD ₂₅	13.0	0.15	20000226	120.95565	247.17782	76.02250	16.27035	0.1177777	2.6565228	64	1	100 days	0.40	M-v	4	Williams	38106	1999 VD ₂₅
1999 VH ₂₅	14.7	0.15	20000226	49.01628	19.30629	21.87191	3.24448	0.1695881	2.3314448	38	1	77 days	0.51	M-v	4	Williams		1999 VH ₂₅
1999 VJ ₂₅	14.3	0.15	20000226	90.91807	76.00831	278.21051	3.47048	0.1478674	2.2954247	43	1	89 days	0.47	M-v	4	Williams		1999 VJ ₂₅
1999 VN ₂₅	14.4	0.15	20000226	64.39293	68.04292	320.40187	3.17253	0.1067313	2.2963171	40	1	129 days	0.55	M-v	4	Williams	38106	1999 VN ₂₅
1999 VS ₂₅	17.6	0.15	19991029	54.52910	264.15058	61.38688	22.81706	0.2952727	3.2205285	9	1	6 days	0.11		E	Williams		1999 VS ₂₅
1999 VA ₂₆	14.2	0.15	20000226	327.80030	56.94107	63.96780	12.92028	0.2246094	3.0803604	50	1	76 days	0.52	M-v	4	Williams	38106	1999 VA ₂₆
1999 VB ₂₆	15.1	0.15	20000226	5.42147	213.16642	238.57792	23.91126	0.1440817	2.2544487	64	1	124 days	0.52	M-v	3	Spahr	38106	1999 VB ₂₆
1999 VD ₂₆	14.6	0.15	20000226	345.56017	223.09439	243.72126	5.53768	0.0994725	2.5682249	58	1	86 days	0.50	M-v	5	Williams		1999 VD ₂₆
1999 VJ ₂₆	15.5	0.15	20000226	342.36407	53.43950	63.09101	2.95673	0.1255809	2.3134388	63	1	92 days	0.49	M-v	5	Williams		1999 VJ ₂₆
1999 VO ₂₆	14.3	0.15	20000226	44.11154	332.51183	61.27121	3.73073	0.0969148	2.7019293	62	3	1990–2000	0.58	M-v	3	Williams	38106	1999 VO ₂₆
1999 VP ₂₆	15.7	0.15	20000226	14.19786	24.03864	53.29475	4.34548	0.1157549	2.3145897	57	2	1994–2000	0.59	M-v	4	Williams	38106	1999 VP ₂₆
1999 VU ₂₆	15.7	0.15	20000226	50.84364	130.64180	236.99262	4.24822	0.3260440	2.5684514	54	1	120 days	0.49	M-v	4	Spahr	38106	1999 VU ₂₆
1999 VJ ₂₇	15.1	0.15	20000226	31.74996	36.75412	351.97084	3.66977	0.2080438	2.5190992	55	2	1991–2000	0.51	M-v	3	Williams	37831	1999 VJ ₂₇
1999 VK ₂₇	13.3	0.15	20000226	33.29665	8.12513	8.73760	7.99874	0.1167010	3.1148977	56	1	114 days	0.50	M-v	3	Williams	38107	1999 VK ₂₇
1999 VL ₂₇	14.8	0.15	20000226	51.01164	23.12145	341.92911	3.60358	0.1645238	2.4232984	54	3	1995–2000	0.58	M-v	3	Williams	37832	1999 VL ₂₇
1999 VX ₂₇	15.4	0.15	20000226	299.72442	105.94178	59.74383	4.99786	0.2087205	2.5906603	45	1	88 days	0.61	M-v	5	Williams		1999 VX ₂₇
1999 VZ ₂₇	13.9	0.15	20000226	358.45871	134.33400	256.00225	14.49649	0.1345593	3.0856346	34	1	93 days	0.62	M-v	4	Williams		1999 VZ ₂₇
1999 VD ₂₈	14.3	0.15	20000226	101.04421	88.90039	239.23358	4.06949	0.0523603	2.7204923	55	2	1997–2000	0.58	M-v	4	Spahr	38107	1999 VD ₂₈
1999 VF ₂₈	14.1	0.15	20000226	13.66610	196.78374	235.65648	5.12835	0.1469009	2.3364239	101	1	114 days	0.40	M-v	3	Spahr	38107	1999 VF ₂₈

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1999 VK ₂₈	14.1	0.15	20000226	20.15543	173.58828	242.43811	1.64513	0.0556655	2.7086659	49	3	1992–1999	0.47	M-v	4	Williams	38107	1999 VK ₂₈
1999 VP ₂₈	14.9	0.15	20000226	359.70197	202.47609	248.98004	1.58328	0.1571593	2.3868600	70	3	1993–2000	0.55	M-v	2	Spahr	38107	1999 VP ₂₈
1999 VQ ₂₈	15.0	0.15	20000226	38.13945	158.13589	237.82939	1.56957	0.2085971	2.4270621	79	1	106 days	0.46	M-v	3	Spahr	38107	1999 VQ ₂₈
1999 VR ₂₈	17.0	0.15	19991029	40.62120	100.19362	242.24954	1.92013	0.2557519	2.3864803	25	1	14 days	0.56			Williams		1999 VR ₂₈
1999 VU ₂₈	15.3	0.15	20000226	67.17015	29.79652	326.28283	0.66756	0.1997666	2.3873574	65	1	118 days	0.44	M-v	4	Spahr	38107	1999 VU ₂₈
1999 VV ₂₈	14.2	0.15	20000226	332.85493	235.74601	237.61348	7.42826	0.0775308	2.5623972	68	1	114 days	0.50	M-v	4	Spahr	38107	1999 VV ₂₈
1999 VE ₂₉	14.7	0.15	20000226	44.97066	329.52705	49.16737	2.89720	0.2249296	2.7571963	70	1	114 days	0.52	M-v	4	Spahr	38107	1999 VE ₂₉
1999 VB ₃₁	13.8	0.15	20000226	66.52632	326.25218	49.08813	2.84808	0.0181703	2.9192674	53	3	1996–2000	0.54	M-v	3	Williams	38108	1999 VB ₃₁
1999 VC ₃₁	13.6	0.15	20000226	19.27702	195.06877	235.70788	3.83968	0.1243912	2.3668482	67	2	1977–2000	0.52	M-v	3	Spahr	38108	1999 VC ₃₁
1999 VH ₃₁	14.6	0.15	20000226	25.21373	348.37729	63.15729	10.81953	0.1818883	3.0987067	52	1	62 days	0.48	M-v	4	Williams	38108	1999 VH ₃₁
1999 VJ ₃₁	14.4	0.15	20000226	81.43905	286.49177	64.11895	10.54330	0.1532654	2.3932804	72	2	1998–2000	0.57	M-v	4	Williams	38108	1999 VJ ₃₁
1999 VL ₃₁	14.8	0.15	20000226	23.51933	226.78864	188.84383	1.45429	0.1654134	3.0462462	31	1	63 days	0.38	M-v	4	Williams	38108	1999 VL ₃₁
1999 VM ₃₁	17.4	0.15	19991118	0.88866	359.00458	60.32075	6.22156	0.2534461	2.4055722	33	1	58 days	0.54			Williams		1999 VM ₃₁
1999 VG ₃₂	13.8	0.15	20000226	4.20976	200.27890	233.60947	10.10544	0.1332238	3.1468831	55	1	92 days	0.48	M-v	4	Williams		1999 VG ₃₂
1999 VE ₃₃	14.1	0.15	20000226	34.11065	0.26104	41.32642	3.92195	0.1291274	2.9245784	51	1	88 days	0.56	M-v	4	Williams		1999 VE ₃₃
1999 VD ₃₄	14.4	0.15	20000226	45.89963	320.25816	61.30374	9.05392	0.2404932	2.7917347	49	1	92 days	0.43	M-v	4	Williams		1999 VD ₃₄
1999 VE ₃₄	15.3	0.15	20000226	97.96440	98.42791	236.45374	4.78210	0.1441627	2.3537145	40	1	98 days	0.54	M-v	5	Spahr	38109	1999 VE ₃₄
1999 VF ₃₄	14.1	0.15	20000226	312.62006	93.81313	55.83313	5.90791	0.1471153	2.6926338	57	1	66 days	0.54	M-v	5	Williams	38109	1999 VF ₃₄
1999 VJ ₃₄	14.6	0.15	20000226	14.99677	197.34391	237.62788	5.09498	0.1410241	2.5658457	67	2	1995–2000	0.56	M-v	3	Williams	38109	1999 VJ ₃₄
1999 VM ₃₄	13.5	0.15	20000226	343.46174	228.34080	248.30309	12.55462	0.1275186	2.5869042	68	2	1998–2000	0.52	M-v	3	Spahr	38109	1999 VM ₃₄
1999 VO ₃₄	14.1	0.15	20000226	52.62802	136.81609	247.87090	11.12033	0.1620663	2.6793125	49	1	92 days	0.40	M-v	4	Spahr	38109	1999 VO ₃₄
1999 VP ₃₄	13.2	0.15	20000226	52.53732	139.24546	248.97495	11.80042	0.1143308	2.7400140	51	1	92 days	0.44	M-v	4	Spahr	38109	1999 VP ₃₄
1999 VX ₃₄	14.1	0.15	20000226	166.87387	30.79415	243.47811	5.52274	0.1893183	2.3014287	57	1	69 days	0.57	M-v	5	Williams	38109	1999 VX ₃₄
1999 VZ ₃₄	14.5	0.15	20000226	197.56619	190.82465	65.65423	4.21319	0.0733259	2.1396648	69	2	1998–2000	0.57	M-v	3	Williams	38109	1999 VZ ₃₄
1999 VA ₃₅	15.2	0.15	20000226	74.83575	297.08605	58.95452	6.89191	0.1922094	2.4433090	36	1	62 days	0.54	M-v	5	Williams	38109	1999 VA ₃₅
1999 VB ₃₅	14.1	0.15	20000226	308.12848	93.53601	59.03796	2.40362	0.0955875	2.5688175	69	3	1997–2000	0.49	M-v	3	Williams	38109	1999 VB ₃₅
1999 VE ₃₅	14.0	0.15	20000226	135.88682	237.15401	64.12436	4.39196	0.1202735	2.5247173	63	3	1995–2000	0.60	M-v	4	Williams	38109	1999 VE ₃₅
1999 VT ₃₅	15.0	0.15	20000226	351.27327	31.06507	80.92549	2.58964	0.1134402	2.2079487	58	4	1971–2000	0.71	M-v	2	Williams	38110	1999 VT ₃₅
1999 VU ₃₅	14.0	0.15	20000226	30.61827	337.92639	78.56314	2.00690	0.1393378	2.5576230	74	3	1984–2000	0.58	M-v	3	Williams	38110	1999 VU ₃₅
1999 VZ ₃₅	14.6	0.15	20000226	320.07097	90.33886	60.97217	5.65841	0.1652711	2.4016921	49	1	100 days	0.41	M-v	4	Williams	38110	1999 VZ ₃₅
1999 VA ₃₆	13.6	0.15	20000226	124.98991	257.89230	59.12015	2.83275	0.0558731	2.8648468	65	3	1997–2000	0.57	M-v	3	Williams	38110	1999 VA ₃₆
1999 VB ₃₆	14.7	0.15	20000226	31.95965	148.83375	268.24360	1.37443	0.1741930	2.4365297	60	1	92 days	0.50	M-v	4	Spahr	38110	1999 VB ₃₆
1999 VD ₃₆	13.8	0.15	20000226	0.20667	208.11452	247.54376	13.29765	0.0978068	2.5952925	76	1	121 days	0.39	M-v	3	Spahr	38110	1999 VD ₃₆
1999 VG ₃₆	14.6	0.15	20000226	25.35495	178.89138	248.17556	6.07115	0.1633443	2.4463584	62	2	1979–2000	0.43	M-v	3	Spahr	38110	1999 VG ₃₆
1999 VH ₃₆	14.1	0.15	20000226	8.74886	176.61736	265.50000	1.16033	0.1490222	3.0658115	49	3	1993–2000	0.62	M-v	4	Williams	38110	1999 VH ₃₆
1999 VL ₃₆	14.2	0.15	20000226	15.72009	196.38222	237.91171	3.07379	0.1031581	2.7802146	40	1	92 days	0.49	M-v	4	Spahr	38110	1999 VL ₃₆
1999 VN ₃₆	14.1	0.15	20000226	351.82376	64.39996	59.63770	7.64104	0.3023799	2.5685321	69	1	100 days	0.45	M-v	4	Williams	38110	1999 VN ₃₆
1999 VO ₃₆	13.0	0.15	20000226	344.81819	51.78736	64.87303	13.61678	0.1454309	2.6907489	66	1	100 days	0.44	M-v	4	Williams	38110	1999 VO ₃₆
1999 VP ₃₆	13.1	0.15	20000226	318.74593	55.99455	83.23124	2.13156	0.1084397	3.1734889	69	3	1996–2000	0.68	M-v	3	Williams	38110	1999 VP ₃₆
1999 VS ₃₆	14.3	0.15	20000226	31.57587	329.76921	84.59149	3.12950	0.0842460	2.8351251	55	4	1989–2000	0.66	M-v	2	Spahr	38110	1999 VS ₃₆
1999 VW ₃₆	14.6	0.15	20000226	328.91265	72.45805	64.27637	8.75212	0.1217529	2.4755773	58	1	88 days	0.44	M-v	4	Williams	38110	1999 VW ₃₆
1999 VA ₃₇	13.4	0.15	20000226	280.36183	115.58550	68.07851	17.69701	0.1058487	2.5803751	77	2	1997–2000	0.58	M-v	3	Williams	38110	1999 VA ₃₇
1999 VD ₃₇	14.9	0.15	20000226	20.93836	14.50652	58.04331	5.86209	0.2231383	2.5415420	82	2	1997–2000	0.46	M-v	3	Williams	38110	1999 VD ₃₇
1999 VF ₃₇	14.2	0.15	20000226	96.56133	80.95382	247.50712	12.30898	0.2542889	2.4539041	58	4	1991–2000	0.52	M-v	2	Spahr	38110	1999 VF ₃₇
1999 VG ₃₇	15.8	0.15	20000226	39.55399	160.17639	249.39430	6.27386	0.2122741	2.2718847	40	1	91 days	0.39	M-v	4	Spahr	38110	1999 VG ₃₇
1999 VM ₃₇	13.7	0.15	20000226	113.85652	87.84709	241.34766	8.83093	0.1064129	2.4843482	42	1	92 days	0.37	M-v	4	Spahr	38110	1999 VM ₃₇
1999 VO ₃₇	14.3	0.15	20000226	29.60452	353.81968	67.74954	15.43163	0.0597090	2.6066994	42	1	100 days	0.58	M-v	4	Williams	38110	1999 VO ₃₇
1999 VQ ₃₇	15.3	0.15	20000226	45.54526	325.83955	69.18737	8.61020	0.2535373	2.3769155	41	1	100 days	0.35	M-v	4	Williams	38110	1999 VQ ₃₇
1999 VU ₃₇	13.9	0.15	20000226	136.60935	244.24236	64.79276	7.25241	0.1246677	2.3450804	53	3	1991–2000	0.61	M-v	3	Williams	37833	1999 VU ₃₇
1999 VV ₃₇	14.7	0.15	20000226	356.11463	44.83213	68.79052	13.96753	0.2213487	2.5712093	54	1	87 days	0.55	M-v	4	Williams	38110	1999 VV ₃₇
1999 VY ₃₇	13.4	0.15	20000226	291.50524	89.40323	78.00565	5.88434	0.1419202	3.0403156	63	3	1996–2000	0.60	M-v	3	Spahr	38110	1999 VY ₃₇
1999 VH ₃₈	16.0	0.15	19991009	21.90158	325.64689	25.38448	2.54609	0.2364594	2.7009480	37	1	45 days	0.43			Williams		1999 VH ₃₈
1999 VK ₃₈	16.3	0.15	19991029	50.56870	283.42338	39.21159	3.83015	0.1999320	2.4163512	32	1	27 days	0.62			Williams		1999 VK ₃₈

1999 VL ₃₈	14.6	0.15	19991029	49.48516	121.25620	217.61596	10.02298	0.0565371	3.0008847	31	1	27 days	0.61		Williams	1999 VL ₃₈
1999 VM ₃₈	15.0	0.15	19991009	14.49201	331.70236	37.04033	1.85285	0.1527646	3.0665125	32	1	40 days	0.43		Williams	1999 VM ₃₈
1999 VZ ₃₈	14.7	0.15	20000226	57.19275	139.07595	239.62728	2.41310	0.1690541	2.3316760	57	1	96 days	0.46	M-v 4	Spahr	38111 1999 VZ ₃₈
1999 VU ₃₉	16.3	0.15	19991029	79.68131	92.26988	196.54845	5.21801	0.1002755	2.6791566	9	1	3 days	0.09		E Williams	1999 VU ₃₉
1999 VW ₃₉	15.0	0.15	20000226	47.34337	318.58461	32.92381	12.20405	0.2015557	2.6836973	57	2	1993–1999	0.47	M-v 3	Williams	38111 1999 VW ₃₉
1999 VJ ₄₀	15.1	0.15	20000226	131.63373	41.06727	247.19507	3.66083	0.1557018	2.3588765	68	2	1998–1999	0.64	M-v 4	Williams	38111 1999 VJ ₄₀
1999 VL ₄₀	14.4	0.15	20000226	6.57374	246.70618	265.50818	19.91012	0.3077654	2.2834132	45	1	119 days	0.53	M-v 4	Williams	1999 VL ₄₀
1999 VM ₄₀	14.5	0.15	20000226	43.43945	354.17774	51.55961	15.37658	0.4848427	2.3098062	205	1	124 days	0.56	M-v 3	Williams	38111 1999 VM ₄₀
1999 VO ₄₀	16.4	0.15	20000226	113.29194	275.61653	28.01928	5.84573	0.1583238	2.2113793	27	1	66 days	0.47	M-v 5	Williams	1999 VO ₄₀
1999 VU ₄₀	17.0	0.15	19991009	355.03477	148.53061	244.95689	1.81518	0.1655627	2.6315311	12	1	29 days	0.49		Williams	1999 VU ₄₀
1999 VH ₄₁	16.6	0.15	19991029	12.61133	332.46394	58.76831	24.54032	0.2213403	3.1516393	15	1	16 days	0.21		Williams	1999 VH ₄₁
1999 VK ₄₁	18.2	0.15	19991009	1.50439	355.59399	26.66421	7.64209	0.2167474	2.2295411	23	1	16 days	0.54		Williams	1999 VK ₄₁
1999 VW ₄₁	16.8	0.15	19991029	19.33376	116.96874	246.29647	4.82901	0.1920890	2.6568265	22	1	13 days	0.55		Williams	1999 VW ₄₁
1999 VC ₄₃	15.9	0.15	19991029	65.94358	267.29430	69.03649	9.68494	0.1030074	3.1031862	16	1	12 days	0.33		Williams	1999 VC ₄₃
1999 VP ₄₃	16.1	0.15	19991009	357.86776	2.45595	19.37242	3.57756	0.0225022	2.2538377	28	1	43 days	0.55		Williams	1999 VP ₄₃
1999 VV ₄₃	14.7	0.15	19991029	40.41262	286.77500	29.53627	13.68763	0.2885521	3.1886067	21	1	15 days	0.41		Williams	1999 VV ₄₃
1999 VX ₄₃	14.8	0.15	20000226	341.26594	63.60860	34.09016	6.35422	0.1669717	2.2608717	52	1	96 days	0.51	M-v 4	Williams	38112 1999 VX ₄₃
1999 VZ ₄₃	17.2	0.15	19991009	8.46050	124.56161	246.22425	1.68613	0.2071216	2.4309276	27	1	43 days	0.54		Williams	1999 VZ ₄₃
1999 VA ₄₄	15.9	0.15	19991009	6.92308	150.54769	225.47317	3.42786	0.1162050	2.3706511	32	1	45 days	0.50		Williams	1999 VA ₄₄
1999 VF ₄₄	15.4	0.15	19991009	22.28894	136.19771	216.00178	9.38394	0.2272340	3.1428540	36	1	39 days	0.56		Williams	1999 VF ₄₄
1999 VH ₄₄	16.0	0.15	20000226	40.77127	357.65588	9.10927	4.48556	0.2938191	2.6666953	41	1	71 days	0.47	M-v 4	Williams	1999 VH ₄₄
1999 VJ ₄₄	16.4	0.15	19991029	358.75656	171.52965	222.45688	17.31004	0.1934525	2.6356717	24	1	13 days	0.56		Williams	1999 VJ ₄₄
1999 VV ₄₄	15.1	0.15	20000226	86.66663	322.98414	345.70661	7.37003	0.2272792	2.3841947	46	2	1998–1999	0.60	M-v 4	Williams	38113 1999 VV ₄₄
1999 VE ₄₅	16.3	0.15	19991029	291.28655	220.82365	247.97089	5.69180	0.0756633	2.3265787	22	1	12 days	0.53		Williams	1999 VE ₄₅
1999 VA ₄₆	16.7	0.15	19991029	342.55289	205.68131	220.12498	36.38973	0.3472034	2.5970584	16	1	12 days	0.45		Williams	1999 VA ₄₆
1999 VF ₄₆	17.0	0.15	19991029	44.55899	304.91939	32.16636	12.33577	0.2145496	2.2945334	17	1	11 days	0.57		Williams	1999 VF ₄₆
1999 VJ ₄₆	16.3	0.15	19991118	254.85230	124.24751	38.23259	21.40519	0.0724733	1.9685352	30	1	40 days	0.46		Williams	1999 VJ ₄₆
1999 VN ₄₆	17.2	0.15	19991029	27.90823	130.46229	234.65167	20.00703	0.1641823	1.9096454	19	1	13 days	0.55		Williams	1999 VN ₄₆
1999 VB ₄₇	17.5	0.15	19991029	349.59023	11.97364	45.19713	11.04845	0.2404379	2.4821723	37	1	49 days	0.62		Williams	1999 VB ₄₇
1999 VC ₄₇	13.9	0.15	20000226	40.24098	336.15852	46.81984	14.24084	0.1887443	2.6212767	99	1	140 days	0.44	M-v 3	Williams	38113 1999 VC ₄₇
1999 VD ₄₇	16.9	0.15	19991029	355.30460	3.19215	46.81092	15.02755	0.2456782	2.6817164	49	1	49 days	0.48		Williams	1999 VD ₄₇
1999 VE ₄₇	14.2	0.15	20000226	43.02634	331.12689	51.06627	14.50043	0.1638785	2.5461754	64	1	140 days	0.37	M-v 3	Williams	38113 1999 VE ₄₇
1999 VF ₄₇	14.2	0.15	20000226	49.41128	319.33960	56.36805	14.82752	0.2043569	2.5281520	69	3	1991–2000	0.49	M-v 3	Williams	38113 1999 VF ₄₇
1999 VN ₄₇	13.6	0.15	20000226	82.70962	41.03171	286.98286	11.86131	0.1854045	2.6244450	30	1	89 days	0.48	M-v 4	Williams	1999 VN ₄₇
1999 VE ₄₈	13.9	0.15	20000226	50.10825	41.61361	317.46871	8.23123	0.1776329	2.7847640	36	1	70 days	0.37	M-v 4	Williams	38113 1999 VE ₄₈
1999 VH ₄₈	14.7	0.15	20000226	31.42559	129.09536	263.57545	4.55503	0.1821515	2.5613169	56	2	1993–2000	0.52	M-v 3	Williams	38113 1999 VH ₄₈
1999 VT ₄₈	13.9	0.15	20000226	343.71378	92.73703	6.17129	10.12656	0.1501272	2.8911949	37	1	89 days	0.58	M-v 5	Williams	38113 1999 VT ₄₈
1999 VU ₄₈	14.3	0.15	20000226	30.32135	32.42872	17.95641	7.24534	0.1029862	2.3412699	52	1	120 days	0.44	M-v 3	Williams	38113 1999 VU ₄₈
1999 VK ₄₉	14.2	0.15	20000226	173.82667	230.82242	25.13684	7.19654	0.1377867	2.2482267	82	2	1998–2000	0.54	M-v 3	Williams	38114 1999 VK ₄₉
1999 VM ₄₉	17.0	0.15	20000226	41.43388	146.46690	238.70712	5.85067	0.2421322	2.3788178	32	2	1997–1999	0.46	M-v 4	Williams	37834 1999 VM ₄₉
1999 VR ₄₉	14.4	0.15	20000226	58.70007	98.43178	273.37763	5.23048	0.0478923	2.7204874	39	1	92 days	0.55	M-v 5	Williams	1999 VR ₄₉
1999 VU ₄₉	15.7	0.15	19991029	23.95875	324.01430	40.32461	6.80660	0.2537026	2.5336882	20	1	13 days	0.32		Williams	1999 VU ₄₉
1999 VB ₅₀	14.4	0.15	20000226	16.06889	33.44271	34.13950	7.39823	0.0892549	2.3427099	62	1	117 days	0.47	M-v 3	Williams	38114 1999 VB ₅₀
1999 VH ₅₀	13.0	0.15	20000226	348.84788	52.13529	38.84568	10.49164	0.0610837	2.7693822	49	1	89 days	0.41	M-v 5	Williams	1999 VH ₅₀
1999 VN ₅₀	14.7	0.15	20000226	300.24002	114.87210	39.86986	6.20901	0.1229627	2.5497106	50	1	89 days	0.52	M-v 5	Williams	1999 VN ₅₀
1999 VO ₅₀	13.1	0.15	20000226	358.25960	71.12485	9.12944	1.96363	0.0347814	2.9080867	106	2	1998–2000	0.52	M-v 3	Spahr	38114 1999 VO ₅₀
1999 VV ₅₀	14.8	0.15	20000226	91.57425	69.76332	266.98959	2.65562	0.1719802	2.2266196	61	2	1998–2000	0.56	M-v 4	Williams	38114 1999 VV ₅₀
1999 VW ₅₀	14.1	0.15	20000226	343.94281	54.60910	45.43035	8.60170	0.0516481	2.7357325	51	2	1997–2000	0.56	M-v 4	Williams	37834 1999 VW ₅₀
1999 VV ₅₁	14.8	0.15	19991029	58.79266	323.65156	13.83815	1.78544	0.1080786	2.9238603	23	1	13 days	0.65		Williams	1999 VV ₅₁
1999 VB ₅₂	15.4	0.15	19991029	130.07043	28.34167	243.19759	7.74796	0.0903109	2.7502692	16	1	13 days	0.68		Williams	1999 VB ₅₂
1999 VH ₅₂	16.6	0.15	19991029	35.19634	313.71186	38.41770	12.52828	0.2393181	2.5721002	16	1	13 days	0.60		Williams	1999 VH ₅₂
1999 VK ₅₂	13.9	0.15	20000226	53.35736	331.91698	48.89067	12.02298	0.1178493	3.0452700	46	1	117 days	0.58	M-v 4	Williams	38114 1999 VK ₅₂
1999 VO ₅₂	14.1	0.15	20000226	68.30878	294.23658	72.70161	11.72674	0.1957120	2.5668799	37	1	100 days	0.49	M-v 4	Williams	38115 1999 VO ₅₂

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1999 VQ ₅₂	15.3	0.15	20000226	33.46659	340.12164	73.79758	7.03601	0.2234410	2.5734853	60	1	88 days	0.50	M-v	4	Williams	38115	1999 VQ ₅₂
1999 VR ₅₂	16.1	0.15	20000226	12.72247	217.15394	238.62427	19.19879	0.0909546	1.9593806	42	1	95 days	0.55	M-v	4	Spahr	38115	1999 VR ₅₂
1999 VT ₅₂	12.5	0.15	20000226	170.99195	199.24579	78.02590	14.52042	0.1351116	2.6488229	55	1	100 days	0.58	M-v	4	Williams	38115	1999 VT ₅₂
1999 VU ₅₂	15.6	0.15	20000226	25.67731	186.01383	240.65626	9.71983	0.3493731	2.6860508	32	1	69 days	0.43	M-v	4	Williams	38115	1999 VU ₅₂
1999 VX ₅₂	14.3	0.15	20000226	338.93606	255.64239	246.28228	5.25066	0.1091948	2.2793224	32	1	99 days	0.41	M-v	4	Spahr	38115	1999 VX ₅₂
1999 VY ₅₂	13.4	0.15	20000226	20.83699	185.53996	253.76072	13.47622	0.3753701	2.7757306	52	2	1976–2000	0.29	M-v	2	Williams	37834	1999 VY ₅₂
1999 VZ ₅₂	11.5	0.15	20000226	96.81670	275.21171	84.27373	22.75247	0.0754767	3.1866551	49	1	88 days	0.40	M-v	4	Williams	38115	1999 VZ ₅₂
1999 VB ₅₃	14.2	0.15	20000226	335.84444	253.39200	253.17532	22.26019	0.0484302	1.9371012	66	2	1998–2000	0.55	M-v	3	Williams	38115	1999 VB ₅₃
1999 VE ₅₃	14.1	0.15	20000226	17.29226	172.93338	280.99924	4.20887	0.0747223	2.4497396	28	1	62 days	0.39	M-v	5	Williams		1999 VE ₅₃
1999 VF ₅₃	14.3	0.15	20000226	38.42971	351.96016	63.80718	5.43244	0.2651468	2.5908481	64	3	1978–2000	0.56	M-v	3	Williams	38115	1999 VF ₅₃
1999 VG ₅₃	15.0	0.15	19991029	25.24046	350.30358	29.86249	4.81507	0.1812929	2.6177991	19	1	13 days	0.56			Williams		1999 VG ₅₃
1999 VJ ₅₃	15.6	0.15	20000226	13.32969	225.20203	227.77481	6.74311	0.2120783	2.4725116	28	1	65 days	0.47	M-v	4	Williams	38115	1999 VJ ₅₃
1999 VL ₅₃	14.2	0.15	20000226	86.36697	327.19559	53.00537	2.97374	0.0531792	2.3317848	32	1	89 days	0.40	M-v	4	Williams		1999 VL ₅₃
1999 VN ₅₃	14.3	0.15	20000226	157.97037	231.15611	28.51226	5.06200	0.0695127	2.5434828	46	2	1997–1999	0.53	M-v	4	Williams	37835	1999 VN ₅₃
1999 VP ₅₃	16.7	0.15	19991029	351.96625	9.31104	36.69218	4.27686	0.1803242	2.6368083	28	1	24 days	0.43			Williams		1999 VP ₅₃
1999 VT ₅₃	15.2	0.15	19991029	353.38699	7.15168	36.25908	7.18692	0.1328056	3.0578271	31	1	27 days	0.60			Williams		1999 VT ₅₃
1999 VW ₅₃	14.7	0.15	20000226	250.00274	154.84108	31.17632	5.10809	0.1172850	2.3288909	39	1	67 days	0.61	M-v	5	Williams		1999 VW ₅₃
1999 VB ₅₄	13.8	0.15	19991029	221.75977	142.45956	37.63948	12.19485	0.1010714	3.1727993	27	1	12 days	0.62			Williams		1999 VB ₅₄
1999 VC ₅₄	15.7	0.15	19991009	29.43541	317.87002	35.36800	5.35745	0.1100687	2.6219724	37	1	44 days	0.58			Williams		1999 VC ₅₄
1999 VD ₅₄	14.9	0.15	19991029	72.82843	293.62785	12.45228	0.52238	0.1425860	3.2229441	19	1	25 days	0.49			Williams		1999 VD ₅₄
1999 VE ₅₄	15.6	0.15	19991029	21.50570	333.33075	37.83092	11.09823	0.0515633	3.0958774	20	1	25 days	0.74			Williams		1999 VE ₅₄
1999 VF ₅₄	16.0	0.15	19991009	18.64719	140.17064	221.77660	1.38362	0.1763567	2.5540174	30	1	44 days	0.34			Williams		1999 VF ₅₄
1999 VG ₅₄	16.9	0.15	20000226	4.38041	46.79007	30.42756	1.12404	0.1792471	2.3092712	30	2	1997–1999	0.57	M-v	5	Williams	37835	1999 VG ₅₄
1999 VJ ₅₄	15.6	0.15	19991029	145.60093	209.76769	39.15066	2.33897	0.0148326	2.6655296	20	1	25 days	0.68			Williams		1999 VJ ₅₄
1999 VM ₅₄	14.9	0.15	20000226	15.09192	5.75095	39.42438	0.68367	0.1880790	3.1186002	42	1	62 days	0.39	M-v	4	Williams		1999 VM ₅₄
1999 VN ₅₄	15.2	0.15	20000226	148.04082	230.07977	39.56031	7.51842	0.1332515	2.2545632	60	2	1998–1999	0.56	M-v	4	Williams	38115	1999 VN ₅₄
1999 VO ₅₄	16.6	0.15	19991009	13.99985	153.74724	212.82228	3.51337	0.2234937	2.7750144	33	1	41 days	0.55			Williams		1999 VO ₅₄
1999 VV ₅₄	16.6	0.15	20000226	34.91334	351.38013	42.05677	2.95210	0.2127488	2.3304361	46	1	63 days	0.51	M-v	4	Williams		1999 VV ₅₄
1999 VX ₅₄	14.8	0.15	20000226	226.96684	64.24936	141.69862	0.77272	0.1512287	2.3430268	38	3	1995–1999	0.68	M-v	5	Williams	37835	1999 VX ₅₄
1999 VY ₅₄	15.9	0.15	20000226	113.53539	118.19039	175.36544	0.92735	0.1875088	2.3800079	36	2	1998–1999	0.79	M-v	4	Williams	37835	1999 VY ₅₄
1999 VA ₅₅	15.7	0.15	19991029	42.05942	296.25571	40.03081	14.22549	0.1968720	2.7059555	30	1	48 days	0.50			Williams		1999 VA ₅₅
1999 VE ₅₅	14.5	0.15	20000226	60.13901	303.00687	40.20075	1.23937	0.1778932	3.0840469	43	1	64 days	0.62	M-v	4	Williams		1999 VE ₅₅
1999 VQ ₅₅	15.9	0.15	19991029	35.30492	306.65799	35.84479	0.85104	0.2280550	2.3284308	23	1	12 days	0.44			Williams		1999 VQ ₅₅
1999 VU ₅₅	14.4	0.15	20000226	34.75204	187.88911	197.06556	1.65112	0.0598011	2.8791662	44	2	1996–1999	0.52	M-v	4	Williams	37836	1999 VU ₅₅
1999 VY ₅₅	15.6	0.15	19991009	46.62705	113.87868	211.08768	6.87577	0.1970684	2.5434808	37	1	45 days	0.43			Williams		1999 VY ₅₅
1999 VE ₅₆	14.5	0.15	19991029	258.10683	110.63755	45.43682	9.16077	0.1586828	2.8063939	38	1	48 days	0.74			Williams		1999 VE ₅₆
1999 VH ₅₆	15.3	0.15	20000226	133.73788	237.69983	47.65133	7.68845	0.0965603	2.3877332	36	1	67 days	0.57	M-v	5	Williams		1999 VH ₅₆
1999 VJ ₅₆	15.5	0.15	19991029	334.80648	223.04749	208.80363	5.35999	0.1581688	2.3778980	29	1	45 days	0.54			Williams		1999 VJ ₅₆
1999 VL ₅₆	16.0	0.15	20000226	51.05970	315.83417	50.47357	3.30911	0.2276350	2.4074079	43	1	64 days	0.40	M-v	4	Williams		1999 VL ₅₆
1999 VN ₅₆	14.7	0.15	20000226	36.16371	345.55501	47.32711	7.19621	0.0982779	2.3774434	57	1	78 days	0.50	M-v	4	Williams	38116	1999 VN ₅₆
1999 VP ₅₆	14.3	0.15	20000226	187.60588	178.82109	58.49237	3.80296	0.0256916	2.6269288	37	4	1978–1999	0.65	M-v	2	Williams	38116	1999 VP ₅₆
1999 VS ₅₆	14.2	0.15	20000226	357.61600	266.12058	169.56009	1.39302	0.2203246	3.1005524	57	2	1998–2000	0.51	M-v	3	Williams	38116	1999 VS ₅₆
1999 VT ₅₆	15.1	0.15	20000226	54.86851	214.96894	146.37747	1.01239	0.1829287	2.5200060	36	1	62 days	0.47	M-v	4	Williams		1999 VT ₅₆
1999 VY ₅₆	15.6	0.15	19991029	4.06221	217.03181	176.10437	2.14059	0.1198408	2.9305067	25	1	28 days	0.66			Williams		1999 VY ₅₆
1999 VK ₅₇	16.2	0.15	19991029	206.43923	149.85605	44.89469	4.89870	0.1022151	2.3087291	20	1	25 days	0.58			Williams		1999 VK ₅₇
1999 VQ ₅₈	13.0	0.15	20000226	4.18344	16.01059	52.70082	14.29301	0.0797819	3.1973432	88	1	119 days	0.45	M-v	3	Spahr	38117	1999 VQ ₅₈
1999 VS ₅₈	15.1	0.15	20000226	95.09948	282.27060	49.69378	6.51784	0.1185526	2.3811830	59	2	1998–2000	0.53	M-v	3	Spahr	38117	1999 VS ₅₈
1999 VU ₅₉	16.2	0.15	19991009	47.78278	104.78651	222.35535	4.70623	0.1864285	2.6217118	35	1	39 days	0.59			Williams		1999 VU ₅₉
1999 VB ₆₀	14.7	0.15	20000226	13.43592	188.95822	222.24161	8.28463	0.1514923	3.0912893	43	1	83 days	0.54	M-v	4	Williams	38117	1999 VB ₆₀
1999 VG ₆₀	14.9	0.15	19991029	316.59666	45.12313	45.50664	11.90291	0.0912759	2.9676627	21	1	25 days	0.46			Williams		1999 VG ₆₀
1999 VL ₆₀	16.4	0.15	19991029	345.03748	18.60976	44.34636	9.04670	0.2218906	2.8120306	37	1	48 days	0.70			Williams		1999 VL ₆₀
1999 VT ₆₀	15.1	0.15	19991029	309.81635	34.10541	55.90210	5.68360	0.0079955	2.8136432	26	1	48 days	0.61			Williams		1999 VT ₆₀
1999 VY ₆₀	13.5	0.15	20000226	272.27733	121.46166	48.03250	16.10553	0.1689701	2.7604273	44	1	86 days	0.50	M-v	4	Williams	38117	1999 VY ₆₀

1999 VA ₆₁	14.5	0.15	19991029	36.89991	306.80753	50.94498	12.79590	0.0763284	2.9354564	20	1	48 days	0.67	Williams		1999 VA ₆₁
1999 VP ₆₁	13.0	0.15	20000226	23.03835	185.99483	201.46346	2.32373	0.2519581	3.9597456	47	1	96 days	0.53	M-v 3 Williams	38118	1999 VP ₆₁
1999 VS ₆₁	13.9	0.15	20000226	304.82644	112.06021	16.86024	1.31504	0.1017405	3.1055542	37	4	1993–1999	0.48	M-v 1 Williams	37837	1999 VS ₆₁
1999 VV ₆₁	14.6	0.15	20000226	281.49444	283.11337	227.24410	4.32723	0.0620078	2.8540156	32	1	62 days	0.44	M-v 5 Williams		1999 VV ₆₁
1999 VE ₆₂	17.2	0.15	19991029	333.19636	210.48658	227.11936	0.54440	0.1583755	2.4063429	26	1	49 days	0.43	Williams		1999 VE ₆₂
1999 VR ₆₂	12.8	0.15	20000226	47.83071	308.46519	53.16441	5.52117	0.1953381	3.1541494	71	5	1982–2000	0.58	M-v 1 Williams	38118	1999 VR ₆₂
1999 VT ₆₂	15.9	0.15	19991029	312.01916	52.55171	49.96302	11.08743	0.1341722	2.5792775	33	1	48 days	0.68	Williams		1999 VT ₆₂
1999 VV ₆₂	15.2	0.15	20000226	25.40938	351.37116	53.06176	10.89679	0.1797339	2.6502356	37	1	78 days	0.47	M-v 3 Williams	38118	1999 VV ₆₂
1999 VX ₆₂	15.0	0.15	20000226	58.50714	304.11284	65.07910	2.24421	0.1283622	2.3073426	64	2	1989–2000	0.56	M-v 4 Williams	38118	1999 VX ₆₂
1999 VY ₆₂	14.8	0.15	20000226	69.42485	296.37521	47.55546	13.77303	0.1860673	2.5910945	64	1	78 days	0.52	M-v 4 Williams	38118	1999 VY ₆₂
1999 VM ₆₃	14.6	0.15	20000226	38.49445	148.31419	225.73460	6.75491	0.3667184	2.6713622	51	1	168 days	0.46	M-v 3 Williams	38118	1999 VM ₆₃
1999 VW ₆₃	16.9	0.15	19991029	106.76582	235.46711	48.76209	3.63480	0.1165405	2.2374114	29	1	49 days	0.53	Williams		1999 VW ₆₃
1999 VA ₆₄	14.2	0.15	19991029	222.55345	140.05459	48.26218	7.60100	0.0772251	3.2374949	39	1	49 days	0.63	Williams		1999 VA ₆₄
1999 VD ₆₄	14.7	0.15	20000226	349.33718	44.77622	49.89759	13.22709	0.1615542	2.6107955	67	2	1997–1999	0.46	M-v 3 Williams	38119	1999 VD ₆₄
1999 VA ₆₅	16.9	0.15	19991029	308.06741	247.16363	224.18911	1.21493	0.1516845	2.4014918	39	1	52 days	0.69	Williams		1999 VA ₆₅
1999 VG ₆₆	15.6	0.15	20000226	343.08805	43.30341	66.44767	3.27141	0.1546499	2.3576277	62	3	1993–2000	0.49	M-v 4 Spahr	38120	1999 VG ₆₆
1999 VN ₆₆	15.1	0.15	19991029	30.07544	158.09363	207.74375	3.70801	0.1671823	3.2036167	41	1	52 days	0.61	Williams		1999 VN ₆₆
1999 VO ₆₆	14.4	0.15	20000226	54.51028	296.65167	64.14335	5.13529	0.2295168	2.7490941	112	1	138 days	0.53	M-v 4 Spahr	38120	1999 VO ₆₆
1999 VU ₆₆	17.1	0.15	19991029	38.27358	291.53173	52.23465	6.96485	0.2529735	2.4840461	27	1	51 days	0.42	Williams		1999 VU ₆₆
1999 VY ₆₆	13.9	0.15	20000226	54.38636	307.45731	61.36405	2.84674	0.1169068	2.9508205	69	2	1998–2000	0.57	M-v 3 Spahr	38120	1999 VY ₆₆
1999 VA ₆₇	15.4	0.15	20000226	142.11599	219.97580	61.32444	6.20514	0.1829580	2.2902034	52	2	1998–1999	0.53	M-v 4 Williams	37838	1999 VA ₆₇
1999 VD ₆₇	16.5	0.15	19991029	264.06212	68.01143	86.27122	2.19275	0.0956189	2.2704171	20	1	52 days	0.43	Williams		1999 VD ₆₇
1999 VP ₆₇	15.2	0.15	20000226	296.23024	103.17764	55.96130	10.64204	0.1531695	2.5227063	53	2	1997–1999	0.56	M-v 4 Williams	37838	1999 VP ₆₇
1999 VQ ₆₇	13.5	0.15	20000226	206.74776	167.85669	57.06009	11.69666	0.0442924	3.2057184	47	1	109 days	0.50	M-v 4 Williams		1999 VQ ₆₇
1999 VR ₆₇	14.3	0.15	19991029	114.91121	233.29863	57.49632	12.63543	0.0426920	2.9795741	39	1	49 days	0.56	Williams		1999 VR ₆₇
1999 VF ₆₈	15.9	0.15	19991029	42.28927	129.61661	226.40965	5.49862	0.1486094	2.5853819	33	1	13 days	0.43	Williams		1999 VF ₆₈
1999 VO ₆₈	14.2	0.15	20000226	83.54327	278.15924	67.19153	10.49574	0.1457925	2.6612885	71	1	92 days	0.53	M-v 4 Williams	38120	1999 VO ₆₈
1999 VQ ₆₈	15.7	0.15	20000226	119.08539	248.42899	53.97821	7.31487	0.2014674	2.2611951	43	2	1998–1999	0.60	M-v 4 Williams	37838	1999 VQ ₆₈
1999 VS ₆₈	14.5	0.15	20000226	23.87551	352.90196	55.33561	15.71387	0.0831311	3.1710543	31	1	88 days	0.60	M-v 4 Williams		1999 VS ₆₈
1999 VT ₆₈	15.2	0.15	20000226	203.63175	17.37797	218.76957	2.03343	0.1314245	2.4070315	47	5	1994–1999	0.65	M-v 1 Williams	38120	1999 VT ₆₈
1999 VL ₆₉	13.6	0.15	20000226	38.71503	312.20870	63.34828	2.27315	0.1806394	3.1033809	75	2	1997–2000	0.46	M-v 3 Williams	38121	1999 VL ₆₉
1999 VQ ₆₉	16.0	0.15	20000226	110.71384	264.29838	40.24004	5.96637	0.1786614	2.2981598	41	2	1998–1999	0.70	M-v 4 Williams	37839	1999 VQ ₆₉
1999 VA ₇₀	16.2	0.15	19991029	133.32704	209.27484	51.34154	3.30712	0.1355539	2.3820812	30	1	49 days	0.42	Williams		1999 VA ₇₀
1999 VQ ₇₀	17.1	0.15	19991029	34.83897	301.89559	57.13715	4.08438	0.1481608	2.3386208	23	1	52 days	0.37	Williams		1999 VQ ₇₀
1999 VR ₇₀	17.7	0.15	19991029	317.26042	51.27274	50.22318	9.28662	0.1480862	2.3520716	20	1	30 days	0.52	Williams		1999 VR ₇₀
1999 VU ₇₀	17.3	0.15	19991029	349.90519	6.16452	53.73669	5.21462	0.1990733	2.3274331	35	1	52 days	0.47	Williams		1999 VU ₇₀
1999 VH ₇₁	15.8	0.15	20000226	23.81736	213.27927	207.58937	2.07574	0.1614334	2.4591983	58	1	96 days	0.44	M-v 3 Williams		1999 VH ₇₁
1999 VL ₇₁	14.9	0.15	19991029	40.80009	298.94568	48.79746	12.06058	0.1288094	2.9781971	15	1	23 days	0.45	Williams		1999 VL ₇₁
1999 VY ₇₁	13.3	0.15	20000226	17.44997	310.78872	153.91004	12.75956	0.1063728	2.6503295	64	2	1998–2000	0.44	M-v 3 Spahr	37840	1999 VY ₇₁
1999 VA ₇₂	14.4	0.15	20000226	342.32435	47.50664	105.35084	3.15401	0.1200574	2.8385441	40	2	1996–2000	0.44	M-v 4 Williams	37840	1999 VA ₇₂
1999 VB ₇₂	14.4	0.15	20000226	59.20254	302.70718	112.26485	7.06809	0.1446344	2.4588618	61	1	91 days	0.64	M-v 4 Williams	38122	1999 VB ₇₂
1999 VC ₇₂	14.7	0.15	20000226	88.42428	134.74234	249.26201	2.97273	0.1509270	2.1851034	59	3	1989–2000	0.44	M-v 4 Spahr	38122	1999 VC ₇₂
1999 VD ₇₂	14.3	0.15	20000226	73.27127	287.91251	107.61440	13.17700	0.1810379	2.5525896	65	1	91 days	0.54	M-v 4 Williams		1999 VD ₇₂
1999 VE ₇₂	14.0	0.15	20000226	96.92318	276.40963	110.37998	15.54640	0.0497155	2.5818036	45	1	91 days	0.39	M-v 4 Williams		1999 VE ₇₂
1999 VJ ₇₂	14.1	0.15	20000226	57.81619	129.60587	268.07329	7.51652	0.2864722	2.7698734	55	1	83 days	0.49	M-v 4 Williams		1999 VJ ₇₂
1999 VK ₇₂	14.7	0.15	20000226	351.68072	32.52448	114.59316	4.38588	0.1427644	2.4353036	61	1	92 days	0.49	M-v 4 Williams		1999 VK ₇₂
1999 VL ₇₂	14.7	0.15	20000226	342.20490	65.37917	43.85848	5.36185	0.1548390	2.5318919	75	3	1995–2000	0.47	M-v 2 Spahr	38122	1999 VL ₇₂
1999 VM ₇₂	13.3	0.15	20000226	152.42343	240.05035	109.82275	7.23495	0.1760514	2.4410652	31	1	89 days	0.71	M-v 5 Williams		1999 VM ₇₂
1999 VR ₇₂	14.7	0.15	20000226	36.98749	329.69859	59.97167	9.75487	0.1894521	2.5836042	102	1	143 days	0.42	M-v 3 Williams	38122	1999 VR ₇₂
1999 VY ₇₂	12.9	0.15	20000226	51.87556	253.56761	111.32297	22.24840	0.3104709	2.3632334	56	3	1992–2000	0.69	M-v 2 Spahr	37840	1999 VY ₇₂
1999 VA ₇₃	16.5	0.15	19991118	46.31749	307.66535	43.03274	3.04418	0.1919139	2.3591741	37	1	35 days	0.54	D Williams		1999 VA ₇₃
1999 VJ ₇₅	16.8	0.15	19991009	350.56364	188.61816	214.18105	3.89546	0.2052733	2.8072741	26	1	37 days	0.53	Williams		1999 VJ ₇₅
1999 VP ₇₅	17.1	0.15	19991029	169.54187	16.52965	221.23746	5.53293	0.1112159	2.3771415	12	1	11 days	0.34	Williams		1999 VP ₇₅

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1999 VQ ₇₅	18.3	0.15	19991029	16.97584	183.14489	199.69009	2.12186	0.1829143	2.6652532	9	1	11 days	0.09	Williams	1999 VQ ₇₅
1999 VR ₇₅	16.2	0.15	19991118	62.23209	187.12093	148.00118	1.12319	0.1507615	2.5875824	27	1	32 days	0.37	Williams	1999 VR ₇₅
1999 VS ₇₅	16.3	0.15	19991029	71.58516	114.93712	211.50759	3.43478	0.1034872	2.8093736	19	1	11 days	0.35	Williams	1999 VS ₇₅
1999 VV ₇₅	18.0	0.15	19991029	258.15232	316.22706	220.79901	5.71664	0.2520527	2.3421170	9	1	11 days	0.19	Williams	1999 VV ₇₅
1999 VX ₇₅	16.2	0.15	19991029	12.39387	176.78087	210.69969	3.53125	0.2869849	3.9495969	17	1	11 days	0.39	Williams	1999 VX ₇₅
1999 VB ₇₆	18.0	0.15	19991029	288.14743	51.52370	86.37133	2.31942	0.1433243	2.4362091	9	1	11 days	0.12	Williams	1999 VB ₇₆
1999 VG ₇₆	16.9	0.15	19991029	113.35959	114.58367	180.18760	1.99048	0.0427920	2.8914236	9	1	11 days	0.16	Williams	1999 VG ₇₆
1999 VK ₇₆	17.7	0.15	19991029	24.80506	214.58573	160.31293	1.79553	0.1991631	3.1066766	9	1	11 days	0.15	Williams	1999 VK ₇₆
1999 VP ₇₆	16.6	0.15	19991029	71.19600	170.00042	167.61249	2.26000	0.0407142	2.8548489	12	1	11 days	0.57	Williams	1999 VP ₇₆
1999 VR ₇₆	17.0	0.15	19991029	144.47099	89.21531	177.29158	2.41812	0.0414215	2.7775704	9	1	11 days	0.11	Williams	1999 VR ₇₆
1999 VS ₇₆	17.0	0.15	19991029	13.68885	303.47085	90.69944	3.40858	0.1374093	2.9394812	9	1	11 days	0.09	Williams	1999 VS ₇₆
1999 VT ₇₆	16.6	0.15	19991029	36.79797	157.09098	213.69559	5.89347	0.0831522	3.1181456	9	1	10 days	0.14	Spahr	1999 VT ₇₆
1999 VV ₇₆	15.2	0.15	19991118	319.03421	244.40330	225.14675	11.13576	0.1233363	3.0942954	17	1	32 days	0.52	Spahr	1999 VV ₇₆
1999 VW ₇₆	17.2	0.15	19991029	233.12732	53.05020	132.08584	1.89817	0.0564877	2.5975806	9	1	11 days	0.20	Williams	1999 VW ₇₆
1999 VY ₇₆	17.8	0.15	19991029	70.12326	236.23168	82.36508	3.72620	0.1993150	2.3285278	9	1	11 days	0.10	Williams	1999 VY ₇₆
1999 VZ ₇₆	17.6	0.15	19991029	170.57854	78.42461	162.36323	2.13559	0.1523741	2.3853502	9	1	11 days	0.21	Williams	1999 VZ ₇₆
1999 VC ₇₇	17.5	0.15	19991118	336.72641	12.25982	77.25674	4.01439	0.1610705	2.3004557	26	1	33 days	0.58	Williams	1999 VC ₇₇
1999 VD ₇₇	16.5	0.15	19991029	353.18770	259.83213	162.04824	2.23906	0.0586729	2.8853472	13	1	11 days	0.35	Williams	1999 VD ₇₇
1999 VF ₇₇	18.2	0.15	19991029	16.03125	241.49114	145.98205	1.71528	0.1764901	2.4133738	14	1	10 days	0.89	Williams	1999 VF ₇₇
1999 VJ ₇₇	15.4	0.15	19991118	292.03645	133.94759	7.95906	4.55837	0.2273065	2.5764265	36	1	35 days	0.55	Williams	1999 VJ ₇₇
1999 VK ₇₇	15.3	0.15	19991029	349.20211	41.92741	16.74663	5.56084	0.1654533	3.1848146	30	1	18 days	0.56	Williams	1999 VK ₇₇
1999 VL ₇₇	16.0	0.15	19991029	13.19185	15.65540	9.35118	2.59067	0.1985776	2.3797342	14	1	13 days	0.48	Williams	1999 VL ₇₇
1999 VN ₇₇	14.7	0.15	19991029	242.78154	274.65085	256.74622	9.08681	0.0482991	3.0189955	21	1	13 days	0.58	Williams	1999 VN ₇₇
1999 VR ₇₇	15.1	0.15	19991029	234.41067	228.32976	306.64925	2.39942	0.0760957	2.2507051	14	1	13 days	0.55	Williams	1999 VR ₇₇
1999 VS ₇₇	14.5	0.15	19991029	30.02198	84.22653	285.99239	2.48544	0.1162285	2.9920703	12	1	13 days	0.46	Williams	1999 VS ₇₇
1999 VU ₇₇	13.6	0.15	19991029	10.17399	354.88105	36.27265	8.38594	0.2598738	3.9449560	13	1	13 days	0.57	Williams	1999 VU ₇₇
1999 VY ₇₇	13.7	0.15	20000226	359.70935	30.20363	82.16910	6.19550	0.0575020	2.5185197	32	1	89 days	0.38	M-v 4 Williams	38122 1999 VY ₇₇
1999 VJ ₇₈	15.0	0.15	19991029	193.06909	330.52716	227.47084	12.37986	0.0200686	2.9935962	23	1	13 days	0.42	Williams	1999 VJ ₇₈
1999 VL ₇₈	14.8	0.15	19991029	84.52902	63.27872	226.53137	13.65695	0.1442190	3.1472316	22	1	13 days	0.41	Williams	1999 VL ₇₈
1999 VU ₇₈	15.2	0.15	20000226	95.30535	278.76962	28.38486	2.42778	0.2269943	2.3546647	47	1	64 days	0.52	M-v 5 Williams	38122 1999 VU ₇₈
1999 VV ₇₈	16.4	0.15	19991009	40.61877	301.82048	33.98311	7.54285	0.1444248	2.3425121	35	1	45 days	0.54	Williams	1999 VV ₇₈
1999 VX ₇₈	17.6	0.15	19991029	35.56187	121.22718	222.31343	4.23236	0.1989219	2.2426508	25	1	18 days	0.76	Williams	1999 VX ₇₈
1999 VB ₇₉	14.6	0.15	19991029	334.76866	55.30167	30.36986	4.60505	0.3178313	3.3929785	19	1	12 days	0.47	Williams	1999 VB ₇₉
1999 VD ₇₉	15.1	0.15	19991029	332.97398	150.93013	280.54938	2.47884	0.1015748	2.6621574	13	1	12 days	0.50	Williams	1999 VD ₇₉
1999 VH ₇₉	15.4	0.15	20000226	164.64715	290.30211	330.99521	2.06460	0.0998631	2.2546989	57	2	1998-2000	0.65	M-v 4 Williams	37841 1999 VH ₇₉
1999 VL ₇₉	16.5	0.15	19991118	22.70727	147.27537	217.70441	13.07455	0.2811641	2.6505936	32	1	46 days	0.60	Williams	1999 VL ₇₉
1999 VS ₇₉	15.6	0.15	19991029	330.04941	121.90015	312.94574	1.91468	0.0934861	2.5238843	14	1	12 days	0.59	Williams	1999 VS ₇₉
1999 VX ₇₉	16.0	0.15	19991029	337.19335	79.13771	346.44456	2.23218	0.0785652	2.4508350	33	1	18 days	0.47	Williams	1999 VX ₇₉
1999 VY ₇₉	15.7	0.15	20000226	65.19516	319.82527	28.84639	7.08409	0.2312873	2.3203415	62	1	110 days	0.45	M-v 4 Williams	38122 1999 VY ₇₉
1999 VC ₈₀	15.8	0.15	19991029	50.15989	298.27010	32.84276	2.82168	0.1680873	2.3398970	15	1	12 days	0.47	Williams	1999 VC ₈₀
1999 VE ₈₀	16.2	0.15	19991029	19.51262	333.38729	38.40777	8.95320	0.1434845	2.2166865	14	1	12 days	0.36	Williams	1999 VE ₈₀
1999 VK ₈₀	15.0	0.15	19991009	0.05764	191.41761	206.45892	9.36137	0.1206050	2.7373574	15	1	16 days	0.34	Williams	1999 VK ₈₀
1999 VQ ₈₀	15.2	0.15	19991029	1.27359	349.71049	53.44396	36.04176	0.2150080	2.8543469	14	1	11 days	0.28	Williams	1999 VQ ₈₀
1999 VS ₈₀	15.1	0.15	19991029	91.03617	116.29071	193.22255	7.11874	0.0725034	2.3053633	17	1	46 days	0.84	Williams	1999 VS ₈₀
1999 VT ₈₀	15.6	0.15	19991029	18.98155	204.62007	183.91042	6.59497	0.1304142	2.3456209	33	1	55 days	0.45	Williams	1999 VT ₈₀
1999 VU ₈₀	15.1	0.15	19991029	69.16578	290.92874	32.08007	9.90168	0.1003555	2.6032833	10	1	12 days	0.56	Williams	1999 VU ₈₀
1999 VD ₈₁	13.8	0.15	20000226	23.59010	291.22335	130.86205	3.94428	0.1732886	2.8816138	36	1	91 days	0.47	M-v 3 Spahr	38122 1999 VD ₈₁
1999 VP ₈₁	12.8	0.15	20000226	133.16104	59.27367	205.24945	11.44761	0.0517705	3.0945749	56	1	171 days	0.50	M-v 4 Williams	38122 1999 VP ₈₁
1999 VC ₈₂	15.8	0.15	19991029	340.56974	26.66698	34.19725	15.53658	0.2600676	2.6396134	12	1	11 days	0.36	Williams	1999 VC ₈₂
1999 VC ₈₃	16.4	0.15	19991029	344.81334	27.55120	21.97142	10.31025	0.0873623	3.1666746	9	1	14 days	3.04	Spahr	1999 VC ₈₃
1999 VG ₈₃	14.9	0.15	19991009	41.79463	347.77791	351.23415	1.43159	0.0981199	3.0051982	26	1	39 days	0.39	Williams	1999 VG ₈₃
1999 VM ₈₃	16.7	0.15	19991009	288.89309	135.97573	330.53958	2.09027	0.0910922	2.2314768	23	1	43 days	0.66	Williams	1999 VM ₈₃
1999 VN ₈₃	15.9	0.15	19991009	9.91588	3.51267	7.91352	4.96863	0.1815127	3.1620650	29	1	44 days	0.52	Williams	1999 VN ₈₃

1999 VQ ₈₃	16.1	0.15	19991009	301.57446	199.16367	251.76619	2.77991	0.0476211	3.0098855	9	1	19 days	0.08	Williams	1999 VQ ₈₃
1999 VV ₈₃	17.5	0.15	19991029	3.60248	19.72504	8.70831	3.24566	0.1248679	3.1809321	9	1	12 days	0.21	Spahr	1999 VV ₈₃
1999 VC ₈₄	14.7	0.15	19991029	41.37821	292.54578	45.54157	31.31400	0.2452454	2.7356378	45	1	54 days	0.58	Williams	1999 VC ₈₄
1999 VJ ₈₄	17.9	0.15	19991029	344.11463	182.83131	236.64048	1.97018	0.0432684	2.7877717	9	1	11 days	0.22	Williams	1999 VJ ₈₄
1999 VL ₈₄	17.1	0.15	19991029	267.15289	272.40274	229.85259	2.56404	0.0649688	2.3426267	16	1	11 days	0.32	Williams	1999 VL ₈₄
1999 VO ₈₄	17.2	0.15	19991029	346.48864	186.63838	234.68380	0.81004	0.1642356	3.1237981	9	1	11 days	0.34	Williams	1999 VO ₈₄
1999 VQ ₈₄	15.9	0.15	19991029	133.47961	212.00480	38.16859	0.81176	0.3212923	3.0742680	9	1	11 days	0.17	Williams	1999 VQ ₈₄
1999 VS ₈₄	18.5	0.15	19991029	9.21557	161.19877	228.96871	2.34042	0.1424671	2.6987164	9	1	11 days	0.14	Williams	1999 VS ₈₄
1999 VT ₈₄	17.2	0.15	19991029	43.46200	295.78738	45.78675	2.98437	0.1905855	2.6976753	13	1	9 days	0.45	Williams	1999 VT ₈₄
1999 VY ₈₄	19.2	0.15	19991029	35.06155	140.59298	211.24520	0.78767	0.1951618	2.3454454	9	1	11 days	0.15	Williams	1999 VY ₈₄
1999 VZ ₈₄	17.2	0.15	19991029	122.02444	134.68087	136.53993	0.22961	0.1222026	2.2497753	16	1	11 days	0.41	Williams	1999 VZ ₈₄
1999 VE ₈₅	18.2	0.15	19991029	60.99525	125.70237	196.24431	0.79324	0.1872959	2.3247022	9	1	11 days	0.15	Williams	1999 VE ₈₅
1999 VG ₈₅	17.4	0.15	19991029	179.15100	2.06373	223.20291	5.00645	0.0092027	2.2996660	9	1	11 days	1.02	Williams	1999 VG ₈₅
1999 VK ₈₅	15.7	0.15	20000226	44.90020	265.90766	77.19246	15.26776	0.4409761	2.7552543	20	1	64 days	0.47	M-v 4 Williams	1999 VK ₈₅
1999 VR ₈₅	14.7	0.15	19991029	29.63843	22.60739	337.19910	1.47958	0.1263078	3.0770570	13	1	12 days	0.58	Williams	1999 VR ₈₅
1999 VS ₈₅	16.2	0.15	19991029	328.36526	103.47279	336.99247	2.23798	0.1443291	2.3578236	14	1	12 days	0.42	Williams	1999 VS ₈₅
1999 VV ₈₅	15.7	0.15	20000226	11.94853	38.39625	28.59965	6.44482	0.2629522	2.5716855	57	1	110 days	0.49	M-v 4 Williams	38123 1999 VV ₈₅
1999 VW ₈₅	15.3	0.15	19991029	176.04225	340.78177	241.36904	4.22299	0.1165688	2.2060130	13	1	12 days	0.49	Williams	1999 VW ₈₅
1999 VY ₈₅	16.3	0.15	19991029	344.48388	31.68729	26.58747	4.94481	0.1392319	2.3676014	15	1	12 days	0.57	Williams	1999 VY ₈₅
1999 VB ₈₆	14.6	0.15	19991029	352.35218	64.53141	343.07338	1.76936	0.0838062	2.9467125	14	1	12 days	0.35	Williams	1999 VB ₈₆
1999 VX ₈₆	13.9	0.15	20000226	293.89272	22.78375	130.02409	13.70081	0.0984941	2.5349019	27	1	93 days	0.48	M-v 5 Spahr	38123 1999 VX ₈₆
1999 VG ₈₇	13.9	0.15	20000226	84.04133	99.51719	294.20955	10.26246	0.2752261	2.5870362	51	3	1986–2000	0.62	M-v 2 Williams	37841 1999 VG ₈₇
1999 VH ₈₇	14.9	0.15	20000226	65.86194	315.88129	122.66518	24.28631	0.0905171	1.9271275	42	1	89 days	0.52	M-v 4 Williams	38123 1999 VH ₈₇
1999 VL ₈₇	15.2	0.15	20000226	64.13093	103.65292	245.32028	4.81729	0.2194848	2.3680599	66	1	98 days	0.44	M-v 4 Williams	38123 1999 VL ₈₇
1999 VM ₈₇	14.2	0.15	19991029	11.12841	132.82492	253.12775	4.76942	0.0577199	2.7497784	15	1	12 days	0.32	Williams	1999 VM ₈₇
1999 VN ₈₇	14.6	0.15	19991009	187.99726	342.09495	214.73388	13.77083	0.1218123	2.7010976	25	1	43 days	0.61	Williams	1999 VN ₈₇
1999 VB ₈₈	15.9	0.15	19991029	78.17476	85.61246	237.87477	4.03394	0.0685930	2.7076643	14	1	14 days	1.18	Williams	1999 VB ₈₈
1999 VD ₈₈	15.7	0.15	20000226	34.02001	3.40711	49.42188	2.80948	0.1613476	2.4642271	42	2	1960–2000	0.52	M-v 3 Williams	38123 1999 VD ₈₈
1999 VL ₈₈	15.6	0.15	19991029	2.08197	354.07189	47.57628	14.89867	0.3084230	3.1242572	15	1	12 days	0.30	Williams	1999 VL ₈₈
1999 VO ₈₈	15.7	0.15	19991029	24.13745	187.00274	178.72043	2.04822	0.1577067	2.8018711	20	1	21 days	0.56	Williams	1999 VO ₈₈
1999 VS ₈₈	15.2	0.15	19991029	303.06244	245.95940	228.94740	10.42406	0.1535153	3.1588391	12	1	13 days	0.28	Williams	1999 VS ₈₈
1999 VU ₈₈	15.0	0.15	19991029	48.93237	303.40857	34.17502	2.33618	0.1572094	3.2056680	17	1	13 days	0.54	Williams	1999 VU ₈₈
1999 VV ₈₈	16.7	0.15	19991029	1.51472	139.01814	260.92432	0.82544	0.0780344	2.8857928	10	1	13 days	0.57	Williams	1999 VV ₈₈
1999 VW ₈₈	14.7	0.15	19991029	347.79487	30.60166	25.69259	1.84863	0.0887212	2.8486111	14	1	12 days	0.51	Williams	1999 VW ₈₈
1999 VX ₈₈	15.3	0.15	19991029	50.59707	291.43212	40.08927	7.62874	0.1883643	2.4534203	14	1	12 days	0.44	Williams	1999 VX ₈₈
1999 VY ₈₈	16.2	0.15	19991029	278.41298	77.01987	47.07897	7.44008	0.0091308	2.7439139	9	1	12 days	0.36	Williams	1999 VY ₈₈
1999 VZ ₈₈	17.1	0.15	19991029	66.32211	104.73106	215.90728	5.52315	0.1423593	2.2794174	18	1	28 days	0.57	Williams	1999 VZ ₈₈
1999 VA ₈₉	17.2	0.15	19991029	307.86560	278.15712	186.95840	1.77926	0.1026415	2.1946167	18	1	12 days	0.46	Williams	1999 VA ₈₉
1999 VB ₈₉	16.1	0.15	19991029	10.06686	341.39673	47.07238	10.96063	0.2079077	2.5924311	13	1	12 days	0.40	Williams	1999 VB ₈₉
1999 VH ₈₉	17.3	0.15	19991029	333.84208	238.77320	199.68796	1.74661	0.1642034	2.3751490	16	1	12 days	0.58	Williams	1999 VH ₈₉
1999 VP ₈₉	13.9	0.15	20000226	38.21982	198.21148	172.57402	1.67840	0.1951134	3.1754415	47	2	1984–2000	0.47	M-v 4 Williams	37842 1999 VP ₈₉
1999 VM ₉₀	15.9	0.15	19991009	46.79838	113.11651	212.10952	13.74351	0.1309370	2.6379719	25	1	41 days	0.61	Williams	1999 VM ₉₀
1999 VP ₉₀	15.1	0.15	20000226	331.20405	259.68472	207.81892	5.75739	0.1552946	2.4255698	31	1	61 days	0.50	M-v 5 Williams	1999 VP ₉₀
1999 VT ₉₀	15.1	0.15	20000226	0.41611	41.99081	39.82613	4.89322	0.2971717	2.6018923	44	2	1978–2000	0.56	M-v 4 Williams	37842 1999 VT ₉₀
1999 VU ₉₀	14.6	0.15	19991029	344.49834	11.74747	40.54321	5.04326	0.1557504	2.6136600	15	1	11 days	0.36	Williams	1999 VU ₉₀
1999 VX ₉₀	15.4	0.15	19991009	62.55713	271.88379	40.66435	11.62477	0.1215560	2.7248566	18	1	56 days	0.49	Williams	1999 VX ₉₀
1999 VY ₉₀	16.1	0.15	19991029	311.38126	45.80887	41.53553	12.94449	0.0521701	2.5839892	21	1	23 days	0.55	Williams	1999 VY ₉₀
1999 VZ ₉₀	18.3	0.15	19991029	354.60793	195.15322	207.59749	5.72442	0.1764976	2.2239816	16	1	20 days	0.78	Williams	1999 VZ ₉₀
1999 VB ₉₁	15.4	0.15	19991029	134.21670	210.30665	43.65808	7.05124	0.1330768	2.5754019	16	1	10 days	0.41	Spahr	1999 VB ₉₁
1999 VQ ₉₁	16.2	0.15	19991009	322.48487	58.57344	25.68401	30.44877	0.3225164	2.5909655	22	1	45 days	0.63	Williams	1999 VQ ₉₁
1999 VT ₉₄	15.3	0.15	19991009	191.25727	167.65208	27.46345	6.31222	0.1043462	2.5541099	23	1	41 days	0.52	Williams	1999 VT ₉₄
1999 VZ ₉₄	16.1	0.15	19991029	58.36883	284.84339	30.53765	4.39052	0.1548760	2.2621085	13	1	23 days	0.48	Williams	1999 VZ ₉₄
1999 VS ₉₅	18.3	0.15	19991029	48.37322	120.54063	216.16460	21.62091	0.0741815	1.8862164	17	1	11 days	0.53	Williams	1999 VS ₉₅

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1999 VT ₉₅	13.8	0.15	19991029	124.86571	219.09423	34.06237	11.80646	0.1422249	2.5108199	13	1	7 days	0.51		Williams	1999 VT ₉₅
1999 VC ₉₆	15.0	0.15	19991029	37.41017	297.46647	40.28211	6.27184	0.2150828	2.5989669	14	1	7 days	0.34	E	Williams	1999 VC ₉₆
1999 VH ₉₆	15.2	0.15	19991029	343.34668	201.01513	217.12466	4.78335	0.1460001	3.2067343	21	1	27 days	0.53		Williams	1999 VH ₉₆
1999 VK ₉₆	14.5	0.15	19991029	17.53191	208.15977	165.54566	0.60591	0.1002998	3.1693280	16	1	27 days	0.41		Williams	1999 VK ₉₆
1999 VQ ₉₆	16.2	0.15	19991029	302.95412	39.31163	57.47081	3.05653	0.0335886	2.1821919	12	1	23 days	0.25		Williams	1999 VQ ₉₆
1999 VU ₉₆	15.7	0.15	19991029	331.99618	224.77773	213.21047	1.11101	0.1928416	3.1779035	13	1	6 days	0.40	E	Spahr	1999 VU ₉₆
1999 VX ₉₆	13.6	0.15	19991029	117.09029	38.54409	218.11656	5.16785	0.2892786	2.6128797	13	1	7 days	0.43	E	Williams	1999 VX ₉₆
1999 VY ₉₆	15.9	0.15	19991029	331.24317	45.33395	40.66162	1.45958	0.2599135	2.8350917	12	1	7 days	0.51	E	Williams	1999 VY ₉₆
1999 VK ₉₇	16.4	0.15	19991029	41.99998	122.57731	226.04035	2.87920	0.1128824	2.5514117	10	1	7 days	0.31		Williams	1999 VK ₉₇
1999 VL ₉₇	15.1	0.15	19991029	110.31429	216.30064	48.11734	3.80335	0.2858556	2.9010353	10	1	7 days	0.34		Williams	1999 VL ₉₇
1999 VN ₉₇	17.0	0.15	19991029	23.22913	322.98087	45.85679	7.67813	0.1515193	2.7087932	11	1	7 days	0.39		Williams	1999 VN ₉₇
1999 VO ₉₇	16.0	0.15	19991029	358.71514	188.68936	213.75440	1.35430	0.1217599	2.9504983	15	1	12 days	0.70		Williams	1999 VO ₉₇
1999 VV ₉₇	16.9	0.15	19991029	45.40928	285.59399	50.68506	5.64210	0.1909297	2.3814498	11	1	7 days	0.38		Williams	1999 VV ₉₇
1999 VC ₉₈	15.7	0.15	19991029	50.06663	287.84636	53.52094	4.78871	0.1017327	2.6319464	12	1	7 days	0.29		Williams	1999 VC ₉₈
1999 VD ₉₈	14.7	0.15	19991029	108.22178	242.16328	50.03636	10.32982	0.0113601	3.0550433	23	1	48 days	0.49		Williams	1999 VD ₉₈
1999 VF ₉₈	16.3	0.15	19991029	58.93668	92.13433	221.03361	1.29717	0.2571773	2.5327327	11	1	7 days	0.28		Williams	1999 VF ₉₈
1999 VG ₉₈	15.2	0.15	19991009	310.47583	233.74534	222.60890	10.12942	0.0934792	3.2295932	16	1	37 days	0.32		Williams	1999 VG ₉₈
1999 VH ₉₈	17.3	0.15	19991029	335.43175	26.12611	52.89799	1.05602	0.2179232	2.7156908	11	1	8 days	0.49		Williams	1999 VH ₉₈
1999 VJ ₉₈	16.5	0.15	19991029	111.16899	221.72183	53.98381	3.34897	0.1488304	2.4123502	10	1	7 days	0.26		Williams	1999 VJ ₉₈
1999 VK ₉₈	16.1	0.15	19991029	5.90037	169.75134	225.26648	9.53949	0.0802408	3.1458409	10	1	8 days	0.46		Williams	1999 VK ₉₈
1999 VL ₉₈	17.4	0.15	19991029	319.25326	228.79311	230.22754	3.71624	0.1892881	2.6175613	10	1	8 days	0.36		Williams	1999 VL ₉₈
1999 VP ₉₈	16.4	0.15	19991029	216.14957	320.73557	226.37182	7.66859	0.0159250	2.5896219	11	1	8 days	0.30		Williams	1999 VP ₉₈
1999 VR ₉₈	17.2	0.15	19991029	233.59002	125.44788	44.98142	6.66388	0.0223232	2.2239146	11	1	8 days	0.27		Williams	1999 VR ₉₈
1999 VS ₉₈	15.3	0.15	19991029	59.17857	64.75730	250.27520	0.96122	0.2546271	2.7151700	10	1	7 days	0.45		Williams	1999 VS ₉₈
1999 VT ₉₈	15.9	0.15	19991029	129.22937	207.96141	51.12100	3.56987	0.2026408	2.5393915	9	1	8 days	0.33		Williams	1999 VT ₉₈
1999 VU ₉₈	16.4	0.15	19991029	260.42170	98.77923	53.41243	3.77398	0.0998199	2.2588085	20	1	7 days	0.35		Williams	1999 VU ₉₈
1999 VV ₉₈	16.6	0.15	19991029	345.32615	7.50145	51.44142	5.59384	0.0758781	2.7867785	11	1	7 days	0.38		Williams	1999 VV ₉₈
1999 VW ₉₈	17.3	0.15	19991029	307.60895	245.60084	222.70855	4.84955	0.1426450	2.4156570	10	1	7 days	0.55		Williams	1999 VW ₉₈
1999 VY ₉₈	16.1	0.15	19991029	261.59274	300.83767	208.79570	1.47762	0.0829091	2.4230395	16	1	7 days	0.47		Williams	1999 VY ₉₈
1999 VZ ₉₈	15.5	0.15	19991029	116.88690	43.87577	221.90396	7.18698	0.2278538	2.4622119	11	1	7 days	0.39		Williams	1999 VZ ₉₈
1999 VB ₉₉	15.0	0.15	19991029	158.86455	20.72817	219.46355	4.58586	0.1227769	3.1931748	11	1	8 days	0.26		Williams	1999 VB ₉₉
1999 VD ₉₉	16.6	0.15	19991029	29.28202	201.69232	162.82606	0.56236	0.1289051	2.5411522	11	1	7 days	0.21		Williams	1999 VD ₉₉
1999 VU ₉₉	16.9	0.15	19991029	12.46940	333.40203	47.22347	21.05437	0.2787536	3.1119999	20	1	14 days	0.56		Williams	1999 VU ₉₉
1999 VX ₉₉	17.0	0.15	19991029	35.48554	147.23149	208.98209	2.89196	0.1554794	2.6792245	11	1	7 days	0.38		Williams	1999 VX ₉₉
1999 VD ₁₀₀	16.1	0.15	19991029	46.72820	289.73032	45.55015	4.88366	0.2319984	2.4013661	12	1	7 days	0.27	E	Williams	1999 VD ₁₀₀
1999 VE ₁₀₀	17.5	0.15	19991029	329.26021	208.97377	237.86507	1.36623	0.1595919	2.3365216	11	1	6 days	0.38	E	Spahr	1999 VE ₁₀₀
1999 VG ₁₀₀	14.4	0.15	19991029	76.67616	273.92594	31.33128	1.56101	0.2287941	3.0245921	14	1	7 days	0.42	E	Williams	1999 VG ₁₀₀
1999 VJ ₁₀₀	17.6	0.15	19991029	3.63535	358.69071	38.74026	2.35787	0.2589230	2.4037358	13	1	7 days	0.64	E	Williams	1999 VJ ₁₀₀
1999 VL ₁₀₀	16.0	0.15	19991029	325.87471	219.24398	233.49378	7.59460	0.1591497	2.6521699	13	1	7 days	0.36	E	Williams	1999 VL ₁₀₀
1999 VX ₁₀₀	16.6	0.15	19991029	17.85361	113.03794	265.38106	0.22372	0.2037855	2.4314073	15	1	7 days	0.34	E	Williams	1999 VX ₁₀₀
1999 VY ₁₀₀	17.7	0.15	19991029	16.28146	328.57045	52.06162	0.65583	0.1895115	2.1770356	14	1	7 days	0.47	E	Williams	1999 VY ₁₀₀
1999 VO ₁₀₁	14.8	0.15	19991029	335.40911	30.84012	51.34008	14.73913	0.1481840	3.1425358	13	1	7 days	0.43	E	Williams	1999 VO ₁₀₁
1999 VP ₁₀₁	16.0	0.15	19991029	23.50618	322.41857	52.48604	13.50026	0.1811595	3.0813833	20	1	32 days	0.47		Williams	1999 VP ₁₀₁
1999 VQ ₁₀₁	15.1	0.15	19991029	228.56779	145.93820	53.44556	10.10609	0.2466114	2.7320376	15	1	8 days	0.46		Williams	1999 VQ ₁₀₁
1999 VS ₁₀₁	15.9	0.15	19991029	319.48066	227.40501	226.19261	2.58262	0.0502821	2.6541727	13	1	8 days	0.29		Williams	1999 VS ₁₀₁
1999 VT ₁₀₁	16.9	0.15	19991029	6.09322	340.74731	57.17581	3.54907	0.2370448	2.9365719	13	1	8 days	0.30		Williams	1999 VT ₁₀₁
1999 VU ₁₀₁	14.6	0.15	19991029	204.20496	341.90028	232.47532	7.82785	0.1813427	2.6870615	18	1	8 days	0.47		Williams	1999 VU ₁₀₁
1999 VW ₁₀₁	16.8	0.15	19991029	79.55381	256.63679	56.27582	9.43618	0.1416648	2.3510765	12	1	8 days	0.31		Williams	1999 VW ₁₀₁
1999 VJ ₁₀₂	16.1	0.15	19991029	55.61418	169.38435	150.36760	1.13623	0.2618476	3.0222923	11	1	7 days	0.50		Williams	1999 VJ ₁₀₂
1999 VK ₁₀₂	16.8	0.15	19991029	7.36995	340.02685	53.10687	11.46535	0.1448642	2.6635222	14	1	15 days	0.50		Williams	1999 VK ₁₀₂
1999 VM ₁₀₂	16.6	0.15	19991029	342.59839	201.99960	227.46922	26.38451	0.1769723	3.1636401	10	1	8 days	0.50		Williams	1999 VM ₁₀₂
1999 VO ₁₀₂	16.2	0.15	19991029	173.32184	4.47664	226.66943	1.11386	0.0727739	2.7271600	16	1	28 days	0.48		Williams	1999 VO ₁₀₂
1999 VX ₁₀₂	17.4	0.15	19991029	52.94591	287.43624	41.28075	1.95713	0.2191098	2.4657277	10	1	6 days	0.35	E	Spahr	1999 VX ₁₀₂

1999 VB ₁₀₃	16.5	0.15	19991029	11.83898	347.18797	44.60956	2.21428	0.0846838	2.7219285	12	1	6 days	0.29	E Spahr	1999 VB ₁₀₃
1999 VM ₁₀₃	17.2	0.15	19991029	12.25021	99.00315	286.24975	0.54182	0.2092462	2.2962511	13	1	7 days	0.49	E Williams	1999 VM ₁₀₃
1999 VO ₁₀₃	17.0	0.15	19991029	356.74337	207.73804	202.46737	0.70924	0.1609017	2.3915749	11	1	7 days	0.66	E Williams	1999 VO ₁₀₃
1999 VT ₁₀₃	18.7	0.15	19991029	8.28820	101.88444	287.77880	0.08609	0.2968177	2.6265416	14	1	8 days	0.82	Williams	1999 VT ₁₀₃
1999 VU ₁₀₃	18.1	0.15	19991029	25.08840	308.41310	59.53784	0.88245	0.2113940	2.3017617	17	1	8 days	0.79	Williams	1999 VU ₁₀₃
1999 VV ₁₀₃	16.3	0.15	19991029	20.76963	13.39779	4.23215	0.89563	0.1769417	2.4366093	14	1	7 days	0.53	E Williams	1999 VV ₁₀₃
1999 VX ₁₀₃	15.9	0.15	19991029	220.48029	326.33369	233.67913	6.91614	0.1561392	2.4088446	12	1	8 days	0.60	Williams	1999 VX ₁₀₃
1999 VY ₁₀₃	15.7	0.15	19991029	79.79877	238.16168	63.40482	2.93227	0.2631593	2.9845516	11	1	8 days	0.50	Williams	1999 VY ₁₀₃
1999 VZ ₁₀₃	16.6	0.15	19991029	32.98895	296.94356	59.97394	4.34879	0.2497063	3.2609165	12	1	8 days	0.33	Williams	1999 VZ ₁₀₃
1999 VE ₁₀₄	17.4	0.15	19991029	313.68197	74.28492	30.11821	0.71454	0.1105554	2.2191663	10	1	8 days	0.38	Williams	1999 VE ₁₀₄
1999 VF ₁₀₄	16.4	0.15	19991029	287.34324	268.07333	232.62144	7.53134	0.1639059	2.3800385	17	1	8 days	0.54	Williams	1999 VF ₁₀₄
1999 VH ₁₀₄	14.9	0.15	19991029	118.82795	229.87375	53.26428	10.54409	0.0877919	2.3861799	12	1	7 days	0.43	E Williams	1999 VH ₁₀₄
1999 VJ ₁₀₄	16.0	0.15	19991029	48.97235	294.56711	48.71035	3.85763	0.1701633	2.3454531	11	1	7 days	0.32	E Williams	1999 VJ ₁₀₄
1999 VK ₁₀₄	17.6	0.15	19991029	351.41117	183.91441	234.94288	7.19454	0.0813773	2.2584368	11	1	8 days	0.27	Williams	1999 VK ₁₀₄
1999 VR ₁₀₄	16.8	0.15	19991029	10.01896	330.67622	58.04902	1.57164	0.1717117	3.0543519	11	1	8 days	0.35	Williams	1999 VR ₁₀₄
1999 VT ₁₀₄	17.1	0.15	19991029	227.61390	320.64526	224.10784	7.25912	0.1160552	2.2505103	10	1	8 days	0.74	Williams	1999 VT ₁₀₄
1999 VV ₁₀₄	16.5	0.15	19991029	35.35724	315.64187	52.35385	9.17215	0.0910128	2.9176413	11	1	8 days	0.41	Williams	1999 VV ₁₀₄
1999 VX ₁₀₄	19.1	0.15	19991029	26.12449	296.94606	70.26093	1.18167	0.2068164	2.3353804	10	1	8 days	0.75	Williams	1999 VX ₁₀₄
1999 VY ₁₀₄	16.2	0.15	19991029	328.38405	31.10021	54.08446	13.56177	0.0526560	2.8623299	10	1	8 days	0.32	Williams	1999 VY ₁₀₄
1999 VB ₁₀₅	16.6	0.15	19991029	60.86303	282.84719	55.74478	15.24279	0.1051564	2.5848110	11	1	8 days	0.55	Williams	1999 VB ₁₀₅
1999 VE ₁₀₅	15.1	0.15	19991029	198.94932	163.52191	55.71866	8.94238	0.1747091	2.6802293	13	1	8 days	0.36	Williams	1999 VE ₁₀₅
1999 VG ₁₀₅	17.6	0.15	19991029	3.56981	168.22190	236.24099	3.60249	0.1206926	2.3788031	11	1	8 days	0.38	Williams	1999 VG ₁₀₅
1999 VH ₁₀₅	17.0	0.15	19991029	339.92281	19.51568	54.83657	4.70365	0.1158723	2.3470069	17	1	8 days	0.54	Williams	1999 VH ₁₀₅
1999 VJ ₁₀₅	15.2	0.15	19991029	31.67448	120.57904	248.24605	1.46439	0.1534625	2.9734598	13	1	7 days	0.56	E Williams	1999 VJ ₁₀₅
1999 VL ₁₀₅	14.5	0.15	19991029	21.70561	335.59600	44.72567	2.20343	0.1761153	2.9918093	15	1	7 days	0.33	E Williams	1999 VL ₁₀₅
1999 VP ₁₀₅	15.8	0.15	19991029	236.39911	128.66600	51.64595	3.15303	0.0640474	2.2496498	13	1	7 days	0.62	E Williams	1999 VP ₁₀₅
1999 VS ₁₀₅	17.7	0.15	19991029	61.97974	91.18515	234.12314	0.76274	0.1985730	2.1545261	12	1	8 days	0.38	Williams	1999 VS ₁₀₅
1999 VT ₁₀₅	17.9	0.15	19991029	340.18306	8.57365	66.02700	2.98675	0.1349313	2.2558226	13	1	8 days	0.46	Williams	1999 VT ₁₀₅
1999 VV ₁₀₅	17.0	0.15	19991029	23.30033	319.45319	61.36228	4.94393	0.1073492	2.3154964	13	1	8 days	0.31	Williams	1999 VV ₁₀₅
1999 VZ ₁₀₅	18.3	0.15	19991029	23.01912	142.94779	229.66791	2.69726	0.2034711	2.1390918	13	1	8 days	0.23	Williams	1999 VZ ₁₀₅
1999 VC ₁₀₆	18.6	0.15	19991029	11.68512	157.61883	231.85797	5.19064	0.2203538	2.2899929	13	1	8 days	0.50	Williams	1999 VC ₁₀₆
1999 VE ₁₀₆	13.1	0.15	19991029	153.02513	202.09853	54.61504	10.51079	0.1229452	3.1627527	14	1	7 days	0.50	E Williams	1999 VE ₁₀₆
1999 VG ₁₀₆	13.8	0.15	19991029	190.34107	342.96184	242.48808	5.47901	0.0599709	3.0044258	13	1	7 days	0.49	E Williams	1999 VG ₁₀₆
1999 VJ ₁₀₆	14.5	0.15	19991029	21.21639	333.60309	54.12101	10.11632	0.0987026	3.0567719	13	1	7 days	0.44	E Williams	1999 VJ ₁₀₆
1999 VM ₁₀₆	15.6	0.15	19991029	94.57332	57.87568	240.67733	7.25913	0.1713275	2.1787610	14	1	7 days	0.48	E Williams	1999 VM ₁₀₆
1999 VO ₁₀₆	16.3	0.15	19991029	70.47109	101.52757	227.78454	2.36972	0.1207185	2.6721266	12	1	8 days	0.39	Williams	1999 VO ₁₀₆
1999 VR ₁₀₆	16.1	0.15	19991029	128.68122	92.89457	177.49333	0.44819	0.1859065	2.2134638	11	1	8 days	0.51	Williams	1999 VR ₁₀₆
1999 VV ₁₀₆	16.1	0.15	19991029	279.23868	282.69024	217.07438	2.62147	0.0538584	2.6051726	12	1	8 days	0.42	Williams	1999 VV ₁₀₆
1999 VW ₁₀₆	16.9	0.15	19991029	74.69612	93.77116	228.49620	7.16872	0.1311929	2.3268121	12	1	8 days	0.20	Williams	1999 VW ₁₀₆
1999 VX ₁₀₆	15.5	0.15	19991029	215.46501	40.16751	158.68877	1.39403	0.0182747	2.4205675	20	1	6 days	0.43	E Williams	1999 VX ₁₀₆
1999 VD ₁₀₈	14.9	0.15	19991029	15.14255	337.18095	58.31970	13.17675	0.1507999	2.8802914	15	1	7 days	0.32	E Williams	1999 VD ₁₀₈
1999 VE ₁₀₈	14.4	0.15	19991029	40.44469	302.21263	60.91765	10.59066	0.1607434	3.0738951	15	1	7 days	0.48	E Williams	1999 VE ₁₀₈
1999 VW ₁₀₈	15.7	0.15	19991029	32.69979	95.28889	260.78371	1.48271	0.2986091	2.7431408	15	1	7 days	0.51	E Williams	1999 VW ₁₀₈
1999 VZ ₁₀₈	15.3	0.15	19991029	359.72046	359.07522	57.84968	10.02095	0.1266267	2.8374384	13	1	7 days	0.41	E Williams	1999 VZ ₁₀₈
1999 VT ₁₀₉	16.1	0.15	19991029	57.01251	113.69001	232.39277	9.74191	0.0923671	3.1964712	9	1	8 days	0.44	Williams	1999 VT ₁₀₉
1999 VU ₁₀₉	17.0	0.15	19991029	48.03560	299.67617	58.07861	6.57559	0.0466675	2.2913781	11	1	8 days	0.22	Williams	1999 VU ₁₀₉
1999 VX ₁₀₉	17.6	0.15	19991029	67.76801	89.21213	228.70466	1.27489	0.2252666	2.3648813	10	1	8 days	0.39	Williams	1999 VX ₁₀₉
1999 VE ₁₁₁	15.3	0.15	19991029	67.92551	286.14286	41.14425	2.64560	0.2066081	2.3532776	15	1	7 days	0.39	E Williams	1999 VE ₁₁₁
1999 VL ₁₁₁	14.8	0.15	20000226	207.04451	165.00250	82.56925	3.03252	0.1441538	2.3300874	19	1	57 days	0.55	M-v 6D Williams	1999 VL ₁₁₁
1999 VU ₁₁₁	14.5	0.15	19991118	281.16910	84.12330	66.72736	14.99549	0.0392387	2.6168542	28	1	56 days	0.62	Williams	1999 VU ₁₁₁
1999 VW ₁₁₁	16.7	0.15	19991029	350.34428	32.33824	38.35650	1.28273	0.1923034	2.3726145	12	1	7 days	0.64	E Williams	1999 VW ₁₁₁
1999 VZ ₁₁₁	14.1	0.15	19991118	94.89950	254.20652	64.18001	14.64109	0.1307773	2.6224649	28	1	56 days	0.35	Williams	1999 VZ ₁₁₁
1999 VL ₁₁₂	15.7	0.15	20000226	34.98482	357.50294	60.97639	4.11942	0.1556035	2.2571040	35	1	82 days	0.46	M-v 4 Williams	1999 VL ₁₁₂

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1999 VM ₁₁₂	14.6	0.15	20000226	68.52747	89.08819	281.33003	1.07835	0.1503114	2.5643939	33	4	1984–2000	0.57	M-v	1	Williams	37843	1999 VM ₁₁₂
1999 VQ ₁₁₂	14.3	0.15	19991029	43.04217	291.99809	69.08172	26.34863	0.2321311	3.1808121	15	1	7 days	0.57		E	Williams		1999 VQ ₁₁₂
1999 VU ₁₁₂	15.2	0.15	20000226	359.46409	178.74573	286.22961	0.56340	0.1505326	2.4224912	37	1	94 days	0.64	M-v	5	Williams		1999 VU ₁₁₂
1999 VW ₁₁₂	15.4	0.15	19991029	279.71391	271.18004	263.73497	2.26646	0.2505748	2.4394124	10	1	7 days	0.47		E	Williams		1999 VW ₁₁₂
1999 VX ₁₁₂	15.5	0.15	19991029	349.91632	8.83367	69.19809	12.03918	0.1970795	2.6633277	10	1	7 days	0.39		E	Williams		1999 VX ₁₁₂
1999 VO ₁₁₃	14.3	0.15	19991029	229.08417	140.96267	42.64669	6.79574	0.0290986	3.2337166	13	1	12 days	0.35			Williams		1999 VO ₁₁₃
1999 VQ ₁₁₃	15.7	0.15	19991029	25.35217	44.53455	324.44791	2.84318	0.2091787	2.7605191	13	1	12 days	0.43			Williams		1999 VQ ₁₁₃
1999 VR ₁₁₃	16.9	0.15	19991029	32.77974	40.22504	318.09628	2.89233	0.2030953	2.2241747	13	1	12 days	0.36			Williams		1999 VR ₁₁₃
1999 VT ₁₁₃	15.5	0.15	19991029	131.23514	249.32611	24.66212	6.66462	0.1042997	2.3691414	13	1	12 days	0.34			Williams		1999 VT ₁₁₃
1999 VU ₁₁₃	15.1	0.15	19991029	16.14754	101.09177	294.86553	4.05646	0.0542225	2.7510196	13	1	12 days	0.30			Williams		1999 VU ₁₁₃
1999 VP ₁₁₄	14.7	0.15	20000226	352.98702	115.78061	321.54750	7.55302	0.0976850	2.4220238	38	3	1980–2000	0.47	M-v	2	Williams	37843	1999 VP ₁₁₄
1999 VN ₁₁₅	16.9	0.15	19991029	127.25961	196.84466	80.34481	3.13856	0.0642407	2.8233175	9	1	12 days	0.12			Williams		1999 VN ₁₁₅
1999 VA ₁₁₆	16.9	0.15	19991029	142.88670	153.86823	111.39527	2.30259	0.0432233	2.6442843	12	1	30 days	0.28			Williams		1999 VA ₁₁₆
1999 VD ₁₁₆	18.4	0.15	19991029	54.50816	169.53115	165.06032	1.91587	0.1929609	2.3671608	9	1	11 days	0.19			Spahr		1999 VD ₁₁₆
1999 VE ₁₁₆	16.8	0.15	19991029	58.33053	144.96180	196.28400	3.34941	0.1120744	2.6732246	9	1	11 days	0.09			Spahr		1999 VE ₁₁₆
1999 VH ₁₁₆	15.4	0.15	19991118	350.99196	217.21124	209.37012	5.21965	0.0484000	3.0999313	19	1	33 days	0.53			Williams		1999 VH ₁₁₆
1999 VN ₁₁₆	18.7	0.15	19991029	350.22064	228.72814	195.76566	3.14217	0.1831220	2.6437278	9	1	11 days	0.46			Spahr		1999 VN ₁₁₆
1999 VU ₁₁₆	16.6	0.15	19991029	358.36300	338.81343	44.72608	3.89255	0.1041642	2.7056911	9	1	21 days	0.07			Williams		1999 VU ₁₁₆
1999 VA ₁₁₇	17.8	0.15	19991029	256.84402	290.34172	227.06523	20.21324	0.0648785	1.9359540	11	1	10 days	0.30			Williams		1999 VA ₁₁₇
1999 VK ₁₁₈	16.7	0.15	19991029	349.93546	192.16511	228.69290	18.04973	0.0162294	3.1576118	9	1	7 days	0.14		E	Williams		1999 VK ₁₁₈
1999 VU ₁₁₈	18.5	0.15	19991029	336.45091	63.87611	10.50282	3.17346	0.2680826	3.1198285	9	1	12 days	0.17			Spahr		1999 VU ₁₁₈
1999 VV ₁₁₈	17.7	0.15	19991029	61.67030	301.13854	19.45005	5.00919	0.1075925	2.7818445	9	1	12 days	2.52			Spahr		1999 VV ₁₁₈
1999 VW ₁₁₈	16.4	0.15	19991029	349.98297	15.57059	30.66279	15.03677	0.1068441	2.9763893	9	1	12 days	0.08			Spahr		1999 VW ₁₁₈
1999 VB ₁₁₉	16.3	0.15	19991029	29.22404	340.66473	14.78632	8.77162	0.1006482	3.0005785	9	1	23 days	0.10			Williams		1999 VB ₁₁₉
1999 VG ₁₁₉	16.9	0.15	19991029	34.26439	14.69148	337.43135	2.56445	0.0822420	2.3102836	24	1	14 days	0.41			Williams		1999 VG ₁₁₉
1999 VJ ₁₁₉	16.6	0.15	19991029	193.49449	196.38920	5.40132	5.01141	0.1561349	2.4000609	9	1	12 days	0.09			Spahr		1999 VJ ₁₁₉
1999 VM ₁₁₉	17.6	0.15	19991029	236.31690	267.10312	255.49928	3.42446	0.0791739	2.6915441	9	1	12 days	0.13			Spahr		1999 VM ₁₁₉
1999 VQ ₁₁₉	17.5	0.15	19991029	15.44788	104.90479	268.06794	2.55421	0.1119394	2.7879034	9	1	12 days	0.10			Spahr		1999 VQ ₁₁₉
1999 VR ₁₁₉	17.2	0.15	19991029	60.08540	31.40068	291.31136	2.13131	0.0924319	2.7068222	9	1	12 days	0.25			Spahr		1999 VR ₁₁₉
1999 VS ₁₁₉	17.0	0.15	19991029	65.40941	312.89203	10.37180	5.23452	0.0372575	2.7227002	9	1	12 days	0.13			Spahr		1999 VS ₁₁₉
1999 VV ₁₁₉	16.2	0.15	19991029	110.25770	24.36890	246.86341	3.91416	0.1063242	3.0721378	9	1	12 days	0.09			Spahr		1999 VV ₁₁₉
1999 VX ₁₁₉	19.1	0.15	19991029	44.30216	17.58138	308.65050	1.59024	0.2344121	2.4281431	9	1	12 days	0.18			Spahr		1999 VX ₁₁₉
1999 VC ₁₂₀	17.0	0.15	19991029	330.69509	45.48468	20.32187	6.06645	0.0480741	3.1218230	9	1	12 days	0.26		E	Spahr		1999 VC ₁₂₀
1999 VV ₁₂₀	15.6	0.15	19991029	315.40951	219.07649	229.44815	10.15994	0.1437675	3.1653650	13	1	11 days	0.29			Spahr		1999 VV ₁₂₀
1999 VW ₁₂₀	16.4	0.15	19991029	30.36143	120.77612	227.91891	10.20777	0.1726155	3.1092911	9	1	11 days	0.14			Spahr		1999 VW ₁₂₀
1999 VX ₁₂₀	16.0	0.15	19991029	13.88252	148.11974	225.00487	13.15261	0.1349233	3.2063598	12	1	11 days	0.38			Spahr		1999 VX ₁₂₀
1999 VM ₁₂₁	16.1	0.15	19991029	12.78897	344.69081	32.99651	5.18494	0.1375918	3.1464557	12	1	11 days	0.27			Spahr		1999 VM ₁₂₁
1999 VT ₁₂₁	17.2	0.15	19991029	302.13838	71.81584	40.49729	5.69861	0.1704029	2.3156306	14	1	11 days	0.45			Spahr		1999 VT ₁₂₁
1999 VV ₁₂₁	18.1	0.15	19991029	305.48127	45.62831	75.57757	3.63631	0.1697716	2.4181237	12	1	12 days	0.42			Williams		1999 VV ₁₂₁
1999 VW ₁₂₁	16.1	0.15	19991029	151.62515	89.15147	170.30164	2.09060	0.0058031	2.8749742	9	1	11 days	0.21			Spahr		1999 VW ₁₂₁
1999 VX ₁₂₁	17.2	0.15	19991029	99.49520	232.46136	65.40085	7.62549	0.1131173	2.3205263	17	1	30 days	0.66			Williams		1999 VX ₁₂₁
1999 VA ₁₂₂	18.5	0.15	19991029	356.55110	336.44492	77.60855	3.72747	0.1409106	2.5845687	9	1	12 days	0.14			Williams		1999 VA ₁₂₂
1999 VB ₁₂₂	17.4	0.15	19991029	16.77122	319.83110	71.78528	5.42309	0.0448044	2.4191406	14	1	12 days	0.34			Williams		1999 VB ₁₂₂
1999 VD ₁₂₂	18.3	0.15	19991029	26.75266	291.16624	68.63820	5.12073	0.2955715	2.6602239	12	1	12 days	0.26			Williams		1999 VD ₁₂₂
1999 VG ₁₂₂	18.6	0.15	19991029	339.81039	356.62036	79.90700	3.40043	0.1612046	2.3400472	9	1	12 days	0.11			Williams		1999 VG ₁₂₂
1999 VO ₁₂₂	17.1	0.15	19991029	287.99708	19.83216	115.68879	2.76434	0.0810012	3.1320243	9	1	12 days	0.17			Williams		1999 VO ₁₂₂
1999 VA ₁₂₃	16.3	0.15	19991118	73.35861	115.51964	202.35300	2.67875	0.2044985	2.5871878	18	1	32 days	0.39			Williams		1999 VA ₁₂₃
1999 VD ₁₂₃	16.3	0.15	19991118	22.82880	171.51831	214.23465	4.69443	0.1244782	2.5646122	21	1	38 days	0.60			Spahr		1999 VD ₁₂₃
1999 VF ₁₂₃	16.6	0.15	19991118	335.86792	263.52376	197.79661	2.32543	0.3117422	3.0309818	26	1	32 days	0.56			Williams		1999 VF ₁₂₃
1999 VH ₁₂₃	17.1	0.15	19991029	35.64728	186.81535	180.78503	1.96684	0.1006176	2.9285994	9	1	11 days	0.18			Williams		1999 VH ₁₂₃
1999 VJ ₁₂₃	18.6	0.15	19991029	355.17948	334.17239	83.41807	2.61030	0.2898611	3.0340971	9	1	11 days	0.16			Williams		1999 VJ ₁₂₃
1999 VM ₁₂₃	17.5	0.15	19991029	15.93882	180.00973	206.66304	2.97996	0.1493938	2.3401955	15	1	10 days	0.35			Williams		1999 VM ₁₂₃
1999 VP ₁₂₃	17.6	0.15	19991029	13.88348	182.73885	213.83071	5.17535	0.0421271	2.7751263	9	1	10 days	0.22			Spahr		1999 VP ₁₂₃

1999 VR ₁₂₃	15.7	0.15	19991029	309.66546	248.16817	223.47961	9.70886	0.0923263	3.0096066	9	1	10 days	0.08	Spahr	1999 VR ₁₂₃
1999 VT ₁₂₃	17.9	0.15	19991029	29.24459	212.46261	154.13218	1.45444	0.1875969	2.3586438	13	1	11 days	0.51	Williams	1999 VT ₁₂₃
1999 VW ₁₂₃	17.5	0.15	19991029	83.20322	168.25791	154.09160	2.11301	0.0690611	2.6610401	9	1	11 days	0.10	Williams	1999 VW ₁₂₃
1999 VX ₁₂₃	14.8	0.15	19991118	238.55316	327.82576	225.37947	12.45270	0.1457704	3.0466105	13	1	30 days	0.30	Spahr	1999 VX ₁₂₃
1999 VY ₁₂₃	17.7	0.15	19991029	96.47740	135.81542	163.29746	2.17738	0.1577243	2.3706311	9	1	11 days	0.14	Williams	1999 VY ₁₂₃
1999 VZ ₁₂₃	17.3	0.15	19991029	70.66748	153.52155	164.21746	2.05026	0.2080552	2.3987861	13	1	11 days	0.28	Williams	1999 VZ ₁₂₃
1999 VL ₁₂₄	16.7	0.15	19991029	90.27994	60.19840	230.67681	3.55525	0.1122062	2.9604135	9	1	9 days	0.12	E Spahr	1999 VL ₁₂₄
1999 VU ₁₂₄	17.5	0.15	19991029	241.83453	8.18359	181.80917	2.68885	0.2065560	2.4198239	9	1	5 days	0.30	E Spahr	1999 VU ₁₂₄
1999 VV ₁₂₄	18.3	0.15	19991029	87.40201	231.33865	77.01971	5.37937	0.1429768	2.3046144	9	1	6 days	0.13	E Williams	1999 VV ₁₂₄
1999 VW ₁₂₄	16.3	0.15	19991029	217.44220	340.20408	221.22884	3.88995	0.0970944	2.3852294	16	1	8 days	0.45	Williams	1999 VW ₁₂₄
1999 VX ₁₂₄	14.5	0.15	19991029	81.63397	231.65032	95.65102	2.40046	0.0470420	2.9984862	16	1	6 days	0.51	E Williams	1999 VX ₁₂₄
1999 VO ₁₂₅	17.3	0.15	19991029	58.07947	284.37938	46.99338	7.87705	0.1341133	2.5307697	14	1	9 days	0.37	Williams	1999 VO ₁₂₅
1999 VL ₁₂₆	16.4	0.15	19991029	315.25227	39.78493	29.79392	9.95986	0.0434640	2.6700498	9	1	25 days	0.07	Williams	1999 VL ₁₂₆
1999 VE ₁₂₉	17.6	0.15	19991029	26.45271	93.93303	254.62936	3.78811	0.2483758	2.3865458	30	1	13 days	0.46	Williams	1999 VE ₁₂₉
1999 VF ₁₂₉	16.3	0.15	19991029	246.04183	249.83222	271.88617	3.43944	0.1678739	2.4086143	13	1	4 days	0.35	Spahr	1999 VF ₁₂₉
1999 VG ₁₂₉	16.5	0.15	19991029	25.32792	352.86280	3.74505	4.56702	0.1681825	2.5944001	20	1	11 days	0.59	Spahr	1999 VG ₁₂₉
1999 VK ₁₂₉	17.2	0.15	19991029	25.11858	125.78921	226.30596	13.99307	0.2218993	3.0367353	12	1	6 days	0.25	E Williams	1999 VK ₁₂₉
1999 VL ₁₂₉	19.1	0.15	19991029	43.21780	91.18975	243.11677	5.16899	0.1678452	2.1976690	9	1	4 days	0.54	E Spahr	1999 VL ₁₂₉
1999 VN ₁₂₉	16.6	0.15	19991029	329.64174	213.76211	224.46194	15.72822	0.2048466	3.1991732	9	1	4 days	0.15	E Spahr	1999 VN ₁₂₉
1999 VO ₁₂₉	18.1	0.15	19991029	338.12927	183.38017	239.06114	5.03027	0.1334441	2.8673723	9	1	4 days	0.37	E Spahr	1999 VO ₁₂₉
1999 VP ₁₂₉	17.4	0.15	19991029	355.40322	169.67446	229.46388	9.19537	0.0783073	3.0804892	9	1	4 days	0.24	E Spahr	1999 VP ₁₂₉
1999 VQ ₁₂₉	18.6	0.15	19991029	288.45321	208.07609	275.75084	1.94113	0.1559858	2.3741050	9	1	4 days	0.39	E Spahr	1999 VQ ₁₂₉
1999 VS ₁₂₉	16.5	0.15	19991029	310.75125	75.10429	21.57769	4.56572	0.1304188	2.2159034	11	1	5 days	0.18	E Williams	1999 VS ₁₂₉
1999 VV ₁₂₉	16.3	0.15	19991029	76.45119	79.81367	233.05493	6.52639	0.0440453	3.0201788	9	1	4 days	0.07	E Spahr	1999 VV ₁₂₉
1999 VW ₁₂₉	17.2	0.15	19991029	88.51355	25.04355	260.57970	2.29365	0.1855129	2.2151549	9	1	4 days	0.09	E Spahr	1999 VW ₁₂₉
1999 VY ₁₂₉	16.3	0.15	19991029	335.47244	197.12986	227.90191	9.20211	0.1097371	3.1057634	9	1	4 days	0.30	E Spahr	1999 VY ₁₂₉
1999 VD ₁₃₀	18.0	0.15	19991029	47.47510	50.83328	268.11809	1.80834	0.2747062	2.6734083	9	1	4 days	0.14	E Spahr	1999 VD ₁₃₀
1999 VF ₁₃₀	16.9	0.15	19991029	273.18674	282.16322	228.93557	12.79733	0.1102613	2.6543940	14	1	5 days	0.41	E Williams	1999 VF ₁₃₀
1999 VL ₁₃₀	15.7	0.15	19991029	112.08140	235.70561	44.40758	23.03575	0.1722195	2.2866456	13	1	7 days	0.49	Williams	1999 VL ₁₃₀
1999 VO ₁₃₀	15.6	0.15	19991029	351.93149	14.58157	39.60124	6.34735	0.1799140	3.1904608	30	1	49 days	0.67	Williams	1999 VO ₁₃₀
1999 VY ₁₃₀	17.1	0.15	19991029	10.59378	64.02160	321.39498	0.55462	0.1920087	2.3743295	11	1	7 days	0.48	E Williams	1999 VY ₁₃₀
1999 VA ₁₃₁	14.8	0.15	19991029	195.92023	338.38640	230.62646	9.44770	0.0408681	3.1156379	9	1	7 days	0.58	E Williams	1999 VA ₁₃₁
1999 VT ₁₃₂	17.9	0.15	19991009	31.32386	10.49860	309.03917	1.94741	0.1476185	2.3655092	12	1	39 days	0.40	Williams	1999 VT ₁₃₂
1999 VC ₁₃₃	15.3	0.15	19991029	286.92481	255.30470	191.90730	9.90056	0.0687216	2.9888036	12	1	28 days	0.12	Williams	1999 VC ₁₃₃
1999 VW ₁₃₃	15.5	0.15	19991029	339.90223	185.82240	238.66171	4.68192	0.0454280	2.7327343	14	1	6 days	0.42	E Williams	1999 VW ₁₃₃
1999 VX ₁₃₃	15.5	0.15	19991029	274.16623	262.53636	234.24197	6.25072	0.0737159	2.5634163	15	1	6 days	0.46	E Williams	1999 VX ₁₃₃
1999 VD ₁₃₄	16.5	0.15	19991029	333.79392	198.07573	232.84713	6.65292	0.0416197	2.4270325	14	1	6 days	0.76	E Williams	1999 VD ₁₃₄
1999 VL ₁₃₄	17.4	0.15	19991029	339.20871	192.52239	239.36202	2.58019	0.1580560	2.7697675	15	1	5 days	0.46	E Williams	1999 VL ₁₃₄
1999 VN ₁₃₄	14.6	0.15	20000226	233.92053	286.11462	273.97671	0.78810	0.0339081	2.5941321	38	2	1997-1999	0.38	M-v 5 Williams	37843 1999 VN ₁₃₄
1999 VG ₁₃₅	15.6	0.15	19991029	342.89070	102.19910	294.63276	2.64416	0.2974001	3.9443708	12	1	28 days	0.33	Williams	1999 VG ₁₃₅
1999 VK ₁₃₅	14.5	0.15	20000226	42.71085	174.90066	195.53042	10.43658	0.2338159	2.7358072	41	1	128 days	0.63	M-v 4 Williams	38123 1999 VK ₁₃₅
1999 VO ₁₃₅	17.1	0.15	19991029	328.91846	64.05215	20.90303	2.99300	0.2147917	2.2729301	15	1	9 days	0.77	Williams	1999 VO ₁₃₅
1999 VP ₁₃₅	16.2	0.15	19991029	334.39384	213.42866	230.14937	6.15071	0.2862665	2.7265076	12	1	9 days	0.46	Williams	1999 VP ₁₃₅
1999 VQ ₁₃₅	14.7	0.15	19991029	324.73782	191.42198	252.63999	5.05013	0.1366052	2.9546405	11	1	8 days	0.59	Williams	1999 VQ ₁₃₅
1999 VR ₁₃₅	15.9	0.15	19991029	334.15462	184.42567	247.19341	4.52857	0.1334100	2.4059867	13	1	8 days	0.61	Williams	1999 VR ₁₃₅
1999 VA ₁₃₆	14.9	0.15	19991009	82.49380	354.91112	314.17420	0.93556	0.0426062	3.4585820	16	1	39 days	0.52	Williams	1999 VA ₁₃₆
1999 VF ₁₃₆	16.8	0.15	19991029	134.22808	213.22669	54.18406	7.30373	0.1178685	2.3953949	14	1	8 days	0.57	Williams	1999 VF ₁₃₆
1999 VG ₁₃₆	17.3	0.15	19991029	3.50382	154.94725	248.62739	0.40492	0.2233168	3.0256495	9	1	8 days	0.36	Williams	1999 VG ₁₃₆
1999 VH ₁₃₆	17.3	0.15	19991029	75.37739	269.42016	51.36050	25.10853	0.0968654	1.8921383	11	1	6 days	0.47	Williams	1999 VH ₁₃₆
1999 VJ ₁₃₆	18.3	0.15	19991029	19.25187	315.75280	62.73733	1.95505	0.2055032	2.6430896	9	1	8 days	0.37	Williams	1999 VJ ₁₃₆
1999 VK ₁₃₆	17.0	0.15	19991029	297.28593	73.11489	54.03871	13.62291	0.1365038	2.5404987	9	1	8 days	0.60	Williams	1999 VK ₁₃₆
1999 VL ₁₃₆	15.8	0.15	19991029	24.58908	323.96039	50.98765	12.80171	0.1880383	2.5657352	13	1	7 days	0.66	E Williams	1999 VL ₁₃₆
1999 VO ₁₃₆	15.8	0.15	19991118	1.68965	6.98221	56.86221	6.73072	0.1527484	2.3492007	32	1	56 days	0.63	Williams	1999 VO ₁₃₆

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1999 VQ ₁₃₆	16.3	0.15	19991029	20.11440	337.51048	60.15473	6.89442	0.0839262	2.1986749	13	1	7 days	0.64	E	Williams	1999 VQ ₁₃₆
1999 VY ₁₃₆	17.3	0.15	19991029	4.70572	168.95928	234.44294	1.13421	0.0738035	2.6150855	12	1	5 days	0.48	E	Williams	1999 VY ₁₃₆
1999 VZ ₁₃₆	17.2	0.15	19991029	179.54728	1.01702	228.33134	2.51939	0.0624653	2.1824289	13	1	5 days	0.42	E	Williams	1999 VZ ₁₃₆
1999 VA ₁₃₇	16.2	0.15	19991029	188.21934	354.66811	230.79665	7.25064	0.2028395	2.5085635	12	1	5 days	0.49	E	Williams	1999 VA ₁₃₇
1999 VB ₁₃₇	15.8	0.15	19991029	358.34343	182.09070	230.25322	7.66599	0.0682175	3.1010604	12	1	5 days	0.45	E	Williams	1999 VB ₁₃₇
1999 VC ₁₃₇	16.6	0.15	19991029	4.91631	345.54547	56.65065	6.41324	0.1842501	3.1325832	12	1	5 days	0.43	E	Williams	1999 VC ₁₃₇
1999 VD ₁₃₇	16.0	0.15	19991029	65.70311	84.31309	240.16764	2.33474	0.1813778	2.9767495	10	1	5 days	0.57	E	Williams	1999 VD ₁₃₇
1999 VE ₁₃₇	16.1	0.15	19991029	73.88843	7.06971	313.86706	0.33676	0.1449808	3.1610971	10	1	5 days	0.48	E	Williams	1999 VE ₁₃₇
1999 VF ₁₃₇	17.5	0.15	19991029	17.26141	166.39774	210.65094	0.96080	0.2854438	2.9885301	11	1	5 days	0.40	E	Williams	1999 VF ₁₃₇
1999 VG ₁₃₇	15.7	0.15	19991029	34.73372	113.58676	251.13251	2.12971	0.1311789	2.4983468	14	1	4 days	0.36	E	Williams	1999 VG ₁₃₇
1999 VJ ₁₃₇	16.9	0.15	19991029	350.95445	12.32161	50.57821	2.48972	0.2388283	2.6404520	11	1	4 days	0.61	E	Williams	1999 VJ ₁₃₇
1999 VM ₁₃₇	16.9	0.15	19991029	31.29394	129.92900	237.28086	0.82124	0.1679955	2.8751752	12	1	5 days	0.41	E	Williams	1999 VM ₁₃₇
1999 VU ₁₃₇	14.2	0.15	20000226	359.20766	82.22308	4.29229	1.61887	0.0076641	2.8927591	35	1	62 days	0.56	M-v	Williams	1999 VU ₁₃₇
1999 VV ₁₃₇	16.1	0.15	20000226	38.97169	125.29267	290.53634	1.04353	0.1496520	2.1945967	27	1	79 days	0.58	M-v	Williams	1999 VV ₁₃₇
1999 VZ ₁₃₇	15.9	0.15	19991029	302.09902	54.88005	64.55869	7.05300	0.1585176	2.6351837	11	1	3 days	0.67	E	Williams	1999 VZ ₁₃₇
1999 VF ₁₃₈	15.2	0.15	19991029	326.72877	52.73280	43.31136	16.78393	0.2427295	3.1228235	28	1	12 days	0.33	Williams		1999 VF ₁₃₈
1999 VK ₁₄₀	16.7	0.15	19991029	14.68571	129.51294	240.21334	2.57841	0.2511776	2.6013974	11	1	6 days	0.38	E	Williams	1999 VK ₁₄₀
1999 VE ₁₄₁	16.6	0.15	19991029	46.56505	299.71374	38.85857	7.01099	0.1720540	2.2806703	28	1	12 days	0.56	Williams		1999 VE ₁₄₁
1999 VG ₁₄₁	15.0	0.15	19991029	147.31601	317.86941	297.64004	1.21148	0.0063337	2.8984250	31	1	18 days	0.51	Williams		1999 VG ₁₄₁
1999 VJ ₁₄₁	15.5	0.15	19991029	32.42935	329.11696	34.22280	4.78332	0.1069531	2.9600185	28	1	12 days	0.52	Williams		1999 VJ ₁₄₁
1999 VT ₁₄₁	16.2	0.15	19991029	311.43172	78.47195	18.31768	1.89925	0.0466938	2.9989115	15	1	5 days	0.37	E	Williams	1999 VT ₁₄₁
1999 VU ₁₄₁	17.8	0.15	19991029	317.55076	70.51210	32.41423	2.87959	0.1920614	2.3870181	15	1	5 days	0.34	E	Williams	1999 VU ₁₄₁
1999 VX ₁₄₁	17.5	0.15	19991029	350.21855	33.53906	24.50812	1.59963	0.2039370	2.7992132	15	1	5 days	0.34	E	Williams	1999 VX ₁₄₁
1999 VQ ₁₄₂	17.6	0.15	19991029	52.32787	78.48611	228.89077	11.90407	0.2906799	2.6295559	12	1	6 days	0.23	E	Williams	1999 VQ ₁₄₂
1999 VJ ₁₄₃	17.7	0.15	19991118	57.36940	123.03185	214.33146	4.66576	0.2177648	2.1998573	19	1	23 days	0.54	Williams		1999 VJ ₁₄₃
1999 VP ₁₄₃	16.6	0.15	19991029	29.88821	56.79049	298.22616	1.99096	0.2018941	2.2160560	13	1	5 days	0.41	E	Williams	1999 VP ₁₄₃
1999 VQ ₁₄₃	17.3	0.15	19991029	1.27854	124.59437	272.03403	2.49169	0.2817148	2.4694353	12	1	5 days	0.38	E	Williams	1999 VQ ₁₄₃
1999 VR ₁₄₃	17.9	0.15	19991029	354.05466	66.67722	341.55609	2.26691	0.1917231	2.1564258	13	1	5 days	0.88	E	Williams	1999 VR ₁₄₃
1999 VS ₁₄₃	17.0	0.15	19991029	356.68104	149.19139	255.60707	3.96504	0.2311388	2.3409879	12	1	5 days	0.59	E	Williams	1999 VS ₁₄₃
1999 VT ₁₄₃	14.5	0.15	19991029	163.84759	4.04890	229.25765	27.07537	0.1617817	2.6151246	13	1	5 days	0.26	E	Williams	1999 VT ₁₄₃
1999 VU ₁₄₃	14.9	0.15	19991029	284.16724	231.48011	247.50716	3.80308	0.0150378	2.7799888	13	1	5 days	0.51	E	Williams	1999 VU ₁₄₃
1999 VV ₁₄₃	15.7	0.15	19991029	52.33301	292.85976	31.52675	10.50856	0.2357308	2.9380463	13	1	5 days	0.49	E	Williams	1999 VV ₁₄₃
1999 VX ₁₄₃	15.6	0.15	19991029	55.34086	93.98496	238.42597	7.27254	0.1351997	2.7192829	13	1	5 days	0.84	E	Williams	1999 VX ₁₄₃
1999 VY ₁₄₃	15.3	0.15	19991029	164.71624	209.50124	26.16352	6.99340	0.0802283	2.3813789	12	1	5 days	0.58	E	Williams	1999 VY ₁₄₃
1999 VZ ₁₄₃	17.6	0.15	19991029	12.99930	345.31416	38.35696	8.50899	0.1376459	2.2590374	13	1	5 days	1.13	E	Williams	1999 VZ ₁₄₃
1999 VA ₁₄₄	16.3	0.15	19991029	343.78668	49.87666	8.38936	1.53083	0.0158044	2.1962821	13	1	5 days	0.60	E	Williams	1999 VA ₁₄₄
1999 VB ₁₄₄	15.7	0.15	19991029	51.84495	81.76365	244.56417	4.32378	0.2298151	2.7270862	11	1	5 days	0.52	E	Williams	1999 VB ₁₄₄
1999 VD ₁₄₄	14.9	0.15	19991029	143.50352	299.71302	306.96624	1.64859	0.2596153	2.5427777	11	1	5 days	0.96	E	Williams	1999 VD ₁₄₄
1999 VG ₁₄₄	15.2	0.15	19991029	343.24974	168.38600	254.78860	8.16549	0.1111903	3.1467468	12	1	5 days	0.46	E	Williams	1999 VG ₁₄₄
1999 VH ₁₄₄	15.9	0.15	19991029	329.38025	47.84068	32.26713	14.50889	0.1050683	2.6912555	12	1	5 days	0.61	E	Williams	1999 VH ₁₄₄
1999 VJ ₁₄₄	14.3	0.15	19991029	122.85226	19.52926	256.86513	5.79616	0.0319433	2.5786512	13	1	5 days	0.45	E	Williams	1999 VJ ₁₄₄
1999 VK ₁₄₄	16.1	0.15	19991029	352.64583	60.74558	351.16547	3.03642	0.1525742	2.7118649	15	1	5 days	0.77	E	Williams	1999 VK ₁₄₄
1999 VL ₁₄₄	15.0	0.15	19991029	46.67180	47.17011	279.90957	4.58012	0.2802222	3.2210816	13	1	5 days	0.46	E	Williams	1999 VL ₁₄₄
1999 VP ₁₄₄	16.9	0.15	19991029	354.85360	22.23421	27.13771	6.97034	0.1220035	2.2702052	13	1	5 days	0.49	E	Williams	1999 VP ₁₄₄
1999 VQ ₁₄₄	14.8	0.15	19991029	294.24501	172.54837	315.14892	4.14400	0.1508585	3.2728829	12	1	5 days	0.83	E	Williams	1999 VQ ₁₄₄
1999 VR ₁₄₄	15.0	0.15	19991029	346.70148	169.99696	251.67647	8.27752	0.1364750	3.1004662	13	1	5 days	0.35	E	Williams	1999 VR ₁₄₄
1999 VA ₁₄₅	15.4	0.15	19991029	348.83014	43.57430	15.99004	7.48044	0.1350554	3.0311724	13	1	3 days	0.40	E	Williams	1999 VA ₁₄₅
1999 VB ₁₄₅	17.3	0.15	19991029	5.93323	85.41519	305.91836	3.04265	0.2898920	2.6922146	11	1	3 days	0.52	E	Williams	1999 VB ₁₄₅
1999 VC ₁₄₅	15.2	0.15	19991029	107.00183	309.48039	322.90914	3.90436	0.2703286	2.2947947	13	1	3 days	0.45	E	Williams	1999 VC ₁₄₅
1999 VD ₁₄₅	14.9	0.15	19991029	28.20714	84.61850	286.94017	4.67433	0.0861704	2.7954895	12	1	3 days	0.42	E	Williams	1999 VD ₁₄₅
1999 VN ₁₄₆	16.7	0.15	19991029	262.62086	292.75897	215.86495	5.55849	0.0675486	2.5217112	13	1	4 days	0.41	E	Williams	1999 VN ₁₄₆
1999 VU ₁₄₆	15.5	0.15	19991029	263.44803	136.95318	25.66122	1.86583	0.1466888	2.4030372	13	1	4 days	0.46	E	Williams	1999 VU ₁₄₆
1999 VV ₁₄₆	17.5	0.15	19991029	351.15033	328.44580	94.28819	1.85326	0.2406088	2.7478958	13	1	4 days	0.96	E	Williams	1999 VV ₁₄₆

1999 VW ₁₄₆	16.0	0.15	19991029	84.73146	134.85848	176.40801	1.81560	0.1296534	2.4148247	12	1	4 days	0.53	E Williams	1999 VW ₁₄₆
1999 VX ₁₄₆	18.0	0.15	19991029	346.26869	332.68002	94.29635	0.26257	0.2738711	2.8497610	10	1	5 days	0.54	E Williams	1999 VX ₁₄₆
1999 VM ₁₄₇	14.4	0.15	19991029	61.00136	122.24678	217.56254	10.53808	0.0519142	3.1164336	13	1	3 days	0.70	E Williams	1999 VM ₁₄₇
1999 VG ₁₄₈	15.5	0.15	19991029	47.71567	278.51940	60.42089	9.74163	0.1769776	2.5244124	15	1	2 days	0.40	E Williams	1999 VG ₁₄₈
1999 VH ₁₄₈	15.1	0.15	19991029	299.23235	252.31558	218.12153	9.13536	0.0446271	2.6403246	15	1	2 days	0.55	E Williams	1999 VH ₁₄₈
1999 VJ ₁₄₈	16.8	0.15	19991029	26.18000	298.64140	69.66231	5.15917	0.1487864	2.3859309	13	1	2 days	0.94	E Williams	1999 VJ ₁₄₈
1999 VK ₁₄₈	14.0	0.15	19991029	78.19543	137.61921	161.90271	2.46249	0.2447547	3.0174068	15	1	2 days	0.57	E Williams	1999 VK ₁₄₈
1999 VL ₁₄₈	13.7	0.15	19991029	345.12056	215.21739	209.97717	8.29270	0.1252233	3.8962595	14	1	2 days	0.74	E Williams	1999 VL ₁₄₈
1999 VO ₁₄₈	15.5	0.15	19991029	356.88010	135.23571	272.43837	1.90605	0.1479543	2.6875407	15	1	2 days	0.64	E Williams	1999 VO ₁₄₈
1999 VY ₁₄₈	16.2	0.15	19991029	24.29168	287.20853	99.54504	3.45318	0.0567457	2.8108008	13	1	2 days	0.52	E Williams	1999 VY ₁₄₈
1999 VA ₁₄₉	15.4	0.15	19991029	40.73692	190.18990	161.50488	2.26461	0.2345461	3.1894969	13	1	2 days	0.45	E Williams	1999 VA ₁₄₉
1999 VR ₁₄₉	15.2	0.15	19991029	78.08059	273.00117	36.36698	4.66236	0.1906285	2.4290693	14	1	2 days	0.32	E Williams	1999 VR ₁₄₉
1999 VV ₁₄₉	16.9	0.15	19991029	357.27489	149.81291	262.33946	2.63021	0.2708050	2.7746850	13	1	2 days	0.93	E Williams	1999 VV ₁₄₉
1999 VW ₁₄₉	17.1	0.15	19991029	9.61233	103.58462	288.43017	1.16969	0.2089960	2.4304098	15	1	2 days	0.60	E Williams	1999 VW ₁₄₉
1999 VA ₁₅₀	16.1	0.15	19991029	335.02082	194.54674	247.32468	1.79408	0.2620661	2.5545775	19	1	2 days	0.45	E Williams	1999 VA ₁₅₀
1999 VD ₁₅₀	15.1	0.15	19991029	353.01402	14.32630	38.62817	8.74217	0.2755974	3.1664441	15	1	2 days	0.41	E Williams	1999 VD ₁₅₀
1999 VF ₁₅₀	14.8	0.15	19991029	11.38983	348.64078	35.03808	4.54828	0.1953040	3.9861779	17	1	3 days	0.73	E Williams	1999 VF ₁₅₀
1999 VH ₁₅₀	17.0	0.15	19991029	30.89987	319.95798	29.18092	2.80786	0.2503518	2.2670984	12	1	2 days	0.66	E Williams	1999 VH ₁₅₀
1999 VK ₁₅₀	17.2	0.15	19991029	332.47871	59.88546	21.07127	1.40731	0.1719514	2.1713638	13	1	2 days	0.83	E Williams	1999 VK ₁₅₀
1999 VR ₁₅₀	14.2	0.15	19991029	2.37895	165.77088	231.37198	8.33477	0.1391176	3.2559090	14	1	2 days	0.43	E Williams	1999 VR ₁₅₀
1999 VA ₁₅₁	14.2	0.15	19991029	274.63010	116.24081	38.97123	12.33812	0.1528175	3.1096687	12	1	2 days	0.58	E Williams	1999 VA ₁₅₁
1999 VC ₁₅₁	14.8	0.15	19991029	25.17456	333.51404	38.75538	10.16867	0.2084490	3.0176499	14	1	2 days	0.35	E Williams	1999 VC ₁₅₁
1999 VE ₁₅₁	14.8	0.15	19991029	62.67840	284.42111	48.50185	7.06705	0.1657858	2.8161815	15	1	2 days	0.49	E Williams	1999 VE ₁₅₁
1999 VF ₁₅₁	15.8	0.15	19991029	325.56927	187.93314	271.01011	2.07485	0.1672574	2.5099382	14	1	2 days	0.31	E Williams	1999 VF ₁₅₁
1999 VH ₁₅₁	17.3	0.15	19991029	27.95682	56.29956	312.33438	1.15366	0.1862147	2.1281329	13	1	2 days	0.60	E Williams	1999 VH ₁₅₁
1999 VN ₁₅₁	14.9	0.15	19991029	75.24449	298.91298	39.57210	4.13627	0.0086598	2.7436252	13	1	2 days	0.46	E Williams	1999 VN ₁₅₁
1999 VO ₁₅₁	13.7	0.15	19991029	131.48058	18.38924	264.01049	2.87930	0.0269018	3.2333181	14	1	2 days	0.43	E Williams	1999 VO ₁₅₁
1999 VW ₁₅₂	17.0	0.15	19991029	141.11973	57.34088	209.31485	4.52721	0.0837937	2.3871233	9	1	6 days	0.56	E Williams	1999 VW ₁₅₂
1999 WV ₁₅₃	17.0	0.15	19991029	64.61050	37.68712	270.83240	3.12446	0.1653084	2.6449111	9	1	2 days	0.15	E Williams	1999 WV ₁₅₃
1999 WB	14.0	0.15	20000226	63.06601	134.49155	232.73222	13.78391	0.1394044	2.6524052	85	2	1998–2000	0.56	M-v 3 Williams	38123 1999 WB
1999 WC	14.0	0.15	20000226	126.30707	303.42946	349.03364	13.02954	0.1623914	2.5559627	52	1	113 days	0.53	M-v 4 Williams	38123 1999 WC
1999 WG	14.2	0.15	20000226	69.10778	96.80704	274.81868	10.02754	0.1847816	2.5992902	51	1	80 days	0.67	M-v 4 Williams	1999 WG
1999 WH	12.2	0.15	20000226	161.30902	237.52185	54.07806	11.24709	0.0903237	2.9891431	52	4	1980–2000	0.71	M-v 2 Williams	38123 1999 WH
1999 WL	14.2	0.15	20000226	355.31107	15.13481	99.28431	6.07605	0.0979793	2.2520417	79	5	1980–2000	0.60	M-v 2 Williams	38124 1999 WL
1999 WN	16.7	0.15	20000226	61.02815	265.48765	90.58691	4.13017	0.2642822	2.2568615	38	1	90 days	0.58	M-v 4 Williams	38124 1999 WN
1999 WP	15.0	0.15	20000226	18.38223	287.89463	149.99108	1.32111	0.1700407	2.3694710	69	2	1997–2000	0.58	M-v 3 Spahr	38124 1999 WP
1999 WT	15.8	0.15	20000226	22.22784	35.49892	32.56697	4.50248	0.2019945	2.3851962	43	1	88 days	0.52	M-v 4 Williams	1999 WT
1999 WV	16.0	0.15	20000226	35.00420	151.20211	268.09528	5.11130	0.1774555	2.2316554	48	1	80 days	0.51	M-v 4 Williams	1999 WV
1999 WX	14.4	0.15	20000226	47.79397	338.63027	83.51438	7.95354	0.0761929	2.3094016	60	1	79 days	0.45	M-v 4 Williams	1999 WX
1999 WY	14.3	0.15	20000226	54.80392	95.09520	286.07361	26.15030	0.4281635	2.6288382	131	2	1990–2000	0.46	M-v 3 Spahr	38124 1999 WY
1999 WA ₁	12.6	0.15	20000226	21.16916	321.40625	88.53989	15.45608	0.0889566	3.0229553	62	2	1994–2000	0.58	M-v 3 Spahr	38124 1999 WA ₁
1999 WC ₁	14.0	0.15	20000226	49.29978	218.20561	163.04895	16.41733	0.2882232	2.6134014	37	1	91 days	0.51	M-v 4 Spahr	38124 1999 WC ₁
1999 WG ₁	16.5	0.15	19991029	13.17746	2.77032	15.28218	2.43415	0.2022126	2.4674156	69	1	59 days	0.53	Williams	1999 WG ₁
1999 WM ₁	14.6	0.15	20000226	32.38521	334.91374	79.85298	4.91344	0.1261792	2.2988825	103	1	123 days	0.44	M-v 3 Spahr	38124 1999 WM ₁
1999 WN ₁	14.3	0.15	20000226	273.09078	98.90383	71.82489	9.79388	0.0315452	3.0005404	41	1	67 days	0.53	M-v 5 Williams	1999 WN ₁
1999 WP ₁	14.6	0.15	20000226	52.96893	298.93978	96.17610	3.19630	0.2039140	2.3849249	58	1	88 days	0.38	M-v 4 Williams	1999 WP ₁
1999 WQ ₁	12.9	0.15	20000226	6.17036	314.42690	109.50853	18.51617	0.2780274	2.6610280	58	2	1983–2000	0.57	M-v 3 Williams	37843 1999 WQ ₁
1999 WR ₁	14.3	0.15	20000226	73.53691	305.67828	49.31167	22.67938	0.0230960	2.5572345	66	2	1991–2000	0.55	M-v 4 Williams	38124 1999 WR ₁
1999 WT ₁	14.5	0.15	20000226	232.98756	45.99992	160.89402	2.16929	0.0963745	2.2600077	51	1	66 days	0.61	M-v 5 Williams	1999 WT ₁
1999 WV ₁	15.4	0.15	20000226	353.17323	322.46749	134.33342	2.66463	0.1656073	2.3697428	55	1	111 days	0.57	M-v 4 Williams	38124 1999 WV ₁
1999 WZ ₁	14.7	0.15	20000226	36.68279	146.04881	246.73494	7.85305	0.2943082	2.7446321	61	1	92 days	0.51	M-v 4 Spahr	38124 1999 WZ ₁
1999 WA ₂	15.5	0.15	20000226	84.24308	75.22211	293.86860	34.62002	0.4341421	1.9662989	61	1	86 days	0.46	M-v 4 Williams	38124 1999 WA ₂
1999 WB ₂	11.4	0.15	20000226	55.90642	3.94567	50.29909	13.02319	0.0968682	5.1228269	52	3	1997–2000	0.60	M-v 3 Williams	37844 1999 WB ₂

1999 WC ₂	16.6	0.15	20000226	3.43825	286.89434	270.28589	29.38118	0.6383790	2.2153165	27	1	82 days	0.73	M-v	5	Spahr	38124	1999 WC ₂
1999 WG ₂	17.3	0.15	20000226	34.83237	213.19253	169.34080	1.68241	0.2108937	2.3039378	29	1	61 days	0.72	M-v	5	Williams		1999 WG ₂
1999 WK ₂	14.5	0.15	20000226	225.95261	161.11052	52.07732	7.86759	0.1040488	2.1951731	60	1	97 days	0.47	M-v	4	Williams	38124	1999 WK ₂
1999 WL ₂	16.0	0.15	19991029	240.29900	90.49612	76.29964	3.70572	0.0571824	2.1941480	40	1	48 days	0.69			Williams		1999 WL ₂
1999 WN ₂	14.7	0.15	20000226	99.28723	266.17912	79.33783	3.14678	0.0598535	2.3465651	75	2	1992–2000	0.61	M-v	4	Williams	38124	1999 WN ₂
1999 WP ₂	15.4	0.15	20000226	12.58501	10.75231	74.70506	7.14706	0.2698821	2.5783000	50	1	88 days	0.52	M-v	4	Williams		1999 WP ₂
1999 WQ ₂	14.0	0.15	20000226	99.23232	122.36538	198.69008	4.48621	0.0457634	2.7257598	69	4	1990–2000	0.53	M-v	1	Williams	37844	1999 WQ ₂
1999 WT ₂	15.2	0.15	20000226	45.31171	38.92311	351.17244	1.44905	0.2295123	2.7281957	43	2	1994–2000	0.63	M-v	4	Williams	38124	1999 WT ₂
1999 WV ₂	13.7	0.15	20000226	342.30760	6.50205	111.83936	10.16530	0.0888931	2.7495821	57	2	1993–2000	0.53	M-v	3	Spahr	37845	1999 WV ₂
1999 WY ₂	14.3	0.15	20000226	117.72455	158.03123	150.54913	1.45243	0.2213561	2.4029232	45	1	73 days	0.54	M-v	5	Williams	38124	1999 WY ₂
1999 WA ₃	13.7	0.15	20000226	37.51112	332.42413	70.17041	14.56417	0.1048846	2.9621128	55	2	1994–2000	0.58	M-v	4	Williams	37845	1999 WA ₃
1999 WC ₃	14.9	0.15	20000226	330.97006	49.04650	86.86655	3.57467	0.1612259	2.4016093	53	1	78 days	0.53	M-v	5	Williams		1999 WC ₃
1999 WH ₃	12.6	0.15	20000226	11.04667	15.67327	64.80683	14.08644	0.0495229	2.9735631	57	1	100 days	0.57	M-v	4	Williams	38124	1999 WH ₃
1999 WJ ₃	14.4	0.15	20000226	10.91527	161.18661	282.98126	6.68486	0.0242787	2.3856903	37	2	1998–2000	0.68	M-v	4	Williams	37845	1999 WJ ₃
1999 WL ₃	14.7	0.15	20000226	351.59848	33.11832	88.14230	13.64071	0.2280790	2.5807594	56	1	114 days	0.61	M-v	4	Williams	38124	1999 WL ₃
1999 WM ₃	13.3	0.15	20000226	98.27121	62.62824	273.49258	8.34637	0.1202064	3.0319047	61	2	1998–2000	0.57	M-v	3	Williams	37846	1999 WM ₃
1999 WO ₃	14.2	0.15	20000226	331.49732	263.59011	233.86251	5.13470	0.0844900	2.3028575	58	2	1960–2000	0.54	M-v	4	Spahr	37846	1999 WO ₃
1999 WR ₃	13.4	0.15	20000226	72.88401	257.95473	112.35420	3.18760	0.1258078	2.7457550	40	1	64 days	0.43	M-v	5	Williams	38125	1999 WR ₃
1999 WS ₃	14.9	0.15	20000226	52.87404	163.86638	227.75206	2.58028	0.2158754	2.2966352	58	1	95 days	0.58	M-v	4	Spahr	38125	1999 WS ₃
1999 WT ₃	14.8	0.15	20000226	27.37259	156.45357	272.15015	5.82414	0.0776227	2.2868395	46	1	81 days	0.60	M-v	4	Williams		1999 WT ₃
1999 WU ₃	13.9	0.15	20000226	289.04630	330.19184	209.26737	6.80557	0.0690930	2.3745422	62	3	1995–2000	0.53	M-v	2	Spahr	37847	1999 WU ₃
1999 WV ₃	14.2	0.15	20000226	122.71531	292.00687	28.71600	4.76358	0.1228487	2.2945159	57	3	1978–2000	0.72	M-v	3	Williams	37847	1999 WV ₃
1999 WW ₃	13.9	0.15	20000226	31.49872	316.38999	106.45489	7.59463	0.1628972	2.4504061	54	3	1981–2000	0.46	M-v	2	Spahr	38125	1999 WW ₃
1999 WX ₃	14.8	0.15	20000226	32.77892	211.49378	211.82107	4.97045	0.1867842	2.2978629	50	2	1978–2000	0.47	M-v	3	Spahr	37847	1999 WX ₃
1999 WZ ₃	13.6	0.15	20000226	0.90526	250.43400	206.19348	1.41783	0.0491380	2.8710422	43	1	64 days	0.61	M-v	4	Williams	38125	1999 WZ ₃
1999 WB ₄	14.8	0.15	20000226	32.25473	30.74198	27.11865	4.10610	0.1957788	2.4154473	57	1	89 days	0.58	M-v	4	Williams		1999 WB ₄
1999 WC ₄	13.4	0.15	20000226	39.50115	77.65462	324.82725	4.22158	0.1354118	3.0333647	52	1	87 days	0.52	M-v	4	Williams		1999 WC ₄
1999 WE ₄	13.9	0.15	20000226	313.47098	323.30437	193.67268	5.19560	0.0718597	2.2575835	56	4	1975–2000	0.52	M-v	2	Spahr	38125	1999 WE ₄
1999 WH ₄	16.5	0.15	19991029	4.88572	319.43233	73.21598	2.61052	0.1879208	2.3969626	20	1	45 days	0.52			Williams		1999 WH ₄
1999 WL ₄	14.5	0.15	20000226	23.96159	338.87552	96.75307	3.69538	0.1424344	2.3968005	48	2	1998–2000	0.40	M-v	3	Spahr	38125	1999 WL ₄
1999 WM ₄	15.2	0.15	20000226	21.18961	149.21534	287.30341	5.29677	0.0926960	2.2883717	39	1	87 days	0.65	M-v	4	Williams		1999 WM ₄
1999 WN ₄	14.9	0.15	20000226	40.62940	106.97367	299.32881	3.96975	0.2165949	2.3145185	59	1	121 days	0.44	M-v	4	Williams	38125	1999 WN ₄
1999 WO ₄	15.1	0.15	20000226	59.86413	230.61001	159.33103	4.04790	0.1547186	2.2836469	40	1	78 days	0.50	M-v	4	Williams		1999 WO ₄
1999 WP ₄	13.8	0.15	20000226	274.08590	98.87115	94.49181	7.77597	0.0492748	2.3144979	71	2	1998–2000	0.52	M-v	3	Williams	38125	1999 WP ₄
1999 WU ₄	14.2	0.15	20000226	113.22465	32.91882	295.92902	6.15632	0.1311097	2.3440329	42	2	1993–2000	0.51	M-v	5	Williams	37848	1999 WU ₄
1999 WW ₄	12.2	0.15	20000226	148.64713	202.79080	101.03115	11.50901	0.0398905	3.1668163	52	5	1988–2000	0.54	M-v	1	Spahr	37848	1999 WW ₄
1999 WX ₄	14.8	0.15	20000226	43.99124	275.27230	130.41116	4.04800	0.1640100	2.5948595	42	2	1998–2000	0.65	M-v	4	Spahr	37849	1999 WX ₄
1999 WZ ₄	14.0	0.15	20000226	343.10561	39.03354	82.76163	16.86832	0.0675651	2.5598446	57	1	99 days	0.48	M-v	4	Williams	38125	1999 WZ ₄
1999 WA ₅	15.4	0.15	20000226	52.23576	266.26327	124.29275	4.92868	0.12510149	2.3215750	39	1	65 days	0.41	M-v	4	Williams		1999 WA ₅
1999 WB ₅	14.7	0.15	20000226	335.36313	341.41602	156.91446	3.00816	0.291472	2.4125109	45	3	1989–2000	0.57	M-v	4	Williams	38125	1999 WB ₅
1999 WD ₅	13.6	0.15	20000226	27.05018	178.23349	250.87602	12.03525	0.1609184	2.6864357	50	1	103 days	0.54	M-v	4	Williams	38125	1999 WD ₅
1999 WY ₅	13.6	0.15	20000226	14.25074	321.55027	108.67632	24.55096	0.2733798	2.3137334	36	1	129 days	0.49	M-v	3	Williams	38125	1999 WY ₅
1999 WF ₆	15.8	0.15	19991029	46.74912	268.85259	80.31334	7.28609	0.1525966	2.3806659	46	1	49 days	0.64			Williams		1999 WF ₆
1999 WK ₆	15.2	0.15	20000226	336.21326	44.12042	70.19515	8.07634	0.0362989	2.2801602	84	1	92 days	0.52	M-v	4	Williams	38125	1999 WK ₆
1999 WN ₆	14.1	0.15	20000226	27.99808	325.25422	86.95326	7.16701	0.1419363	3.0571433	51	1	91 days	0.54	M-v	4	Spahr	38125	1999 WN ₆
1999 WV ₆	14.7	0.15	20000226	316.94264	345.83482	152.25350	1.75439	0.0650694	2.6907202	34	2	1994–2000	0.65	M-v	5	Spahr	37849	1999 WV ₆
1999 WA ₇	13.5	0.15	20000226	210.14084	94.64936	141.84108	2.78643	0.0153683	2.8802912	54	1	91 days	0.47	M-v	4	Spahr	38125	1999 WA ₇
1999 WB ₇	14.2	0.15	20000226	30.06109	291.51357	119.14521	2.74095	0.1478554	2.9153541	63	2	1996–2000	0.56	M-v	3	Spahr	38125	1999 WB ₇
1999 WE ₇	15.4	0.15	20000226	26.76376	15.09227	50.12944	5.08439	0.1512804	2.3285950	58	1	88 days	0.46	M-v	3	Williams	38126	1999 WE ₇
1999 WH ₇	15.6	0.15	19991118	356.08669	163.87894	265.98291	1.57008	0.1638319	2.5842665	22	1	29 days	0.52			Williams		1999 WH ₇
1999 WJ ₇	12.7	0.15	20000226	1.06153	154.42210	290.53028	2.97943	0.3163122	4.6333902	77	1	100 days	0.56	M-v	4	Williams	38126	1999 WJ ₇
1999 WO ₇	15.6	0.15	20000226	348.60198	24.92721	91.12545	4.66931	0.1516166	2.4443133	37	2	1993–2000	0.68	M-v	4	Spahr	37850	1999 WO ₇
1999 WR ₇	14.3	0.15	20000226	329.95294	50.66196	83.72537	5.18711	0.1121940	2.4822930	58	3	1997–2000	0.59	M-v	3	Williams	37850	1999 WR ₇

1999 WU ₇	13.0	0.15	20000226	214.05646	155.58400	110.21249	14.25237	0.1297196	2.6657160	47	1	74 days	0.39	M-v	4	Williams		1999 WU ₇
1999 WW ₇	14.3	0.15	20000226	42.76248	153.51042	271.90367	1.03221	0.1226155	2.5401664	42	2	1995–2000	0.51	M-v	4	Spahr	37850	1999 WW ₇
1999 WX ₇	14.7	0.15	20000226	4.07074	218.43728	264.19472	7.13865	0.1864818	2.4517278	42	1	77 days	0.44	M-v	3	Williams		1999 WX ₇
1999 WY ₇	13.6	0.15	20000226	346.24266	237.84464	267.93265	11.99092	0.1776749	2.7151253	54	1	84 days	0.53	M-v	4	Williams		1999 WY ₇
1999 WA ₈	13.3	0.15	20000226	313.43577	192.61582	297.06034	8.84207	0.1341886	3.1403485	54	1	92 days	0.69	M-v	5	Spahr	38126	1999 WA ₈
1999 WG ₈	14.9	0.15	20000226	61.17711	294.39592	81.59202	4.16466	0.1723816	2.2458862	46	1	96 days	0.57	M-v	4	Spahr	38126	1999 WG ₈
1999 WM ₈	15.2	0.15	20000226	59.45279	12.03691	336.38287	3.26382	0.2852214	2.5355723	68	1	97 days	0.57	M-v	4	Spahr	38126	1999 WM ₈
1999 WT ₈	15.5	0.15	20000226	333.33051	68.68619	76.37966	24.13961	0.2516757	2.3231767	43	1	87 days	0.62	M-v	4	Williams	38126	1999 WT ₈
1999 WU ₈	14.3	0.15	20000226	99.29695	205.84286	129.44095	4.72012	0.1556429	2.3104810	92	3	1997–2000	0.53	M-v	2	Spahr	38126	1999 WU ₈
1999 WV ₈	14.9	0.15	20000226	29.03139	253.46177	160.34960	4.22868	0.2375529	2.5942007	50	1	90 days	0.50	M-v	3	Spahr	38126	1999 WV ₈
1999 WW ₈	12.8	0.15	20000226	355.71777	15.51203	82.88607	16.15256	0.2298016	3.1835763	73	1	91 days	0.40	M-v	3	Spahr	38126	1999 WW ₈
1999 WX ₈	12.3	0.15	20000226	312.22203	54.78728	83.57155	17.21620	0.0793008	3.1853002	64	2	1990–2000	0.53	M-v	4	Williams	38126	1999 WX ₈
1999 WY ₈	13.6	0.15	20000226	358.32393	336.60826	117.49747	6.27960	0.0896452	2.5901362	64	1	95 days	0.51	M-v	4	Spahr	38126	1999 WY ₈
1999 WB ₉	15.7	0.15	20000226	15.08286	189.30479	258.74937	4.56801	0.2474115	2.3645335	66	1	83 days	0.52	M-v	4	Williams		1999 WB ₉
1999 WG ₉	14.2	0.15	20000226	56.88288	264.25630	104.74146	14.14254	0.1887504	2.6259895	53	3	1994–2000	0.66	M-v	3	Williams	38126	1999 WG ₉
1999 WK ₉	14.8	0.15	20000226	100.28750	197.69795	118.96221	8.22533	0.2509616	2.5566544	36	2	1998–1999	0.74	M-v	4	Williams	37850	1999 WK ₉
1999 WQ ₉	12.9	0.15	20000226	16.49267	336.28390	106.83208	8.94431	0.2468619	2.7502690	35	1	64 days	0.45	M-v	4	Williams		1999 WQ ₉
1999 WR ₉	12.2	0.15	20000226	304.52037	246.21223	285.89085	6.93842	0.0900672	3.4177851	47	2	1998–2000	0.49	M-v	3	Williams	37851	1999 WR ₉
1999 WS ₉	12.0	0.15	20000226	177.21486	209.28449	81.58238	10.35066	0.0818081	2.6813255	62	4	1983–2000	0.63	M-v	2	Williams	38126	1999 WS ₉
1999 WT ₉	14.8	0.15	20000226	15.71185	23.46380	75.03098	7.05769	0.1026743	2.3091120	47	2	1994–2000	0.59	M-v	4	Spahr	38126	1999 WT ₉
1999 WU ₉	14.6	0.15	20000226	38.96439	143.53613	274.92196	13.89869	0.2212375	2.5694484	50	1	82 days	0.56	M-v	4	Williams		1999 WU ₉
1999 WV ₉	12.0	0.15	20000226	56.72341	324.30946	79.29355	11.20580	0.1001382	2.9923858	75	3	1978–2000	0.64	M-v	1	Williams	37851	1999 WV ₉
1999 WW ₉	15.5	0.15	20000226	47.94895	290.69477	104.33330	3.96790	0.2932474	2.3064541	53	1	99 days	0.42	M-v	4	Williams	38126	1999 WW ₉
1999 WX ₉	14.0	0.15	20000226	13.06560	187.54208	271.27871	12.30964	0.1045978	2.6407937	40	1	82 days	0.54	M-v	4	Williams		1999 WX ₉
1999 WY ₉	14.8	0.15	20000226	88.67851	298.69551	82.67603	25.43217	0.0830212	1.9314893	60	3	1990–2000	0.54	M-v	2	Williams	38127	1999 WY ₉
1999 WA ₁₀	13.9	0.15	20000226	36.80004	329.37451	90.79225	14.80889	0.1574987	2.4578495	57	1	114 days	0.46	M-v	3	Williams	38127	1999 WA ₁₀
1999 WC ₁₀	13.5	0.15	20000226	358.83730	73.14583	42.44014	4.58250	0.1730317	3.2293487	43	2	1998–2000	0.53	M-v	4	Williams	37851	1999 WC ₁₀
1999 WD ₁₀	14.0	0.15	20000226	344.86343	63.81739	77.73817	3.80845	0.1808497	2.6097652	30	1	60 days	0.52	M-v	5	Williams		1999 WD ₁₀
1999 WE ₁₀	13.0	0.15	20000226	222.55933	171.67432	82.17959	8.10013	0.0695050	2.7683243	36	1	62 days	0.50	M-v	5	Williams		1999 WE ₁₀
1999 WU ₁₀	17.7	0.15	20000226	355.27976	7.60815	90.89272	2.39277	0.1364802	2.4506475	24	1	60 days	0.46	M-v	5	Williams		1999 WU ₁₀
1999 WZ ₁₀	16.4	0.15	20000226	359.42036	137.97686	318.08324	0.44377	0.2233907	2.2508718	47	1	97 days	0.50	M-v	4	Williams	38127	1999 WZ ₁₀
1999 WA ₁₁	17.0	0.15	19991118	30.94960	311.84078	49.27629	7.85840	0.2183605	2.8060365	19	1	28 days	0.47			Williams		1999 WA ₁₁
1999 WN ₁₁	15.5	0.15	20000226	35.40279	48.74483	1.11644	3.60717	0.2401783	2.3424174	43	1	121 days	0.61	M-v	4	Williams	38127	1999 WN ₁₁
1999 WO ₁₁	13.2	0.15	20000226	335.59356	191.83078	284.26329	8.36658	0.0727755	2.9849611	53	2	1998–2000	0.53	M-v	3	Williams	38127	1999 WO ₁₁
1999 WP ₁₁	14.9	0.15	20000226	17.26888	45.58855	34.12923	5.26318	0.0975186	2.2239184	62	2	1996–2000	0.55	M-v	3	Williams	38127	1999 WP ₁₁
1999 WQ ₁₁	14.9	0.15	20000226	162.26075	356.98923	276.71637	4.86425	0.1944279	2.4426531	39	2	1998–1999	0.71	M-v	4	Williams	38127	1999 WQ ₁₁
1999 WS ₁₁	16.2	0.15	20000226	69.07875	303.04836	34.69859	4.53449	0.1562342	2.2422549	31	1	62 days	0.40	M-v	5	Williams	38127	1999 WS ₁₁
1999 WB ₁₃	14.7	0.15	20000226	228.62637	79.23763	144.41798	6.53503	0.0749660	2.3219633	45	2	1998–2000	0.73	M-v	4	Williams	37851	1999 WB ₁₃
1999 WF ₁₃	17.6	0.15	19991029	87.61098	55.20060	247.62132	1.38201	0.1106809	2.1533892	38	1	59 days	0.66			Williams		1999 WF ₁₃
1999 WL ₁₃	14.8	0.15	20000226	314.72441	163.88916	345.30412	1.71853	0.0797693	2.2525268	54	1	128 days	0.45	M-v	4	Williams	38127	1999 WL ₁₃
1999 WR ₁₃	13.6	0.15	20000226	293.20929	73.03404	103.09936	8.03737	0.1517863	2.8397349	35	1	78 days	0.64	M-v	5	Williams		1999 WR ₁₃
1999 WS ₁₃	14.5	0.15	20000226	351.41016	51.15683	65.39131	24.14033	0.3314313	2.4486697	63	1	139 days	0.39	M-v	3	Williams	38128	1999 WS ₁₃
1999 WA ₁₄	14.0	0.15	19991029	271.69949	85.56490	54.80259	11.57116	0.0698707	3.0382759	52	1	53 days	0.65			Williams		1999 WA ₁₄
1999 WB ₁₄	16.9	0.15	20000226	320.83748	56.81689	70.85156	2.64084	0.1149509	2.4155001	22	2	1995–1999	0.54	M-v	5	Williams	37852	1999 WB ₁₄
1999 WP ₁₄	15.0	0.15	19991118	262.35409	284.64395	235.99185	13.57734	0.0711919	3.1310994	19	1	26 days	0.26			Williams		1999 WP ₁₄
1999 WZ ₁₄	16.2	0.15	20000226	70.76081	299.05616	33.77563	6.63300	0.1659092	2.3108709	29	1	64 days	0.55	M-v	5	Williams		1999 WZ ₁₄
1999 WJ ₁₅	16.8	0.15	19991118	85.13724	71.77113	229.17770	2.77888	0.1932765	2.3481254	26	1	29 days	0.70			Williams		1999 WJ ₁₅
1999 WN ₁₅	17.9	0.15	19991118	32.16311	136.29055	224.13172	2.57378	0.2082188	2.7452965	20	1	29 days	0.37			Williams		1999 WN ₁₅
1999 WW ₁₅	17.4	0.15	19991118	123.02279	53.26664	220.17759	3.66967	0.1463700	2.5342921	15	1	29 days	0.18			Williams		1999 WW ₁₅
1999 WT ₁₆	15.2	0.15	19991118	358.28053	2.28106	29.16277	9.97251	0.1693866	2.7530488	20	1	27 days	0.48			Williams		1999 WT ₁₆
1999 WM ₁₇	16.2	0.15	20000226	34.29776	153.14869	221.49762	11.40019	0.2451465	2.5230123	36	1	90 days	0.45	M-v	3	Williams		1999 WM ₁₇
1999 WS ₁₇	16.1	0.15	19991029	355.35126	176.56894	213.00094	10.80859	0.0974457	2.9323113	11	1	47 days	0.32			Williams		1999 WS ₁₇
1999 WV ₁₇	13.3	0.15	20000226	8.63448	199.24718	215.00059	14.12190	0.2034379	2.6757559	69	1	171 days	0.42	M-v	3	Williams	38128	1999 WV ₁₇

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1999 WX ₁₇	15.5	0.15	20000226	243.50953	324.41087	229.86020	5.03180	0.0786008	2.5887639	27	1	61 days	0.51	M-v	6	Williams	38128	1999 WX ₁₇
1999 WZ ₁₇	16.1	0.15	19991118	76.05642	79.30754	229.74426	25.20518	0.2027860	3.0865164	16	1	21 days	0.70			Williams		1999 WZ ₁₇
1999 WF ₁₈	13.4	0.15	20000226	57.84134	315.27447	116.33533	14.34352	0.1477166	2.5651399	54	1	101 days	0.56	M-v	4	Williams	38128	1999 WF ₁₈
1999 WG ₁₈	14.8	0.15	20000226	68.37923	309.84058	68.09038	2.60586	0.0979634	2.2361891	48	2	1998–2000	0.91	M-v	4	Williams	37853	1999 WG ₁₈
1999 WJ ₁₈	14.2	0.15	20000226	18.20367	351.24800	77.26527	16.76702	0.1716743	3.0955877	36	1	99 days	0.52	M-v	3	Williams	38128	1999 WJ ₁₈
1999 WR ₁₈	16.6	0.15	19991029	6.13925	342.97463	51.10996	1.14921	0.1853451	3.1070372	27	1	49 days	0.38			Williams		1999 WR ₁₈
1999 WU ₁₈	16.4	0.15	20000226	144.09004	215.26629	60.26217	2.23145	0.1352348	2.6523969	19	3	1990–1999	0.68	M-v	4	Williams	37854	1999 WU ₁₈
1999 WV ₁₈	17.8	0.15	19991118	20.01238	319.49905	62.51472	3.18105	0.1721810	2.4650539	9	1	20 days	0.19			Williams		1999 WV ₁₈
1999 WF ₁₉	17.6	0.15	19991118	352.59468	175.74680	244.39087	1.15841	0.1572520	2.3306624	28	1	36 days	0.44			Williams		1999 WF ₁₉
1999 XM	14.2	0.15	20000226	25.54272	356.75739	75.72374	8.84731	0.2424514	2.4116905	84	4	1978–2000	0.54	M-v	2	Williams	38129	1999 XM
1999 XR	15.9	0.15	20000226	21.61997	356.15117	102.93415	7.27008	0.0885796	2.7992808	15	1	60 days	0.41	M-v	5	Williams		1999 XR
1999 XW	12.2	0.15	20000226	44.97439	325.68587	80.99082	13.08160	0.1219524	3.2050407	43	2	1982–2000	0.62	M-v	4	Williams	37854	1999 XW
1999 XX	15.3	0.15	20000226	39.25117	12.25865	46.72927	3.40228	0.1638874	2.3851036	30	1	71 days	0.51	M-v	5	Williams		1999 XX
1999 XY	14.8	0.15	20000226	18.71637	174.48394	273.81151	4.47225	0.2014074	2.3689336	51	1	92 days	0.41	M-v	3	Spahr	38129	1999 XY
1999 XZ	14.2	0.15	20000226	335.04635	204.13301	301.94528	3.56567	0.1535872	2.3731463	49	4	1982–2000	0.59	M-v	2	Williams	37854	1999 XZ
1999 XA ₁	13.4	0.15	20000226	335.58804	202.21933	287.56240	8.68988	0.0412145	2.9764755	32	1	76 days	0.59	M-v	5	Williams		1999 XA ₁
1999 XB ₁	11.9	0.15	20000226	162.25577	193.32515	108.94493	9.05766	0.0622493	3.3931512	32	1	69 days	0.52	M-v	5	Williams		1999 XB ₁
1999 XD ₁	15.1	0.15	20000226	42.49454	346.69144	71.35324	6.47389	0.1708024	2.2287486	42	1	100 days	0.51	M-v	4	Williams	38129	1999 XD ₁
1999 XE ₁	13.5	0.15	20000226	49.90658	224.07976	190.16213	4.14999	0.1162136	2.5259839	58	4	1991–2000	0.66	M-v	1	Spahr	38129	1999 XE ₁
1999 XF ₁	14.1	0.15	20000226	11.89637	354.82907	108.38716	7.98923	0.0678413	2.3128090	43	1	60 days	0.58	M-v	5	Williams		1999 XF ₁
1999 XG ₁	13.6	0.15	20000226	235.15434	134.53085	109.30465	7.73971	0.0722984	2.3644981	41	3	1994–2000	0.68	M-v	3	Spahr	37855	1999 XG ₁
1999 XH ₁	12.4	0.15	20000226	250.34492	138.39105	79.89868	11.13082	0.0460164	2.9875151	60	1	89 days	0.57	M-v	4	Williams	38129	1999 XH ₁
1999 XK ₁	13.2	0.15	20000226	156.23380	191.15828	120.27134	10.57961	0.0776745	2.6198189	32	1	62 days	0.46	M-v	5	Williams		1999 XK ₁
1999 XL ₁	13.2	0.15	20000226	331.74782	248.15876	263.93800	12.96727	0.1561587	3.0388666	41	2	1988–2000	0.56	M-v	3	Spahr	38129	1999 XL ₁
1999 XR ₁	14.1	0.15	19991228	297.78504	93.30519	94.60990	25.55936	0.2573388	2.7894654	54	1	58 days	0.51			Williams		1999 XR ₁
1999 XS ₁	14.2	0.15	20000226	10.44673	132.01981	311.44333	8.27698	0.1301852	2.7876643	54	1	70 days	0.56	M-v	4	Williams		1999 XS ₁
1999 XV ₁	13.2	0.15	20000226	33.84384	307.56409	93.92880	5.15563	0.1049855	2.6530706	78	3	1982–2000	0.42	M-v	2	Spahr	38129	1999 XV ₁
1999 XY ₁	14.6	0.15	20000226	42.53411	295.30750	94.57510	18.32841	0.2283926	2.5220283	60	1	146 days	0.48	M-v	3	Spahr	38129	1999 XY ₁
1999 XZ ₁	13.5	0.15	20000226	51.00072	183.11259	199.49604	9.09336	0.1689177	2.7699333	40	1	79 days	0.55	M-v	4	Williams	38129	1999 XZ ₁
1999 XA ₂	13.9	0.15	20000226	44.62521	280.11540	113.06928	14.18589	0.1852898	2.5829507	45	2	1994–2000	0.60	M-v	4	Spahr	37855	1999 XA ₂
1999 XB ₂	14.2	0.15	20000226	72.49999	198.25609	170.10579	9.44465	0.0950153	2.5783132	52	1	105 days	0.62	M-v	4	Williams	38129	1999 XB ₂
1999 XF ₂	15.2	0.15	20000226	82.30212	240.79144	117.91605	2.65793	0.1488886	2.1941043	50	1	80 days	0.41	M-v	4	Williams		1999 XF ₂
1999 XG ₂	13.7	0.15	20000226	61.10039	116.83074	251.88898	8.40082	0.2173373	2.6445813	63	2	1986–2000	0.52	M-v	4	Spahr	38129	1999 XG ₂
1999 XH ₂	13.2	0.15	20000226	144.04529	216.97279	38.55059	12.60479	0.1315959	2.6434916	46	1	97 days	0.54	M-v	5	Williams	38129	1999 XH ₂
1999 XK ₂	14.3	0.15	20000226	285.02023	93.81329	116.74248	2.48326	0.1300404	3.1777817	22	1	71 days	0.34	M-v	5	Williams		1999 XK ₂
1999 XU ₂	14.3	0.15	20000226	20.62954	155.65492	258.59399	6.35489	0.1558175	2.2683311	67	2	1985–2000	0.59	M-v	3	Williams	38129	1999 XU ₂
1999 XZ ₂	14.7	0.15	20000226	38.73324	310.79607	77.60573	10.48712	0.2053594	2.7475510	40	1	109 days	0.42	M-v	3	Williams	38129	1999 XZ ₂
1999 XB ₃	15.4	0.15	19991029	356.79392	241.03467	173.58447	3.05749	0.0723524	3.0012468	35	1	56 days	0.64			Williams		1999 XB ₃
1999 XC ₃	15.3	0.15	20000226	6.07957	339.01953	104.43380	3.94039	0.2161861	2.5714664	57	1	106 days	0.50	M-v	4	Williams	38129	1999 XC ₃
1999 XG ₃	15.0	0.15	20000226	333.36063	26.58133	95.15590	6.72192	0.1066005	2.2909686	43	1	106 days	0.64	M-v	4	Williams	38129	1999 XG ₃
1999 XH ₃	15.1	0.15	20000226	317.41618	55.86327	85.36751	7.22214	0.1300437	2.3262891	33	1	78 days	0.48	M-v	4	Williams		1999 XH ₃
1999 XR ₃	14.0	0.15	19991029	80.17943	244.43266	79.94549	10.56122	0.0731347	2.9872218	35	1	55 days	0.48			Williams		1999 XR ₃
1999 XS ₃	14.8	0.15	20000226	343.08405	33.44539	83.08543	7.91919	0.1734113	2.3915238	55	1	91 days	0.49	M-v	4	Spahr	38130	1999 XS ₃
1999 XX ₃	15.1	0.15	19991029	36.34155	264.20822	97.96622	7.77036	0.1733949	3.1881694	20	1	46 days	0.74			Williams		1999 XX ₃
1999 XM ₄	15.3	0.15	20000226	33.37058	225.28672	179.84313	2.26065	0.2037263	2.4098673	61	2	1995–2000	0.46	M-v	3	Williams	37857	1999 XM ₄
1999 XR ₄	15.4	0.15	20000226	327.36511	3.34575	131.54939	2.52378	0.1665143	2.3432974	35	1	68 days	0.47	M-v	5	Williams	38130	1999 XR ₄
1999 XC ₅	15.3	0.15	20000226	12.06837	356.91113	77.31444	11.75467	0.2445013	2.7180985	41	1	86 days	0.58	M-v	4	Williams	38130	1999 XC ₅
1999 XE ₅	16.3	0.15	20000226	56.76716	269.32567	110.24989	2.56919	0.1778706	2.2251139	57	1	76 days	0.46	M-v	4	Williams	38130	1999 XE ₅
1999 XL ₅	15.7	0.15	20000226	14.30583	357.83359	75.22745	4.24697	0.2169272	2.5324745	56	1	87 days	0.53	M-v	4	Williams	38130	1999 XL ₅
1999 XM ₅	13.7	0.15	20000226	328.49814	59.27916	65.19273	16.98503	0.1716486	3.0456432	62	1	96 days	0.49	M-v	4	Spahr	38130	1999 XM ₅
1999 XP ₅	16.1	0.15	20000226	51.02503	287.35005	101.06436	1.84634	0.1730106	2.1970176	61	2	1994–2000	0.46	M-v	4	Williams	38130	1999 XP ₅
1999 XQ ₅	13.9	0.15	20000226	37.63956	150.90510	269.63112	16.58621	0.0960904	2.7088193	55	1	71 days	0.49	M-v	4	Williams		1999 XQ ₅
1999 XX ₅	13.2	0.15	20000226	252.14736	144.22898	54.88399	5.95021	0.0911788	2.7573350	74	1	93 days	0.45	M-v	4	Williams	38130	1999 XX ₅

1999 XY ₅	15.3	0.15	19991208	164.14028	2.69814	254.72118	3.58051	0.1872377	2.2874264	32	1	59 days	0.65		Williams		1999 XY ₅
1999 XA ₆	16.9	0.15	19991208	330.17891	234.26780	247.51300	21.82010	0.2907147	2.4356135	38	1	56 days	0.43		Williams		1999 XA ₆
1999 XE ₆	15.1	0.15	20000226	98.37917	273.10251	62.74284	7.39030	0.1437443	2.3304203	57	2	1998–2000	0.56	M-v 4	Williams	37858	1999 XE ₆
1999 XK ₆	16.7	0.15	19991118	18.57024	335.02459	59.86622	3.30126	0.1941131	2.3745322	33	1	29 days	0.38		Williams		1999 XK ₆
1999 XM ₆	13.7	0.15	20000226	309.81973	111.58165	52.48892	16.26925	0.2953982	3.0785715	40	1	62 days	0.60	M-v 5	Williams	38130	1999 XM ₆
1999 XT ₆	14.2	0.15	20000226	74.59015	302.30406	51.32612	8.95124	0.1519997	2.6916338	55	2	1990–2000	0.58	M-v 4	Williams	37858	1999 XT ₆
1999 XV ₆	15.1	0.15	20000226	132.61032	316.98864	347.35260	1.49481	0.1277787	2.2410710	58	2	1998–1999	0.53	M-v 4	Williams	38130	1999 XV ₆
1999 XY ₆	15.0	0.15	20000226	352.12730	63.78152	44.01905	6.65044	0.1938975	2.5750055	51	1	88 days	0.48	M-v 4	Williams	38130	1999 XY ₆
1999 XA ₇	13.8	0.15	20000226	25.10610	159.01159	256.09022	9.79496	0.0513458	3.0539075	54	2	1998–2000	0.54	M-v 3	Williams	37858	1999 XA ₇
1999 XH ₇	14.3	0.15	20000226	241.73514	156.37300	56.69606	14.39774	0.1129811	2.6408448	46	2	1997–2000	0.59	M-v 4	Williams	37859	1999 XH ₇
1999 XJ ₇	13.9	0.15	20000226	45.28011	297.03410	99.52146	7.50710	0.1033994	2.3367104	62	2	1998–2000	0.56	M-v 3	Williams	37859	1999 XJ ₇
1999 XL ₇	12.2	0.15	20000226	53.01458	308.46011	69.17537	17.09976	0.1123972	3.1777736	60	1	92 days	0.43	M-v 4	Williams	38130	1999 XL ₇
1999 XN ₇	14.4	0.15	20000226	342.12803	344.54608	140.82417	2.71115	0.1685978	2.3857812	51	1	91 days	0.40	M-v 4	Spahr	38131	1999 XN ₇
1999 XO ₇	12.8	0.15	20000226	37.02262	67.83238	3.81315	12.38265	0.1557944	2.6629391	34	1	87 days	0.40	M-v 4	Williams	38131	1999 XO ₇
1999 XP ₇	13.2	0.15	20000226	26.48067	19.66267	66.10063	7.97431	0.2526825	2.5602038	44	1	89 days	0.33	M-v 3	Williams		1999 XP ₇
1999 XQ ₇	14.1	0.15	20000226	63.56775	23.88961	11.99175	5.87787	0.2280952	2.3529627	50	3	1977–2000	0.52	M-v 4	Williams	37860	1999 XQ ₇
1999 XR ₇	12.3	0.15	20000226	45.58123	8.48914	53.75442	16.05689	0.1250427	2.9607744	39	1	81 days	0.36	M-v 4	Williams	38131	1999 XR ₇
1999 XS ₇	13.3	0.15	20000226	58.04881	1.68075	45.26744	14.60795	0.1793521	2.7262788	33	1	131 days	0.44	M-v 4	Williams	38131	1999 XS ₇
1999 XT ₇	13.5	0.15	20000226	43.03721	79.10195	341.21743	12.62572	0.1805230	2.5524354	37	1	87 days	0.56	M-v 4	Williams		1999 XT ₇
1999 XH ₈	13.9	0.15	20000226	59.72521	310.28909	93.82221	11.83357	0.0239947	2.6327457	54	3	1976–2000	0.46	M-v 2	Williams	37861	1999 XH ₈
1999 XJ ₈	13.4	0.15	19991228	160.52311	193.43272	93.29925	5.85729	0.1411448	2.6014465	28	1	58 days	0.53		Williams		1999 XJ ₈
1999 XK ₈	14.3	0.15	20000226	357.48982	26.93955	87.27839	13.39202	0.1351919	2.6293151	39	1	75 days	0.59	M-v 4	Williams		1999 XK ₈
1999 XL ₈	14.6	0.15	20000226	339.08807	263.02876	230.41747	3.17626	0.1422569	2.2636483	72	3	1980–2000	0.40	M-v 2	Williams	38131	1999 XL ₈
1999 XM ₈	14.0	0.15	20000226	124.77194	58.45278	279.38387	12.87900	0.2232476	2.6004047	73	2	1998–2000	0.59	M-v 3	Spahr	37861	1999 XM ₈
1999 XN ₈	13.5	0.15	20000226	225.34085	155.11002	109.96606	14.30737	0.1168184	2.5856170	68	1	71 days	0.46	M-v 5	Williams		1999 XN ₈
1999 XQ ₈	14.3	0.15	20000226	36.68499	89.92692	262.05380	11.23888	0.2569361	2.7321243	59	1	171 days	0.45	M-v 3	Williams	38131	1999 XQ ₈
1999 XV ₈	14.9	0.15	20000226	14.51508	339.53324	98.99493	13.14769	0.2165566	2.5778098	48	1	89 days	0.47	M-v 3	Spahr	38131	1999 XV ₈
1999 XZ ₈	14.9	0.15	20000226	29.47939	338.30864	69.76316	26.06283	0.2327510	2.3075333	48	1	87 days	0.47	M-v 3	Williams	38131	1999 XZ ₈
1999 XK ₉	13.4	0.15	20000226	311.31612	284.21152	252.30861	21.74115	0.2745414	2.3456682	57	1	122 days	0.44	M-v 4	Williams	38131	1999 XK ₉
1999 XZ ₉	16.6	0.15	20000226	42.19884	317.31444	76.74614	5.46720	0.2199021	2.3658116	60	1	65 days	0.43	M-v 4	Williams		1999 XZ ₉
1999 XC ₁₀	16.3	0.15	20000226	184.61347	203.92307	97.02184	24.66873	0.0925995	1.9054065	42	2	1998–2000	0.60	M-v 3	Williams	37861	1999 XC ₁₀
1999 XE ₁₀	14.8	0.15	20000226	333.45713	145.04471	322.85410	6.65852	0.0675380	2.3424670	52	2	1997–2000	0.53	M-v 4	Williams	38131	1999 XE ₁₀
1999 XX ₁₀	13.8	0.15	20000226	34.02085	128.63320	252.97766	15.69523	0.2478615	3.1520898	37	1	87 days	0.51	M-v 4	Williams		1999 XX ₁₀
1999 XE ₁₁	15.9	0.15	20000226	89.75788	0.51850	337.28055	4.60180	0.1350964	2.2184833	32	2	1998–1999	0.52	M-v 4	Williams	38131	1999 XE ₁₁
1999 XH ₁₁	15.1	0.15	20000226	9.34698	138.83660	298.36033	4.91470	0.1267165	2.2792274	35	1	82 days	0.43	M-v 4	Williams		1999 XH ₁₁
1999 XM ₁₁	15.5	0.15	20000226	32.48888	92.09689	304.36682	3.98996	0.3004736	2.5594979	43	1	118 days	0.49	M-v 3	Williams	38131	1999 XM ₁₁
1999 XO ₁₁	15.0	0.15	20000226	342.61838	186.05641	291.95484	5.07755	0.1953729	2.3074370	31	1	60 days	0.35	M-v 5	Williams		1999 XO ₁₁
1999 XP ₁₁	14.2	0.15	20000226	23.67032	61.68580	349.59659	5.45308	0.0729303	2.7451960	28	1	89 days	0.47	M-v 4	Williams		1999 XP ₁₁
1999 XT ₁₁	13.0	0.15	20000226	325.19943	175.68232	291.44484	11.20680	0.0753501	3.2130258	36	3	1994–2000	0.55	M-v 3	Williams	37862	1999 XT ₁₁
1999 XV ₁₁	14.6	0.15	20000226	34.38310	98.46874	304.53715	6.67265	0.1372885	2.2912899	46	2	1989–2000	0.52	M-v 3	Williams	37862	1999 XV ₁₁
1999 XW ₁₁	15.4	0.15	20000226	69.88716	31.60969	319.80554	5.75460	0.2044479	2.2591606	43	1	118 days	0.56	M-v 4	Williams	38132	1999 XW ₁₁
1999 XY ₁₁	14.6	0.15	20000226	357.75670	208.44350	250.54050	24.43426	0.2294638	2.2783950	50	1	95 days	0.45	M-v 3	Williams	38132	1999 XY ₁₁
1999 XB ₁₂	13.7	0.15	20000226	295.67240	222.51673	287.16807	11.75958	0.1139988	2.6693513	48	3	1985–2000	0.73	M-v 3	Williams	37862	1999 XB ₁₂
1999 XC ₁₂	13.7	0.15	20000226	95.08747	348.97954	340.05849	9.70539	0.0505971	3.0153200	29	1	84 days	0.55	M-v 5	Williams		1999 XC ₁₂
1999 XH ₁₂	12.6	0.15	20000226	70.32295	234.53418	163.38143	5.39439	0.0643748	2.8136916	33	1	60 days	0.43	M-v 4	Williams		1999 XH ₁₂
1999 XL ₁₂	14.7	0.15	20000226	48.18845	258.91915	145.30328	4.54792	0.2718067	2.5557809	41	1	82 days	0.48	M-v 4	Williams		1999 XL ₁₂
1999 XM ₁₂	13.2	0.15	20000226	298.57891	299.40803	256.34335	12.56137	0.1463057	2.5431479	32	1	61 days	0.38	M-v 4	Williams		1999 XM ₁₂
1999 XN ₁₂	13.7	0.15	20000226	64.86894	268.58675	137.21583	6.41536	0.0775278	2.3035907	50	2	1998–2000	0.59	M-v 4	Spahr	37862	1999 XN ₁₂
1999 XP ₁₂	14.4	0.15	20000226	70.03048	217.51579	182.36469	5.29300	0.0748031	2.4157448	51	3	1997–2000	0.56	M-v 3	Spahr	37863	1999 XP ₁₂
1999 XQ ₁₂	14.6	0.15	20000226	83.69054	203.43495	189.27931	4.78748	0.0200931	2.2765659	39	2	1997–2000	0.70	M-v 4	Spahr	37863	1999 XQ ₁₂
1999 XT ₁₂	13.0	0.15	20000226	247.32737	75.86590	130.96221	10.51804	0.0247288	2.9919217	38	1	89 days	0.42	M-v 4	Spahr	38132	1999 XT ₁₂
1999 XW ₁₂	15.2	0.15	19991029	48.62979	201.07439	163.77001	6.87897	0.1117250	2.3928264	25	1	55 days	0.59		Williams		1999 XW ₁₂
1999 XE ₁₃	15.3	0.15	20000226	356.89489	251.50808	204.80651	11.41470	0.1831453	2.3706892	29	1	109 days	0.76	M-v 5	Williams		1999 XE ₁₃

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1999 XJ ₁₃	14.5	0.15	20000226	39.78655	219.50300	181.21761	6.74606	0.0827797	2.3904583	37	1	78 days	0.54	M-v	4	Williams		1999 XJ ₁₃
1999 XK ₁₃	14.5	0.15	20000226	80.13910	208.55451	140.14861	6.36458	0.1448207	2.3715855	53	3	1997-2000	0.57	M-v	2	Williams	37863	1999 XK ₁₃
1999 XL ₁₃	15.9	0.15	19991029	0.32121	237.04793	174.17325	5.97946	0.0650982	2.2794176	32	1	55 days	0.68			Williams		1999 XL ₁₃
1999 XO ₁₃	13.7	0.15	20000226	273.49462	313.01976	265.08427	13.26920	0.1179331	2.5360461	38	1	77 days	0.59	M-v	5	Williams		1999 XO ₁₃
1999 XS ₁₃	13.5	0.15	20000226	8.94007	249.46932	189.83213	8.50178	0.1737725	2.6203844	71	4	1969-2000	0.58	M-v	2	Williams	37864	1999 XS ₁₃
1999 XT ₁₃	14.2	0.15	20000226	47.14573	277.52116	138.82087	7.05807	0.1791945	2.3629956	54	3	1982-2000	0.53	M-v	2	Williams	37864	1999 XT ₁₃
1999 XX ₁₃	14.3	0.15	19991118	319.19857	263.05684	213.07749	16.20826	0.1409525	3.1329201	19	1	31 days	0.56			Williams		1999 XX ₁₃
1999 XB ₁₄	16.1	0.15	20000226	21.17078	282.53796	139.35194	8.03599	0.3361956	2.7356717	32	1	67 days	0.63	M-v	4	Williams	38132	1999 XB ₁₄
1999 XG ₁₄	13.4	0.15	20000226	241.04741	349.05524	256.01467	14.44647	0.1149069	2.5792155	30	2	1992-2000	0.66	M-v	5	Williams	37865	1999 XG ₁₄
1999 XK ₁₄	13.0	0.15	20000226	321.53592	255.19463	336.87117	12.69035	0.2952699	2.8410689	46	1	73 days	0.57	M-v	5	Williams		1999 XK ₁₄
1999 XT ₁₄	16.5	0.15	19991118	313.73245	240.27811	241.72102	19.39279	0.1013178	1.9812291	29	1	29 days	0.47			Williams		1999 XT ₁₄
1999 XU ₁₄	14.7	0.15	20000226	5.03489	8.00522	83.16617	22.97414	0.1205011	2.5845775	38	1	78 days	0.61	M-v	4	Williams	38132	1999 XU ₁₄
1999 XV ₁₄	15.7	0.15	20000226	330.71692	271.34507	242.35684	21.16701	0.2324133	2.3096372	29	1	62 days	0.52	M-v	5	Williams		1999 XV ₁₄
1999 XX ₁₄	16.5	0.15	19991228	333.69438	50.94764	87.68588	24.84594	0.3306175	2.2692085	72	1	54 days	0.57			Williams		1999 XX ₁₄
1999 XA ₁₅	13.5	0.15	20000226	144.44349	218.08058	77.86731	22.44104	0.0898477	2.4078158	64	1	106 days	0.38	M-v	4	Williams	38132	1999 XA ₁₅
1999 XC ₁₅	15.5	0.15	19991228	320.35561	42.71170	99.39500	27.60394	0.0681856	1.9127783	43	1	50 days	0.30			Williams		1999 XC ₁₅
1999 XD ₁₅	14.2	0.15	20000226	48.09911	129.53364	319.78025	24.09785	0.2323653	2.2678950	33	1	64 days	0.52	M-v	4	Williams		1999 XD ₁₅
1999 XF ₁₅	15.0	0.15	20000226	29.51215	158.58919	309.51476	24.51275	0.2639639	2.3159084	36	1	66 days	0.59	M-v	4	Williams		1999 XF ₁₅
1999 XH ₁₅	14.3	0.15	20000226	79.85173	116.44181	214.67420	1.03553	0.2900956	3.0703459	38	2	1993-2000	0.65	M-v	4	Spahr	37865	1999 XH ₁₅
1999 XK ₁₅	14.7	0.15	20000226	358.05334	200.81308	258.11497	10.92168	0.1253314	2.5228004	40	1	81 days	0.60	M-v	4	Williams		1999 XK ₁₅
1999 XR ₁₅	15.9	0.15	20000226	27.08607	315.95359	115.00990	4.30049	0.1446155	2.2303197	33	1	90 days	0.64	M-v	4	Spahr	38132	1999 XR ₁₅
1999 XS ₁₅	12.4	0.15	20000226	124.88592	237.48294	107.19407	14.29291	0.0695655	2.9099604	46	2	1989-2000	0.50	M-v	4	Williams	37866	1999 XS ₁₅
1999 XU ₁₅	13.9	0.15	20000226	54.51641	306.75210	101.49955	15.44766	0.1807997	2.6245805	57	1	86 days	0.44	M-v	4	Williams		1999 XU ₁₅
1999 XV ₁₅	13.7	0.15	20000226	35.23571	315.90675	97.60420	8.95688	0.3837700	2.7489374	67	1	86 days	0.53	M-v	4	Williams		1999 XV ₁₅
1999 XX ₁₅	14.8	0.15	20000226	85.95412	276.33002	100.58345	2.42801	0.1712032	2.2507102	88	4	1992-2000	0.56	M-v	2	Williams	37866	1999 XX ₁₅
1999 XY ₁₅	14.3	0.15	20000226	339.04923	22.99962	147.17488	3.11805	0.1226757	2.4499099	69	2	1998-2000	0.65	M-v	4	Williams	37866	1999 XY ₁₅
1999 XZ ₁₅	14.7	0.15	20000226	42.96344	180.95278	260.93309	2.45977	0.2059244	2.4213417	75	1	83 days	0.45	M-v	4	Williams		1999 XZ ₁₅
1999 XB ₁₆	13.8	0.15	20000226	326.72722	167.40178	9.96436	10.67066	0.1458942	2.4696422	75	2	1998-2000	0.41	M-v	3	Williams	38132	1999 XB ₁₆
1999 XD ₁₆	13.9	0.15	19991228	74.23747	329.38752	30.41544	11.80358	0.3775379	2.6404240	33	1	53 days	0.52			Williams		1999 XD ₁₆
1999 XE ₁₆	14.9	0.15	20000226	344.01827	76.51306	64.24513	7.74364	0.1671429	2.3706917	61	2	1997-2000	0.38	M-v	3	Williams	37866	1999 XE ₁₆
1999 XF ₁₆	14.7	0.15	20000226	56.45346	285.07678	90.92281	11.05214	0.2810401	2.3826554	39	1	106 days	0.43	M-v	4	Williams	38133	1999 XF ₁₆
1999 XQ ₁₆	15.1	0.15	20000226	47.57605	321.11675	79.19886	10.50575	0.1774520	2.2758946	46	1	99 days	0.54	M-v	4	Williams	38133	1999 XQ ₁₆
1999 XR ₁₆	14.2	0.15	19991228	54.14656	284.24646	78.92081	28.26466	0.2114854	2.5711947	25	1	54 days	0.33			Williams		1999 XR ₁₆
1999 XS ₁₆	14.9	0.15	20000226	337.17070	99.18856	77.45626	10.08057	0.5358878	2.9406474	41	1	88 days	0.40	M-v	4	Williams	38133	1999 XS ₁₆
1999 XV ₁₆	15.8	0.15	20000226	64.73501	293.41190	88.59165	7.49746	0.1713213	2.1799049	34	1	61 days	0.42	M-v	5	Williams	38133	1999 XV ₁₆
1999 XA ₁₇	15.7	0.15	19991208	21.64398	143.79479	254.08962	13.26661	0.2583190	2.6410055	27	1	53 days	0.53			Williams		1999 XA ₁₇
1999 XD ₁₇	14.2	0.15	20000226	95.29116	74.95687	273.17681	22.58828	0.2736665	2.3176428	48	1	82 days	0.32	M-v	4	Williams		1999 XD ₁₇
1999 XF ₁₇	15.2	0.15	20000226	50.66141	131.56301	268.90161	21.83308	0.2983343	2.3539534	39	1	70 days	0.25	M-v	3	Williams		1999 XF ₁₇
1999 XG ₁₇	15.7	0.15	20000226	12.05125	199.78774	276.59806	22.04428	0.2070773	2.2949354	38	1	61 days	0.42	M-v	4	Williams		1999 XG ₁₇
1999 XJ ₁₇	15.5	0.15	20000226	27.62330	157.90589	285.84642	25.63438	0.2998966	2.6837833	34	1	61 days	0.32	M-v	4	Williams		1999 XJ ₁₇
1999 XE ₁₈	13.3	0.15	20000226	337.17070	47.91046	22.04526	9.87131	0.0960378	3.0689676	42	1	90 days	0.51	M-v	4	Williams		1999 XE ₁₈
1999 XF ₁₈	14.3	0.15	20000226	110.73519	271.21548	19.49042	3.12917	0.1452934	2.1440475	55	3	1992-2000	0.62	M-v	2	Williams	38133	1999 XF ₁₈
1999 XH ₁₈	14.8	0.15	20000226	47.93126	144.27384	204.06469	6.98749	0.2454752	2.5748925	63	3	1981-2000	0.64	M-v	2	Williams	38133	1999 XH ₁₈
1999 XJ ₁₈	15.3	0.15	20000226	15.43142	10.68280	33.85563	3.33649	0.1685136	2.4092794	44	1	95 days	0.61	M-v	4	Williams		1999 XJ ₁₈
1999 XL ₁₈	14.6	0.15	20000226	15.38083	3.59977	45.38788	4.90501	0.1942582	2.3423981	55	3	1992-2000	0.55	M-v	2	Williams	38133	1999 XL ₁₈
1999 XV ₁₈	14.7	0.15	20000226	23.55182	186.67863	209.76790	8.57949	0.1825551	2.4883371	76	1	169 days	0.60	M-v	3	Williams	38133	1999 XV ₁₈
1999 XD ₁₉	14.4	0.15	20000226	72.01288	281.78806	42.59365	6.97500	0.1986378	2.3157922	48	2	1998-2000	0.62	M-v	3	Williams	38133	1999 XD ₁₉
1999 XK ₁₉	15.8	0.15	20000226	0.21526	316.85447	115.73365	1.81035	0.1891964	2.3371869	32	1	66 days	0.48	M-v	5	Williams	38133	1999 XK ₁₉
1999 XN ₁₉	15.0	0.15	20000226	22.14727	10.96226	23.66508	7.12488	0.1159207	2.3567185	42	1	89 days	0.53	M-v	4	Williams		1999 XN ₁₉
1999 XR ₁₉	15.4	0.15	20000226	55.72063	325.19945	32.13745	7.93135	0.1337288	2.2947052	47	2	1998-1999	0.60	M-v	3	Williams	38133	1999 XR ₁₉
1999 XT ₁₉	15.5	0.15	20000226	66.91331	101.59606	228.94961	5.01190	0.2841301	2.2597604	59	1	137 days	0.58	M-v	4	Williams		1999 XT ₁₉
1999 XV ₁₉	14.7	0.15	20000226	47.27032	123.94243	233.14751	10.40995	0.2035604	2.6786233	34	1	137 days	0.57	M-v	4	Williams		1999 XV ₁₉
1999 XE ₂₀	14.1	0.15	20000226	36.65263	278.42956	101.99675	3.01300	0.0917904	2.8987949	46	2	1989-2000	0.59	M-v	4	Williams	37868	1999 XE ₂₀

1999 XF ₂₀	14.5	0.15	20000226	294.81969	42.26498	112.27239	2.51692	0.1664429	2.2774052	25	1	79 days	0.53	M-v	5	Williams		1999 XF ₂₀
1999 XL ₂₀	14.6	0.15	20000226	327.39260	23.84022	93.60656	3.32901	0.1388570	2.3954209	46	1	121 days	0.41	M-v	4	Williams	38133	1999 XL ₂₀
1999 XM ₂₀	14.6	0.15	20000226	190.26155	173.10596	64.77521	7.34673	0.0612041	2.4033845	34	1	66 days	0.58	M-v	5	Williams		1999 XM ₂₀
1999 XN ₂₀	15.2	0.15	20000226	330.41080	302.57474	170.57631	2.83294	0.1308169	2.4449738	44	2	1997–1999	0.69	M-v	4	Williams	37868	1999 XN ₂₀
1999 XO ₂₀	15.0	0.15	19991029	125.60385	201.53177	65.39159	7.31944	0.0704742	2.4013270	36	1	48 days	0.57			Williams		1999 XO ₂₀
1999 XP ₂₀	12.9	0.15	20000226	93.09885	139.36533	182.03406	3.79279	0.0929761	2.7467817	48	3	1976–2000	0.56	M-v	4	Williams	37869	1999 XP ₂₀
1999 XS ₂₀	13.5	0.15	20000226	58.03952	303.42794	59.07269	11.86995	0.0842870	2.7204687	41	1	97 days	0.35	M-v	4	Williams	38133	1999 XS ₂₀
1999 XU ₂₀	13.8	0.15	20000226	357.88083	244.15150	190.08658	3.81763	0.1852608	3.1141776	59	3	1977–2000	0.53	M-v	3	Williams	37869	1999 XU ₂₀
1999 XB ₂₁	15.1	0.15	20000226	5.56728	358.19908	72.00955	4.96044	0.0920230	2.3779485	53	2	1993–2000	0.61	M-v	4	Williams	37869	1999 XB ₂₁
1999 XC ₂₁	15.3	0.15	20000226	37.39058	158.66864	218.18016	5.98710	0.2074340	2.4724401	44	1	80 days	0.50	M-v	4	Williams	38133	1999 XC ₂₁
1999 XD ₂₁	14.0	0.15	20000226	14.78158	315.03519	107.01167	8.55081	0.1499106	3.1132260	39	1	79 days	0.54	M-v	4	Williams	38133	1999 XD ₂₁
1999 XJ ₂₁	14.3	0.15	20000226	318.62139	290.40123	204.14689	11.16285	0.1630600	2.5994893	43	3	1990–2000	0.56	M-v	3	Williams	37869	1999 XJ ₂₁
1999 XL ₂₁	16.1	0.15	19991029	54.16978	156.41230	180.95882	6.60941	0.1352277	2.2871332	21	1	48 days	0.61			Williams		1999 XL ₂₁
1999 XO ₂₁	15.0	0.15	19991029	36.41103	199.93466	165.38616	6.60223	0.1461594	2.7435823	27	1	55 days	0.62			Williams		1999 XO ₂₁
1999 XQ ₂₁	14.2	0.15	20000226	33.66290	315.73299	104.86063	16.75323	0.2956200	3.0969531	33	1	68 days	0.39	M-v	4	Williams		1999 XQ ₂₁
1999 XV ₂₁	15.1	0.15	20000226	50.18321	303.33913	126.74799	11.39635	0.2108428	2.3696537	45	1	114 days	0.42	M-v	4	Williams		1999 XV ₂₁
1999 XW ₂₁	13.5	0.15	20000226	292.66163	298.05282	283.21812	12.00804	0.1190615	2.6302509	37	1	81 days	0.54	M-v	5	Williams		1999 XW ₂₁
1999 XX ₂₁	14.8	0.15	20000226	12.92987	263.81045	221.03824	3.38722	0.2143813	2.6072852	59	1	81 days	0.56	M-v	4	Williams		1999 XX ₂₁
1999 XZ ₂₁	13.6	0.15	20000226	281.09758	95.35508	136.80105	12.66673	0.1100301	2.5481096	82	4	1993–2000	0.53	M-v	2	Williams	37869	1999 XZ ₂₁
1999 XA ₂₂	13.9	0.15	20000226	316.60494	281.69590	278.47616	8.27606	0.1403246	2.7678028	34	1	63 days	0.48	M-v	5	Williams		1999 XA ₂₂
1999 XD ₂₂	14.0	0.15	20000226	7.49953	353.55881	141.82762	9.79737	0.1014400	2.7214446	18	1	61 days	0.53	M-v	6	Williams		1999 XD ₂₂
1999 XE ₂₂	15.0	0.15	20000226	46.60056	308.27429	134.54182	7.79430	0.1558979	2.3429115	52	1	68 days	0.62	M-v	5	Williams		1999 XE ₂₂
1999 XF ₂₂	13.3	0.15	20000226	311.13532	277.97466	288.49455	11.05654	0.1182694	2.6223271	23	1	63 days	0.35	M-v	5	Williams		1999 XF ₂₂
1999 XJ ₂₂	16.5	0.15	19991118	28.41422	159.76729	205.77412	4.28492	0.2271925	2.3382777	20	1	21 days	0.59			Williams		1999 XJ ₂₂
1999 XK ₂₂	14.6	0.15	20000226	175.59169	142.20568	111.93248	3.38446	0.0102603	2.7664686	36	3	1992–1999	0.71	M-v	4	Williams	37870	1999 XK ₂₂
1999 XL ₂₂	14.1	0.15	20000226	25.32588	307.87858	94.10474	3.97340	0.0912812	2.9548657	45	3	1971–2000	0.59	M-v	3	Williams	37870	1999 XL ₂₂
1999 XP ₂₂	14.8	0.15	20000226	36.68103	330.06955	66.22557	7.00081	0.1449163	2.2997305	69	1	143 days	0.49	M-v	3	Williams	38134	1999 XP ₂₂
1999 XX ₂₂	13.8	0.15	19991029	178.64287	172.83281	46.78491	14.22376	0.1089713	2.6491791	45	1	53 days	0.39			Williams		1999 XX ₂₂
1999 XE ₂₃	15.7	0.15	19991118	10.87837	346.27891	34.67927	4.46815	0.2611950	2.6089140	18	1	26 days	0.46			Williams		1999 XE ₂₃
1999 XH ₂₃	15.5	0.15	20000226	2.59915	42.03947	33.76739	7.83770	0.1849558	2.3092296	32	2	1994–2000	0.47	M-v	4	Williams	37870	1999 XH ₂₃
1999 XJ ₂₃	14.7	0.15	20000226	31.10779	155.11738	233.34877	11.76985	0.1428854	2.5184294	37	1	96 days	0.56	M-v	3	Williams	38134	1999 XJ ₂₃
1999 XN ₂₃	14.1	0.15	20000226	60.03325	209.23094	150.72721	2.67509	0.0973485	2.9147492	49	3	1993–1999	0.57	M-v	3	Williams	37870	1999 XN ₂₃
1999 XY ₂₃	14.8	0.15	20000226	16.11661	180.05689	235.35191	7.98031	0.0730568	2.5135689	49	2	1995–2000	0.58	M-v	4	Williams	37871	1999 XY ₂₃
1999 XZ ₂₃	14.2	0.15	20000226	151.19643	243.36925	34.38262	4.35989	0.0910199	2.1572872	80	2	1998–2000	0.53	M-v	3	Williams	37871	1999 XZ ₂₃
1999 XG ₂₄	15.3	0.15	19991118	67.33661	80.73813	235.70554	21.46209	0.2148521	2.3930846	19	1	21 days	0.45			Williams		1999 XG ₂₄
1999 XJ ₂₄	14.6	0.15	19991029	79.04830	264.90035	50.02707	22.65933	0.0914978	3.1355874	34	1	48 days	0.73			Williams		1999 XJ ₂₄
1999 XK ₂₄	15.5	0.15	20000226	341.00956	88.40833	64.18283	11.90483	0.1266946	2.3741063	28	2	1995–2000	0.55	M-v	4	Williams	37871	1999 XK ₂₄
1999 XL ₂₄	14.1	0.15	20000226	348.05338	215.51411	239.58877	4.80952	0.1117498	2.5259732	55	1	94 days	0.45	M-v	4	Spahr	38134	1999 XL ₂₄
1999 XP ₂₄	15.1	0.15	20000226	341.38153	33.70095	76.93950	5.27733	0.1894708	2.6140765	54	2	1978–2000	0.53	M-v	4	Williams	37871	1999 XP ₂₄
1999 XQ ₂₄	14.3	0.15	20000226	40.94380	315.17792	60.07106	17.64052	0.2060084	3.1684411	58	1	78 days	0.49	M-v	4	Williams	38134	1999 XQ ₂₄
1999 XS ₂₄	14.1	0.15	20000226	217.57967	4.83662	217.43942	6.77047	0.0619532	2.3979860	45	1	66 days	0.47	M-v	4	Williams	38134	1999 XS ₂₄
1999 XT ₂₄	14.9	0.15	20000226	58.97875	258.93522	101.49888	3.60448	0.2364298	2.4345412	66	3	1995–2000	0.42	M-v	2	Williams	37872	1999 XT ₂₄
1999 XU ₂₄	14.3	0.15	20000226	22.64450	345.93093	67.45099	10.25406	0.0227565	2.5585064	57	1	78 days	0.51	M-v	4	Williams	38134	1999 XU ₂₄
1999 XX ₂₄	15.9	0.15	19991118	21.65420	320.47288	63.19984	7.61280	0.1308081	2.4417929	51	1	57 days	0.67			Williams		1999 XX ₂₄
1999 XA ₂₅	13.6	0.15	20000226	332.49508	52.28326	61.00486	10.24313	0.0793887	2.4841324	70	2	1978–2000	0.51	M-v	4	Spahr	37872	1999 XA ₂₅
1999 XB ₂₅	12.8	0.15	20000226	157.36600	202.76979	63.91568	12.59450	0.0590527	3.3929164	45	1	94 days	0.61	M-v	5	Williams		1999 XB ₂₅
1999 XC ₂₅	15.4	0.15	20000226	78.14460	256.68601	71.14251	8.29679	0.3147465	2.3862616	45	1	77 days	0.61	M-v	5	Williams	38134	1999 XC ₂₅
1999 XD ₂₅	15.5	0.15	20000226	31.42921	244.48368	161.59420	2.12789	0.2001835	2.3741511	50	1	80 days	0.49	M-v	4	Williams	38134	1999 XD ₂₅
1999 XG ₂₅	15.0	0.15	20000226	37.78325	332.40262	70.74468	11.35023	0.1158767	2.2847303	52	1	78 days	0.45	M-v	4	Williams	38134	1999 XG ₂₅
1999 XH ₂₅	13.1	0.15	20000226	348.55677	335.54339	117.89544	2.67798	0.1579161	3.2190841	46	4	1982–2000	0.54	M-v	2	Spahr	37873	1999 XH ₂₅
1999 XJ ₂₅	14.2	0.15	20000226	23.60906	351.03013	62.66778	16.02954	0.1323176	2.5972928	61	1	103 days	0.41	M-v	3	Williams	38134	1999 XJ ₂₅
1999 XK ₂₅	14.8	0.15	20000226	41.49578	322.92243	63.19734	14.80375	0.1672612	2.7685534	52	1	78 days	0.52	M-v	4	Williams	38134	1999 XK ₂₅
1999 XP ₂₅	14.5	0.15	20000226	218.01758	149.29328	75.73430	7.87435	0.0512871	2.4052816	32	1	91 days	0.55	M-v	4	Williams		1999 XP ₂₅

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1999 XQ ₂₅	15.5	0.15	20000226	39.45492	318.71142	72.12417	10.17097	0.2033642	2.6003789	51	1	78 days	0.47	M-v	4	Williams	38134	1999 XQ ₂₅
1999 XT ₂₅	15.0	0.15	20000226	56.24622	302.49661	79.28218	4.55859	0.1111332	2.3256169	56	3	1997-2000	0.50	M-v	2	Spahr	37873	1999 XT ₂₅
1999 XZ ₂₅	14.8	0.15	20000226	88.54327	260.63167	79.17430	8.82390	0.1836997	2.2338577	73	2	1998-2000	0.62	M-v	4	Williams	37874	1999 XZ ₂₅
1999 XC ₂₆	16.1	0.15	20000226	36.09708	303.04650	94.11000	2.27284	0.2402964	2.3228359	50	1	78 days	0.53	M-v	4	Williams	38135	1999 XC ₂₆
1999 XD ₂₆	13.3	0.15	20000226	63.98381	299.68268	53.32692	10.99737	0.0769959	3.0212391	58	1	99 days	0.49	M-v	4	Williams	38135	1999 XD ₂₆
1999 XH ₂₆	13.7	0.15	20000226	75.24810	14.32067	324.85220	1.11175	0.0778365	2.9185672	39	3	1997-1999	0.76	M-v	3	Williams	37874	1999 XH ₂₆
1999 XL ₂₆	15.4	0.15	20000226	340.91566	219.00402	240.11785	6.25987	0.0577970	2.2891140	43	1	70 days	0.57	M-v	5	Williams		1999 XL ₂₆
1999 XQ ₂₆	15.0	0.15	19991118	331.62001	160.13737	279.24570	0.84470	0.0427034	2.8923605	32	1	33 days	0.51			Williams		1999 XQ ₂₆
1999 XR ₂₆	17.2	0.15	19991118	24.78646	318.40850	55.51336	7.25653	0.1828368	2.2623481	44	1	57 days	0.57			Williams		1999 XR ₂₆
1999 XE ₂₇	14.9	0.15	20000226	65.68989	299.74581	57.46868	15.11083	0.1502308	2.5564316	49	1	78 days	0.59	M-v	4	Williams	38135	1999 XE ₂₇
1999 XH ₂₇	14.6	0.15	20000226	336.75089	38.69574	66.82465	15.35688	0.0536693	2.5787646	28	1	78 days	0.65	M-v	5	Williams		1999 XH ₂₇
1999 XJ ₂₇	14.5	0.15	20000226	45.56458	309.00403	69.59641	12.25298	0.1894843	2.7612600	42	1	78 days	0.49	M-v	4	Williams	38135	1999 XJ ₂₇
1999 XN ₂₇	16.1	0.15	19991118	339.64589	248.81770	197.40515	2.47819	0.2097853	2.5997493	34	1	41 days	0.47			Spahr		1999 XN ₂₇
1999 XO ₂₇	14.7	0.15	19991029	21.63999	270.86600	104.04507	2.35279	0.2263067	3.1545704	45	1	56 days	0.51			Williams		1999 XO ₂₇
1999 XP ₂₇	15.7	0.15	20000226	84.08672	267.41577	64.85943	5.64542	0.2131306	2.4323690	43	1	62 days	0.58	M-v	5	Williams		1999 XP ₂₇
1999 XT ₂₇	14.0	0.15	20000226	346.43177	292.97447	157.04240	2.33082	0.0070308	2.8610685	45	3	1995-1999	0.45	M-v	4	Williams	37875	1999 XT ₂₇
1999 XW ₂₇	15.3	0.15	20000226	15.95460	335.04073	98.05774	6.74174	0.2854920	2.5737220	54	2	1995-2000	0.36	M-v	3	Spahr	37875	1999 XW ₂₇
1999 XY ₂₇	15.9	0.15	19991118	216.84874	151.99941	36.99763	9.23528	0.0295672	2.3629543	30	1	39 days	0.53			Williams		1999 XY ₂₇
1999 XK ₂₈	16.9	0.15	19991118	4.43521	320.65112	91.88006	3.67100	0.1584057	2.3343854	28	1	35 days	0.47			Williams		1999 XK ₂₈
1999 XN ₂₈	14.0	0.15	20000226	275.81616	46.77527	124.91510	3.04736	0.0581049	2.8533874	49	3	1996-2000	0.49	M-v	4	Spahr	37876	1999 XN ₂₈
1999 XS ₂₈	14.2	0.15	20000226	88.39424	265.97492	87.76852	6.07784	0.0084811	2.7345001	55	3	1997-2000	0.68	M-v	3	Williams	38135	1999 XS ₂₈
1999 XU ₂₈	14.2	0.15	20000226	64.76595	285.87714	79.79989	12.34750	0.2030307	2.3373097	60	1	102 days	0.43	M-v	4	Williams	38135	1999 XU ₂₈
1999 XW ₂₈	15.7	0.15	20000226	53.08511	286.97193	99.26672	4.92284	0.1885231	2.2121271	55	1	96 days	0.61	M-v	4	Spahr	38135	1999 XW ₂₈
1999 XN ₂₉	13.2	0.15	20000226	279.47837	88.99662	76.62575	23.66149	0.0450360	3.2350478	35	1	82 days	0.52	M-v	4	Williams	38136	1999 XN ₂₉
1999 XQ ₂₉	14.5	0.15	20000226	87.02951	173.33169	161.30960	2.38412	0.2404270	2.4003772	64	3	1969-2000	0.59	M-v	2	Spahr	37877	1999 XQ ₂₉
1999 XR ₂₉	15.3	0.15	20000226	85.98245	246.31223	99.26212	4.34915	0.1803596	2.2564995	60	3	1982-2000	0.62	M-v	3	Spahr	37877	1999 XR ₂₉
1999 XS ₂₉	13.5	0.15	20000226	47.48004	189.19798	198.36182	6.92943	0.1622272	3.1753069	60	5	1976-2000	0.56	M-v	1	Spahr	37877	1999 XS ₂₉
1999 XZ ₂₉	15.3	0.15	20000226	254.86294	352.32291	213.33534	6.28799	0.0418924	2.3126109	30	2	1994-2000	0.57	M-v	4	Williams	37878	1999 XZ ₂₉
1999 XM ₃₀	13.4	0.15	20000226	11.89963	331.77963	111.89874	9.20439	0.1996397	2.7966752	68	4	1977-2000	0.67	M-v	2	Williams	37878	1999 XM ₃₀
1999 XT ₃₀	13.9	0.15	20000226	85.97233	236.97182	116.46632	10.26423	0.1691534	2.7342391	40	2	1998-2000	0.65	M-v	3	Spahr	37878	1999 XT ₃₀
1999 XW ₃₀	16.2	0.15	20000226	6.05155	275.14432	178.32310	2.05134	0.1659742	2.2445020	32	1	69 days	0.50	M-v	5	Williams	38136	1999 XW ₃₀
1999 XG ₃₁	13.8	0.15	20000226	35.32431	333.99488	101.78699	25.06671	0.1459360	2.5520237	63	1	102 days	0.45	M-v	3	Williams		1999 XG ₃₁
1999 XK ₃₁	12.8	0.15	19991228	28.80464	292.88157	133.67031	10.61017	0.0666512	2.9763473	38	1	59 days	0.59			Spahr		1999 XK ₃₁
1999 XL ₃₁	13.5	0.15	20000226	4.09631	335.44662	134.16452	10.15359	0.0186860	2.5722776	61	2	1998-2000	0.65	M-v	3	Williams	37878	1999 XL ₃₁
1999 XM ₃₁	13.4	0.15	19991228	295.67518	62.49720	121.58324	9.49854	0.1111470	3.0194333	23	1	59 days	0.39			Spahr		1999 XM ₃₁
1999 XN ₃₁	12.6	0.15	19991228	107.69733	87.92081	260.82049	8.61213	0.1218524	3.0215249	17	1	59 days	0.45			Williams		1999 XN ₃₁
1999 XO ₃₁	14.2	0.15	20000226	338.36810	39.99474	115.82849	12.22787	0.1693153	2.6903557	37	1	67 days	0.62	M-v	4	Williams		1999 XO ₃₁
1999 XP ₃₁	12.5	0.15	20000226	131.56119	225.76622	114.47622	16.03480	0.1390102	2.5622513	49	1	68 days	0.47	M-v	4	Williams		1999 XP ₃₁
1999 XQ ₃₁	13.7	0.15	20000226	210.49996	154.13280	124.76453	9.78527	0.1081027	2.7617107	27	1	63 days	1.10	M-v	6	Williams		1999 XQ ₃₁
1999 XR ₃₁	13.4	0.15	20000226	128.00356	220.50846	119.88370	15.34240	0.1988921	2.5880306	48	1	114 days	0.48	M-v	4	Williams		1999 XR ₃₁
1999 XT ₃₁	14.5	0.15	20000226	47.89883	189.56674	244.77872	1.24965	0.2308383	2.6685384	52	2	1998-2000	0.60	M-v	4	Williams	37878	1999 XT ₃₁
1999 XU ₃₁	13.9	0.15	20000226	344.59594	226.88215	297.02094	8.82887	0.0764954	2.5822851	41	1	99 days	0.57	M-v	4	Williams	38136	1999 XU ₃₁
1999 XX ₃₁	13.3	0.15	20000226	347.56902	42.34325	125.72419	11.26005	0.2553251	2.7916059	65	1	114 days	0.51	M-v	3	Williams		1999 XX ₃₁
1999 XY ₃₁	15.0	0.15	20000226	40.27145	243.78783	206.34748	1.57261	0.1692940	2.4418094	31	1	79 days	0.63	M-v	5	Williams		1999 XY ₃₁
1999 XA ₃₂	11.9	0.15	20000226	291.04066	288.95888	290.44231	12.65194	0.1066133	3.1407592	91	7	1976-2000	0.62	M-v	2	Williams	37879	1999 XA ₃₂
1999 XC ₃₂	14.5	0.15	20000226	71.01073	155.69605	260.52728	5.40253	0.1064178	2.3699264	37	1	60 days	0.53	M-v	5	Williams		1999 XC ₃₂
1999 XD ₃₂	14.9	0.15	20000226	8.62049	234.59087	256.51310	4.11190	0.0739367	2.2898098	68	2	1998-2000	0.48	M-v	3	Williams	37879	1999 XD ₃₂
1999 XF ₃₂	13.2	0.15	20000226	160.44989	97.30753	260.64112	5.80881	0.2633071	2.6254192	55	3	1990-2000	0.67	M-v	3	Williams	37879	1999 XF ₃₂
1999 XH ₃₂	14.7	0.15	20000226	100.08980	158.05006	161.65790	2.28939	0.2037409	2.2212019	46	2	1998-2000	0.67	M-v	3	Spahr	37879	1999 XH ₃₂
1999 XJ ₃₂	14.9	0.15	20000226	16.82464	322.61624	150.28923	3.75271	0.1526861	2.2892509	39	1	83 days	0.53	M-v	4	Williams		1999 XJ ₃₂
1999 XK ₃₂	15.0	0.15	20000226	28.62880	338.65507	113.69704	14.23460	0.1955240	2.5869160	39	1	67 days	0.56	M-v	4	Williams		1999 XK ₃₂
1999 XL ₃₂	13.9	0.15	20000226	293.92998	93.23010	117.06538	16.43835	0.1220690	2.6735519	34	1	68 days	0.50	M-v	5	Williams		1999 XL ₃₂
1999 XM ₃₂	14.9	0.15	20000226	29.32198	182.09373	269.84854	5.53910	0.2128598	2.5635965	30	1	61 days	0.40	M-v	5	Williams		1999 XM ₃₂

1999 XN ₃₂	13.6	0.15	20000226	52.19578	316.37121	116.99356	16.32320	0.0768752	2.6261675	52	1	95 days	0.48	M-v	4	Williams	1999 XN ₃₂
1999 XP ₃₂	15.4	0.15	20000226	78.91886	118.19269	280.20612	4.38626	0.1455280	2.1807638	45	1	67 days	0.51	M-v	5	Williams	1999 XP ₃₂
1999 XQ ₃₂	14.7	0.15	20000226	40.08097	320.48112	114.62040	5.16569	0.2327763	2.5717864	41	1	67 days	0.37	M-v	5	Williams	1999 XQ ₃₂
1999 XS ₃₂	15.5	0.15	20000226	52.91240	174.46023	258.43001	3.64500	0.1096850	2.2928706	49	2	1998-2000	0.51	M-v	4	Spahr	37880 1999 XS ₃₂
1999 XT ₃₂	14.5	0.15	20000226	358.26910	209.46146	294.35266	6.77080	0.2571407	2.8576236	57	1	84 days	0.43	M-v	3	Williams	1999 XT ₃₂
1999 XV ₃₂	13.2	0.15	20000226	78.42183	108.42337	286.48831	10.20651	0.1963705	2.6136843	81	2	1998-2000	0.50	M-v	3	Williams	37880 1999 XV ₃₂
1999 XW ₃₂	13.7	0.15	20000226	332.88496	254.68455	280.83596	7.48867	0.1604116	2.9766748	42	1	60 days	0.51	M-v	5	Williams	1999 XW ₃₂
1999 XX ₃₂	13.1	0.15	20000226	120.33518	74.59893	289.75746	13.82790	0.1208503	2.6283507	42	1	79 days	0.43	M-v	4	Williams	1999 XX ₃₂
1999 XY ₃₂	14.5	0.15	20000226	357.28302	225.91829	278.85035	7.27289	0.1393687	2.5268226	39	1	60 days	0.46	M-v	4	Williams	1999 XY ₃₂
1999 XA ₃₃	13.9	0.15	20000226	340.59719	236.34829	293.32818	10.80573	0.2058887	3.0156802	55	1	84 days	0.42	M-v	4	Williams	1999 XA ₃₃
1999 XB ₃₃	14.6	0.15	20000226	33.01158	340.37821	112.23028	3.85905	0.2126845	2.4389680	44	1	87 days	0.32	M-v	4	Williams	1999 XB ₃₃
1999 XC ₃₃	14.4	0.15	20000226	308.57223	264.07072	300.88174	4.26311	0.1366158	2.2653980	67	2	1998-2000	0.61	M-v	4	Williams	37880 1999 XC ₃₃
1999 XE ₃₃	15.2	0.15	20000226	11.03352	34.99682	92.24338	2.21028	0.1255358	2.4244188	29	1	67 days	0.59	M-v	5	Williams	1999 XE ₃₃
1999 XF ₃₃	14.3	0.15	20000226	342.31383	47.95553	114.13468	8.24982	0.1047479	2.6399249	44	1	67 days	0.49	M-v	4	Williams	1999 XF ₃₃
1999 XG ₃₃	13.7	0.15	20000226	15.44946	198.06259	280.65905	5.76243	0.2523288	2.5653651	73	2	1998-2000	0.70	M-v	3	Williams	37880 1999 XG ₃₃
1999 XH ₃₃	15.1	0.15	20000226	67.81757	280.58979	125.46622	6.73425	0.2264278	2.2523196	90	1	95 days	0.44	M-v	4	Williams	1999 XH ₃₃
1999 XJ ₃₃	14.3	0.15	20000226	29.45024	178.37148	262.21073	2.86775	0.3759052	3.0302856	68	1	66 days	0.35	M-v	4	Williams	1999 XJ ₃₃
1999 XK ₃₃	16.0	0.15	20000226	338.54570	55.81951	112.57281	24.51067	0.0610205	1.9531936	35	2	1998-2000	0.58	M-v	3	Spahr	37881 1999 XK ₃₃
1999 XL ₃₃	15.2	0.15	20000226	340.28307	242.74787	285.75078	2.71570	0.1100954	2.2166704	42	1	80 days	0.45	M-v	4	Williams	1999 XL ₃₃
1999 XM ₃₃	15.0	0.15	20000226	39.35240	321.63845	125.39084	4.29125	0.1863237	2.5748618	64	3	1997-2000	0.53	M-v	2	Williams	37881 1999 XM ₃₃
1999 XN ₃₃	14.1	0.15	20000226	80.89244	120.78365	276.35531	1.86389	0.1909897	2.4246007	71	4	1987-2000	0.65	M-v	1	Williams	37881 1999 XN ₃₃
1999 XO ₃₃	13.0	0.15	20000226	2.95913	19.02007	119.03386	14.76034	0.0915108	2.6189766	94	1	114 days	0.34	M-v	3	Williams	1999 XO ₃₃
1999 XP ₃₃	15.0	0.15	20000226	51.34237	332.22786	105.14086	5.27915	0.1365343	2.3300954	57	1	69 days	0.50	M-v	5	Williams	1999 XP ₃₃
1999 XQ ₃₃	15.3	0.15	20000226	296.80449	103.10375	110.58157	27.34174	0.0653389	1.9177739	39	3	1988-2000	0.52	M-v	1	Williams	37881 1999 XQ ₃₃
1999 XS ₃₃	13.7	0.15	20000226	96.56911	282.56588	109.70174	7.38574	0.1152660	2.3499155	46	1	87 days	0.45	M-v	4	Williams	1999 XS ₃₃
1999 XV ₃₃	14.4	0.15	20000226	100.51879	139.81496	244.29293	1.13472	0.1525632	2.1472989	67	3	1992-2000	0.58	M-v	3	Williams	37882 1999 XV ₃₃
1999 XA ₃₄	12.8	0.15	20000226	304.82044	244.16614	317.70549	9.54851	0.0581147	3.0256592	67	1	96 days	0.50	M-v	5	Williams	38137 1999 XA ₃₄
1999 XB ₃₄	15.1	0.15	20000226	13.79227	37.77554	91.03662	4.15704	0.0932642	2.3057790	45	1	69 days	0.52	M-v	4	Williams	1999 XB ₃₄
1999 XC ₃₄	14.0	0.15	20000226	118.82967	263.01553	108.49617	7.56771	0.1359459	2.3222082	62	3	1997-2000	0.65	M-v	2	Williams	37882 1999 XC ₃₄
1999 XF ₃₄	13.4	0.15	20000226	343.70050	54.94553	121.12189	25.84256	0.2424603	2.7165019	50	1	115 days	0.52	M-v	3	Williams	38137 1999 XF ₃₄
1999 XG ₃₄	14.5	0.15	20000226	300.70630	100.51156	119.13410	6.78527	0.1294964	2.2868870	40	1	69 days	0.52	M-v	5	Williams	1999 XG ₃₄
1999 XH ₃₄	14.6	0.15	20000226	17.23859	359.20646	122.74197	6.63135	0.2082213	2.7353778	51	2	1998-2000	0.55	M-v	4	Williams	37882 1999 XH ₃₄
1999 XJ ₃₄	13.2	0.15	20000226	16.97184	20.28241	118.83520	13.86912	0.1406039	2.6461313	53	1	102 days	0.45	M-v	4	Williams	38137 1999 XJ ₃₄
1999 XK ₃₄	15.3	0.15	20000226	63.32107	195.17240	231.57608	2.16096	0.1291487	2.2367399	23	1	62 days	0.34	M-v	6	Williams	1999 XK ₃₄
1999 XL ₃₄	15.3	0.15	20000226	41.79358	270.85149	179.25835	2.47917	0.1381160	2.3982974	55	3	1991-2000	0.62	M-v	4	Spahr	37882 1999 XL ₃₄
1999 XN ₃₄	13.2	0.15	20000226	336.48813	252.53382	288.89886	18.92426	0.3074796	3.1131765	50	1	86 days	0.43	M-v	4	Williams	1999 XN ₃₄
1999 XP ₃₄	14.0	0.15	20000226	310.97590	270.62664	296.10686	10.48492	0.1972931	2.5932474	55	1	82 days	0.43	M-v	4	Williams	1999 XP ₃₄
1999 XR ₃₄	14.9	0.15	20000226	79.90552	172.77737	232.93970	1.33739	0.1143711	2.2395407	54	1	62 days	0.49	M-v	5	Williams	1999 XR ₃₄
1999 XS ₃₄	14.7	0.15	20000226	336.79666	62.75796	104.76126	6.83446	0.0674062	2.4380880	41	1	67 days	0.50	M-v	4	Williams	1999 XS ₃₄
1999 XT ₃₄	14.0	0.15	20000226	10.35541	191.80636	299.26433	9.96778	0.1076580	2.6266103	63	1	84 days	0.42	M-v	4	Williams	1999 XT ₃₄
1999 XU ₃₄	13.4	0.15	20000226	67.17292	129.51937	299.27156	21.40236	0.0551224	2.6134549	33	1	82 days	0.51	M-v	4	Williams	1999 XU ₃₄
1999 XV ₃₄	14.6	0.15	20000226	52.01121	327.47740	115.31391	7.04636	0.1002710	2.3640738	37	1	67 days	0.42	M-v	5	Williams	1999 XV ₃₄
1999 XX ₃₄	14.4	0.15	20000226	49.91694	128.93251	303.55930	4.09281	0.2331337	2.6052305	52	2	1998-2000	0.60	M-v	4	Williams	37883 1999 XX ₃₄
1999 XZ ₃₄	12.5	0.15	20000226	105.58836	278.05125	113.92990	10.78573	0.1403432	3.0265928	25	1	82 days	0.44	M-v	5	Williams	1999 XZ ₃₄
1999 XA ₃₅	14.5	0.15	20000226	344.93243	61.71882	108.60886	5.67800	0.2234043	2.5714310	53	2	1998-2000	0.55	M-v	4	Williams	37883 1999 XA ₃₅
1999 XB ₃₅	12.7	0.15	20000226	260.95893	130.06832	124.38662	14.30763	0.0255090	3.1304425	33	1	62 days	0.38	M-v	5	Williams	1999 XB ₃₅
1999 XL ₃₅	14.6	0.15	20000226	34.46197	333.69002	87.36750	15.44690	0.1819725	2.5847348	36	1	99 days	0.65	M-v	4	Williams	38137 1999 XL ₃₅
1999 XN ₃₅	15.0	0.15	20000226	84.40737	307.09435	55.13974	23.27102	0.3256732	2.2286556	46	1	94 days	0.49	M-v	4	Williams	1999 XN ₃₅
1999 XO ₃₅	16.8	0.15	20000226	36.12246	292.31510	82.87891	20.48542	0.5728381	2.5300677	197	1	58 days	0.43	M-v	4	Spahr	38137 1999 XO ₃₅
1999 XQ ₃₅	15.3	0.15	19991228	351.12490	84.60354	78.84152	28.33785	0.3710641	2.6247172	31	1	57 days	0.82			Spahr	1999 XQ ₃₅
1999 XR ₃₅	17.5	0.15	20000226	350.87532	80.98625	60.98797	18.74855	0.5096670	2.3697969	27	1	66 days	0.48	M-v	4	Williams	1999 XR ₃₅
1999 XU ₃₅	13.6	0.15	20000226	20.75889	303.60138	111.77207	6.00836	0.1808941	3.1723920	65	1	106 days	0.50	M-v	3	Williams	38137 1999 XU ₃₅
1999 XV ₃₅	14.6	0.15	20000226	184.02779	95.68039	175.61054	6.27490	0.0128055	2.7266204	30	1	62 days	0.58	M-v	5	Williams	1999 XV ₃₅

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1999 XW ₃₅	13.4	0.15	20000226	356.08633	38.64739	76.11182	16.66492	0.2007661	2.5412620	68	1	93 days	0.54	M-v	4	Spahr	38137	1999 XW ₃₅
1999 XZ ₃₅	14.1	0.15	20000226	74.43445	98.05678	291.47920	8.66034	0.0979780	2.5619699	54	3	1992-2000	0.56	M-v	2	Williams	37883	1999 XZ ₃₅
1999 XA ₃₆	15.5	0.15	20000226	31.56726	316.56165	103.91842	3.04533	0.2007568	2.4063637	53	1	122 days	0.38	M-v	3	Williams	38137	1999 XA ₃₆
1999 XB ₃₆	14.3	0.15	20000226	55.38898	94.07419	319.38699	6.12957	0.0947403	2.3423618	39	1	81 days	0.54	M-v	4	Williams		1999 XB ₃₆
1999 XC ₃₆	14.3	0.15	20000226	37.67653	325.37170	107.92004	12.79890	0.1193085	2.3296828	43	1	114 days	0.54	M-v	4	Williams		1999 XC ₃₆
1999 XD ₃₆	13.1	0.15	20000226	279.23153	123.26070	89.38083	13.97334	0.1050276	2.5808886	75	2	1990-2000	0.51	M-v	4	Williams	38137	1999 XD ₃₆
1999 XE ₃₆	14.1	0.15	20000226	1.64046	258.92344	219.34739	4.06751	0.2134899	2.8596542	38	3	1991-2000	0.62	M-v	4	Williams	37883	1999 XE ₃₆
1999 XF ₃₆	15.1	0.15	20000226	5.11427	141.25577	334.31183	4.47901	0.1172334	2.2883273	50	1	87 days	0.52	M-v	4	Williams		1999 XF ₃₆
1999 XG ₃₆	13.7	0.15	19991228	271.60468	143.95875	52.10141	7.09829	0.0575038	2.3929701	37	1	54 days	0.65			Williams		1999 XG ₃₆
1999 XH ₃₆	13.4	0.15	20000226	54.22090	349.84112	66.48940	10.23704	0.0551544	2.9606642	41	1	78 days	0.57	M-v	4	Williams		1999 XH ₃₆
1999 XL ₃₆	14.0	0.15	20000226	10.44641	186.46422	266.27808	11.99456	0.1081188	2.5908410	54	2	1998-2000	0.70	M-v	3	Spahr	37884	1999 XL ₃₆
1999 XM ₃₆	13.6	0.15	20000226	34.73367	10.17955	22.11711	15.07897	0.1228624	2.6397012	45	1	120 days	0.38	M-v	3	Williams	38137	1999 XM ₃₆
1999 XN ₃₆	13.4	0.15	20000226	87.32077	305.17332	18.70429	14.08742	0.2190614	2.5642231	28	1	118 days	0.52	M-v	4	Williams	38137	1999 XN ₃₆
1999 XP ₃₆	13.4	0.15	20000226	39.52312	10.18211	21.03356	10.85438	0.1807280	2.5795843	51	4	1978-2000	0.54	M-v	2	Williams	37884	1999 XP ₃₆
1999 XQ ₃₆	14.1	0.15	20000226	17.79760	71.16806	356.25500	6.33524	0.0928691	2.2781038	49	2	1997-2000	0.62	M-v	3	Williams	37884	1999 XQ ₃₆
1999 XR ₃₆	12.8	0.15	20000226	212.89888	213.75292	358.31672	12.53119	0.0262489	2.8998533	40	2	1979-2000	0.56	M-v	3	Williams	37884	1999 XR ₃₆
1999 XS ₃₆	12.7	0.15	20000226	334.85071	90.11067	10.78661	10.81403	0.0513900	3.1506653	33	1	84 days	0.49	M-v	5	Williams		1999 XS ₃₆
1999 XT ₃₆	14.0	0.15	20000226	24.79635	42.27405	12.28356	8.23087	0.1175545	2.5157181	33	2	1997-2000	0.67	M-v	4	Williams	37885	1999 XT ₃₆
1999 XU ₃₆	13.9	0.15	20000226	59.17383	98.24819	274.25795	13.40252	0.1253979	2.5371018	36	1	91 days	0.45	M-v	4	Williams	38137	1999 XU ₃₆
1999 XV ₃₆	14.5	0.15	20000226	63.46588	4.97666	7.26024	7.15271	0.1304701	2.3013684	36	1	118 days	0.52	M-v	4	Williams		1999 XV ₃₆
1999 XX ₃₆	14.2	0.15	20000226	20.90687	131.52800	287.29866	10.10107	0.2351731	2.7303641	51	1	91 days	0.36	M-v	3	Williams	38137	1999 XX ₃₆
1999 XC ₃₇	14.7	0.15	20000226	64.16583	174.73574	191.10487	7.86632	0.2117824	2.2167199	63	2	1998-2000	0.54	M-v	4	Williams	37885	1999 XC ₃₇
1999 XD ₃₇	13.9	0.15	20000226	23.93258	321.96759	93.58080	13.00434	0.1859379	2.6670339	52	1	94 days	0.46	M-v	3	Spahr	38137	1999 XD ₃₇
1999 XE ₃₇	12.3	0.15	20000226	72.28498	252.27647	101.29632	11.34090	0.1324044	3.0214795	60	1	110 days	0.43	M-v	4	Williams	38137	1999 XE ₃₇
1999 XF ₃₇	12.8	0.15	20000226	98.65071	175.05928	154.56027	15.14767	0.1280426	2.6102113	59	3	1990-2000	0.49	M-v	2	Spahr	37885	1999 XF ₃₇
1999 XG ₃₇	14.2	0.15	20000226	40.89632	214.41604	179.16958	13.61759	0.1960625	2.6945394	41	2	1990-2000	0.63	M-v	4	Spahr	37885	1999 XG ₃₇
1999 XH ₃₇	13.6	0.15	20000226	311.68523	334.50012	164.47126	14.81925	0.0339596	2.5902430	49	3	1990-2000	0.64	M-v	3	Spahr	37885	1999 XH ₃₇
1999 XJ ₃₇	13.5	0.15	20000226	62.66265	275.73169	82.95743	16.46853	0.1965773	2.6713091	65	2	1998-2000	0.58	M-v	3	Spahr	38138	1999 XJ ₃₇
1999 XK ₃₇	12.7	0.15	20000226	314.97554	22.36135	119.93306	15.61398	0.1223382	2.6024797	32	1	63 days	0.54	M-v	5	Williams		1999 XK ₃₇
1999 XL ₃₇	13.3	0.15	20000226	21.04741	296.75615	126.41177	15.42811	0.0856995	2.6113688	50	1	95 days	0.55	M-v	3	Spahr	38138	1999 XL ₃₇
1999 XM ₃₇	15.1	0.15	19991228	30.93195	92.43324	300.98808	5.70041	0.1338180	2.3053686	43	1	56 days	0.54			Williams		1999 XM ₃₇
1999 XO ₃₇	13.7	0.15	20000226	87.27079	229.16495	107.85787	17.78388	0.2176900	2.7584771	28	1	89 days	0.51	M-v	4	Spahr	38138	1999 XO ₃₇
1999 XQ ₃₇	14.8	0.15	20000226	50.70589	291.06950	88.26357	16.16049	0.2358261	2.6674677	47	1	89 days	0.59	M-v	4	Williams	38138	1999 XQ ₃₇
1999 XW ₃₇	15.3	0.15	20000226	255.46994	135.70853	76.05959	6.12881	0.1125336	2.3417578	39	1	85 days	0.40	M-v	4	Spahr		1999 XW ₃₇
1999 XX ₃₇	14.1	0.15	20000226	337.83593	317.51627	172.31028	1.11530	0.0962740	3.2512011	36	1	63 days	0.38	M-v	5	Williams		1999 XX ₃₇
1999 XY ₃₇	14.7	0.15	20000226	74.95728	295.51007	76.00644	7.00861	0.1106343	2.3593879	69	1	93 days	0.38	M-v	4	Spahr		1999 XY ₃₇
1999 XE ₃₈	14.9	0.15	20000226	22.00362	32.83026	38.78221	7.36158	0.1570958	2.4063823	56	1	128 days	0.45	M-v	3	Williams	38138	1999 XE ₃₈
1999 XF ₃₈	14.3	0.15	20000226	15.20323	113.49158	325.20627	4.16802	0.1531012	2.5303169	48	1	70 days	0.54	M-v	4	Williams		1999 XF ₃₈
1999 XJ ₃₈	14.8	0.15	20000226	166.00012	76.80601	208.71667	1.71627	0.1410763	2.2255322	40	3	1991-2000	0.64	M-v	4	Williams	37886	1999 XJ ₃₈
1999 XO ₃₈	14.2	0.15	20000226	70.33649	340.70512	63.31128	6.38738	0.2337907	2.5755504	57	1	92 days	0.59	M-v	5	Williams		1999 XO ₃₈
1999 XP ₃₈	12.3	0.15	20000226	293.14144	121.06626	100.02945	11.10960	0.0823630	2.9442658	45	1	83 days	0.51	M-v	5	Williams		1999 XP ₃₈
1999 XQ ₃₈	13.8	0.15	20000226	54.15086	344.88692	78.35801	9.37407	0.2911436	2.6776434	23	1	76 days	0.48	M-v	5	Williams		1999 XQ ₃₈
1999 XV ₃₈	15.3	0.15	20000226	11.60386	284.58157	158.63911	5.78655	0.2747277	2.5534680	50	1	105 days	0.48	M-v	3	Williams	38138	1999 XV ₃₈
1999 XA ₃₉	14.5	0.15	20000226	354.81679	240.71993	267.54232	12.86087	0.2197395	2.6755898	28	1	63 days	0.55	M-v	4	Williams		1999 XA ₃₉
1999 XB ₃₉	13.8	0.15	20000226	47.41462	257.01828	126.94512	3.55068	0.1847574	2.6913345	65	1	99 days	0.58	M-v	4	Williams		1999 XB ₃₉
1999 XC ₃₉	14.1	0.15	19991208	180.30585	163.51719	81.02651	13.82693	0.1889588	2.6021138	14	1	36 days	0.49			Williams		1999 XC ₃₉
1999 XD ₃₉	13.5	0.15	20000226	356.04848	254.32881	195.15544	4.74338	0.1253886	3.1374212	54	3	1993-2000	0.67	M-v	3	Spahr	37886	1999 XD ₃₉
1999 XH ₃₉	15.9	0.15	19991029	19.96957	258.69989	133.75899	5.97823	0.1467966	2.3512013	21	1	54 days	0.65			Williams		1999 XH ₃₉
1999 XZ ₃₉	14.0	0.15	19991228	53.58820	276.74462	110.86751	10.30274	0.1429706	2.5620028	34	1	58 days	0.43			Spahr		1999 XZ ₃₉
1999 XA ₄₀	14.7	0.15	20000226	7.17088	258.20220	211.82509	6.01580	0.0976841	2.3920575	42	2	1998-2000	0.64	M-v	4	Williams	37887	1999 XA ₄₀
1999 XB ₄₀	13.4	0.15	20000226	132.31252	140.04821	189.49213	6.16777	0.1422721	2.4187428	36	2	1987-2000	0.51	M-v	4	Spahr	37888	1999 XB ₄₀
1999 XD ₄₀	14.2	0.15	20000226	59.67841	328.78355	106.00374	13.01807	0.1050141	2.3858266	42	1	65 days	0.50	M-v	5	Williams		1999 XD ₄₀
1999 XF ₄₀	13.4	0.15	20000226	235.86583	101.66670	87.56898	3.08180	0.0651239	3.1888607	47	4	1993-1999	0.61	M-v	1	Williams	37888	1999 XF ₄₀

1999 XH ₄₀	16.8	0.15	19991118	309.69636	86.98574	31.20811	3.08078	0.1738000	2.3185396	28	1	37 days	0.71	Williams	1999 XH ₄₀
1999 XK ₄₀	16.6	0.15	19991118	18.87603	350.39367	32.52446	3.67587	0.1816980	2.5578293	30	1	37 days	0.53	Williams	1999 XK ₄₀
1999 XE ₄₁	15.6	0.15	20000226	78.34764	353.73952	338.38983	1.99464	0.2416986	2.3790889	36	1	66 days	0.39	M-v 4 Williams	1999 XE ₄₁
1999 XF ₄₁	15.2	0.15	19991118	339.64011	28.49189	46.70065	7.21600	0.0838743	2.5661596	22	1	29 days	0.50	Williams	1999 XF ₄₁
1999 XY ₄₁	13.2	0.15	20000226	116.17815	314.10282	349.33156	0.55827	0.1026790	2.9560096	42	2	1988–1999	0.59	M-v 5 Williams	37888 1999 XY ₄₁
1999 XG ₄₂	15.4	0.15	19991118	248.53103	132.30699	46.44345	8.94248	0.1320018	2.3709650	37	1	40 days	0.74	Williams	1999 XG ₄₂
1999 XK ₄₂	16.0	0.15	19991118	91.69494	260.02656	46.76098	7.18346	0.1384534	2.4236374	36	1	35 days	0.60	Williams	1999 XK ₄₂
1999 XL ₄₂	16.8	0.15	19991118	282.92645	113.60365	35.23636	2.74949	0.1538150	2.3487336	24	1	39 days	0.57	Williams	1999 XL ₄₂
1999 XV ₄₂	15.9	0.15	20000226	53.45585	134.74588	238.05810	1.92062	0.1791429	2.5207982	27	2	1996–1999	0.42	M-v 5 Williams	37889 1999 XV ₄₂
1999 XX ₄₂	14.1	0.15	20000226	83.28330	71.36489	258.16090	4.39237	0.1576080	3.2089704	44	1	91 days	0.63	M-v 5 Williams	1999 XX ₄₂
1999 XA ₄₃	14.6	0.15	19991118	149.81031	1.69498	258.87366	3.85339	0.0776008	2.6048975	27	1	35 days	0.48	Williams	1999 XA ₄₃
1999 XE ₄₃	15.7	0.15	19991118	51.03221	91.07020	245.58175	7.83912	0.2543826	2.7277947	33	1	35 days	0.81	Williams	1999 XE ₄₃
1999 XJ ₄₃	17.0	0.15	19991118	355.73576	44.15842	16.83605	0.90474	0.1385206	2.3622880	32	1	34 days	0.58	Williams	1999 XJ ₄₃
1999 XK ₄₃	15.8	0.15	19991118	65.56225	270.11001	40.89697	4.16443	0.3344739	2.3383691	28	1	35 days	0.37	Williams	1999 XK ₄₃
1999 XO ₄₃	15.4	0.15	20000226	42.41452	78.57635	313.66967	1.20495	0.1888755	2.3984619	40	1	88 days	0.51	M-v 4 Williams	38139 1999 XO ₄₃
1999 XT ₄₃	14.6	0.15	19991118	87.97324	61.47679	254.78106	9.52420	0.0972442	2.9684366	38	1	35 days	0.49	Williams	1999 XT ₄₃
1999 XU ₄₃	14.4	0.15	20000226	52.74191	61.44312	315.40495	2.12481	0.1546589	2.5617324	64	2	1993–2000	0.59	M-v 4 Spahr	37890 1999 XU ₄₃
1999 XD ₄₄	15.0	0.15	20000226	36.46121	358.63309	40.19510	3.82757	0.1659763	2.5384356	43	1	82 days	0.75	M-v 4 Williams	1999 XD ₄₄
1999 XK ₄₄	16.3	0.15	19991118	3.80964	58.11317	352.00269	1.13691	0.1885790	2.6284528	26	1	35 days	0.53	Williams	1999 XK ₄₄
1999 XL ₄₄	13.8	0.15	20000226	321.35465	155.28649	323.41820	1.12699	0.0355193	2.8413773	57	3	1992–2000	0.66	M-v 4 Spahr	37891 1999 XL ₄₄
1999 XT ₄₄	15.9	0.15	19991118	255.61748	127.24435	50.75676	3.05951	0.1588703	2.3488763	27	1	33 days	0.46	Williams	1999 XT ₄₄
1999 XU ₄₄	16.0	0.15	19991118	286.25767	85.45538	55.13173	6.06129	0.0965538	2.2912174	30	1	39 days	0.52	Williams	1999 XU ₄₄
1999 XV ₄₄	13.8	0.15	20000226	351.40797	197.75647	250.70780	4.16023	0.1212640	3.1603754	39	1	82 days	0.57	M-v 5 Williams	1999 XV ₄₄
1999 XX ₄₄	17.6	0.15	19991118	3.26280	355.72589	54.62958	3.54542	0.2139469	2.3962921	21	1	29 days	0.40	Williams	1999 XX ₄₄
1999 XY ₄₄	15.0	0.15	19991118	124.20730	219.78768	57.12448	14.59696	0.1785929	2.6076442	21	1	29 days	0.36	Williams	1999 XY ₄₄
1999 XD ₄₅	14.7	0.15	20000226	5.55276	19.29376	62.50350	7.21292	0.0772090	2.3487083	70	1	111 days	0.55	M-v 4 Spahr	38140 1999 XD ₄₅
1999 XE ₄₅	15.8	0.15	19991029	78.06930	258.20347	67.31121	6.12006	0.0668562	2.7431245	23	1	53 days	0.93	Williams	1999 XE ₄₅
1999 XG ₄₅	16.0	0.15	19991029	56.12191	218.98273	106.47188	3.22300	0.2453996	2.3288223	38	1	54 days	0.58	Williams	1999 XG ₄₅
1999 XH ₄₅	15.3	0.15	20000226	67.76803	280.23972	83.30902	6.29542	0.1469522	2.2690367	46	1	78 days	0.46	M-v 4 Williams	38140 1999 XH ₄₅
1999 XL ₄₅	15.5	0.15	20000226	97.18483	249.89413	68.42957	6.40969	0.2662610	2.2210190	29	1	68 days	0.56	M-v 5 Williams	38140 1999 XL ₄₅
1999 XM ₄₅	14.3	0.15	20000226	258.08961	126.57976	67.88959	3.30545	0.1219454	2.4315510	35	1	86 days	0.51	M-v 5 Williams	1999 XM ₄₅
1999 XX ₄₅	14.8	0.15	19991118	101.84498	239.62840	57.50765	13.30769	0.1754292	2.6967544	36	1	34 days	0.91	Williams	1999 XX ₄₅
1999 XM ₄₆	14.9	0.15	19991118	176.93916	356.25884	244.80046	13.16764	0.1594955	2.6791776	22	1	29 days	0.48	Williams	1999 XM ₄₆
1999 XO ₄₆	15.6	0.15	20000226	35.95832	331.80598	64.03062	15.99824	0.1938704	2.7347192	43	1	78 days	0.58	M-v 4 Williams	1999 XO ₄₆
1999 XQ ₄₆	15.9	0.15	20000226	80.52780	276.59976	70.67990	4.13220	0.1900129	2.2341683	50	1	72 days	0.43	M-v 5 Williams	38140 1999 XQ ₄₆
1999 XR ₄₆	16.9	0.15	19991118	41.21846	271.58279	89.20897	2.83126	0.1802614	2.5239924	38	1	35 days	0.60	Williams	1999 XR ₄₆
1999 XU ₄₆	14.6	0.15	20000226	359.69732	64.04383	17.05027	1.79562	0.0605177	2.9128215	40	2	1996–1999	0.52	M-v 5 Williams	37892 1999 XU ₄₆
1999 XY ₄₆	13.8	0.15	20000226	345.21691	198.28662	264.58813	3.39114	0.1667497	3.2282295	50	1	92 days	0.73	M-v 5 Williams	1999 XY ₄₆
1999 XZ ₄₆	14.4	0.15	20000226	138.58115	296.49329	357.91338	1.43893	0.0686157	2.8683890	45	3	1995–1999	0.65	M-v 4 Williams	37892 1999 XZ ₄₆
1999 XK ₄₇	14.5	0.15	19991118	130.58330	323.17646	321.38943	0.87730	0.0544446	3.0221252	22	1	24 days	0.75	Williams	1999 XK ₄₇
1999 XL ₄₇	14.6	0.15	20000226	294.97243	265.30675	253.21799	5.20376	0.0526110	2.3216242	42	1	88 days	0.43	M-v 5 Williams	38140 1999 XL ₄₇
1999 XR ₄₇	15.6	0.15	20000226	18.63516	1.12820	64.29543	15.02398	0.2329492	2.6463416	69	1	76 days	0.49	M-v 4 Williams	38140 1999 XR ₄₇
1999 XZ ₄₇	15.3	0.15	20000226	22.36253	353.89426	74.09296	4.09199	0.0990552	2.2493177	56	2	1996–2000	0.46	M-v 3 Spahr	37892 1999 XZ ₄₇
1999 XH ₄₈	14.9	0.15	20000226	222.87561	131.83348	96.18752	3.40551	0.1443865	2.4313081	32	3	1994–1999	0.51	M-v 4 Williams	37892 1999 XH ₄₈
1999 XZ ₄₈	14.2	0.15	20000226	33.76403	330.27813	63.65786	15.16169	0.2330157	3.1378936	55	1	92 days	0.45	M-v 4 Williams	38141 1999 XZ ₄₈
1999 XC ₄₉	14.3	0.15	20000226	309.71980	244.11505	252.15188	8.76307	0.0557777	3.0082226	35	1	68 days	0.54	M-v 5 Williams	1999 XC ₄₉
1999 XL ₄₉	14.3	0.15	20000226	85.93917	94.46392	251.70347	9.96683	0.0810521	2.9843857	36	1	68 days	0.53	M-v 5 Williams	1999 XL ₄₉
1999 XN ₄₉	16.7	0.15	19991118	31.87320	326.79857	44.05280	2.76633	0.2291073	2.3371600	19	1	29 days	0.36	Williams	1999 XN ₄₉
1999 XS ₄₉	15.6	0.15	19991118	184.15355	185.40317	52.99949	2.34369	0.0917697	2.6028308	20	1	34 days	0.52	Williams	1999 XS ₄₉
1999 XU ₄₉	15.3	0.15	19991208	161.84589	6.49555	254.36697	5.35266	0.1182445	2.3956110	27	1	57 days	0.41	Williams	1999 XU ₄₉
1999 XW ₄₉	15.2	0.15	19991118	65.21616	290.29681	59.43229	2.85271	0.0660044	2.9460198	30	1	34 days	0.67	Williams	1999 XW ₄₉
1999 XX ₄₉	15.2	0.15	19991118	299.87487	162.17176	341.86285	0.93194	0.1965598	3.0949379	31	1	52 days	0.40	Spahr	1999 XX ₄₉
1999 XK ₅₀	13.9	0.15	20000226	116.97431	237.07413	69.29961	10.25640	0.1469926	3.0897374	31	1	67 days	0.44	M-v 5 Williams	1999 XK ₅₀

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1999 XT ₅₀	13.6	0.15	20000226	182.55792	177.03645	80.27133	8.84327	0.1728468	2.5729345	61	3	1977–2000	0.53	M-v	3	Williams	37894	1999 XT ₅₀
1999 XC ₅₁	14.0	0.15	20000226	311.93552	308.84788	198.76402	1.58659	0.1356051	2.7220852	53	1	96 days	0.60	M-v	5	Spahr	38142	1999 XC ₅₁
1999 XJ ₅₁	15.0	0.15	20000226	25.30924	345.66281	69.51234	16.05653	0.2362833	2.7326924	55	1	102 days	0.51	M-v	3	Williams	38142	1999 XJ ₅₁
1999 XM ₅₂	13.7	0.15	20000226	89.62969	296.90634	54.53954	4.93520	0.0502652	2.6862601	48	1	88 days	0.45	M-v	4	Williams	38142	1999 XM ₅₂
1999 XR ₅₂	14.6	0.15	20000226	331.53544	223.76126	265.07157	3.97632	0.0839442	2.2960266	58	2	1998–2000	0.53	M-v	4	Williams	37895	1999 XR ₅₂
1999 XT ₅₂	15.2	0.15	20000226	113.08142	22.29310	292.99424	1.49186	0.1940981	2.4450584	26	2	1998–1999	0.63	M-v	4	Williams	37895	1999 XT ₅₂
1999 XZ ₅₂	15.7	0.15	19991208	307.18443	236.39999	254.53952	4.99194	0.0939886	2.4807280	22	1	56 days	0.59			Williams		1999 XZ ₅₂
1999 XD ₅₃	15.2	0.15	20000226	105.29787	256.43845	76.89037	2.66857	0.1135266	2.2697776	41	2	1998–2000	0.61	M-v	4	Spahr	37896	1999 XD ₅₃
1999 XE ₅₃	15.5	0.15	20000226	65.37275	142.34898	221.25220	1.56743	0.2230402	2.3789002	47	2	1995–1999	0.58	M-v	4	Williams	37896	1999 XE ₅₃
1999 XH ₅₃	14.5	0.15	20000226	152.99685	206.10628	80.62605	3.85992	0.0663634	2.8078433	39	3	1996–2000	0.60	M-v	4	Williams	37896	1999 XH ₅₃
1999 XK ₅₃	15.9	0.15	20000226	358.40272	24.78401	77.05545	6.22007	0.1270341	2.2067842	39	1	63 days	0.58	M-v	5	Williams	38142	1999 XK ₅₃
1999 XE ₅₄	14.2	0.15	20000226	35.67316	295.91105	104.31176	3.03644	0.1395212	3.0135467	45	3	1978–2000	0.61	M-v	3	Williams	37897	1999 XE ₅₄
1999 XF ₅₄	13.5	0.15	20000226	153.34034	117.20465	161.12740	1.98931	0.1443361	3.1055534	35	1	67 days	0.57	M-v	5	Williams		1999 XF ₅₄
1999 XG ₅₄	13.3	0.15	20000226	260.71125	109.49554	76.91176	11.63310	0.0461757	2.9810594	54	1	92 days	0.52	M-v	4	Williams	38142	1999 XG ₅₄
1999 XP ₅₄	16.0	0.15	20000226	11.48529	354.37690	88.88852	4.02794	0.1483858	2.3667292	35	1	67 days	0.61	M-v	5	Williams		1999 XP ₅₄
1999 XA ₅₅	15.1	0.15	19991208	39.82549	136.03910	246.75965	12.91965	0.0848346	2.6012189	34	1	59 days	0.55			Williams		1999 XA ₅₅
1999 XX ₅₅	16.1	0.15	19991118	41.82007	315.67149	55.47386	2.33553	0.1295773	2.2405051	23	1	29 days	0.45			Williams		1999 XX ₅₅
1999 XO ₅₆	14.1	0.15	20000226	49.12222	290.14777	85.04438	4.49071	0.2439057	3.0456662	50	1	92 days	0.51	M-v	4	Spahr	38143	1999 XO ₅₆
1999 XT ₅₆	15.1	0.15	19991118	14.08272	156.23861	246.07300	10.53450	0.2220135	3.0262798	25	1	29 days	0.64			Williams		1999 XT ₅₆
1999 XE ₅₇	15.0	0.15	20000226	351.13915	15.64132	88.30734	4.59751	0.1013348	2.5924828	30	1	63 days	0.50	M-v	5	Williams	38143	1999 XE ₅₇
1999 XZ ₅₇	14.7	0.15	19991228	248.24485	336.13266	220.58244	4.01555	0.0844301	2.2582671	29	1	58 days	0.68			Spahr		1999 XZ ₅₇
1999 XC ₅₈	15.5	0.15	19991208	197.39792	11.50364	224.67829	3.62827	0.1073963	2.3201644	19	1	34 days	0.53			Williams		1999 XC ₅₈
1999 XG ₅₈	14.7	0.15	20000226	90.37907	252.98490	80.95658	9.53271	0.2184739	2.6065916	33	2	1998–2000	0.73	M-v	4	Williams	37899	1999 XG ₅₈
1999 XT ₅₈	15.2	0.15	20000226	326.29324	291.62257	213.08307	1.57064	0.1611016	2.3217842	36	2	1997–2000	0.71	M-v	4	Spahr	37900	1999 XT ₅₈
1999 XW ₅₈	14.9	0.15	19991118	82.33635	74.48587	253.56229	6.42356	0.1360089	2.6109619	20	1	29 days	0.54			Williams		1999 XW ₅₈
1999 XX ₅₈	15.9	0.15	19991118	47.73926	294.13700	66.29183	3.25924	0.1739575	2.4137302	23	1	29 days	0.50			Williams		1999 XX ₅₈
1999 XA ₅₉	15.1	0.15	19991208	222.33523	322.20459	255.75157	0.69410	0.1260115	2.1788822	34	1	58 days	0.50			Williams		1999 XA ₅₉
1999 XB ₅₉	15.4	0.15	20000226	141.64589	236.95885	59.71543	3.72848	0.1739432	2.3265368	24	2	1998–1999	0.77	M-v	5	Williams	37900	1999 XB ₅₉
1999 XD ₅₉	14.6	0.15	20000226	328.06302	60.35101	70.72312	16.05557	0.0916871	2.6147872	37	2	1997–2000	0.46	M-v	3	Williams	37900	1999 XD ₅₉
1999 XF ₅₉	15.8	0.15	19991118	45.82282	299.52706	62.41868	2.95901	0.1863979	2.3905498	24	1	29 days	0.42			Williams		1999 XF ₅₉
1999 XG ₅₉	14.8	0.15	19991208	65.99429	281.47873	63.00257	0.90828	0.1887377	2.7142103	28	1	58 days	0.46			Williams		1999 XG ₅₉
1999 XJ ₅₉	15.5	0.15	20000226	355.34129	206.14917	261.07969	3.71344	0.1940448	2.6010704	43	1	119 days	0.53	M-v	4	Spahr	38143	1999 XJ ₅₉
1999 XT ₅₉	12.8	0.15	20000226	56.97660	306.32929	74.98436	11.60752	0.0932210	3.0443318	48	2	1995–2000	0.51	M-v	4	Williams	37900	1999 XT ₅₉
1999 XU ₅₉	14.4	0.15	19991208	180.08701	2.58671	248.93631	5.32486	0.1334107	2.3281834	27	1	57 days	0.44			Williams		1999 XU ₅₉
1999 XJ ₆₀	15.3	0.15	20000226	64.30044	302.55658	80.23813	7.09015	0.0950678	2.3146157	26	1	63 days	0.42	M-v	4	Williams	38144	1999 XJ ₆₀
1999 XR ₆₀	14.2	0.15	20000226	88.04136	245.35911	103.50857	3.08139	0.1078594	2.7310752	29	2	1992–2000	0.51	M-v	5	Williams	37901	1999 XR ₆₀
1999 XS ₆₀	14.3	0.15	20000226	168.91292	141.60227	132.60887	2.00775	0.1956437	2.3655458	41	3	1991–2000	0.56	M-v	4	Williams	37901	1999 XS ₆₀
1999 XT ₆₀	14.3	0.15	20000226	323.61663	269.27628	238.38071	8.77530	0.2065248	2.7333078	34	1	86 days	0.48	M-v	4	Williams		1999 XT ₆₀
1999 XU ₆₀	14.7	0.15	19991118	84.63852	105.25828	225.36191	3.69469	0.1054079	2.7414893	20	1	29 days	0.52			Williams		1999 XU ₆₀
1999 XV ₆₀	14.2	0.15	20000226	71.08741	162.53145	198.40598	2.10769	0.1374219	3.0607233	25	2	1993–2000	0.49	M-v	5	Williams	37901	1999 XV ₆₀
1999 XA ₆₁	13.6	0.15	20000226	55.03431	295.20522	78.32948	15.27575	0.2280387	2.7951603	33	1	99 days	0.36	M-v	4	Williams	38144	1999 XA ₆₁
1999 XE ₆₁	14.2	0.15	20000226	31.31129	314.12524	92.44847	6.34718	0.1796596	3.1161541	41	1	91 days	0.45	M-v	4	Spahr	38144	1999 XE ₆₁
1999 XF ₆₁	16.0	0.15	20000226	55.84463	289.06512	97.88429	4.89694	0.1662821	2.2757901	30	1	63 days	0.46	M-v	4	Williams	38144	1999 XF ₆₁
1999 XK ₆₁	14.8	0.15	20000226	311.00887	61.76841	97.64998	5.17781	0.1670997	2.5541775	31	1	91 days	0.55	M-v	5	Williams	38144	1999 XK ₆₁
1999 XO ₆₁	16.0	0.15	20000226	57.82862	185.09653	192.69522	2.20351	0.2138411	2.4136414	25	1	64 days	0.46	M-v	4	Williams	38144	1999 XO ₆₁
1999 XQ ₆₁	14.2	0.15	20000226	93.91386	253.00478	90.52921	7.71635	0.1096880	2.7063904	26	1	63 days	0.43	M-v	5	Williams	38144	1999 XQ ₆₁
1999 XW ₆₁	16.8	0.15	19991118	315.49909	82.97408	30.75358	2.62926	0.1432558	2.2793853	21	1	40 days	0.68			Williams		1999 XW ₆₁
1999 XG ₆₂	16.5	0.15	19991118	50.08616	113.23655	242.64630	5.79737	0.1519143	2.4019628	29	1	56 days	0.61			Williams		1999 XG ₆₂
1999 XL ₆₄	13.6	0.15	20000226	351.35630	297.60309	165.12670	0.41916	0.1546315	3.2067764	49	1	100 days	0.55	M-v	4	Williams	38145	1999 XL ₆₄
1999 XS ₆₄	14.8	0.15	20000226	255.04139	309.48053	259.71408	5.45482	0.1152433	2.2919241	40	1	89 days	0.57	M-v	4	Williams	38145	1999 XS ₆₄
1999 XU ₆₄	13.9	0.15	20000226	3.00215	20.00078	70.30161	2.31270	0.1704844	3.1348933	34	2	1993–2000	0.68	M-v	4	Williams	37902	1999 XU ₆₄
1999 XB ₆₅	15.1	0.15	19991118	68.69302	123.38567	224.10458	3.40123	0.1083060	2.7074380	17	1	26 days	0.49			Williams		1999 XB ₆₅
1999 XF ₆₆	14.7	0.15	20000226	355.72431	30.98980	74.80481	9.30557	0.2364865	3.0425968	35	1	88 days	0.48	M-v	4	Williams	38145	1999 XF ₆₆

1999 XZ ₆₆	14.9	0.15	20000226	99.79167	247.03634	82.53363	5.33155	0.2542507	2.2541708	28	1	63 days	0.39	M-v	5	Williams	38145	1999 XZ ₆₆
1999 XB ₆₇	14.0	0.15	19991208	228.95263	324.75008	252.63333	10.74548	0.1398388	2.6438948	26	1	58 days	0.71			Williams		1999 XB ₆₇
1999 XW ₆₇	15.2	0.15	20000226	331.12499	311.31792	190.37336	2.11272	0.1703731	2.4235026	42	4	1993–2000	0.46	M-v	1	Williams	37904	1999 XW ₆₇
1999 XC ₆₈	14.3	0.15	19991118	42.19777	140.50336	240.59785	9.54611	0.0979059	3.1030005	17	1	26 days	0.27			Williams		1999 XC ₆₈
1999 XN ₆₈	14.3	0.15	20000226	152.92659	107.20737	192.33866	1.67901	0.0532424	2.4131599	33	2	1995–2000	0.45	M-v	4	Williams	37905	1999 XN ₆₈
1999 XU ₆₈	14.9	0.15	20000226	63.76947	292.14847	86.38636	5.53615	0.1830889	2.2916667	27	1	66 days	0.50	M-v	5	Williams		1999 XU ₆₈
1999 XZ ₆₈	13.5	0.15	20000226	260.01303	113.09819	84.89319	7.01488	0.0382891	2.7399121	25	1	66 days	0.40	M-v	5	Williams		1999 XZ ₆₈
1999 XB ₆₉	16.4	0.15	20000226	0.94343	220.18162	256.16646	11.32879	0.6315675	4.4481423	40	1	81 days	0.54	M-v	4	Williams	38145	1999 XB ₆₉
1999 XM ₆₉	16.2	0.15	19991208	16.01869	157.43871	255.71785	5.41603	0.1946600	2.3396324	23	1	51 days	0.44			Williams		1999 XM ₆₉
1999 XS ₆₉	15.0	0.15	19991208	89.62484	250.08129	81.03519	7.72441	0.1501524	2.3704094	23	1	28 days	0.39			Spahr		1999 XS ₆₉
1999 XD ₇₀	15.1	0.15	20000226	318.22157	337.89166	183.95841	1.29645	0.1821431	2.3095051	32	2	1997–2000	0.50	M-v	4	Williams	37906	1999 XD ₇₀
1999 XG ₇₀	14.7	0.15	20000226	78.53007	256.28260	85.96360	8.95544	0.2965555	2.7464001	22	1	60 days	0.43	M-v	5	Williams	38145	1999 XG ₇₀
1999 XN ₇₀	16.0	0.15	20000226	51.63558	264.30321	133.81883	2.16098	0.1252779	2.3820699	25	2	1995–2000	0.56	M-v	4	Williams	37906	1999 XN ₇₀
1999 XO ₇₀	14.2	0.15	20000226	88.12991	123.42424	228.43711	3.22232	0.1301584	2.7041205	41	4	1981–2000	0.55	M-v	1	Williams	37906	1999 XO ₇₀
1999 XR ₇₀	14.1	0.15	20000226	61.63515	190.50263	177.95383	2.04899	0.2109380	3.1575391	29	1	64 days	0.42	M-v	5	Williams	38146	1999 XR ₇₀
1999 XV ₇₀	14.7	0.15	20000226	161.07855	168.40812	122.41089	2.72296	0.1129745	2.3173748	32	3	1977–2000	0.53	M-v	4	Williams	37907	1999 XV ₇₀
1999 XA ₇₁	15.0	0.15	19991228	8.75769	320.38428	109.55920	4.37225	0.1910526	2.6036511	29	1	58 days	0.40			Spahr		1999 XA ₇₁
1999 XK ₇₁	14.6	0.15	20000226	22.78797	255.33113	177.46000	1.66441	0.1177141	2.5769700	38	1	79 days	0.46	M-v	4	Williams		1999 XK ₇₁
1999 XR ₇₁	14.6	0.15	19991208	45.83725	125.62662	251.92835	8.20584	0.1552664	2.7287012	25	1	58 days	0.35			Williams		1999 XR ₇₁
1999 XS ₇₁	12.7	0.15	20000226	50.43480	297.79390	90.70629	6.74211	0.1623136	3.2024654	39	1	100 days	0.50	M-v	4	Williams	38146	1999 XS ₇₁
1999 XT ₇₁	16.2	0.15	20000226	32.71951	209.49506	210.92408	1.49120	0.1805130	2.4303407	26	2	1997–2000	0.50	M-v	4	Williams	37907	1999 XT ₇₁
1999 XU ₇₁	15.2	0.15	20000226	346.77045	39.59312	86.38889	1.57791	0.1638121	2.3464475	35	1	82 days	0.51	M-v	4	Williams	38146	1999 XU ₇₁
1999 XE ₇₂	15.4	0.15	20000226	16.20809	5.44836	80.48099	10.82267	0.1429994	2.3678385	34	1	99 days	0.61	M-v	4	Williams	38146	1999 XE ₇₂
1999 XH ₇₂	12.7	0.15	20000226	52.97859	314.46355	80.45472	11.61202	0.0925741	2.9955956	20	1	66 days	0.31	M-v	5	Williams		1999 XH ₇₂
1999 XM ₇₂	14.3	0.15	20000226	221.01800	346.28529	252.76594	2.44319	0.0441913	2.6557594	49	3	1997–2000	0.62	M-v	3	Williams	37908	1999 XM ₇₂
1999 XO ₇₂	15.3	0.15	20000226	40.18970	297.87153	116.26849	0.26434	0.1101100	2.5203603	32	1	64 days	0.51	M-v	5	Williams	38146	1999 XO ₇₂
1999 XP ₇₂	14.4	0.15	20000226	54.27011	312.24911	81.29502	14.94437	0.1174783	2.6594727	31	1	87 days	0.55	M-v	4	Williams		1999 XP ₇₂
1999 XS ₇₂	13.4	0.15	20000226	118.10146	239.62405	84.24840	10.97748	0.1146091	3.0157810	41	3	1997–2000	0.57	M-v	3	Williams	37908	1999 XS ₇₂
1999 XZ ₇₂	14.9	0.15	20000226	40.74620	158.73171	249.05209	6.39665	0.1763297	2.5945666	33	1	92 days	0.47	M-v	4	Spahr	38146	1999 XZ ₇₂
1999 XO ₇₃	13.8	0.15	20000226	91.33854	274.20562	85.68924	14.68618	0.0756808	2.5599161	30	1	87 days	0.52	M-v	4	Williams	38146	1999 XO ₇₃
1999 XQ ₇₃	15.4	0.15	20000226	22.73899	350.12098	87.29103	2.97606	0.1697652	2.3969160	33	1	74 days	0.56	M-v	4	Williams		1999 XQ ₇₃
1999 XV ₇₃	14.8	0.15	20000226	127.94136	237.89012	88.02694	5.20682	0.1002073	2.2148607	41	2	1998–2000	0.61	M-v	4	Williams	37908	1999 XV ₇₃
1999 XY ₇₃	14.2	0.15	20000226	31.44934	180.78333	244.32874	1.40607	0.2019684	2.3647477	40	3	1988–2000	0.58	M-v	3	Williams	37909	1999 XY ₇₃
1999 XZ ₇₃	14.5	0.15	20000226	24.02837	346.34981	84.48017	3.39133	0.1917937	2.7593358	32	1	86 days	0.37	M-v	3	Williams		1999 XZ ₇₃
1999 XG ₇₄	15.0	0.15	20000226	352.49087	244.86571	238.23342	3.20175	0.2426396	2.6447565	38	1	67 days	0.44	M-v	5	Williams		1999 XG ₇₄
1999 XH ₇₄	15.5	0.15	20000226	343.77247	12.06589	118.52194	2.67532	0.1434914	2.2906259	25	1	79 days	0.47	M-v	4	Williams		1999 XH ₇₄
1999 XR ₇₄	15.4	0.15	20000226	42.12025	167.81511	229.69763	3.51625	0.3000499	2.5875287	37	1	92 days	0.44	M-v	4	Williams	38146	1999 XR ₇₄
1999 XT ₇₄	15.5	0.15	19991208	40.90036	288.16969	96.07718	3.65420	0.1837728	2.6100957	26	1	37 days	0.59			Williams		1999 XT ₇₄
1999 XJ ₇₅	15.0	0.15	20000226	48.96458	299.17484	87.57444	9.37725	0.2813414	2.7720247	23	1	66 days	0.45	M-v	5	Williams		1999 XJ ₇₅
1999 XO ₇₅	16.4	0.15	19991228	359.72682	0.60023	88.63257	8.50228	0.0857523	2.3313072	22	1	54 days	0.57			Williams		1999 XO ₇₅
1999 XU ₇₅	13.8	0.15	20000226	27.82327	337.09986	85.11599	11.93453	0.2163875	3.1421825	35	1	66 days	0.36	M-v	4	Williams		1999 XU ₇₅
1999 XW ₇₅	13.7	0.15	19991228	282.62102	285.54744	264.12873	24.38369	0.2092011	3.1346642	22	1	58 days	0.56			Spahr		1999 XW ₇₅
1999 XX ₇₅	14.6	0.15	20000226	9.00857	357.97065	98.28362	5.39973	0.0590513	2.4558740	23	1	66 days	0.52	M-v	5	Williams		1999 XX ₇₅
1999 XF ₇₆	15.2	0.15	19991228	11.49629	303.99602	128.51515	2.08959	0.2084568	2.4813307	23	1	57 days	0.32			Spahr		1999 XF ₇₆
1999 XO ₇₆	15.1	0.15	20000226	342.10889	234.41617	258.83906	3.79417	0.1025607	2.2587633	34	3	1997–2000	0.55	M-v	4	Williams	37909	1999 XO ₇₆
1999 XV ₇₆	15.7	0.15	19991208	46.69399	288.00653	94.30811	4.25809	0.1529200	2.1502125	21	1	39 days	0.45			Williams		1999 XV ₇₆
1999 XZ ₇₆	13.3	0.15	20000226	291.99647	274.98701	260.21752	6.88702	0.0559076	3.2392501	29	2	1998–2000	0.61	M-v	4	Spahr	37910	1999 XZ ₇₆
1999 XD ₇₇	15.9	0.15	19991208	76.22075	259.29971	93.02489	7.68587	0.1446223	2.3114694	15	1	33 days	0.43			Williams		1999 XD ₇₇
1999 XR ₇₇	15.2	0.15	20000226	12.84204	2.70551	91.78951	14.17819	0.2082861	2.5782737	32	1	66 days	0.42	M-v	4	Williams		1999 XR ₇₇
1999 XU ₇₇	13.7	0.15	19991228	31.28525	311.65505	92.85511	8.17398	0.2168250	2.7938955	17	1	55 days	0.51			Williams		1999 XU ₇₇
1999 XA ₇₈	15.7	0.15	19991118	38.15520	120.69510	250.71392	2.90402	0.1923432	2.3735583	20	1	29 days	0.53			Williams		1999 XA ₇₈
1999 XB ₇₈	14.7	0.15	20000226	28.63266	159.02676	257.04953	4.28367	0.2419529	2.6335933	46	3	1982–2000	0.80	M-v	3	Spahr	37910	1999 XB ₇₈
1999 XD ₇₈	13.8	0.15	20000226	15.68646	8.75689	61.21636	1.05269	0.1787011	3.2117413	39	2	1996–2000	0.55	M-v	4	Williams	37910	1999 XD ₇₈

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1999 XE ₇₈	15.2	0.15	20000226	5.32466	27.96344	69.37793	3.02087	0.1792570	2.3569084	37	1	82 days	0.35	M-v	4	Williams	1999 XE ₇₈
1999 XJ ₇₈	14.5	0.15	20000226	209.10198	172.50112	75.53285	7.38177	0.1222061	2.3379955	32	1	78 days	0.66	M-v	5	Williams	1999 XJ ₇₈
1999 XB ₈₀	15.0	0.15	19991208	54.82177	114.15670	252.13201	10.79039	0.1485332	2.6819900	15	1	50 days	0.45			Williams	1999 XB ₈₀
1999 XV ₈₁	17.5	0.15	20000226	8.28949	214.38644	253.22499	3.82776	0.4518625	2.7085083	28	1	58 days	0.51	M-v	4	Spahr	38148 1999 XV ₈₁
1999 XS ₈₂	14.0	0.15	20000226	359.37969	18.07633	94.86937	13.88985	0.1095657	2.5449976	38	1	99 days	0.45	M-v	4	Williams	38148 1999 XS ₈₂
1999 XT ₈₂	13.7	0.15	20000226	68.42716	122.30461	259.03827	6.70923	0.1617606	2.9899073	55	2	1998-2000	0.54	M-v	3	Spahr	37912 1999 XT ₈₂
1999 XU ₈₂	13.5	0.15	20000226	338.65233	230.84538	265.61063	8.00648	0.0981209	2.7811733	57	2	1998-2000	0.59	M-v	3	Spahr	37912 1999 XU ₈₂
1999 XV ₈₂	14.5	0.15	20000226	67.48701	108.76034	267.80138	10.67405	0.2480390	2.4197063	32	1	92 days	0.49	M-v	4	Williams	38148 1999 XV ₈₂
1999 XW ₈₂	14.2	0.15	20000226	322.45882	255.69219	268.34269	7.46798	0.1653121	2.6058056	35	1	92 days	0.41	M-v	4	Spahr	38148 1999 XW ₈₂
1999 XX ₈₂	13.5	0.15	20000226	3.54682	208.73748	257.28364	8.93159	0.1490523	3.0621711	48	2	1998-2000	0.72	M-v	3	Spahr	37912 1999 XX ₈₂
1999 XY ₈₂	14.3	0.15	20000226	15.09993	355.91186	98.78259	9.12241	0.1601598	2.5831580	39	1	99 days	0.58	M-v	4	Williams	38148 1999 XY ₈₂
1999 XZ ₈₂	15.0	0.15	19991228	40.97523	304.01418	99.63350	6.24347	0.1323933	2.3125499	36	1	49 days	0.41			Spahr	1999 XZ ₈₂
1999 XA ₈₃	14.7	0.15	20000226	220.96639	352.10762	262.60421	6.66666	0.0467924	2.2363868	44	2	1998-2000	0.60	M-v	4	Spahr	37912 1999 XA ₈₃
1999 XB ₈₃	16.0	0.15	19991208	30.21926	305.42337	97.06571	3.35556	0.2192683	2.3616568	17	1	28 days	0.40			Williams	1999 XB ₈₃
1999 XD ₈₃	14.0	0.15	19991228	27.10463	319.09014	99.66564	6.58188	0.1857554	2.5422386	34	1	55 days	0.42			Spahr	1999 XD ₈₃
1999 XE ₈₃	15.1	0.15	19991228	20.99614	235.42276	193.13755	2.54003	0.1635834	2.5521583	21	1	58 days	0.66			Spahr	1999 XE ₈₃
1999 XG ₈₃	12.2	0.15	20000226	47.45573	302.79539	97.39172	19.49611	0.2508704	3.0967087	44	1	66 days	0.50	M-v	4	Williams	1999 XG ₈₃
1999 XJ ₈₃	15.3	0.15	20000226	43.89709	330.47435	87.16656	3.26262	0.1907507	2.3596753	51	1	89 days	0.43	M-v	4	Williams	38148 1999 XJ ₈₃
1999 XK ₈₃	14.0	0.15	20000226	354.58219	225.83820	260.45618	1.48808	0.1580032	2.5217548	46	3	1994-2000	0.63	M-v	4	Spahr	37912 1999 XK ₈₃
1999 XM ₈₃	14.7	0.15	19991228	259.64967	124.12822	98.41839	13.60386	0.2239303	2.5715849	48	1	55 days	0.76			Spahr	1999 XM ₈₃
1999 XN ₈₃	14.0	0.15	19991228	122.54495	220.86076	99.31365	15.02181	0.1902656	2.5726647	40	1	55 days	0.50			Spahr	1999 XN ₈₃
1999 XP ₈₃	14.9	0.15	19991228	322.17177	267.91460	238.99204	1.62454	0.1284517	2.3891743	27	1	58 days	0.46			Spahr	1999 XP ₈₃
1999 XQ ₈₃	13.9	0.15	20000226	143.49420	197.70717	116.77798	3.33493	0.2254082	2.3767489	48	3	1991-2000	0.80	M-v	4	Spahr	37913 1999 XQ ₈₃
1999 XR ₈₃	15.0	0.15	19991228	47.29223	282.23142	108.29487	5.90477	0.2033957	2.2377588	22	1	55 days	0.45			Spahr	1999 XR ₈₃
1999 XU ₈₃	14.9	0.15	20000226	359.66768	13.17637	108.95052	1.94621	0.1680971	2.4363514	47	1	79 days	0.54	M-v	4	Williams	1999 XU ₈₃
1999 XV ₈₃	10.8	0.15	19991228	28.38277	318.33268	104.34124	14.40604	0.1721082	5.2265828	52	1	55 days	0.48			Spahr	1999 XV ₈₃
1999 XX ₈₃	14.8	0.15	19991228	301.51609	291.49254	239.14314	3.39421	0.1192429	2.3400999	23	1	57 days	0.41			Spahr	1999 XX ₈₃
1999 XY ₈₃	14.9	0.15	19991228	352.32279	242.80267	228.15738	2.46224	0.1632441	2.6219878	17	1	58 days	0.42			Williams	1999 XY ₈₃
1999 XZ ₈₃	14.0	0.15	20000226	16.93450	348.06604	103.15056	15.61981	0.2106778	3.0579225	49	1	66 days	0.42	M-v	4	Williams	1999 XZ ₈₃
1999 XA ₈₄	13.9	0.15	19991228	208.08722	146.11043	112.08774	8.82456	0.1311465	2.2674734	32	1	57 days	0.62			Spahr	1999 XA ₈₄
1999 XB ₈₄	15.2	0.15	20000226	47.62907	299.25947	116.37473	3.96740	0.1682984	2.4174165	27	2	1995-2000	0.69	M-v	4	Spahr	37913 1999 XB ₈₄
1999 XC ₈₄	14.5	0.15	19991228	169.36533	186.54713	102.21622	12.60204	0.1194378	2.3076484	37	1	55 days	0.45			Spahr	1999 XC ₈₄
1999 XG ₈₄	14.6	0.15	20000226	36.56018	156.79826	276.01620	10.27284	0.1321788	2.4466357	45	2	1995-2000	0.44	M-v	4	Williams	37913 1999 XG ₈₄
1999 XJ ₈₄	14.2	0.15	20000226	0.32723	25.03181	96.13425	13.42972	0.1691340	2.5850071	51	1	86 days	0.52	M-v	4	Williams	1999 XJ ₈₄
1999 XK ₈₄	14.5	0.15	20000226	27.18443	194.89153	254.28692	6.22746	0.0687963	2.2754304	42	2	1977-2000	0.57	M-v	4	Spahr	37913 1999 XK ₈₄
1999 XM ₈₄	13.8	0.15	20000226	293.40480	286.98010	263.24789	4.53363	0.0502445	2.3421090	54	3	1994-2000	0.40	M-v	3	Spahr	37914 1999 XM ₈₄
1999 XN ₈₄	14.2	0.15	20000226	35.33956	187.56741	246.84745	1.97384	0.1494245	2.4263463	45	3	1993-2000	0.45	M-v	4	Spahr	37914 1999 XN ₈₄
1999 XO ₈₄	15.1	0.15	20000226	21.35524	352.29419	105.27633	4.21662	0.0657217	2.1880628	46	1	79 days	0.58	M-v	4	Williams	1999 XO ₈₄
1999 XP ₈₄	13.6	0.15	19991228	317.66601	63.83351	97.88362	11.44933	0.1884132	3.0906892	32	1	55 days	0.54			Spahr	1999 XP ₈₄
1999 XR ₈₄	14.2	0.15	19991228	12.08808	164.60153	282.17222	1.66857	0.1075064	2.8069362	32	1	57 days	0.56			Spahr	1999 XR ₈₄
1999 XS ₈₄	14.1	0.15	20000226	11.29597	193.27622	271.93281	6.30445	0.1352634	2.6625319	47	2	1998-2000	0.59	M-v	3	Spahr	37914 1999 XS ₈₄
1999 XV ₈₄	13.9	0.15	19991228	16.11021	277.58907	159.73277	2.06845	0.2165926	3.1695854	42	1	58 days	0.50			Spahr	1999 XV ₈₄
1999 XX ₈₄	14.5	0.15	20000226	62.41085	297.39863	102.02840	14.35649	0.1518841	2.5741003	37	1	66 days	0.41	M-v	4	Williams	1999 XX ₈₄
1999 XY ₈₄	14.4	0.15	19991228	42.20539	179.11729	221.99828	1.38379	0.2099506	2.7625613	35	1	58 days	0.47			Spahr	1999 XY ₈₄
1999 XA ₈₅	14.1	0.15	19991228	338.70787	223.48188	269.43644	6.58377	0.1642464	2.7802585	37	1	58 days	0.34			Spahr	1999 XA ₈₅
1999 XC ₈₅	13.5	0.15	19991228	0.86355	349.96854	113.01806	12.70704	0.0327835	3.0829943	39	1	57 days	0.42			Spahr	1999 XC ₈₅
1999 XD ₈₅	14.9	0.15	20000226	5.31396	355.99498	120.17245	3.34707	0.1109497	2.3770940	46	2	1994-2000	0.46	M-v	3	Spahr	37914 1999 XD ₈₅
1999 XE ₈₅	12.9	0.15	20000226	294.72035	79.76979	110.42334	11.47527	0.0781424	2.9940702	37	1	66 days	0.51	M-v	5	Williams	1999 XE ₈₅
1999 XF ₈₅	14.8	0.15	20000226	95.20146	63.54871	297.08892	1.46563	0.1986727	2.2668818	40	3	1961-2000	0.61	M-v	4	Williams	37914 1999 XF ₈₅
1999 XG ₈₅	13.5	0.15	20000226	36.46980	334.20247	91.77615	13.14297	0.2339372	2.5759564	52	1	86 days	0.52	M-v	4	Williams	1999 XG ₈₅
1999 XH ₈₅	14.7	0.15	20000226	78.05658	102.14728	282.49745	5.57597	0.1432684	2.3485448	43	1	83 days	0.48	M-v	4	Spahr	38148 1999 XH ₈₅
1999 XJ ₈₅	15.7	0.15	19991228	63.12357	96.00686	284.50711	2.96694	0.1645656	2.3313348	46	1	57 days	0.57			Spahr	1999 XJ ₈₅
1999 XL ₈₅	14.9	0.15	19991228	65.63294	290.41912	90.70495	6.58898	0.1365139	2.2303991	29	1	55 days	0.37			Spahr	1999 XL ₈₅

1999 XM ₈₅	14.8	0.15	19991228	3.43921	178.36905	280.28875	12.05213	0.1269687	2.6182329	36	1	58 days	0.62		Spahr	1999 XM ₈₅
1999 XN ₈₅	14.6	0.15	20000226	94.77625	265.71123	95.52429	9.18119	0.2048577	2.3047773	34	1	66 days	0.58	M-v 5	Williams	1999 XN ₈₅
1999 XP ₈₅	15.3	0.15	19991228	40.83786	206.18489	201.40721	1.43436	0.1712658	2.5183100	25	1	58 days	0.70		Spahr	1999 XP ₈₅
1999 XQ ₈₅	15.0	0.15	20000226	46.24329	299.98465	114.57500	3.66036	0.2369238	2.4139028	30	1	62 days	0.42	M-v 5	Williams	1999 XQ ₈₅
1999 XR ₈₅	14.7	0.15	20000226	350.84024	307.53496	190.96943	1.60297	0.1545162	2.3918700	50	4	1993-2000	0.49	M-v 1	Spahr	37914 1999 XR ₈₅
1999 XS ₈₅	13.5	0.15	20000226	61.97285	289.40065	107.45705	13.80714	0.1777072	3.0407337	37	1	86 days	0.41	M-v 4	Williams	1999 XS ₈₅
1999 XU ₈₅	12.9	0.15	19991228	107.26231	65.83643	282.03863	10.47096	0.1063027	3.1355132	32	1	58 days	0.41		Spahr	1999 XU ₈₅
1999 XY ₈₅	13.4	0.15	19991228	60.74197	277.15680	123.03603	3.26192	0.0496384	2.9392557	16	1	51 days	0.63		Williams	1999 XY ₈₅
1999 XZ ₈₅	13.2	0.15	19991228	279.02512	88.23361	107.39322	8.34419	0.0712164	3.1257086	29	1	55 days	0.46		Spahr	1999 XZ ₈₅
1999 XA ₈₆	12.6	0.15	20000226	271.59352	309.36073	277.46425	9.33717	0.1919439	3.1250413	38	1	60 days	0.53	M-v 5	Williams	1999 XA ₈₆
1999 XC ₈₆	14.5	0.15	20000226	66.79163	112.78942	273.66092	2.84292	0.2440205	2.5417923	43	1	83 days	0.53	M-v 5	Williams	1999 XC ₈₆
1999 XE ₈₆	14.8	0.15	19991228	301.61737	83.82452	100.70250	9.58691	0.1881666	2.5611063	60	1	59 days	0.46		Spahr	1999 XE ₈₆
1999 XH ₈₆	14.4	0.15	20000226	79.20933	94.25614	285.49920	9.39994	0.1698651	2.6909569	37	2	1998-2000	0.69	M-v 3	Spahr	37915 1999 XH ₈₆
1999 XJ ₈₆	13.5	0.15	20000226	181.01048	199.31387	97.24755	12.56097	0.0639556	2.7344190	31	1	66 days	0.46	M-v 5	Williams	1999 XJ ₈₆
1999 XK ₈₆	13.5	0.15	20000226	94.71694	83.32855	286.10650	9.20053	0.1329505	2.5559866	47	3	1986-2000	0.57	M-v 3	Spahr	37915 1999 XK ₈₆
1999 XL ₈₆	15.5	0.15	19991228	347.19179	30.85357	93.90446	14.89669	0.1986242	2.6203570	39	1	53 days	0.35		Williams	1999 XL ₈₆
1999 XO ₈₆	15.4	0.15	20000226	46.33545	230.66277	190.14535	1.79313	0.1967094	2.3603439	36	2	1995-2000	0.60	M-v 4	Spahr	37915 1999 XO ₈₆
1999 XQ ₈₆	12.8	0.15	20000226	81.41630	270.88291	103.24845	13.08636	0.2200120	2.6073729	84	3	1977-2000	0.62	M-v 2	Williams	37915 1999 XQ ₈₆
1999 XR ₈₆	13.3	0.15	20000226	112.39476	251.20375	107.06701	16.26529	0.0806410	3.1781380	39	1	66 days	0.46	M-v 4	Williams	1999 XR ₈₆
1999 XS ₈₆	14.5	0.15	20000226	66.88611	297.01951	103.04734	4.28109	0.1591166	2.3076967	61	2	1986-2000	0.57	M-v 4	Williams	37916 1999 XS ₈₆
1999 XU ₈₆	13.3	0.15	20000226	80.42231	106.06943	282.77728	7.62911	0.0977372	3.0628518	61	3	1997-2000	0.66	M-v 3	Spahr	37916 1999 XU ₈₆
1999 XV ₈₆	13.1	0.15	20000226	135.94865	53.57353	285.70758	7.21020	0.0660377	2.6003741	83	2	1998-2000	0.51	M-v 3	Spahr	38149 1999 XV ₈₆
1999 XW ₈₆	13.7	0.15	20000226	46.72793	341.22537	91.27824	6.74032	0.0188408	2.7440492	45	1	66 days	0.48	M-v 5	Williams	1999 XW ₈₆
1999 XX ₈₆	13.2	0.15	20000226	63.43394	106.87891	286.25318	8.56493	0.2229203	2.7806085	88	2	1998-2000	0.51	M-v 3	Williams	37916 1999 XX ₈₆
1999 XY ₈₆	13.0	0.15	20000226	155.53343	213.80324	102.77767	15.13111	0.1763804	2.5782262	69	1	87 days	0.48	M-v 4	Williams	1999 XY ₈₆
1999 XZ ₈₆	13.8	0.15	20000226	345.96223	222.03161	285.66556	10.99050	0.1883044	2.6581564	69	2	1998-2000	0.51	M-v 3	Williams	37916 1999 XZ ₈₆
1999 XA ₈₇	14.0	0.15	20000226	68.60985	112.71230	278.22113	12.00058	0.2121114	2.6913306	29	1	84 days	0.47	M-v 5	Williams	1999 XA ₈₇
1999 XB ₈₇	15.1	0.15	20000226	88.00437	258.06160	113.42945	5.68074	0.2190953	2.3574150	35	1	68 days	0.62	M-v 5	Williams	1999 XB ₈₇
1999 XC ₈₇	13.1	0.15	20000226	67.39542	296.27107	106.57127	12.63185	0.1123510	3.0062960	66	1	91 days	0.49	M-v 4	Williams	1999 XC ₈₇
1999 XF ₈₇	14.3	0.15	20000226	80.05051	87.71516	291.49971	11.03765	0.2054383	2.5505095	56	2	1998-2000	0.74	M-v 4	Spahr	37917 1999 XF ₈₇
1999 XJ ₈₇	15.5	0.15	19991208	21.20968	305.29682	110.25595	3.52972	0.1659072	2.3564135	18	1	35 days	0.45		Williams	1999 XJ ₈₇
1999 XM ₈₇	16.0	0.15	20000226	37.08661	334.79843	92.92183	6.26610	0.1381830	2.2233354	22	1	66 days	0.56	M-v 4	Williams	1999 XM ₈₇
1999 XN ₈₇	13.6	0.15	20000226	24.84095	343.61424	90.16864	18.48821	0.1721474	3.0515482	50	1	99 days	0.50	M-v 3	Williams	38149 1999 XN ₈₇
1999 XB ₈₈	13.5	0.15	19991228	253.86694	316.57000	259.34509	11.49664	0.1194528	2.5372640	15	1	58 days	0.50		Williams	1999 XB ₈₈
1999 XE ₈₈	14.2	0.15	19991228	7.84388	174.97482	272.22978	7.83374	0.1364456	2.8073461	21	1	58 days	0.37		Spahr	1999 XE ₈₈
1999 XF ₈₈	15.7	0.15	19991208	31.02133	312.25762	93.54040	4.76239	0.1736064	2.2415995	18	1	28 days	0.56		Williams	1999 XF ₈₈
1999 XH ₈₈	13.0	0.15	19991228	185.91512	5.25596	269.24585	8.14952	0.1186636	2.7785718	24	1	58 days	0.50		Spahr	1999 XH ₈₈
1999 XJ ₈₈	13.3	0.15	20000226	323.88731	317.71243	197.78316	2.56002	0.1057235	3.0636852	37	2	1998-2000	0.41	M-v 5	Spahr	37917 1999 XJ ₈₈
1999 XK ₈₈	13.5	0.15	19991228	46.16333	145.79880	260.41037	9.49137	0.0746441	3.0854634	21	1	58 days	0.35		Spahr	1999 XK ₈₈
1999 XL ₈₈	14.5	0.15	20000226	37.96443	282.40147	144.19000	2.44256	0.1719321	2.4054713	26	2	1998-2000	0.40	M-v 4	Williams	37917 1999 XL ₈₈
1999 XS ₈₈	13.1	0.15	19991228	175.88306	16.03197	266.14099	6.85701	0.1678662	2.6473642	25	1	58 days	0.68		Spahr	1999 XS ₈₈
1999 XV ₈₈	16.2	0.15	19991228	349.67691	210.26484	264.05804	1.88048	0.1813801	2.3608074	29	1	57 days	0.60		Spahr	1999 XV ₈₈
1999 XW ₈₈	14.5	0.15	19991228	356.78958	187.30144	277.54094	4.26887	0.1340758	3.1757010	24	1	57 days	0.45		Spahr	1999 XW ₈₈
1999 XY ₈₈	13.8	0.15	19991228	38.46456	322.07546	98.69099	10.96030	0.0179564	3.0648800	28	1	54 days	0.45		Williams	1999 XY ₈₈
1999 XZ ₈₈	14.4	0.15	19991228	59.77852	115.93424	270.12698	8.20429	0.1392724	2.7123882	26	1	58 days	0.47		Spahr	1999 XZ ₈₈
1999 XA ₈₉	15.4	0.15	19991228	120.19106	213.45863	111.18735	9.63117	0.1806246	2.5504767	16	1	49 days	0.54		Williams	1999 XA ₈₉
1999 XB ₈₉	13.4	0.15	20000226	244.44008	331.98189	261.44621	9.30214	0.0499359	2.9642957	31	2	1998-2000	0.43	M-v 3	Spahr	37918 1999 XB ₈₉
1999 XE ₈₉	13.2	0.15	19991228	89.65294	263.52460	96.60440	10.51593	0.1056836	3.0794464	30	1	55 days	0.43		Spahr	1999 XE ₈₉
1999 XH ₈₉	14.8	0.15	19991228	328.86752	40.11133	99.49929	4.29949	0.1105176	2.6118477	42	1	49 days	0.65		Williams	1999 XH ₈₉
1999 XJ ₈₉	15.6	0.15	19991208	337.40580	212.97005	267.94712	5.13731	0.1034154	2.2278682	28	1	54 days	0.43		Williams	1999 XJ ₈₉
1999 XM ₈₉	13.3	0.15	19991228	250.13563	329.23662	259.52263	6.85249	0.1659791	2.7831534	24	1	58 days	0.47		Spahr	1999 XM ₈₉
1999 XN ₈₉	13.9	0.15	19991228	51.52811	252.55414	147.76972	2.54677	0.1061532	2.9262171	27	1	58 days	0.52		Spahr	1999 XN ₈₉
1999 XO ₈₉	13.3	0.15	20000226	206.19739	7.23916	265.08723	8.15939	0.1195834	2.7830960	44	3	1994-2000	0.57	M-v 3	Spahr	37918 1999 XO ₈₉

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1999 XP ₈₉	14.5	0.15	19991228	355.17166	3.26063	103.78354	10.72436	0.0820896	2.5544384	44	1	55 days	0.51	Spahr		1999 XP ₈₉
1999 XS ₈₉	13.7	0.15	19991228	296.03093	73.53257	103.36220	11.90414	0.0893892	3.0613049	37	1	54 days	0.44	Williams		1999 XS ₈₉
1999 XW ₈₉	14.9	0.15	19991228	293.15110	51.10642	124.61972	3.31255	0.0596516	2.3253680	29	1	57 days	0.51	Spahr		1999 XW ₈₉
1999 XX ₈₉	15.2	0.15	19991228	40.22116	144.24485	258.74153	4.82739	0.2060734	2.4274037	26	1	58 days	0.61	Spahr		1999 XX ₈₉
1999 XY ₈₉	15.9	0.15	19991228	27.25288	322.16681	106.69984	4.05110	0.0963885	2.2447514	30	1	54 days	0.54	Williams		1999 XY ₈₉
1999 XA ₉₀	12.5	0.15	20000226	279.70311	308.55587	258.58511	7.95117	0.1221675	3.9684228	33	2	1996-2000	0.55	M-v 3	Spahr	37918 1999 XA ₉₀
1999 XC ₉₀	12.4	0.15	20000226	204.24252	354.48877	281.43733	15.18424	0.2057618	3.1488935	40	3	1991-2000	0.53	M-v 3	Spahr	37918 1999 XC ₉₀
1999 XF ₉₀	15.1	0.15	20000226	75.88961	115.36892	276.65915	6.11147	0.1082745	2.2581471	33	1	81 days	0.45	M-v 4	Williams	1999 XF ₉₀
1999 XG ₉₀	14.0	0.15	19991228	29.04196	331.77118	97.86262	11.30929	0.0825017	3.0673307	28	1	54 days	0.59	Williams		1999 XG ₉₀
1999 XJ ₉₀	14.0	0.15	20000226	335.57519	85.75826	78.64982	2.75879	0.2800799	3.0311331	43	1	90 days	0.51	M-v 4	Williams	1999 XJ ₉₀
1999 XL ₉₀	13.9	0.15	19991228	56.63800	283.09842	93.94984	8.92276	0.2721260	2.9238450	21	1	54 days	0.52	Williams		1999 XL ₉₀
1999 XM ₉₀	12.4	0.15	20000226	63.30225	119.79794	284.22065	14.88348	0.0886754	3.1885946	41	3	1987-2000	0.75	M-v 3	Spahr	37918 1999 XM ₉₀
1999 XN ₉₀	15.0	0.15	20000226	329.24615	261.32672	262.42890	3.22386	0.1279755	2.2133803	35	1	83 days	0.46	M-v 4	Williams	1999 XN ₉₀
1999 XP ₉₀	15.7	0.15	19991228	332.31783	232.81227	270.93832	6.19679	0.1893820	2.4171476	37	1	58 days	0.41	Spahr		1999 XP ₉₀
1999 XS ₉₀	13.9	0.15	19991228	289.13864	80.50785	101.57682	8.03859	0.0671875	2.2923242	43	1	55 days	0.56	Spahr		1999 XS ₉₀
1999 XT ₉₀	13.6	0.15	20000226	109.96474	84.63389	269.10109	13.28135	0.1371789	2.6141441	43	2	1998-2000	0.59	M-v 3	Spahr	37919 1999 XT ₉₀
1999 XV ₉₀	15.1	0.15	20000226	279.65422	313.14872	264.96719	6.38096	0.1478519	2.2166232	50	2	1998-2000	0.65	M-v 4	Spahr	37919 1999 XV ₉₀
1999 XW ₉₀	15.3	0.15	19991228	56.80831	301.52157	99.29702	2.84360	0.0616784	2.4659093	45	1	54 days	0.49	Williams		1999 XW ₉₀
1999 XY ₉₀	14.2	0.15	19991228	32.49710	127.84813	280.73265	6.82112	0.2766304	3.1310429	22	1	58 days	0.41	Spahr		1999 XY ₉₀
1999 XA ₉₁	14.4	0.15	19991228	329.92356	211.65951	291.32100	4.55793	0.1131570	3.1255363	28	1	54 days	0.54	Williams		1999 XA ₉₁
1999 XB ₉₁	15.1	0.15	19991228	214.25973	333.99233	280.26711	10.47932	0.0316186	2.5819680	25	1	58 days	0.64	Spahr		1999 XB ₉₁
1999 XC ₉₁	15.5	0.15	20000226	68.04443	195.74811	199.15149	0.49230	0.1799066	2.3978229	53	3	1995-2000	0.49	M-v 3	Spahr	38150 1999 XC ₉₁
1999 XG ₉₁	11.1	0.15	20000226	81.59559	270.77409	108.20412	26.84606	0.1298529	5.2324051	29	1	70 days	0.57	M-v 5	Williams	1999 XG ₉₁
1999 XH ₉₁	14.7	0.15	19991228	77.47232	87.21587	282.71217	4.76990	0.1512918	2.1912073	19	1	58 days	0.38	Williams		1999 XH ₉₁
1999 XJ ₉₁	13.9	0.15	20000226	42.96379	128.23913	305.14890	0.99995	0.0578992	2.8421356	70	2	1998-2000	0.53	M-v 3	Williams	37919 1999 XJ ₉₁
1999 XK ₉₁	14.9	0.15	20000226	121.66379	245.92037	95.34800	5.53097	0.2102969	2.1465416	34	1	66 days	0.61	M-v 5	Williams	1999 XK ₉₁
1999 XL ₉₁	15.5	0.15	20000226	22.24776	12.42627	86.66473	5.28512	0.1376467	2.2482612	44	1	87 days	0.50	M-v 4	Williams	1999 XL ₉₁
1999 XO ₉₁	14.8	0.15	19991228	80.86598	102.09730	272.96141	9.33905	0.1264845	3.0608112	23	1	59 days	0.44	Williams		1999 XO ₉₁
1999 XP ₉₁	14.6	0.15	20000226	70.89808	300.97612	100.60163	2.96402	0.0911049	2.7620411	58	2	1998-2000	0.52	M-v 3	Williams	37919 1999 XP ₉₁
1999 XQ ₉₁	13.7	0.15	20000226	130.28124	196.51848	139.05649	2.54346	0.2068271	2.4810556	53	2	1998-2000	0.52	M-v 3	Spahr	37919 1999 XQ ₉₁
1999 XR ₉₁	13.7	0.15	20000226	182.78946	193.18719	106.38179	11.40845	0.1064546	2.5156294	81	1	91 days	0.56	M-v 4	Williams	1999 XR ₉₁
1999 XS ₉₁	14.3	0.15	19991228	193.57540	348.70161	290.50090	12.83012	0.1344703	2.5813726	20	1	58 days	0.36	Williams		1999 XS ₉₁
1999 XT ₉₁	14.0	0.15	19991228	192.62813	345.61734	295.26810	14.15690	0.1513424	2.5606767	34	1	58 days	0.47	Spahr		1999 XT ₉₁
1999 XA ₉₂	13.1	0.15	19991228	195.34612	2.23282	260.19441	7.32931	0.1237540	2.7491901	17	1	58 days	0.44	Williams		1999 XA ₉₂
1999 XB ₉₂	13.1	0.15	19991228	103.83193	235.64743	102.34604	11.00209	0.1196859	3.0428280	42	1	57 days	0.37	Spahr		1999 XB ₉₂
1999 XD ₉₂	15.2	0.15	19991228	344.85744	22.48906	89.84422	4.79779	0.0741926	2.2448046	22	1	50 days	0.39	Williams		1999 XD ₉₂
1999 XK ₉₂	14.8	0.15	20000226	307.45619	55.22924	120.95921	2.63810	0.0907919	2.2573850	35	5	1989-2000	0.60	M-v 2	Williams	37920 1999 XK ₉₂
1999 XN ₉₂	15.3	0.15	19991208	50.41733	294.96094	95.11026	7.32763	0.1084921	2.2560449	19	1	32 days	0.44	Spahr		1999 XN ₉₂
1999 XS ₉₂	14.8	0.15	20000226	19.74885	295.41161	157.43099	1.37035	0.1466826	2.4159223	28	2	1993-2000	0.57	M-v 3	Spahr	37920 1999 XS ₉₂
1999 XV ₉₂	14.5	0.15	19991228	54.91872	211.29438	168.73597	1.83897	0.2321167	2.5732295	23	1	58 days	0.47	Spahr		1999 XV ₉₂
1999 XW ₉₂	14.2	0.15	19991228	15.40662	299.87903	140.91590	2.55945	0.1511292	2.9762298	25	1	57 days	0.35	Spahr		1999 XW ₉₂
1999 XX ₉₂	14.2	0.15	19991228	40.68288	293.48814	123.03127	2.98913	0.0651453	2.7248637	29	1	49 days	0.49	Williams		1999 XX ₉₂
1999 XY ₉₂	13.5	0.15	19991208	105.03106	60.37191	282.78057	9.06783	0.1070585	3.0089396	16	1	28 days	0.56	Williams		1999 XY ₉₂
1999 XZ ₉₂	13.6	0.15	19991228	158.52660	198.31618	101.10173	14.93084	0.1420716	2.6347127	23	1	55 days	0.62	Spahr		1999 XZ ₉₂
1999 XA ₉₃	15.0	0.15	20000226	113.74811	218.70369	123.54939	2.95437	0.2296701	2.1798273	38	2	1998-2000	0.60	M-v 4	Williams	37920 1999 XA ₉₃
1999 XE ₉₃	13.6	0.15	20000226	250.98474	329.38266	277.94165	9.24142	0.1393096	2.5531236	31	1	60 days	0.40	M-v 5	Williams	1999 XE ₉₃
1999 XG ₉₃	12.9	0.15	20000226	40.56498	158.31884	281.26567	7.64753	0.0725611	2.8052383	80	2	1998-2000	0.60	M-v 3	Williams	37920 1999 XG ₉₃
1999 XH ₉₃	15.3	0.15	20000226	31.24948	340.21515	105.45632	5.84360	0.2100538	2.3477427	54	1	86 days	0.53	M-v 4	Williams	1999 XH ₉₃
1999 XJ ₉₃	14.1	0.15	20000226	4.01250	208.48121	278.85437	11.73655	0.2517833	2.5818885	44	1	84 days	0.33	M-v 3	Williams	1999 XJ ₉₃
1999 XK ₉₃	14.3	0.15	20000226	87.98973	284.95139	102.93244	10.22696	0.0766647	2.5617550	54	1	86 days	0.42	M-v 4	Williams	1999 XK ₉₃
1999 XL ₉₃	15.0	0.15	20000226	53.67693	333.09828	89.33033	5.41683	0.1250038	2.1766332	64	1	91 days	0.63	M-v 4	Williams	1999 XL ₉₃
1999 XM ₉₃	14.3	0.15	20000226	84.31264	80.12988	305.49924	3.18462	0.1236189	2.6623198	65	2	1998-2000	0.57	M-v 3	Williams	37921 1999 XM ₉₃
1999 XN ₉₃	14.3	0.15	19991228	115.89249	234.12572	101.36450	11.56040	0.2246402	2.7266067	35	1	55 days	0.44	Spahr		1999 XN ₉₃

1999 XO ₉₃	15.1	0.15	20000226	13.37292	30.02951	83.71798	6.33193	0.1035076	2.2892543	49	1	87 days	0.66	M-v	4	Williams	1999 XO ₉₃
1999 XP ₉₃	12.5	0.15	20000226	112.38136	260.38467	101.26443	17.75841	0.0911801	3.1700737	61	1	91 days	0.62	M-v	4	Williams	1999 XP ₉₃
1999 XQ ₉₃	13.4	0.15	20000226	59.10343	306.49733	100.93348	14.42199	0.1898238	2.5905691	54	1	91 days	0.54	M-v	4	Williams	1999 XQ ₉₃
1999 XS ₉₃	14.4	0.15	20000226	71.18376	293.34107	99.88324	5.86606	0.1892238	2.6206145	53	1	66 days	0.42	M-v	4	Williams	1999 XS ₉₃
1999 XT ₉₃	12.9	0.15	20000226	61.17599	124.66425	291.25058	13.19030	0.0715918	3.1890395	45	2	1997–2000	0.56	M-v	3	Spahr	1999 XT ₉₃
1999 XU ₉₃	14.5	0.15	20000226	19.60928	359.60009	102.28595	12.27841	0.1723295	2.6996716	45	1	91 days	0.58	M-v	4	Williams	1999 XU ₉₃
1999 XV ₉₃	14.6	0.15	20000226	66.59439	294.31877	101.78814	10.42751	0.2102941	2.7311305	34	1	66 days	0.51	M-v	5	Williams	1999 XV ₉₃
1999 XW ₉₃	13.2	0.15	20000226	262.98655	119.62533	113.91548	14.36531	0.1006034	2.6293514	43	1	66 days	0.42	M-v	5	Williams	1999 XW ₉₃
1999 XX ₉₃	13.9	0.15	20000226	57.57256	290.59478	110.44607	14.57150	0.2478807	2.9655935	64	1	86 days	0.43	M-v	4	Williams	1999 XX ₉₃
1999 XZ ₉₃	13.4	0.15	20000226	83.71669	280.06223	105.23242	15.70959	0.1521118	2.6432597	45	1	92 days	0.48	M-v	4	Williams	1999 XZ ₉₃
1999 XA ₉₄	14.9	0.15	19991228	356.65469	184.17686	290.77832	21.54467	0.1155046	2.6727449	34	1	58 days	0.43			Spahr	1999 XA ₉₄
1999 XF ₉₄	15.0	0.15	20000226	74.24305	275.94321	104.82380	22.96905	0.2989023	2.2776638	34	1	73 days	0.43	M-v	4	Williams	1999 XF ₉₄
1999 XG ₉₄	14.4	0.15	20000226	148.73499	35.45986	296.69008	6.04517	0.1316136	2.3579679	48	2	1998–2000	0.69	M-v	3	Spahr	1999 XG ₉₄
1999 XH ₉₄	15.5	0.15	20000226	25.34620	173.54451	281.30762	4.47839	0.2360767	2.6133153	38	1	66 days	0.49	M-v	5	Williams	1999 XH ₉₄
1999 XJ ₉₄	14.6	0.15	20000226	88.41038	271.81062	107.63203	13.87611	0.1882396	2.6351987	30	1	66 days	0.52	M-v	5	Williams	1999 XJ ₉₄
1999 XK ₉₄	14.0	0.15	20000226	148.99524	227.14180	101.06809	14.34642	0.1835186	2.4591501	31	1	66 days	0.52	M-v	4	Williams	1999 XK ₉₄
1999 XL ₉₄	15.2	0.15	20000226	75.56624	304.98606	93.91777	7.55415	0.1562527	2.3463942	39	1	66 days	0.64	M-v	5	Williams	1999 XL ₉₄
1999 XM ₉₄	14.9	0.15	20000226	356.90071	231.28456	270.47392	1.16164	0.1712359	2.3293545	47	1	86 days	0.50	M-v	4	Williams	1999 XM ₉₄
1999 XN ₉₄	14.0	0.15	20000226	80.15459	281.39676	111.42585	15.45170	0.1695066	2.5384233	37	1	66 days	0.47	M-v	5	Williams	1999 XN ₉₄
1999 XO ₉₄	13.5	0.15	20000226	345.01557	40.89560	113.72388	17.70095	0.1618779	3.1404061	42	1	66 days	0.50	M-v	4	Williams	1999 XO ₉₄
1999 XP ₉₄	14.3	0.15	20000226	51.36316	318.06685	106.69876	12.98927	0.1711291	2.6595410	49	1	87 days	0.47	M-v	4	Williams	1999 XP ₉₄
1999 XR ₉₄	14.5	0.15	20000226	326.73060	82.19956	94.62216	6.26876	0.0887620	2.2752718	47	1	87 days	0.53	M-v	4	Williams	1999 XR ₉₄
1999 XS ₉₄	13.2	0.15	20000226	355.16387	31.36594	111.14674	23.13454	0.1371890	3.1444708	37	1	86 days	0.45	M-v	3	Williams	1999 XS ₉₄
1999 XT ₉₄	14.6	0.15	20000226	40.69600	26.71809	57.92959	1.61538	0.1695314	2.4288191	51	1	87 days	0.45	M-v	4	Williams	1999 XT ₉₄
1999 XU ₉₄	14.7	0.15	20000226	14.70419	79.14353	41.54784	1.79572	0.1544043	2.5386723	53	1	87 days	0.52	M-v	4	Williams	1999 XU ₉₄
1999 XX ₉₄	14.3	0.15	19991228	24.08997	334.21261	103.26606	22.88861	0.1657707	3.2162310	20	1	53 days	0.50			Williams	1999 XX ₉₄
1999 XY ₉₄	14.1	0.15	20000226	154.94469	212.46885	108.69794	14.62257	0.1967883	2.4381476	56	1	66 days	0.53	M-v	5	Williams	1999 XY ₉₄
1999 XZ ₉₄	14.5	0.15	20000226	339.79661	67.69764	102.07192	4.58470	0.1896763	2.6065430	58	1	87 days	0.43	M-v	4	Williams	1999 XZ ₉₄
1999 XA ₉₅	14.1	0.15	20000226	57.68582	288.72054	96.40146	9.71188	0.2311777	2.3773565	68	3	1996–2000	0.50	M-v	2	Williams	1999 XA ₉₅
1999 XE ₉₅	14.5	0.15	19991228	322.91868	48.92958	106.58042	11.26379	0.1631791	3.1419154	17	1	52 days	0.34			Williams	1999 XE ₉₅
1999 XG ₉₅	14.9	0.15	19991228	19.84377	117.32574	307.51454	3.95685	0.2099897	2.3217599	25	1	54 days	0.49			Williams	1999 XG ₉₅
1999 XJ ₉₅	13.7	0.15	20000226	75.00160	298.44033	71.79901	14.97502	0.2217127	2.5848156	45	2	1978–2000	0.49	M-v	3	Williams	1999 XJ ₉₅
1999 XM ₉₅	14.8	0.15	20000226	32.27530	54.27995	22.31737	5.80248	0.1054145	2.3131313	33	1	66 days	0.66	M-v	4	Williams	1999 XM ₉₅
1999 XN ₉₅	14.5	0.15	20000226	57.22977	115.23279	290.04532	14.14065	0.0927887	2.5413557	45	1	65 days	0.62	M-v	4	Williams	1999 XN ₉₅
1999 XP ₉₅	14.7	0.15	20000226	32.33840	271.40700	155.95234	3.23894	0.2706372	2.9762193	19	2	1988–2000	0.39	M-v	4	Spahr	1999 XP ₉₅
1999 XQ ₉₅	13.0	0.15	20000226	101.92902	66.00952	287.65975	12.82630	0.1520248	2.3463508	37	1	65 days	0.37	M-v	5	Williams	1999 XQ ₉₅
1999 XR ₉₅	12.9	0.15	20000226	299.01460	290.44712	263.09944	12.34467	0.1080755	2.5749416	37	1	79 days	0.53	M-v	4	Williams	1999 XR ₉₅
1999 XT ₉₅	14.3	0.15	20000226	4.32802	36.16311	74.91005	12.54913	0.1495833	2.6646985	37	1	74 days	0.40	M-v	4	Williams	1999 XT ₉₅
1999 XU ₉₅	12.4	0.15	19991228	57.27972	323.74600	66.57568	12.04775	0.1080234	2.9983677	21	1	51 days	0.52			Williams	1999 XU ₉₅
1999 XW ₉₅	14.3	0.15	20000226	41.36171	122.63156	279.51696	23.17245	0.3311026	2.7427136	45	1	94 days	0.49	M-v	4	Spahr	1999 XW ₉₅
1999 XY ₉₅	14.6	0.15	20000226	40.46452	37.41577	24.19100	5.11111	0.1521309	2.7437488	39	1	75 days	0.52	M-v	4	Williams	1999 XY ₉₅
1999 XZ ₉₅	13.4	0.15	20000226	65.94186	313.53339	75.93555	15.53438	0.1537841	3.1263408	42	3	1982–2000	0.60	M-v	2	Williams	1999 XZ ₉₅
1999 XA ₉₆	15.0	0.15	20000226	17.19165	86.04515	10.68611	4.18575	0.2497498	2.4072719	44	1	64 days	0.55	M-v	4	Williams	1999 XA ₉₆
1999 XB ₉₆	14.4	0.15	20000226	79.38559	346.49725	25.17550	6.05034	0.2183824	2.2839390	32	1	64 days	0.50	M-v	5	Williams	1999 XB ₉₆
1999 XC ₉₆	14.5	0.15	20000226	111.06592	14.02622	335.23020	6.87305	0.1372082	2.2930733	44	2	1995–2000	0.58	M-v	4	Williams	1999 XC ₉₆
1999 XE ₉₆	13.4	0.15	20000226	37.82157	146.09695	261.64360	8.23357	0.0597709	2.6335827	42	1	81 days	0.51	M-v	4	Williams	1999 XE ₉₆
1999 XF ₉₆	15.2	0.15	20000226	45.31760	117.67404	275.28198	4.32278	0.2397050	2.3497173	38	1	117 days	0.50	M-v	4	Williams	1999 XF ₉₆
1999 XH ₉₆	14.8	0.15	20000226	55.48840	110.21959	276.13755	4.06184	0.1803976	2.2716489	46	1	121 days	0.38	M-v	4	Williams	1999 XH ₉₆
1999 XK ₉₆	14.9	0.15	20000226	344.47785	74.71623	46.95666	3.07717	0.1327261	2.4217165	38	1	89 days	0.39	M-v	4	Williams	1999 XK ₉₆
1999 XL ₉₆	14.7	0.15	20000226	5.56969	25.23037	66.79475	12.60842	0.1412809	2.6627796	42	2	1992–2000	0.58	M-v	4	Williams	1999 XL ₉₆
1999 XN ₉₆	15.0	0.15	20000226	37.34669	146.32814	268.77407	2.56220	0.1537030	2.3171503	62	3	1990–2000	0.59	M-v	3	Williams	1999 XN ₉₆
1999 XO ₉₆	14.0	0.15	20000226	44.47202	347.15000	48.16842	2.48231	0.1574700	3.0398658	34	1	62 days	0.52	M-v	5	Williams	1999 XO ₉₆
1999 XP ₉₆	13.9	0.15	20000226	324.21662	69.25806	69.97850	10.00644	0.1034098	2.7726633	37	1	94 days	0.51	M-v	4	Williams	1999 XP ₉₆

1999 XQ ₉₆	10.3	0.15	20000226	345.73217	201.56746	260.14461	29.53279	0.1086208	5.1804743	35	1	81 days	0.45	M-v	4	Williams		1999 XQ ₉₆
1999 XS ₉₆	14.1	0.15	20000226	64.77669	96.32096	286.66558	4.14665	0.0688089	2.7335330	38	2	1998–2000	0.60	M-v	3	Williams	37924	1999 XS ₉₆
1999 XT ₉₆	13.0	0.15	20000226	354.30718	208.68196	259.80872	19.39299	0.2325927	3.1950514	55	1	121 days	0.45	M-v	3	Williams		1999 XT ₉₆
1999 XA ₉₇	13.5	0.15	20000226	278.81536	272.03683	265.38626	14.18890	0.0354127	3.1027752	31	2	1998–2000	0.61	M-v	4	Williams	37924	1999 XA ₉₇
1999 XB ₉₇	14.3	0.15	20000226	302.83460	256.92764	273.43477	5.72141	0.1238884	2.3941953	39	2	1998–2000	0.62	M-v	4	Williams	37924	1999 XB ₉₇
1999 XC ₉₇	15.7	0.15	19991118	69.59053	279.29267	60.21621	4.89466	0.2000506	2.3046511	44	1	56 days	0.72			Williams		1999 XC ₉₇
1999 XF ₉₇	14.4	0.15	20000226	258.23055	229.05717	342.38776	2.09999	0.1157455	2.4195678	61	3	1997–2000	0.52	M-v	3	Williams	37924	1999 XF ₉₇
1999 XG ₉₇	14.7	0.15	20000226	101.71921	72.19143	262.30603	4.20231	0.2084096	2.3099402	48	3	1997–2000	0.56	M-v	3	Williams	37925	1999 XG ₉₇
1999 XJ ₉₇	14.5	0.15	20000226	104.41077	270.67517	69.28445	7.84710	0.1376899	2.3546577	47	1	62 days	0.44	M-v	5	Williams	38151	1999 XJ ₉₇
1999 XM ₉₇	14.8	0.15	20000226	43.14700	349.14268	65.46075	4.51854	0.0762941	2.3057166	35	1	94 days	0.39	M-v	4	Williams		1999 XM ₉₇
1999 XO ₉₇	14.3	0.15	20000226	107.55231	6.07318	324.83684	1.83511	0.1863782	2.4304458	43	4	1987–2000	0.56	M-v	1	Williams	37925	1999 XO ₉₇
1999 XQ ₉₇	14.0	0.15	20000226	246.42832	158.15266	62.12526	6.93707	0.0775246	2.3861303	32	1	62 days	0.52	M-v	5	Williams	38151	1999 XQ ₉₇
1999 XR ₉₇	13.9	0.15	20000226	7.56882	19.52752	67.34177	1.68599	0.1260059	3.2330975	28	2	1998–2000	0.58	M-v	4	Williams	37925	1999 XR ₉₇
1999 XS ₉₇	15.4	0.15	20000226	41.78067	139.87628	268.14018	1.32875	0.1892467	2.4105885	35	2	1995–2000	0.48	M-v	4	Williams	37925	1999 XS ₉₇
1999 XT ₉₇	14.7	0.15	20000226	8.75547	24.11000	72.48291	4.94037	0.1398481	2.3313482	44	4	1949–2000	0.63	M-v	3	Williams	37925	1999 XT ₉₇
1999 XU ₉₇	14.1	0.15	20000226	148.35246	301.57331	4.27130	0.64456	0.0807426	2.3575795	49	3	1997–2000	0.48	M-v	4	Williams	37926	1999 XU ₉₇
1999 XV ₉₇	14.1	0.15	20000226	14.49356	64.70600	17.02264	2.03615	0.0141799	2.8781476	47	3	1987–2000	0.65	M-v	4	Williams	37926	1999 XV ₉₇
1999 XX ₉₇	15.1	0.15	20000226	75.76943	330.06937	39.75393	2.50770	0.1607454	2.3069012	27	2	1981–2000	0.53	M-v	5	Williams	37926	1999 XX ₉₇
1999 XY ₉₇	15.5	0.15	19991208	35.78362	75.98340	308.13024	1.55592	0.2302273	2.3845498	25	1	51 days	0.50			Williams		1999 XY ₉₇
1999 XZ ₉₇	11.9	0.15	20000226	237.19753	145.95557	77.89530	11.74335	0.1078110	3.4368001	52	4	1994–2000	0.58	M-v	1	Williams	37926	1999 XZ ₉₇
1999 XA ₉₈	15.3	0.15	20000226	23.37712	0.87666	75.67743	2.55513	0.1764053	2.3632393	26	1	66 days	0.44	M-v	4	Williams		1999 XA ₉₈
1999 XB ₉₈	14.9	0.15	20000226	6.46143	195.07611	264.26641	6.03173	0.0704405	2.2147602	47	1	79 days	0.51	M-v	4	Williams		1999 XB ₉₈
1999 XD ₉₈	14.0	0.15	20000226	70.38688	103.26095	261.83775	12.06858	0.2249896	2.5693126	63	2	1998–2000	0.63	M-v	4	Spahr	37926	1999 XD ₉₈
1999 XE ₉₈	14.7	0.15	19991208	57.07318	87.35263	279.52889	2.96318	0.1500608	2.4058116	27	1	51 days	0.53			Williams		1999 XE ₉₈
1999 XH ₉₈	14.2	0.15	20000226	51.09460	311.98386	74.12829	10.02010	0.2321633	2.9706057	35	1	100 days	0.52	M-v	4	Williams	38151	1999 XH ₉₈
1999 XJ ₉₈	15.4	0.15	20000226	20.10889	182.94299	260.23251	4.97710	0.1700618	2.3566366	30	2	1993–2000	0.49	M-v	3	Williams	37927	1999 XJ ₉₈
1999 XK ₉₈	12.4	0.15	20000226	246.38471	321.24980	263.28205	11.65784	0.1287243	2.6544080	65	3	1993–2000	0.58	M-v	2	Williams	37927	1999 XK ₉₈
1999 XQ ₉₈	14.7	0.15	20000226	24.23893	35.59762	40.64533	2.76686	0.1240559	2.5813872	31	1	89 days	0.64	M-v	4	Williams		1999 XQ ₉₈
1999 XS ₉₈	13.4	0.15	19991208	257.10632	282.86969	270.43341	9.95730	0.0537915	2.9999373	31	1	54 days	0.42			Williams		1999 XS ₉₈
1999 XT ₉₈	12.8	0.15	20000226	19.18519	0.00199	80.29159	12.05117	0.0285927	3.0519511	54	2	1997–2000	0.55	M-v	3	Williams	37927	1999 XT ₉₈
1999 XV ₉₈	14.8	0.15	20000226	273.95488	258.90018	312.81613	2.19421	0.2017310	2.3455916	25	2	1997–2000	0.72	M-v	4	Williams	37927	1999 XV ₉₈
1999 XW ₉₈	14.1	0.15	20000226	329.86578	236.99047	263.54523	12.29517	0.1012311	2.7344335	42	2	1998–2000	0.56	M-v	3	Spahr	37927	1999 XW ₉₈
1999 XX ₉₈	14.2	0.15	19991228	202.47004	174.54204	76.61523	7.37050	0.1044350	2.4595437	25	1	54 days	0.54			Williams		1999 XX ₉₈
1999 XY ₉₈	14.5	0.15	20000226	0.90368	103.20975	8.25819	2.20995	0.1648987	2.3926288	51	1	100 days	0.49	M-v	4	Williams	38151	1999 XY ₉₈
1999 XZ ₉₈	14.4	0.15	19991208	298.88996	251.03306	269.57262	3.80397	0.1406912	2.4349179	22	1	50 days	0.61			Williams		1999 XZ ₉₈
1999 XC ₉₉	14.6	0.15	20000226	307.25115	239.24675	292.36166	4.23006	0.1099046	2.3541321	38	4	1980–2000	0.67	M-v	2	Williams	37927	1999 XC ₉₉
1999 XG ₉₉	15.3	0.15	19991208	19.04608	344.94798	72.33193	7.58145	0.1613619	2.2797264	19	1	28 days	0.42			Williams		1999 XG ₉₉
1999 XH ₉₉	14.0	0.15	20000226	221.11294	324.74939	286.60788	1.74792	0.1414804	2.4336108	38	3	1978–2000	0.52	M-v	4	Williams	37928	1999 XH ₉₉
1999 XJ ₉₉	14.1	0.15	19991228	22.93783	343.62233	82.11322	5.23505	0.0588946	2.5225163	20	1	54 days	0.32			Williams		1999 XJ ₉₉
1999 XL ₉₉	14.5	0.15	20000226	105.17576	60.93293	287.29112	1.97057	0.1318816	2.3310375	51	4	1988–2000	0.57	M-v	1	Williams	37928	1999 XL ₉₉
1999 XM ₉₉	12.0	0.15	20000226	74.08724	275.56336	85.41814	11.63850	0.2185180	3.9540406	29	1	76 days	0.54	M-v	4	Williams		1999 XM ₉₉
1999 XN ₉₉	15.5	0.15	20000226	65.81152	106.66387	279.87959	2.85070	0.1920916	2.1818712	33	2	1997–2000	0.43	M-v	4	Williams	37928	1999 XN ₉₉
1999 XO ₉₉	14.3	0.15	20000226	55.99219	322.63888	76.46407	4.94651	0.1406392	2.5710661	27	1	75 days	0.33	M-v	4	Williams		1999 XO ₉₉
1999 XR ₉₉	14.4	0.15	20000226	245.83455	305.10496	279.14651	3.55205	0.1885340	2.2179611	47	3	1995–2000	0.70	M-v	4	Williams	37928	1999 XR ₉₉
1999 XW ₉₉	14.4	0.15	19991208	14.56914	349.63772	74.98579	10.18033	0.1609836	2.7266453	17	1	28 days	0.48			Williams		1999 XW ₉₉
1999 XX ₉₉	14.9	0.15	19991208	80.84500	287.74929	67.55997	3.97926	0.0996603	2.2582013	16	1	28 days	0.44			Williams		1999 XX ₉₉
1999 XZ ₉₉	14.5	0.15	20000226	327.43390	95.29561	77.18010	6.67605	0.2938462	2.4618802	29	1	75 days	0.54	M-v	4	Williams		1999 XZ ₉₉
1999 XB ₁₀₀	14.4	0.15	20000226	311.71170	259.49616	278.14065	3.91951	0.1710261	2.3609926	57	4	1982–2000	0.60	M-v	2	Spahr	37929	1999 XB ₁₀₀
1999 XC ₁₀₀	12.5	0.15	20000226	168.86498	204.39033	90.50012	8.67234	0.0223009	3.1006673	38	1	74 days	0.49	M-v	4	Williams		1999 XC ₁₀₀
1999 XD ₁₀₀	14.4	0.15	19991208	15.12301	341.29926	86.90737	10.42236	0.1481506	2.8132207	15	1	28 days	0.29			Williams		1999 XD ₁₀₀
1999 XE ₁₀₀	12.9	0.15	20000226	25.40394	350.54060	81.84328	8.63383	0.1848506	3.2071401	69	3	1997–2000	0.62	M-v	3	Williams	37929	1999 XE ₁₀₀
1999 XH ₁₀₀	12.7	0.15	20000226	227.19810	168.78769	81.89607	12.82331	0.1655690	2.6656104	59	3	1988–2000	0.73	M-v	2	Williams	37929	1999 XH ₁₀₀
1999 XO ₁₀₀	14.9	0.15	19991208	358.93829	3.18945	88.48144	8.04442	0.1504362	2.5727714	18	1	30 days	0.62			Spahr		1999 XO ₁₀₀

1999 XQ ₁₀₀	14.5	0.15	20000226	4.96738	196.83083	272.95030	13.44708	0.1325943	2.5701849	28	1	79 days	0.41	M-v	4	Williams	1999 XQ ₁₀₀
1999 XR ₁₀₀	14.4	0.15	19991208	30.32209	121.27095	283.82504	9.62532	0.2052322	2.7033775	18	1	28 days	0.48			Williams	1999 XR ₁₀₀
1999 XT ₁₀₀	13.3	0.15	20000226	37.39633	136.83490	276.46993	23.73491	0.2670870	3.1804994	53	1	79 days	0.41	M-v	4	Williams	1999 XT ₁₀₀
1999 XU ₁₀₀	14.7	0.15	20000226	28.03640	10.29781	71.90526	3.40367	0.1358743	2.3800471	33	1	89 days	0.47	M-v	4	Williams	38152 1999 XU ₁₀₀
1999 XV ₁₀₀	14.3	0.15	19991228	46.38860	102.68901	286.34213	5.47082	0.2251490	2.5259897	36	1	55 days	0.52			Spahr	1999 XV ₁₀₀
1999 XX ₁₀₀	15.1	0.15	19991228	50.77704	305.58372	80.22817	6.05477	0.2072807	2.2343853	24	1	55 days	0.36			Spahr	1999 XX ₁₀₀
1999 XZ ₁₀₀	14.3	0.15	19991228	42.95771	109.62098	283.47769	7.88700	0.2339253	2.4169772	29	1	58 days	0.28			Spahr	1999 XZ ₁₀₀
1999 XA ₁₀₁	14.0	0.15	20000226	30.11379	352.90581	88.45784	7.62042	0.1408475	2.3153844	33	1	79 days	0.52	M-v	4	Williams	1999 XA ₁₀₁
1999 XB ₁₀₁	15.1	0.15	19991228	300.13632	237.61024	287.44781	5.15796	0.0448374	2.3142078	41	1	57 days	0.45			Spahr	1999 XB ₁₀₁
1999 XC ₁₀₁	13.7	0.15	19991228	54.91515	102.67570	290.33154	7.71989	0.1317485	3.0611069	22	1	49 days	0.50			Spahr	1999 XC ₁₀₁
1999 XE ₁₀₁	14.8	0.15	20000226	322.17624	84.54783	81.91759	6.34840	0.0932911	2.2743855	29	1	76 days	0.49	M-v	4	Williams	1999 XE ₁₀₁
1999 XF ₁₀₁	14.4	0.15	20000226	318.03971	227.24483	311.88455	3.87626	0.1945733	2.6187339	31	1	66 days	0.57	M-v	5	Williams	1999 XF ₁₀₁
1999 XG ₁₀₁	15.0	0.15	20000226	335.84371	107.86043	43.91163	2.50208	0.1084062	2.3118471	44	4	1995–2000	0.69	M-v	2	Williams	37929 1999 XG ₁₀₁
1999 XH ₁₀₁	12.7	0.15	19991228	191.14356	187.92612	86.63645	10.94665	0.0599653	3.0555127	32	1	54 days	0.34			Williams	1999 XH ₁₀₁
1999 XK ₁₀₁	15.0	0.15	20000226	28.89536	140.20249	295.76308	4.94281	0.2729546	2.5603623	43	1	78 days	0.53	M-v	4	Williams	1999 XK ₁₀₁
1999 XL ₁₀₁	12.8	0.15	20000226	73.47731	92.75316	297.44528	8.37566	0.1053163	3.0574431	62	3	1995–2000	0.51	M-v	3	Williams	37930 1999 XL ₁₀₁
1999 XN ₁₀₁	15.4	0.15	20000226	285.88153	285.46487	278.63321	16.90829	0.0617339	1.9721386	54	1	79 days	0.45	M-v	4	Williams	1999 XN ₁₀₁
1999 XO ₁₀₁	13.8	0.15	20000226	48.03620	339.90686	87.18567	6.31698	0.0305124	2.7493843	62	4	1985–2000	0.69	M-v	2	Williams	37930 1999 XO ₁₀₁
1999 XP ₁₀₁	10.7	0.15	20000226	16.62350	350.19188	100.76053	18.18486	0.1460450	5.2788613	34	1	66 days	0.42	M-v	4	Williams	1999 XP ₁₀₁
1999 XQ ₁₀₁	14.4	0.15	20000226	72.74627	297.04203	86.71367	5.36141	0.1998490	2.5657343	33	1	70 days	0.48	M-v	4	Williams	1999 XQ ₁₀₁
1999 XT ₁₀₁	15.1	0.15	19991228	27.79999	91.49604	327.02054	2.55905	0.2245404	2.3778754	36	1	58 days	0.50			Williams	1999 XT ₁₀₁
1999 XU ₁₀₁	12.8	0.15	20000226	126.65488	43.58012	296.58571	9.47222	0.0889664	3.1486136	41	1	70 days	0.50	M-v	5	Williams	1999 XU ₁₀₁
1999 XW ₁₀₁	14.6	0.15	20000226	44.54044	346.54133	66.02106	4.84550	0.2508617	2.7076734	69	1	80 days	0.44	M-v	4	Williams	1999 XW ₁₀₁
1999 XX ₁₀₁	13.0	0.15	20000226	268.28295	285.23303	296.55225	6.10984	0.1071120	2.7805144	60	1	67 days	0.45	M-v	4	Williams	1999 XX ₁₀₁
1999 XY ₁₀₁	10.6	0.15	20000226	16.66651	163.75823	292.05673	29.24459	0.0466838	5.1396159	29	1	66 days	0.46	M-v	5	Williams	1999 XY ₁₀₁
1999 XZ ₁₀₁	14.8	0.15	19991228	54.02158	86.03821	300.39163	4.84149	0.2248966	2.5577967	50	1	56 days	0.53			Spahr	1999 XZ ₁₀₁
1999 XA ₁₀₂	16.6	0.15	19991228	27.01758	118.16820	303.00597	3.51262	0.2265691	2.3509061	33	1	55 days	0.38			Williams	1999 XA ₁₀₂
1999 XB ₁₀₂	14.4	0.15	20000226	101.99220	279.27364	79.82317	6.08067	0.1902281	2.2774124	54	4	1984–2000	0.56	M-v	2	Williams	37930 1999 XB ₁₀₂
1999 XC ₁₀₂	13.4	0.15	20000226	14.58481	12.42840	91.92000	11.24467	0.0551617	3.0553609	41	1	66 days	0.42	M-v	4	Williams	1999 XC ₁₀₂
1999 XN ₁₀₂	12.7	0.15	20000226	147.04418	226.66162	91.47291	9.78422	0.0816527	2.9569654	33	1	66 days	0.35	M-v	5	Williams	1999 XN ₁₀₂
1999 XO ₁₀₂	15.4	0.15	19991228	345.06490	187.11034	290.31214	2.49574	0.1129234	2.2270468	19	1	55 days	0.53			Spahr	1999 XO ₁₀₂
1999 XP ₁₀₂	12.4	0.15	20000226	96.18855	270.24811	91.27176	11.04583	0.1230748	2.9835115	33	1	66 days	0.42	M-v	5	Williams	1999 XP ₁₀₂
1999 XQ ₁₀₂	15.7	0.15	19991208	45.51179	104.58230	293.19664	3.32476	0.1135363	2.2660954	25	1	32 days	0.42			Williams	1999 XQ ₁₀₂
1999 XR ₁₀₂	15.0	0.15	19991208	44.86101	93.72716	291.36385	3.90325	0.2463873	2.5497730	33	1	36 days	0.31			Spahr	1999 XR ₁₀₂
1999 XS ₁₀₂	15.8	0.15	19991208	14.00696	2.94672	68.37437	3.47143	0.1923731	2.4177799	15	1	28 days	0.57			Williams	1999 XS ₁₀₂
1999 XT ₁₀₂	15.3	0.15	19991208	59.49140	31.22367	336.28852	1.86403	0.2389833	2.3356510	15	1	28 days	0.49			Williams	1999 XT ₁₀₂
1999 XU ₁₀₂	15.4	0.15	19991228	350.21847	56.33291	58.27827	3.11728	0.1640704	2.4491146	40	1	54 days	0.54			Williams	1999 XU ₁₀₂
1999 XW ₁₀₂	15.5	0.15	19991228	327.07804	65.03738	76.08767	5.67236	0.0965164	2.2284455	39	1	54 days	0.57			Williams	1999 XW ₁₀₂
1999 XY ₁₀₂	14.0	0.15	20000226	305.16392	95.59586	88.82916	13.59176	0.1080783	2.6076084	31	1	75 days	0.37	M-v	4	Williams	1999 XY ₁₀₂
1999 XZ ₁₀₂	13.8	0.15	19991228	33.97602	317.46782	85.15089	4.80972	0.2940811	2.8742353	32	1	55 days	0.54			Spahr	1999 XZ ₁₀₂
1999 XA ₁₀₃	13.7	0.15	20000226	4.87478	85.62202	26.38797	1.34920	0.1180604	3.1862393	60	2	1998–2000	0.58	M-v	4	Williams	37930 1999 XA ₁₀₃
1999 XB ₁₀₃	14.8	0.15	20000226	304.75141	104.64019	91.70470	13.87673	0.1847347	2.4337108	48	1	67 days	0.59	M-v	4	Williams	1999 XB ₁₀₃
1999 XG ₁₀₃	15.7	0.15	20000226	36.31775	87.15694	349.77567	1.50215	0.1679848	2.2409288	34	1	87 days	0.49	M-v	4	Williams	1999 XG ₁₀₃
1999 XH ₁₀₃	14.7	0.15	20000226	130.28747	15.54871	318.45246	3.01068	0.1828889	2.3437819	35	4	1991–2000	0.63	M-v	2	Williams	37930 1999 XH ₁₀₃
1999 XK ₁₀₃	14.2	0.15	20000226	33.35619	11.00498	72.32572	4.75108	0.0799686	2.6678089	41	2	1998–2000	0.46	M-v	3	Williams	37931 1999 XK ₁₀₃
1999 XL ₁₀₃	15.0	0.15	20000226	140.70093	260.67861	73.10860	4.72736	0.1072778	2.1970172	35	3	1997–2000	0.63	M-v	4	Williams	37931 1999 XL ₁₀₃
1999 XM ₁₀₃	14.5	0.15	20000226	63.92752	89.98852	288.09288	11.40956	0.3446103	2.5219537	55	1	79 days	0.55	M-v	4	Williams	1999 XM ₁₀₃
1999 XP ₁₀₃	14.5	0.15	20000226	54.71218	118.47479	291.62223	11.77965	0.1772630	2.6779922	23	1	79 days	0.48	M-v	5	Williams	1999 XP ₁₀₃
1999 XQ ₁₀₃	14.0	0.15	20000226	298.80990	106.03231	93.71399	13.16314	0.1497872	2.8419469	38	1	66 days	0.49	M-v	5	Williams	1999 XQ ₁₀₃
1999 XR ₁₀₃	15.1	0.15	19991228	56.80576	14.85849	8.59445	1.29725	0.1969131	2.3797661	17	1	55 days	0.39			Spahr	1999 XR ₁₀₃
1999 XT ₁₀₃	14.7	0.15	19991228	34.70855	29.99775	25.18782	0.95135	0.1744897	3.0832058	21	1	54 days	0.61			Spahr	1999 XT ₁₀₃
1999 XU ₁₀₃	14.3	0.15	19991208	255.38758	244.66792	334.45175	2.10950	0.1468036	2.4532740	17	1	28 days	0.55			Williams	1999 XU ₁₀₃
1999 XV ₁₀₃	15.3	0.15	19991208	318.38853	210.50988	292.25708	3.68758	0.0590893	2.2078758	31	1	39 days	0.51			Williams	1999 XV ₁₀₃

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1999 XW ₁₀₃	15.6	0.15	19991228	33.24687	345.14160	70.98631	4.02537	0.1772476	2.3650984	30	1	54 days	0.46		Spahr	1999 XW ₁₀₃	
1999 XX ₁₀₃	14.7	0.15	20000226	353.56753	49.18592	41.01275	12.22178	0.1216367	2.6935746	40	1	89 days	0.47	M-v	4	Williams	1999 XX ₁₀₃
1999 XY ₁₀₃	13.4	0.15	20000226	292.71315	114.18571	95.92232	14.25115	0.1410901	2.5946142	44	1	78 days	0.50	M-v	5	Williams	1999 XY ₁₀₃
1999 XZ ₁₀₃	14.5	0.15	20000226	39.81477	131.96991	265.42892	11.80912	0.2100376	2.7353462	38	1	62 days	0.49	M-v	4	Williams	1999 XZ ₁₀₃
1999 XB ₁₀₄	15.4	0.15	20000226	48.92707	345.38381	45.73761	6.99902	0.2358073	2.3417318	62	1	100 days	0.67	M-v	4	Williams	38152 1999 XB ₁₀₄
1999 XC ₁₀₄	15.4	0.15	20000226	41.83773	349.79723	77.98440	9.15754	0.2227083	2.2320598	46	1	74 days	0.57	M-v	4	Nakano	1999 XC ₁₀₄
1999 XD ₁₀₄	14.3	0.15	20000226	19.64474	165.51258	291.58078	12.39961	0.2360867	2.6342795	68	1	83 days	0.43	M-v	3	Williams	1999 XD ₁₀₄
1999 XE ₁₀₄	14.9	0.15	19991208	11.80794	5.16687	57.58585	1.99832	0.1774061	3.2025179	25	1	49 days	0.60			Williams	1999 XE ₁₀₄
1999 XG ₁₀₄	14.6	0.15	20000226	52.30814	334.71426	66.51482	9.42359	0.0901153	2.2543161	53	1	100 days	0.33	M-v	3	Williams	38152 1999 XG ₁₀₄
1999 XH ₁₀₄	15.7	0.15	19991228	26.51684	323.86273	75.67612	13.57979	0.2574807	2.5395063	23	1	54 days	0.54			Williams	1999 XH ₁₀₄
1999 XK ₁₀₄	15.5	0.15	19991208	70.47746	56.36962	291.53351	2.05031	0.1688051	2.1769423	27	1	51 days	0.51			Williams	1999 XK ₁₀₄
1999 XO ₁₀₄	14.7	0.15	20000226	351.98744	43.18849	97.51662	32.79205	0.2020662	2.6290046	37	1	73 days	0.72	M-v	4	Williams	1999 XO ₁₀₄
1999 XR ₁₀₄	14.3	0.15	20000226	36.11327	317.39605	81.17708	25.07596	0.2952954	2.3385318	56	1	84 days	0.35	M-v	3	Williams	1999 XR ₁₀₄
1999 XS ₁₀₄	14.4	0.15	20000226	316.79859	113.59095	56.25880	5.29832	0.0609258	2.2025227	66	1	91 days	0.53	M-v	4	Williams	1999 XS ₁₀₄
1999 XT ₁₀₄	12.6	0.15	20000226	81.14664	296.08461	84.91993	11.19819	0.1273741	3.0487098	61	1	87 days	0.63	M-v	4	Williams	1999 XT ₁₀₄
1999 XU ₁₀₄	13.6	0.15	20000226	60.61081	154.32355	244.78368	5.50824	0.2086839	2.5259868	41	1	78 days	0.41	M-v	4	Nakano	1999 XU ₁₀₄
1999 XW ₁₀₄	14.9	0.15	20000226	25.75103	31.90600	60.15344	5.32325	0.1461331	2.2598148	50	2	1992–2000	0.58	M-v	4	Williams	37931 1999 XW ₁₀₄
1999 XA ₁₀₅	12.6	0.15	20000226	0.71907	255.19081	172.54973	10.91527	0.0827903	3.0060483	50	2	1998–2000	0.56	M-v	3	Williams	37931 1999 XA ₁₀₅
1999 XD ₁₀₅	13.5	0.15	20000226	17.42564	278.05168	140.93556	10.67332	0.0810965	3.0052351	22	1	60 days	0.50	M-v	4	Williams	1999 XD ₁₀₅
1999 XK ₁₀₅	13.1	0.15	20000226	41.44371	127.30903	274.50821	9.72861	0.1190991	3.0423050	65	2	1998–2000	0.51	M-v	3	Williams	37932 1999 XK ₁₀₅
1999 XL ₁₀₅	15.7	0.15	20000226	10.32602	44.43945	48.70228	6.01161	0.1523436	2.2871944	41	1	88 days	0.59	M-v	4	Williams	38153 1999 XL ₁₀₅
1999 XN ₁₀₅	14.4	0.15	20000226	46.98537	359.69634	40.74982	6.21863	0.1661533	2.4066735	79	1	87 days	0.41	M-v	4	Williams	1999 XN ₁₀₅
1999 XO ₁₀₅	14.2	0.15	20000226	59.98257	335.08662	33.65150	4.61079	0.2754651	2.5836344	60	1	129 days	0.47	M-v	4	Williams	38153 1999 XO ₁₀₅
1999 XP ₁₀₅	14.8	0.15	19991228	38.36292	60.14793	323.12219	5.54004	0.1740659	3.1312501	21	1	51 days	0.54			Williams	1999 XP ₁₀₅
1999 XQ ₁₀₅	14.1	0.15	19991228	176.51616	175.93878	87.36610	15.22923	0.1487456	2.6882438	41	1	50 days	0.65			Spahr	1999 XQ ₁₀₅
1999 XS ₁₀₅	14.9	0.15	19991228	351.29705	250.59764	228.03156	5.37980	0.1607988	2.2742838	32	1	36 days	0.49			Nakano	1999 XS ₁₀₅
1999 XT ₁₀₅	14.7	0.15	20000226	288.44052	335.93342	238.34766	6.84431	0.1479579	2.1806310	37	2	1998–2000	0.64	M-v	4	Spahr	37932 1999 XT ₁₀₅
1999 XU ₁₀₅	14.1	0.15	20000226	71.71696	226.71722	148.99649	8.64028	0.2414036	2.7952029	44	3	1989–2000	0.60	M-v	2	Spahr	37932 1999 XU ₁₀₅
1999 XW ₁₀₅	15.5	0.15	20000226	42.55605	317.23478	114.45530	3.14142	0.1504186	2.3119635	41	1	65 days	0.52	M-v	5	Williams	1999 XW ₁₀₅
1999 XY ₁₀₅	14.9	0.15	20000226	40.35504	271.28908	144.21939	4.89801	0.2823285	2.5876605	37	2	1992–2000	0.43	M-v	4	Spahr	37932 1999 XY ₁₀₅
1999 XA ₁₀₆	14.3	0.15	20000226	42.25766	286.05548	139.31556	10.00328	0.1390056	2.7491257	38	3	1980–2000	0.70	M-v	3	Spahr	37933 1999 XA ₁₀₆
1999 XB ₁₀₆	13.7	0.15	20000226	46.11375	276.91261	116.49788	13.60652	0.3774267	2.7395451	76	3	1991–2000	0.48	M-v	2	Williams	37933 1999 XB ₁₀₆
1999 XC ₁₀₆	14.8	0.15	20000226	53.90735	162.73383	251.26684	0.39981	0.1818576	2.4151000	53	1	83 days	0.52	M-v	5	Nakano	1999 XC ₁₀₆
1999 XD ₁₀₆	16.3	0.15	20000226	33.06105	301.34585	84.36375	24.70854	0.5715632	3.0395256	57	1	73 days	0.60	M-v	4	Spahr	38153 1999 XD ₁₀₆
1999 XE ₁₀₆	17.5	0.15	19991228	29.72082	140.82391	276.69402	18.33651	0.1243310	1.9410985	25	1	49 days	0.41			Marsden	1999 XE ₁₀₆
1999 XJ ₁₀₆	14.7	0.15	19991228	270.01192	106.92275	94.15881	11.43325	0.0464037	3.0670881	25	1	51 days	0.62			Spahr	1999 XJ ₁₀₆
1999 XP ₁₀₆	15.4	0.15	20000226	34.59211	0.21946	29.08010	11.79784	0.1996344	2.5171047	46	1	122 days	0.52	M-v	3	Williams	38153 1999 XP ₁₀₆
1999 XT ₁₀₆	15.0	0.15	19991118	242.06357	296.37432	235.57918	10.98363	0.1231727	2.6512029	33	1	38 days	0.70			Williams	1999 XT ₁₀₆
1999 XX ₁₀₆	13.9	0.15	20000226	36.88655	344.07368	33.01901	14.38306	0.1556459	3.1457318	72	2	1997–2000	0.52	M-v	3	Williams	37934 1999 XX ₁₀₆
1999 XA ₁₀₇	14.9	0.15	20000226	190.85616	333.01512	268.16775	4.50952	0.1213664	2.2006418	64	2	1998–2000	0.55	M-v	3	Williams	37934 1999 XA ₁₀₇
1999 XC ₁₀₇	14.7	0.15	20000226	37.28543	326.28887	62.83809	3.29491	0.2157852	2.4028827	50	3	1988–2000	0.70	M-v	2	Williams	37934 1999 XC ₁₀₇
1999 XD ₁₀₇	14.3	0.15	20000226	159.93679	31.63613	227.94032	24.15606	0.1403077	2.5854571	44	3	1995–1999	0.59	M-v	3	Williams	37935 1999 XD ₁₀₇
1999 XE ₁₀₇	13.9	0.15	20000226	205.89663	168.91039	48.37530	12.85048	0.0294003	3.1671915	34	1	71 days	0.63	M-v	5	Williams	1999 XE ₁₀₇
1999 XJ ₁₀₇	15.1	0.15	19991118	74.78301	286.48188	37.12217	10.03839	0.0583461	2.7115551	32	1	38 days	0.60			Williams	1999 XJ ₁₀₇
1999 XK ₁₀₇	14.4	0.15	20000226	4.14155	173.91711	250.73929	1.79072	0.0408278	2.7421805	72	3	1992–2000	0.64	M-v	3	Williams	37935 1999 XK ₁₀₇
1999 XL ₁₀₇	14.4	0.15	19991118	276.46581	284.71057	234.48784	17.25159	0.2645929	3.1097617	36	1	39 days	0.62			Williams	1999 XL ₁₀₇
1999 XQ ₁₀₇	13.7	0.15	20000226	50.34295	342.61913	26.72433	10.06161	0.0907051	2.9761250	52	1	95 days	0.52	M-v	4	Williams	38153 1999 XQ ₁₀₇
1999 XR ₁₀₇	15.8	0.15	20000226	15.71914	30.08264	36.27852	7.71776	0.1964087	2.3370953	72	1	135 days	0.48	M-v	3	Williams	38153 1999 XR ₁₀₇
1999 XW ₁₀₇	15.2	0.15	20000226	0.91956	117.81366	324.70539	2.17108	0.2298513	2.7660263	44	1	67 days	0.47	M-v	5	Williams	1999 XW ₁₀₇
1999 XH ₁₀₈	14.4	0.15	19991118	333.46406	222.21015	216.44553	8.23151	0.0549329	3.0659294	35	1	44 days	0.65			Williams	1999 XH ₁₀₈
1999 XU ₁₀₈	14.9	0.15	20000226	291.09758	265.00035	245.61952	5.42076	0.0404097	2.3638815	42	2	1977–2000	0.70	M-v	4	Williams	38153 1999 XU ₁₀₈
1999 XH ₁₀₉	13.9	0.15	20000226	42.52182	290.31217	95.28964	5.89204	0.0444553	3.0648276	38	2	1997–1999	0.57	M-v	5	Williams	37936 1999 XH ₁₀₉
1999 XL ₁₀₉	13.7	0.15	20000226	2.33337	3.53369	75.45545	9.45282	0.2425661	3.0863238	51	1	106 days	0.45	M-v	3	Williams	38153 1999 XL ₁₀₉

1999 XP ₁₀₉	16.8	0.15	19991029	355.19881	330.16584	83.16258	5.77004	0.2676113	2.5724523	41	1	53 days	0.71	Williams	1999 XP ₁₀₉	
1999 XS ₁₀₉	14.5	0.15	20000226	20.28351	325.81016	97.59271	4.04276	0.1948401	2.3953716	77	4	1991–2000	0.63	M-v 2	Williams 37936	1999 XS ₁₀₉
1999 XT ₁₀₉	15.4	0.15	20000226	33.24704	316.35451	90.81866	5.09201	0.1940545	2.2712365	50	1	78 days	0.38	M-v 3	Williams 38153	1999 XT ₁₀₉
1999 XU ₁₀₉	15.7	0.15	19991029	4.26317	225.06792	175.97203	3.05490	0.1716937	2.5746796	38	1	56 days	0.44	Williams	1999 XU ₁₀₉	
1999 XZ ₁₀₉	12.7	0.15	20000226	141.67329	205.60097	77.95513	11.14000	0.0749306	3.0415809	51	4	1978–2000	0.49	M-v 1	Williams 37936	1999 XZ ₁₀₉
1999 XB ₁₁₀	15.2	0.15	20000226	40.26754	273.41569	118.60151	3.64783	0.1549759	2.5708088	44	2	1984–1999	0.59	M-v 4	Williams 37936	1999 XB ₁₁₀
1999 XE ₁₁₀	15.5	0.15	20000226	130.24522	232.92287	72.23532	4.59174	0.0983308	2.1408649	48	2	1998–1999	0.59	M-v 4	Williams 37936	1999 XE ₁₁₀
1999 XK ₁₁₀	14.5	0.15	19991029	269.84656	97.67777	57.04338	17.55106	0.1101156	3.2595680	34	1	57 days	0.84	Williams	1999 XK ₁₁₀	
1999 XM ₁₁₀	15.0	0.15	19991029	41.87873	280.26897	77.19228	10.01338	0.1218064	2.9680262	32	1	53 days	0.57	Williams	1999 XM ₁₁₀	
1999 XV ₁₁₀	15.9	0.15	20000226	20.08147	161.07782	247.67624	12.73535	0.3701134	2.9925058	35	1	64 days	0.53	M-v 4	Williams 38154	1999 XV ₁₁₀
1999 XW ₁₁₀	15.9	0.15	19991118	309.04374	213.18803	267.91178	3.86870	0.1678824	2.4297228	35	1	39 days	0.50	Williams	1999 XW ₁₁₀	
1999 XY ₁₁₀	14.3	0.15	20000226	304.88432	318.36448	188.20868	4.63488	0.1036255	2.5234905	57	3	1995–1999	0.52	M-v 3	Williams 37937	1999 XY ₁₁₀
1999 XB ₁₁₁	14.5	0.15	20000226	67.73867	269.87414	98.35319	6.34377	0.0889652	2.3293582	55	2	1998–2000	0.63	M-v 3	Williams 37938	1999 XB ₁₁₁
1999 XF ₁₁₁	16.2	0.15	19991228	323.39656	81.21936	89.61726	31.34699	0.2169495	2.5889402	18	1	51 days	0.46	Spahr	1999 XF ₁₁₁	
1999 XG ₁₁₁	13.7	0.15	20000226	333.55667	114.27996	49.93664	13.52471	0.1160135	2.6967446	31	1	90 days	0.36	M-v 4	Williams	1999 XG ₁₁₁
1999 XJ ₁₁₁	15.1	0.15	19991228	235.13065	172.07638	86.35884	26.48370	0.1917609	2.2650532	39	1	57 days	0.64	Williams	1999 XJ ₁₁₁	
1999 XK ₁₁₁	16.0	0.15	20000226	1.52284	48.17777	38.98696	31.99447	0.3159817	2.6180850	45	1	80 days	0.65	M-v 4	Williams 38154	1999 XK ₁₁₁
1999 XL ₁₁₁	15.5	0.15	19991228	64.51680	352.26573	34.58429	10.45398	0.2217029	2.3650909	18	1	56 days	0.42	Williams	1999 XL ₁₁₁	
1999 XR ₁₁₁	16.6	0.15	20000226	355.98841	101.55102	7.78938	0.93606	0.1465530	2.2351626	31	2	1997–1999	0.64	M-v 4	Williams 37938	1999 XR ₁₁₁
1999 XS ₁₁₁	16.0	0.15	19991208	11.82440	153.14929	259.37808	13.03105	0.2452383	2.6284004	22	1	51 days	0.60	Williams	1999 XS ₁₁₁	
1999 XK ₁₁₂	14.7	0.15	20000226	342.47521	153.03819	351.06078	6.42525	0.1342124	2.8046136	35	1	63 days	0.56	M-v 4	Williams	1999 XK ₁₁₂
1999 XL ₁₁₂	13.7	0.15	19991228	318.94229	79.30354	72.17820	12.75598	0.0963862	3.1337647	27	1	50 days	0.46	Williams	1999 XL ₁₁₂	
1999 XD ₁₁₃	12.8	0.15	20000226	293.46003	255.23266	269.27944	23.56316	0.2146862	2.2999509	40	1	126 days	0.52	M-v 4	Williams 38154	1999 XD ₁₁₃
1999 XJ ₁₁₃	13.5	0.15	20000226	79.08165	45.55875	287.73083	15.75347	0.1694065	2.6097615	33	1	91 days	0.54	M-v 4	Williams 38154	1999 XJ ₁₁₃
1999 XL ₁₁₃	13.6	0.15	19991228	240.82114	212.34831	332.48827	12.84695	0.1073516	2.5558000	21	1	57 days	0.58	Spahr	1999 XL ₁₁₃	
1999 XM ₁₁₃	13.2	0.15	20000226	123.48901	340.37181	311.45411	12.76543	0.1523030	2.5679928	43	2	1997–2000	0.54	M-v 4	Williams 37939	1999 XM ₁₁₃
1999 XP ₁₁₃	12.6	0.15	20000226	309.49714	174.62002	324.51572	13.17396	0.1191812	2.5496105	30	1	63 days	0.29	M-v 4	Williams 38154	1999 XP ₁₁₃
1999 XU ₁₁₃	14.2	0.15	20000226	65.66930	64.77835	288.59187	13.19551	0.1575374	2.6317331	38	2	1994–2000	0.64	M-v 4	Williams 37939	1999 XU ₁₁₃
1999 XW ₁₁₃	13.7	0.15	20000226	177.96335	284.20059	327.37281	12.26913	0.1617462	2.4506823	22	1	69 days	0.57	M-v 5	Williams 38154	1999 XW ₁₁₃
1999 XR ₁₁₄	13.7	0.15	20000226	9.36843	73.54878	350.30416	10.66165	0.1581543	3.1356443	39	2	1993–2000	0.52	M-v 3	Williams 37939	1999 XR ₁₁₄
1999 XV ₁₁₄	12.7	0.15	20000226	245.20150	234.60821	322.79744	11.89584	0.1033315	2.6785212	27	1	91 days	0.38	M-v 4	Williams 38154	1999 XV ₁₁₄
1999 XW ₁₁₄	12.2	0.15	20000226	31.85902	127.92565	267.79397	23.32753	0.0755927	3.0463549	27	1	91 days	0.39	M-v 3	Williams 38154	1999 XW ₁₁₄
1999 XA ₁₁₅	14.2	0.15	20000226	22.40536	131.13016	279.01676	13.11908	0.3430440	2.7519064	33	1	130 days	0.39	M-v 3	Williams 38154	1999 XA ₁₁₅
1999 XJ ₁₁₅	15.5	0.15	20000226	54.03176	109.59034	274.06254	4.65266	0.1698469	2.2911052	30	2	1978–2000	0.47	M-v 4	Williams 37939	1999 XJ ₁₁₅
1999 XL ₁₁₅	16.3	0.15	20000226	27.87021	157.63806	264.08192	5.66206	0.1715177	2.2394653	39	1	86 days	0.57	M-v 4	Spahr 38154	1999 XL ₁₁₅
1999 XM ₁₁₅	13.1	0.15	20000226	254.70549	292.20246	266.97869	8.44608	0.1732330	3.1569672	19	1	79 days	0.39	M-v 5	Williams	1999 XM ₁₁₅
1999 XW ₁₁₅	14.9	0.15	20000226	37.26446	81.04803	309.92671	4.45381	0.1919236	2.4749608	43	1	121 days	0.44	M-v 3	Williams 38154	1999 XW ₁₁₅
1999 XD ₁₁₆	14.7	0.15	20000226	13.76305	97.27032	327.02067	5.48139	0.2448121	2.6350837	47	1	89 days	0.45	M-v 4	Williams 38154	1999 XD ₁₁₆
1999 XF ₁₁₆	15.8	0.15	20000226	9.13158	131.96549	307.83367	4.44499	0.1577924	2.1641168	39	1	92 days	0.53	M-v 4	Williams 38154	1999 XF ₁₁₆
1999 XP ₁₁₆	15.2	0.15	20000226	352.58980	174.03178	287.17611	4.78790	0.2351215	2.5735592	43	1	92 days	0.58	M-v 4	Williams 38154	1999 XP ₁₁₆
1999 XU ₁₁₆	15.3	0.15	20000226	33.98552	103.45875	289.22204	3.43535	0.2956009	2.5892723	35	1	64 days	0.41	M-v 4	Williams 38154	1999 XU ₁₁₆
1999 XX ₁₁₆	15.0	0.15	20000226	64.25684	17.17511	338.08717	2.53151	0.2379593	2.3497160	52	4	1981–2000	0.67	M-v 2	Williams 37940	1999 XX ₁₁₆
1999 XY ₁₁₆	14.9	0.15	20000226	22.45046	15.40319	45.30556	7.73756	0.1097922	2.3016004	44	1	89 days	0.44	M-v 4	Williams 38154	1999 XY ₁₁₆
1999 XZ ₁₁₆	13.6	0.15	20000226	90.34294	281.47976	33.49597	10.08565	0.2216722	3.1413982	35	1	83 days	0.50	M-v 5	Williams	1999 XZ ₁₁₆
1999 XA ₁₁₇	14.6	0.15	20000226	24.64903	146.72575	270.24403	5.73286	0.1121245	2.3492981	46	1	92 days	0.53	M-v 4	Spahr 38155	1999 XA ₁₁₇
1999 XD ₁₁₇	15.9	0.15	19991118	38.07602	317.45638	39.77326	7.49267	0.2186208	2.3597436	31	1	40 days	0.59	Williams	1999 XD ₁₁₇	
1999 XE ₁₁₇	15.7	0.15	20000226	39.57282	82.63801	315.78719	4.44639	0.1502510	2.2269746	36	2	1996–2000	0.55	M-v 3	Williams 37940	1999 XE ₁₁₇
1999 XJ ₁₁₇	15.7	0.15	20000226	54.29279	352.02597	20.50141	5.61132	0.2535546	2.2334373	53	1	119 days	0.52	M-v 4	Williams 38155	1999 XJ ₁₁₇
1999 XM ₁₁₇	14.3	0.15	20000226	320.04713	135.12634	358.34427	4.23037	0.1457578	2.5747237	49	1	89 days	0.39	M-v 5	Williams	1999 XM ₁₁₇
1999 XW ₁₁₇	14.3	0.15	20000226	221.10895	211.48145	15.38282	5.56011	0.2009950	2.2745120	48	5	1970–2000	0.58	M-v 2	Williams 37940	1999 XW ₁₁₇
1999 XD ₁₁₈	14.1	0.15	20000226	109.06349	282.82846	37.71770	5.02707	0.1389962	2.1919020	63	3	1994–1999	0.49	M-v 2	Williams 37941	1999 XD ₁₁₈
1999 XE ₁₁₈	15.4	0.15	20000226	5.85898	83.21596	0.40913	2.11190	0.1713155	2.4240440	54	1	92 days	0.55	M-v 4	Spahr 38155	1999 XE ₁₁₈
1999 XM ₁₁₈	16.6	0.15	19991118	356.14984	165.64806	255.64084	8.39169	0.1230746	2.5401713	13	1	27 days	0.74	Williams	1999 XM ₁₁₈	

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1999 XQ ₁₁₈	15.5	0.15	19991118	262.03500	259.76617	273.47797	3.99501	0.1650657	2.6056142	24	1	40 days	0.50		Williams		1999 XQ ₁₁₈
1999 XS ₁₁₈	13.6	0.15	20000226	107.93855	265.76178	47.60364	9.59711	0.1574202	2.7981284	39	3	1980-2000	0.60	M-v 3	Williams	37941	1999 XS ₁₁₈
1999 XU ₁₁₈	14.1	0.15	20000226	92.32462	70.51561	258.90196	7.75814	0.1535832	2.7891211	31	1	91 days	0.46	M-v 5	Williams		1999 XU ₁₁₈
1999 XW ₁₁₈	17.4	0.15	19991118	15.40553	336.09886	56.43049	3.32623	0.2268847	2.3453589	23	1	40 days	0.50		Williams		1999 XW ₁₁₈
1999 XX ₁₁₈	15.4	0.15	20000226	33.52849	87.83974	318.92373	1.54554	0.2010347	2.4088185	38	1	92 days	0.40	M-v 4	Williams		1999 XX ₁₁₈
1999 XY ₁₁₈	14.0	0.15	20000226	8.40609	184.40357	258.95368	3.53076	0.1186327	2.2933543	46	1	96 days	0.31	M-v 4	Williams		1999 XY ₁₁₈
1999 XK ₁₁₉	15.8	0.15	19991118	7.09535	19.68459	27.31501	5.24534	0.0924390	2.5767778	28	1	39 days	0.49		Williams		1999 XK ₁₁₉
1999 XL ₁₁₉	14.9	0.15	19991118	93.13289	280.31477	32.07488	8.87520	0.0932835	2.6691895	25	1	42 days	1.08		Williams		1999 XL ₁₁₉
1999 XP ₁₁₉	16.2	0.15	19991118	339.03969	41.25299	44.97622	9.36863	0.1810162	2.4556600	26	1	40 days	0.53		Williams		1999 XP ₁₁₉
1999 XY ₁₁₉	13.1	0.15	20000226	114.87684	63.88117	248.67561	20.68395	0.0470664	3.2107927	29	1	83 days	0.50	M-v 5	Williams		1999 XY ₁₁₉
1999 XF ₁₂₀	13.9	0.15	20000226	48.23607	116.27780	269.76318	5.58264	0.0783485	2.7269158	47	2	1998-2000	0.58	M-v 3	Williams	37942	1999 XF ₁₂₀
1999 XJ ₁₂₀	12.9	0.15	20000226	254.22753	294.04182	262.45747	11.19882	0.1145383	2.5791819	73	4	1987-2000	0.58	M-v 2	Spahr	37942	1999 XJ ₁₂₀
1999 XN ₁₂₀	12.5	0.15	20000226	352.45198	161.79710	285.46041	5.02951	0.2135630	4.1787351	40	1	93 days	0.71	M-v 5	Williams		1999 XN ₁₂₀
1999 XO ₁₂₀	13.0	0.15	20000226	259.87371	147.93770	38.34131	9.32701	0.1077679	3.1665663	63	4	1976-2000	0.66	M-v 1	Williams	37942	1999 XO ₁₂₀
1999 XT ₁₂₀	13.8	0.15	20000226	270.52226	274.92893	260.32556	12.57639	0.0150066	2.4550503	47	1	92 days	0.43	M-v 4	Spahr	38155	1999 XT ₁₂₀
1999 XX ₁₂₀	15.1	0.15	19991228	70.41922	314.87405	37.46772	5.98518	0.0691685	2.3406180	21	1	57 days	0.52		Williams		1999 XX ₁₂₀
1999 XD ₁₂₁	14.5	0.15	20000226	36.13857	348.03467	51.70135	10.18866	0.1533180	2.7420399	40	1	92 days	0.41	M-v 4	Williams		1999 XD ₁₂₁
1999 XK ₁₂₁	14.6	0.15	20000226	40.80208	9.52959	28.86597	2.65345	0.2021413	2.3784609	23	1	75 days	0.34	M-v 5	Williams		1999 XK ₁₂₁
1999 XX ₁₂₁	13.4	0.15	20000226	34.53377	131.13684	261.07234	12.11570	0.1806142	2.5740472	55	3	1987-2000	0.36	M-v 2	Williams	37943	1999 XX ₁₂₁
1999 XA ₁₂₂	14.0	0.15	20000226	83.53414	11.33604	323.88637	5.13660	0.1239054	2.6463687	45	1	64 days	0.53	M-v 5	Williams	38155	1999 XA ₁₂₂
1999 XB ₁₂₂	13.2	0.15	20000226	2.72913	161.43714	271.92620	14.11380	0.1000388	2.5734074	42	3	1988-2000	0.65	M-v 3	Williams	37943	1999 XB ₁₂₂
1999 XD ₁₂₂	14.9	0.15	20000226	55.38222	38.93859	319.90533	7.58499	0.1896691	2.7679664	37	2	1994-2000	0.68	M-v 4	Williams	37943	1999 XD ₁₂₂
1999 XH ₁₂₂	14.6	0.15	19991228	41.69897	85.01057	284.15549	10.44631	0.0950903	2.9974901	14	1	57 days	0.43		Spahr		1999 XH ₁₂₂
1999 XS ₁₂₂	14.2	0.15	20000226	91.11562	309.13361	20.68071	8.96486	0.1161665	2.7223024	40	1	120 days	0.46	M-v 4	Williams		1999 XS ₁₂₂
1999 XD ₁₂₃	13.9	0.15	20000226	77.87296	21.69850	330.33262	6.90513	0.0646778	2.5864588	35	3	1986-2000	0.55	M-v 3	Williams	37943	1999 XD ₁₂₃
1999 XF ₁₂₃	14.4	0.15	20000226	57.99290	42.30856	309.20855	6.89257	0.2278357	3.0722890	26	1	84 days	0.50	M-v 5	Williams		1999 XF ₁₂₃
1999 XM ₁₂₃	15.6	0.15	19991228	0.09758	65.92839	1.71512	6.10644	0.1444153	2.4310634	28	1	55 days	0.56		Spahr		1999 XM ₁₂₃
1999 XO ₁₂₃	14.0	0.15	20000226	9.40077	158.69151	267.77230	14.51998	0.2152800	3.1201321	40	1	87 days	0.57	M-v 4	Williams		1999 XO ₁₂₃
1999 XT ₁₂₃	13.2	0.15	20000226	55.18599	99.32836	272.79541	10.04412	0.0658341	3.0584003	45	2	1998-2000	0.58	M-v 3	Williams	37943	1999 XT ₁₂₃
1999 XV ₁₂₃	13.6	0.15	20000226	232.46681	266.99821	295.54250	8.42152	0.0304817	3.0173288	39	3	1996-2000	0.56	M-v 3	Williams	37944	1999 XV ₁₂₃
1999 XW ₁₂₃	13.9	0.15	20000226	276.31867	260.42427	271.35007	11.35450	0.1092361	2.6899684	40	2	1998-2000	0.55	M-v 4	Williams	37944	1999 XW ₁₂₃
1999 XK ₁₂₄	15.5	0.15	19991228	12.87452	139.17214	272.17283	11.19687	0.1728035	2.6012552	30	1	56 days	0.74		Williams		1999 XK ₁₂₄
1999 XM ₁₂₄	16.1	0.15	19991228	55.76455	30.82479	318.33170	4.69061	0.2461442	2.1820146	28	1	56 days	0.52		Williams		1999 XM ₁₂₄
1999 XR ₁₂₄	14.6	0.15	20000226	136.41778	5.36630	290.39869	6.44450	0.1281907	2.3335448	46	3	1997-2000	0.60	M-v 3	Williams	37944	1999 XR ₁₂₄
1999 XX ₁₂₄	14.3	0.15	20000226	154.77956	19.87413	269.45670	9.16824	0.0120300	2.3374407	44	2	1991-2000	0.66	M-v 4	Spahr	37944	1999 XX ₁₂₄
1999 XD ₁₂₅	13.5	0.15	20000226	316.97637	103.75132	30.70585	9.47084	0.1051030	2.7713238	47	4	1982-2000	0.53	M-v 1	Williams	37944	1999 XD ₁₂₅
1999 XV ₁₂₅	15.3	0.15	20000226	8.80783	88.91219	352.27695	3.94259	0.1703685	2.5670471	25	1	75 days	0.49	M-v 4	Williams		1999 XV ₁₂₅
1999 XZ ₁₂₅	14.1	0.15	20000226	51.12243	16.10832	10.31487	4.05813	0.1837970	2.3029975	48	3	1978-2000	0.46	M-v 2	Williams	37945	1999 XZ ₁₂₅
1999 XB ₁₂₆	14.3	0.15	20000226	62.49725	97.76359	268.95944	10.63702	0.1513638	2.7141219	35	1	88 days	0.43	M-v 4	Williams	38156	1999 XB ₁₂₆
1999 XK ₁₂₆	13.2	0.15	20000226	123.27204	273.95863	31.14410	9.08041	0.1690523	2.5473749	51	1	61 days	0.57	M-v 6	Williams		1999 XK ₁₂₆
1999 XP ₁₂₆	13.5	0.15	20000226	15.09901	160.15223	271.52466	8.92924	0.2610918	2.7649950	70	3	1990-2000	0.57	M-v 2	Williams	37945	1999 XP ₁₂₆
1999 XQ ₁₂₆	14.2	0.15	20000226	240.65036	207.02003	7.96867	5.47951	0.0925289	2.3252428	38	3	1991-2000	0.70	M-v 4	Williams	37945	1999 XQ ₁₂₆
1999 XT ₁₂₆	15.8	0.15	19991228	35.45705	110.24478	279.78454	6.97404	0.1338866	2.2780841	26	1	54 days	0.47		Williams		1999 XT ₁₂₆
1999 XW ₁₂₆	15.5	0.15	19991208	345.70505	186.47881	261.37262	12.88996	0.1734392	3.1273995	20	1	28 days	0.55		Williams		1999 XW ₁₂₆
1999 XA ₁₂₇	15.6	0.15	19991208	19.42502	127.48093	267.64075	12.08474	0.2714717	2.6949707	31	1	28 days	0.58		Williams		1999 XA ₁₂₇
1999 XC ₁₂₇	15.4	0.15	19991208	17.26776	99.35566	308.34784	3.86441	0.1021541	2.8125843	21	1	45 days	0.58		Williams		1999 XC ₁₂₇
1999 XE ₁₂₇	14.1	0.15	20000226	91.67195	326.43720	5.11725	6.44967	0.1132759	2.3507115	54	2	1998-2000	0.74	M-v 4	Williams	37946	1999 XE ₁₂₇
1999 XJ ₁₂₇	13.4	0.15	19991228	39.97243	263.88125	107.14033	14.37330	0.1872217	2.9458126	42	1	58 days	0.58		Williams		1999 XJ ₁₂₇
1999 XL ₁₂₇	13.5	0.15	20000226	58.57018	26.24631	11.23207	6.79395	0.2582614	2.7601010	33	1	74 days	0.32	M-v 4	Williams		1999 XL ₁₂₇
1999 XM ₁₂₇	16.6	0.15	19991228	41.76894	311.96034	95.86629	4.54204	0.2062585	2.1999219	42	1	52 days	0.43		Spahr		1999 XM ₁₂₇
1999 XN ₁₂₇	14.3	0.15	20000226	210.52487	181.63953	66.20321	15.19252	0.0641471	2.6536286	20	1	81 days	0.45	M-v 4	Williams		1999 XN ₁₂₇
1999 XQ ₁₂₇	14.7	0.15	20000226	61.98443	269.51980	113.30300	5.44099	0.1573818	2.2864409	47	1	91 days	0.46	M-v 4	Spahr	38156	1999 XQ ₁₂₇
1999 XR ₁₂₇	14.1	0.15	20000226	98.92589	166.75950	173.29392	23.79326	0.1793320	2.3286417	25	1	94 days	0.68	M-v 5	Williams		1999 XR ₁₂₇

1999 XS ₁₂₇	16.7	0.15	19991228	20.19850	291.64462	129.44048	23.70866	0.1160424	1.9198391	24	1	56 days	0.42		Williams	1999 XS ₁₂₇
1999 XV ₁₂₇	13.4	0.15	20000226	304.15605	253.11750	281.86995	15.42694	0.0911276	3.1913558	29	1	65 days	0.58	M-v 5	Williams	1999 XV ₁₂₇
1999 XW ₁₂₇	12.5	0.15	20000226	53.22165	30.83170	43.18016	14.27024	0.1291476	2.5962574	39	1	90 days	0.29	M-v 4	Williams	1999 XW ₁₂₇
1999 XD ₁₂₈	16.7	0.15	19991118	354.52105	26.38888	46.96852	2.86111	0.1829698	2.3560293	31	1	34 days	0.62		Williams	1999 XD ₁₂₈
1999 XN ₁₂₈	15.3	0.15	20000226	15.32415	42.39148	39.26062	1.93923	0.1534920	2.4051207	34	2	1997-2000	0.52	M-v 4	Williams	37947 1999 XN ₁₂₈
1999 XX ₁₂₈	14.6	0.15	19991228	6.44594	133.28749	294.08867	7.64985	0.2227601	2.6814512	35	1	49 days	0.38		Williams	1999 XX ₁₂₈
1999 XB ₁₂₉	15.0	0.15	19991228	156.60393	270.90091	2.64466	6.24830	0.1340807	2.2071751	38	1	54 days	0.42		Williams	1999 XB ₁₂₉
1999 XJ ₁₃₀	15.0	0.15	19991228	25.19488	87.66269	304.43594	5.55249	0.3491659	2.9113248	29	1	49 days	0.39		Williams	1999 XJ ₁₃₀
1999 XK ₁₃₀	15.0	0.15	20000226	330.21318	96.40111	49.24318	9.08459	0.1745445	2.4436118	25	1	87 days	0.42	M-v 5	Williams	1999 XK ₁₃₀
1999 XM ₁₃₀	15.6	0.15	19991208	275.63560	135.31519	36.69151	6.24687	0.0832466	2.1991815	21	1	49 days	0.49		Williams	1999 XM ₁₃₀
1999 XV ₁₃₁	14.5	0.15	20000226	187.48546	283.99625	8.27399	6.71904	0.1187502	2.2503613	31	2	1998-2000	0.61	M-v 4	Williams	37948 1999 XV ₁₃₁
1999 XG ₁₃₂	11.5	0.15	19991228	318.23817	212.50175	290.03913	19.85411	0.1203011	5.1926690	32	1	49 days	0.53		Williams	1999 XG ₁₃₂
1999 XH ₁₃₂	14.1	0.15	20000226	70.25832	313.12296	65.45177	13.58431	0.1677251	2.5874881	30	2	1978-2000	0.37	M-v 4	Williams	37948 1999 XH ₁₃₂
1999 XS ₁₃₂	14.9	0.15	19991228	338.10190	142.34764	335.63551	6.92419	0.0689258	2.3696184	34	1	49 days	0.39		Williams	1999 XS ₁₃₂
1999 XV ₁₃₂	12.9	0.15	20000226	62.79756	76.53380	319.57041	9.68665	0.0552981	3.0377581	34	1	61 days	0.45	M-v 5	Williams	1999 XV ₁₃₂
1999 XE ₁₃₃	14.3	0.15	20000226	78.91271	340.57003	34.30891	8.99928	0.1684076	2.3161795	47	3	1981-2000	0.44	M-v 3	Williams	37949 1999 XE ₁₃₃
1999 XG ₁₃₃	13.3	0.15	19991228	37.19410	340.91734	64.91954	15.66587	0.1768774	2.5639950	28	1	46 days	0.51		Williams	1999 XG ₁₃₃
1999 XH ₁₃₃	10.6	0.15	20000226	292.29333	169.08402	10.40620	10.70183	0.0705702	5.2040853	42	4	1991-2000	0.73	M-v 2	Williams	37949 1999 XH ₁₃₃
1999 XJ ₁₃₃	12.6	0.15	19991228	331.77621	79.56274	53.42960	13.93381	0.1235811	2.5981602	30	1	46 days	0.68		Williams	1999 XJ ₁₃₃
1999 XL ₁₃₃	12.9	0.15	20000226	24.42364	91.13455	351.81719	9.94218	0.0579931	3.0085601	49	3	1980-2000	0.52	M-v 3	Williams	37949 1999 XL ₁₃₃
1999 XO ₁₃₃	13.6	0.15	20000226	342.65444	171.11468	320.33942	12.97303	0.0775669	2.9391409	26	1	89 days	0.41	M-v 4	Williams	38158 1999 XO ₁₃₃
1999 XW ₁₃₃	13.5	0.15	20000226	342.59210	116.39921	16.87246	10.68717	0.0670684	3.0532545	56	2	1998-2000	0.67	M-v 4	Williams	37949 1999 XW ₁₃₃
1999 XY ₁₃₃	13.0	0.15	20000226	140.15347	344.54875	342.44777	8.76171	0.1136582	3.1878665	35	1	61 days	0.49	M-v 5	Williams	1999 XY ₁₃₃
1999 XZ ₁₃₃	14.5	0.15	19991228	72.49862	337.07712	49.10166	14.03306	0.0743036	2.6528717	21	1	48 days	0.59		Spahr	1999 XZ ₁₃₃
1999 XA ₁₃₄	15.5	0.15	20000226	26.63489	123.15373	328.42273	7.93577	0.1279525	2.3271278	46	1	61 days	0.52	M-v 4	Williams	1999 XA ₁₃₄
1999 XB ₁₃₄	14.0	0.15	20000226	0.12020	180.02302	305.77181	16.43890	0.2159493	2.7636306	67	2	1998-2000	0.55	M-v 3	Williams	37949 1999 XB ₁₃₄
1999 XD ₁₃₄	15.1	0.15	19991228	255.57215	183.11109	36.59002	7.88682	0.0738523	2.2946332	24	1	48 days	0.71		Williams	1999 XD ₁₃₄
1999 XE ₁₃₄	15.5	0.15	19991228	21.32217	46.30211	20.45241	5.98497	0.2846432	2.4318754	39	1	57 days	0.91		Williams	1999 XE ₁₃₄
1999 XG ₁₃₄	13.8	0.15	20000226	56.09427	110.78231	299.18144	23.69062	0.1633595	2.3699483	50	1	103 days	0.45	M-v 4	Williams	38158 1999 XG ₁₃₄
1999 XH ₁₃₄	15.1	0.15	19991228	80.30304	355.83170	357.82937	9.09035	0.2807869	2.3175224	21	1	48 days	0.65		Williams	1999 XH ₁₃₄
1999 XL ₁₃₄	15.0	0.15	20000226	351.91879	169.80432	326.12286	11.36248	0.1298903	2.6527373	38	2	1996-2000	0.54	M-v 4	Williams	37950 1999 XL ₁₃₄
1999 XM ₁₃₄	14.3	0.15	20000226	5.50692	70.58643	50.30380	13.72819	0.1437714	2.5974724	31	1	78 days	0.51	M-v 3	Williams	1999 XM ₁₃₄
1999 XQ ₁₃₄	14.6	0.15	20000226	350.24920	28.13324	84.50569	26.01713	0.2323228	2.4011650	43	1	88 days	0.49	M-v 4	Williams	38158 1999 XQ ₁₃₄
1999 XU ₁₃₄	15.1	0.15	20000226	97.40020	262.24022	92.54288	23.97025	0.1067872	1.9657618	35	1	68 days	0.49	M-v 4	Williams	1999 XU ₁₃₄
1999 XX ₁₃₄	14.7	0.15	19991208	335.28974	229.48333	295.49722	30.41734	0.2815732	2.6214204	27	1	56 days	0.59		Williams	1999 XX ₁₃₄
1999 XA ₁₃₅	14.8	0.15	19991228	288.40169	87.09505	90.36258	24.45553	0.2002437	2.3714833	28	1	55 days	0.50		Williams	1999 XA ₁₃₅
1999 XC ₁₃₅	13.7	0.15	20000226	101.88545	197.44089	127.98088	8.83867	0.3000206	2.2417512	53	3	1982-2000	0.56	M-v 2	Spahr	37950 1999 XC ₁₃₅
1999 XE ₁₃₅	14.9	0.15	20000226	98.07394	200.08773	139.41316	6.67168	0.2365141	2.2129808	46	2	1998-2000	0.67	M-v 4	Spahr	37950 1999 XE ₁₃₅
1999 XG ₁₃₅	16.3	0.15	20000226	358.31302	36.33060	87.04634	11.37784	0.4989266	2.9703300	47	1	98 days	0.57	M-v 4	Williams	38158 1999 XG ₁₃₅
1999 XJ ₁₃₅	13.9	0.15	20000226	309.14828	278.70563	264.43107	26.13435	0.1633773	2.5688836	26	1	62 days	0.49	M-v 5	Williams	1999 XJ ₁₃₅
1999 XO ₁₃₅	16.2	0.15	20000226	352.15482	253.83764	254.34525	20.18841	0.5053402	3.1456155	33	1	58 days	0.45	M-v 4	Spahr	38158 1999 XO ₁₃₅
1999 XP ₁₃₅	15.4	0.15	20000226	86.69585	222.00615	135.38589	2.82002	0.2157480	2.1649444	29	2	1998-2000	0.48	M-v 4	Williams	37950 1999 XP ₁₃₅
1999 XV ₁₃₅	13.7	0.15	20000226	85.59609	262.81464	97.80727	25.56292	0.1784898	2.7521888	39	1	114 days	0.42	M-v 4	Williams	1999 XV ₁₃₅
1999 XX ₁₃₅	14.4	0.15	20000226	32.83625	156.84884	270.00370	17.88001	0.0786887	1.9485684	59	2	1993-2000	0.42	M-v 2	Spahr	37950 1999 XX ₁₃₅
1999 XB ₁₃₆	15.9	0.15	19991228	57.11254	75.36539	306.43223	17.88314	0.1671224	1.9377919	30	1	56 days	0.70		Williams	1999 XB ₁₃₆
1999 XM ₁₃₆	15.5	0.15	20000226	45.07924	86.64184	317.90720	26.47022	0.4217253	2.6265313	45	1	61 days	0.46	M-v 4	Williams	38158 1999 XM ₁₃₆
1999 XO ₁₃₆	14.2	0.15	20000226	327.31486	92.67574	98.47965	7.43847	0.1412405	2.2571605	46	1	83 days	0.47	M-v 4	Williams	1999 XO ₁₃₆
1999 XR ₁₃₆	13.2	0.15	20000226	69.64338	85.16824	316.77592	11.74946	0.2711165	2.6170558	68	1	95 days	0.43	M-v 4	Williams	1999 XR ₁₃₆
1999 XS ₁₃₆	12.4	0.15	20000226	357.50532	215.36171	299.73002	15.90856	0.1311484	2.5686298	49	1	100 days	0.52	M-v 4	Williams	38158 1999 XS ₁₃₆
1999 XT ₁₃₆	13.9	0.15	20000226	44.92182	294.51870	93.09110	10.59140	0.1863393	2.7234771	73	2	1990-2000	0.54	M-v 3	Williams	37951 1999 XT ₁₃₆
1999 XU ₁₃₆	14.8	0.15	20000226	32.78940	286.85067	124.14808	5.86751	0.2019272	2.3887435	52	1	90 days	0.49	M-v 3	Spahr	38158 1999 XU ₁₃₆
1999 XW ₁₃₆	14.0	0.15	20000226	104.27904	230.82226	89.92430	9.14228	0.2506171	2.3265487	59	2	1998-2000	0.64	M-v 4	Spahr	37951 1999 XW ₁₃₆
1999 XX ₁₃₆	14.0	0.15	20000226	86.02773	241.49976	114.24410	9.84581	0.1258734	2.3197310	63	2	1998-2000	0.52	M-v 3	Spahr	37951 1999 XX ₁₃₆

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1999 XC ₁₃₇	15.4	0.15	20000226	21.76286	137.41435	277.77514	8.99608	0.3200667	2.5422495	28	1	92 days	0.39	M-v	4	Williams	38159	1999 XC ₁₃₇
1999 XD ₁₃₇	14.4	0.15	20000226	33.90650	315.70105	91.87793	25.06320	0.1952663	2.3005173	29	1	87 days	0.47	M-v	4	Williams	38159	1999 XD ₁₃₇
1999 XH ₁₃₇	14.8	0.15	19991228	281.56801	93.43491	92.43575	17.89009	0.0281149	2.8355013	24	1	50 days	0.49			Williams		1999 XH ₁₃₇
1999 XK ₁₃₇	14.8	0.15	19991208	312.36091	76.57798	80.80706	7.61996	0.1004643	3.1973092	19	1	24 days	0.38			Spahr		1999 XK ₁₃₇
1999 XL ₁₃₇	12.1	0.15	20000226	256.36923	288.15859	298.44571	8.83079	0.0605880	2.6952145	83	3	1980–2000	0.43	M-v	2	Williams	37952	1999 XL ₁₃₇
1999 XO ₁₃₇	14.9	0.15	20000226	95.12430	181.86484	149.22032	8.62806	0.1956846	2.2857354	29	1	67 days	0.66	M-v	5	Williams	38159	1999 XO ₁₃₇
1999 XQ ₁₃₇	14.4	0.15	20000226	42.43950	142.74582	283.64558	12.76435	0.1954920	2.6965200	51	1	83 days	0.50	M-v	4	Williams		1999 XQ ₁₃₇
1999 XS ₁₃₇	14.3	0.15	19991118	193.18645	324.43682	256.35815	8.83930	0.0331510	3.5027667	29	1	43 days	0.59			Williams		1999 XS ₁₃₇
1999 XV ₁₃₇	13.0	0.15	20000226	231.58293	161.49434	50.30225	17.95583	0.1432659	2.7599221	64	1	89 days	0.55	M-v	4	Williams		1999 XV ₁₃₇
1999 XB ₁₃₈	18.7	0.15	19991118	325.29908	46.14295	60.54680	2.54337	0.1899836	2.3134129	17	1	28 days	0.52			Williams		1999 XB ₁₃₈
1999 XL ₁₃₈	16.2	0.15	19991118	297.17028	268.18568	232.33178	16.83058	0.2591541	3.1189540	19	1	34 days	0.44			Williams		1999 XL ₁₃₈
1999 XO ₁₃₈	16.2	0.15	19991118	236.19918	80.91088	115.18891	1.51719	0.1575266	2.3574247	19	1	28 days	0.44			Williams		1999 XO ₁₃₈
1999 XU ₁₃₈	16.8	0.15	19991228	330.72185	45.70896	93.73495	7.59118	0.0531772	2.3747532	15	1	57 days	0.24			Spahr		1999 XU ₁₃₈
1999 XZ ₁₃₈	15.7	0.15	20000226	90.62402	315.08338	72.75750	2.49737	0.0679055	2.1300249	30	1	87 days	0.39	M-v	4	Williams		1999 XZ ₁₃₈
1999 XB ₁₃₉	14.3	0.15	20000226	44.34900	331.58455	94.05895	8.72829	0.1707543	2.7674930	41	1	87 days	0.38	M-v	4	Williams		1999 XB ₁₃₉
1999 XC ₁₃₉	15.9	0.15	19991208	22.72330	336.26040	98.91995	14.51483	0.0933080	3.1917621	15	1	29 days	0.47			Williams		1999 XC ₁₃₉
1999 XF ₁₃₉	15.6	0.15	20000226	63.64811	331.68829	77.89799	4.08777	0.1339733	2.1985693	37	1	67 days	0.45	M-v	5	Williams		1999 XF ₁₃₉
1999 XG ₁₃₉	15.7	0.15	20000226	36.99162	351.71377	82.70861	4.93837	0.1975059	2.5792465	29	1	67 days	0.42	M-v	4	Williams		1999 XG ₁₃₉
1999 XH ₁₃₉	15.1	0.15	20000226	68.90631	291.77914	26.26179	8.40463	0.1740250	2.9493116	29	2	1994–1999	0.44	M-v	5	Williams	37952	1999 XH ₁₃₉
1999 XU ₁₃₉	16.7	0.15	19991228	343.47567	21.07528	107.66831	5.51167	0.1691805	2.6210744	22	1	59 days	0.36			Williams		1999 XU ₁₃₉
1999 XV ₁₃₉	14.0	0.15	20000226	94.24729	268.96622	108.55409	10.80393	0.0550686	3.0253205	31	1	60 days	0.42	M-v	5	Williams		1999 XV ₁₃₉
1999 XB ₁₄₀	16.2	0.15	20000226	62.77818	282.52921	112.13501	2.80907	0.2395221	2.3513044	28	1	67 days	0.57	M-v	5	Williams		1999 XB ₁₄₀
1999 XS ₁₄₀	13.9	0.15	20000226	301.25468	79.15104	113.29439	3.85359	0.1312190	3.1555030	38	1	71 days	0.65	M-v	5	Williams		1999 XS ₁₄₀
1999 XZ ₁₄₀	14.5	0.15	20000226	63.27350	122.16816	282.40761	8.19366	0.1249357	3.0747735	38	2	1998–2000	0.71	M-v	3	Spahr	37953	1999 XZ ₁₄₀
1999 XH ₁₄₁	15.6	0.15	20000226	49.86159	160.42542	269.28806	2.37734	0.0776590	2.2205470	37	1	61 days	0.58	M-v	5	Williams		1999 XH ₁₄₁
1999 XO ₁₄₁	17.7	0.15	20000226	183.40385	192.25108	111.36118	2.93927	0.1748523	1.6705443	28	1	57 days	0.57	M-v	5	Williams		1999 XO ₁₄₁
1999 XP ₁₄₁	14.5	0.15	20000226	40.54249	141.44852	298.92398	24.74843	0.2437463	2.2451271	33	1	93 days	0.28	M-v	3	Williams		1999 XP ₁₄₁
1999 XS ₁₄₁	15.7	0.15	20000226	343.29954	59.03473	92.98764	22.39750	0.0469530	1.9112802	34	1	72 days	0.51	M-v	4	Williams		1999 XS ₁₄₁
1999 XT ₁₄₁	15.9	0.15	19991228	296.61268	87.40004	95.17816	23.41832	0.0823760	1.9443615	31	1	54 days	0.39			Williams		1999 XT ₁₄₁
1999 XU ₁₄₁	15.0	0.15	19991208	320.94670	83.63219	98.89758	28.65599	0.3536769	2.6347206	33	1	55 days	0.56			Williams		1999 XU ₁₄₁
1999 XW ₁₄₁	15.1	0.15	20000226	40.38979	155.61414	297.26637	38.30181	0.1439735	1.8405110	31	2	1990–2000	0.49	M-v	3	Spahr	37953	1999 XW ₁₄₁
1999 XY ₁₄₁	14.8	0.15	20000226	332.67367	234.73025	270.88679	21.91845	0.2860191	2.4068819	32	1	95 days	0.45	M-v	4	Spahr	38159	1999 XY ₁₄₁
1999 XC ₁₄₂	16.0	0.15	19991208	75.00172	283.05030	67.49793	24.03171	0.0952611	1.9817386	26	1	47 days	0.49			Williams		1999 XC ₁₄₂
1999 XG ₁₄₂	13.6	0.15	20000226	37.85116	341.57177	77.76696	31.41824	0.1564540	2.6653377	31	1	79 days	0.49	M-v	4	Williams		1999 XG ₁₄₂
1999 XM ₁₄₂	15.7	0.15	19991228	276.59349	113.12571	75.02493	23.34451	0.0608138	1.9055401	40	1	44 days	0.54			Williams		1999 XM ₁₄₂
1999 XP ₁₄₂	14.1	0.15	19991228	176.41960	346.88703	280.33015	24.51219	0.2113936	2.3694864	18	1	49 days	0.48			Williams		1999 XP ₁₄₂
1999 XR ₁₄₂	15.1	0.15	20000226	96.83388	294.37875	86.20744	24.65909	0.1080030	1.9468725	59	2	1998–2000	0.56	M-v	3	Williams	37953	1999 XR ₁₄₂
1999 XT ₁₄₂	13.4	0.15	20000226	321.34307	217.84414	286.62423	30.04531	0.0439927	2.8002368	35	1	60 days	0.45	M-v	4	Williams		1999 XT ₁₄₂
1999 XV ₁₄₂	15.2	0.15	20000226	326.31601	234.27374	288.20456	23.34560	0.1984429	2.3126579	36	1	60 days	0.58	M-v	4	Williams		1999 XV ₁₄₂
1999 XA ₁₄₃	16.4	0.15	20000226	345.68706	103.91861	116.84198	38.52308	0.5821304	1.8436718	107	1	62 days	0.46	M-v	5	Williams	38160	1999 XA ₁₄₃
1999 XC ₁₄₃	14.0	0.15	20000226	5.09987	337.62743	85.61138	4.85787	0.1747791	2.4831220	46	1	149 days	0.58	M-v	4	Williams	38160	1999 XC ₁₄₃
1999 XF ₁₄₃	13.4	0.15	20000226	84.35387	210.87661	133.84799	10.85078	0.1873566	2.6541422	55	3	1990–2000	0.62	M-v	2	Spahr	37953	1999 XF ₁₄₃
1999 XG ₁₄₃	14.2	0.15	20000226	41.41848	218.61671	181.78963	6.55051	0.1992282	2.5509603	43	2	1997–2000	0.56	M-v	4	Williams	37954	1999 XG ₁₄₃
1999 XJ ₁₄₃	13.6	0.15	20000226	92.79283	135.21750	200.24633	13.55687	0.2090128	2.6648613	67	3	1971–2000	0.60	M-v	2	Williams	37954	1999 XJ ₁₄₃
1999 XK ₁₄₃	12.5	0.15	20000226	123.22043	212.81599	103.79111	17.90633	0.0859279	2.8958034	44	1	91 days	0.49	M-v	4	Spahr	38160	1999 XK ₁₄₃
1999 XL ₁₄₃	13.6	0.15	20000226	353.49448	291.95751	172.44846	9.10446	0.1245731	2.7679073	65	3	1996–2000	0.63	M-v	3	Williams	37954	1999 XL ₁₄₃
1999 XO ₁₄₃	15.0	0.15	19991228	358.18834	258.81590	231.96959	8.68455	0.1887077	2.2377931	20	1	58 days	0.65			Williams		1999 XO ₁₄₃
1999 XP ₁₄₃	17.4	0.15	19991118	60.98067	282.12059	64.38501	26.24996	0.1440896	1.8489069	30	1	59 days	0.64			Williams		1999 XP ₁₄₃
1999 XQ ₁₄₃	15.1	0.15	20000226	274.37767	287.68782	269.96308	19.05522	0.0507835	1.9239771	35	1	94 days	0.49	M-v	4	Spahr	38160	1999 XQ ₁₄₃
1999 XS ₁₄₃	9.8	0.15	20000226	63.14870	92.88942	306.91660	22.02581	0.0648497	5.1985872	53	1	70 days	0.46	M-v	5	Williams		1999 XS ₁₄₃
1999 XW ₁₄₃	15.6	0.15	19991228	76.80463	76.21564	281.00196	4.36830	0.2220783	2.3986473	35	1	55 days	0.53			Spahr		1999 XW ₁₄₃
1999 XX ₁₄₃	8.5	0.15	20000226	117.96463	220.67076	103.40566	6.56710	0.4474138	18.4395864	10	1	48 days	0.47	M-v	8	Williams		1999 XX ₁₄₃
1999 XY ₁₄₃	6.2	0.15	19991228	0.04569	181.93052	255.36445	6.94148	0.0366313	44.8762409	8	1	47 days	0.21		E	Williams		1999 XY ₁₄₃

1999 XA ₁₄₄	14.7	0.15	20000226	279.44431	140.46116	39.25568	7.48756	0.0608220	2.3399947	39	1	116 days	0.64	M-v	4	Williams		1999 XA ₁₄₄
1999 XE ₁₄₄	13.7	0.15	20000226	62.62089	240.22188	139.51740	3.38505	0.1364727	2.6275356	46	1	91 days	0.48	M-v	4	Spahr	38160	1999 XE ₁₄₄
1999 XF ₁₄₄	12.9	0.15	20000226	338.64730	82.94000	65.75550	13.30696	0.1387345	2.5706758	36	3	1976-2000	0.50	M-v	3	Williams	37955	1999 XF ₁₄₄
1999 XG ₁₄₄	13.5	0.15	19991228	76.78049	304.10895	76.66813	22.80536	0.0742776	2.6340669	35	1	55 days	0.64			Williams		1999 XG ₁₄₄
1999 XH ₁₄₄	13.6	0.15	20000226	56.07721	342.07111	62.15315	14.98734	0.1916095	2.7042883	47	2	1997-2000	0.52	M-v	4	Williams	37955	1999 XH ₁₄₄
1999 XJ ₁₄₄	13.2	0.15	19991228	50.75668	329.32243	66.32051	13.51496	0.1840549	2.7174373	24	1	46 days	0.51			Williams		1999 XJ ₁₄₄
1999 XK ₁₄₄	12.7	0.15	20000226	99.12038	40.40647	321.04508	10.11780	0.1138719	2.9970385	52	4	1977-2000	0.54	M-v	3	Williams	37955	1999 XK ₁₄₄
1999 XL ₁₄₄	14.7	0.15	20000226	43.85934	67.57242	2.40933	7.89635	0.1188296	2.3701241	38	1	133 days	0.60	M-v	4	Williams	38160	1999 XL ₁₄₄
1999 XM ₁₄₄	13.4	0.15	20000226	327.71304	99.63714	72.88007	16.01669	0.2121338	2.7987485	31	1	72 days	0.36	M-v	4	Williams		1999 XM ₁₄₄
1999 XN ₁₄₄	14.6	0.15	20000226	304.80658	122.62166	49.92575	5.68428	0.1882923	2.5490725	39	1	100 days	0.58	M-v	5	Williams	38160	1999 XN ₁₄₄
1999 XP ₁₄₄	13.5	0.15	20000226	253.41172	255.50404	311.77359	3.90901	0.1161714	3.1697120	36	2	1998-2000	0.77	M-v	4	Williams	37955	1999 XP ₁₄₄
1999 XQ ₁₄₄	14.0	0.15	20000226	161.73587	13.46965	277.63822	13.51142	0.0568499	2.4302984	58	2	1998-2000	0.52	M-v	3	Williams	37955	1999 XQ ₁₄₄
1999 XR ₁₄₄	14.8	0.15	20000226	33.69970	116.04066	306.85162	4.08755	0.1144656	2.2652272	45	1	87 days	0.46	M-v	3	Williams		1999 XR ₁₄₄
1999 XT ₁₄₄	13.4	0.15	19991228	28.69211	329.33143	104.74934	18.17811	0.0686959	3.1798430	26	1	54 days	0.62			Williams		1999 XT ₁₄₄
1999 XV ₁₄₄	15.3	0.15	19991118	325.55263	29.11389	60.09980	10.23808	0.0681867	3.1727517	29	1	42 days	0.70			Williams		1999 XV ₁₄₄
1999 XA ₁₄₅	15.4	0.15	20000226	171.86334	18.84184	230.75066	3.48993	0.2159520	2.6055442	23	1	68 days	0.45	M-v	6	Williams	38160	1999 XA ₁₄₅
1999 XL ₁₄₅	15.9	0.15	19991029	118.76660	197.70451	79.99307	2.26368	0.1172450	2.5181287	22	1	58 days	0.32			Williams		1999 XL ₁₄₅
1999 XC ₁₄₇	16.2	0.15	19991118	102.55020	57.04255	240.45734	1.87844	0.1675943	2.3821756	19	1	34 days	0.49			Williams		1999 XC ₁₄₇
1999 XO ₁₄₇	15.1	0.15	20000226	102.04029	262.09757	67.58647	2.94918	0.0570837	2.8905014	26	2	1997-1999	0.41	M-v	4	Williams	37955	1999 XO ₁₄₇
1999 XH ₁₄₈	16.0	0.15	19991118	302.86797	56.50036	67.38595	11.03031	0.0697705	3.0028491	14	1	31 days	0.52			Williams		1999 XH ₁₄₈
1999 XZ ₁₄₈	16.6	0.15	19991118	246.86384	291.15613	248.01199	2.94532	0.0823092	2.3305137	19	1	34 days	0.43			Williams		1999 XZ ₁₄₈
1999 XA ₁₄₉	16.0	0.15	19991118	85.60089	268.12263	56.43236	2.83172	0.0639774	2.8670488	19	1	34 days	0.32			Williams		1999 XA ₁₄₉
1999 XJ ₁₅₁	15.7	0.15	20000226	10.35652	81.01156	26.69180	7.77573	0.3390050	2.7457650	33	2	1994-2000	0.48	M-v	3	Williams	37956	1999 XJ ₁₅₁
1999 XM ₁₅₁	15.3	0.15	19991228	251.02954	300.84781	289.88570	8.54955	0.1428306	2.6146549	21	1	58 days	0.43			Spahr		1999 XM ₁₅₁
1999 XO ₁₅₁	16.9	0.15	19991228	316.08303	219.30195	306.15385	2.95546	0.1574438	2.6281898	18	1	55 days	0.57			Spahr		1999 XO ₁₅₁
1999 XT ₁₅₁	14.6	0.15	20000226	20.06134	159.38740	301.26823	7.81141	0.0563713	3.1073958	24	2	1998-2000	0.46	M-v	4	Williams	37956	1999 XT ₁₅₁
1999 XV ₁₅₁	16.0	0.15	19991208	222.14871	308.71958	300.01578	6.91872	0.0861632	2.3493381	16	1	35 days	0.52			Williams		1999 XV ₁₅₁
1999 XW ₁₅₁	16.1	0.15	19991228	312.08101	237.35756	294.24883	3.75243	0.1926255	2.3081841	22	1	54 days	0.31			Williams		1999 XW ₁₅₁
1999 XX ₁₅₁	14.3	0.15	20000226	333.81964	201.95980	318.67824	1.59343	0.1492283	2.3730492	80	2	1998-2000	0.66	M-v	4	Williams	37956	1999 XX ₁₅₁
1999 XK ₁₅₂	14.3	0.15	20000226	2.40834	329.49073	100.29130	4.76620	0.1987542	2.3590877	54	2	1981-2000	0.51	M-v	3	Williams	37956	1999 XK ₁₅₂
1999 XQ ₁₅₂	14.0	0.15	20000226	322.64977	327.54005	149.20857	6.07970	0.0560681	2.6523805	35	1	79 days	0.59	M-v	5	Williams	38161	1999 XQ ₁₅₂
1999 XN ₁₅₃	13.8	0.15	20000226	54.39609	151.50424	258.43242	8.19229	0.1750024	2.7495466	52	2	1998-2000	0.51	M-v	3	Williams	37957	1999 XN ₁₅₃
1999 XO ₁₅₃	14.5	0.15	19991228	316.99106	258.56536	268.73083	12.82885	0.1743747	2.5480243	22	1	59 days	0.34			Spahr		1999 XO ₁₅₃
1999 XP ₁₅₃	16.5	0.15	19991228	4.89409	225.36956	243.53794	5.59165	0.1929867	2.3203677	19	1	59 days	0.64			Spahr		1999 XP ₁₅₃
1999 XS ₁₅₃	13.4	0.15	20000226	69.21902	271.85157	122.61751	13.41717	0.1774121	3.0984497	36	1	106 days	0.54	M-v	4	Williams		1999 XS ₁₅₃
1999 XT ₁₅₃	14.3	0.15	20000226	65.34010	128.93229	279.61984	10.96388	0.1938574	2.6885868	55	2	1998-2000	0.62	M-v	3	Williams	37957	1999 XT ₁₅₃
1999 XX ₁₅₃	16.1	0.15	19991118	333.41746	300.42331	157.84397	7.23150	0.1668412	2.5400626	16	1	39 days	0.68			Williams		1999 XX ₁₅₃
1999 XA ₁₅₄	12.6	0.15	20000226	137.10903	197.18990	113.97156	11.36376	0.0649109	2.9967762	37	1	90 days	0.50	M-v	4	Spahr	38161	1999 XA ₁₅₄
1999 XC ₁₅₄	15.3	0.15	19991228	320.53524	33.66898	108.96347	5.81313	0.1661150	2.3814915	19	1	57 days	0.69			Williams		1999 XC ₁₅₄
1999 XJ ₁₅₄	14.1	0.15	20000226	43.39332	165.05031	235.79061	9.22912	0.0966621	2.9774636	32	2	1998-2000	0.50	M-v	3	Williams	37957	1999 XJ ₁₅₄
1999 XD ₁₅₅	14.5	0.15	20000226	42.14017	153.60061	240.74580	9.55534	0.2272580	3.1350281	23	1	64 days	0.59	M-v	5	Williams	38161	1999 XD ₁₅₅
1999 XF ₁₅₅	16.5	0.15	20000226	36.30693	266.36716	149.74246	2.39473	0.1943904	2.3433400	28	2	1995-2000	0.42	M-v	4	Williams	37957	1999 XF ₁₅₅
1999 XH ₁₅₅	14.2	0.15	19991208	335.65351	261.60585	209.92235	3.61150	0.1481547	3.1621013	24	1	52 days	0.36			Williams	37958	1999 XH ₁₅₅
1999 XL ₁₅₅	14.7	0.15	20000226	115.80295	84.10325	232.92920	8.63593	0.2498978	3.2554951	52	2	1998-2000	0.63	M-v	4	Williams	37958	1999 XL ₁₅₅
1999 XP ₁₅₅	14.1	0.15	20000226	23.66464	187.95826	243.98124	14.35607	0.0715148	2.6817221	28	1	65 days	0.47	M-v	4	Williams	38161	1999 XP ₁₅₅
1999 XT ₁₅₅	15.2	0.15	20000226	37.24903	162.79282	239.18670	7.26147	0.3215188	2.5576361	47	1	121 days	0.51	M-v	4	Williams	38161	1999 XT ₁₅₅
1999 XB ₁₅₆	14.5	0.15	20000226	304.82909	282.64548	246.18765	11.95136	0.1372183	2.6463092	25	1	64 days	0.56	M-v	5	Williams	38161	1999 XB ₁₅₆
1999 XD ₁₅₆	14.8	0.15	20000226	216.85515	147.14387	101.85376	6.98889	0.1082571	2.2104926	30	1	63 days	0.49	M-v	5	Williams	38161	1999 XD ₁₅₆
1999 XJ ₁₅₆	10.8	0.15	20000226	64.67746	154.29846	225.06609	6.61362	0.0548959	5.1855536	43	3	1997-2000	0.46	M-v	2	Williams	37958	1999 XJ ₁₅₆
1999 XR ₁₅₆	15.2	0.15	20000226	344.43475	260.03452	224.32306	4.68761	0.0655090	2.2968128	30	3	1978-2000	0.60	M-v	2	Williams	37958	1999 XR ₁₅₆
1999 XK ₁₅₇	14.1	0.15	20000226	167.39705	191.27833	106.80066	8.56901	0.0281808	2.2523711	45	3	1991-2000	0.54	M-v	3	Williams	37959	1999 XK ₁₅₇
1999 XM ₁₅₇	15.1	0.15	20000226	75.70440	160.75955	213.70730	3.90992	0.1573859	2.3135857	34	2	1997-2000	0.58	M-v	4	Williams	37959	1999 XM ₁₅₇
1999 XT ₁₅₇	13.4	0.15	20000226	82.75901	124.28639	247.79020	10.11479	0.0644232	3.0580731	40	2	1998-2000	0.62	M-v	3	Williams	37960	1999 XT ₁₅₇

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1999 XW ₁₅₇	14.3	0.15	20000226	49.08746	307.28756	97.68697	14.29191	0.1470204	2.5723284	41	1	114 days	0.35	M-v	3	Williams	38162	1999 XW ₁₅₇
1999 XY ₁₅₇	14.1	0.15	20000226	58.66762	148.25938	239.87986	8.48645	0.1782992	2.8574566	26	1	64 days	0.46	M-v	5	Williams	38162	1999 XY ₁₅₇
1999 XC ₁₅₈	12.7	0.15	19991228	134.96788	205.63732	104.92003	11.40736	0.0863611	2.9996241	21	1	57 days	0.28			Spahr		1999 XC ₁₅₈
1999 XD ₁₅₈	13.5	0.15	19991228	58.75668	245.92954	128.05251	4.10305	0.1858063	2.7489810	22	1	56 days	0.45			Spahr		1999 XD ₁₅₈
1999 XF ₁₅₈	14.6	0.15	20000226	343.89534	249.61225	243.26636	5.38632	0.0781475	2.2488684	44	3	1997-2000	0.62	M-v	3	Williams	37960	1999 XF ₁₅₈
1999 XH ₁₅₈	14.2	0.15	20000226	118.10246	127.84881	196.72446	3.67870	0.0996844	2.7438217	33	3	1992-2000	0.68	M-v	4	Williams	37960	1999 XH ₁₅₈
1999 XA ₁₅₉	14.4	0.15	20000226	312.25240	41.92142	114.54124	6.18106	0.0323338	2.6978859	41	3	1993-2000	0.73	M-v	4	Williams	37960	1999 XA ₁₅₉
1999 XG ₁₅₉	14.8	0.15	19991228	64.24254	237.51415	139.55341	7.69965	0.1517531	2.2859376	19	1	57 days	0.45			Williams		1999 XG ₁₅₉
1999 XJ ₁₅₉	14.3	0.15	20000226	69.24257	276.95356	114.18141	7.24157	0.1067095	2.2863267	32	1	91 days	0.41	M-v	4	Spahr	38162	1999 XJ ₁₅₉
1999 XQ ₁₅₉	14.4	0.15	20000226	103.06990	244.04075	108.68627	7.29774	0.1348062	2.3330729	33	2	1998-2000	0.58	M-v	4	Spahr	37961	1999 XQ ₁₅₉
1999 XR ₁₅₉	13.6	0.15	20000226	70.53832	266.57716	118.70180	5.70692	0.1225325	2.7312752	49	3	1997-2000	0.50	M-v	3	Spahr	37961	1999 XR ₁₅₉
1999 XV ₁₅₉	14.6	0.15	20000226	23.73866	337.23676	104.49126	12.51031	0.1592649	2.6114137	35	1	65 days	0.30	M-v	4	Williams		1999 XV ₁₅₉
1999 XA ₁₆₀	11.1	0.15	20000226	4.06974	3.72330	100.93219	20.99405	0.1096302	3.1454954	34	1	75 days	0.42	M-v	4	Williams		1999 XA ₁₆₀
1999 XB ₁₆₀	14.2	0.15	20000226	353.18880	286.53300	198.80843	3.53829	0.1934938	2.8498506	39	2	1998-2000	0.51	M-v	4	Spahr	37961	1999 XB ₁₆₀
1999 XC ₁₆₀	13.4	0.15	19991228	272.50022	301.19080	257.49440	13.28563	0.1154123	2.6139455	28	1	58 days	0.35			Spahr		1999 XC ₁₆₀
1999 XD ₁₆₀	15.0	0.15	19991228	19.21275	299.32562	136.07846	3.95378	0.0684882	2.2691782	16	1	57 days	0.60			Williams		1999 XD ₁₆₀
1999 XE ₁₆₀	15.3	0.15	20000226	91.53575	239.60571	124.69495	5.43629	0.1660592	2.2414203	27	2	1997-2000	0.47	M-v	4	Spahr	37961	1999 XE ₁₆₀
1999 XH ₁₆₀	14.5	0.15	19991228	353.18275	221.06840	245.43927	6.17204	0.0935785	2.4428144	31	1	57 days	0.55			Spahr		1999 XH ₁₆₀
1999 XJ ₁₆₀	15.1	0.15	19991228	351.58533	252.21913	216.28119	3.27250	0.1017794	2.2801655	23	1	57 days	0.46			Spahr		1999 XJ ₁₆₀
1999 XK ₁₆₀	14.8	0.15	19991228	252.40546	335.36851	237.34281	5.42289	0.0572922	2.3114001	17	1	57 days	0.41			Williams		1999 XK ₁₆₀
1999 XL ₁₆₀	14.4	0.15	20000226	246.82090	107.68813	126.42923	6.25959	0.0679540	2.3996435	51	2	1998-2000	0.54	M-v	4	Spahr	37962	1999 XL ₁₆₀
1999 XP ₁₆₀	14.9	0.15	19991228	31.24933	282.00143	129.81668	4.87673	0.2264126	2.5661045	25	1	57 days	0.31			Spahr		1999 XP ₁₆₀
1999 XR ₁₆₀	13.6	0.15	20000226	62.38762	143.53248	260.80207	8.70926	0.0774641	3.0746464	36	3	1997-2000	0.56	M-v	3	Spahr	37962	1999 XR ₁₆₀
1999 XV ₁₆₀	14.2	0.15	20000226	15.72296	193.88036	265.27461	9.35022	0.1947859	3.0949286	33	1	60 days	0.58	M-v	4	Williams		1999 XV ₁₆₀
1999 XY ₁₆₀	15.0	0.15	20000226	279.29908	91.98383	127.69875	5.97239	0.1777862	2.3203322	35	2	1998-2000	0.75	M-v	4	Spahr	37962	1999 XY ₁₆₀
1999 XZ ₁₆₀	14.1	0.15	19991228	189.03696	164.30207	105.13231	13.03046	0.1858715	2.3395849	18	1	54 days	0.39			Spahr		1999 XZ ₁₆₀
1999 XB ₁₆₁	14.4	0.15	20000226	32.96409	7.10492	38.63073	9.57573	0.2389131	2.7682181	31	1	115 days	0.57	M-v	4	Williams		1999 XB ₁₆₁
1999 XE ₁₆₁	14.0	0.15	20000226	351.94575	164.75417	322.90964	11.38223	0.0865010	2.9699849	34	1	61 days	0.48	M-v	5	Williams		1999 XE ₁₆₁
1999 XJ ₁₆₁	13.4	0.15	20000226	108.12806	29.84836	320.36749	12.57841	0.1913522	2.6643464	51	2	1998-2000	0.36	M-v	3	Williams	37962	1999 XJ ₁₆₁
1999 XU ₁₆₁	14.8	0.15	20000226	210.23189	289.48208	322.28326	4.82979	0.1193492	2.2263348	37	3	1996-2000	0.48	M-v	3	Williams	37963	1999 XU ₁₆₁
1999 XJ ₁₆₂	14.7	0.15	20000226	27.09903	68.59299	8.47815	10.96683	0.2453096	2.6445869	34	1	87 days	0.40	M-v	4	Williams	38162	1999 XJ ₁₆₂
1999 XK ₁₆₂	15.7	0.15	19991228	220.46218	287.64692	312.71272	18.38398	0.0534240	1.9430663	38	1	55 days	0.55			Williams		1999 XK ₁₆₂
1999 XG ₁₆₃	16.1	0.15	20000226	331.83884	49.64406	113.71943	3.49328	0.1506535	2.3515747	41	2	1995-2000	0.37	M-v	4	Williams	37963	1999 XG ₁₆₃
1999 XO ₁₆₃	15.3	0.15	20000226	35.69606	336.40021	100.67887	2.81134	0.1861711	2.6540606	36	1	65 days	0.35	M-v	4	Williams		1999 XO ₁₆₃
1999 XU ₁₆₃	13.3	0.15	20000226	344.99199	42.94978	108.18734	17.88065	0.0875560	3.2293926	35	1	75 days	0.58	M-v	4	Williams		1999 XU ₁₆₃
1999 XV ₁₆₃	12.9	0.15	20000226	171.58874	215.45448	102.77176	13.26082	0.1076217	2.7297084	42	1	87 days	0.50	M-v	4	Williams		1999 XV ₁₆₃
1999 XW ₁₆₃	14.3	0.15	20000226	30.15796	147.00284	307.01316	10.76609	0.1819391	2.5729463	70	2	1998-2000	0.57	M-v	3	Williams	37963	1999 XW ₁₆₃
1999 XX ₁₆₃	13.3	0.15	20000226	81.97460	284.92018	41.98935	17.81496	0.1470968	3.0879529	84	2	1977-2000	0.64	M-v	4	Williams	38162	1999 XX ₁₆₃
1999 XE ₁₆₄	14.6	0.15	20000226	38.00828	27.87783	52.77875	2.79406	0.2635637	2.6632472	56	3	1977-2000	0.61	M-v	2	Williams	37963	1999 XE ₁₆₄
1999 XF ₁₆₄	12.8	0.15	20000226	247.31407	158.00376	126.01483	24.00546	0.2025878	2.3966225	20	1	68 days	0.56	M-v	5	Williams		1999 XF ₁₆₄
1999 XG ₁₆₄	13.6	0.15	20000226	39.93443	339.81796	97.36059	14.95151	0.1592076	2.6943575	39	1	80 days	0.33	M-v	4	Williams		1999 XG ₁₆₄
1999 XH ₁₆₄	13.8	0.15	20000226	59.56433	311.66892	95.01352	10.97517	0.2084483	2.7519363	51	1	92 days	0.37	M-v	4	Williams		1999 XH ₁₆₄
1999 XJ ₁₆₄	14.2	0.15	20000226	300.19634	282.75813	295.79239	22.16989	0.2546588	2.3347272	39	2	1990-2000	0.59	M-v	4	Williams	37964	1999 XJ ₁₆₄
1999 XK ₁₆₄	14.9	0.15	20000226	108.96473	285.33497	88.58628	6.61064	0.0727317	2.1970432	41	1	92 days	0.50	M-v	4	Williams		1999 XK ₁₆₄
1999 XL ₁₆₄	14.0	0.15	20000226	97.63361	279.23819	85.83002	8.55748	0.2463856	2.3256617	60	2	1998-2000	0.54	M-v	4	Williams	37964	1999 XL ₁₆₄
1999 XM ₁₆₄	13.4	0.15	20000226	327.92682	76.43767	101.19110	17.51450	0.1843982	3.1108945	43	1	81 days	0.43	M-v	4	Williams		1999 XM ₁₆₄
1999 XN ₁₆₄	12.8	0.15	20000226	132.48884	246.18089	98.23370	10.04384	0.1698005	2.7699598	41	1	87 days	0.52	M-v	4	Williams		1999 XN ₁₆₄
1999 XO ₁₆₄	14.1	0.15	20000226	165.41277	231.23487	90.16463	8.32513	0.1929404	2.2084452	46	1	65 days	0.54	M-v	5	Williams		1999 XO ₁₆₄
1999 XP ₁₆₄	12.4	0.15	19991208	211.79781	173.98121	101.64999	15.40548	0.1298250	2.9832753	29	1	51 days	0.41			Williams		1999 XP ₁₆₄
1999 XQ ₁₆₄	15.6	0.15	20000226	1.54929	197.71254	300.79312	17.81589	0.0733986	1.9300140	40	1	66 days	0.56	M-v	4	Williams		1999 XQ ₁₆₄
1999 XR ₁₆₄	15.0	0.15	19991228	36.48089	338.16833	83.15977	8.56796	0.2296582	2.3093949	23	1	52 days	0.39			Williams		1999 XR ₁₆₄
1999 XS ₁₆₄	14.3	0.15	19991208	323.65825	68.03498	92.44547	10.07369	0.0819443	2.7559670	19	1	49 days	0.92			Williams		1999 XS ₁₆₄
1999 XT ₁₆₄	15.0	0.15	20000226	352.82263	97.24188	55.81475	4.57727	0.2143824	2.6545050	29	1	87 days	0.58	M-v	4	Williams		1999 XT ₁₆₄

1999 XU ₁₆₄	15.2	0.15	20000226	354.48103	201.25382	309.37236	8.00825	0.2042105	2.4306349	48	1	79 days	0.44	M-v	4	Williams	1999 XU ₁₆₄
1999 XV ₁₆₄	13.7	0.15	20000226	36.84944	349.81178	87.99456	5.99096	0.2834638	2.7761802	39	1	87 days	0.42	M-v	4	Williams	1999 XV ₁₆₄
1999 XW ₁₆₄	14.7	0.15	20000226	31.39114	1.45884	96.78251	8.28619	0.1745187	2.3862415	41	2	1995-2000	0.39	M-v	3	Williams	37964 1999 XW ₁₆₄
1999 XX ₁₆₄	14.6	0.15	20000226	353.45725	200.74771	313.29010	10.54501	0.2028148	2.5685911	51	1	67 days	0.48	M-v	4	Williams	1999 XX ₁₆₄
1999 XY ₁₆₄	14.5	0.15	20000226	0.75351	120.63692	21.46572	3.41060	0.1191671	2.4300620	67	2	1998-2000	0.58	M-v	3	Williams	37964 1999 XY ₁₆₄
1999 XC ₁₆₅	14.1	0.15	20000226	36.93384	98.38127	351.17247	7.13854	0.2030556	2.8006300	40	1	65 days	0.48	M-v	5	Williams	1999 XC ₁₆₅
1999 XD ₁₆₅	14.1	0.15	20000226	49.67784	107.71889	323.51996	12.94776	0.2155489	2.5302468	54	3	1996-2000	0.55	M-v	2	Williams	37964 1999 XD ₁₆₅
1999 XE ₁₆₅	13.5	0.15	20000226	89.03167	43.02793	4.30225	5.38445	0.0648537	2.4141438	72	3	1987-2000	0.64	M-v	2	Williams	37964 1999 XE ₁₆₅
1999 XJ ₁₆₅	14.1	0.15	20000226	53.41481	111.13413	324.67504	12.01440	0.1688357	2.5636625	60	2	1998-2000	0.65	M-v	4	Williams	37965 1999 XJ ₁₆₅
1999 XK ₁₆₅	14.8	0.15	20000226	40.61014	32.98625	62.66430	5.15994	0.1410895	2.5575916	35	2	1996-2000	0.50	M-v	4	Spahr	37965 1999 XK ₁₆₅
1999 XN ₁₆₅	13.0	0.15	20000226	1.74583	63.95846	82.48592	10.65204	0.0665072	2.4772060	30	2	1998-2000	0.39	M-v	3	Williams	37965 1999 XN ₁₆₅
1999 XQ ₁₆₅	14.9	0.15	20000226	7.19904	33.24904	89.89590	8.25016	0.1085158	2.3994277	40	1	87 days	0.50	M-v	3	Williams	1999 XQ ₁₆₅
1999 XR ₁₆₅	15.4	0.15	20000226	294.30109	271.55844	299.01664	17.53679	0.0554008	1.9182829	34	1	66 days	0.50	M-v	5	Williams	1999 XR ₁₆₅
1999 XS ₁₆₅	14.8	0.15	20000226	0.29754	59.57471	80.61408	3.79004	0.1095052	2.2630543	51	3	1992-2000	0.46	M-v	3	Williams	37965 1999 XS ₁₆₅
1999 XT ₁₆₅	14.6	0.15	20000226	27.03709	10.21351	92.84091	4.71071	0.1881460	2.6840726	66	1	87 days	0.56	M-v	4	Williams	1999 XT ₁₆₅
1999 XU ₁₆₅	15.2	0.15	20000226	7.73709	155.30494	338.85999	5.88701	0.1342706	2.2511219	57	3	1990-2000	0.58	M-v	2	Williams	37965 1999 XU ₁₆₅
1999 XA ₁₆₆	13.2	0.15	20000226	127.10195	8.13494	280.72886	12.49144	0.1505141	2.6827097	29	1	118 days	0.64	M-v	4	Williams	1999 XA ₁₆₆
1999 XD ₁₆₆	14.4	0.15	20000226	355.84122	62.18082	28.21643	12.44577	0.1781448	2.6358490	41	1	120 days	0.46	M-v	4	Williams	1999 XD ₁₆₆
1999 XJ ₁₆₆	14.1	0.15	20000226	24.19530	135.74880	271.64522	14.75579	0.2344584	2.8523344	42	1	91 days	0.43	M-v	3	Williams	38163 1999 XJ ₁₆₆
1999 XL ₁₆₆	15.9	0.15	20000226	23.72403	143.52255	275.96040	9.10413	0.2712294	2.4023457	31	1	60 days	0.63	M-v	5	Williams	1999 XL ₁₆₆
1999 XN ₁₆₆	15.4	0.15	19991228	5.97774	76.87122	348.22057	6.30159	0.0957999	2.3073536	37	1	58 days	0.69			Spahr	1999 XN ₁₆₆
1999 XP ₁₆₆	13.2	0.15	20000226	42.75990	88.95122	300.52035	7.46693	0.1529980	2.7924075	44	3	1980-2000	0.68	M-v	3	Williams	37966 1999 XP ₁₆₆
1999 XV ₁₆₆	15.3	0.15	19991228	52.49214	82.92360	287.11070	7.17507	0.1051115	2.2520026	30	1	56 days	0.60			Williams	1999 XV ₁₆₆
1999 XX ₁₆₆	13.9	0.15	19991208	44.65310	324.73191	46.93167	12.08692	0.1149763	2.7434180	16	1	45 days	0.50			Williams	1999 XX ₁₆₆
1999 XA ₁₆₇	13.8	0.15	20000226	355.76221	52.19538	49.51097	11.77317	0.1979399	2.6311639	47	1	120 days	0.56	M-v	4	Williams	38163 1999 XA ₁₆₇
1999 XE ₁₆₇	12.8	0.15	19991228	33.35240	112.28014	273.64952	11.48413	0.1881759	2.6945677	28	1	52 days	0.26		D	Williams	1999 XE ₁₆₇
1999 XG ₁₆₇	14.6	0.15	20000226	333.77595	87.79990	42.51874	5.74464	0.1109393	2.2754681	44	1	116 days	0.39	M-v	4	Williams	38163 1999 XG ₁₆₇
1999 XK ₁₆₇	13.8	0.15	20000226	29.06351	132.93488	277.57393	9.09994	0.2569236	2.7588352	37	1	129 days	0.49	M-v	3	Williams	1999 XK ₁₆₇
1999 XM ₁₆₇	15.0	0.15	20000226	51.95715	341.69612	45.44474	5.67746	0.1873619	2.4351587	42	1	88 days	0.47	M-v	4	Williams	38163 1999 XM ₁₆₇
1999 XN ₁₆₇	14.4	0.15	20000226	81.94868	353.51561	355.68241	2.99316	0.1754502	2.5772999	33	4	1982-2000	0.57	M-v	2	Williams	37966 1999 XN ₁₆₇
1999 XU ₁₆₇	13.4	0.15	20000226	68.82691	299.83046	53.41629	13.04731	0.2294255	3.1429627	43	2	1997-2000	0.50	M-v	3	Williams	37966 1999 XU ₁₆₇
1999 XV ₁₆₇	13.6	0.15	20000226	47.64251	111.50105	280.92254	9.00581	0.1120096	2.9775311	35	2	1998-2000	0.59	M-v	3	Williams	37967 1999 XV ₁₆₇
1999 XX ₁₆₇	15.0	0.15	19991228	10.53362	131.08394	294.22245	6.63077	0.1886818	2.6027158	22	1	51 days	0.46			Williams	1999 XX ₁₆₇
1999 XY ₁₆₇	14.0	0.15	20000226	330.95938	96.18403	36.43553	5.91199	0.1131164	2.6756275	34	1	87 days	0.51	M-v	5	Williams	1999 XY ₁₆₇
1999 XZ ₁₆₇	14.9	0.15	20000226	332.69993	94.03905	41.83742	5.10471	0.1267807	2.4114908	52	1	100 days	0.46	M-v	4	Williams	38163 1999 XZ ₁₆₇
1999 XA ₁₆₈	13.7	0.15	20000226	139.99994	6.63651	304.83371	4.04067	0.0134108	2.7463524	54	3	1987-2000	0.61	M-v	3	Williams	37967 1999 XA ₁₆₈
1999 XD ₁₆₈	13.7	0.15	20000226	104.43091	263.36863	64.29286	14.00030	0.1975098	2.7205742	37	1	62 days	0.53	M-v	5	Williams	38163 1999 XD ₁₆₈
1999 XE ₁₆₈	12.2	0.15	20000226	255.86302	147.26450	58.31964	13.58617	0.1128247	3.1847074	46	3	1972-2000	0.54	M-v	3	Williams	37967 1999 XE ₁₆₈
1999 XF ₁₆₈	14.6	0.15	20000226	95.13082	62.14978	285.76034	5.66947	0.1435772	2.3740185	33	1	89 days	0.51	M-v	5	Williams	1999 XF ₁₆₈
1999 XG ₁₆₈	15.5	0.15	20000226	51.35052	30.68807	359.36804	2.09615	0.2395352	2.3601848	34	1	77 days	0.47	M-v	4	Williams	1999 XG ₁₆₈
1999 XJ ₁₆₈	15.3	0.15	20000226	34.05098	40.49842	0.45242	3.40788	0.2255730	2.5812094	25	1	89 days	0.49	M-v	4	Williams	1999 XJ ₁₆₈
1999 XL ₁₆₈	13.1	0.15	20000226	279.11318	197.82089	331.86920	6.79550	0.0648515	2.6813313	49	3	1992-2000	0.55	M-v	3	Williams	37967 1999 XL ₁₆₈
1999 XP ₁₆₈	14.0	0.15	19991228	313.18438	151.68062	333.93780	5.69750	0.0525439	2.3822984	14	1	52 days	0.52			Williams	1999 XP ₁₆₈
1999 XU ₁₆₈	13.4	0.15	20000226	37.00223	345.58135	52.18473	12.62739	0.1892377	3.1755306	33	1	62 days	0.41	M-v	4	Williams	38163 1999 XU ₁₆₈
1999 XV ₁₆₈	13.8	0.15	20000226	18.10579	31.65257	35.41753	6.80149	0.1562227	3.1928109	26	1	87 days	0.56	M-v	4	Williams	1999 XV ₁₆₈
1999 XY ₁₆₈	13.4	0.15	20000226	341.50378	210.52170	272.83106	12.15475	0.1135490	2.6706873	46	2	1998-2000	0.53	M-v	3	Williams	37967 1999 XY ₁₆₈
1999 XB ₁₆₉	14.9	0.15	20000226	0.64561	85.88137	22.90882	3.76905	0.1338785	2.3234909	29	3	1976-2000	0.62	M-v	3	Williams	37967 1999 XB ₁₆₉
1999 XC ₁₆₉	14.2	0.15	20000226	3.63827	82.68095	18.67177	2.45434	0.1196454	2.5397160	53	3	1976-2000	0.66	M-v	3	Williams	37968 1999 XC ₁₆₉
1999 XG ₁₆₉	14.7	0.15	20000226	41.90964	24.13773	31.78242	3.93269	0.1531978	2.2947700	49	4	1978-2000	0.57	M-v	2	Williams	37968 1999 XG ₁₆₉
1999 XK ₁₆₉	13.1	0.15	20000226	50.12311	114.45393	286.39151	10.70077	0.1201169	2.9698885	56	3	1995-2000	0.57	M-v	2	Williams	37968 1999 XK ₁₆₉
1999 XM ₁₆₉	13.0	0.15	20000226	75.53141	97.73551	279.67874	13.70468	0.1148147	2.5820310	39	1	78 days	0.37	M-v	4	Williams	1999 XM ₁₆₉
1999 XN ₁₆₉	14.1	0.15	20000226	52.25938	94.20918	297.75726	6.37330	0.2208392	2.7848354	29	1	87 days	0.49	M-v	4	Williams	1999 XN ₁₆₉
1999 XP ₁₆₉	14.7	0.15	20000226	30.92578	26.97977	39.12292	4.39117	0.2505830	2.5788017	40	3	1974-2000	0.48	M-v	2	Williams	37968 1999 XP ₁₆₉

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1999 XR ₁₆₉	13.8	0.15	19991228	338.81569	197.87957	281.98332	11.18808	0.0914481	2.4511887	34	1	54 days	0.68	Spahr		1999 XR ₁₆₉
1999 XS ₁₆₉	14.5	0.15	20000226	334.88976	185.33073	325.27999	4.06816	0.1320375	2.2783147	54	3	1995–2000	0.65	M-v 4	Williams	37969 1999 XS ₁₆₉
1999 XT ₁₆₉	14.3	0.15	20000226	0.99287	75.88111	44.53338	4.90787	0.1979464	2.4201544	52	4	1989–2000	0.72	M-v 2	Williams	37969 1999 XT ₁₆₉
1999 XU ₁₆₉	12.8	0.15	20000226	104.79072	272.28867	76.43314	13.46361	0.1441027	3.2107492	57	3	1991–2000	0.55	M-v 3	Williams	37969 1999 XU ₁₆₉
1999 XV ₁₆₉	15.2	0.15	20000226	69.48231	327.08375	61.62400	4.72524	0.1807615	2.1665713	38	1	78 days	0.39	M-v 4	Williams	1999 XV ₁₆₉
1999 XW ₁₆₉	14.4	0.15	20000226	24.80699	30.87501	57.76244	6.12057	0.0789329	2.4186729	27	1	75 days	0.44	M-v 4	Williams	1999 XW ₁₆₉
1999 XZ ₁₆₉	14.5	0.15	20000226	276.57070	153.72686	34.78098	4.08009	0.0603979	2.5294014	33	2	1981–2000	0.60	M-v 4	Williams	37969 1999 XZ ₁₆₉
1999 XE ₁₇₀	15.5	0.15	19991208	5.24867	26.72825	46.09020	4.33623	0.2060562	2.6014113	20	1	49 days	0.40		Williams	1999 XE ₁₇₀
1999 XG ₁₇₀	14.4	0.15	20000226	355.14378	75.36586	36.61672	5.07575	0.1191477	2.6105666	20	1	63 days	0.56	M-v 6	Williams	1999 XG ₁₇₀
1999 XM ₁₇₀	15.3	0.15	19991228	352.83600	99.93008	9.77365	3.22946	0.2085176	2.5948594	30	1	51 days	0.56		Williams	1999 XM ₁₇₀
1999 XN ₁₇₀	13.2	0.15	20000226	51.97567	339.41304	74.08342	11.03588	0.0875511	3.0177138	31	1	87 days	0.51	M-v 4	Williams	1999 XN ₁₇₀
1999 XS ₁₇₀	14.8	0.15	19991228	357.69506	118.46529	339.13135	3.83847	0.2184356	2.5547792	21	1	52 days	0.38		Spahr	1999 XS ₁₇₀
1999 XT ₁₇₀	13.3	0.15	20000226	196.65771	201.24991	70.00468	10.11811	0.0645947	2.7986235	36	1	75 days	0.49	M-v 4	Williams	1999 XT ₁₇₀
1999 XU ₁₇₀	14.2	0.15	20000226	33.07385	336.17520	80.37647	14.37342	0.2686599	3.1778859	34	1	88 days	0.51	M-v 4	Williams	38163 1999 XU ₁₇₀
1999 XV ₁₇₀	12.3	0.15	20000226	37.51498	357.91656	67.56224	8.62390	0.0647847	3.1604228	41	1	91 days	0.47	M-v 4	Williams	38163 1999 XV ₁₇₀
1999 XA ₁₇₁	14.1	0.15	19991208	19.48797	19.57597	52.36529	6.41366	0.0642301	2.7473354	21	1	49 days	0.41		Williams	1999 XA ₁₇₁
1999 XB ₁₇₁	13.9	0.15	19991208	46.39859	312.23554	73.20412	9.51051	0.2291171	3.1654765	16	1	25 days	0.48		Williams	1999 XB ₁₇₁
1999 XD ₁₇₁	15.0	0.15	19991228	49.15523	45.30567	339.08198	4.25020	0.2444411	2.6381915	25	1	51 days	0.55		Williams	1999 XD ₁₇₁
1999 XH ₁₇₁	14.3	0.15	20000226	332.99166	89.21937	65.34165	4.78548	0.1453927	2.6826757	46	2	1996–2000	0.43	M-v 4	Williams	37970 1999 XH ₁₇₁
1999 XJ ₁₇₁	15.3	0.15	19991228	66.72491	43.76160	331.38344	2.59838	0.1698361	2.2983330	20	1	46 days	0.60		Williams	1999 XJ ₁₇₁
1999 XK ₁₇₁	15.8	0.15	19991228	32.42326	71.63073	342.29611	2.56167	0.1932901	2.3869363	19	1	52 days	0.62		Spahr	1999 XK ₁₇₁
1999 XM ₁₇₁	14.8	0.15	20000226	30.10965	143.20122	296.73329	6.37004	0.1656980	2.5280126	58	3	1988–2000	0.54	M-v 4	Williams	37970 1999 XM ₁₇₁
1999 XQ ₁₇₁	15.1	0.15	19991228	342.29803	201.45946	292.09188	13.22912	0.2852178	2.8260390	38	1	52 days	0.41		Spahr	1999 XQ ₁₇₁
1999 XU ₁₇₁	15.1	0.15	20000226	41.00715	107.52159	323.13603	4.60508	0.1243258	2.2629108	40	1	87 days	0.53	M-v 4	Williams	1999 XU ₁₇₁
1999 XV ₁₇₁	13.8	0.15	19991228	261.04536	139.16432	77.64722	13.82293	0.1435551	2.6787889	28	1	58 days	0.48		Williams	1999 XV ₁₇₁
1999 XW ₁₇₁	13.7	0.15	20000226	84.13769	292.99176	75.99411	13.59238	0.1999356	2.5735446	46	1	86 days	0.49	M-v 4	Williams	1999 XW ₁₇₁
1999 XX ₁₇₁	14.2	0.15	19991228	88.14427	270.56380	78.41551	15.28742	0.2228363	2.5433028	24	1	55 days	0.55		Spahr	1999 XX ₁₇₁
1999 XZ ₁₇₁	14.5	0.15	19991228	89.10142	36.36317	310.53814	9.85477	0.2335335	2.4359186	24	1	52 days	0.54		Spahr	1999 XZ ₁₇₁
1999 XA ₁₇₂	14.3	0.15	20000226	88.70261	63.00727	314.50098	6.59657	0.1142919	2.2369324	55	5	1981–2000	0.51	M-v 1	Williams	37970 1999 XA ₁₇₂
1999 XB ₁₇₂	14.7	0.15	20000226	108.58416	292.67608	58.58866	7.20496	0.1697112	2.3883227	35	1	70 days	0.50	M-v 5	Williams	1999 XB ₁₇₂
1999 XC ₁₇₂	15.6	0.15	19991228	55.28859	29.60832	5.74932	4.25638	0.1101786	2.2373997	24	1	51 days	0.41		Williams	1999 XC ₁₇₂
1999 XD ₁₇₂	15.2	0.15	19991228	43.57478	10.27533	25.54012	4.38746	0.2362772	2.5749514	25	1	51 days	0.52		Spahr	1999 XD ₁₇₂
1999 XF ₁₇₂	13.0	0.15	20000226	323.43815	88.95505	78.14696	8.93788	0.1624783	3.1367010	24	1	63 days	0.30	M-v 5	Williams	1999 XF ₁₇₂
1999 XG ₁₇₂	15.0	0.15	19991228	58.56441	91.04962	303.03514	5.83809	0.0967128	2.3190731	23	1	51 days	0.43		Williams	1999 XG ₁₇₂
1999 XL ₁₇₂	14.0	0.15	19991228	50.44800	75.00734	329.87204	4.63582	0.0932172	2.5248763	42	1	58 days	0.39		Williams	1999 XL ₁₇₂
1999 XM ₁₇₂	13.0	0.15	20000226	354.88479	172.93736	309.75514	10.43873	0.0676445	3.0671211	45	1	70 days	0.52	M-v 4	Williams	1999 XM ₁₇₂
1999 XN ₁₇₂	13.4	0.15	20000226	334.10672	97.25066	63.11649	7.40108	0.2205104	3.1141737	43	1	91 days	0.49	M-v 4	Williams	1999 XN ₁₇₂
1999 XR ₁₇₂	13.7	0.15	20000226	1.96852	174.58221	300.41614	16.99489	0.1175650	3.2185322	35	1	63 days	0.55	M-v 4	Williams	1999 XR ₁₇₂
1999 XT ₁₇₂	13.5	0.15	20000226	260.04960	158.68828	73.77451	12.53974	0.1344121	2.6650219	37	3	1997–2000	0.64	M-v 3	Williams	37970 1999 XT ₁₇₂
1999 XV ₁₇₂	13.2	0.15	20000226	51.04324	329.55268	87.97828	14.10583	0.1087485	3.1127416	47	1	70 days	0.46	M-v 4	Williams	1999 XV ₁₇₂
1999 XW ₁₇₂	13.1	0.15	20000226	25.59159	154.23175	294.33958	16.40515	0.0827072	3.2041152	62	3	1997–2000	0.55	M-v 2	Spahr	37970 1999 XW ₁₇₂
1999 XX ₁₇₂	14.2	0.15	20000226	283.14219	181.30193	33.45400	3.23490	0.1514332	2.5487594	22	1	63 days	0.47	M-v 5	Williams	1999 XX ₁₇₂
1999 XY ₁₇₂	14.5	0.15	20000226	32.13797	97.80139	349.17636	2.38905	0.0832285	2.3839524	49	1	87 days	0.51	M-v 4	Williams	1999 XY ₁₇₂
1999 XZ ₁₇₂	14.1	0.15	20000226	17.44572	152.96087	307.69109	8.30289	0.1173356	2.7865615	41	1	91 days	0.62	M-v 4	Williams	38164 1999 XZ ₁₇₂
1999 XA ₁₇₃	15.5	0.15	20000226	23.56908	82.55179	15.41174	3.07257	0.1334586	2.1893316	37	1	87 days	0.44	M-v 4	Williams	1999 XA ₁₇₃
1999 XB ₁₇₃	14.8	0.15	20000226	74.58036	331.51989	51.38542	4.89534	0.2191503	2.2973863	29	1	87 days	0.36	M-v 4	Williams	1999 XB ₁₇₃
1999 XC ₁₇₃	14.3	0.15	20000226	15.44578	47.76706	59.09414	6.12496	0.0757335	2.3634288	43	1	87 days	0.39	M-v 4	Williams	1999 XC ₁₇₃
1999 XD ₁₇₃	14.3	0.15	20000226	41.78086	354.84752	73.62952	8.09764	0.1827352	2.3719570	34	1	74 days	0.37	M-v 4	Williams	1999 XD ₁₇₃
1999 XF ₁₇₃	15.5	0.15	19991208	37.30726	346.74813	57.39366	6.26294	0.1905828	2.3046440	22	1	49 days	0.50		Williams	1999 XF ₁₇₃
1999 XJ ₁₇₃	13.1	0.15	20000226	322.33627	204.67835	319.30066	9.09164	0.0681686	2.6589002	64	2	1998–2000	0.50	M-v 3	Williams	37971 1999 XJ ₁₇₃
1999 XK ₁₇₃	14.6	0.15	20000226	14.18864	125.40510	341.72106	5.91149	0.1065124	2.4799246	56	4	1977–2000	0.59	M-v 2	Williams	37971 1999 XK ₁₇₃
1999 XL ₁₇₃	15.9	0.15	19991228	55.72164	52.94551	343.29265	4.67252	0.1289638	2.2382927	36	1	59 days	0.48		Spahr	1999 XL ₁₇₃
1999 XM ₁₇₃	15.7	0.15	19991228	10.89247	29.07124	61.84857	6.11782	0.1532684	2.2962197	34	1	50 days	0.38		Williams	1999 XM ₁₇₃

1999 XN ₁₇₃	14.4	0.15	20000226	61.11071	357.56762	54.57435	5.18007	0.0891939	2.7253072	48	2	1998–2000	0.68	M-v	3	Williams	37971	1999 XN ₁₇₃
1999 XO ₁₇₃	14.4	0.15	20000226	119.80719	284.08225	62.71244	4.48283	0.1777644	2.2906723	43	1	91 days	0.53	M-v	4	Williams		1999 XO ₁₇₃
1999 XP ₁₇₃	15.1	0.15	20000226	329.42732	97.52622	74.39129	5.22707	0.1991244	2.6114270	37	1	65 days	0.64	M-v	5	Williams		1999 XP ₁₇₃
1999 XR ₁₇₃	13.9	0.15	20000226	61.58340	103.42615	298.48724	11.36846	0.1849215	2.6702812	48	1	79 days	0.58	M-v	5	Williams		1999 XR ₁₇₃
1999 XS ₁₇₃	13.0	0.15	20000226	132.67928	238.85628	90.73817	13.18176	0.2699944	2.5576789	58	1	91 days	0.47	M-v	4	Williams		1999 XS ₁₇₃
1999 XU ₁₇₃	14.4	0.15	20000226	21.08913	6.37206	89.87529	18.43593	0.2035044	2.7341941	42	1	74 days	0.50	M-v	4	Williams		1999 XU ₁₇₃
1999 XV ₁₇₃	14.5	0.15	20000226	345.69566	74.68321	72.18985	9.41505	0.1320526	2.3750954	39	2	1997–2000	0.58	M-v	3	Williams	37971	1999 XV ₁₇₃
1999 XY ₁₇₃	14.5	0.15	20000226	35.18541	112.47422	324.67811	8.43821	0.1523664	2.7301832	50	2	1998–2000	0.62	M-v	3	Williams	37971	1999 XY ₁₇₃
1999 XA ₁₇₄	13.3	0.15	20000226	154.97303	296.73176	25.18387	6.44966	0.1305119	2.3335178	42	5	1976–2000	0.58	M-v	2	Williams	37971	1999 XA ₁₇₄
1999 XC ₁₇₄	15.0	0.15	20000226	330.11392	104.98827	61.85911	7.97071	0.1364311	2.3663661	28	1	74 days	0.65	M-v	5	Williams		1999 XC ₁₇₄
1999 XF ₁₇₄	15.3	0.15	19991228	301.42334	105.23317	73.69100	7.70717	0.1053458	2.3164285	21	1	51 days	0.51			Williams		1999 XF ₁₇₄
1999 XJ ₁₇₄	14.1	0.15	20000226	56.66954	353.58249	64.77741	6.13734	0.1316888	2.2694569	44	1	91 days	0.53	M-v	4	Williams		1999 XJ ₁₇₄
1999 XK ₁₇₄	14.6	0.15	20000226	78.80254	78.30426	301.51492	7.82453	0.2280834	2.4037410	58	1	91 days	0.61	M-v	4	Williams		1999 XK ₁₇₄
1999 XM ₁₇₄	15.3	0.15	19991228	306.53003	92.21418	91.50744	13.51144	0.1873870	2.6476859	29	1	52 days	0.42			Williams		1999 XM ₁₇₄
1999 XO ₁₇₄	14.4	0.15	20000226	100.75648	290.46574	81.48192	9.37499	0.1176593	2.4178859	37	1	87 days	0.42	M-v	4	Williams		1999 XO ₁₇₄
1999 XP ₁₇₄	15.1	0.15	20000226	77.14184	309.71288	80.50122	9.47395	0.1664824	2.4178511	31	1	75 days	0.55	M-v	5	Williams		1999 XP ₁₇₄
1999 XQ ₁₇₄	13.2	0.15	20000226	200.49159	193.41182	93.65750	15.13929	0.0919015	2.5881674	36	1	78 days	0.53	M-v	4	Williams		1999 XQ ₁₇₄
1999 XR ₁₇₄	14.7	0.15	20000226	85.73295	44.34371	329.48585	5.01823	0.2339368	2.2536964	51	3	1985–2000	0.53	M-v	4	Williams	37972	1999 XR ₁₇₄
1999 XT ₁₇₄	13.7	0.15	20000226	86.18564	66.12057	321.32795	9.23529	0.0951832	3.0514414	48	3	1995–2000	0.66	M-v	3	Williams	37972	1999 XT ₁₇₄
1999 XU ₁₇₄	14.3	0.15	20000226	349.02106	55.85878	86.27124	13.89537	0.1249268	2.6875922	23	1	78 days	0.46	M-v	4	Williams		1999 XU ₁₇₄
1999 XV ₁₇₄	15.1	0.15	20000226	89.01178	317.17813	60.73620	6.32325	0.1756829	2.2873004	32	1	63 days	0.55	M-v	5	Williams		1999 XV ₁₇₄
1999 XX ₁₇₄	14.7	0.15	20000226	354.02108	113.84809	21.33952	5.26863	0.1228327	2.6482566	27	1	63 days	0.45	M-v	4	Williams		1999 XX ₁₇₄
1999 XE ₁₇₅	14.3	0.15	20000226	39.98226	56.09151	8.49016	5.30308	0.2716641	2.5587032	24	1	63 days	0.48	M-v	5	Williams		1999 XE ₁₇₅
1999 XH ₁₇₅	14.1	0.15	20000226	5.89070	179.72108	302.34797	13.36030	0.2996078	2.8614676	61	2	1998–2000	0.52	M-v	3	Williams	37972	1999 XH ₁₇₅
1999 XJ ₁₇₅	14.4	0.15	20000226	90.85077	336.96765	38.20392	4.71677	0.1943356	2.2688177	34	1	87 days	0.44	M-v	4	Williams		1999 XJ ₁₇₅
1999 XK ₁₇₅	15.0	0.15	20000226	81.98391	336.18045	46.05344	5.63521	0.2077734	2.3256430	44	2	1994–2000	0.61	M-v	4	Williams	37972	1999 XK ₁₇₅
1999 XL ₁₇₅	13.7	0.15	20000226	183.00802	241.07968	61.59995	5.91017	0.2224168	2.2789876	52	3	1994–2000	0.66	M-v	2	Williams	37973	1999 XL ₁₇₅
1999 XM ₁₇₅	14.0	0.15	20000226	37.69736	4.23969	83.56395	8.17508	0.0324338	2.7391818	38	1	87 days	0.53	M-v	4	Williams		1999 XM ₁₇₅
1999 XO ₁₇₅	12.7	0.15	20000226	247.84162	296.59461	313.07226	11.47056	0.1140447	2.7169047	38	1	87 days	0.42	M-v	5	Williams		1999 XO ₁₇₅
1999 XS ₁₇₅	14.8	0.15	19991228	9.07171	81.52964	17.74684	5.88433	0.1447421	2.5408700	20	1	52 days	0.47			Williams		1999 XS ₁₇₅
1999 XZ ₁₇₅	14.2	0.15	20000226	65.45956	315.22150	79.25834	15.13412	0.2538642	2.6465082	32	1	81 days	0.48	M-v	4	Williams		1999 XZ ₁₇₅
1999 XD ₁₇₆	13.7	0.15	19991228	311.04345	103.97625	72.39550	9.46468	0.1198947	3.0017965	24	1	53 days	0.43			Williams		1999 XD ₁₇₆
1999 XE ₁₇₆	14.2	0.15	20000226	275.33728	155.06342	64.08453	7.32199	0.0310808	2.3055803	25	1	74 days	0.38	M-v	5	Williams		1999 XE ₁₇₆
1999 XK ₁₇₆	13.9	0.15	20000226	351.99926	200.15654	308.08802	15.01333	0.2249529	2.6885773	32	1	60 days	0.44	M-v	4	Williams		1999 XK ₁₇₆
1999 XL ₁₇₆	13.8	0.15	20000226	306.25602	128.36708	78.59827	11.21766	0.1912557	2.4097194	25	1	79 days	0.42	M-v	5	Williams		1999 XL ₁₇₆
1999 XM ₁₇₆	13.5	0.15	20000226	83.79875	326.96038	71.31659	10.05796	0.0690917	2.5899208	32	1	79 days	0.48	M-v	5	Williams		1999 XM ₁₇₆
1999 XN ₁₇₆	13.6	0.15	20000226	236.03808	183.52244	80.78968	15.57167	0.1432488	2.5894555	25	1	63 days	0.40	M-v	5	Williams		1999 XN ₁₇₆
1999 XQ ₁₇₆	13.6	0.15	19991228	124.34118	266.86888	78.96356	15.60252	0.0772897	2.6736280	19	1	51 days	0.52			Williams		1999 XQ ₁₇₆
1999 XR ₁₇₆	14.1	0.15	19991228	74.42278	22.39834	350.27084	9.51681	0.2350414	2.3665143	25	1	50 days	0.49			Williams		1999 XR ₁₇₆
1999 XU ₁₇₆	14.6	0.15	20000226	358.84913	102.72825	33.73765	6.80057	0.0818517	2.2274045	43	1	60 days	0.49	M-v	4	Williams		1999 XU ₁₇₆
1999 XV ₁₇₆	13.1	0.15	20000226	136.62804	33.94993	303.47949	22.91073	0.2069532	2.3148453	55	1	96 days	0.47	M-v	4	Williams		1999 XV ₁₇₆
1999 XX ₁₇₆	14.3	0.15	19991228	33.53589	123.58992	297.61125	34.06340	0.2465606	2.8497040	47	1	56 days	0.52			Williams		1999 XX ₁₇₆
1999 XC ₁₇₇	13.9	0.15	19991228	58.88962	20.64884	11.41567	8.35081	0.2294951	2.5363000	24	1	50 days	0.63			Williams		1999 XC ₁₇₇
1999 XD ₁₇₇	14.4	0.15	20000226	9.15887	62.21313	64.00549	6.57643	0.0994411	2.2424903	56	3	1994–2000	0.46	M-v	3	Williams	37973	1999 XD ₁₇₇
1999 XE ₁₇₇	14.6	0.15	20000226	49.23500	345.98187	84.87455	11.24317	0.1663692	2.4561347	30	1	74 days	0.51	M-v	4	Williams		1999 XE ₁₇₇
1999 XF ₁₇₇	14.7	0.15	19991228	24.75660	25.65777	54.35423	7.09519	0.2111161	2.6741020	23	1	50 days	0.41			Williams		1999 XF ₁₇₇
1999 XK ₁₇₇	12.2	0.15	20000226	171.50238	213.76397	86.58452	16.85916	0.0650807	3.1582186	47	1	91 days	0.51	M-v	4	Williams		1999 XK ₁₇₇
1999 XL ₁₇₇	14.9	0.15	20000226	24.70586	118.09950	335.91337	3.15942	0.0530152	2.3831296	43	1	63 days	0.53	M-v	5	Williams		1999 XL ₁₇₇
1999 XM ₁₇₇	14.7	0.15	20000226	353.56428	77.52166	50.29738	4.28420	0.0688548	2.6424941	44	2	1998–2000	0.66	M-v	4	Williams	37973	1999 XM ₁₇₇
1999 XP ₁₇₇	15.4	0.15	19991228	25.37673	13.10651	53.47209	4.19156	0.2054093	2.5932475	27	1	51 days	0.46			Williams		1999 XP ₁₇₇
1999 XQ ₁₇₇	14.3	0.15	20000226	324.92740	91.00283	77.60706	8.22506	0.1503093	2.8062189	43	1	63 days	0.43	M-v	4	Williams		1999 XQ ₁₇₇
1999 XR ₁₇₇	14.3	0.15	19991228	314.05357	71.87079	86.86799	12.14922	0.0622099	2.9504416	32	1	51 days	0.46			Williams		1999 XR ₁₇₇
1999 XS ₁₇₇	15.5	0.15	19991228	288.46202	218.05645	328.27622	3.12103	0.0897320	2.1887614	23	1	51 days	0.55			Williams		1999 XS ₁₇₇

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1999 XT ₁₇₇	14.3	0.15	19991228	244.44685	143.85557	91.06865	14.68366	0.1245601	2.6910018	27	1	51 days	0.63		Williams	1999 XT ₁₇₇
1999 XU ₁₇₇	16.1	0.15	19991228	13.94525	5.06311	78.10143	6.60854	0.2198803	2.6507745	26	1	51 days	0.50		Williams	1999 XU ₁₇₇
1999 XW ₁₇₇	13.8	0.15	19991228	293.90938	99.47283	84.28179	9.08569	0.0804222	3.0984326	23	1	52 days	0.71		Spahr	1999 XW ₁₇₇
1999 XY ₁₇₇	15.4	0.15	20000226	33.78247	69.51842	16.79789	2.87877	0.0946549	2.2551389	34	1	87 days	0.64	M-v 4	Williams	1999 XY ₁₇₇
1999 XZ ₁₇₇	15.6	0.15	20000226	1.91568	150.45812	333.41339	3.74141	0.1256489	2.3405311	29	1	63 days	0.45	M-v 4	Williams	1999 XZ ₁₇₇
1999 XA ₁₇₈	15.2	0.15	19991228	354.17121	164.03539	309.53001	7.56980	0.1175108	2.7461644	31	1	51 days	0.56		Williams	1999 XA ₁₇₈
1999 XB ₁₇₈	13.9	0.15	20000226	216.08819	308.31657	321.60627	8.63255	0.1427495	2.5609760	34	1	63 days	0.40	M-v 5	Williams	1999 XB ₁₇₈
1999 XD ₁₇₈	14.7	0.15	19991228	25.06551	140.07434	297.71207	21.29550	0.0468781	2.6536813	21	1	51 days	0.51		Williams	1999 XD ₁₇₈
1999 XE ₁₇₈	13.9	0.15	20000226	52.11329	82.91031	314.55130	11.73778	0.2811268	3.1731229	48	2	1998-2000	0.53	M-v 3	Williams	37973 1999 XE ₁₇₈
1999 XF ₁₇₈	14.1	0.15	20000226	348.17226	193.85467	303.31691	16.23816	0.1543579	3.1377116	40	1	63 days	0.62	M-v 4 D	Williams	1999 XF ₁₇₈
1999 XH ₁₇₈	15.2	0.15	20000226	11.48910	43.62153	69.64616	7.53095	0.0862015	2.2951830	35	1	74 days	0.48	M-v 4	Williams	1999 XH ₁₇₈
1999 XJ ₁₇₈	14.4	0.15	20000226	95.94855	57.87566	305.82473	6.48230	0.2066486	2.3602405	61	3	1973-2000	0.57	M-v 3	Williams	37973 1999 XJ ₁₇₈
1999 XK ₁₇₈	15.0	0.15	20000226	126.16080	333.84283	18.36685	3.12737	0.0690271	2.1755811	48	3	1997-2000	0.63	M-v 3	Williams	37974 1999 XK ₁₇₈
1999 XL ₁₇₈	15.0	0.15	20000226	320.71740	87.47178	82.26611	6.54290	0.0642474	2.4010906	37	1	65 days	0.53	M-v 4	Williams	1999 XL ₁₇₈
1999 XM ₁₇₈	13.0	0.15	20000226	121.81197	269.15695	87.53028	12.64475	0.0332190	2.9901970	42	1	63 days	0.38	M-v 4	Williams	1999 XM ₁₇₈
1999 XO ₁₇₈	15.1	0.15	20000226	83.08686	342.04606	36.47737	5.78334	0.1910962	2.4279913	20	1	63 days	0.56	M-v 5	Williams	1999 XO ₁₇₈
1999 XP ₁₇₈	14.4	0.15	20000226	47.23645	97.70938	324.04085	8.15459	0.1552088	2.7851153	30	1	63 days	0.45	M-v 5	Williams	1999 XP ₁₇₈
1999 XQ ₁₇₈	14.2	0.15	20000226	98.89298	272.64137	89.21440	14.17241	0.2130667	2.6128637	25	1	74 days	0.42	M-v 4	Williams	1999 XQ ₁₇₈
1999 XR ₁₇₈	15.2	0.15	20000226	233.57468	186.14042	71.34554	4.69163	0.0652650	2.1894410	26	1	63 days	0.62	M-v 5	Williams	1999 XR ₁₇₈
1999 XS ₁₇₈	15.5	0.15	20000226	342.98269	66.23180	83.45995	6.37736	0.0960736	2.2442982	36	1	65 days	0.43	M-v 4	Williams	1999 XS ₁₇₈
1999 XT ₁₇₈	14.7	0.15	20000226	103.62974	329.83210	23.42348	2.76615	0.2547229	2.3746249	23	1	63 days	0.69	M-v 5	Williams	1999 XT ₁₇₈
1999 XU ₁₇₈	15.4	0.15	19991228	83.29148	329.53858	39.57168	3.55390	0.1421143	2.2367293	24	1	52 days	0.41		Spahr	1999 XU ₁₇₈
1999 XW ₁₇₈	13.1	0.15	20000226	92.68975	295.05838	84.81832	17.99208	0.1297385	3.2023060	20	1	63 days	0.48	M-v 5	Williams	1999 XW ₁₇₈
1999 XX ₁₇₈	14.8	0.15	19991228	320.37309	91.60236	78.40748	12.98231	0.1858509	2.5819769	17	1	51 days	0.57		Williams	1999 XX ₁₇₈
1999 XZ ₁₇₈	15.2	0.15	19991228	318.87690	70.14439	94.03187	15.81083	0.0712104	2.6693122	20	1	50 days	0.48		Williams	1999 XZ ₁₇₈
1999 XD ₁₇₉	15.1	0.15	20000226	54.29149	345.28470	75.82865	6.95356	0.1821078	2.3050526	35	1	74 days	0.37	M-v 4	Williams	1999 XD ₁₇₉
1999 XF ₁₇₉	14.9	0.15	19991228	359.51084	53.50896	65.96019	9.36872	0.1022886	2.7819362	25	1	52 days	0.50		Williams	1999 XF ₁₇₉
1999 XJ ₁₇₉	15.3	0.15	19991228	23.49466	16.65259	69.09699	12.82454	0.1478403	2.6625935	15	1	54 days	0.57		Williams	1999 XJ ₁₇₉
1999 XK ₁₇₉	14.1	0.15	19991228	103.26467	289.82102	67.63245	12.90006	0.1815578	2.5951954	15	1	51 days	0.57		Williams	1999 XK ₁₇₉
1999 XO ₁₇₉	14.7	0.15	20000226	262.58225	163.82288	59.99269	6.68399	0.0763032	2.3203961	41	1	91 days	0.51	M-v 4	Williams	1999 XO ₁₇₉
1999 XQ ₁₇₉	13.7	0.15	20000226	273.15189	183.33851	29.11923	3.69464	0.0934168	3.1626679	26	2	1998-2000	0.69	M-v 5	Williams	37974 1999 XQ ₁₇₉
1999 XT ₁₇₉	15.3	0.15	19991228	207.25917	186.69837	74.83686	7.39584	0.0912195	2.1597965	25	1	51 days	0.56		Williams	1999 XT ₁₇₉
1999 XU ₁₇₉	15.3	0.15	20000226	281.46902	221.55528	351.61011	5.62976	0.1331363	2.3377783	32	2	1998-2000	0.55	M-v 4	Williams	37974 1999 XU ₁₇₉
1999 XV ₁₇₉	14.0	0.15	20000226	247.06511	294.49060	314.38394	7.57632	0.1827699	2.3541409	28	1	63 days	0.56	M-v 5	Williams	1999 XV ₁₇₉
1999 XW ₁₇₉	15.5	0.15	19991208	62.71291	325.85447	52.72461	4.59880	0.1625928	2.3480106	16	1	25 days	0.52		Williams	1999 XW ₁₇₉
1999 XB ₁₈₀	13.7	0.15	19991228	12.94370	21.61110	77.22892	12.04367	0.0728921	3.0889944	16	1	50 days	0.70		Williams	1999 XB ₁₈₀
1999 XD ₁₈₀	14.1	0.15	20000226	314.92204	147.12882	51.19866	9.16249	0.1476106	2.3570044	36	2	1998-2000	0.51	M-v 4	Williams	37974 1999 XD ₁₈₀
1999 XG ₁₈₀	14.7	0.15	19991228	347.08909	82.52030	55.27155	7.40985	0.1166444	2.4342079	22	1	57 days	0.50		Spahr	1999 XG ₁₈₀
1999 XB ₁₈₁	14.0	0.15	19991228	340.19817	121.97326	338.97712	7.36870	0.1894499	2.8012367	26	1	55 days	0.54		Spahr	1999 XB ₁₈₁
1999 XN ₁₈₁	12.8	0.15	20000226	358.09900	164.29946	277.19637	20.86395	0.0444123	3.2295483	34	1	91 days	0.46	M-v 4	Williams	38165 1999 XN ₁₈₁
1999 XT ₁₈₁	15.1	0.15	20000226	13.36355	122.43927	313.51364	7.21085	0.2969360	2.7683996	29	1	66 days	0.56	M-v 4	Williams	1999 XT ₁₈₁
1999 XV ₁₈₁	14.6	0.15	19991228	65.81965	346.81249	359.61487	6.96022	0.1989676	2.2792110	17	1	50 days	0.60		Williams	1999 XV ₁₈₁
1999 XJ ₁₈₂	14.6	0.15	20000226	18.52951	67.32124	9.23850	5.86133	0.1249002	2.2376723	40	3	1992-2000	0.42	M-v 2	Williams	37975 1999 XJ ₁₈₂
1999 XQ ₁₈₂	13.8	0.15	20000226	83.65409	45.52000	298.18694	12.64806	0.2039250	2.5765046	20	1	61 days	0.39	M-v 5	Williams	1999 XQ ₁₈₂
1999 XB ₁₈₃	14.2	0.15	19991228	70.78787	27.90389	316.45046	5.84834	0.2095599	2.2712718	24	1	49 days	0.37		Williams	1999 XB ₁₈₃
1999 XT ₁₈₃	13.0	0.15	20000226	22.39143	110.01675	317.33959	9.22652	0.0988908	2.9724147	38	1	102 days	0.41	M-v 3	Williams	38165 1999 XT ₁₈₃
1999 XU ₁₈₃	13.6	0.15	20000226	4.35088	150.83882	304.39395	8.92222	0.2903260	3.0660407	24	1	61 days	0.40	M-v 5	Williams	1999 XU ₁₈₃
1999 XZ ₁₈₃	14.3	0.15	19991228	329.84971	181.97428	294.87225	13.34961	0.0847022	2.6667727	19	1	49 days	0.57		Williams	1999 XZ ₁₈₃
1999 XN ₁₈₄	13.4	0.15	19991228	47.22649	41.73707	335.57766	6.03233	0.1760743	3.1939842	24	1	48 days	0.50		Williams	1999 XN ₁₈₄
1999 XP ₁₈₄	15.0	0.15	20000226	340.97934	154.73124	332.07046	5.58998	0.1132783	2.4419214	22	1	61 days	0.44	M-v 5	Williams	1999 XP ₁₈₄
1999 XQ ₁₈₄	15.2	0.15	20000226	347.45235	109.02566	19.21094	4.86350	0.2007384	2.3487455	31	1	87 days	0.58	M-v 4	Williams	1999 XQ ₁₈₄
1999 XT ₁₈₄	13.8	0.15	20000226	244.96192	196.28722	23.74201	7.15036	0.0495713	2.3182545	29	1	129 days	0.49	M-v 4	Williams	38165 1999 XT ₁₈₄
1999 XF ₁₈₆	14.5	0.15	20000226	308.29958	143.53056	15.84878	5.19278	0.0605097	2.1724971	27	1	61 days	0.47	M-v 5	Williams	1999 XF ₁₈₆

1999 XX ₁₈₆	15.2	0.15	19991208	36.54322	85.54419	320.39989	7.39161	0.1297344	2.4402654	25	1	23 days	0.53		Williams	1999 XX ₁₈₆
1999 XZ ₁₈₆	14.8	0.15	19991228	313.96844	192.52397	318.32973	9.05844	0.0603376	2.5577036	26	1	49 days	0.45		Williams	1999 XZ ₁₈₆
1999 XE ₁₈₇	14.5	0.15	20000226	108.41128	71.51459	291.96227	22.11927	0.0320394	2.3660722	42	2	1998-2000	0.69	M-v 3	Williams	37975 1999 XE ₁₈₇
1999 XF ₁₈₇	15.5	0.15	19991228	49.08237	60.98999	338.48729	6.51354	0.1203365	2.3259194	22	1	49 days	0.47		Williams	1999 XF ₁₈₇
1999 XM ₁₈₇	15.7	0.15	19991228	358.37591	156.73927	308.68326	12.65524	0.1944421	2.6190583	31	1	49 days	0.70		Spahr	1999 XM ₁₈₇
1999 XN ₁₈₇	14.9	0.15	20000226	76.40158	50.21459	344.32917	7.20747	0.0967208	2.2347321	30	1	61 days	0.39	M-v 5	Williams	1999 XN ₁₈₇
1999 XP ₁₈₇	15.3	0.15	19991228	357.58453	156.96660	290.94227	12.64207	0.2060444	2.6267052	24	1	49 days	0.58		Williams	1999 XP ₁₈₇
1999 XQ ₁₈₇	16.2	0.15	19991228	343.02879	72.63448	36.77300	8.97051	0.1572903	2.2289393	18	1	48 days	0.50		Williams	1999 XQ ₁₈₇
1999 XY ₁₈₇	10.8	0.15	20000226	12.05885	35.39328	38.49225	17.35842	0.0509016	5.1937360	37	3	1987-2000	0.50	M-v 3	Williams	37975 1999 XY ₁₈₇
1999 XF ₁₈₈	13.8	0.15	20000226	38.56414	95.57492	315.72126	8.63809	0.0904045	2.9657678	38	2	1998-2000	0.64	M-v 3	Williams	37975 1999 XF ₁₈₈
1999 XG ₁₈₈	13.3	0.15	20000226	322.29308	198.10918	304.70874	8.19916	0.0998200	2.7918853	57	4	1989-2000	0.61	M-v 2	Williams	37975 1999 XG ₁₈₈
1999 XK ₁₈₈	14.5	0.15	20000226	75.15131	66.81512	305.63651	6.30473	0.1378455	2.2943729	35	2	1997-2000	0.46	M-v 5	Williams	37976 1999 XK ₁₈₈
1999 XL ₁₈₈	14.6	0.15	20000226	338.70555	164.09864	327.45804	4.80154	0.1056736	2.3321733	28	1	61 days	0.51	M-v 5	Williams	1999 XL ₁₈₈
1999 XP ₁₈₈	13.8	0.15	20000226	24.49408	143.21200	286.68239	11.81562	0.1548128	2.6867774	32	1	61 days	0.44	M-v 4	Williams	1999 XP ₁₈₈
1999 XQ ₁₈₈	14.3	0.15	20000226	5.81921	147.70992	309.62806	6.86573	0.0654726	2.3886624	26	1	61 days	0.50	M-v 5	Williams	1999 XQ ₁₈₈
1999 XS ₁₈₈	14.0	0.15	20000226	31.87681	118.40143	300.16215	7.83882	0.1117352	3.0614677	22	1	61 days	0.43	M-v 4	Williams	1999 XS ₁₈₈
1999 XU ₁₈₈	14.8	0.15	20000226	80.51028	18.14957	336.74441	5.64746	0.2419670	2.2986027	42	2	1997-2000	0.56	M-v 5	Williams	37976 1999 XU ₁₈₈
1999 XA ₁₈₉	15.0	0.15	19991228	338.67777	176.15746	301.83538	11.67132	0.2114495	2.6490884	20	1	49 days	0.46		Williams	1999 XA ₁₈₉
1999 XC ₁₈₉	14.3	0.15	20000226	38.91626	63.24994	349.06941	9.32278	0.0848163	2.9670852	42	3	1993-2000	0.73	M-v 3	Williams	37976 1999 XC ₁₈₉
1999 XF ₁₈₉	13.5	0.15	20000226	44.88695	72.84538	326.40826	7.87243	0.1980197	2.7768259	23	1	61 days	0.36	M-v 5	Williams	1999 XF ₁₈₉
1999 XH ₁₈₉	15.5	0.15	19991228	359.08499	158.68413	289.51623	12.31221	0.2173046	2.6323424	15	1	50 days	0.37		Williams	1999 XH ₁₈₉
1999 XK ₁₈₉	14.7	0.15	20000226	339.42573	166.68879	322.00210	6.03735	0.0842203	2.4354702	23	1	61 days	0.52	M-v 5	Williams	1999 XK ₁₈₉
1999 XQ ₁₈₉	15.4	0.15	19991228	316.72967	174.33488	321.82031	6.48754	0.0716034	2.2791113	18	1	48 days	0.41		Williams	1999 XQ ₁₈₉
1999 XR ₁₈₉	14.8	0.15	20000226	86.78756	317.01850	34.84765	6.56272	0.2209427	2.3086162	21	1	61 days	0.52	M-v 6	Williams	1999 XR ₁₈₉
1999 XU ₁₈₉	15.6	0.15	20000226	40.42608	108.93294	301.31285	8.74804	0.2233685	2.3570814	22	1	61 days	0.47	M-v 4	Williams	1999 XU ₁₈₉
1999 XY ₁₈₉	14.0	0.15	19991228	168.40664	278.45064	356.07323	7.17720	0.2005561	2.2883025	17	1	49 days	0.43		Williams	1999 XY ₁₈₉
1999 XO ₁₉₀	14.2	0.15	20000226	146.07376	294.05586	13.12030	5.14017	0.1236159	2.4412124	35	3	1997-2000	0.60	M-v 4	Williams	37976 1999 XO ₁₉₀
1999 XV ₁₉₀	16.0	0.15	19991208	339.55781	136.83242	333.66126	4.55763	0.1575279	2.2927623	15	1	23 days	0.48		Williams	1999 XV ₁₉₀
1999 XW ₁₉₀	13.8	0.15	19991208	59.37159	312.71295	60.46313	11.56447	0.1145532	3.0148373	26	1	51 days	0.43		Williams	1999 XW ₁₉₀
1999 XY ₁₉₀	14.4	0.15	20000226	30.42230	125.01387	292.48309	9.44246	0.2243213	3.1644296	25	1	61 days	0.43	M-v 4	Williams	1999 XY ₁₉₀
1999 XJ ₁₉₁	13.3	0.15	20000226	23.87900	18.63730	55.16901	17.18695	0.1053738	3.1051983	38	4	1993-2000	0.72	M-v 2	Williams	37976 1999 XJ ₁₉₁
1999 XM ₁₉₁	12.5	0.15	20000226	130.76917	37.39772	288.54411	21.20365	0.0108647	3.1677270	31	1	61 days	0.53	M-v 5	Williams	1999 XM ₁₉₁
1999 XA ₁₉₂	14.3	0.15	20000226	9.68358	101.60674	355.78036	5.76440	0.0941521	2.4663578	24	1	61 days	0.37	M-v 5	Williams	1999 XA ₁₉₂
1999 XC ₁₉₂	14.8	0.15	19991228	283.89199	149.71992	33.96825	6.22878	0.1415405	2.3015430	22	1	49 days	0.36		Williams	1999 XC ₁₉₂
1999 XF ₁₉₂	15.2	0.15	20000226	335.60668	224.27875	290.42202	10.28245	0.2731776	2.6312967	34	1	61 days	0.51	M-v 5	Williams	1999 XF ₁₉₂
1999 XH ₁₉₂	14.9	0.15	19991208	31.00940	77.15966	325.31189	5.28060	0.1707337	2.7666139	16	1	23 days	0.44		Williams	1999 XH ₁₉₂
1999 XJ ₁₉₂	13.9	0.15	20000226	96.75509	308.66093	47.30301	8.01921	0.0996233	2.7682190	23	1	74 days	0.44	M-v 4	Williams	1999 XJ ₁₉₂
1999 XS ₁₉₂	15.3	0.15	20000226	23.25118	92.10026	351.60897	6.87653	0.0787335	2.3271086	26	2	1995-2000	0.36	M-v 3	Williams	37977 1999 XS ₁₉₂
1999 XX ₁₉₂	13.7	0.15	20000226	353.91066	145.03194	326.49096	10.38247	0.0845261	3.0708832	30	2	1998-2000	0.75	M-v 4	Williams	37977 1999 XX ₁₉₂
1999 XE ₁₉₃	14.1	0.15	20000226	99.43178	34.32760	307.92958	8.58745	0.2205757	2.4325637	37	2	1987-2000	0.60	M-v 5	Williams	37977 1999 XE ₁₉₃
1999 XP ₁₉₃	13.8	0.15	20000226	69.62982	306.46817	69.37210	15.56814	0.2023729	2.5982330	36	2	1982-2000	0.52	M-v 3	Williams	37977 1999 XP ₁₉₃
1999 XQ ₁₉₃	14.8	0.15	20000226	278.77091	167.60865	34.33401	5.99442	0.0938482	2.2350953	22	1	75 days	0.35	M-v 4	Williams	1999 XQ ₁₉₃
1999 XC ₁₉₄	13.1	0.15	19991228	283.55738	148.70902	30.47237	6.82051	0.0735572	3.1313500	28	1	49 days	0.52		Williams	1999 XC ₁₉₄
1999 XM ₁₉₄	14.7	0.15	19991228	55.70298	73.81346	301.59862	11.87931	0.2038269	2.5419722	23	1	49 days	0.47		Williams	1999 XM ₁₉₄
1999 XU ₁₉₄	15.8	0.15	19991208	21.09299	75.65847	331.77726	6.23393	0.3167299	2.8913020	17	1	23 days	0.53		Williams	1999 XU ₁₉₄
1999 XY ₁₉₄	13.4	0.15	20000226	19.68981	145.15155	301.08157	12.68561	0.1273844	2.6814970	37	1	61 days	0.57	M-v 4	Williams	1999 XY ₁₉₄
1999 XO ₁₉₅	14.7	0.15	19991228	40.91434	46.13687	356.75422	6.79439	0.1366432	2.3259391	27	1	45 days	0.40		Spahr	1999 XO ₁₉₅
1999 XP ₁₉₅	13.5	0.15	19991228	86.10200	46.82076	305.75793	13.67184	0.1424460	2.5320444	32	1	49 days	0.54		Williams	1999 XP ₁₉₅
1999 XA ₁₉₆	15.7	0.15	19991228	0.55855	57.89912	37.72137	5.28904	0.1100495	2.2933108	29	1	49 days	0.46		Williams	1999 XA ₁₉₆
1999 XC ₁₉₆	14.3	0.15	20000226	47.50590	87.45393	319.54148	8.41826	0.1589643	3.0696779	28	2	1995-2000	0.48	M-v 4	Williams	37978 1999 XC ₁₉₆
1999 XD ₁₉₆	13.8	0.15	20000226	312.74733	224.50146	300.97521	10.52562	0.0823814	2.7671277	45	2	1997-2000	0.57	M-v 4	Williams	37978 1999 XD ₁₉₆
1999 XE ₁₉₆	15.1	0.15	19991208	82.05347	341.88934	357.65223	4.83743	0.2658285	2.3423663	15	1	23 days	0.66		Williams	1999 XE ₁₉₆
1999 XJ ₁₉₆	15.5	0.15	19991208	3.10063	145.76759	299.59597	15.43467	0.2010809	2.7422526	18	1	23 days	0.57		Williams	1999 XJ ₁₉₆

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1999 XS ₁₉₆	16.0	0.15	19991208	47.09081	350.45166	29.31814	5.33901	0.2344526	2.3929390	17	1	23 days	0.63		Williams	1999 XS ₁₉₆
1999 XT ₁₉₆	13.1	0.15	19991208	131.03956	246.79936	68.39083	12.66760	0.1191217	3.0015708	25	1	49 days	0.34		Williams	1999 XT ₁₉₆
1999 XU ₁₉₆	14.7	0.15	19991228	36.26952	25.57061	23.92276	5.23409	0.1560253	3.0172098	23	1	49 days	0.58		Williams	1999 XU ₁₉₆
1999 XJ ₁₉₇	13.1	0.15	20000226	270.05824	133.20308	74.45356	22.90077	0.0291995	2.5878904	33	2	1997–2000	0.49	M-v 4	Williams	37978 1999 XJ ₁₉₇
1999 XL ₁₉₇	14.7	0.15	19991228	309.89525	167.96838	353.18554	9.43176	0.1279826	2.7657942	22	1	48 days	0.52		Williams	1999 XL ₁₉₇
1999 XU ₁₉₇	14.1	0.15	20000226	353.71215	97.34859	27.44481	9.61220	0.1743037	3.1105790	32	2	1998–2000	0.59	M-v 4	Williams	37978 1999 XU ₁₉₇
1999 XX ₁₉₇	13.8	0.15	19991228	22.62734	23.48597	51.49235	12.12171	0.0835044	3.0738789	25	1	55 days	0.34		Spahr	1999 XX ₁₉₇
1999 XZ ₁₉₇	15.2	0.15	19991228	50.40998	60.41429	339.33972	6.71560	0.1134156	2.3631985	24	1	49 days	0.45		Williams	1999 XZ ₁₉₇
1999 XQ ₁₉₈	13.4	0.15	19991208	292.54426	93.76572	58.29192	14.50781	0.0366922	3.2182732	20	1	49 days	0.40		Williams	1999 XQ ₁₉₈
1999 XT ₁₉₈	14.4	0.15	19991208	25.28861	24.36079	19.61874	6.88950	0.1766791	3.0596635	14	1	23 days	0.61		Williams	1999 XT ₁₉₈
1999 XV ₁₉₈	15.9	0.15	19991228	22.81219	61.28602	348.82786	4.40192	0.2327344	2.3856496	20	1	49 days	0.60		Williams	1999 XV ₁₉₈
1999 XY ₁₉₈	15.3	0.15	19991208	52.69270	47.83083	323.82263	5.83171	0.1516441	2.4529801	17	1	23 days	0.56		Williams	1999 XY ₁₉₈
1999 XZ ₁₉₉	16.1	0.15	19991228	349.84611	66.50697	36.23640	4.91196	0.1061762	2.1747407	10	1	44 days	1.15		Williams	1999 XZ ₁₉₉
1999 XF ₂₀₀	14.3	0.15	19991228	97.27960	9.80699	324.35621	6.23796	0.1670574	2.4356717	16	1	49 days	0.42		Williams	1999 XF ₂₀₀
1999 XO ₂₀₀	13.6	0.15	19991228	278.90528	225.09277	314.45639	8.77472	0.0430579	3.0711626	23	1	49 days	0.54		Williams	1999 XO ₂₀₀
1999 XW ₂₀₀	14.8	0.15	20000226	325.72862	212.37929	309.46776	8.81541	0.1734534	2.5351866	27	1	61 days	0.42	M-v 5	Williams	1999 XW ₂₀₀
1999 XX ₂₀₀	13.4	0.15	20000226	227.55886	280.60408	327.26595	8.30304	0.1131306	2.7637437	44	3	1993–2000	0.71	M-v 3	Williams	37979 1999 XX ₂₀₀
1999 XB ₂₀₂	15.5	0.15	19991208	280.22984	147.39731	35.32909	5.55563	0.1558930	2.3498318	13	1	23 days	0.60		Williams	1999 XB ₂₀₂
1999 XJ ₂₀₂	13.7	0.15	19991228	351.94596	159.06806	310.69436	10.43596	0.0896844	3.0631033	35	1	50 days	0.62		Spahr	1999 XJ ₂₀₂
1999 XN ₂₀₂	15.3	0.15	20000226	341.06796	158.85160	341.41497	7.02419	0.0543014	2.3419914	22	1	61 days	0.50	M-v 5	Williams	1999 XN ₂₀₂
1999 XT ₂₀₂	13.8	0.15	19991228	285.78598	262.66153	292.34643	29.16130	0.1806674	2.7216134	29	1	50 days	0.30		Spahr	1999 XT ₂₀₂
1999 XU ₂₀₂	13.9	0.15	20000226	11.77756	141.77519	317.50981	11.95460	0.1945718	3.2197414	23	1	61 days	0.38	M-v 4	Williams	1999 XU ₂₀₂
1999 XW ₂₀₂	14.4	0.15	20000226	14.10395	150.62354	308.98831	13.35636	0.1398074	2.6168137	27	1	61 days	0.46	M-v 4	Williams	1999 XW ₂₀₂
1999 XY ₂₀₂	14.0	0.15	19991228	296.66535	175.64267	357.44051	9.00447	0.0859138	2.7572529	24	1	52 days	0.70		Williams	1999 XY ₂₀₂
1999 XD ₂₀₃	14.4	0.15	20000226	347.04513	179.19807	316.20913	14.05812	0.1317616	2.6123571	40	2	1998–2000	0.49	M-v 3	Williams	37979 1999 XD ₂₀₃
1999 XE ₂₀₃	14.6	0.15	20000226	64.83812	85.55397	297.61434	24.74016	0.2376302	2.6435853	33	1	70 days	0.51	M-v 4	Williams	1999 XE ₂₀₃
1999 XF ₂₀₃	14.4	0.15	19991228	35.62292	358.89410	37.10799	9.19974	0.3178694	2.7541895	27	1	57 days	0.43		Spahr	1999 XF ₂₀₃
1999 XJ ₂₀₃	13.6	0.15	20000226	354.97772	158.00543	325.37893	10.37958	0.1351359	3.1142417	25	1	61 days	0.55	M-v 4	Williams	1999 XJ ₂₀₃
1999 XM ₂₀₃	14.3	0.15	20000226	345.16070	188.51282	308.62656	11.68171	0.1104966	2.7094127	32	1	61 days	0.51	M-v 4	Williams	1999 XM ₂₀₃
1999 XN ₂₀₃	15.7	0.15	19991228	51.67336	72.49717	327.82616	6.57470	0.1066532	2.2496799	16	1	49 days	0.70		Williams	1999 XN ₂₀₃
1999 XH ₂₀₄	15.2	0.15	20000226	311.07182	197.98038	339.52498	6.78164	0.0641523	2.2463564	25	1	61 days	0.51	M-v 5	Williams	1999 XH ₂₀₄
1999 XJ ₂₀₄	15.3	0.15	19991228	346.10037	168.43944	315.64338	10.96966	0.1652016	2.7949897	16	1	49 days	0.62		Williams	1999 XJ ₂₀₄
1999 XY ₂₀₄	14.1	0.15	20000226	246.82516	197.94120	48.30030	12.58872	0.1370157	2.6506741	23	2	1999–2000	0.33	M-v 4	Williams	37979 1999 XY ₂₀₄
1999 XF ₂₀₅	15.1	0.15	20000226	51.30233	41.21836	22.27468	6.43615	0.1063426	2.3385415	34	3	1995–2000	0.63	M-v 5	Williams	37979 1999 XF ₂₀₅
1999 XG ₂₀₅	13.0	0.15	19991228	279.55839	165.53851	46.55663	8.44667	0.2017960	2.7495647	27	1	48 days	0.53		Williams	1999 XG ₂₀₅
1999 XM ₂₀₅	14.2	0.15	20000226	246.99978	283.33407	324.22357	12.24076	0.1356207	2.5243082	21	1	61 days	0.37	M-v 5	Williams	1999 XM ₂₀₅
1999 XN ₂₀₅	13.6	0.15	19991228	291.20387	217.23474	335.33725	10.91576	0.1319891	2.6879107	25	1	48 days	0.42		Williams	1999 XN ₂₀₅
1999 XS ₂₀₅	15.4	0.15	19991228	32.57304	17.45193	38.47116	7.64181	0.2480657	2.7802202	29	1	52 days	0.58		Williams	1999 XS ₂₀₅
1999 XV ₂₀₅	13.8	0.15	19991228	326.03055	68.89920	91.92679	34.17714	0.1647432	3.2147920	22	1	46 days	0.50		Williams	1999 XV ₂₀₅
1999 XW ₂₀₅	15.0	0.15	19991228	42.85469	105.24603	311.90488	21.82349	0.0916275	2.5965020	15	1	49 days	0.65		Williams	1999 XW ₂₀₅
1999 XE ₂₀₆	13.9	0.15	20000226	357.30185	74.80721	53.50022	11.25339	0.0668953	3.0661207	28	2	1998–2000	0.72	M-v 4	Williams	37979 1999 XE ₂₀₆
1999 XF ₂₀₆	14.6	0.15	19991228	22.09628	49.82771	28.89591	8.77509	0.1822855	2.8027193	24	1	48 days	0.56		Williams	1999 XF ₂₀₆
1999 XG ₂₀₆	13.6	0.15	19991228	24.85624	20.34568	62.41350	12.58381	0.1074891	3.0976436	24	1	48 days	0.55		Williams	1999 XG ₂₀₆
1999 XK ₂₀₆	13.6	0.15	20000226	63.11771	22.48394	34.80824	11.21333	0.0424586	3.0985254	43	2	1998–2000	0.82	M-v 3	Williams	37980 1999 XK ₂₀₆
1999 XM ₂₀₆	13.2	0.15	20000226	10.46017	37.27528	77.74812	19.39079	0.1059369	3.1521267	25	1	71 days	0.44	M-v 4	Williams	1999 XM ₂₀₆
1999 XS ₂₀₆	12.0	0.15	20000226	242.03213	284.68209	319.96963	20.34131	0.0246473	3.2397103	35	1	61 days	0.42	M-v 5	Williams	1999 XS ₂₀₆
1999 XT ₂₀₆	13.2	0.15	19991228	295.74389	116.88911	77.14618	17.35656	0.1165834	3.1147002	18	1	50 days	0.28		Williams	1999 XT ₂₀₆
1999 XX ₂₀₆	13.9	0.15	20000226	140.53243	288.29998	47.41615	11.94991	0.2027120	2.6287137	37	3	1997–2000	0.73	M-v 3	Williams	37980 1999 XX ₂₀₆
1999 XA ₂₀₇	13.8	0.15	20000226	311.79625	180.03293	4.02360	5.39964	0.2047329	2.7614679	33	1	61 days	0.40	M-v 5	Williams	1999 XA ₂₀₇
1999 XH ₂₀₇	16.0	0.15	19991228	334.62103	178.77620	320.23732	7.48124	0.1861686	2.3717982	21	1	50 days	0.45		Spahr	1999 XH ₂₀₇
1999 XN ₂₀₇	15.2	0.15	19991228	88.35819	268.22359	84.75331	23.76384	0.2838239	2.2610030	58	1	46 days	0.54		Williams	1999 XN ₂₀₇
1999 XW ₂₀₇	15.1	0.15	19991228	43.75193	75.30437	320.27582	14.82450	0.2872737	2.7623185	17	1	49 days	0.50		Williams	1999 XW ₂₀₇
1999 XS ₂₀₈	15.2	0.15	20000226	34.53239	105.85575	302.11487	11.23183	0.2949850	2.5329592	23	1	60 days	0.44	M-v 4	Williams	1999 XS ₂₀₈

1999 XJ ₂₀₉	13.1	0.15	20000226	92.29556	336.20828	18.12982	10.73768	0.1004252	2.9807204	35	2	1998–2000	0.62	M-v	3	Williams	37980	1999 XJ ₂₀₉
1999 XY ₂₀₉	14.3	0.15	19991228	352.34009	58.46957	41.88806	12.58631	0.0567418	2.7360314	20	1	45 days	0.54			Williams		1999 XY ₂₀₉
1999 XO ₂₁₀	13.4	0.15	19991228	36.29595	2.07985	51.20450	15.62286	0.0702736	2.9167943	23	1	43 days	0.43			Williams		1999 XO ₂₁₀
1999 XB ₂₁₁	10.1	0.15	19991228	122.01644	8.77740	317.25430	19.67977	0.0875979	5.2079526	21	1	45 days	0.46			Williams		1999 XB ₂₁₁
1999 XC ₂₁₁	13.6	0.15	19991228	22.44876	38.19989	29.46176	10.16118	0.1332749	2.6619779	24	1	45 days	0.35			Williams		1999 XC ₂₁₁
1999 XD ₂₁₁	12.6	0.15	19991228	58.12237	0.29757	14.64253	10.42230	0.2206383	2.9955760	23	1	45 days	0.50			Williams		1999 XD ₂₁₁
1999 XU ₂₁₁	12.9	0.15	19991228	253.39210	249.69588	341.01110	16.83278	0.0624443	3.2225553	32	1	48 days	0.47			Williams		1999 XU ₂₁₁
1999 XW ₂₁₁	10.8	0.15	20000226	66.64773	65.63618	327.03120	18.00587	0.0576164	5.1302959	23	3	1974–2000	0.56	M-v	3	Williams	37980	1999 XW ₂₁₁
1999 XD ₂₁₂	15.3	0.15	19991228	51.69548	53.43059	335.58879	10.56242	0.1866671	2.4588148	15	1	55 days	0.52			Williams		1999 XD ₂₁₂
1999 XH ₂₁₂	15.0	0.15	20000226	80.21539	217.74143	119.95042	3.64603	0.2330419	2.1628141	48	1	113 days	0.49	M-v	4	Williams	38167	1999 XH ₂₁₂
1999 XK ₂₁₂	14.3	0.15	20000226	49.68524	254.55137	121.73133	5.16835	0.1050384	2.7529441	33	2	1992–2000	0.45	M-v	4	Williams	37981	1999 XK ₂₁₂
1999 XM ₂₁₂	13.1	0.15	20000226	328.17618	28.22491	78.20392	10.72521	0.0682464	3.0461677	40	1	79 days	0.55	M-v	5	Williams	38167	1999 XM ₂₁₂
1999 XN ₂₁₂	13.0	0.15	20000226	122.60700	219.89686	75.38970	14.52004	0.1734326	2.6129112	56	2	1998–2000	0.59	M-v	3	Williams	37981	1999 XN ₂₁₂
1999 XT ₂₁₂	15.2	0.15	19991029	40.93826	242.53919	118.74552	6.83582	0.1578266	2.6487281	24	1	56 days	0.63			Williams		1999 XT ₂₁₂
1999 XV ₂₁₂	15.2	0.15	20000226	0.39526	323.67372	135.85794	5.38465	0.1899653	2.3770502	50	2	1973–2000	0.75	M-v	4	Williams	38167	1999 XV ₂₁₂
1999 XY ₂₁₂	13.5	0.15	20000226	9.94493	338.72650	95.47793	18.94758	0.1914737	3.0675273	39	1	82 days	0.45	M-v	3	Williams		1999 XY ₂₁₂
1999 XB ₂₁₃	14.5	0.15	20000226	27.64033	293.61299	129.71806	8.10226	0.1846577	2.5972066	55	1	106 days	0.53	M-v	3	Williams	38167	1999 XB ₂₁₃
1999 XH ₂₁₃	14.9	0.15	20000226	34.85281	239.73820	183.18835	7.63335	0.0973975	2.2848548	33	1	83 days	0.48	M-v	4	Williams	38167	1999 XH ₂₁₃
1999 XO ₂₁₃	13.3	0.15	20000226	54.60630	244.30004	123.77779	8.67503	0.2567277	3.9312366	32	3	1996–2000	0.53	M-v	3	Williams	37981	1999 XO ₂₁₃
1999 XP ₂₁₃	15.7	0.15	19991228	12.40563	316.30960	114.64788	7.86555	0.0553763	2.2323336	23	1	51 days	0.46			Spahr		1999 XP ₂₁₃
1999 XV ₂₁₄	15.1	0.15	19991228	5.66958	321.31490	128.11265	6.59582	0.1902695	2.4282161	19	1	51 days	0.41			Williams		1999 XV ₂₁₄
1999 XW ₂₁₄	14.7	0.15	19991228	42.78108	270.67372	122.78959	8.44616	0.2285942	2.7107995	29	1	51 days	0.56			Williams		1999 XW ₂₁₄
1999 XA ₂₁₅	13.8	0.15	19991228	46.58877	287.29032	117.07396	13.05263	0.1247619	3.0127844	32	1	59 days	0.50			Spahr		1999 XA ₂₁₅
1999 XH ₂₁₅	13.1	0.15	19991228	43.00951	303.01831	110.39454	22.82917	0.0524491	3.1801583	30	1	59 days	0.52			Williams		1999 XH ₂₁₅
1999 XJ ₂₁₅	15.1	0.15	20000226	327.99095	14.17641	146.63318	6.20508	0.0931297	2.2601884	35	3	1997–2000	0.71	M-v	4	Spahr	37982	1999 XJ ₂₁₅
1999 XL ₂₁₅	14.0	0.15	20000226	174.29498	127.60720	171.83015	6.14832	0.2088060	2.2592913	61	2	1998–2000	0.58	M-v	3	Spahr	37982	1999 XL ₂₁₅
1999 XS ₂₁₅	13.3	0.15	20000226	137.01449	164.56898	178.70327	9.16303	0.0533401	3.0396040	50	3	1991–2000	0.63	M-v	3	Williams	37982	1999 XS ₂₁₅
1999 XT ₂₁₅	14.4	0.15	20000226	54.57665	188.22701	234.35902	9.48474	0.1029471	2.7581288	43	2	1998–2000	0.72	M-v	3	Spahr	37983	1999 XT ₂₁₅
1999 XU ₂₁₅	13.6	0.15	20000226	164.22126	359.76908	276.18042	12.72520	0.1351337	2.5991376	41	3	1982–2000	0.62	M-v	3	Williams	37983	1999 XU ₂₁₅
1999 XF ₂₁₆	15.8	0.15	19991228	33.16837	144.14582	282.25325	8.46454	0.1002479	2.7482378	14	1	52 days	0.47			Williams		1999 XF ₂₁₆
1999 XK ₂₁₆	14.4	0.15	20000226	82.60393	286.62683	105.30458	7.25304	0.0505152	2.7785831	28	1	66 days	0.55	M-v	5	Williams		1999 XK ₂₁₆
1999 XL ₂₁₆	16.1	0.15	19991228	333.64082	34.14603	103.91535	3.38601	0.1028673	2.3795235	14	1	49 days	0.44			Williams		1999 XL ₂₁₆
1999 XQ ₂₁₆	14.5	0.15	20000226	317.77822	75.42756	103.31443	2.97505	0.1639046	2.9777206	31	1	60 days	0.56	M-v	5	Williams		1999 XQ ₂₁₆
1999 XS ₂₁₆	16.1	0.15	19991208	80.66349	262.55705	103.45959	7.52538	0.1278931	2.3550335	16	1	22 days	0.40			Williams		1999 XS ₂₁₆
1999 XU ₂₁₆	15.0	0.15	20000226	354.81660	30.13097	101.38176	5.26221	0.0697245	2.3212242	37	3	1995–2000	0.47	M-v	3	Williams	37983	1999 XU ₂₁₆
1999 XJ ₂₁₇	15.7	0.15	20000226	49.91240	62.02452	339.94440	0.25664	0.3068810	2.7461485	34	3	1994–2000	0.37	M-v	3	Williams	37983	1999 XJ ₂₁₇
1999 XN ₂₁₇	15.3	0.15	20000226	62.26721	309.07531	100.28881	5.46228	0.1380104	2.3289591	40	1	65 days	0.42	M-v	4	Williams		1999 XN ₂₁₇
1999 XO ₂₁₇	13.6	0.15	20000226	258.04596	142.23328	94.98720	2.50147	0.1314834	3.1029984	38	3	1984–2000	0.41	M-v	4	Williams	37984	1999 XO ₂₁₇
1999 XW ₂₁₇	16.7	0.15	19991228	310.14018	236.74557	291.79169	1.48749	0.1367904	2.3577126	29	1	48 days	0.61			Williams		1999 XW ₂₁₇
1999 XD ₂₁₈	15.3	0.15	19991228	128.76303	229.91568	100.72222	7.45253	0.1103167	2.4373323	25	1	49 days	0.34			Spahr		1999 XD ₂₁₈
1999 XJ ₂₁₈	17.3	0.15	19991228	15.07204	0.07201	86.11293	2.24756	0.1548187	2.4391457	14	1	49 days	0.48			Spahr		1999 XJ ₂₁₈
1999 XL ₂₁₈	15.5	0.15	19991208	67.27702	45.58623	340.52942	1.00199	0.1045204	2.7568202	16	1	26 days	0.52			Spahr		1999 XL ₂₁₈
1999 XN ₂₁₈	16.2	0.15	19991228	32.51722	328.00293	92.70819	4.53416	0.1850178	2.3730122	25	1	49 days	0.49			Spahr		1999 XN ₂₁₈
1999 XT ₂₁₈	17.0	0.15	19991228	33.58860	142.49070	272.55830	2.62742	0.2352609	2.5329440	14	1	50 days	0.40			Williams		1999 XT ₂₁₈
1999 XV ₂₁₈	16.3	0.15	20000226	33.95378	177.23521	272.48179	1.68521	0.0446702	2.3277619	34	2	1997–2000	0.42	M-v	4	Spahr	37984	1999 XV ₂₁₈
1999 XW ₂₁₈	12.8	0.15	19991228	22.05054	325.51379	123.35413	3.39418	0.0771587	5.2528562	31	1	58 days	0.47			Williams		1999 XW ₂₁₈
1999 XL ₂₂₀	16.5	0.15	19991228	16.27642	102.27485	340.72928	10.19258	0.1271534	2.3869162	18	1	48 days	0.61			Williams		1999 XL ₂₂₀
1999 XO ₂₂₀	13.6	0.15	20000226	2.14979	342.99317	85.20090	13.97282	0.1446574	2.6042344	38	1	119 days	0.64	M-v	4	Williams	38168	1999 XO ₂₂₀
1999 XP ₂₂₀	13.3	0.15	20000226	22.70261	281.44786	116.78113	9.02555	0.2680844	2.7967891	46	1	166 days	0.44	M-v	3	Williams		1999 XP ₂₂₀
1999 XA ₂₂₁	12.5	0.15	19991228	130.24498	88.61603	262.15478	14.01293	0.1562066	2.5817622	21	1	56 days	0.33			Spahr		1999 XA ₂₂₁
1999 XM ₂₂₁	12.5	0.15	19991208	108.15966	275.15521	38.01280	11.50425	0.0935717	3.4798500	18	1	20 days	0.40			Williams		1999 XM ₂₂₁
1999 XO ₂₂₁	14.6	0.15	20000226	353.85388	132.97296	328.75285	3.33227	0.0555432	2.6383908	35	3	1990–2000	0.48	M-v	4	Williams	37984	1999 XO ₂₂₁
1999 XR ₂₂₁	15.3	0.15	20000226	63.07557	337.48153	49.30038	6.54078	0.1178019	2.2099763	34	1	75 days	0.52	M-v	4	Williams		1999 XR ₂₂₁

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1999 XU ₂₂₁	16.3	0.15	20000226	28.47300	5.70375	58.37224	8.28856	0.2575271	2.3477558	44	1	88 days	0.52	M-v	4	Williams	38168	1999 XU ₂₂₁
1999 XY ₂₂₁	14.6	0.15	19991208	141.64068	245.91413	43.60751	6.59091	0.1042958	2.3871349	16	1	20 days	0.55			Williams		1999 XY ₂₂₁
1999 XB ₂₂₂	14.7	0.15	19991208	28.93748	78.06400	326.56981	4.58602	0.0328134	2.3838367	18	1	20 days	0.50			Williams		1999 XB ₂₂₂
1999 XK ₂₂₂	13.8	0.15	19991208	108.33068	28.71866	287.75453	8.68444	0.1271903	2.5494480	20	1	20 days	0.35			Williams		1999 XK ₂₂₂
1999 XL ₂₂₂	14.3	0.15	19991208	132.73897	353.99785	311.40512	5.81397	0.1368747	2.3876945	15	1	20 days	0.48			Williams		1999 XL ₂₂₂
1999 XO ₂₂₂	13.5	0.15	19991208	44.35862	62.54062	327.34574	4.32216	0.1580397	3.1776456	17	1	20 days	0.30			Williams		1999 XO ₂₂₂
1999 XP ₂₂₂	14.9	0.15	19991208	103.57504	264.48576	64.59911	7.21638	0.1450156	2.2334215	20	1	49 days	0.38			Williams		1999 XP ₂₂₂
1999 XD ₂₂₃	13.9	0.15	19991228	40.52833	328.79472	104.82746	23.41575	0.1181914	3.0849361	22	1	45 days	0.50			Williams		1999 XD ₂₂₃
1999 XU ₂₂₃	15.3	0.15	20000226	29.17277	164.04348	282.52087	8.50506	0.1382929	2.6411899	21	1	79 days	0.40	M-v	4	Williams		1999 XU ₂₂₃
1999 XX ₂₂₃	14.8	0.15	20000226	173.51924	202.12173	101.43382	3.48479	0.2161897	2.3548598	62	3	1987-2000	0.63	M-v	3	Marsden	37984	1999 XX ₂₂₃
1999 XG ₂₂₄	14.6	0.15	20000226	77.88741	97.90127	294.57863	1.21095	0.0834646	2.7974151	45	2	1998-2000	0.55	M-v	4	Williams	37984	1999 XG ₂₂₄
1999 XK ₂₂₄	14.0	0.15	20000226	316.00293	161.31751	15.52067	0.38390	0.1381738	3.2078489	29	1	60 days	0.49	M-v	5	Williams		1999 XK ₂₂₄
1999 XM ₂₂₄	15.4	0.15	20000226	300.57271	269.38279	288.85049	4.02076	0.1360958	2.3398615	49	2	1998-2000	0.77	M-v	4	Spahr	37985	1999 XM ₂₂₄
1999 XN ₂₂₄	17.7	0.15	19991228	26.38188	125.57610	302.00165	1.20177	0.1958074	2.6764825	9	1	48 days	0.58			Williams		1999 XN ₂₂₄
1999 XY ₂₂₄	15.4	0.15	19991228	356.80798	185.75793	287.95759	12.56331	0.2060481	3.0823099	29	1	57 days	0.52			Spahr		1999 XY ₂₂₄
1999 XE ₂₂₅	12.8	0.15	20000226	8.11815	114.92815	354.06976	0.85014	0.1475399	5.1619773	22	1	60 days	0.41	M-v	5	Williams		1999 XE ₂₂₅
1999 XJ ₂₂₅	14.7	0.15	20000226	116.73596	250.98213	98.77648	5.86826	0.1800881	2.2849706	38	1	76 days	0.59	M-v	5	Williams		1999 XJ ₂₂₅
1999 XN ₂₂₅	16.2	0.15	19991228	14.87366	354.15299	96.82172	5.26980	0.0768737	2.3787907	23	1	48 days	0.44			Williams		1999 XN ₂₂₅
1999 XU ₂₂₅	14.9	0.15	20000226	319.54823	244.29449	300.47803	3.00100	0.1779682	2.3142137	41	1	91 days	0.44	M-v	4	Williams	38169	1999 XU ₂₂₅
1999 XV ₂₂₅	15.0	0.15	20000226	81.54353	288.95155	93.73200	3.99692	0.1864843	2.3116540	36	1	87 days	0.47	M-v	4	Williams		1999 XV ₂₂₅
1999 XY ₂₂₅	13.6	0.15	20000226	53.62575	129.62870	296.45476	8.23504	0.0410381	2.9684190	48	3	1992-2000	0.53	M-v	2	Spahr	37985	1999 XY ₂₂₅
1999 XC ₂₂₆	16.6	0.15	19991228	44.81529	37.36480	4.09631	0.76116	0.2002334	2.5372648	19	1	46 days	0.37			Williams		1999 XC ₂₂₆
1999 XF ₂₂₆	16.4	0.15	19991228	28.27069	130.19604	298.41121	2.58901	0.1377691	2.3877348	23	1	47 days	0.51			Williams		1999 XF ₂₂₆
1999 XK ₂₂₆	16.1	0.15	19991228	292.10737	248.62500	296.59374	5.12039	0.0874228	2.2738690	16	1	51 days	0.64			Spahr		1999 XK ₂₂₆
1999 XM ₂₂₆	15.3	0.15	20000226	359.96670	49.58027	79.98676	3.06481	0.1586076	2.3998347	45	2	1995-2000	0.67	M-v	4	Williams	37985	1999 XM ₂₂₆
1999 XQ ₂₂₆	16.9	0.15	19991208	26.58354	99.09867	323.95939	1.77569	0.1692944	2.3597840	20	1	25 days	0.62			Williams		1999 XQ ₂₂₆
1999 XS ₂₂₆	12.3	0.15	19991228	13.09042	34.75541	64.21521	2.28880	0.0773368	5.1656883	31	1	47 days	0.54			Williams		1999 XS ₂₂₆
1999 XX ₂₂₆	15.3	0.15	20000226	339.32703	55.90731	94.79865	5.68683	0.0857122	2.2638477	32	1	66 days	0.51	M-v	4	Williams		1999 XX ₂₂₆
1999 XL ₂₂₇	14.9	0.15	20000226	172.43017	203.49019	104.42449	6.12066	0.1932964	2.2044757	33	3	1997-2000	0.58	M-v	3	Williams	37985	1999 XL ₂₂₇
1999 XM ₂₂₇	15.5	0.15	20000226	47.58640	310.44203	111.28633	4.11829	0.1474773	2.5796541	35	1	61 days	0.46	M-v	4	Williams		1999 XM ₂₂₇
1999 XS ₂₂₇	16.9	0.15	19991228	35.77898	316.80543	104.00224	3.60118	0.1479537	2.3416784	16	1	46 days	0.25			Williams		1999 XS ₂₂₇
1999 XU ₂₂₇	15.1	0.15	20000226	332.79206	45.12516	111.46191	2.99235	0.0607953	2.4333947	48	3	1997-2000	0.68	M-v	4	Williams	37985	1999 XU ₂₂₇
1999 XA ₂₂₈	14.3	0.15	20000226	347.29153	350.62871	91.93160	7.24782	0.1142590	2.3960635	42	2	1993-2000	0.69	M-v	4	Williams	37986	1999 XA ₂₂₈
1999 XD ₂₂₈	14.2	0.15	19991228	73.65270	283.76666	99.45455	11.38435	0.0990784	2.9933196	36	1	59 days	0.64			Williams		1999 XD ₂₂₈
1999 XG ₂₂₈	14.9	0.15	20000226	307.29700	92.46860	91.48882	5.31730	0.0659991	2.3057943	32	1	87 days	0.32	M-v	4	Williams		1999 XG ₂₂₈
1999 XR ₂₂₈	17.7	0.15	19991228	5.43531	117.96648	339.40477	1.27205	0.1458511	2.2878127	19	1	47 days	0.41			Williams		1999 XR ₂₂₈
1999 XS ₂₂₈	15.6	0.15	20000226	80.71568	85.78397	299.09418	4.38183	0.1661205	2.1856378	34	1	76 days	0.56	M-v	5	Williams		1999 XS ₂₂₈
1999 XP ₂₃₀	14.8	0.15	19991118	327.10150	74.40096	16.86565	5.37048	0.1547327	3.1579447	39	1	35 days	0.70			Williams		1999 XP ₂₃₀
1999 XR ₂₃₀	15.8	0.15	19991118	355.52250	42.10502	15.94839	5.09053	0.1888531	2.3920593	13	1	22 days	0.35			Williams		1999 XR ₂₃₀
1999 XW ₂₃₀	13.5	0.15	20000226	108.67711	283.04943	81.30024	15.60698	0.1838766	2.5593186	49	1	60 days	0.40	M-v	4	Williams		1999 XW ₂₃₀
1999 XQ ₂₃₁	14.0	0.15	20000226	19.23540	37.91804	71.03489	14.08345	0.2292778	2.9918833	27	1	69 days	0.42	M-v	5	Williams		1999 XQ ₂₃₁
1999 XV ₂₃₁	14.4	0.15	19991208	53.51344	340.01023	78.49187	10.09545	0.1348943	2.7525983	15	1	29 days	0.49			Williams		1999 XV ₂₃₁
1999 XB ₂₃₂	13.1	0.15	19991208	74.90187	154.88071	239.01539	23.54727	0.1681806	2.3336452	11	1	22 days	0.25			Williams		1999 XB ₂₃₂
1999 YA	18.0	0.15	20000226	76.49319	265.55959	106.28809	38.25299	0.3392773	1.6770947	60	1	40 days	0.58	M-v	5	Spahr	38169	1999 YA
1999 YB	18.2	0.15	20000226	279.09502	192.75900	31.07932	6.79182	0.0749719	1.3211557	56	1	51 days	0.46	M-v	4	Spahr		1999 YB
1999 YD	21.1	0.15	20000226	21.08485	61.56452	9.78274	1.38392	0.5918657	2.4643979	90	1	55 days	0.49	M-v	4	Williams		1999 YD
1999 YE	15.3	0.15	19991228	347.18762	355.08425	86.07210	26.02595	0.2207668	2.2774617	22	1	26 days	0.70			Williams		1999 YE
1999 YG	14.8	0.15	20000226	57.89699	280.68093	109.77081	24.42868	0.1430136	1.9597606	45	1	84 days	0.40	M-v	3	Spahr	38169	1999 YG
1999 YH	15.0	0.15	20000226	288.29227	67.53555	116.15995	23.91448	0.0808896	1.9194559	49	2	1998-2000	0.61	M-v	4	Spahr	37986	1999 YH
1999 YJ	14.1	0.15	20000226	9.99819	337.04172	114.85913	32.85930	0.2142927	2.5926015	28	2	1996-2000	0.59	M-v	3	Williams	37986	1999 YJ
1999 YK	15.1	0.15	19991228	51.75990	265.38555	113.59330	27.55353	0.1841724	1.9157954	33	1	48 days	0.33			Spahr		1999 YK
1999 YM	16.3	0.15	19991228	2.11848	333.33530	115.17710	25.54307	0.0758897	1.9167765	26	1	49 days	0.47			Spahr		1999 YM
1999 YN	14.2	0.15	20000226	35.41682	293.71885	121.59927	22.89167	0.3182702	2.3345672	38	1	96 days	0.52	M-v	4	Williams	38169	1999 YN

1999 YS	14.6	0.15	20000226	0.27983	249.11772	261.40880	27.42554	0.4018777	2.5796475	38	1	56 days	0.49	M-v	4	Williams	1999 YS
1999 YT	16.6	0.15	20000226	67.55635	272.52510	116.57418	31.57508	0.3520566	1.7759994	132	1	57 days	0.54	M-v	4	Williams	38169 1999 YT
1999 YY	14.4	0.15	20000226	58.17818	215.00488	164.83013	6.20332	0.1754413	2.2935666	51	2	1998–2000	0.53	M-v	4	Williams	37986 1999 YY
1999 YD ₁	16.0	0.15	20000226	19.27901	134.65573	308.57864	21.09350	0.1119664	1.9043252	22	1	70 days	0.37	M-v	4	Williams	38169 1999 YD ₁
1999 YO ₁	14.3	0.15	20000226	38.22864	95.39147	329.04696	3.88799	0.1038671	2.2281074	69	3	1974–2000	0.56	M-v	3	Williams	37987 1999 YO ₁
1999 YP ₁	15.2	0.15	20000226	12.05323	282.30200	152.07484	13.22937	0.2417713	2.6431508	30	2	1992–2000	0.60	M-v	3	Williams	37987 1999 YP ₁
1999 YQ ₂	16.8	0.15	19991228	339.12450	193.99422	304.36311	1.74757	0.2080933	2.3566061	25	1	57 days	0.49			Williams	1999 YQ ₂
1999 YT ₂	14.8	0.15	19991228	248.42158	268.42401	330.86103	1.71812	0.1909422	2.3708371	38	1	57 days	0.46			Williams	1999 YT ₂
1999 YV ₂	16.2	0.15	19991208	74.37151	298.45913	79.92856	2.32127	0.0877199	2.2821739	12	1	20 days	0.35			Williams	1999 YV ₂
1999 YD ₃	15.9	0.15	19991228	31.87469	92.70691	333.24404	18.12658	0.0948322	1.9308003	24	1	43 days	0.42			Williams	1999 YD ₃
1999 YE ₃	16.1	0.15	20000226	24.04170	126.00799	304.77696	35.11464	0.4805413	2.6354691	73	1	48 days	0.46	M-v	5	Williams	1999 YE ₃
1999 YF ₃	18.1	0.15	20000226	41.15304	146.94452	298.98050	26.76112	0.1433536	1.4870279	105	1	47 days	0.60	M-v	5	Spahr	1999 YF ₃
1999 YG ₃	19.1	0.15	20000226	346.72659	250.21666	293.35330	34.52131	0.3294030	1.2848240	113	1	46 days	0.59	M-v	6	Spahr	38170 1999 YG ₃
1999 YJ ₃	16.3	0.15	19991228	17.63091	69.23077	10.73812	18.90312	0.0941924	1.8919640	22	1	39 days	0.66			Williams	1999 YJ ₃
1999 YP ₃	15.5	0.15	19991228	313.90854	28.96263	123.61540	24.04529	0.0650234	1.9295126	45	1	46 days	0.38			Spahr	1999 YP ₃
1999 YV ₃	16.1	0.15	19991228	357.18664	101.13565	355.24739	23.17629	0.2733038	2.3816594	20	1	54 days	0.80			Williams	1999 YV ₃
1999 YW ₃	14.6	0.15	19991228	13.80335	40.17169	35.36396	30.76207	0.2079168	2.6010242	25	1	54 days	0.48			Williams	1999 YW ₃
1999 YY ₃	13.6	0.15	20000226	33.77320	76.36996	336.24419	24.16754	0.3183314	2.7756058	37	1	120 days	0.44	M-v	3	Williams	38170 1999 YY ₃
1999 YZ ₃	15.5	0.15	19991228	349.28390	75.38699	48.80158	28.57877	0.3693876	2.6256986	33	1	54 days	0.46			Williams	1999 YZ ₃
1999 YC ₄	15.8	0.15	19991228	351.24804	120.13201	356.37999	22.68596	0.2305797	2.2960757	16	1	37 days	0.51			Williams	1999 YC ₄
1999 YD ₄	14.8	0.15	19991228	32.95994	41.66563	3.26035	23.32609	0.2979347	2.3634273	23	1	37 days	0.60			Williams	1999 YD ₄
1999 YG ₄	14.1	0.15	19991228	128.64225	225.80084	99.05973	10.22555	0.0817430	2.9718739	36	1	41 days	0.65			Spahr	1999 YG ₄
1999 YJ ₄	13.2	0.15	20000226	284.25577	44.24732	98.37227	10.84296	0.0721326	3.0597484	29	1	66 days	0.71	M-v	5	Williams	1999 YJ ₄
1999 YM ₄	15.9	0.15	19991208	74.46832	29.43601	310.27112	4.55444	0.1811190	2.2834291	25	1	56 days	0.85			Williams	1999 YM ₄
1999 YN ₄	15.6	0.15	20000226	314.81479	242.66094	291.78225	36.81413	0.2315146	1.6848815	58	1	45 days	0.47	M-v	5	Spahr	38170 1999 YN ₄
1999 YO ₄	16.0	0.15	19991228	18.76995	65.82380	343.27745	23.14538	0.3045682	2.2997955	32	1	37 days	0.72			Williams	1999 YO ₄
1999 YQ ₄	14.8	0.15	20000226	14.93415	162.30034	305.63182	9.86077	0.1871214	2.6764001	56	1	83 days	0.58	M-v	4	Williams	1999 YQ ₄
1999 YU ₄	14.0	0.15	19991228	180.61694	357.54378	295.78891	7.16282	0.1931910	2.7561702	35	1	37 days	0.91			Spahr	1999 YU ₄
1999 YV ₄	14.9	0.15	20000226	303.01539	261.48598	294.32039	2.33861	0.0983759	2.2530819	52	3	1978–2000	0.72	M-v	4	Spahr	37987 1999 YV ₄
1999 YZ ₄	15.4	0.15	19991228	92.08058	291.51891	64.21005	3.87335	0.1468049	2.3202915	45	1	34 days	0.43			Spahr	1999 YZ ₄
1999 YA ₅	14.0	0.15	20000226	74.71793	317.87544	62.73684	3.46352	0.2249162	2.3558834	85	3	1988–2000	0.68	M-v	4	Williams	37987 1999 YA ₅
1999 YB ₅	15.9	0.15	19991228	13.39429	354.68451	91.38476	10.55007	0.1570025	2.7196989	27	1	32 days	0.45			Williams	1999 YB ₅
1999 YC ₅	15.0	0.15	19991228	148.74436	198.82388	129.02136	15.70781	0.0310106	2.7230951	25	1	36 days	0.95			Spahr	1999 YC ₅
1999 YD ₅	15.9	0.15	20000226	93.60736	235.33251	149.43846	3.39939	0.1310850	2.2022052	32	2	1995–2000	0.48	M-v	5	Spahr	37988 1999 YD ₅
1999 YE ₅	14.0	0.15	20000226	13.35812	340.13481	77.45613	9.37817	0.1762822	2.6380345	54	1	150 days	0.52	M-v	4	Nakano	1999 YE ₅
1999 YF ₅	12.5	0.15	19991228	288.54528	91.72775	93.71580	16.91219	0.0580635	3.1576965	34	1	58 days	0.86			Williams	1999 YF ₅
1999 YG ₅	15.6	0.15	20000117	325.43634	85.78006	84.99716	12.74887	0.2775185	2.4110408	28	1	51 days	0.60			Nakano	1999 YG ₅
1999 YH ₅	15.7	0.15	19991228	313.20944	79.57769	116.72024	24.83635	0.3268803	2.2537648	41	1	53 days	0.65			Williams	1999 YH ₅
1999 YJ ₅	16.7	0.15	20000226	24.80874	108.05635	315.03433	22.87675	0.3527892	2.3017551	71	1	72 days	0.50	M-v	5	Williams	1999 YJ ₅
1999 YK ₅	16.8	0.15	20000226	226.46379	292.69177	349.71676	16.74028	0.5582706	0.8294047	163	1	45 days	0.48	M-v	6	Williams	1999 YK ₅
1999 YM ₅	12.8	0.15	19991228	87.35299	268.61859	82.79804	15.33395	0.1735572	3.0664354	37	1	46 days	0.55			Williams	1999 YM ₅
1999 YQ ₅	14.8	0.15	19991228	24.26180	64.12682	343.81653	26.32280	0.3121922	2.6407903	22	1	37 days	0.44			Spahr	1999 YQ ₅
1999 YW ₅	14.9	0.15	20000226	16.66625	111.74692	311.38993	29.63496	0.2578532	2.6188170	28	1	74 days	0.47	M-v	4	Williams	38170 1999 YW ₅
1999 YA ₆	14.7	0.15	20000226	18.26811	101.39717	323.36452	25.99131	0.2848624	2.6524355	33	1	120 days	0.48	M-v	3 D	Williams	1999 YA ₆
1999 YM ₆	16.4	0.15	19991228	316.45341	204.74939	299.72145	19.28841	0.1139762	1.8993031	21	1	48 days	0.34			Spahr	1999 YM ₆
1999 YO ₆	14.0	0.15	19991228	41.61557	2.52671	37.32224	18.11222	0.1421968	2.9424146	19	1	39 days	0.43			Williams	1999 YO ₆
1999 YQ ₆	14.6	0.15	19991228	20.59975	78.78851	347.54329	12.28232	0.1433571	2.6410531	19	1	39 days	0.52			Williams	1999 YQ ₆
1999 YU ₆	15.8	0.15	19991228	121.39097	27.68561	295.27479	18.69977	0.0587312	1.9187526	25	1	48 days	0.43			Williams	1999 YU ₆
1999 YW ₆	15.2	0.15	19991228	6.35564	143.40178	300.85190	23.57881	0.2193520	2.2946851	37	1	44 days	0.33			Spahr	1999 YW ₆
1999 YZ ₆	14.2	0.15	20000226	14.98924	122.65467	325.43343	16.61817	0.2041153	3.2192625	24	1	87 days	0.53	M-v	4	Williams	1999 YZ ₆
1999 YA ₇	14.6	0.15	20000226	33.59737	71.40502	355.74859	11.20920	0.1873844	2.6601621	24	1	87 days	0.45	M-v	4	Williams	1999 YA ₇
1999 YB ₇	13.2	0.15	20000226	23.69981	28.79181	55.10567	18.03209	0.1022778	3.1658573	25	1	131 days	0.31	M-v	3	Williams	1999 YB ₇
1999 YH ₇	13.9	0.15	20000226	25.35775	56.73917	86.02308	9.13397	0.1152967	2.3475020	32	2	1995–2000	0.43	M-v	4	Williams	37988 1999 YH ₇

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1999 YU ₇	16.4	0.15	19991228	356.13147	341.19637	101.23335	5.94252	0.1240680	2.2522834	20	1	27 days	0.43	Williams	1999 YU ₇
1999 YZ ₇	17.0	0.15	19991208	346.09718	358.33482	100.24019	1.67535	0.1264116	2.3230082	12	1	31 days	0.31	Williams	1999 YZ ₇
1999 YO ₈	15.2	0.15	20000117	240.25575	138.24106	103.20158	6.66473	0.0618267	2.2554308	31	1	46 days	0.46	Williams	1999 YO ₈
1999 YS ₈	16.0	0.15	19991228	45.37569	315.64264	100.30710	5.01575	0.0965625	2.2846908	32	1	35 days	0.44	Spahr	1999 YS ₈
1999 YU ₈	16.7	0.15	20000117	33.73818	132.31252	300.32737	3.57256	0.1076066	2.1595154	29	1	39 days	1.13	Spahr	1999 YU ₈
1999 YA ₉	13.2	0.15	20000226	136.54174	236.07274	106.50536	10.63516	0.0649396	2.9727495	76	1	66 days	0.53	M-v 4 Williams	1999 YA ₉
1999 YC ₉	14.0	0.15	20000226	191.52572	297.54166	356.44470	1.59433	0.0760587	2.9607997	57	4	1992–2000	0.59	M-v 1 Williams	37988 1999 YC ₉
1999 YE ₉	12.9	0.15	20000226	174.34734	27.36474	284.74995	12.28820	0.2022936	2.5809736	40	3	1981–2000	0.61	M-v 3 Williams	37988 1999 YE ₉
1999 YG ₉	14.7	0.15	20000117	245.32177	302.01376	310.56981	3.62765	0.1538762	2.4580188	44	1	42 days	1.08	Williams	1999 YG ₉
1999 YH ₉	16.0	0.15	20000117	319.81012	51.06543	115.25759	22.52124	0.0530842	1.9052517	27	1	36 days	0.64	Spahr	1999 YH ₉
1999 YJ ₉	15.1	0.15	20000226	1.84474	310.75908	164.80692	23.16149	0.2656401	2.3109623	42	1	125 days	0.42	M-v 3 Spahr	38171 1999 YJ ₉
1999 YL ₉	14.6	0.15	20000226	29.47444	149.79007	305.55800	7.10883	0.1875239	2.7851804	59	1	60 days	0.42	M-v 5 Williams	1999 YL ₉
1999 YM ₉	14.6	0.15	20000226	41.22809	85.12730	340.00240	5.21871	0.2642512	2.7967085	48	1	87 days	0.57	M-v 5 Williams	1999 YM ₉
1999 YN ₉	14.7	0.15	20000226	17.74426	58.11803	55.66322	3.33597	0.1232510	2.4418730	34	1	87 days	0.52	M-v 4 Williams	1999 YN ₉
1999 YQ ₉	13.1	0.15	20000117	31.56723	103.45929	339.45845	10.59845	0.1314757	3.0772975	18	1	42 days	0.60	Williams	1999 YQ ₉
1999 YR ₉	14.4	0.15	20000226	36.14969	1.25426	85.76274	5.85348	0.1311442	2.7512066	39	2	1998–2000	0.65	M-v 4 Williams	37988 1999 YR ₉
1999 YS ₉	13.5	0.15	19991228	339.27085	103.64468	36.56083	5.94846	0.0743216	2.2460781	16	1	28 days	1.12	Williams	1999 YS ₉
1999 YT ₉	13.5	0.15	20000226	87.69833	326.26422	64.26552	10.05818	0.1327242	2.7656197	35	1	79 days	0.63	M-v 5 Nakano	1999 YT ₉
1999 YV ₉	15.2	0.15	19991208	352.60527	338.79057	94.19081	5.53540	0.0397480	2.7872098	13	1	37 days	0.53	Williams	1999 YV ₉
1999 YQ ₁₀	15.8	0.15	20000226	174.29707	71.88923	198.58438	3.24504	0.1442697	2.2433039	21	2	1998–2000	0.61	M-v 4 Williams	37989 1999 YQ ₁₀
1999 YX ₁₀	15.9	0.15	20000226	128.49965	187.03648	111.75796	5.02605	0.1934456	2.6755539	20	3	1993–2000	0.37	M-v 4 Williams	37989 1999 YX ₁₀
1999 YM ₁₂	13.8	0.15	19991228	7.72242	168.44282	291.31271	5.04358	0.0800569	3.1129131	25	1	38 days	0.60	Spahr	1999 YM ₁₂
1999 YO ₁₂	16.2	0.15	19991228	40.11463	107.06912	290.72312	10.27348	0.3070152	2.6429503	19	1	52 days	0.35	Spahr	1999 YO ₁₂
1999 YS ₁₂	13.3	0.15	20000117	275.85151	114.85371	99.61521	2.94974	0.1220061	3.0787344	32	1	46 days	0.45	Williams	1999 YS ₁₂
1999 YC ₁₃	11.1	0.15	20000117	4.82802	13.46079	80.31465	18.31620	0.0619163	5.1080646	30	1	41 days	0.66	Williams	1999 YC ₁₃
1999 YG ₁₃	13.9	0.15	20000226	66.84945	286.33792	80.99547	16.44471	0.1250485	2.6862130	63	1	91 days	0.56	M-v 4 Williams	1999 YG ₁₃
1999 YH ₁₃	15.6	0.15	20000117	5.99374	157.79380	311.40065	4.06661	0.1215764	3.2216037	21	1	36 days	0.55	Spahr	1999 YH ₁₃
1999 YJ ₁₃	14.3	0.15	19991228	209.48958	142.28202	130.56056	8.40985	0.1518317	2.2812113	38	1	54 days	0.50	Spahr	1999 YJ ₁₃
1999 YK ₁₃	14.8	0.15	20000117	262.42943	127.71347	92.11396	2.66885	0.1720574	3.1696501	12	1	36 days	0.50	Spahr	1999 YK ₁₃
1999 YM ₁₃	14.1	0.15	20000226	33.81128	256.31983	132.51201	22.63905	0.2414043	2.3972150	30	1	121 days	0.51	M-v 3 Williams	38172 1999 YM ₁₃
1999 YR ₁₃	13.6	0.15	20000226	270.17091	332.36261	282.65114	3.13129	0.2142637	2.3356875	55	5	1933–2000	0.50	M-v 2 Williams	37989 1999 YR ₁₃
1999 YS ₁₃	14.4	0.15	20000117	85.35871	231.37591	139.92693	3.12884	0.2012624	2.3905627	32	1	34 days	0.54	Spahr	1999 YS ₁₃
1999 YT ₁₃	15.6	0.15	20000117	309.84801	220.45882	315.54559	3.41002	0.0420366	2.2338988	58	1	43 days	0.65	Williams	1999 YT ₁₃
1999 YV ₁₃	12.8	0.15	20000117	114.50811	240.64318	121.29126	10.03116	0.0805716	2.9131060	59	1	42 days	0.66	Williams	1999 YV ₁₃
1999 YW ₁₃	15.9	0.15	20000117	352.44191	17.54950	114.65725	6.10103	0.1053414	2.3532678	24	1	42 days	0.90	Williams	1999 YW ₁₃
1999 YY ₁₃	15.8	0.15	20000117	41.83407	131.86803	278.91487	27.05000	0.1089704	2.6526365	14	1	34 days	0.57	Spahr	1999 YY ₁₃
1999 YC ₁₄	14.7	0.15	20000117	67.42382	274.57683	138.29808	2.77443	0.0550326	2.8582189	47	1	42 days	0.71	Williams	1999 YC ₁₄
1999 YF ₁₄	17.2	0.15	20000117	0.09895	247.68384	237.44400	0.41490	0.1420472	2.4095030	14	1	34 days	0.45	Spahr	1999 YF ₁₄
1999 YQ ₁₄	15.9	0.15	20000226	323.66047	79.33906	97.82601	2.91314	0.1493693	2.3521690	35	2	1995–2000	0.40	M-v 4 Williams	37989 1999 YQ ₁₄
1999 YR ₁₄	18.9	0.15	20000226	71.66732	9.31500	3.20071	3.72607	0.4010786	1.6537951	53	1	39 days	0.61	M-v 6 Williams	1999 YR ₁₄
1999 YS ₁₄	14.2	0.15	20000226	122.20933	115.00286	234.84429	4.19921	0.2589972	2.2629929	50	2	1998–2000	0.61	M-v 4 Williams	37989 1999 YS ₁₄
1999 YU ₁₄	16.8	0.15	20000117	38.08454	121.69648	306.99127	4.04554	0.1237390	2.3887194	26	1	38 days	0.61	Spahr	1999 YU ₁₄
1999 YW ₁₄	15.4	0.15	20000117	90.98746	10.39736	9.82511	6.35782	0.0902576	2.4661355	17	1	32 days	0.48	Spahr	1999 YW ₁₄
1999 YX ₁₄	14.5	0.15	19991228	92.69525	296.62244	73.34224	9.08951	0.1424861	2.7491622	9	1	27 days	0.29	Spahr	1999 YX ₁₄
1999 YY ₁₄	15.0	0.15	19991228	337.61684	45.48431	56.27278	24.67624	0.2757598	2.7329862	26	1	31 days	0.70	Williams	1999 YY ₁₄
1999 YK ₁₆	13.2	0.15	20000226	319.03566	52.64957	145.56223	11.25388	0.0361824	2.9780101	34	1	70 days	0.48	M-v 5 Williams	1999 YK ₁₆
1999 YM ₁₆	16.6	0.15	20000117	353.15359	190.97944	280.78377	8.87595	0.1025816	2.3178921	17	1	36 days	0.86	Spahr	1999 YM ₁₆
1999 YU ₁₆	14.6	0.15	20000117	282.21800	280.85610	297.27834	10.82264	0.2139879	2.6640506	23	1	34 days	0.51	Spahr	1999 YU ₁₆
1999 YZ ₁₆	16.6	0.15	20000117	332.86080	18.94122	138.82754	3.17464	0.1062449	2.4174629	17	1	39 days	0.42	Williams	1999 YZ ₁₆
1999 YA ₁₇	15.6	0.15	20000117	80.22074	98.08918	294.01763	9.73933	0.1052966	2.3130314	25	1	35 days	0.69	Spahr	1999 YA ₁₇
1999 YG ₁₇	15.7	0.15	20000117	257.80209	336.15914	269.31036	1.40111	0.1657677	2.3480264	17	1	34 days	0.76	Williams	1999 YG ₁₇
1999 YJ ₁₇	15.7	0.15	20000117	28.56610	158.05970	293.52357	5.26389	0.0904734	2.4188106	14	1	33 days	0.16	Spahr	1999 YJ ₁₇
1999 YK ₁₇	16.2	0.15	20000117	52.51795	258.71145	154.20133	1.04872	0.1973141	2.5443090	20	1	37 days	0.39	Spahr	1999 YK ₁₇

1999 YM ₁₇	16.6	0.15	20000117	21.44245	325.31657	130.44321	2.43922	0.1573506	2.3178355	18	1	42 days	0.53		Williams	1999 YM ₁₇
1999 YV ₁₇	15.5	0.15	20000226	45.78742	73.40588	335.01587	20.04291	0.0867980	1.9300805	26	1	92 days	0.64	M-v 4	Williams	1999 YV ₁₇
1999 YJ ₁₈	12.9	0.15	19991228	283.80858	27.64264	155.00671	28.79719	0.1602844	2.6499262	11	1	23 days	0.36		Williams	1999 YJ ₁₈
2000 AA	15.3	0.15	19991228	357.27675	350.31971	114.67000	5.70185	0.0887193	2.2916692	49	1	55 days	0.75		Spahr	2000 AA
2000 AB	12.5	0.15	20000226	240.34273	119.63173	135.13969	5.74666	0.1106756	3.1834019	66	4	1980–2000	0.57	M-v 2	Spahr	37989 2000 AB
2000 AC	14.5	0.15	20000226	58.58055	273.00656	122.69609	6.70729	0.3133588	2.6272098	46	1	71 days	0.37	M-v 4	Williams	2000 AC
2000 AF	15.3	0.15	20000226	37.71123	244.56772	168.91192	5.28668	0.1437844	2.2682610	30	1	64 days	0.71	M-v 4	Williams	2000 AF
2000 AG	14.0	0.15	20000226	310.58470	28.22439	118.11460	6.84327	0.0532317	2.3259257	50	2	1998–2000	0.56	M-v 4	Spahr	37990 2000 AG
2000 AJ	14.6	0.15	20000226	328.06314	58.04254	109.47109	8.76542	0.1324595	2.3100823	41	1	66 days	0.63	M-v 4	Williams	2000 AJ
2000 AK	14.5	0.15	20000226	26.45331	336.33338	121.53250	4.82894	0.1354329	2.2676519	41	1	68 days	0.43	M-v 4	Williams	2000 AK
2000 AM	14.1	0.15	20000226	15.78995	180.51331	288.18580	2.91084	0.1670059	2.4052300	57	3	1980–2000	0.63	M-v 3	Williams	37990 2000 AM
2000 AN	13.5	0.15	20000226	250.33457	156.17022	93.84477	6.91630	0.1496419	2.3216632	41	1	87 days	0.43	M-v 5	Williams	2000 AN
2000 AV	16.1	0.15	20000117	328.27204	240.06296	287.80803	2.88542	0.1322388	2.5719886	26	1	35 days	0.43		Williams	2000 AV
2000 AZ	14.3	0.15	20000117	246.68781	314.55789	298.84605	5.33848	0.1173276	2.7118641	30	1	34 days	0.53		Williams	2000 AZ
2000 AC ₁	15.2	0.15	20000117	39.33831	273.42986	151.78371	1.43735	0.2527678	3.1192753	19	1	40 days	0.41		Williams	2000 AC ₁
2000 AE ₁	16.7	0.15	20000117	53.07994	192.49116	223.23817	0.52444	0.1745959	2.4209641	16	1	32 days	0.33		Williams	2000 AE ₁
2000 AF ₁	14.6	0.15	20000117	156.76963	187.40049	140.98298	2.74206	0.1173594	2.9308427	27	1	40 days	0.45		Williams	2000 AF ₁
2000 AH ₁	12.5	0.15	20000117	355.86799	179.89196	301.23670	28.55439	0.0405297	5.2615346	17	1	24 days	0.16		Spahr	2000 AH ₁
2000 AJ ₁	15.3	0.15	20000226	9.36604	162.29375	276.25638	26.80711	0.3178427	2.3386277	36	1	119 days	0.50	M-v 4	Williams	2000 AJ ₁
2000 AL ₁	15.2	0.15	20000117	325.00360	230.70817	283.87720	23.43882	0.2820125	2.5942386	15	1	29 days	0.43		Williams	2000 AL ₁
2000 AN ₁	16.9	0.15	19991228	343.79702	34.78609	94.01303	28.97822	0.1215320	1.8961410	30	1	50 days	0.43		Williams	2000 AN ₁
2000 AO ₁	14.1	0.15	20000226	14.29942	37.83006	93.09133	27.99189	0.1324514	2.6090783	24	1	71 days	0.45	M-v 4	Williams	2000 AO ₁
2000 AQ ₁	13.8	0.15	20000226	13.72238	115.52209	301.55752	10.56937	0.1929174	2.6674994	45	2	1983–2000	0.44	M-v 3	Williams	37990 2000 AQ ₁
2000 AS ₁	14.3	0.15	19991228	145.80657	205.43639	113.57475	4.85140	0.1742999	2.2067130	39	1	55 days	0.64		Williams	2000 AS ₁
2000 AU ₁	14.5	0.15	20000226	30.22440	328.15095	122.90778	6.55824	0.1643821	2.9074466	54	2	1998–2000	0.61	M-v 3	Williams	37990 2000 AU ₁
2000 AX ₁	15.2	0.15	20000226	63.07573	292.21282	125.73801	5.85868	0.1199975	2.3010155	52	2	1998–2000	0.49	M-v 4	Williams	37990 2000 AX ₁
2000 AY ₁	13.9	0.15	20000117	63.02023	295.61853	121.88694	12.98461	0.0312736	2.9411971	28	1	42 days	0.91		Williams	2000 AY ₁
2000 AZ ₁	14.1	0.15	20000226	274.19076	110.79776	126.58802	6.42160	0.1610310	2.2872689	58	3	1980–2000	0.47	M-v 3	Williams	37991 2000 AZ ₁
2000 AC ₂	15.9	0.15	20000117	10.64755	336.12995	126.81788	2.75778	0.0696979	2.2217577	37	1	31 days	0.35		Spahr	2000 AC ₂
2000 AD ₂	16.1	0.15	19991228	40.84777	129.43732	279.99019	6.15249	0.2040183	2.4852071	23	1	24 days	0.54		Williams	2000 AD ₂
2000 AG ₂	15.3	0.15	20000226	62.82203	247.22251	151.83352	2.77868	0.1980530	2.4106015	49	3	1995–2000	0.52	M-v 4	Spahr	37991 2000 AG ₂
2000 AH ₂	11.4	0.15	19991228	52.88976	325.44837	96.00395	19.01950	0.1039681	3.2040643	8	1	25 days	0.57		Williams	2000 AH ₂
2000 AO ₂	15.0	0.15	20000226	62.79627	0.19103	57.84302	3.91837	0.1781644	2.2726801	42	2	1998–2000	0.61	M-v 4	Williams	37991 2000 AO ₂
2000 AU ₂	14.9	0.15	20000226	53.44064	331.46677	83.91130	3.41702	0.2075141	2.3511230	47	1	91 days	0.40	M-v 4	Williams	2000 AU ₂
2000 AV ₂	13.7	0.15	20000117	165.20538	10.28411	300.67322	21.06793	0.0697953	3.1549031	16	1	43 days	0.48		Williams	2000 AV ₂
2000 AW ₂	12.0	0.15	20000226	145.57174	31.41584	304.95479	6.16744	0.0499720	3.1996106	66	2	1986–2000	0.48	M-v 4	Williams	37991 2000 AW ₂
2000 AY ₂	14.6	0.15	20000226	47.56667	322.49429	105.23587	3.07614	0.1575176	2.4626507	53	3	1977–2000	0.70	M-v 4	Williams	37991 2000 AY ₂
2000 AZ ₂	14.9	0.15	20000226	62.61430	75.37854	329.21962	3.98582	0.1752144	3.0451692	37	2	1998–2000	0.63	M-v 4	Williams	37991 2000 AZ ₂
2000 AD ₃	14.1	0.15	19991228	275.23640	95.02925	96.03606	8.13909	0.1231467	2.9202863	28	1	44 days	0.34		Williams	2000 AD ₃
2000 AE ₃	14.5	0.15	20000226	27.36330	89.12555	321.44561	11.84611	0.1855288	2.6531080	24	1	68 days	0.45	M-v 4	Williams	2000 AE ₃
2000 AL ₃	15.3	0.15	20000226	347.71412	61.11468	65.58486	7.55170	0.0407621	2.2428395	27	1	75 days	0.59	M-v 5	Williams	2000 AL ₃
2000 AV ₃	13.6	0.15	20000117	30.06305	79.36692	284.51230	22.04619	0.3417878	2.5752490	24	1	29 days	0.39		Williams	2000 AV ₃
2000 AA ₄	14.3	0.15	20000226	317.07269	73.95306	104.33724	23.20266	0.1334915	2.5703994	49	3	1980–2000	0.49	M-v 2	Williams	37992 2000 AA ₄
2000 AB ₄	16.4	0.15	19991228	12.58923	158.48493	286.58713	20.97267	0.0969441	2.6095750	15	1	25 days	0.41		Williams	2000 AB ₄
2000 AD ₄	16.0	0.15	19991228	45.61328	95.36270	294.22134	4.40187	0.2707101	2.3251934	37	1	54 days	0.52		Spahr	2000 AD ₄
2000 AJ ₄	15.8	0.15	19991228	19.83321	339.42957	101.26644	5.30837	0.0626540	2.5975059	19	1	12 days	0.47		Williams	2000 AJ ₄
2000 AN ₄	15.0	0.15	20000117	39.13187	304.39332	139.14799	15.26744	0.2135969	2.7516409	23	1	39 days	0.50		Williams	2000 AN ₄
2000 AP ₄	13.5	0.15	20000117	26.07494	218.22178	230.26127	5.12018	0.1295362	3.1151599	25	1	34 days	0.57		Spahr	2000 AP ₄
2000 AS ₄	15.2	0.15	20000226	82.81347	84.03564	312.66635	4.00321	0.1551939	2.1995999	49	1	87 days	0.64	M-v 5	Williams	2000 AS ₄
2000 AT ₄	15.7	0.15	20000226	49.61975	131.01532	286.75526	6.32631	0.1000856	2.3755761	47	1	60 days	0.70	M-v 5	Williams	2000 AT ₄
2000 AW ₄	14.4	0.15	20000226	17.95052	5.98974	98.28453	2.56394	0.1315725	3.0620410	45	2	1984–2000	0.59	M-v 5	Williams	37992 2000 AW ₄
2000 AX ₄	15.7	0.15	20000226	41.69017	127.50085	310.28920	0.28004	0.1592514	2.2514837	63	1	88 days	0.47	M-v 4	Williams	2000 AX ₄
2000 AY ₄	13.9	0.15	20000226	292.87712	95.81776	107.94214	2.78653	0.0621246	2.4460337	70	3	1995–2000	0.76	M-v 3	Williams	37992 2000 AY ₄

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2000 AZ ₄	16.0	0.15	20000117	53.24526	120.33160	298.01546	6.99013	0.0753788	2.3089123	29	1	31 days	0.64		Spahr		2000 AZ ₄
2000 AA ₅	15.1	0.15	20000226	41.15502	114.93476	318.73143	5.25048	0.1762160	2.6703817	60	2	1998–2000	0.52	M-v 3	Williams	37992	2000 AA ₅
2000 AB ₅	14.5	0.15	20000117	198.15526	177.23242	107.99197	13.91082	0.1191844	2.6585869	33	1	39 days	0.52		Williams		2000 AB ₅
2000 AC ₅	14.2	0.15	20000117	298.58020	95.22365	90.45530	4.98205	0.0698451	3.1553885	21	1	28 days	0.45		Spahr		2000 AC ₅
2000 AE ₅	15.1	0.15	20000226	76.07825	51.03129	1.46801	3.61814	0.1072925	2.1844211	44	1	87 days	0.50	M-v 5	Williams		2000 AE ₅
2000 AH ₅	14.5	0.15	20000226	300.56340	262.29634	283.04443	14.24425	0.1146906	2.5489552	56	1	62 days	0.60	M-v 5	Williams		2000 AH ₅
2000 AJ ₅	15.6	0.15	20000117	339.20783	39.14137	105.01135	1.97854	0.1086343	2.1875522	39	1	43 days	0.60		Williams		2000 AJ ₅
2000 AK ₅	15.2	0.15	20000117	313.30828	68.38245	91.56233	6.45948	0.0570084	2.3518313	33	1	39 days	0.39		Williams		2000 AK ₅
2000 AL ₅	14.7	0.15	20000226	52.75464	113.60217	305.41925	3.37701	0.0883621	2.6424258	42	3	1996–2000	0.63	M-v 3	Spahr	37992	2000 AL ₅
2000 AN ₅	15.7	0.15	20000117	332.49513	65.39629	99.31506	8.54976	0.2430608	2.6808641	34	1	39 days	0.76		Williams		2000 AN ₅
2000 AT ₅	15.7	0.15	20000117	313.52046	249.31832	313.99440	22.52145	0.1737151	2.2594702	21	1	36 days	0.40		Spahr		2000 AT ₅
2000 AX ₅	15.9	0.15	20000117	126.80269	232.54148	122.01481	6.00334	0.0335265	2.1763155	17	1	37 days	0.58		Williams		2000 AX ₅
2000 AY ₅	13.9	0.15	19991228	213.92594	153.15722	123.71908	2.96559	0.1136250	2.8903331	17	1	7 days	0.49		Williams		2000 AY ₅
2000 AB ₆	22.1	0.15	20000226	37.68030	133.02206	283.31738	3.78956	0.4769724	1.7886825	109	1	36 days	0.56	M-v 6	Williams		2000 AB ₆
2000 AC ₆	21.0	0.15	20000226	241.64325	187.41747	102.13913	4.69951	0.2861341	0.8529900	108	1	31 days	0.50	M-v 7	Williams	38174	2000 AC ₆
2000 AD ₆	18.7	0.15	20000117	13.51375	334.83436	112.94685	30.02772	0.4251115	2.2123558	52	1	27 days	0.61		Williams		2000 AD ₆
2000 AE ₆	17.2	0.15	20000226	37.34590	276.97304	121.83145	11.83298	0.5583557	2.7090767	45	1	30 days	0.55	M-v 5	Nakano		2000 AE ₆
2000 AF ₆	19.9	0.15	20000226	203.88118	200.02519	110.90311	2.69179	0.4112232	0.8781872	79	1	39 days	0.54	M-v 7	Nakano		2000 AF ₆
2000 AH ₆	15.1	0.15	20000117	65.50718	309.18506	85.78376	6.16920	0.1656758	2.8574324	23	1	27 days	0.55		Williams		2000 AH ₆
2000 AL ₆	16.5	0.15	19991228	337.01218	95.59453	44.16920	0.89496	0.1453853	2.3597386	15	1	7 days	0.52		Williams		2000 AL ₆
2000 AQ ₆	14.8	0.15	20000117	18.04999	273.87185	147.98521	5.38124	0.1565823	3.0957244	28	1	27 days	0.35		Marsden		2000 AQ ₆
2000 AR ₇	14.3	0.15	19991228	92.63744	13.45806	329.64532	6.67615	0.1335707	2.3185649	20	1	28 days	0.35		Williams		2000 AR ₇
2000 AS ₇	13.3	0.15	20000117	294.42277	233.35079	295.85862	14.24223	0.0857230	3.1340774	19	1	40 days	0.35		Williams		2000 AS ₇
2000 AA ₈	14.8	0.15	20000226	123.54767	264.73979	68.19103	9.24784	0.1585171	2.2829921	27	1	74 days	0.46	M-v 4	Williams		2000 AA ₈
2000 AO ₈	14.1	0.15	20000226	65.10749	326.21080	57.40887	5.65547	0.1832991	3.1570753	37	2	1998–2000	0.53	M-v 3	Williams	37992	2000 AO ₈
2000 AH ₉	15.7	0.15	19991228	328.53448	177.74480	323.67268	4.77574	0.1703824	2.3499125	32	1	58 days	0.36		Williams		2000 AH ₉
2000 AJ ₉	14.5	0.15	19991228	110.64408	300.02761	34.75690	6.17443	0.1290263	2.2503040	17	1	28 days	0.40		Williams		2000 AJ ₉
2000 AK ₉	14.6	0.15	19991228	49.67342	319.56450	69.89940	7.16200	0.2001622	2.6376874	23	1	46 days	0.41		Spahr		2000 AK ₉
2000 AB ₁₁	14.7	0.15	20000117	359.58487	158.16275	291.85177	7.02342	0.2786318	2.6626711	20	1	39 days	0.33		Williams		2000 AB ₁₁
2000 AQ ₁₂	11.8	0.15	19991208	10.89279	150.67833	276.21928	11.40480	0.0670829	5.1504594	13	1	49 days	0.53		Williams		2000 AQ ₁₂
2000 AN ₁₃	15.1	0.15	20000226	42.81958	98.28725	310.45475	2.02513	0.1734713	2.4378810	24	1	87 days	0.61	M-v 5	Williams		2000 AN ₁₃
2000 AP ₁₄	15.4	0.15	20000226	88.95295	86.39860	270.38305	2.77467	0.1833790	2.2489411	43	2	1997–2000	0.46	M-v 4	Williams	37993	2000 AP ₁₄
2000 AE ₁₅	14.7	0.15	19991228	347.29508	191.52689	273.43794	5.09897	0.0654565	2.4379642	16	1	23 days	0.37		Williams		2000 AE ₁₅
2000 AF ₁₅	13.6	0.15	19991208	285.08972	91.43391	90.67387	17.07176	0.1846354	3.1212095	20	1	33 days	0.44		Williams		2000 AF ₁₅
2000 AK ₁₅	15.0	0.15	20000226	204.41112	317.63656	307.93745	3.31582	0.1091775	2.1628037	30	2	1998–2000	0.69	M-v 4	Williams	37993	2000 AK ₁₅
2000 AF ₁₆	15.1	0.15	19991208	30.76029	117.74221	276.42780	12.31873	0.2594903	2.6652184	21	1	54 days	0.47		Williams		2000 AF ₁₆
2000 AG ₁₆	14.8	0.15	20000226	75.30669	86.98056	277.43106	3.30242	0.2353408	2.6168844	22	1	72 days	0.65	M-v 5	Williams		2000 AG ₁₆
2000 AM ₁₆	14.8	0.15	20000226	70.55702	101.78428	284.08789	5.42318	0.1204418	2.4163982	24	1	75 days	0.36	M-v 4	Williams		2000 AM ₁₆
2000 AQ ₁₆	14.4	0.15	20000117	260.49816	136.14558	80.10567	7.01326	0.1791404	2.3959459	17	1	28 days	0.51		Williams		2000 AQ ₁₆
2000 AR ₁₆	12.4	0.15	20000117	195.98617	187.08621	75.04101	12.11529	0.0918969	3.4169042	17	1	28 days	0.57		Williams		2000 AR ₁₆
2000 AU ₁₆	14.1	0.15	20000117	16.58570	344.92682	94.71723	18.32626	0.0702657	2.7045369	23	1	39 days	0.42		Williams		2000 AU ₁₆
2000 AW ₁₆	14.1	0.15	20000117	21.67222	26.77780	48.74078	2.48090	0.0376776	2.8252313	17	1	28 days	0.39		Williams		2000 AW ₁₆
2000 AG ₁₇	15.3	0.15	20000117	323.70633	116.25840	33.43149	2.55389	0.1403967	2.3765342	18	1	28 days	0.38		Williams		2000 AG ₁₇
2000 AH ₁₇	15.4	0.15	20000117	345.67663	194.59087	283.73941	5.51608	0.0823986	2.4114926	18	1	28 days	0.52		Williams		2000 AH ₁₇
2000 AB ₁₈	12.5	0.15	20000226	149.03780	25.18071	282.15988	6.74004	0.1697913	3.1505316	23	1	76 days	0.45	M-v 6	Williams		2000 AB ₁₈
2000 AC ₁₈	15.1	0.15	20000117	346.35244	197.15615	282.32066	5.70367	0.0868150	2.4128050	18	1	30 days	0.37		Williams		2000 AC ₁₈
2000 AN ₁₈	14.7	0.15	20000226	104.88399	276.19234	75.82468	7.91067	0.1429015	2.3092499	21	1	75 days	0.41	M-v 4	Williams		2000 AN ₁₈
2000 AP ₂₁	11.0	0.15	20000117	306.34008	226.95575	286.78087	21.51141	0.0209989	5.1156451	12	1	28 days	0.31		Spahr		2000 AP ₂₁
2000 AO ₂₂	13.3	0.15	20000226	256.08215	147.25912	78.11042	10.24631	0.1059017	2.7603840	35	1	79 days	0.40	M-v 4	Williams		2000 AO ₂₂
2000 AR ₂₂	12.9	0.15	20000117	140.30344	232.23475	81.25314	11.22945	0.1239109	3.0565299	27	1	28 days	0.51		Spahr		2000 AR ₂₂
2000 AU ₂₂	13.4	0.15	20000117	248.30150	304.35265	282.78636	11.97558	0.1393559	2.6847644	18	1	30 days	0.36		Williams		2000 AU ₂₂
2000 AW ₂₂	14.1	0.15	20000117	257.62494	295.55777	284.19138	6.39104	0.1470803	2.5824711	17	1	28 days	0.44		Williams		2000 AW ₂₂
2000 AA ₂₃	15.4	0.15	20000117	344.22292	91.82838	34.69346	1.26066	0.1467930	2.4579311	24	1	27 days	0.42		Williams		2000 AA ₂₃

2000 AD ₂₃	13.1	0.15	20000117	248.39223	286.91156	292.03246	10.07612	0.0500434	3.0456340	26	1	28 days	0.40	Spahr	2000 AD ₂₃
2000 AE ₂₃	13.8	0.15	20000117	68.51679	295.27823	92.67493	13.34409	0.0626098	2.9298948	16	1	28 days	0.48	Williams	2000 AE ₂₃
2000 AS ₂₃	14.2	0.15	20000117	276.32554	126.61470	80.47325	8.09982	0.1670040	2.5641290	18	1	28 days	0.41	Williams	2000 AS ₂₃
2000 AA ₂₄	12.1	0.15	20000117	183.92574	194.65585	85.92072	13.01899	0.1571558	3.1596214	23	1	39 days	0.34	Williams	2000 AA ₂₄
2000 AZ ₂₄	14.3	0.15	19991228	68.87375	104.45574	282.02034	7.50177	0.0685897	3.0463858	22	1	57 days	0.28	Spahr	2000 AZ ₂₄
2000 AJ ₂₅	11.4	0.15	20000117	33.98666	131.50437	294.67808	9.31892	0.0798680	5.2931767	12	1	27 days	0.40	Williams	2000 AJ ₂₅
2000 AN ₂₅	13.3	0.15	20000117	240.28260	158.12639	78.71858	10.08160	0.1367438	2.8543584	19	1	27 days	0.38	Williams	2000 AN ₂₅
2000 AQ ₂₅	15.0	0.15	20000117	18.67445	52.52080	30.81000	3.76981	0.1326089	2.6359500	14	1	27 days	0.50	Williams	2000 AQ ₂₅
2000 AS ₂₅	10.5	0.15	20000117	144.53642	235.44659	83.71257	11.06060	0.0365100	5.2162517	23	1	39 days	0.40	Williams	2000 AS ₂₅
2000 AX ₂₅	13.6	0.15	20000117	24.80829	347.29744	92.25431	10.17412	0.0711165	3.0021615	14	1	27 days	0.53	Williams	2000 AX ₂₅
2000 AY ₂₅	16.2	0.15	19991228	335.63146	195.91922	296.21375	4.09604	0.1161387	2.2678549	17	1	22 days	0.53	Williams	2000 AY ₂₅
2000 AB ₂₆	11.5	0.15	20000117	23.50597	336.86694	100.46631	11.87328	0.1047063	5.2439319	18	1	27 days	0.49	Williams	2000 AB ₂₆
2000 AT ₂₆	14.4	0.15	20000117	11.65732	167.40580	289.19680	10.64071	0.0263188	3.0597040	26	1	27 days	0.44	Williams	2000 AT ₂₆
2000 AY ₂₆	15.7	0.15	20000117	35.72288	127.65631	297.52420	6.21556	0.1246565	2.2145738	28	1	27 days	0.35	Williams	2000 AY ₂₆
2000 AC ₂₇	14.9	0.15	20000117	76.91729	35.85118	319.91682	3.64457	0.3120867	2.5449577	27	1	27 days	0.55	Williams	2000 AC ₂₇
2000 AH ₂₇	14.2	0.15	19991228	31.85055	339.54539	71.40296	6.43999	0.2454731	2.9856953	23	1	50 days	0.45	Williams	2000 AH ₂₇
2000 AL ₂₇	13.1	0.15	20000117	11.17119	157.56646	296.67347	20.59810	0.0450929	3.1313408	18	1	28 days	0.43	Williams	2000 AL ₂₇
2000 AQ ₂₇	14.0	0.15	20000117	83.94983	303.64808	60.54163	6.13128	0.1793868	2.6060996	15	1	27 days	0.41	Williams	2000 AQ ₂₇
2000 AS ₂₇	12.4	0.15	20000226	276.30642	147.08322	52.01928	5.85408	0.0171610	3.9230448	43	1	63 days	0.56	M-v 5 Williams	2000 AS ₂₇
2000 AT ₂₇	14.0	0.15	20000226	340.67171	182.72205	318.85132	6.97423	0.1052330	3.0827613	45	2	1998–2000	0.60	M-v 4 Williams	37993 2000 AT ₂₇
2000 AU ₂₇	11.8	0.15	20000226	25.67430	73.03711	1.67862	3.69020	0.2052962	5.1723845	80	3	1997–2000	0.51	M-v 2 Williams	37993 2000 AU ₂₇
2000 AV ₂₇	14.8	0.15	19991228	327.00141	204.08281	311.08962	6.91211	0.2306054	2.7658040	53	1	58 days	0.40	Williams	2000 AV ₂₇
2000 AY ₂₇	15.2	0.15	19991228	304.79347	142.01817	26.61497	2.15470	0.0090024	2.8719955	20	1	21 days	0.67	Williams	2000 AY ₂₇
2000 AA ₂₈	15.7	0.15	19991228	22.07540	337.70988	93.76876	3.40991	0.1761827	2.3646726	44	1	53 days	0.54	Spahr	2000 AA ₂₈
2000 AG ₂₈	15.7	0.15	20000117	347.80693	24.25432	103.46039	4.82980	0.1406128	2.2786426	24	1	28 days	0.33	Spahr	2000 AG ₂₈
2000 AH ₂₈	17.0	0.15	19991228	191.67123	339.72818	294.78951	4.47260	0.0547656	2.1825391	11	1	24 days	0.55	Williams	2000 AH ₂₈
2000 AO ₂₈	14.4	0.15	19991228	344.13806	34.48134	90.31026	3.99286	0.0883570	3.0008024	24	1	31 days	0.54	Spahr	2000 AO ₂₈
2000 AP ₂₈	15.0	0.15	20000117	338.77756	199.15489	296.97472	7.54601	0.0878585	2.5776964	19	1	28 days	2.18	Spahr	2000 AP ₂₈
2000 AT ₂₈	14.7	0.15	20000117	277.97830	113.87422	88.15595	6.89341	0.0782223	2.3995155	21	1	39 days	0.57	Williams	2000 AT ₂₈
2000 AX ₂₈	14.9	0.15	20000117	304.53091	222.15598	325.25677	6.93582	0.1984079	2.5362689	30	1	42 days	0.33	Williams	2000 AX ₂₈
2000 AE ₂₉	15.1	0.15	20000226	296.65619	260.15617	301.72762	5.16563	0.1400438	2.3281484	37	2	1998–2000	0.59	M-v 4 Williams	37993 2000 AE ₂₉
2000 AF ₂₉	14.1	0.15	20000117	355.83318	161.99367	314.79086	3.90442	0.0912736	3.2007586	20	1	39 days	0.65	Williams	2000 AF ₂₉
2000 AJ ₂₉	15.9	0.15	20000117	19.77618	6.47401	77.00447	3.36071	0.1888905	2.3238409	21	1	39 days	0.45	Williams	2000 AJ ₂₉
2000 AK ₂₉	15.1	0.15	20000117	63.00009	57.76031	323.76933	3.71068	0.2409926	2.3902206	20	1	27 days	0.32	Williams	2000 AK ₂₉
2000 AP ₂₉	13.6	0.15	20000226	293.17301	99.66924	93.93933	10.82629	0.0566087	3.0750872	35	1	63 days	0.54	M-v 5 Williams	2000 AP ₂₉
2000 AQ ₂₉	15.0	0.15	20000117	62.65785	79.08234	320.85664	6.09434	0.0912164	2.2840419	21	1	39 days	0.34	Williams	2000 AQ ₂₉
2000 AS ₂₉	14.0	0.15	20000117	277.53615	151.47359	56.26662	5.99697	0.1148624	2.7621787	22	1	39 days	0.33	Williams	2000 AS ₂₉
2000 AV ₂₉	15.2	0.15	20000117	337.95087	174.92267	323.03366	6.75505	0.0562142	2.2889035	23	1	39 days	0.41	Williams	2000 AV ₂₉
2000 AW ₂₉	14.8	0.15	20000117	40.25466	120.26339	307.82965	13.09245	0.0594613	2.6859649	16	1	28 days	0.51	Williams	2000 AW ₂₉
2000 AX ₂₉	11.0	0.15	20000117	163.41540	5.28255	299.56155	32.08735	0.1256666	5.0516183	12	1	27 days	0.40	Williams	2000 AX ₂₉
2000 AY ₂₉	14.5	0.15	20000117	67.17091	64.49166	335.95763	4.08111	0.0531853	2.8020556	22	1	39 days	0.63	Williams	2000 AY ₂₉
2000 AB ₃₀	15.6	0.15	20000226	314.58231	100.52034	79.61351	4.48760	0.0953386	2.3142533	28	2	1995–2000	0.48	M-v 4 Williams	37994 2000 AB ₃₀
2000 AE ₃₀	15.7	0.15	20000117	22.55412	351.15364	97.55780	7.10338	0.0734292	2.2708344	21	1	39 days	0.41	Williams	2000 AE ₃₀
2000 AF ₃₀	13.8	0.15	20000117	71.00223	308.12283	84.95309	3.10466	0.0960856	2.9328223	22	1	39 days	0.45	Williams	2000 AF ₃₀
2000 AL ₃₀	15.2	0.15	20000117	35.39912	334.70473	84.28711	4.31148	0.2472242	2.6036893	24	1	39 days	0.39	Williams	2000 AL ₃₀
2000 AR ₃₀	15.2	0.15	20000117	101.15516	274.04249	85.24535	7.54480	0.1318723	2.2904049	14	1	28 days	0.36	Williams	2000 AR ₃₀
2000 AS ₃₀	15.1	0.15	20000117	103.23047	23.42064	330.32528	4.64944	0.1670011	2.1945561	22	1	39 days	0.55	Williams	2000 AS ₃₀
2000 AV ₃₀	14.3	0.15	20000117	56.21290	325.26431	71.97526	8.38130	0.1906282	3.0097327	15	1	27 days	0.54	Williams	2000 AV ₃₀
2000 AX ₃₀	14.9	0.15	20000117	345.47271	183.16366	311.02938	12.70143	0.1486034	2.7707714	26	1	39 days	0.44	Williams	2000 AX ₃₀
2000 AZ ₃₀	14.5	0.15	20000117	101.05427	261.42962	95.91778	15.62454	0.1608526	2.5478170	20	1	27 days	0.43	Williams	2000 AZ ₃₀
2000 AG ₃₁	13.5	0.15	20000117	228.19332	158.42895	103.88740	13.79421	0.1924285	2.6607067	23	1	39 days	0.43	Williams	2000 AG ₃₁
2000 AH ₃₁	15.4	0.15	19991228	15.74248	138.11109	310.79224	5.13549	0.1171986	2.2747330	41	1	58 days	0.68	Williams	2000 AH ₃₁
2000 AJ ₃₁	16.5	0.15	20000117	78.26410	8.76846	13.17084	1.44587	0.1412509	2.1466660	43	1	28 days	0.47	Spahr	2000 AJ ₃₁

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2000 AK ₃₁	14.4	0.15	20000226	55.89221	332.37107	76.42650	2.56913	0.2138138	2.6729468	56	1	87 days	0.39	M-v	4	Williams	2000 AK ₃₁
2000 AL ₃₁	13.6	0.15	19991228	73.10070	279.05152	99.59997	6.53242	0.1941024	3.1858696	40	1	51 days	0.44			Spahr	2000 AL ₃₁
2000 AM ₃₁	15.7	0.15	20000226	48.31752	330.29280	90.95174	3.92469	0.2155495	2.3185656	40	1	87 days	0.44	M-v	4	Williams	2000 AM ₃₁
2000 AV ₃₁	15.3	0.15	20000117	337.38352	194.54016	313.31300	12.92393	0.1847437	2.6641053	16	1	28 days	0.50			Williams	2000 AV ₃₁
2000 AB ₃₂	14.1	0.15	20000117	318.35990	217.06963	312.59755	17.15286	0.1317975	3.1644669	30	1	39 days	0.36			Williams	2000 AB ₃₂
2000 AC ₃₂	13.5	0.15	20000117	341.72218	47.78004	91.46710	13.19802	0.0705652	3.1789775	18	1	27 days	0.37			Williams	2000 AC ₃₂
2000 AE ₃₂	15.8	0.15	20000117	48.69521	88.30805	312.65424	8.39775	0.2594887	2.4346962	14	1	28 days	0.46			Williams	2000 AE ₃₂
2000 AG ₃₂	13.9	0.15	20000117	357.69639	138.20878	342.82834	4.97412	0.1074726	3.1645685	21	1	39 days	0.36			Williams	2000 AG ₃₂
2000 AH ₃₂	14.6	0.15	20000117	130.77716	357.47981	336.11648	5.69936	0.1737991	2.3022549	21	1	39 days	0.54			Williams	2000 AH ₃₂
2000 AL ₃₂	14.5	0.15	19991228	65.84502	279.85609	106.26984	13.79472	0.1835495	2.6396031	30	1	55 days	0.38			Williams	2000 AL ₃₂
2000 AM ₃₂	15.8	0.15	20000117	318.41251	88.78595	81.86678	3.15656	0.1354657	2.4223753	32	1	39 days	0.53			Williams	2000 AM ₃₂
2000 AP ₃₂	16.2	0.15	20000117	30.14215	98.67763	335.73570	1.92394	0.1851908	2.3115821	23	1	39 days	0.39			Williams	2000 AP ₃₂
2000 AR ₃₂	14.2	0.15	20000226	250.68014	153.58147	93.14898	7.24630	0.0902572	2.4230288	48	1	87 days	0.51	M-v	5	Williams	2000 AR ₃₂
2000 AS ₃₂	15.8	0.15	20000117	317.54915	191.02075	337.28682	3.51245	0.0929020	2.3116063	19	1	28 days	0.46			Williams	2000 AS ₃₂
2000 AT ₃₂	15.4	0.15	20000117	147.79185	276.69354	50.00453	2.18578	0.0703894	2.2996733	25	1	39 days	0.58			Williams	2000 AT ₃₂
2000 AV ₃₂	15.3	0.15	20000117	56.35842	17.98037	27.66411	2.08199	0.1623638	2.8677484	34	1	40 days	0.55			Williams	2000 AV ₃₂
2000 AX ₃₂	16.3	0.15	20000117	41.50092	90.52027	333.04373	3.14026	0.1540200	2.3581309	46	1	39 days	0.38			Williams	2000 AX ₃₂
2000 AB ₃₃	11.6	0.15	20000117	58.35767	322.51636	92.27140	9.84345	0.0801547	5.1973295	14	1	28 days	0.39			Spahr	2000 AB ₃₃
2000 AD ₃₃	14.5	0.15	20000117	107.35494	263.91702	87.97095	10.25302	0.1994754	2.5336030	28	1	39 days	0.66			Williams	2000 AD ₃₃
2000 AF ₃₃	14.3	0.15	20000117	17.05428	125.56135	331.19284	8.42344	0.1071357	3.0986555	25	1	39 days	0.44			Williams	2000 AF ₃₃
2000 AK ₃₃	14.5	0.15	20000117	193.28644	222.50199	66.22664	6.78661	0.1087707	2.4001219	22	1	39 days	0.61			Williams	2000 AK ₃₃
2000 AM ₃₃	15.5	0.15	20000117	334.92276	185.79097	330.15662	7.34329	0.1968429	2.6907444	28	1	39 days	0.37			Williams	2000 AM ₃₃
2000 AU ₃₃	14.8	0.15	20000117	327.84852	50.84269	107.93850	15.98575	0.0874445	2.8492274	24	1	39 days	0.60			Williams	2000 AU ₃₃
2000 AW ₃₃	12.3	0.15	20000117	132.22731	13.21825	317.21599	13.14359	0.2686714	3.0462623	21	1	28 days	0.37			Spahr	2000 AW ₃₃
2000 AX ₃₃	14.1	0.15	20000117	282.68065	198.26049	18.64473	3.14244	0.1611252	3.1134663	21	1	39 days	0.55			Williams	2000 AX ₃₃
2000 AY ₃₃	14.1	0.15	20000117	303.03744	235.22521	313.44848	11.26010	0.1018719	3.1192037	26	1	39 days	0.46			Williams	2000 AY ₃₃
2000 AZ ₃₃	16.0	0.15	20000117	39.98741	107.43887	315.46750	5.86028	0.1945867	2.4576037	15	1	28 days	5.82			Spahr	2000 AZ ₃₃
2000 AC ₃₄	14.1	0.15	20000117	258.48366	283.42848	313.92304	12.37265	0.1398169	2.5348849	29	1	39 days	0.40			Williams	2000 AC ₃₄
2000 AE ₃₄	14.5	0.15	20000226	87.32708	67.36513	323.57280	7.27165	0.1201340	2.2979679	31	1	87 days	0.37	M-v	5	Williams	2000 AE ₃₄
2000 AF ₃₄	14.4	0.15	20000226	54.11600	43.30153	10.78227	3.43135	0.2274099	2.6016896	22	1	75 days	0.34	M-v	5	Williams	2000 AF ₃₄
2000 AL ₃₄	15.4	0.15	20000117	330.79131	168.31341	347.12176	4.70612	0.0958560	2.3069606	30	1	39 days	0.70			Williams	2000 AL ₃₄
2000 AN ₃₄	15.0	0.15	19991228	67.13225	343.90231	32.69432	4.72599	0.2728600	2.5532153	36	1	58 days	0.39			Williams	2000 AN ₃₄
2000 AQ ₃₄	14.4	0.15	20000226	37.27292	37.98668	51.04899	5.05507	0.0721630	2.7031538	42	3	1992-2000	0.49	M-v	3	Williams	37994 2000 AQ ₃₄
2000 AR ₃₄	14.2	0.15	19991228	43.11737	105.61067	316.08736	16.47472	0.1428016	3.1962790	33	1	58 days	0.44			Williams	2000 AR ₃₄
2000 AT ₃₄	14.1	0.15	20000117	248.65534	295.49886	314.56504	10.74406	0.1709482	2.4040545	37	1	40 days	0.31			Williams	2000 AT ₃₄
2000 AU ₃₄	14.2	0.15	20000117	121.60317	34.16518	316.39899	14.96291	0.1131007	2.7344216	12	1	34 days	0.51			Williams	2000 AU ₃₄
2000 AA ₃₅	14.5	0.15	20000117	82.06197	60.80099	325.68270	11.74971	0.1222339	2.7472094	12	1	27 days	0.50			Williams	2000 AA ₃₅
2000 AG ₃₅	13.4	0.15	20000117	350.59124	20.43190	92.24715	10.18266	0.0389952	3.0377474	23	1	28 days	0.52			Williams	2000 AG ₃₅
2000 AJ ₃₅	15.7	0.15	20000117	50.59543	315.23852	85.65882	5.99217	0.1338770	2.2359626	23	1	42 days	0.34			Marsden	2000 AJ ₃₅
2000 AG ₃₆	16.9	0.15	19991228	0.19997	173.64342	286.87797	6.84852	0.1479038	2.2433674	23	1	22 days	0.35			Williams	2000 AG ₃₆
2000 AN ₃₆	15.4	0.15	20000226	306.25262	180.19648	1.25935	3.17263	0.0863933	2.3483298	35	2	1998-2000	0.50	M-v	5	Williams	37994 2000 AN ₃₆
2000 AS ₃₆	14.5	0.15	20000117	304.71727	130.24998	53.04732	0.94424	0.1905389	3.0742539	18	1	27 days	0.47			Williams	2000 AS ₃₆
2000 AW ₃₆	13.8	0.15	20000117	92.98888	70.64012	296.24530	14.43801	0.0649661	3.0323488	14	1	27 days	0.54			Williams	2000 AW ₃₆
2000 AB ₃₇	14.3	0.15	20000117	14.46057	138.52913	312.42773	7.69643	0.1143404	3.0918580	37	1	27 days	0.49			Williams	2000 AB ₃₇
2000 AC ₃₇	13.2	0.15	20000117	166.41834	348.86075	311.62225	8.91303	0.0725652	3.0593431	36	1	39 days	0.43			Williams	2000 AC ₃₇
2000 AD ₃₇	15.6	0.15	20000117	300.18125	241.42577	293.27526	7.66217	0.0502443	2.4434540	33	1	30 days	0.52			Spahr	2000 AD ₃₇
2000 AM ₃₇	14.7	0.15	19991228	281.59819	265.04235	292.80344	10.89723	0.1179575	2.5251079	27	1	54 days	0.46			Williams	2000 AM ₃₇
2000 AS ₃₇	16.2	0.15	19991228	291.83124	238.02274	303.17871	6.23569	0.0605281	2.2749884	28	1	51 days	0.59			Williams	2000 AS ₃₇
2000 AY ₃₇	14.6	0.15	20000226	236.62360	298.79431	318.77944	2.22269	0.1194467	2.4245022	42	2	1998-2000	0.54	M-v	4	Williams	37994 2000 AY ₃₇
2000 AB ₃₈	14.9	0.15	20000117	347.51583	34.91020	96.49353	7.04427	0.1056451	2.7728683	15	1	28 days	0.38			Spahr	2000 AB ₃₈
2000 AE ₃₈	14.1	0.15	20000117	98.18630	252.26717	102.07340	14.41896	0.2127637	2.5772680	14	1	28 days	0.41			Williams	2000 AE ₃₈
2000 AG ₃₈	15.7	0.15	20000117	321.02831	105.19245	57.06930	4.70642	0.1081245	2.2964091	17	1	27 days	0.42			Williams	2000 AG ₃₈
2000 AM ₃₈	15.5	0.15	20000117	68.64471	76.40592	308.87971	3.44559	0.1885493	2.3388474	20	1	28 days	0.47			Williams	2000 AM ₃₈

2000 AT ₃₈	15.4	0.15	20000117	347.64183	79.17580	55.76511	2.89845	0.1484961	2.6460164	23	1	39 days	0.58	Williams	2000 AT ₃₈
2000 AU ₃₈	14.2	0.15	20000117	57.70760	98.77777	306.41842	11.32374	0.1560275	3.0907275	24	1	42 days	0.47	Williams	2000 AU ₃₈
2000 AV ₃₈	15.2	0.15	20000117	34.04446	87.46621	353.49187	3.88353	0.0652191	2.5518477	14	1	28 days	0.38	Williams	2000 AV ₃₈
2000 AY ₃₈	14.6	0.15	20000117	253.83551	176.22792	59.53881	6.25932	0.1051219	2.6466135	21	1	39 days	0.51	Williams	2000 AY ₃₈
2000 AZ ₃₈	15.8	0.15	20000117	45.75808	37.23196	16.32654	2.17593	0.2045525	2.5363641	16	1	40 days	0.54	Williams	2000 AZ ₃₈
2000 AB ₃₉	13.2	0.15	20000117	209.85230	321.77807	320.46654	7.91016	0.2416163	2.5161997	11	1	28 days	0.45	Spahr	2000 AB ₃₉
2000 AL ₃₉	14.7	0.15	20000117	90.63567	311.51960	57.93558	3.23648	0.2028814	2.4345585	17	1	31 days	0.40	Williams	2000 AL ₃₉
2000 AM ₃₉	15.0	0.15	20000117	344.01098	174.22432	327.25896	10.05492	0.0687776	3.0852627	43	1	39 days	0.52	Williams	2000 AM ₃₉
2000 AP ₃₉	11.9	0.15	20000117	214.19529	330.94279	288.00691	12.21167	0.1711712	3.1573029	26	1	39 days	0.38	Williams	2000 AP ₃₉
2000 AE ₄₀	14.9	0.15	20000117	72.05269	38.93271	344.08801	4.40262	0.2063042	2.4248037	19	1	28 days	0.47	Williams	2000 AE ₄₀
2000 AF ₄₀	15.5	0.15	20000117	37.31540	21.08494	35.07329	4.60382	0.2715758	2.5748704	21	1	39 days	0.51	Williams	2000 AF ₄₀
2000 AG ₄₀	14.3	0.15	20000117	44.27979	113.37613	304.72591	16.27212	0.1811539	3.1190573	26	1	40 days	0.54	Williams	2000 AG ₄₀
2000 AL ₄₀	14.5	0.15	19991228	121.99216	354.92910	342.78590	7.12442	0.1927958	2.2996146	40	1	58 days	0.43	Williams	2000 AL ₄₀
2000 AZ ₄₀	14.7	0.15	20000226	32.13978	72.46892	22.98365	3.07160	0.1258015	2.4515503	29	1	87 days	0.34	M-v 4 Williams	2000 AZ ₄₀
2000 AA ₄₁	14.2	0.15	20000226	307.84560	99.53101	93.45856	7.38605	0.0528595	2.3630671	27	1	87 days	0.40	M-v 5 Williams	2000 AA ₄₁
2000 AT ₄₁	15.3	0.15	20000226	57.77171	87.73253	323.95555	12.12918	0.2625344	2.4056861	37	1	63 days	0.44	M-v 5 Williams	2000 AT ₄₁
2000 AF ₄₂	14.9	0.15	20000117	347.97043	11.60282	117.05931	14.65205	0.0502391	2.6389058	27	1	27 days	0.58	Williams	2000 AF ₄₂
2000 AG ₄₂	16.8	0.15	19991228	18.14090	209.43263	233.07349	0.68897	0.1729317	2.3535765	22	1	24 days	0.47	Williams	2000 AG ₄₂
2000 AH ₄₂	14.7	0.15	20000226	16.65939	201.00725	265.35737	1.38298	0.1442463	2.5849834	46	3	1992-2000	0.60	M-v 4 Spahr	37994 2000 AH ₄₂
2000 AJ ₄₂	14.9	0.15	20000117	358.90341	167.40081	275.21548	18.06145	0.0806768	1.9476017	18	1	28 days	0.41	Williams	2000 AJ ₄₂
2000 AR ₄₂	15.8	0.15	19991228	265.13071	103.37313	111.88670	24.01403	0.0925339	1.9042785	31	1	55 days	0.57	Williams	2000 AR ₄₂
2000 AT ₄₂	16.6	0.15	20000117	25.13102	146.69589	299.43488	17.53839	0.1120101	1.8997878	28	1	31 days	0.38	Spahr	2000 AT ₄₂
2000 AU ₄₂	15.7	0.15	20000117	3.52059	181.54182	299.77006	18.26563	0.0622519	1.9767901	24	1	39 days	0.46	Williams	2000 AU ₄₂
2000 AW ₄₂	16.1	0.15	20000117	308.52487	70.27195	116.73404	24.04735	0.0737188	1.9078673	26	1	32 days	0.41	Williams	2000 AW ₄₂
2000 AY ₄₂	14.7	0.15	20000226	355.67988	227.68496	270.44448	22.48004	0.3770583	2.4142474	36	1	97 days	0.37	M-v 4 Williams	2000 AY ₄₂
2000 AZ ₄₂	13.5	0.15	20000117	318.55708	45.96719	109.59678	17.78230	0.1796628	2.5264269	18	1	29 days	0.21	Williams	2000 AZ ₄₂
2000 AD ₄₃	13.4	0.15	20000226	340.35951	26.30789	117.05317	16.78214	0.1162148	2.6040054	36	1	106 days	0.45	M-v 4 Williams	2000 AD ₄₃
2000 AE ₄₃	15.4	0.15	19991228	111.46983	232.02947	109.42994	24.16820	0.0835103	1.9362234	32	1	57 days	0.56	Spahr	2000 AE ₄₃
2000 AG ₄₃	14.4	0.15	20000117	43.09599	306.31768	109.85148	14.72564	0.1199885	2.4535912	26	1	37 days	0.42	Williams	2000 AG ₄₃
2000 AH ₄₃	15.7	0.15	20000117	139.67101	47.49734	286.02872	17.32082	0.0681387	1.9691273	21	1	34 days	0.51	Spahr	2000 AH ₄₃
2000 AK ₄₃	16.5	0.15	19991228	35.21269	139.23551	294.55507	19.32798	0.0609928	1.9446319	35	1	51 days	0.43	Williams	2000 AK ₄₃
2000 AO ₄₃	14.8	0.15	19991228	290.26465	122.71097	92.88638	6.07829	0.2763656	2.8166689	12	1	15 days	1.53	Williams	2000 AO ₄₃
2000 AQ ₄₃	15.0	0.15	20000226	86.30724	110.10264	290.15699	3.08259	0.0973583	2.2420954	41	1	79 days	0.55	M-v 5 Williams	2000 AQ ₄₃
2000 AU ₄₃	14.8	0.15	20000117	102.40443	257.45442	97.72097	2.09224	0.1668573	2.2940808	28	1	40 days	0.51	Williams	2000 AU ₄₃
2000 AJ ₄₄	14.3	0.15	20000117	60.40173	358.52186	32.80294	1.41872	0.2121217	3.1377889	17	1	28 days	0.36	Spahr	2000 AJ ₄₄
2000 AT ₄₄	12.3	0.15	20000117	23.03944	348.01673	102.64324	8.73912	0.0792714	5.2471016	31	1	34 days	0.47	Spahr	2000 AT ₄₄
2000 AU ₄₄	15.7	0.15	20000226	169.17472	243.84513	67.57811	2.20933	0.1917606	2.3836856	38	2	1998-2000	0.49	M-v 5 Williams	37994 2000 AU ₄₄
2000 AW ₄₄	15.4	0.15	20000117	285.17917	126.54711	78.72088	2.63598	0.1227036	2.2595128	49	1	39 days	0.42	Williams	2000 AW ₄₄
2000 AJ ₄₅	14.7	0.15	19991208	5.44885	169.31352	267.87888	4.11465	0.1081943	2.2288006	22	1	56 days	0.32	Williams	2000 AJ ₄₅
2000 AR ₄₅	13.9	0.15	19991228	140.41821	206.41970	97.75682	16.52482	0.1363806	2.7760553	24	1	53 days	0.39	Williams	2000 AR ₄₅
2000 AS ₄₅	14.1	0.15	19991228	297.20948	273.49114	269.20432	10.66097	0.2848223	2.6853317	16	1	9 days	0.94	Williams	2000 AS ₄₅
2000 AW ₄₅	13.7	0.15	19991228	34.43010	316.20666	98.91020	10.46775	0.0749627	3.1217733	36	1	48 days	0.45	Williams	2000 AW ₄₅
2000 AY ₄₅	13.5	0.15	20000117	103.80250	68.77097	275.79110	11.59409	0.1214124	3.1351954	15	1	31 days	0.37	Williams	2000 AY ₄₅
2000 AW ₄₆	14.6	0.15	20000117	36.31661	144.99968	283.67828	8.99043	0.1098508	2.9842042	15	1	29 days	0.53	Spahr	2000 AW ₄₆
2000 AB ₄₇	13.3	0.15	20000226	181.50381	345.47837	326.89202	9.55203	0.0792429	2.9748924	41	1	87 days	0.52	M-v 5 Williams	2000 AB ₄₇
2000 AC ₄₇	15.8	0.15	20000117	352.74561	187.14620	308.46842	21.98543	0.1614354	2.6952522	36	1	39 days	0.76	Williams	2000 AC ₄₇
2000 AG ₄₇	13.8	0.15	20000117	176.40895	199.28435	112.83092	10.26401	0.0149989	2.7284906	36	1	38 days	0.53	Williams	2000 AG ₄₇
2000 AH ₄₇	14.1	0.15	20000117	261.04577	116.75748	116.96472	13.40680	0.0541328	2.6924413	27	1	38 days	0.53	Williams	2000 AH ₄₇
2000 AK ₄₇	15.4	0.15	20000117	10.47092	133.28407	340.52046	2.19595	0.1499861	2.4111275	25	1	38 days	0.55	Williams	2000 AK ₄₇
2000 AM ₄₇	15.4	0.15	20000117	261.67492	107.17604	127.19839	6.59732	0.0628567	2.2416390	28	1	38 days	0.50	Williams	2000 AM ₄₇
2000 AO ₄₇	15.3	0.15	20000117	38.68339	116.99479	317.88219	4.38222	0.1864280	2.5804820	59	1	41 days	0.46	Williams	2000 AO ₄₇
2000 AR ₄₇	16.0	0.15	20000117	350.46640	144.69698	356.78999	2.28674	0.1305879	2.4583129	33	1	38 days	0.42	Williams	2000 AR ₄₇
2000 AS ₄₇	15.4	0.15	20000117	49.79178	111.21374	319.17518	8.35102	0.0918778	2.2902458	22	1	38 days	0.47	Williams	2000 AS ₄₇

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2000 AT ₄₇	15.2	0.15	20000117	35.28233	334.78922	113.19031	7.33587	0.0893392	2.4370926	36	1	38 days	0.51	Williams	2000 AT ₄₇
2000 AU ₄₇	15.1	0.15	20000117	354.76140	8.91393	128.50788	15.75185	0.0714880	2.6574454	33	1	38 days	0.48	Williams	2000 AU ₄₇
2000 AW ₄₇	15.3	0.15	20000117	34.35882	331.36162	106.88896	5.31550	0.2357382	2.5783395	22	1	38 days	0.47	Williams	2000 AW ₄₇
2000 AX ₄₇	14.5	0.15	20000117	27.93263	334.37186	124.78602	14.03731	0.1182863	2.7198954	23	1	38 days	0.48	Williams	2000 AX ₄₇
2000 AC ₄₈	13.6	0.15	20000226	59.72061	299.90641	129.18974	12.24483	0.1113672	3.0658837	61	1	69 days	0.53	M-v 5 Williams	2000 AC ₄₈
2000 AE ₄₈	15.5	0.15	19991228	59.39280	243.34008	138.79338	2.53963	0.2538038	2.5322382	30	1	58 days	0.75	Spahr	2000 AE ₄₈
2000 AF ₄₈	14.7	0.15	20000117	250.59932	115.07253	117.07887	9.81812	0.0726670	2.7657974	23	1	28 days	0.61	Spahr	2000 AF ₄₈
2000 AJ ₄₈	14.9	0.15	20000117	142.88909	212.92492	108.16580	9.16648	0.2201629	2.5239162	17	1	29 days	0.67	Spahr	2000 AJ ₄₈
2000 AL ₄₈	16.5	0.15	20000117	47.92165	100.83191	304.03526	3.32984	0.2495456	2.5421041	16	1	39 days	0.61	Williams	2000 AL ₄₈
2000 AN ₄₈	14.6	0.15	20000226	75.72144	251.03618	134.37467	1.04064	0.2206063	2.3834988	77	3	1996–2000	0.56	M-v 4 Spahr	37994 2000 AN ₄₈
2000 AV ₄₈	14.7	0.15	20000226	8.27670	305.84956	118.82087	5.06551	0.1920015	2.4008894	24	1	69 days	0.71	M-v 6 Williams	2000 AV ₄₈
2000 AA ₄₉	16.1	0.15	20000117	269.83146	99.07016	102.75104	24.35788	0.0785462	1.9736077	14	1	25 days	0.58	Williams	2000 AA ₄₉
2000 AL ₄₉	15.7	0.15	20000117	167.89309	184.32326	122.68427	27.99600	0.0641890	1.8949476	25	1	37 days	0.36	Williams	2000 AL ₄₉
2000 AN ₄₉	14.7	0.15	20000226	37.00911	318.92518	128.06932	28.94515	0.1146482	2.5860483	36	1	61 days	0.51	M-v 5 Williams	2000 AN ₄₉
2000 AQ ₄₉	15.0	0.15	20000117	206.59319	8.08932	261.56494	4.37462	0.1260569	2.1373049	17	1	29 days	0.46	Williams	2000 AQ ₄₉
2000 AT ₄₉	16.1	0.15	20000226	288.06858	290.84009	281.26131	17.92427	0.0426880	1.9607197	19	1	62 days	0.50	M-v 5 Williams	2000 AT ₄₉
2000 AV ₄₉	15.9	0.15	19991228	351.67154	2.09310	104.85569	24.06558	0.1564898	2.3097228	33	1	48 days	0.55	Spahr	2000 AV ₄₉
2000 AY ₄₉	14.7	0.15	20000226	61.00880	278.98805	119.57363	9.93108	0.2729460	2.7436792	44	1	68 days	0.62	M-v 5 Williams	2000 AY ₄₉
2000 AB ₅₀	14.1	0.15	20000117	21.29788	161.09079	285.44632	9.00440	0.0634101	2.9961620	31	1	29 days	0.61	Spahr	2000 AB ₅₀
2000 AD ₅₀	14.3	0.15	20000226	219.45459	186.98798	79.56408	3.85861	0.1789500	2.4031114	42	3	1990–2000	0.60	M-v 4 Williams	37995 2000 AD ₅₀
2000 AE ₅₀	14.6	0.15	19991228	347.37856	2.07708	120.50865	2.59379	0.1365724	3.1117179	33	1	55 days	0.65	Williams	2000 AE ₅₀
2000 AF ₅₀	15.4	0.15	20000117	281.58037	78.43848	117.78128	2.92200	0.0618252	2.5667366	17	1	24 days	0.98	Williams	2000 AF ₅₀
2000 AG ₅₀	15.5	0.15	20000117	310.81184	57.94654	110.21454	6.28268	0.0829963	2.2354901	27	1	26 days	0.41	Williams	2000 AG ₅₀
2000 AH ₅₀	15.0	0.15	20000117	59.96922	278.95331	127.38053	7.68678	0.1365464	2.4565920	38	1	43 days	0.51	Williams	2000 AH ₅₀
2000 AK ₅₀	14.3	0.15	20000226	326.32002	52.96189	121.37428	17.78596	0.1156017	2.5829195	34	1	70 days	0.54	M-v 4 Williams	2000 AK ₅₀
2000 AL ₅₀	15.0	0.15	20000117	66.36703	255.25924	147.21097	3.07876	0.1077884	2.2877208	32	1	34 days	0.45	Williams	2000 AL ₅₀
2000 AM ₅₀	14.9	0.15	20000226	359.58287	15.75796	128.18567	14.10136	0.1342762	2.5994869	47	1	66 days	0.56	M-v 4 Williams	2000 AM ₅₀
2000 AO ₅₀	13.1	0.15	20000117	196.10941	164.12193	138.15851	10.81015	0.0814075	3.0306392	40	1	37 days	0.49	Williams	2000 AO ₅₀
2000 AP ₅₀	11.9	0.15	20000226	108.75044	69.12139	292.89134	12.42966	0.2142744	2.6197692	53	1	79 days	0.52	M-v 4 Williams	2000 AP ₅₀
2000 AR ₅₀	14.2	0.15	20000117	9.57140	265.53993	206.05043	2.71256	0.1456864	2.5461463	36	1	36 days	0.48	Williams	2000 AR ₅₀
2000 AT ₅₀	13.5	0.15	20000226	1.29955	11.44474	122.37147	12.77982	0.1292784	2.6813874	56	1	114 days	0.51	M-v 3 Williams	2000 AT ₅₀
2000 AW ₅₀	15.3	0.15	20000117	29.91344	137.58028	304.31651	12.92952	0.1586522	2.7668980	41	1	35 days	0.75	Williams	2000 AW ₅₀
2000 AX ₅₀	15.2	0.15	20000226	108.27739	330.16901	44.37053	4.28638	0.0883529	2.5364173	37	2	1998–2000	0.43	M-v 4 Williams	37995 2000 AX ₅₀
2000 AY ₅₀	16.7	0.15	20000117	304.72819	87.51185	99.49160	2.02943	0.1255172	2.4609729	8	1	23 days	0.18	Williams	2000 AY ₅₀
2000 AZ ₅₀	14.5	0.15	20000226	145.68581	261.24752	71.84966	0.73510	0.1625014	2.2903404	57	3	1988–2000	0.58	M-v 4 Williams	37995 2000 AZ ₅₀
2000 AD ₅₁	14.0	0.15	20000226	62.43929	84.07336	310.30621	12.39540	0.2627527	3.0797607	47	1	63 days	0.49	M-v 5 Williams	2000 AD ₅₁
2000 AG ₅₁	14.0	0.15	19991228	234.99251	313.17086	288.08335	9.28303	0.1305882	3.1489216	13	1	5 days	0.62	E Williams	2000 AG ₅₁
2000 AD ₅₂	14.0	0.15	20000226	73.39231	42.22493	287.34928	9.14872	0.2451133	2.5330503	34	1	125 days	0.38	M-v 4 Williams	38180 2000 AD ₅₂
2000 AJ ₅₂	14.9	0.15	20000226	56.80273	14.66232	349.20666	5.11518	0.1340359	2.5745372	26	1	64 days	0.56	M-v 5 Williams	2000 AJ ₅₂
2000 AO ₅₂	14.6	0.15	20000226	9.29658	177.43126	249.91424	12.45635	0.2217059	2.7224206	30	1	64 days	0.52	M-v 4 Williams	2000 AO ₅₂
2000 AP ₅₂	14.7	0.15	20000226	70.68466	38.15849	305.42050	4.11873	0.2008978	2.5417922	39	1	93 days	0.38	M-v 4 Williams	2000 AP ₅₂
2000 AQ ₅₂	14.9	0.15	20000226	81.23105	28.28967	301.21009	4.17036	0.2511366	2.3194479	40	1	93 days	0.41	M-v 4 Williams	2000 AQ ₅₂
2000 AX ₅₂	15.6	0.15	20000226	39.31575	95.66478	291.43306	4.06707	0.2389710	2.3547704	30	1	110 days	0.55	M-v 4 Williams	2000 AX ₅₂
2000 AA ₅₃	15.1	0.15	20000117	24.66607	56.61616	338.41728	2.79669	0.2606180	2.5755695	16	1	27 days	0.48	Spahr	2000 AA ₅₃
2000 AB ₅₃	15.5	0.15	20000226	25.07968	155.76046	266.55783	5.04432	0.1874715	2.2726463	47	1	92 days	0.53	M-v 3 Williams	2000 AB ₅₃
2000 AD ₅₃	14.5	0.15	20000226	64.13854	103.22471	260.60692	11.93400	0.2020974	2.5570196	30	1	60 days	0.42	M-v 5 Williams	2000 AD ₅₃
2000 AN ₅₃	14.3	0.15	20000117	237.83479	131.54246	106.41961	15.09290	0.0806000	2.6467517	19	1	26 days	0.36	Williams	2000 AN ₅₃
2000 AO ₅₃	14.9	0.15	19991228	309.11977	208.92618	319.67860	1.38023	0.1380880	2.6635158	37	1	53 days	0.47	Williams	2000 AO ₅₃
2000 AP ₅₃	15.0	0.15	19991228	219.34431	334.25164	289.01556	8.20618	0.3144032	2.3790308	19	1	11 days	0.82	Williams	2000 AP ₅₃
2000 AQ ₅₃	14.9	0.15	20000226	312.39153	69.73097	109.21878	6.85694	0.0557596	2.3991309	27	1	65 days	0.44	M-v 4 Williams	2000 AQ ₅₃
2000 AX ₅₃	15.2	0.15	20000117	207.18626	162.76001	111.23903	0.63182	0.0779226	2.2864744	18	1	26 days	0.46	Williams	2000 AX ₅₃
2000 AY ₅₃	14.1	0.15	20000117	68.54966	93.42467	300.75119	9.87284	0.1313501	2.9623509	26	1	40 days	0.44	Williams	2000 AY ₅₃
2000 AZ ₅₃	13.6	0.15	20000226	98.38130	73.92346	303.96491	8.63437	0.0791470	3.0442691	43	2	1992–2000	0.57	M-v 4 Williams	37995 2000 AZ ₅₃

2000 AA ₅₄	11.7	0.15	20000117	61.39349	110.75434	303.61529	11.05897	0.0339892	5.2323227	40	1	41 days	0.47		Williams	2000 AA ₅₄
2000 AD ₅₄	15.1	0.15	20000226	345.22883	43.98602	109.84560	4.30013	0.1739079	2.3544547	41	1	68 days	0.47	M-v 4	Williams	2000 AD ₅₄
2000 AE ₅₄	14.7	0.15	20000226	352.16536	210.17969	292.38693	3.94794	0.1256202	2.2724692	27	1	79 days	0.49	M-v 5	Williams	2000 AE ₅₄
2000 AF ₅₄	14.1	0.15	20000226	109.40399	245.76776	112.67695	7.62468	0.1999928	2.2844567	46	1	68 days	0.58	M-v 5	Williams	2000 AF ₅₄
2000 AJ ₅₄	12.7	0.15	20000226	205.52473	343.59368	299.84929	11.64342	0.0749172	2.9319867	36	1	87 days	0.58	M-v 5	Williams	2000 AJ ₅₄
2000 AK ₅₄	14.1	0.15	20000117	244.96658	316.83002	297.78399	12.67316	0.2353415	2.4354878	19	1	30 days	0.61		Williams	2000 AK ₅₄
2000 AM ₅₄	15.8	0.15	20000117	8.56187	355.53086	111.29564	8.54573	0.1460607	2.5623074	43	1	43 days	0.64		Williams	2000 AM ₅₄
2000 AN ₅₄	14.0	0.15	20000117	268.12226	111.73659	104.35414	13.37315	0.0405790	2.8780437	23	1	38 days	0.40		Williams	2000 AN ₅₄
2000 AP ₅₄	15.4	0.15	20000117	41.18108	108.68826	315.39952	4.00962	0.1505739	2.7188408	26	1	38 days	0.54		Williams	2000 AP ₅₄
2000 AQ ₅₄	15.9	0.15	20000117	66.19947	309.94383	79.81350	2.28879	0.1961764	2.3839065	18	1	28 days	0.68		Spahr	2000 AQ ₅₄
2000 AU ₅₄	14.6	0.15	20000117	6.61675	166.03548	303.68517	9.39925	0.1678885	3.1626084	38	1	39 days	0.53		Williams	2000 AU ₅₄
2000 AY ₅₄	15.7	0.15	20000117	59.98853	96.63367	299.66921	4.40239	0.2005630	2.2220606	17	1	30 days	0.45		Williams	2000 AY ₅₄
2000 AE ₅₅	14.5	0.15	20000117	275.26659	100.22004	118.80214	13.04080	0.1249291	2.6716265	34	1	43 days	0.47		Williams	2000 AE ₅₅
2000 AF ₅₅	14.0	0.15	20000117	334.98841	28.86713	123.10751	2.16456	0.1140876	3.1587518	23	1	39 days	0.46		Williams	2000 AF ₅₅
2000 AK ₅₅	16.3	0.15	19991228	48.49393	290.92969	110.91911	5.91850	0.2200056	2.3452125	29	1	58 days	0.45		Williams	2000 AK ₅₅
2000 AO ₅₅	14.5	0.15	20000117	85.41056	260.80003	115.89832	5.52585	0.1563738	2.2739949	17	1	26 days	0.30		Williams	2000 AO ₅₅
2000 AP ₅₅	15.3	0.15	20000117	347.89708	22.17854	113.65590	4.74035	0.1251628	2.3116605	22	1	38 days	0.39		Williams	2000 AP ₅₅
2000 AR ₅₅	15.4	0.15	20000117	38.74831	132.81835	296.70477	4.39089	0.1437882	2.2308733	20	1	30 days	0.32		Williams	2000 AR ₅₅
2000 AS ₅₅	14.4	0.15	20000117	237.15527	284.81377	325.47769	3.81646	0.0798848	2.5586842	19	1	38 days	0.47		Williams	2000 AS ₅₅
2000 AU ₅₅	15.5	0.15	20000117	92.28812	62.69646	312.35211	7.25607	0.1150712	2.3010742	24	1	41 days	0.46		Williams	2000 AU ₅₅
2000 AW ₅₅	15.9	0.15	20000117	319.09385	79.49981	102.11058	3.45092	0.2241391	2.2141631	15	1	27 days	0.99		Williams	2000 AW ₅₅
2000 AX ₅₅	14.9	0.15	19991228	83.07451	297.29948	71.56326	1.73085	0.2137193	2.5157545	28	1	58 days	0.54		Williams	2000 AX ₅₅
2000 AZ ₅₅	15.1	0.15	20000226	1.48589	121.42725	10.95827	0.70543	0.2778077	3.0208670	33	1	88 days	0.52	M-v 4	Williams	2000 AZ ₅₅
2000 AB ₅₆	13.9	0.15	20000117	260.21589	134.73104	103.04610	2.01836	0.1396473	3.1719747	32	1	39 days	0.62		Williams	2000 AB ₅₆
2000 AD ₅₆	15.5	0.15	20000117	304.78745	64.39131	124.39660	4.52548	0.1141183	2.4434125	36	1	39 days	0.54		Williams	2000 AD ₅₆
2000 AH ₅₆	14.9	0.15	20000117	350.56395	24.85793	106.95433	7.17300	0.0529431	2.4019259	26	1	38 days	0.51		Williams	2000 AH ₅₆
2000 AK ₅₆	14.3	0.15	19991228	76.51035	283.57478	110.64949	7.75824	0.0686811	2.8779873	24	1	55 days	0.69		Spahr	2000 AK ₅₆
2000 AN ₅₆	15.4	0.15	20000117	319.76557	220.36150	310.77344	4.73283	0.1160794	2.3115186	23	1	39 days	0.60		Williams	2000 AN ₅₆
2000 AQ ₅₆	14.9	0.15	20000117	15.49851	0.77216	102.62998	7.17535	0.0655254	2.4274463	23	1	38 days	0.34		Williams	2000 AQ ₅₆
2000 AW ₅₆	15.5	0.15	19991228	40.13688	306.32189	111.96015	3.77598	0.1552712	2.5361984	19	1	31 days	0.49		Williams	2000 AW ₅₆
2000 AX ₅₆	17.2	0.15	20000117	11.82163	344.33125	115.01570	5.83337	0.2475899	2.5922142	12	1	27 days	0.36		Williams	2000 AX ₅₆
2000 AY ₅₆	15.7	0.15	20000117	328.99908	161.69496	358.84673	1.73493	0.1327525	2.7655932	18	1	38 days	0.86		Williams	2000 AY ₅₆
2000 AB ₅₇	14.2	0.15	20000117	119.96751	244.90882	111.99091	7.05405	0.0621954	2.7034372	17	1	38 days	0.59		Williams	2000 AB ₅₇
2000 AE ₅₇	13.3	0.15	20000117	114.14268	233.96231	121.95942	14.61400	0.1434162	3.0803846	15	1	30 days	0.61		Williams	2000 AE ₅₇
2000 AH ₅₇	14.8	0.15	20000117	49.39346	103.56567	304.96660	22.82752	0.2309366	2.7976167	18	1	30 days	0.53		Williams	2000 AH ₅₇
2000 AK ₅₇	17.3	0.15	20000117	1.22054	29.05157	91.01740	4.24755	0.1669713	2.3749048	29	1	38 days	0.47		Williams	2000 AK ₅₇
2000 AL ₅₇	14.6	0.15	20000226	81.74896	45.02972	346.60427	2.76878	0.1772777	2.2459468	29	1	87 days	0.46	M-v 5	Williams	2000 AL ₅₇
2000 AM ₅₇	15.4	0.15	20000117	310.51391	248.15350	301.89480	9.63933	0.1859325	2.4691710	35	1	30 days	0.81		Spahr	2000 AM ₅₇
2000 AR ₅₇	15.3	0.15	20000117	62.65850	284.79321	115.91715	3.54236	0.1803490	2.5985864	26	1	38 days	0.56		Williams	2000 AR ₅₇
2000 AA ₅₈	14.0	0.15	20000226	268.11288	118.31468	109.20270	5.91490	0.0142581	2.3835502	48	2	1998-2000	0.67	M-v 4	Williams	37995 2000 AA ₅₈
2000 AC ₅₈	14.5	0.15	20000117	245.11927	126.89825	119.88360	6.26479	0.0739797	2.4402024	49	1	42 days	0.54		Williams	2000 AC ₅₈
2000 AD ₅₈	16.7	0.15	19991228	17.40982	315.84690	130.80280	1.12308	0.2512487	2.6124795	13	1	2 days	0.50		Williams	2000 AD ₅₈
2000 AE ₅₈	14.3	0.15	20000226	344.17190	221.29478	297.15258	6.43360	0.1496543	2.7133059	43	1	87 days	0.52	M-v 4	Williams	2000 AE ₅₈
2000 AF ₅₈	13.9	0.15	20000117	344.08255	200.59892	303.94816	9.19887	0.0651371	3.1584264	33	1	32 days	0.38		Spahr	2000 AF ₅₈
2000 AL ₅₈	13.6	0.15	20000226	207.10889	333.89864	314.75543	5.28709	0.0505304	2.7402338	35	1	87 days	0.45	M-v 5	Williams	2000 AL ₅₈
2000 AQ ₅₈	14.2	0.15	20000117	280.27011	99.00231	109.04129	10.28727	0.0300388	2.7247125	24	1	38 days	0.44		Williams	2000 AQ ₅₈
2000 AS ₅₈	14.3	0.15	19991228	354.69123	177.75046	309.16685	14.75510	0.2224223	3.0963125	33	1	55 days	0.57		Spahr	2000 AS ₅₈
2000 AT ₅₈	15.0	0.15	20000226	252.55919	217.52653	29.09748	2.25544	0.0523503	2.2821337	44	3	1997-2000	0.52	M-v 3	Williams	37996 2000 AT ₅₈
2000 AW ₅₈	14.0	0.15	20000117	202.73304	332.08619	314.81955	13.21196	0.1524877	2.5375861	22	1	38 days	0.44		Williams	2000 AW ₅₈
2000 AB ₅₉	14.9	0.15	20000117	57.64253	89.03899	315.34288	12.03592	0.2006019	2.5903577	25	1	38 days	0.52		Williams	2000 AB ₅₉
2000 AM ₅₉	15.1	0.15	20000117	86.74966	75.53153	304.36667	9.52035	0.1621366	2.3620101	30	1	37 days	0.49		Williams	2000 AM ₅₉
2000 AP ₅₉	14.8	0.15	20000117	204.83888	340.72811	310.08391	6.59980	0.2657572	2.1826713	27	1	39 days	0.55		Williams	2000 AP ₅₉
2000 AR ₅₉	13.1	0.15	20000117	287.01922	104.81732	125.62655	14.21303	0.2575731	3.1678403	40	1	38 days	0.91		Williams	2000 AR ₅₉

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2000 AS ₅₉	14.9	0.15	20000117	94.44328	74.11230	301.01968	4.84167	0.1486513	2.4188357	33	1	32 days	0.56		Spahr	2000 AS ₅₉
2000 AU ₅₉	14.3	0.15	20000226	68.76676	302.00641	102.18100	3.69407	0.1970939	2.6157593	32	1	87 days	0.46	M-v 5	Williams	2000 AU ₅₉
2000 AW ₅₉	14.7	0.15	20000226	53.47933	121.92228	308.62141	14.50970	0.1180250	2.6439783	37	1	88 days	0.61	M-v 5	Williams	2000 AW ₅₉
2000 AA ₆₀	14.1	0.15	20000226	10.55854	169.27695	311.04919	4.78734	0.2535018	3.0688262	39	1	79 days	0.42	M-v 4	Williams	2000 AA ₆₀
2000 AG ₆₀	16.2	0.15	20000117	41.19132	325.72089	100.60733	1.06639	0.1963443	2.3016291	49	1	39 days	0.64		Williams	2000 AG ₆₀
2000 AH ₆₀	14.5	0.15	19991228	233.13124	310.31641	310.15204	4.68571	0.1217378	2.5127209	17	1	7 days	0.75		Williams	2000 AH ₆₀
2000 AJ ₆₀	15.0	0.15	20000226	74.46445	292.32478	106.51494	1.13003	0.2115873	2.3162475	46	1	88 days	0.52	M-v 5	Williams	2000 AJ ₆₀
2000 AK ₆₀	13.5	0.15	20000117	116.00381	243.07718	125.64413	13.65505	0.0427586	3.1346900	68	1	38 days	0.63		Williams	2000 AK ₆₀
2000 AL ₆₀	13.8	0.15	20000117	263.34146	115.88953	121.55222	10.05406	0.1130715	2.7876075	23	1	38 days	0.53		Williams	2000 AL ₆₀
2000 AN ₆₀	13.1	0.15	20000117	205.87442	342.69044	307.51614	12.03397	0.1428844	3.0072600	19	1	30 days	0.42		Williams	2000 AN ₆₀
2000 AO ₆₀	17.4	0.15	20000117	327.12576	254.33358	297.43175	5.07994	0.3628710	2.2710368	30	1	39 days	0.72		Williams	2000 AO ₆₀
2000 AP ₆₀	14.2	0.15	20000226	85.00286	85.42832	304.34629	6.61462	0.2004897	2.3694136	78	4	1984-2000	0.52	M-v 1	Williams	37996 2000 AP ₆₀
2000 AQ ₆₀	15.7	0.15	20000117	10.93030	185.99202	287.15953	2.03876	0.1079458	2.3540084	30	1	32 days	0.31		Williams	2000 AQ ₆₀
2000 AS ₆₀	14.4	0.15	20000117	332.21867	48.33782	119.99612	17.06237	0.1915648	2.8765933	30	1	38 days	0.38		Williams	2000 AS ₆₀
2000 AT ₆₀	15.3	0.15	20000117	88.42993	273.24647	110.49088	4.89375	0.1270995	2.2273111	20	1	38 days	0.45		Williams	2000 AT ₆₀
2000 AV ₆₀	15.0	0.15	20000226	56.57139	114.87632	313.13760	6.63408	0.1321650	2.2389426	42	1	87 days	0.53	M-v 5	Williams	2000 AV ₆₀
2000 AW ₆₀	14.6	0.15	20000117	167.44323	203.51351	113.40460	8.44264	0.1381847	2.4366490	27	1	38 days	0.46		Williams	2000 AW ₆₀
2000 AG ₆₁	13.9	0.15	20000117	281.84211	252.99117	319.43640	10.13035	0.0640633	3.0912427	30	1	38 days	0.46		Williams	2000 AG ₆₁
2000 AP ₆₁	14.8	0.15	20000117	62.59234	10.65373	39.05533	2.80090	0.1260137	2.2732735	23	1	38 days	0.31		Williams	2000 AP ₆₁
2000 AT ₆₁	15.3	0.15	20000226	8.90232	6.72172	123.14416	3.40588	0.1296587	2.3170392	82	2	1998-2000	0.47	M-v 3	Williams	37996 2000 AT ₆₁
2000 AU ₆₁	13.0	0.15	20000226	275.11116	292.29677	308.95604	6.63933	0.1584208	2.5672769	59	1	89 days	0.38	M-v 5	Williams	2000 AU ₆₁
2000 AV ₆₁	15.2	0.15	20000117	327.19336	229.87439	309.64189	3.65675	0.2316630	2.6503755	55	1	38 days	0.43		Spahr	2000 AV ₆₁
2000 AY ₆₁	13.1	0.15	20000117	237.34744	156.85889	114.79538	9.06895	0.2325000	2.7419428	23	1	38 days	0.45		Williams	2000 AY ₆₁
2000 AZ ₆₁	14.9	0.15	20000117	46.65414	103.37605	310.48490	11.62673	0.2637118	2.6873066	17	1	29 days	0.32		Williams	2000 AZ ₆₁
2000 AC ₆₂	13.6	0.15	20000117	59.02412	296.33162	122.07782	11.77860	0.1280337	3.2409189	22	1	38 days	0.45		Williams	2000 AC ₆₂
2000 AD ₆₂	13.3	0.15	20000226	44.68556	140.50541	310.22527	8.55560	0.0365807	2.9878367	45	1	83 days	0.45	M-v 5	Williams	2000 AD ₆₂
2000 AE ₆₂	13.6	0.15	20000226	266.60579	309.68812	308.04326	22.85990	0.2383097	2.4070824	36	1	62 days	0.43	M-v 5	Williams	2000 AE ₆₂
2000 AF ₆₂	13.6	0.15	20000226	28.85900	341.48533	123.24505	14.60556	0.1112205	2.6116367	40	1	114 days	0.42	M-v 4	Williams	2000 AF ₆₂
2000 AG ₆₂	14.3	0.15	20000117	180.94116	183.27565	126.88572	16.14173	0.1265142	2.6027727	21	1	38 days	0.61		Williams	2000 AG ₆₂
2000 AH ₆₂	13.8	0.15	20000117	108.95093	242.82655	127.98527	4.25348	0.1172950	3.0745383	25	1	38 days	0.88		Williams	2000 AH ₆₂
2000 AJ ₆₂	14.1	0.15	20000117	185.02315	184.45093	122.58458	6.50096	0.1895219	2.2824157	22	1	38 days	0.67		Williams	2000 AJ ₆₂
2000 AK ₆₂	12.5	0.15	20000226	353.23789	195.24331	311.87035	11.98705	0.0562779	3.1408992	70	1	95 days	0.50	M-v 4	Williams	2000 AK ₆₂
2000 AL ₆₂	15.8	0.15	20000117	148.29571	209.63254	124.88691	7.17223	0.1464233	2.3088342	25	1	38 days	0.75		Williams	2000 AL ₆₂
2000 AM ₆₂	15.6	0.15	20000117	7.46736	164.28670	313.99559	12.37680	0.1385868	2.6753574	42	1	39 days	0.54		Williams	2000 AM ₆₂
2000 AN ₆₂	15.8	0.15	20000117	351.69381	51.10481	87.99787	3.20808	0.1552084	2.4056328	23	1	38 days	0.48		Williams	2000 AN ₆₂
2000 AO ₆₂	15.1	0.15	20000117	337.63248	58.91050	98.59292	4.36452	0.1226385	2.6061733	23	1	38 days	0.51		Williams	2000 AO ₆₂
2000 AQ ₆₂	14.1	0.15	20000226	294.87549	103.06613	108.23228	7.35058	0.0635640	2.3588126	45	1	87 days	0.42	M-v 5	Williams	2000 AQ ₆₂
2000 AR ₆₂	16.9	0.15	20000117	355.99685	163.66750	328.45496	4.77253	0.1490330	2.2750224	39	1	38 days	0.55		Williams	2000 AR ₆₂
2000 AS ₆₂	14.2	0.15	20000117	23.99866	26.94816	78.85174	3.19626	0.0069347	2.8486509	24	1	38 days	0.52		Williams	2000 AS ₆₂
2000 AY ₆₂	13.3	0.15	20000226	34.57210	356.81411	97.55148	7.92516	0.1164821	3.0733566	39	1	87 days	0.46	M-v 4	Williams	2000 AY ₆₂
2000 AZ ₆₂	15.5	0.15	20000117	18.39390	88.11258	14.17070	3.12268	0.1270813	2.3127911	24	1	38 days	0.36		Williams	2000 AZ ₆₂
2000 AB ₆₃	15.2	0.15	20000117	338.38247	196.89900	318.33018	14.30206	0.1301035	2.6595941	49	1	38 days	0.66		Williams	2000 AB ₆₃
2000 AC ₆₃	13.5	0.15	20000117	81.03497	284.47203	107.30649	12.47715	0.1527235	3.0660848	24	1	38 days	0.48		Williams	2000 AC ₆₃
2000 AD ₆₃	15.8	0.15	20000117	38.03360	14.01460	58.42288	4.19674	0.1894205	2.3550061	51	1	38 days	0.44		Williams	2000 AD ₆₃
2000 AK ₆₃	12.4	0.15	20000117	255.30408	282.78839	321.13237	20.14859	0.0821362	3.1695580	28	1	38 days	0.33		Williams	2000 AK ₆₃
2000 AP ₆₃	15.0	0.15	20000226	331.18161	70.14781	102.68407	7.66061	0.0500067	2.2971780	29	1	66 days	0.69	M-v 5	Williams	2000 AP ₆₃
2000 AQ ₆₃	13.5	0.15	20000117	148.62027	9.14482	325.04053	13.00337	0.1604743	2.6884201	22	1	38 days	0.50		Williams	2000 AQ ₆₃
2000 AS ₆₃	14.4	0.15	20000117	306.82641	78.39878	120.42755	11.21770	0.1556293	2.6628146	24	1	38 days	0.44		Williams	2000 AS ₆₃
2000 AV ₆₃	13.7	0.15	20000117	135.79452	225.67653	113.61722	6.66275	0.2475627	2.4630731	23	1	38 days	0.47		Williams	2000 AV ₆₃
2000 AB ₆₄	14.4	0.15	20000226	133.67017	269.10043	83.76029	2.81712	0.1872204	2.2361257	25	1	87 days	0.48	M-v 5	Williams	2000 AB ₆₄
2000 AC ₆₄	15.8	0.15	20000117	18.52905	148.81765	319.91677	6.19252	0.0769437	2.4165954	27	1	38 days	0.35		Williams	2000 AC ₆₄
2000 AG ₆₄	14.2	0.15	20000226	253.61763	130.85087	122.13365	9.37917	0.0423271	2.3254678	31	1	66 days	0.46	M-v 5	Williams	2000 AG ₆₄
2000 AJ ₆₄	13.3	0.15	20000117	261.68900	128.31336	115.61000	10.27657	0.1141043	2.8107687	27	1	38 days	0.40		Williams	2000 AJ ₆₄

2000 AK ₆₄	15.2	0.15	20000117	253.38392	139.66413	103.88252	7.69290	0.0671356	2.2753305	30	1	38 days	0.61	Williams	2000 AK ₆₄
2000 AM ₆₄	12.8	0.15	20000117	229.77698	231.78775	34.35502	3.89282	0.0347817	3.2019887	24	1	38 days	0.38	Williams	2000 AM ₆₄
2000 AQ ₆₄	14.6	0.15	20000117	307.39092	141.54274	53.51045	4.80069	0.1212529	2.6189055	23	1	37 days	0.63	Williams	2000 AQ ₆₄
2000 AU ₆₄	14.6	0.15	20000117	325.68516	73.59731	101.20663	9.10936	0.1310827	2.5434837	41	1	37 days	0.40	Williams	2000 AU ₆₄
2000 AV ₆₄	14.0	0.15	20000117	160.80910	282.31443	46.30482	4.07421	0.0953078	2.5916392	19	1	38 days	0.55	Williams	2000 AV ₆₄
2000 AX ₆₄	14.4	0.15	20000117	31.94586	11.93413	85.93440	3.29440	0.0475903	2.9233796	17	1	40 days	0.62	Marsden	2000 AX ₆₄
2000 AZ ₆₄	16.3	0.15	20000117	330.11436	80.70215	88.96399	3.15680	0.1428347	2.3352851	33	1	38 days	0.60	Williams	2000 AZ ₆₄
2000 AA ₆₅	13.9	0.15	20000226	92.24368	307.84766	96.06082	3.34219	0.0494906	2.8493747	32	1	66 days	0.43	M-v 5 Williams	2000 AA ₆₅
2000 AB ₆₅	14.1	0.15	20000226	19.89543	164.94792	313.18976	12.37467	0.1130335	2.6700150	32	1	80 days	0.59	M-v 4 Williams	2000 AB ₆₅
2000 AD ₆₅	15.4	0.15	20000117	43.18186	324.73793	119.85118	8.95528	0.0582737	2.5647915	32	1	38 days	0.49	Williams	2000 AD ₆₅
2000 AE ₆₅	14.2	0.15	20000117	275.61533	273.59888	317.44368	12.15745	0.1187408	2.5277404	42	1	42 days	0.50	Williams	2000 AE ₆₅
2000 AJ ₆₅	14.6	0.15	20000226	350.01624	60.86199	94.05826	3.94764	0.0297647	2.2755804	51	3	1991-2000	0.53	M-v 3 Williams	37996 2000 AJ ₆₅
2000 AM ₆₅	14.2	0.15	20000117	18.66260	0.75727	105.35916	9.59578	0.1853128	3.0860718	14	1	26 days	0.38	Williams	2000 AM ₆₅
2000 AN ₆₅	15.2	0.15	20000117	47.68177	9.98547	52.31721	3.50801	0.2084624	2.3412618	23	1	38 days	0.44	Williams	2000 AN ₆₅
2000 AR ₆₅	15.1	0.15	20000117	67.26633	52.43001	341.08044	8.87486	0.2524594	2.3481325	40	1	38 days	0.57	Williams	2000 AR ₆₅
2000 AV ₆₅	14.7	0.15	20000117	0.78107	158.99151	332.02055	13.52204	0.1101632	2.7197706	22	1	38 days	0.41	Williams	2000 AV ₆₅
2000 AZ ₆₅	15.0	0.15	20000117	286.56918	112.47496	105.20992	7.14479	0.1054205	2.3137771	26	1	38 days	0.54	Williams	2000 AZ ₆₅
2000 AE ₆₆	14.3	0.15	20000117	17.13267	148.92490	323.02986	17.53431	0.1628108	3.1558553	33	1	42 days	0.47	Williams	2000 AE ₆₆
2000 AG ₆₆	15.4	0.15	20000117	336.45785	80.34392	91.44216	5.64247	0.2462460	2.5867025	17	1	30 days	0.63	Spahr	2000 AG ₆₆
2000 AR ₆₆	15.1	0.15	20000226	64.65985	91.39646	325.65815	11.23595	0.2160695	2.3725576	31	1	69 days	0.65	M-v 5 Williams	2000 AR ₆₆
2000 AU ₆₆	13.4	0.15	20000117	95.92481	32.38520	357.36654	9.40335	0.0983670	3.0552108	23	1	38 days	0.64	Williams	2000 AU ₆₆
2000 AX ₆₆	13.7	0.15	20000117	9.98512	134.25075	348.72645	10.33803	0.1204934	2.9732742	24	1	38 days	0.44	Williams	2000 AX ₆₆
2000 AF ₆₇	15.4	0.15	20000117	19.99490	37.14945	37.15061	0.62203	0.4237789	3.4787921	13	1	30 days	0.65	Spahr	2000 AF ₆₇
2000 AJ ₆₇	15.4	0.15	20000117	32.58595	147.27230	303.18031	1.94377	0.0811848	2.5125955	34	1	39 days	0.79	Williams	2000 AJ ₆₇
2000 AK ₆₇	13.8	0.15	20000117	134.68177	219.42191	121.69289	14.26619	0.2095450	2.5988364	25	1	38 days	0.41	Williams	2000 AK ₆₇
2000 AL ₆₇	13.9	0.15	20000117	211.30096	330.48064	313.15034	8.59214	0.0659486	2.9812127	30	1	38 days	0.59	Williams	2000 AL ₆₇
2000 AM ₆₇	15.4	0.15	20000226	83.75841	295.04446	103.88869	4.83765	0.1493304	2.1924966	43	1	66 days	0.63	M-v 5 Williams	2000 AM ₆₇
2000 AN ₆₇	14.0	0.15	20000117	101.06813	261.00964	121.15248	10.73983	0.0758781	2.9778246	23	1	38 days	0.49	Williams	2000 AN ₆₇
2000 AQ ₆₇	15.2	0.15	20000226	56.21312	348.02697	80.11365	3.65311	0.1714831	2.4063241	25	1	87 days	0.41	M-v 5 Williams	2000 AQ ₆₇
2000 AZ ₆₇	15.3	0.15	20000117	89.90395	284.94903	108.06869	3.71624	0.0666128	2.8558898	21	1	38 days	0.52	Williams	2000 AZ ₆₇
2000 AA ₆₈	14.3	0.15	20000226	306.54477	117.47494	96.33608	6.21820	0.1036470	2.2703176	35	1	69 days	0.39	M-v 5 Williams	2000 AA ₆₈
2000 AE ₆₈	13.9	0.15	20000226	4.70432	30.96277	113.62820	9.51399	0.1307404	2.7608338	20	1	61 days	0.49	M-v 4 Williams	2000 AE ₆₈
2000 AF ₆₈	14.1	0.15	20000117	350.40375	265.28027	163.40429	7.24329	0.0997759	2.4341682	19	1	33 days	0.44	Spahr	2000 AF ₆₈
2000 AM ₆₈	12.4	0.15	20000226	242.25787	137.56533	72.64914	36.26531	0.1701525	2.7691009	48	1	84 days	0.49	M-v 4 Williams	2000 AM ₆₈
2000 AP ₆₈	12.8	0.15	20000226	253.10746	110.32322	84.24086	13.35528	0.0475161	3.0614626	38	1	91 days	0.53	M-v 4 Williams	2000 AP ₆₈
2000 AQ ₆₉	13.3	0.15	20000117	289.70249	74.59735	96.53252	14.18128	0.1285396	2.6566863	29	1	31 days	0.57	Williams	2000 AQ ₆₉
2000 AR ₆₉	13.3	0.15	20000117	298.25758	73.12572	93.68796	17.05308	0.1869628	3.1438048	18	1	31 days	0.51	Williams	2000 AR ₆₉
2000 AS ₆₉	13.4	0.15	20000117	258.92962	98.32827	98.92279	13.71676	0.1064409	2.6786002	16	1	29 days	0.39	Williams	2000 AS ₆₉
2000 AX ₆₉	14.7	0.15	20000117	10.39061	236.87653	198.13618	3.85923	0.2348665	2.5798088	20	1	29 days	0.31	Williams	2000 AX ₆₉
2000 AA ₇₀	14.0	0.15	20000117	62.58162	246.94169	128.06491	5.72417	0.0893152	2.6317063	20	1	29 days	0.52	Williams	2000 AA ₇₀
2000 AD ₇₀	14.3	0.15	20000117	336.06362	306.31159	178.09425	3.62736	0.1795324	2.6722202	22	1	29 days	0.49	Williams	2000 AD ₇₀
2000 AQ ₇₀	12.6	0.15	20000117	315.24348	42.72904	95.57594	23.83163	0.1041008	3.1669824	20	1	29 days	0.46	Williams	2000 AQ ₇₀
2000 AA ₇₁	13.4	0.15	20000226	349.76112	359.77845	107.95959	9.72209	0.0820928	3.1727382	29	1	62 days	0.46	M-v 5 Williams	2000 AA ₇₁
2000 AS ₇₁	14.0	0.15	20000117	348.70281	3.22852	93.41941	14.93325	0.0886920	2.6549016	17	1	29 days	0.53	Williams	2000 AS ₇₁
2000 AD ₇₄	15.6	0.15	20000117	19.49717	278.65279	145.46216	5.21999	0.2466636	2.4772859	18	1	29 days	0.60	Williams	2000 AD ₇₄
2000 AA ₇₅	15.7	0.15	20000117	21.64334	276.84129	151.86383	4.76987	0.1619036	2.2244229	19	1	29 days	0.25	Williams	2000 AA ₇₅
2000 AF ₇₅	14.9	0.15	20000117	2.72841	329.47888	123.77368	8.29907	0.1632794	2.5632004	19	1	29 days	0.36	Williams	2000 AF ₇₅
2000 AT ₇₅	14.3	0.15	20000226	45.64949	299.15928	107.58267	14.14926	0.1824463	2.5830954	32	1	106 days	0.42	M-v 4 Williams	2000 AT ₇₅
2000 AA ₇₆	12.8	0.15	20000117	217.95510	116.91220	121.51267	9.94583	0.0392936	3.0420103	20	1	29 days	0.32	Williams	2000 AA ₇₆
2000 AF ₇₆	12.5	0.15	20000117	198.93541	132.63081	123.45758	10.56080	0.0358124	3.0037315	18	1	29 days	0.34	Williams	2000 AF ₇₆
2000 AN ₇₆	14.9	0.15	20000117	17.20589	301.77995	133.47459	5.20795	0.1739696	2.5492151	18	1	29 days	0.33	Williams	2000 AN ₇₆
2000 AO ₇₆	12.9	0.15	19991228	53.48882	268.11833	113.48872	12.00905	0.1673007	3.0583727	43	1	59 days	0.38	Spahr	2000 AO ₇₆
2000 AM ₇₇	14.3	0.15	20000226	42.37106	276.80888	127.39909	6.85206	0.2839317	2.5620215	37	1	106 days	0.36	M-v 4 Williams	2000 AM ₇₇

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2000 AC ₇₈	13.2	0.15	20000117	298.44057	275.26719	250.46532	8.40867	0.0479412	3.0696909	17	1	29 days	0.38		Williams	2000 AC ₇₈
2000 AU ₇₈	15.3	0.15	20000226	351.85986	3.16049	127.70316	2.77021	0.1620460	2.4517640	21	1	61 days	0.52	M-v 5	Williams	2000 AU ₇₈
2000 AY ₇₈	13.8	0.15	20000117	41.22114	178.33923	232.87451	6.82294	0.1284666	2.7566855	17	1	29 days	0.44		Williams	2000 AY ₇₈
2000 AZ ₇₈	14.8	0.15	20000117	25.33819	275.75120	145.40532	5.79403	0.2682239	2.7783050	17	1	29 days	0.35		Williams	2000 AZ ₇₈
2000 AA ₇₉	14.3	0.15	20000117	72.81244	223.45580	150.55699	5.81130	0.1521316	2.3348902	17	1	29 days	0.46		Williams	2000 AA ₇₉
2000 AB ₇₉	14.9	0.15	20000117	44.49541	281.78832	126.55925	4.57870	0.1363536	2.3727081	16	1	29 days	0.40		Williams	2000 AB ₇₉
2000 AG ₇₉	16.0	0.15	20000117	65.42114	245.45773	125.70335	2.69531	0.2502311	2.7700561	11	1	23 days	0.36		Williams	2000 AG ₇₉
2000 AJ ₇₉	14.4	0.15	20000226	17.71558	340.09550	115.58978	9.17152	0.1328023	2.5695123	40	1	68 days	0.38	M-v 4	Williams	2000 AJ ₇₉
2000 AK ₇₉	13.8	0.15	20000117	112.33424	212.51471	124.48838	7.97946	0.1504668	2.4371897	17	1	29 days	0.29		Williams	2000 AK ₇₉
2000 AT ₇₉	15.3	0.15	19991228	47.00850	141.67017	251.28190	1.56586	0.2042831	2.4025799	15	1	48 days	0.35		Williams	2000 AT ₇₉
2000 AX ₇₉	14.5	0.15	20000226	155.11260	180.88279	131.00616	5.80794	0.1799716	2.3242998	31	2	1991–2000	0.51	M-v 4	Spahr	37996 2000 AX ₇₉
2000 AA ₈₀	10.7	0.15	20000117	183.35989	112.98740	169.20109	5.11011	0.0313318	5.2040832	25	1	29 days	0.55		Spahr	2000 AA ₈₀
2000 AH ₈₁	14.0	0.15	20000117	25.71502	308.73628	114.45550	11.35710	0.0920041	2.9832903	16	1	29 days	0.39		Spahr	2000 AH ₈₁
2000 AC ₈₂	15.0	0.15	20000117	155.42783	167.70233	124.51788	7.40017	0.1423110	2.1763627	11	1	29 days	0.60		Spahr	2000 AC ₈₂
2000 AM ₈₂	16.9	0.15	20000117	18.98146	292.28918	149.98037	0.61691	0.1725153	2.4328928	14	1	25 days	0.29		Williams	2000 AM ₈₂
2000 AQ ₈₂	14.0	0.15	19991228	68.50751	158.12733	216.65945	0.58387	0.1812207	3.1290569	11	1	21 days	0.33		Williams	2000 AQ ₈₂
2000 AS ₈₂	14.0	0.15	19991228	99.74134	237.22470	110.35152	18.63354	0.1592992	3.1221558	15	1	21 days	0.33		Spahr	2000 AS ₈₂
2000 AW ₈₂	14.0	0.15	20000226	92.60785	221.45504	141.69165	5.02844	0.1987554	2.5334139	49	2	1998–2000	0.53	M-v 4	Spahr	37996 2000 AW ₈₂
2000 AZ ₈₂	13.9	0.15	20000117	45.56126	200.12555	205.58036	3.19458	0.1858374	3.1567247	11	1	23 days	0.29		Williams	2000 AZ ₈₂
2000 AC ₈₃	14.2	0.15	19991228	324.54308	252.25721	254.16108	8.09237	0.0995730	2.7931672	30	1	59 days	0.67		Spahr	2000 AC ₈₃
2000 AF ₈₃	13.7	0.15	20000117	62.30519	267.44265	126.04063	10.94727	0.1200206	2.9613193	14	1	28 days	0.33		Williams	2000 AF ₈₃
2000 AK ₈₃	15.2	0.15	20000117	60.78034	168.81701	220.13740	1.93760	0.1819803	2.4464285	16	1	29 days	0.43		Williams	2000 AK ₈₃
2000 AM ₈₃	13.6	0.15	20000226	341.48877	32.00402	109.93424	8.34296	0.1378245	3.2143007	28	1	66 days	0.63	M-v 5	Williams	2000 AM ₈₃
2000 AA ₈₄	15.7	0.15	19991228	307.79527	56.69316	110.90864	4.21166	0.1158967	2.4365011	24	1	55 days	0.79		Spahr	2000 AA ₈₄
2000 AF ₈₄	14.3	0.15	20000117	49.12451	196.30555	219.01747	3.65900	0.0637879	2.7815255	12	1	28 days	0.34		Spahr	2000 AF ₈₄
2000 AJ ₈₄	13.8	0.15	19991228	298.95053	328.71792	202.52621	4.02052	0.0336480	3.0386066	24	1	51 days	0.52		Williams	2000 AJ ₈₄
2000 AK ₈₄	13.6	0.15	20000226	154.47438	187.47081	131.98872	10.04076	0.1042587	2.3863072	29	1	106 days	0.52	M-v 4	Williams	2000 AK ₈₄
2000 AM ₈₄	13.8	0.15	20000117	18.16436	188.74833	266.76529	8.30615	0.0461819	3.0658287	17	1	29 days	0.49		Williams	2000 AM ₈₄
2000 AO ₈₄	15.7	0.15	20000117	64.04067	271.43100	127.43981	5.46487	0.1080895	2.2186151	18	1	29 days	0.51		Williams	2000 AO ₈₄
2000 AP ₈₄	11.8	0.15	19991228	28.20426	163.84086	271.46860	6.07093	0.1516062	5.1881065	29	1	47 days	0.48		Williams	2000 AP ₈₄
2000 AU ₈₄	13.3	0.15	20000117	143.32150	48.13263	278.30904	7.90840	0.0935434	3.0983426	17	1	29 days	0.54		Williams	2000 AU ₈₄
2000 AV ₈₄	14.2	0.15	19991228	46.29896	287.98701	133.65390	2.80691	0.0393995	2.8417797	19	1	29 days	0.45		Williams	2000 AV ₈₄
2000 AW ₈₄	15.0	0.15	19991228	19.64729	313.73439	128.89357	3.57677	0.1510610	2.4427645	32	1	47 days	0.40		Spahr	2000 AW ₈₄
2000 AX ₈₄	15.3	0.15	20000117	294.19985	64.41385	131.18911	3.11648	0.1227639	2.6758044	21	1	29 days	0.44		Williams	2000 AX ₈₄
2000 AZ ₈₄	15.2	0.15	20000226	4.87868	272.05230	211.70349	0.75774	0.1351772	2.4181924	32	1	83 days	0.49	M-v 4	Williams	2000 AZ ₈₄
2000 AA ₈₅	14.0	0.15	20000117	341.31730	7.35027	132.64445	1.96606	0.1123464	3.1100832	30	1	33 days	0.53		Spahr	2000 AA ₈₅
2000 AB ₈₅	14.7	0.15	20000117	24.84204	308.61616	136.17295	4.88771	0.1108642	2.2911041	18	1	29 days	0.44		Williams	2000 AB ₈₅
2000 AC ₈₅	14.3	0.15	20000226	344.41595	230.75441	281.52215	10.52266	0.1856465	2.6447428	22	1	79 days	0.32	M-v 4	Williams	2000 AC ₈₅
2000 AE ₈₅	14.1	0.15	20000117	32.10622	168.33740	269.69485	3.94266	0.1037815	3.1653647	17	1	29 days	0.44		Williams	2000 AE ₈₅
2000 AG ₈₅	15.2	0.15	20000117	14.32741	326.83231	131.83449	2.37874	0.1186264	2.4186667	31	1	33 days	0.54		Williams	2000 AG ₈₅
2000 AH ₈₅	14.0	0.15	20000117	329.73552	38.05256	120.04765	8.82436	0.1536257	2.8101147	40	1	43 days	0.35		Williams	2000 AH ₈₅
2000 AK ₈₅	13.2	0.15	20000117	203.84347	149.05840	126.44165	12.57992	0.0578248	3.0512155	17	1	29 days	0.30		Spahr	2000 AK ₈₅
2000 AL ₈₅	17.4	0.15	20000117	1.12417	317.18054	158.17227	2.02600	0.1272368	1.7734128	22	1	29 days	1.20		Williams	2000 AL ₈₅
2000 AR ₈₅	14.6	0.15	20000117	87.49580	234.66291	140.97008	6.87648	0.1296869	2.3499746	19	1	29 days	0.47		Williams	2000 AR ₈₅
2000 AS ₈₅	15.9	0.15	20000117	32.33946	170.84442	264.25698	5.26243	0.1466155	2.2840752	16	1	29 days	0.51		Williams	2000 AS ₈₅
2000 AT ₈₅	13.1	0.15	20000117	265.45431	91.27152	127.37501	15.51753	0.0501323	3.0645563	21	1	29 days	0.54		Williams	2000 AT ₈₅
2000 AU ₈₅	14.7	0.15	20000117	91.52957	101.31249	270.29828	6.52767	0.1331203	2.2594287	23	1	29 days	0.45		Williams	2000 AU ₈₅
2000 AW ₈₅	15.4	0.15	20000117	46.62860	235.46481	178.67359	1.93591	0.1738923	2.3573369	17	1	29 days	0.67		Williams	2000 AW ₈₅
2000 AX ₈₅	13.9	0.15	20000226	329.90423	40.32725	121.84914	14.16538	0.0604929	2.5339367	56	2	1995–2000	0.40	M-v 4	Williams	37997 2000 AX ₈₅
2000 AB ₈₆	14.9	0.15	20000117	96.62736	204.11047	159.81399	2.80765	0.1595040	2.2972943	23	1	34 days	0.59		Williams	2000 AB ₈₆
2000 AC ₈₆	15.0	0.15	20000117	275.12544	337.52469	237.50089	2.03728	0.1047916	2.2573675	17	1	29 days	0.57		Williams	2000 AC ₈₆
2000 AE ₈₆	16.0	0.15	20000117	345.39963	11.99807	125.71730	2.86947	0.1585190	2.4045584	23	1	37 days	0.54		Williams	2000 AE ₈₆
2000 AG ₈₆	13.5	0.15	20000117	180.31810	177.70603	120.08573	10.44286	0.1400921	2.7650511	19	1	37 days	0.36		Williams	2000 AG ₈₆

2000 AK ₈₆	15.4	0.15	20000117	329.25997	226.93691	290.21894	4.97274	0.1279650	2.3854940	18	1	29 days	0.42	Williams	2000 AK ₈₆
2000 AO ₈₆	15.5	0.15	20000117	4.51159	309.79447	162.08950	1.13772	0.1460042	2.4259680	18	1	29 days	0.37	Spahr	2000 AO ₈₆
2000 AP ₈₆	15.4	0.15	20000226	273.53326	54.56619	175.71820	1.35097	0.1232709	2.2270027	35	3	1997-2000	0.63	M-v 4	37997 2000 AP ₈₆
2000 AQ ₈₆	14.7	0.15	20000117	264.39620	106.75070	121.85570	14.52310	0.1264864	2.6687986	35	1	37 days	0.49	Williams	2000 AQ ₈₆
2000 AU ₈₆	14.2	0.15	20000117	214.01713	11.72644	262.17187	5.58296	0.1733509	2.2626293	29	1	42 days	0.62	Williams	2000 AU ₈₆
2000 AX ₈₆	13.6	0.15	20000117	237.30206	102.81893	143.57734	6.79825	0.0424445	2.9194933	19	1	29 days	0.48	Williams	2000 AX ₈₆
2000 AZ ₈₆	14.0	0.15	20000117	290.28684	74.00367	127.62112	9.68264	0.1111434	3.2098713	28	1	42 days	0.57	Williams	2000 AZ ₈₆
2000 AE ₈₇	15.4	0.15	20000117	43.30674	147.94607	280.59991	5.13041	0.0833708	2.1929285	19	1	29 days	0.50	Williams	2000 AE ₈₇
2000 AH ₈₇	14.7	0.15	20000117	324.00989	46.27473	115.78298	12.69012	0.1002056	2.6209049	16	1	37 days	0.47	Williams	2000 AH ₈₇
2000 AM ₈₇	14.1	0.15	20000117	189.79661	159.71488	132.95357	2.63240	0.1624675	3.0051246	16	1	37 days	0.34	Williams	2000 AM ₈₇
2000 AP ₈₇	13.4	0.15	20000117	279.33398	21.36673	188.20122	1.12943	0.0772335	3.0408807	18	1	29 days	0.36	Spahr	2000 AP ₈₇
2000 AA ₈₈	15.9	0.15	20000117	335.63141	30.57731	122.63207	19.61129	0.1543000	2.6092177	20	1	41 days	0.80	Williams	2000 AA ₈₈
2000 AB ₈₈	13.9	0.15	20000117	69.29555	130.09427	261.64192	4.17892	0.1753845	2.6013086	19	1	29 days	0.43	Williams	2000 AB ₈₈
2000 AH ₈₈	15.2	0.15	20000117	1.47011	309.28753	169.71998	2.35471	0.1512538	2.4534452	24	1	34 days	0.40	Spahr	2000 AH ₈₈
2000 AS ₈₈	13.2	0.15	20000117	181.53133	171.87742	129.50064	11.48481	0.0912326	2.9678151	17	1	29 days	0.59	Williams	2000 AS ₈₈
2000 AT ₈₈	15.0	0.15	20000117	36.22260	139.38438	292.85993	10.89544	0.1637493	2.6692356	24	1	32 days	0.39	Williams	2000 AT ₈₈
2000 AV ₈₈	15.5	0.15	20000117	47.09006	134.31567	286.32581	5.71304	0.1463791	2.2678204	36	1	37 days	0.40	Williams	2000 AV ₈₈
2000 AX ₈₈	15.9	0.15	20000117	352.41108	357.24738	133.85600	5.19531	0.0751310	2.4141005	30	1	38 days	0.55	Williams	2000 AX ₈₈
2000 AY ₈₈	13.0	0.15	20000117	104.44362	82.71820	287.22911	8.59542	0.0943271	3.0631653	19	1	29 days	0.38	Williams	2000 AY ₈₈
2000 AB ₈₉	14.9	0.15	20000117	31.25770	315.34684	123.61352	29.07015	0.1806226	3.1935425	38	1	37 days	0.67	Williams	2000 AB ₈₉
2000 AG ₈₉	14.5	0.15	20000117	254.79922	311.90192	283.47115	1.85995	0.0583922	2.6197133	28	1	34 days	0.62	Williams	2000 AG ₈₉
2000 AK ₈₉	14.6	0.15	20000117	77.04004	112.08912	282.55752	5.58643	0.0968821	2.2467841	18	1	29 days	0.43	Williams	2000 AK ₈₉
2000 AN ₈₉	14.0	0.15	20000117	104.34078	229.85432	130.87928	8.14036	0.1872118	2.7296986	21	1	38 days	0.39	Williams	2000 AN ₈₉
2000 AR ₈₉	13.0	0.15	20000226	125.63207	53.02545	299.33551	7.95892	0.1734730	2.7839784	38	1	88 days	0.44	M-v 5	Williams 2000 AR ₈₉
2000 AS ₈₉	15.8	0.15	20000117	45.86626	310.17243	122.54303	8.00709	0.0591865	2.3464324	33	1	37 days	0.56	Williams	2000 AS ₈₉
2000 AA ₉₀	12.4	0.15	20000226	143.89733	192.92859	139.34362	10.52151	0.0669948	3.5044342	22	1	106 days	0.48	M-v 5	Williams 2000 AA ₉₀
2000 AB ₉₀	14.9	0.15	19991228	172.47324	175.00078	122.59893	10.21938	0.2437653	2.2714196	13	1	11 days	0.50	Williams	2000 AB ₉₀
2000 AG ₉₀	11.1	0.15	20000117	117.91746	65.02471	292.28999	15.06209	0.0557835	5.1626724	13	1	36 days	0.59	Williams	2000 AG ₉₀
2000 AH ₉₀	15.6	0.15	20000117	280.72427	80.63442	129.80625	4.16901	0.1112069	2.2646885	14	1	29 days	0.48	Williams	2000 AH ₉₀
2000 AJ ₉₀	14.5	0.15	20000117	50.87470	139.39246	284.91467	6.79190	0.0448825	2.7416344	15	1	29 days	0.56	Williams	2000 AJ ₉₀
2000 AK ₉₀	13.2	0.15	20000117	140.47369	198.80561	132.36037	11.30982	0.1078134	2.9766047	15	1	29 days	0.27	Williams	2000 AK ₉₀
2000 AL ₉₀	14.5	0.15	20000226	346.97790	317.00762	187.36345	2.97880	0.0654156	2.5356999	34	1	60 days	0.55	M-v 4	Williams 2000 AL ₉₀
2000 AN ₉₀	15.2	0.15	20000117	300.55640	37.60357	154.19955	2.80516	0.1223799	2.4202709	12	1	28 days	0.45	Spahr	2000 AN ₉₀
2000 AO ₉₀	16.1	0.15	20000117	49.17819	304.38960	116.23140	5.80794	0.0919668	2.1950226	16	1	26 days	0.33	Spahr	2000 AO ₉₀
2000 AP ₉₀	15.5	0.15	20000117	56.53038	103.76946	296.59772	1.48969	0.2051409	2.7335584	24	1	33 days	0.68	Spahr	2000 AP ₉₀
2000 AU ₉₀	14.6	0.15	20000117	356.83839	354.49362	130.97240	10.40088	0.1074242	2.7693733	22	1	37 days	0.49	Williams	2000 AU ₉₀
2000 AV ₉₀	14.5	0.15	20000117	151.22228	209.14447	121.40970	11.81066	0.0088680	3.1211323	23	1	40 days	0.45	Williams	2000 AV ₉₀
2000 AX ₉₀	13.7	0.15	20000117	345.36788	14.37578	126.47721	7.92661	0.1223566	2.8315537	9	1	36 days	0.54	Williams	2000 AX ₉₀
2000 AY ₉₀	14.7	0.15	20000117	18.85491	168.92528	288.98887	11.10041	0.1374656	2.6787279	17	1	30 days	0.55	Williams	2000 AY ₉₀
2000 AZ ₉₀	14.1	0.15	20000117	107.11304	210.45311	140.75570	6.14981	0.2528143	2.3517789	19	1	29 days	0.40	Williams	2000 AZ ₉₀
2000 AD ₉₁	13.7	0.15	20000117	320.39114	14.67174	152.56528	1.87785	0.0304080	3.1142348	16	1	29 days	0.37	Williams	2000 AD ₉₁
2000 AK ₉₁	12.8	0.15	20000117	242.19827	291.95549	325.14612	7.08741	0.0690552	3.2172538	35	1	38 days	0.57	Williams	2000 AK ₉₁
2000 AL ₉₁	13.6	0.15	20000117	325.04881	194.89850	335.72766	6.75991	0.0561746	3.0772693	25	1	37 days	0.63	Williams	2000 AL ₉₁
2000 AU ₉₁	16.4	0.15	20000117	337.20881	235.03566	284.05482	3.41534	0.1924196	2.6006228	32	1	32 days	0.39	Williams	2000 AU ₉₁
2000 AV ₉₁	13.9	0.15	20000117	253.88319	111.43065	128.72344	12.40758	0.0580687	2.9920841	27	1	37 days	0.41	Williams	2000 AV ₉₁
2000 AW ₉₁	13.4	0.15	20000117	286.01125	287.65317	296.53769	6.37677	0.1904976	3.1666292	35	1	34 days	0.61	Williams	2000 AW ₉₁
2000 AZ ₉₁	14.3	0.15	20000117	91.69968	246.78758	129.23628	12.70737	0.1877666	2.6040495	25	1	37 days	0.50	Williams	2000 AZ ₉₁
2000 AB ₉₂	13.9	0.15	20000117	326.10474	274.07374	262.87574	6.67627	0.1185873	2.7537285	25	1	32 days	0.41	Williams	2000 AB ₉₂
2000 AC ₉₂	13.9	0.15	20000117	52.76269	271.86218	164.71794	11.11511	0.0701061	2.9913074	33	1	38 days	0.39	Williams	2000 AC ₉₂
2000 AF ₉₂	12.9	0.15	19991228	50.85395	141.82636	300.76822	20.10998	0.0197099	3.1584062	31	1	54 days	0.53	Spahr	2000 AF ₉₂
2000 AG ₉₂	13.5	0.15	20000226	35.85960	159.55196	309.23313	13.65400	0.0578671	2.7074174	34	1	62 days	0.46	M-v 5	Williams 2000 AG ₉₂
2000 AJ ₉₂	13.9	0.15	20000117	19.97585	145.66493	322.96459	16.16163	0.1316209	3.1072779	21	1	37 days	0.41	Williams	2000 AJ ₉₂
2000 AY ₉₂	17.1	0.15	20000117	292.79051	251.11231	298.06004	17.92339	0.0499807	1.9358320	19	1	30 days	0.48	Spahr	2000 AY ₉₂

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2000 AZ ₉₂	15.8	0.15	20000117	89.12876	68.03787	307.53268	18.91678	0.1223451	1.9086643	38	1	39 days	0.45		Williams	2000 AZ ₉₂
2000 AB ₉₃	17.5	0.15	19991228	258.89672	283.22433	286.74143	16.57940	0.0710279	1.9938630	19	1	22 days	0.54		Williams	2000 AB ₉₃
2000 AG ₉₃	17.8	0.15	20000117	296.84570	249.84656	291.39179	16.36373	0.0614637	1.9386926	25	1	33 days	0.46		Spahr	2000 AG ₉₃
2000 AH ₉₃	14.9	0.15	19991228	308.09664	91.38228	105.26687	24.64271	0.3262324	2.7170382	26	1	29 days	0.65		Williams	2000 AH ₉₃
2000 AJ ₉₃	14.9	0.15	19991228	20.70028	144.38740	300.30828	21.61617	0.1318705	2.7122303	32	1	50 days	0.68		Spahr	2000 AJ ₉₃
2000 AR ₉₃	15.0	0.15	20000117	208.63180	142.47931	134.25024	25.04912	0.0579281	1.9260252	22	1	37 days	0.69		Williams	2000 AR ₉₃
2000 AV ₉₃	15.7	0.15	20000117	318.99477	60.90286	88.30353	1.34296	0.1521969	2.3253168	28	1	38 days	0.83		Williams	2000 AV ₉₃
2000 AW ₉₃	18.4	0.15	20000117	310.48704	61.17027	113.19809	27.35246	0.0895776	1.5083132	75	1	24 days	0.50		Nakano	2000 AW ₉₃
2000 AX ₉₃	17.4	0.15	20000226	358.95190	234.18551	291.17437	23.35703	0.4795939	2.2090902	117	1	61 days	0.51	M-v 4	Spahr	38183 2000 AX ₉₃
2000 AY ₉₃	17.2	0.15	20000226	0.33130	232.96758	281.75141	11.38451	0.5283703	3.1981341	65	1	31 days	0.70	M-v 5	Williams	2000 AY ₉₃
2000 AZ ₉₃	20.3	0.15	20000226	245.08475	7.88467	277.61943	8.60077	0.3598050	0.7469059	49	1	32 days	0.51	M-v 7	Williams	2000 AZ ₉₃
2000 AP ₉₄	13.5	0.15	20000117	348.56362	167.38550	313.79827	9.75011	0.0393784	2.9747332	32	1	39 days	0.42		Williams	2000 AP ₉₄
2000 AD ₉₅	13.1	0.15	20000226	2.16061	184.60241	314.75796	7.47561	0.0828728	3.0568640	45	1	91 days	0.45	M-v 4	Williams	2000 AD ₉₅
2000 AE ₉₅	15.1	0.15	20000117	60.29400	293.82670	128.12015	6.36440	0.0929437	2.4156857	24	1	38 days	0.65		Williams	2000 AE ₉₅
2000 AK ₉₅	11.2	0.15	20000117	120.52217	13.27328	3.49135	1.23110	0.0289148	5.1642419	24	1	38 days	0.56		Williams	2000 AK ₉₅
2000 AM ₉₅	14.2	0.15	20000117	339.45551	40.07691	129.96558	9.96075	0.2607690	3.1523458	23	1	38 days	0.37		Williams	2000 AM ₉₅
2000 AQ ₉₅	13.4	0.15	20000117	228.65677	140.55766	137.30020	13.65426	0.1016696	2.7061065	31	1	38 days	0.48		Williams	2000 AQ ₉₅
2000 AR ₉₅	14.2	0.15	20000226	19.25904	157.71772	324.96699	6.99470	0.0916356	2.7330920	41	1	71 days	0.48	M-v 5	Williams	2000 AR ₉₅
2000 AU ₉₅	15.3	0.15	20000117	357.32534	184.70598	310.23085	17.27908	0.0757791	1.9710573	24	1	39 days	0.39		Williams	2000 AU ₉₅
2000 AV ₉₅	16.0	0.15	20000117	357.76214	17.17008	119.72556	6.49690	0.1612548	2.3416320	20	1	38 days	0.62		Williams	2000 AV ₉₅
2000 AY ₉₅	13.1	0.15	20000226	220.70877	161.43726	126.61544	10.35577	0.0369473	2.9675070	27	1	87 days	0.59	M-v 5	Williams	2000 AY ₉₅
2000 AZ ₉₅	14.7	0.15	20000226	70.33239	67.77921	335.11099	3.52536	0.2876150	2.5554745	26	1	67 days	0.51	M-v 5	Williams	2000 AZ ₉₅
2000 AF ₉₆	14.6	0.15	20000117	76.09550	272.06482	135.49634	9.85077	0.1606698	2.7960144	23	1	38 days	0.45		Williams	2000 AF ₉₆
2000 AG ₉₆	14.2	0.15	20000117	197.07252	346.64034	311.31081	14.89901	0.0624256	2.7170830	25	1	37 days	0.44		Spahr	2000 AG ₉₆
2000 AK ₉₆	13.8	0.15	20000117	33.80216	313.43769	135.17247	17.96288	0.1982646	3.1017049	22	1	38 days	0.42		Williams	2000 AK ₉₆
2000 AM ₉₆	13.7	0.15	20000226	347.04862	34.34157	131.60378	15.84327	0.0313676	2.6469100	37	1	68 days	0.39	M-v 4	Williams	2000 AM ₉₆
2000 AN ₉₆	14.5	0.15	20000226	353.23698	26.54155	137.04983	13.60892	0.1477194	2.4316391	32	1	61 days	0.65	M-v 4	Williams	2000 AN ₉₆
2000 AQ ₉₆	15.1	0.15	20000117	315.51442	103.85798	96.54800	3.98647	0.1728422	2.3123234	26	1	38 days	0.52		Williams	2000 AQ ₉₆
2000 AS ₉₆	15.7	0.15	20000117	336.93337	78.76430	99.56491	5.68526	0.2402175	2.5632262	25	1	38 days	0.46		Williams	2000 AS ₉₆
2000 AT ₉₆	14.9	0.15	20000226	21.61514	55.62035	72.12061	4.44282	0.1065448	2.1815451	27	1	62 days	0.59	M-v 5	Williams	2000 AT ₉₆
2000 AY ₉₆	13.3	0.15	20000226	359.75532	49.84039	107.46893	10.02976	0.0960584	2.7703941	31	1	82 days	0.47	M-v 4	Williams	2000 AY ₉₆
2000 AZ ₉₆	14.4	0.15	20000117	22.31847	140.93448	335.32558	15.19375	0.1594610	3.0735140	23	1	38 days	0.43		Williams	2000 AZ ₉₆
2000 AD ₉₇	13.7	0.15	20000226	332.30365	217.42389	344.28732	7.92367	0.2135044	2.3881871	37	1	94 days	0.56	M-v 5	Williams	2000 AD ₉₇
2000 AG ₉₇	14.7	0.15	20000117	284.79579	113.80607	117.63824	9.26128	0.0721524	2.4072432	17	1	31 days	0.51		Spahr	2000 AG ₉₇
2000 AH ₉₇	14.5	0.15	20000117	35.47703	103.17793	326.76485	27.55706	0.3878860	2.6462798	30	1	39 days	0.57		Williams	2000 AH ₉₇
2000 AJ ₉₇	14.4	0.15	20000226	332.09867	94.05850	102.59395	3.27008	0.1403805	2.4494297	34	2	1998–2000	0.53	M-v 5	Marsden	37997 2000 AJ ₉₇
2000 AK ₉₇	11.9	0.15	20000226	234.23557	151.20563	141.94344	16.50465	0.0862379	3.1569215	29	1	68 days	0.54	M-v 5	Williams	2000 AK ₉₇
2000 AM ₉₇	13.4	0.15	20000226	20.38897	142.65333	347.17729	6.50291	0.2031659	3.0822668	33	1	71 days	0.49	M-v 5	Williams	2000 AM ₉₇
2000 AN ₉₇	13.5	0.15	20000226	325.92723	88.35933	120.02611	8.58582	0.1672653	2.3586236	35	1	90 days	0.61	M-v 5	Williams	2000 AN ₉₇
2000 AQ ₉₇	15.1	0.15	20000117	288.23589	249.21457	331.50910	19.05465	0.0541981	1.9208906	25	1	41 days	0.47		Williams	2000 AQ ₉₇
2000 AT ₉₇	13.6	0.15	20000226	318.20210	89.13554	126.35725	13.62141	0.1283214	2.5904427	21	1	61 days	0.64	M-v 5	Williams	2000 AT ₉₇
2000 AU ₉₇	14.6	0.15	20000117	17.12832	142.50761	339.60388	12.56776	0.2138331	2.8004230	18	1	38 days	0.50		Williams	2000 AU ₉₇
2000 AV ₉₇	13.5	0.15	20000226	82.91024	313.16399	108.84097	4.74547	0.1436613	2.2185684	65	2	1998–2000	0.57	M-v 3	Williams	37997 2000 AV ₉₇
2000 AW ₉₇	13.8	0.15	20000117	15.25164	145.75953	345.49578	11.64971	0.1135909	2.6028504	23	1	38 days	0.55		Williams	2000 AW ₉₇
2000 AX ₉₇	14.7	0.15	20000117	110.35492	61.52730	331.41880	19.94076	0.0313715	1.9318784	26	1	41 days	0.63		Williams	2000 AX ₉₇
2000 AZ ₉₇	13.4	0.15	20000226	73.57747	342.64407	96.08595	5.66490	0.0892468	2.3000515	50	3	1994–2000	0.69	M-v 2	Williams	37997 2000 AZ ₉₇
2000 AB ₉₈	12.1	0.15	20000226	17.62197	21.68569	118.81945	13.74511	0.1148068	2.6614700	37	1	85 days	0.45	M-v 4	Williams	2000 AB ₉₈
2000 AC ₉₈	12.9	0.15	20000117	270.29141	193.45379	71.16283	5.25963	0.2118963	2.2514958	29	1	41 days	0.50		Williams	2000 AC ₉₈
2000 AD ₉₈	13.3	0.15	20000117	345.30620	91.44913	82.63463	5.91336	0.1108315	3.1664677	24	1	38 days	0.58		Williams	2000 AD ₉₈
2000 AG ₉₈	12.8	0.15	20000117	151.90392	257.25169	98.63489	7.18518	0.1740012	2.3444499	26	1	41 days	0.45		Williams	2000 AG ₉₈
2000 AN ₉₈	15.0	0.15	20000117	353.02804	34.42043	117.93560	7.60800	0.0530697	2.3615117	24	1	38 days	0.51		Williams	2000 AN ₉₈
2000 AS ₉₉	14.3	0.15	19991208	50.26570	251.41049	98.06179	7.10791	0.1424361	2.3330622	25	1	33 days	0.65		Williams	2000 AS ₉₉
2000 AE ₁₀₀	13.3	0.15	20000226	113.01095	161.42987	130.01896	6.41701	0.2414943	2.7385793	15	1	63 days	0.65	M-v 8	Williams	2000 AE ₁₀₀

2000 AH ₁₀₀	14.4	0.15	20000226	71.21615	224.06546	124.56345	6.85088	0.1673218	2.4136965	15	1	63 days	0.56	M-v	7	Williams	2000 AH ₁₀₀
2000 AN ₁₀₀	15.1	0.15	20000226	44.36093	301.01099	86.22917	6.90162	0.1981076	2.2972363	38	1	90 days	0.39	M-v	4	Williams	2000 AN ₁₀₀
2000 AP ₁₀₂	14.5	0.15	20000226	9.50416	337.38556	99.84936	14.67341	0.1502552	2.6611731	34	1	86 days	0.49	M-v	4	Williams	2000 AP ₁₀₂
2000 AQ ₁₀₃	14.9	0.15	20000226	56.44735	273.46838	116.68357	7.56055	0.1223312	2.2817304	31	1	89 days	0.43	M-v	4	Williams	2000 AQ ₁₀₃
2000 AA ₁₀₄	13.0	0.15	20000117	87.68054	236.75025	101.14452	16.47526	0.1345371	2.9758212	20	1	29 days	0.42			Williams	2000 AA ₁₀₄
2000 AH ₁₀₄	14.9	0.15	20000226	50.10074	171.30858	212.96163	7.18483	0.2481757	2.6811097	28	1	66 days	0.51	M-v	4	Williams	2000 AH ₁₀₄
2000 AM ₁₀₅	14.0	0.15	20000117	51.53026	278.77983	112.66129	15.73664	0.1148412	2.6570390	19	1	29 days	0.34			Williams	2000 AM ₁₀₅
2000 AS ₁₀₅	11.1	0.15	20000117	341.19974	5.69862	105.15176	25.65138	0.0767377	5.1378837	20	1	29 days	0.46			Williams	2000 AS ₁₀₅
2000 AA ₁₀₆	14.9	0.15	20000117	253.73594	6.00918	212.73060	4.16318	0.1321405	2.2506507	12	1	29 days	0.38			Spahr	2000 AA ₁₀₆
2000 AG ₁₀₆	14.0	0.15	20000117	348.37156	358.35306	113.00209	12.65922	0.0894214	3.1485349	18	1	29 days	0.42			Williams	2000 AG ₁₀₆
2000 AM ₁₀₆	13.8	0.15	20000226	338.07349	243.20428	249.92721	13.76387	0.0373016	2.5675916	40	2	1998-2000	0.65	M-v	3	Williams	37998 2000 AM ₁₀₆
2000 AC ₁₀₇	12.7	0.15	20000117	246.36294	104.60843	122.59498	15.28283	0.1630164	3.1659869	19	1	29 days	0.43			Williams	2000 AC ₁₀₇
2000 AL ₁₀₇	13.7	0.15	20000117	25.05599	317.56249	116.09164	16.68313	0.0547946	3.0526125	19	1	29 days	0.44			Williams	2000 AL ₁₀₇
2000 AN ₁₀₇	12.9	0.15	20000117	265.16152	68.48092	131.68292	12.25613	0.0361372	3.0444967	29	1	29 days	0.42			Williams	2000 AN ₁₀₇
2000 AP ₁₀₇	13.2	0.15	20000226	39.70374	302.04225	123.43226	14.16094	0.0733378	2.9225274	29	1	106 days	0.37	M-v	4	Williams	2000 AP ₁₀₇
2000 AJ ₁₀₉	15.0	0.15	19991228	321.52143	18.13250	125.94124	5.84350	0.1137281	2.7007538	18	1	51 days	0.53			Spahr	2000 AJ ₁₀₉
2000 AG ₁₁₁	15.8	0.15	20000117	31.83405	319.48380	111.09127	7.39294	0.1176917	2.3130434	21	1	37 days	0.47			Williams	2000 AG ₁₁₁
2000 AO ₁₁₁	14.1	0.15	20000117	90.13397	236.26202	132.39988	14.63688	0.0883669	2.7037656	20	1	29 days	0.37			Williams	2000 AO ₁₁₁
2000 AX ₁₁₁	14.6	0.15	20000226	345.35470	267.82034	234.00677	5.55315	0.0833011	2.3210014	45	2	1998-2000	0.73	M-v	4	Spahr	37998 2000 AX ₁₁₁
2000 AA ₁₁₂	13.8	0.15	20000117	35.30562	310.06838	123.09772	12.65081	0.0393760	2.6351232	20	1	29 days	0.26			Williams	2000 AA ₁₁₂
2000 AE ₁₁₂	14.2	0.15	20000117	49.57079	276.66156	128.01792	7.85035	0.1746258	2.6848662	18	1	29 days	0.40			Williams	2000 AE ₁₁₂
2000 AG ₁₁₂	15.9	0.15	20000117	12.44395	222.09639	234.73822	2.45932	0.1193023	2.2498147	23	1	29 days	0.51			Williams	2000 AG ₁₁₂
2000 AJ ₁₁₂	15.4	0.15	20000117	7.86854	324.36522	137.62528	3.96480	0.1481466	2.4231001	19	1	29 days	0.49			Williams	2000 AJ ₁₁₂
2000 AL ₁₁₂	15.1	0.15	20000117	184.65655	96.62047	192.00516	2.50041	0.0922641	2.1571451	23	1	29 days	0.33			Williams	2000 AL ₁₁₂
2000 AZ ₁₁₂	15.4	0.15	20000117	41.09683	220.55220	181.36291	4.80335	0.2989746	2.5596846	15	1	29 days	0.53			Williams	2000 AZ ₁₁₂
2000 AA ₁₁₃	11.5	0.15	20000117	7.89871	329.12128	134.37860	17.26991	0.0234740	5.2139895	15	1	29 days	0.38			Spahr	2000 AA ₁₁₃
2000 AC ₁₁₃	15.3	0.15	19991228	350.89513	286.39136	191.15664	4.46242	0.1341419	2.1890567	21	1	58 days	0.51			Spahr	2000 AC ₁₁₃
2000 AL ₁₁₃	11.7	0.15	20000117	341.91173	270.60400	222.93969	6.47811	0.0668308	5.2565648	12	1	28 days	0.54			Spahr	2000 AL ₁₁₃
2000 AO ₁₁₃	15.5	0.15	20000117	29.07486	247.12485	190.87470	4.11393	0.1003808	2.2264341	20	1	29 days	0.28			Williams	2000 AO ₁₁₃
2000 AP ₁₁₃	14.5	0.15	19991228	284.89493	341.10960	213.75563	4.16816	0.1106254	2.2204990	31	1	51 days	0.58			Spahr	2000 AP ₁₁₃
2000 AR ₁₁₃	13.7	0.15	20000117	335.08379	19.15384	126.02909	15.01564	0.1190602	2.5383552	20	1	29 days	0.16			Williams	2000 AR ₁₁₃
2000 AS ₁₁₃	15.6	0.15	20000117	21.11177	295.11086	151.68141	5.10030	0.1326494	2.2425465	19	1	29 days	0.27			Williams	2000 AS ₁₁₃
2000 AY ₁₁₃	13.0	0.15	19991228	257.51822	104.42428	134.05759	17.69045	0.2548626	3.0089965	24	1	56 days	0.57			Spahr	2000 AY ₁₁₃
2000 AZ ₁₁₃	13.3	0.15	19991228	180.14458	154.13554	135.69074	15.62460	0.1808948	2.5823246	34	1	56 days	0.44			Spahr	2000 AZ ₁₁₃
2000 AA ₁₁₄	13.9	0.15	20000226	315.79204	349.08920	196.62021	6.26439	0.1943260	3.1445176	34	3	1989-2000	0.52	M-v	4	Spahr	37998 2000 AA ₁₁₄
2000 AB ₁₁₄	14.7	0.15	20000226	46.01578	224.93272	193.20509	5.34303	0.2267900	2.6241319	24	1	82 days	0.32	M-v	4	Spahr	38184 2000 AB ₁₁₄
2000 AD ₁₁₄	16.4	0.15	20000117	17.62966	308.99179	140.19160	7.47010	0.1783941	2.2893498	17	1	29 days	0.42			Williams	2000 AD ₁₁₄
2000 AJ ₁₁₄	11.5	0.15	20000117	1.78663	204.90690	268.15188	12.29305	0.0765369	5.2391198	14	1	28 days	0.49			Spahr	2000 AJ ₁₁₄
2000 AL ₁₁₄	14.2	0.15	20000117	73.96229	241.79781	133.95835	12.33595	0.2106736	2.6578937	18	1	29 days	0.54			Williams	2000 AL ₁₁₄
2000 AM ₁₁₄	15.1	0.15	20000226	18.32241	226.51303	238.90885	4.52553	0.1268826	2.3290002	33	1	62 days	0.42	M-v	4	Williams	2000 AM ₁₁₄
2000 AN ₁₁₄	14.6	0.15	20000117	54.22980	239.29389	163.94152	4.81949	0.1647012	2.5578380	19	1	29 days	0.44			Williams	2000 AN ₁₁₄
2000 AQ ₁₁₄	15.8	0.15	20000117	57.51946	172.07951	234.95475	4.69698	0.1008693	2.2798163	17	1	29 days	0.52			Williams	2000 AQ ₁₁₄
2000 AR ₁₁₄	13.8	0.15	20000117	357.58410	191.58203	287.06850	9.50967	0.0185546	3.0934003	18	1	29 days	0.42			Spahr	2000 AR ₁₁₄
2000 AT ₁₁₄	15.7	0.15	20000117	332.77509	24.06753	121.92755	6.09570	0.0525656	2.3053337	13	1	29 days	0.41			Williams	2000 AT ₁₁₄
2000 AW ₁₁₄	15.0	0.15	20000117	7.22769	312.86438	151.40354	5.60249	0.2116405	2.6074419	20	1	29 days	0.32			Williams	2000 AW ₁₁₄
2000 AX ₁₁₄	15.0	0.15	20000117	275.21264	57.53262	155.69990	5.25695	0.1148146	2.2491399	19	1	29 days	0.51			Williams	2000 AX ₁₁₄
2000 AF ₁₁₅	15.0	0.15	20000117	29.96408	293.74930	130.74297	13.27862	0.2651292	2.6411722	20	1	29 days	0.41			Williams	2000 AF ₁₁₅
2000 AG ₁₁₅	14.6	0.15	20000117	108.00999	199.00622	147.91677	8.15472	0.2025164	2.3362148	16	1	29 days	0.39			Williams	2000 AG ₁₁₅
2000 AM ₁₁₅	14.0	0.15	20000117	110.97526	143.49076	207.09881	5.57065	0.1335204	2.3262974	18	1	30 days	0.32			Williams	2000 AM ₁₁₅
2000 AN ₁₁₅	14.2	0.15	20000117	247.72418	95.53748	137.29153	14.77807	0.0560433	2.6824392	18	1	29 days	0.47			Williams	2000 AN ₁₁₅
2000 AY ₁₁₅	15.2	0.15	20000117	1.26918	203.44721	271.54710	9.30548	0.2294356	2.7514706	15	1	30 days	0.40			Williams	2000 AY ₁₁₅
2000 AA ₁₁₆	13.8	0.15	20000117	272.23521	294.72620	285.15818	11.75141	0.1260143	2.6580651	19	1	29 days	0.33			Williams	2000 AA ₁₁₆
2000 AC ₁₁₆	13.1	0.15	20000117	181.27296	16.71297	280.50589	8.94136	0.0829286	2.9893904	25	1	34 days	0.44			Spahr	2000 AC ₁₁₆

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2000 AF ₁₁₆	14.9	0.15	19991228	22.26006	290.57487	154.92297	6.65885	0.1067323	3.0929201	35	1	59 days	0.64	Williams	2000 AF ₁₁₆
2000 AH ₁₁₆	14.5	0.15	20000117	334.44462	30.17110	129.95183	13.33185	0.2570741	3.0801114	20	1	29 days	0.44	Williams	2000 AH ₁₁₆
2000 AL ₁₁₆	13.8	0.15	20000117	210.39838	142.55061	132.93002	13.74822	0.1691381	2.6893412	18	1	29 days	0.55	Williams	2000 AL ₁₁₆
2000 AP ₁₁₆	14.9	0.15	20000117	13.02634	327.55171	132.46937	13.39408	0.1203353	2.6516122	19	1	29 days	0.35	Williams	2000 AP ₁₁₆
2000 AQ ₁₁₆	15.0	0.15	20000117	66.41727	149.82942	252.75472	6.01430	0.0785248	2.2621855	18	1	30 days	0.48	Williams	2000 AQ ₁₁₆
2000 AZ ₁₁₆	15.5	0.15	19991228	0.29294	334.23573	135.15719	13.75605	0.1782699	2.4255607	31	1	56 days	0.42	Williams	2000 AZ ₁₁₆
2000 AA ₁₁₇	13.4	0.15	20000226	32.93231	292.46701	142.63629	11.07531	0.2737274	2.7588694	64	2	1998-2000	0.58	M-v 3 Williams	37998 2000 AA ₁₁₇
2000 AC ₁₁₇	14.4	0.15	20000226	249.08285	17.56670	230.95822	6.34253	0.0889529	2.3335370	61	2	1998-2000	0.68	M-v 4 Spahr	37998 2000 AC ₁₁₇
2000 AD ₁₁₇	14.9	0.15	20000117	67.18350	246.59660	152.95593	7.02662	0.0982097	2.2886853	20	1	29 days	0.26	Williams	2000 AD ₁₁₇
2000 AG ₁₁₇	13.5	0.15	20000117	123.36316	185.44528	147.64315	10.08399	0.2818848	2.7331861	19	1	29 days	0.55	Williams	2000 AG ₁₁₇
2000 AU ₁₁₇	15.7	0.15	20000117	18.63157	287.66273	167.27245	4.13891	0.1155268	2.2852124	20	1	32 days	0.45	Spahr	2000 AU ₁₁₇
2000 AY ₁₁₇	12.8	0.15	20000226	249.68929	114.81227	137.48456	14.60338	0.1536466	2.5876915	37	1	116 days	0.45	M-v 5 Williams	2000 AY ₁₁₇
2000 AB ₁₁₈	14.8	0.15	20000117	272.04896	298.32108	271.78019	10.95556	0.0150398	2.8059156	29	1	33 days	0.53	Spahr	2000 AB ₁₁₈
2000 AD ₁₁₈	12.8	0.15	20000226	260.22261	344.42185	247.13651	8.30046	0.0453315	3.1646353	54	2	1998-2000	0.58	M-v 3 Williams	37999 2000 AD ₁₁₈
2000 AK ₁₁₈	15.8	0.15	20000117	32.12264	218.67579	205.20119	4.88040	0.2831772	2.6291695	18	1	30 days	0.44	Williams	2000 AK ₁₁₈
2000 AM ₁₁₈	15.0	0.15	20000117	75.20883	171.53643	203.56307	5.29026	0.2601695	2.5423344	26	1	31 days	0.57	Williams	2000 AM ₁₁₈
2000 AP ₁₁₈	14.9	0.15	20000117	44.50179	187.23138	239.83040	5.02242	0.0955298	2.4626473	19	1	30 days	0.50	Williams	2000 AP ₁₁₈
2000 AR ₁₁₈	13.1	0.15	20000117	223.31136	132.55258	133.23742	17.23911	0.1236955	3.1298905	23	1	38 days	0.51	Williams	2000 AR ₁₁₈
2000 AS ₁₁₈	13.3	0.15	20000117	195.33148	153.83777	134.62544	16.10519	0.1454854	2.5788342	19	1	29 days	0.25	Williams	2000 AS ₁₁₈
2000 AX ₁₁₈	14.2	0.15	20000117	351.69387	215.13757	275.59710	7.83283	0.0790220	3.0477387	16	1	30 days	0.35	Spahr	2000 AX ₁₁₈
2000 AZ ₁₁₈	14.4	0.15	20000117	32.14903	320.19017	126.10591	22.37166	0.0237914	2.6189308	29	1	38 days	0.69	Williams	2000 AZ ₁₁₈
2000 AA ₁₁₉	14.1	0.15	20000117	191.82365	65.19659	225.69866	3.20825	0.0823452	2.7828034	17	1	29 days	0.61	Williams	2000 AA ₁₁₉
2000 AE ₁₁₉	15.6	0.15	20000117	33.74775	251.52924	181.13357	2.92893	0.1843562	2.5781593	22	1	37 days	0.60	Williams	2000 AE ₁₁₉
2000 AG ₁₁₉	14.8	0.15	20000117	355.31168	339.36172	148.24787	8.73341	0.1638012	2.7580267	18	1	30 days	0.34	Williams	2000 AG ₁₁₉
2000 AM ₁₁₉	15.7	0.15	20000117	63.37549	233.08218	167.64342	5.82350	0.1479626	2.2196573	16	1	30 days	0.39	Williams	2000 AM ₁₁₉
2000 AQ ₁₁₉	14.3	0.15	20000117	323.05097	2.46364	161.97535	9.64582	0.0761412	3.0456686	16	1	30 days	0.47	Spahr	2000 AQ ₁₁₉
2000 AR ₁₁₉	15.3	0.15	20000226	11.39184	221.05772	258.27294	7.76162	0.2285511	2.4362478	28	1	60 days	0.35	M-v 4 Williams	2000 AR ₁₁₉
2000 AS ₁₁₉	15.3	0.15	20000117	357.84339	280.97613	202.86933	4.67536	0.1622261	2.3246242	23	1	31 days	0.34	Williams	2000 AS ₁₁₉
2000 AT ₁₁₉	14.9	0.15	20000117	38.96792	270.83477	136.24971	19.49621	0.3480006	3.2065710	22	1	31 days	0.26	Williams	2000 AT ₁₁₉
2000 AX ₁₁₉	15.0	0.15	20000117	254.94958	103.21878	141.67699	12.38320	0.1805413	2.3607449	25	1	28 days	0.42	Spahr	2000 AX ₁₁₉
2000 AD ₁₂₀	16.1	0.15	20000117	45.10955	259.96470	164.83360	3.58645	0.1250109	2.2371665	26	1	37 days	0.61	Williams	2000 AD ₁₂₀
2000 AE ₁₂₀	15.8	0.15	20000117	59.37521	139.93330	275.76269	2.28139	0.0647784	2.3091513	14	1	29 days	0.70	Williams	2000 AE ₁₂₀
2000 AG ₁₂₀	13.4	0.15	20000117	186.05977	158.68720	139.69073	10.12406	0.1031006	3.0630079	22	1	29 days	0.55	Williams	2000 AG ₁₂₀
2000 AJ ₁₂₀	15.7	0.15	20000117	359.62860	297.52739	184.86509	2.20163	0.1405669	2.3886056	20	1	29 days	0.48	Williams	2000 AJ ₁₂₀
2000 AM ₁₂₀	15.6	0.15	20000117	358.77612	345.66533	138.20146	8.65697	0.1319695	2.4066473	20	1	29 days	0.35	Williams	2000 AM ₁₂₀
2000 AN ₁₂₀	15.5	0.15	20000117	61.43916	153.70289	257.69607	5.97993	0.0905032	2.3282363	16	1	30 days	0.53	Williams	2000 AN ₁₂₀
2000 AP ₁₂₀	14.8	0.15	20000117	34.93118	247.28093	184.01972	4.08660	0.2109965	3.0140523	18	1	30 days	0.46	Williams	2000 AP ₁₂₀
2000 AQ ₁₂₀	15.7	0.15	20000117	61.35188	157.22547	250.19358	5.91903	0.1232102	2.3285763	20	1	31 days	0.48	Williams	2000 AQ ₁₂₀
2000 AR ₁₂₀	12.8	0.15	20000117	61.14940	156.34160	263.15948	8.70286	0.0319601	2.9252038	23	1	31 days	0.34	Williams	2000 AR ₁₂₀
2000 AS ₁₂₀	15.1	0.15	20000117	13.90362	262.15438	201.49738	4.18113	0.1396755	2.4372330	22	1	31 days	0.51	Williams	2000 AS ₁₂₀
2000 AU ₁₂₀	14.6	0.15	20000117	48.30132	267.28327	153.42692	8.92947	0.1461829	2.7585130	17	1	30 days	0.38	Williams	2000 AU ₁₂₀
2000 AW ₁₂₀	13.4	0.15	20000117	91.41083	226.88505	156.34303	11.12935	0.0754884	3.1076496	16	1	30 days	0.44	Williams	2000 AW ₁₂₀
2000 AZ ₁₂₀	13.9	0.15	20000117	250.34189	104.86301	143.35093	15.94560	0.1489918	2.6623208	22	1	31 days	0.34	Williams	2000 AZ ₁₂₀
2000 AC ₁₂₁	15.2	0.15	20000117	53.73236	171.04261	246.65138	5.31981	0.1196903	2.2596333	20	1	30 days	0.39	Williams	2000 AC ₁₂₁
2000 AF ₁₂₁	15.5	0.15	20000117	44.21536	170.96027	258.13903	5.10852	0.1116040	2.1992215	18	1	30 days	0.43	Williams	2000 AF ₁₂₁
2000 AG ₁₂₁	16.2	0.15	20000117	0.73767	344.55666	137.85295	9.43611	0.2103064	2.7454974	47	1	37 days	0.54	Williams	2000 AG ₁₂₁
2000 AH ₁₂₁	13.8	0.15	20000117	188.82784	161.35790	137.21206	15.31283	0.1076206	3.0908176	56	1	42 days	0.41	Williams	2000 AH ₁₂₁
2000 AJ ₁₂₁	14.9	0.15	20000117	306.69936	269.16057	274.25258	6.04018	0.0594355	2.3842965	29	1	37 days	0.39	Williams	2000 AJ ₁₂₁
2000 AM ₁₂₁	13.9	0.15	20000117	301.91538	352.50051	216.90907	2.13154	0.2287582	3.2916687	48	1	42 days	0.47	Williams	2000 AM ₁₂₁
2000 AY ₁₂₁	14.3	0.15	20000117	304.59712	254.17395	281.96891	16.27716	0.1028740	3.1025097	15	1	29 days	0.71	Williams	2000 AY ₁₂₁
2000 AA ₁₂₂	14.3	0.15	19991228	280.51360	309.02750	260.93445	13.16572	0.2142416	2.4560074	27	1	50 days	0.48	Williams	2000 AA ₁₂₂
2000 AK ₁₂₂	15.5	0.15	19991228	358.37233	312.06020	156.57444	6.24803	0.1244199	2.3121610	31	1	56 days	0.40	Spahr	2000 AK ₁₂₂
2000 AN ₁₂₂	12.5	0.15	19991228	248.25986	56.70247	179.20031	5.17071	0.1116341	3.1058576	23	1	51 days	0.39	Williams	2000 AN ₁₂₂

2000 AO ₁₂₂	14.8	0.15	20000117	182.31935	135.93161	157.72390	7.12255	0.1852858	2.2356812	14	1	29 days	0.44	Spahr	2000 AO ₁₂₂
2000 AU ₁₂₂	14.0	0.15	20000117	77.64821	240.66630	128.30890	12.11535	0.2708794	3.0667551	17	1	29 days	0.43	Williams	2000 AU ₁₂₂
2000 AG ₁₂₃	15.0	0.15	20000117	263.49053	76.00943	159.89918	4.49412	0.1513079	2.3186449	18	1	29 days	0.35	Williams	2000 AG ₁₂₃
2000 AO ₁₂₃	15.0	0.15	20000117	88.39821	275.58266	115.76358	4.23458	0.1223989	2.3547954	30	1	38 days	0.51	Williams	2000 AO ₁₂₃
2000 AQ ₁₂₃	13.6	0.15	20000117	36.86339	220.02285	199.02206	4.00059	0.2986057	2.6083637	38	1	41 days	0.34	Williams	2000 AQ ₁₂₃
2000 AR ₁₂₃	15.7	0.15	20000117	48.66753	220.10773	198.33987	4.06133	0.1703737	2.2656303	26	1	36 days	0.47	Williams	2000 AR ₁₂₃
2000 AS ₁₂₃	15.4	0.15	20000117	61.58673	161.22825	243.77609	5.45562	0.1564064	2.2171604	18	1	30 days	0.40	Williams	2000 AS ₁₂₃
2000 AX ₁₂₃	15.7	0.15	20000117	307.87407	7.39328	189.42283	5.66362	0.1903270	2.3224232	21	1	30 days	0.45	Williams	2000 AX ₁₂₃
2000 AZ ₁₂₃	14.4	0.15	20000226	21.26772	193.04965	276.49417	8.07027	0.1069913	2.7386845	33	1	63 days	0.53	M-v 5 Williams	2000 AZ ₁₂₃
2000 AB ₁₂₄	15.7	0.15	20000117	39.14572	265.50823	169.21025	3.66129	0.1244003	2.2366564	18	1	30 days	0.40	Williams	2000 AB ₁₂₄
2000 AF ₁₂₄	13.6	0.15	20000117	93.32947	94.14143	286.60538	9.59583	0.1163750	2.9714274	20	1	30 days	0.47	Williams	2000 AF ₁₂₄
2000 AG ₁₂₄	14.4	0.15	20000117	358.13858	354.22244	133.13096	8.89200	0.1623401	2.8020898	26	1	37 days	0.51	Williams	2000 AG ₁₂₄
2000 AJ ₁₂₄	13.2	0.15	20000117	226.11707	120.84924	143.18868	6.69544	0.0332521	3.1952366	51	1	36 days	0.47	Spahr	2000 AJ ₁₂₄
2000 AK ₁₂₄	13.2	0.15	19991228	159.76673	190.80650	131.48237	23.16727	0.0432381	3.1416241	39	1	58 days	0.89	Williams	2000 AK ₁₂₄
2000 AL ₁₂₄	13.4	0.15	20000117	96.48984	238.70518	130.72110	27.21657	0.1970950	3.1645986	39	1	37 days	0.53	Williams	2000 AL ₁₂₄
2000 AM ₁₂₄	15.6	0.15	20000117	14.31076	195.82730	273.01999	5.14203	0.0694169	2.2660535	17	1	30 days	0.51	Spahr	2000 AM ₁₂₄
2000 AN ₁₂₄	16.0	0.15	20000117	49.10709	145.18666	273.79978	4.51910	0.1710625	2.2701913	24	1	36 days	0.58	Williams	2000 AN ₁₂₄
2000 AS ₁₂₄	15.0	0.15	20000226	314.70206	281.24561	283.92884	8.42230	0.2133476	2.3504638	39	1	63 days	0.47	M-v 5 Williams	2000 AS ₁₂₄
2000 AT ₁₂₄	15.4	0.15	20000117	59.19333	145.69875	261.53598	5.64743	0.1697082	2.3570121	22	1	34 days	0.62	Spahr	2000 AT ₁₂₄
2000 AV ₁₂₄	12.8	0.15	20000117	105.24012	224.85938	142.32832	18.24878	0.1444046	3.1797047	24	1	31 days	0.43	Williams	2000 AV ₁₂₄
2000 AW ₁₂₄	13.2	0.15	20000226	280.21981	84.83574	143.90792	14.46125	0.1148193	2.5974491	59	1	115 days	0.39	M-v 5 Williams	2000 AW ₁₂₄
2000 AX ₁₂₄	13.7	0.15	20000117	17.42575	202.57815	263.74895	7.49436	0.0955828	2.7933484	23	1	30 days	0.41	Williams	2000 AX ₁₂₄
2000 AF ₁₂₅	13.8	0.15	20000117	125.85772	67.89708	279.77980	11.47622	0.2001469	2.6124372	17	1	30 days	0.35	Williams	2000 AF ₁₂₅
2000 AJ ₁₂₅	12.7	0.15	20000226	68.87072	264.66440	154.87815	9.03121	0.0621407	3.1521995	46	1	116 days	0.43	M-v 4 Williams	2000 AJ ₁₂₅
2000 AK ₁₂₅	15.6	0.15	20000117	34.83146	277.36105	141.03132	8.28107	0.3467425	2.9082852	60	1	37 days	0.41	Williams	2000 AK ₁₂₅
2000 AN ₁₂₅	13.9	0.15	20000117	260.69105	103.32077	134.13814	10.08593	0.0975715	2.7494683	20	1	29 days	0.33	Williams	2000 AN ₁₂₅
2000 AO ₁₂₅	13.1	0.15	20000117	235.66665	322.67944	294.97505	9.17826	0.0528633	3.0560705	18	1	30 days	0.46	Williams	2000 AO ₁₂₅
2000 AR ₁₂₅	14.0	0.15	20000117	316.03075	261.26584	286.25099	4.09140	0.1692812	3.1316275	17	1	29 days	0.52	Williams	2000 AR ₁₂₅
2000 AX ₁₂₅	14.1	0.15	20000117	125.12764	65.92225	281.22656	4.47049	0.1920809	2.3230765	17	1	30 days	0.45	Williams	2000 AX ₁₂₅
2000 AY ₁₂₅	14.4	0.15	20000226	90.87332	99.09081	292.77443	5.74726	0.1303394	2.3886356	52	1	61 days	0.57	M-v 5 Williams	2000 AY ₁₂₅
2000 AZ ₁₂₅	16.3	0.15	20000117	88.41187	222.85766	155.99834	2.42586	0.1710181	2.2030941	47	1	32 days	0.49	Williams	2000 AZ ₁₂₅
2000 AD ₁₂₆	14.9	0.15	20000117	66.99290	258.24806	149.08351	6.85919	0.1127109	2.3041266	19	1	30 days	0.38	Williams	2000 AD ₁₂₆
2000 AF ₁₂₆	14.6	0.15	20000117	314.40271	337.90560	214.27154	3.83470	0.1973883	2.5737824	22	1	30 days	0.50	Williams	2000 AF ₁₂₆
2000 AG ₁₂₆	14.1	0.15	20000117	337.97967	1.92197	155.30023	9.74092	0.1275621	3.1162858	22	1	31 days	0.29	Williams	2000 AG ₁₂₆
2000 AH ₁₂₆	15.8	0.15	20000117	115.77292	68.96630	288.42814	16.76194	0.1502900	1.9509345	14	1	34 days	0.54	Williams	2000 AH ₁₂₆
2000 AJ ₁₂₆	14.3	0.15	20000117	253.03368	331.03342	282.96777	12.57676	0.1596966	2.5830864	18	1	37 days	0.37	Williams	2000 AJ ₁₂₆
2000 AM ₁₂₆	15.6	0.15	20000117	303.81071	324.91405	228.84704	3.66033	0.0907485	2.3384944	46	1	38 days	0.39	Williams	2000 AM ₁₂₆
2000 AN ₁₂₆	15.4	0.15	20000117	2.21557	345.44864	138.88254	10.66646	0.1904258	2.7333738	28	1	29 days	0.46	Williams	2000 AN ₁₂₆
2000 AT ₁₂₆	13.2	0.15	20000226	55.08358	144.33209	291.97172	8.98958	0.0699580	2.9677548	23	1	81 days	0.45	M-v 5 Williams	2000 AT ₁₂₆
2000 AW ₁₂₆	12.7	0.15	20000117	180.16960	10.94387	300.41871	12.93307	0.1943127	2.6839000	18	1	30 days	0.33	Williams	2000 AW ₁₂₆
2000 AY ₁₂₆	15.9	0.15	20000117	43.67189	276.84616	155.34498	2.73130	0.1298917	2.1940951	45	1	38 days	0.52	Williams	2000 AY ₁₂₆
2000 AC ₁₂₇	14.5	0.15	19991228	315.89156	39.59949	137.78758	12.74914	0.0973961	2.6431288	48	1	59 days	0.38	Williams	2000 AC ₁₂₇
2000 AE ₁₂₇	15.0	0.15	20000117	243.44426	121.63318	145.94861	10.52543	0.2331999	2.3354117	29	1	32 days	0.58	Williams	2000 AE ₁₂₇
2000 AF ₁₂₇	15.2	0.15	20000117	319.88995	274.65920	265.63833	5.22450	0.1287527	2.4628559	18	1	32 days	0.41	Williams	2000 AF ₁₂₇
2000 AJ ₁₂₇	15.7	0.15	20000226	355.21028	234.97450	274.42942	7.44907	0.1018692	2.2469528	22	1	62 days	0.51	M-v 4 Williams	2000 AJ ₁₂₇
2000 AK ₁₂₇	14.6	0.15	20000117	270.37353	329.12662	269.99131	6.53057	0.1565860	2.5883811	33	1	34 days	0.57	Williams	2000 AK ₁₂₇
2000 AL ₁₂₇	15.1	0.15	20000117	307.76006	339.92598	215.88114	3.01291	0.1294643	2.4821291	20	1	36 days	0.43	Williams	2000 AL ₁₂₇
2000 AN ₁₂₇	15.2	0.15	20000117	82.40921	240.24005	151.61938	6.40690	0.1388370	2.3053959	39	1	37 days	0.53	Williams	2000 AN ₁₂₇
2000 AO ₁₂₇	14.2	0.15	20000226	315.61708	57.74886	145.03351	10.08785	0.1752384	2.6643701	37	1	61 days	0.50	M-v 5 Williams	2000 AO ₁₂₇
2000 AP ₁₂₇	15.5	0.15	20000117	26.04824	165.06107	289.36935	3.37742	0.1298369	2.3108264	22	1	37 days	0.59	Williams	2000 AP ₁₂₇
2000 AW ₁₂₇	15.2	0.15	20000117	328.75728	250.13449	304.30392	14.48577	0.3662519	2.7075994	20	1	30 days	0.30	Williams	2000 AW ₁₂₇
2000 AX ₁₂₇	15.3	0.15	20000226	2.69656	357.19750	143.08367	6.51384	0.1212291	2.3500794	44	1	69 days	0.71	M-v 4 Williams	2000 AX ₁₂₇
2000 AZ ₁₂₇	13.4	0.15	20000117	179.61184	9.47193	306.73402	19.65678	0.1372676	3.1533132	42	1	37 days	0.48	Marsden	2000 AZ ₁₂₇

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2000 AB ₁₂₈	14.8	0.15	20000117	58.38430	180.86768	217.70655	3.10255	0.3030988	2.5961667	22	1	36 days	0.39	Williams	2000 AB ₁₂₈
2000 AF ₁₂₈	13.3	0.15	20000117	261.21850	308.52749	299.20651	1.40528	0.1282695	3.0377709	35	1	41 days	0.41	Williams	2000 AF ₁₂₈
2000 AG ₁₂₈	14.6	0.15	20000117	23.56948	159.55706	306.17976	21.05824	0.0782589	2.5474607	21	1	38 days	0.49	Williams	2000 AG ₁₂₈
2000 AH ₁₂₈	13.2	0.15	20000117	174.08757	171.51486	148.19796	15.15198	0.1193828	2.6018447	20	1	30 days	0.43	Williams	2000 AH ₁₂₈
2000 AK ₁₂₈	13.7	0.15	20000117	259.90799	89.56263	163.11924	7.22742	0.1617427	2.6339792	24	1	32 days	0.48	Spahr	2000 AK ₁₂₈
2000 AM ₁₂₈	13.0	0.15	20000226	119.08455	80.07237	301.47258	14.84283	0.0419277	3.1200590	26	1	63 days	0.73	Williams	2000 AM ₁₂₈
2000 AP ₁₂₈	13.0	0.15	20000117	222.33093	335.37277	305.55551	16.12150	0.0575411	3.2306117	17	1	30 days	0.50	Williams	2000 AP ₁₂₈
2000 AQ ₁₂₈	14.1	0.15	20000117	2.28888	205.75679	287.95107	4.32745	0.1204959	3.1891137	17	1	30 days	0.58	Spahr	2000 AQ ₁₂₈
2000 AT ₁₂₈	13.8	0.15	20000117	309.54231	255.33109	305.00044	9.28400	0.1283026	2.7184345	19	1	30 days	0.42	Williams	2000 AT ₁₂₈
2000 AU ₁₂₈	13.4	0.15	20000117	266.93698	105.89866	142.31099	22.35896	0.1380520	3.1454896	23	1	39 days	0.55	Williams	2000 AU ₁₂₈
2000 AV ₁₂₈	15.0	0.15	20000117	48.98759	131.31022	292.97891	4.27088	0.2130909	2.3578529	18	1	30 days	0.44	Williams	2000 AV ₁₂₈
2000 AW ₁₂₈	12.7	0.15	20000226	223.41608	331.66656	316.83496	11.06244	0.0117091	2.9445829	42	1	89 days	0.43	Williams	2000 AW ₁₂₈
2000 AZ ₁₂₈	14.4	0.15	20000117	33.04865	148.81155	290.96879	16.83110	0.1802720	3.1267027	17	1	30 days	0.57	Williams	2000 AZ ₁₂₈
2000 AE ₁₂₉	15.0	0.15	20000117	74.32710	238.07383	151.12039	2.65196	0.1975846	2.3522182	43	1	43 days	0.51	Williams	2000 AE ₁₂₉
2000 AF ₁₂₉	14.8	0.15	20000117	92.42641	238.84414	135.57294	5.43868	0.1755527	2.2235384	19	1	31 days	0.46	Williams	2000 AF ₁₂₉
2000 AG ₁₂₉	16.0	0.15	20000117	45.78577	304.70990	129.51233	7.93204	0.0698887	2.2530824	26	1	37 days	0.46	Williams	2000 AG ₁₂₉
2000 AJ ₁₂₉	14.6	0.15	20000117	78.60216	258.67135	141.54830	14.93246	0.0796399	2.6230310	17	1	30 days	0.49	Williams	2000 AJ ₁₂₉
2000 AN ₁₂₉	14.4	0.15	20000117	62.08663	256.78801	136.07905	18.36062	0.2934980	2.5788097	28	1	29 days	0.34	Williams	2000 AN ₁₂₉
2000 AO ₁₂₉	16.9	0.15	20000117	13.93927	173.21429	288.73965	6.45852	0.2484700	2.3911008	19	1	31 days	0.56	Williams	2000 AO ₁₂₉
2000 AP ₁₂₉	13.3	0.15	20000117	258.04413	100.08475	138.18499	10.82165	0.0559453	3.0671004	18	1	29 days	0.43	Williams	2000 AP ₁₂₉
2000 AR ₁₂₉	13.7	0.15	20000117	230.15665	338.53450	296.86535	12.96914	0.1880303	2.7024122	13	1	33 days	3.13	Spahr	2000 AR ₁₂₉
2000 AS ₁₂₉	15.4	0.15	20000226	31.97421	306.50759	140.39207	7.41706	0.2747280	2.7303749	48	1	68 days	0.46	Williams	2000 AS ₁₂₉
2000 AU ₁₂₉	14.7	0.15	20000226	10.14781	354.11520	134.52298	14.49970	0.1113243	2.5278965	25	1	68 days	0.61	Williams	2000 AU ₁₂₉
2000 AX ₁₂₉	15.4	0.15	20000117	48.35523	298.72284	134.82823	11.92861	0.1018256	2.6421516	29	1	37 days	0.70	Williams	2000 AX ₁₂₉
2000 AH ₁₃₀	14.0	0.15	20000226	147.01042	77.58650	276.40912	5.61902	0.0392506	2.7326919	34	1	63 days	0.59	Williams	2000 AH ₁₃₀
2000 AM ₁₃₀	15.5	0.15	20000117	25.38659	325.74470	135.32333	7.46210	0.1305225	2.3015185	26	1	37 days	0.38	Williams	2000 AM ₁₃₀
2000 AO ₁₃₀	15.3	0.15	20000117	27.30762	170.39900	276.54783	6.91230	0.2070697	2.7166384	28	1	38 days	0.79	Williams	2000 AO ₁₃₀
2000 AQ ₁₃₀	14.5	0.15	20000117	323.73535	230.75640	302.77093	13.26484	0.0730905	2.6159740	17	1	30 days	0.45	Williams	2000 AQ ₁₃₀
2000 AA ₁₃₁	16.5	0.15	19991228	336.55546	29.60745	118.51401	10.52988	0.3274005	2.6551026	28	1	50 days	0.65	Spahr	2000 AA ₁₃₁
2000 AD ₁₃₁	15.0	0.15	19991228	18.32095	155.23568	297.74301	1.38719	0.1802508	2.6368730	42	1	58 days	0.75	Spahr	2000 AD ₁₃₁
2000 AF ₁₃₁	15.4	0.15	20000117	326.86806	46.52292	121.78889	7.68043	0.1223689	2.5791841	28	1	38 days	0.55	Williams	2000 AF ₁₃₁
2000 AG ₁₃₁	14.7	0.15	20000117	0.41525	188.65075	308.04090	12.50725	0.1176753	2.5473810	17	1	31 days	0.34	Williams	2000 AG ₁₃₁
2000 AJ ₁₃₁	15.6	0.15	20000117	176.21279	136.84298	165.90951	2.76618	0.1745061	2.2449802	12	1	26 days	0.39	Williams	2000 AJ ₁₃₁
2000 AB ₁₃₂	15.0	0.15	19991208	77.10709	270.97470	76.58533	6.62642	0.2800189	2.2724103	22	1	55 days	0.41	Williams	2000 AB ₁₃₂
2000 AW ₁₃₂	15.9	0.15	20000117	324.07808	87.73484	71.91834	3.30761	0.1281076	2.3719443	16	1	28 days	0.70	Williams	2000 AW ₁₃₂
2000 AB ₁₃₃	14.2	0.15	20000117	15.38184	141.77429	322.35035	16.40648	0.0979804	2.9389783	20	1	39 days	0.58	Williams	2000 AB ₁₃₃
2000 AG ₁₃₄	16.3	0.15	19991228	28.63938	136.55952	286.14830	6.50578	0.1421085	2.4639756	20	1	6 days	0.78	Williams	2000 AG ₁₃₄
2000 AJ ₁₃₄	14.5	0.15	20000117	341.54431	46.85656	83.58571	12.87146	0.1179748	2.6345336	19	1	26 days	0.31	Williams	2000 AJ ₁₃₄
2000 AS ₁₃₄	15.2	0.15	20000117	341.39794	162.32751	328.80978	6.07893	0.1072816	2.3615393	18	1	26 days	0.45	Williams	2000 AS ₁₃₄
2000 AW ₁₃₄	13.9	0.15	20000226	77.66633	313.54088	75.54036	9.22563	0.0886392	2.7188368	30	1	87 days	0.32	Williams	2000 AW ₁₃₄
2000 AX ₁₃₄	14.8	0.15	19991228	343.87094	45.95372	76.90554	10.03019	0.1025946	2.7809127	28	1	58 days	0.61	Williams	2000 AX ₁₃₄
2000 AP ₁₃₅	15.1	0.15	20000117	72.40340	344.12225	42.20232	5.26893	0.1058418	2.3062157	18	1	38 days	0.48	Williams	2000 AP ₁₃₅
2000 AX ₁₃₅	14.7	0.15	20000117	238.48954	289.22957	319.47172	4.96297	0.1096620	2.5513217	15	1	26 days	0.36	Williams	2000 AX ₁₃₅
2000 AY ₁₃₅	14.1	0.15	20000117	311.38196	145.88637	48.60268	2.03584	0.2654624	3.2636180	33	1	29 days	0.47	Spahr	2000 AY ₁₃₅
2000 AZ ₁₃₅	16.8	0.15	20000117	12.85804	135.42414	324.25307	3.17592	0.1480100	2.1723611	18	1	28 days	0.68	Spahr	2000 AZ ₁₃₅
2000 AB ₁₃₆	13.8	0.15	20000117	222.61531	157.28048	103.54470	12.12282	0.0587623	2.8475920	16	1	27 days	0.43	Williams	2000 AB ₁₃₆
2000 AC ₁₃₆	15.5	0.15	20000117	8.14517	66.32715	42.06811	2.31990	0.1219097	2.5828799	21	1	28 days	0.54	Spahr	2000 AC ₁₃₆
2000 AM ₁₃₆	13.9	0.15	20000226	335.21560	58.11363	113.20705	12.67436	0.0971724	2.9871678	45	2	1997-2000	0.46	Williams	2000 AM ₁₃₆
2000 AN ₁₃₆	14.6	0.15	20000117	299.13539	161.21334	42.46866	3.76760	0.1077379	2.6642672	23	1	38 days	0.46	Williams	2000 AN ₁₃₆
2000 AO ₁₃₆	14.7	0.15	20000117	257.29619	276.20880	323.81663	11.14652	0.1600057	2.5492216	13	1	27 days	0.38	Williams	2000 AO ₁₃₆
2000 AP ₁₃₆	16.9	0.15	20000117	11.10979	7.26133	100.96272	7.30375	0.2514492	2.3348024	23	1	37 days	0.50	Williams	2000 AP ₁₃₆
2000 AR ₁₃₆	15.4	0.15	20000117	326.01909	96.94647	84.11435	7.49770	0.0800155	2.3874094	17	1	33 days	0.54	Spahr	2000 AR ₁₃₆
2000 AS ₁₃₆	15.9	0.15	20000117	5.21665	0.12108	136.78712	5.58300	0.1107700	2.3261940	27	1	38 days	0.92	Williams	2000 AS ₁₃₆

2000 AT ₁₃₆	14.3	0.15	20000226	309.52939	79.67166	140.93400	7.00435	0.0907950	2.3260421	28	1	71 days	0.54	M-v	5	Williams	2000 AT ₁₃₆
2000 AU ₁₃₆	13.1	0.15	20000117	322.45224	49.24761	147.99500	13.36325	0.1091867	2.6625497	22	1	41 days	0.41			Williams	2000 AU ₁₃₆
2000 AV ₁₃₆	13.4	0.15	20000226	17.32000	172.65303	327.74830	13.93456	0.1357299	2.5812144	47	1	84 days	0.67	M-v	5	Williams	2000 AV ₁₃₆
2000 AY ₁₃₆	13.9	0.15	20000226	351.68619	51.04650	122.04062	3.61289	0.0996166	2.6287561	31	1	71 days	0.46	M-v	5	Williams	2000 AY ₁₃₆
2000 AZ ₁₃₆	13.8	0.15	20000226	242.91719	176.34741	117.40342	5.53920	0.1501798	2.2181051	38	1	70 days	0.68	M-v	6	Williams	2000 AZ ₁₃₆
2000 AD ₁₃₇	15.3	0.15	20000117	28.36148	108.20319	4.87578	2.16332	0.1670917	2.4156084	21	1	43 days	0.55			Williams	2000 AD ₁₃₇
2000 AF ₁₃₇	13.6	0.15	20000117	352.82185	18.55215	147.16164	15.67835	0.1953203	2.5818027	31	1	38 days	0.59			Williams	2000 AF ₁₃₇
2000 AH ₁₃₇	13.3	0.15	20000226	167.80494	223.26344	130.74445	6.39451	0.2044149	2.2122820	61	3	1990–2000	0.55	M-v	2	Williams	37999 2000 AH ₁₃₇
2000 AJ ₁₃₇	15.0	0.15	20000117	0.18093	167.53966	344.24799	11.17917	0.2277493	2.5819598	31	1	41 days	0.54			Williams	2000 AJ ₁₃₇
2000 AK ₁₃₇	13.4	0.15	20000226	41.01261	326.59694	141.33863	17.57776	0.2035709	2.7444120	28	1	71 days	0.56	M-v	5	Williams	2000 AK ₁₃₇
2000 AL ₁₃₇	12.7	0.15	20000226	316.12114	203.52473	20.28873	5.27793	0.1233950	3.1254220	36	3	1997–2000	0.60	M-v	4	Williams	37999 2000 AL ₁₃₇
2000 AO ₁₃₇	13.9	0.15	20000226	47.65838	96.80140	358.96773	11.40700	0.2354618	2.6052506	37	2	1998–2000	0.56	M-v	4	Williams	37999 2000 AO ₁₃₇
2000 AV ₁₃₇	13.8	0.15	20000226	344.02133	208.51035	344.92636	15.14351	0.1657771	2.5718882	27	1	96 days	0.53	M-v	5	Williams	2000 AV ₁₃₇
2000 AA ₁₃₈	14.0	0.15	20000117	336.37250	66.97937	125.99073	8.65998	0.1570936	2.7628103	17	1	38 days	0.36			Williams	2000 AA ₁₃₈
2000 AD ₁₃₈	12.8	0.15	20000117	20.82173	143.76445	356.85153	15.31336	0.0718608	3.1955991	19	1	38 days	0.51			Williams	2000 AD ₁₃₈
2000 AY ₁₃₉	13.2	0.15	20000226	355.83089	226.40554	214.15137	17.04813	0.2157050	3.1345584	42	1	109 days	0.41	M-v	4	Williams	2000 AY ₁₃₉
2000 AZ ₁₃₉	15.2	0.15	19991208	8.34698	263.92254	137.77904	6.72871	0.2284107	2.3092257	21	1	31 days	0.49			Williams	2000 AZ ₁₃₉
2000 AE ₁₄₀	13.7	0.15	20000226	60.06573	245.42327	101.47321	12.57410	0.2446775	2.9458239	53	2	1998–2000	0.65	M-v	3	Spahr	37999 2000 AE ₁₄₀
2000 AM ₁₄₀	14.0	0.15	20000226	32.99543	189.39443	199.47666	9.07629	0.1698467	2.7884989	42	1	97 days	0.53	M-v	3	Williams	2000 AM ₁₄₀
2000 AU ₁₄₀	16.2	0.15	20000117	9.55169	266.29589	204.45319	4.99748	0.1811908	2.3630453	27	1	30 days	0.58			Williams	2000 AU ₁₄₀
2000 AV ₁₄₀	15.8	0.15	20000226	20.77454	282.94244	190.18621	5.61954	0.1184539	2.2522574	34	1	61 days	0.48	M-v	5	Williams	2000 AV ₁₄₀
2000 AW ₁₄₀	13.8	0.15	20000117	288.51581	359.48998	211.80318	6.91238	0.1058972	3.1148852	21	1	30 days	0.58			Spahr	2000 AW ₁₄₀
2000 AX ₁₄₀	14.6	0.15	20000226	52.12816	224.67670	199.53991	5.93270	0.2107222	2.4189647	51	1	116 days	0.58	M-v	4	Williams	38186 2000 AX ₁₄₀
2000 AZ ₁₄₀	13.8	0.15	20000117	135.76359	192.45595	151.38761	14.69344	0.1031010	2.5696286	19	1	30 days	0.36			Spahr	2000 AZ ₁₄₀
2000 AA ₁₄₁	13.0	0.15	20000117	64.85958	250.30184	164.17713	10.55302	0.0988970	2.9923418	29	1	36 days	0.44			Williams	2000 AA ₁₄₁
2000 AB ₁₄₁	13.0	0.15	20000226	184.17549	38.05467	277.74000	12.38231	0.1612370	2.6860457	35	1	63 days	0.54	M-v	5	Williams	2000 AB ₁₄₁
2000 AE ₁₄₁	15.8	0.15	19991228	15.65181	219.90805	242.46828	5.37795	0.0903851	2.2663089	32	1	52 days	0.56			Williams	2000 AE ₁₄₁
2000 AG ₁₄₁	14.7	0.15	20000226	88.81066	148.22631	250.37314	6.17873	0.1215887	2.2634903	27	1	63 days	0.50	M-v	5	Williams	2000 AG ₁₄₁
2000 AJ ₁₄₁	14.7	0.15	20000117	26.43131	260.21196	189.68007	6.14347	0.2056794	2.7195378	29	1	39 days	0.44			Williams	2000 AJ ₁₄₁
2000 AK ₁₄₁	14.8	0.15	20000226	44.59507	248.26413	203.10911	5.30823	0.0732388	2.2288203	35	1	61 days	0.45	M-v	5	Williams	2000 AK ₁₄₁
2000 AL ₁₄₁	12.9	0.15	20000117	330.27688	251.52667	277.32364	11.23966	0.1217252	2.6743398	28	1	37 days	0.27			Williams	2000 AL ₁₄₁
2000 AP ₁₄₁	13.8	0.15	20000117	289.22694	312.50961	259.52810	6.66709	0.0624425	3.2261395	15	1	30 days	0.62			Williams	2000 AP ₁₄₁
2000 AW ₁₄₁	14.0	0.15	20000117	260.96434	42.90488	198.98671	5.87094	0.0823072	2.5308617	18	1	31 days	0.39			Williams	2000 AW ₁₄₁
2000 AX ₁₄₁	13.8	0.15	20000117	53.59444	141.19075	279.97819	10.12479	0.1949858	3.0916813	17	1	32 days	0.49			Williams	2000 AX ₁₄₁
2000 AA ₁₄₂	14.6	0.15	20000226	1.78902	298.26835	205.79347	4.25043	0.0462926	2.2458880	36	1	60 days	0.45	M-v	4	Williams	2000 AA ₁₄₂
2000 AB ₁₄₂	15.2	0.15	20000226	19.07243	218.34983	263.90060	5.07515	0.1306573	2.3177362	25	1	67 days	0.63	M-v	5	Williams	2000 AB ₁₄₂
2000 AJ ₁₄₂	13.5	0.15	20000117	16.70951	321.28095	154.45681	13.13773	0.0980081	2.7189590	20	1	30 days	0.43			Williams	2000 AJ ₁₄₂
2000 AL ₁₄₂	13.4	0.15	20000226	272.90603	345.69429	265.96639	8.69480	0.1530934	2.5678914	24	1	63 days	0.45	M-v	5	Williams	2000 AL ₁₄₂
2000 AQ ₁₄₂	15.6	0.15	20000117	33.37930	297.98602	145.56655	9.61663	0.2108764	2.3669153	47	1	40 days	0.56			Williams	2000 AQ ₁₄₂
2000 AS ₁₄₂	14.4	0.15	19991228	359.14845	345.32827	146.81070	13.28265	0.1061744	2.6745471	36	1	59 days	0.55			Williams	2000 AS ₁₄₂
2000 AT ₁₄₂	13.7	0.15	20000226	334.74137	247.07846	296.82345	10.60689	0.1494898	2.4113482	64	5	1985–2000	0.58	M-v	1	Williams	38000 2000 AT ₁₄₂
2000 AU ₁₄₂	12.5	0.15	20000117	196.43591	148.83316	158.53538	11.20901	0.0775051	2.9970467	20	1	30 days	0.46			Williams	2000 AU ₁₄₂
2000 AA ₁₄₃	14.0	0.15	20000117	284.50466	292.25571	299.12124	11.81657	0.1330693	2.5768215	19	1	32 days	0.45			Williams	2000 AA ₁₄₃
2000 AB ₁₄₃	12.1	0.15	20000117	120.83957	53.49319	311.04116	13.76930	0.1997355	2.7308916	18	1	31 days	0.45			Williams	2000 AB ₁₄₃
2000 AC ₁₄₃	12.9	0.15	20000226	112.06824	82.00066	299.53087	13.46546	0.1751617	3.1097105	19	1	63 days	0.63	M-v	5	Williams	2000 AC ₁₄₃
2000 AF ₁₄₃	13.9	0.15	20000226	317.00420	316.55575	270.28448	5.40218	0.2952292	2.3318001	39	1	63 days	0.56	M-v	5	Williams	2000 AF ₁₄₃
2000 AH ₁₄₃	14.9	0.15	20000117	9.01474	226.82698	258.86308	3.41199	0.2056534	2.6219982	17	1	32 days	0.43			Williams	2000 AH ₁₄₃
2000 AJ ₁₄₃	15.2	0.15	20000117	6.46036	225.61460	262.71100	3.48281	0.2327813	2.5654687	16	1	32 days	0.50			Williams	2000 AJ ₁₄₃
2000 AL ₁₄₃	15.2	0.15	20000117	352.48626	224.63418	274.08761	10.15530	0.0724356	2.6950531	26	1	34 days	0.61			Williams	2000 AL ₁₄₃
2000 AP ₁₄₃	13.8	0.15	20000117	90.47463	108.72899	292.26976	18.81188	0.0467628	3.0512251	15	1	37 days	0.62			Williams	2000 AP ₁₄₃
2000 AS ₁₄₃	15.2	0.15	20000226	344.29631	258.82409	269.95886	4.49272	0.1162205	2.1712812	22	1	61 days	0.51	M-v	5	Williams	2000 AS ₁₄₃
2000 AU ₁₄₃	13.5	0.15	20000226	22.83984	333.60645	147.62686	17.95109	0.0728642	2.7880608	37	1	61 days	0.52	M-v	5	Williams	2000 AU ₁₄₃
2000 AX ₁₄₃	14.1	0.15	20000226	272.47196	327.00640	283.85869	6.24203	0.0837629	2.3429318	21	1	63 days	0.64	M-v	6	Williams	2000 AX ₁₄₃

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2000 AA ₁₄₄	12.6	0.15	20000226	66.96370	150.30498	287.91701	9.10512	0.0840688	3.0233153	29	1	63 days	0.56	M-v	5	Williams	2000 AA ₁₄₄
2000 AB ₁₄₄	14.8	0.15	20000117	78.61308	96.71977	311.00725	18.44183	0.1386682	1.9559964	20	1	39 days	0.51			Williams	2000 AB ₁₄₄
2000 AC ₁₄₄	14.3	0.15	20000226	76.72318	149.47119	272.85803	3.68648	0.1537452	2.2189893	27	1	70 days	0.52	M-v	5	Williams	2000 AC ₁₄₄
2000 AD ₁₄₄	13.8	0.15	20000117	341.47294	22.10914	150.25847	18.12691	0.1030539	3.1282138	16	1	37 days	0.55			Williams	2000 AD ₁₄₄
2000 AE ₁₄₄	14.4	0.15	20000117	355.59066	224.34701	287.99695	5.58636	0.0699853	2.4008275	26	1	38 days	0.60			Williams	2000 AE ₁₄₄
2000 AF ₁₄₄	14.3	0.15	20000226	34.78180	184.22797	296.40826	6.99679	0.0635255	2.4043330	25	1	64 days	0.53	M-v	5	Williams	2000 AF ₁₄₄
2000 AN ₁₄₄	13.0	0.15	20000117	87.20867	94.64499	314.19777	12.12600	0.1453211	2.6317969	25	1	34 days	0.55			Williams	2000 AN ₁₄₄
2000 AO ₁₄₄	14.4	0.15	20000226	8.62077	211.36265	300.00974	6.27303	0.0942164	2.2499004	27	1	65 days	0.65	M-v	5	Williams	2000 AO ₁₄₄
2000 AQ ₁₄₄	15.3	0.15	20000117	24.06021	332.17358	144.77184	4.86978	0.1026707	2.2144066	24	1	37 days	0.67			Williams	2000 AQ ₁₄₄
2000 AS ₁₄₄	14.1	0.15	20000117	25.09999	153.71988	328.01331	12.72786	0.1208889	2.7519861	23	1	34 days	0.50			Williams	2000 AS ₁₄₄
2000 AU ₁₄₄	13.0	0.15	20000226	26.04334	339.85228	151.23383	13.42471	0.1349029	2.6281320	42	1	60 days	0.39	M-v	5	Williams	2000 AU ₁₄₄
2000 AV ₁₄₄	14.3	0.15	20000117	36.90682	136.02554	329.91096	12.75895	0.1396512	2.6397454	24	1	34 days	0.67			Williams	2000 AV ₁₄₄
2000 AY ₁₄₄	15.7	0.15	20000117	268.34895	91.11287	145.30191	24.25715	0.0468894	1.9096613	17	1	37 days	0.52			Williams	2000 AY ₁₄₄
2000 AZ ₁₄₄	14.5	0.15	20000117	295.52053	286.41508	291.77028	7.60758	0.0842420	2.4754955	15	1	32 days	0.54			Williams	2000 AZ ₁₄₄
2000 AA ₁₄₅	14.3	0.15	20000117	310.65900	280.81308	290.00981	4.44518	0.1565161	2.4030242	26	1	38 days	0.54			Williams	2000 AA ₁₄₅
2000 AG ₁₄₅	14.3	0.15	20000117	273.82191	87.55992	124.92131	12.27729	0.0780581	3.0629484	25	1	38 days	0.56			Spahr	2000 AG ₁₄₅
2000 AH ₁₄₅	15.0	0.15	20000117	309.55487	234.27512	308.00887	37.40475	0.0412021	2.5943724	33	1	31 days	0.64			Williams	2000 AH ₁₄₅
2000 AL ₁₄₅	13.3	0.15	20000117	51.82233	271.05446	150.39882	16.56805	0.1210236	3.1369849	22	1	29 days	0.52			Williams	2000 AL ₁₄₅
2000 AP ₁₄₅	13.8	0.15	20000117	350.41471	219.80493	286.44113	11.96515	0.0417990	2.9860101	18	1	31 days	0.48			Spahr	2000 AP ₁₄₅
2000 AQ ₁₄₅	14.6	0.15	19991228	5.10573	228.00542	253.33979	6.59793	0.1663783	2.7563240	13	1	6 days	0.57			Williams	2000 AQ ₁₄₅
2000 AZ ₁₄₅	15.8	0.15	20000226	34.89044	133.00900	259.06863	1.48935	0.2424593	2.3282227	61	1	119 days	0.50	M-v	3	Williams	2000 AZ ₁₄₅
2000 AE ₁₄₆	15.4	0.15	20000226	244.83350	118.59152	105.61863	24.69573	0.0420165	1.9664673	36	2	1998–2000	0.62	M-v	4	Spahr	38000 2000 AE ₁₄₆
2000 AF ₁₄₆	15.1	0.15	20000117	16.13510	319.98116	106.19156	18.99934	0.2502307	2.5664037	19	1	27 days	0.48			Williams	2000 AF ₁₄₆
2000 AM ₁₄₆	16.0	0.15	20000117	120.08070	225.48071	120.48022	24.26975	0.0532603	1.9621871	17	1	27 days	0.42			Williams	2000 AM ₁₄₆
2000 AN ₁₄₆	9.9	0.15	20000226	334.39002	252.54767	256.58671	17.40272	0.0509411	5.2027741	45	2	1998–2000	0.52	M-v	3	Williams	38000 2000 AN ₁₄₆
2000 AO ₁₄₆	15.9	0.15	20000226	354.23094	226.27977	278.88743	22.46868	0.2153738	2.3386513	22	1	60 days	0.42	M-v	4	Williams	2000 AO ₁₄₆
2000 AP ₁₄₆	14.9	0.15	20000226	311.06412	307.67603	281.76765	23.49711	0.4156237	2.5473094	25	1	38 days	0.47	M-v	6	Williams	2000 AP ₁₄₆
2000 AQ ₁₄₆	16.7	0.15	20000117	353.28185	359.14969	127.45541	23.89666	0.0682941	1.9145949	22	1	30 days	0.55			Williams	2000 AQ ₁₄₆
2000 AU ₁₄₆	16.3	0.15	20000117	20.40153	291.95973	134.99702	12.67706	0.3172593	2.5441136	20	1	27 days	0.29			Spahr	2000 AU ₁₄₆
2000 AV ₁₄₆	14.4	0.15	20000117	311.86542	358.53915	196.21273	6.97340	0.1223096	2.5434809	22	1	30 days	0.45			Spahr	2000 AV ₁₄₆
2000 AW ₁₄₆	14.9	0.15	20000117	86.58427	313.46328	78.71017	6.22819	0.1908776	2.3189947	22	1	30 days	0.44			Spahr	2000 AW ₁₄₆
2000 AX ₁₄₆	16.2	0.15	19991228	22.08080	317.30811	125.58527	24.41098	0.2302954	2.1513034	26	1	47 days	0.71			Williams	2000 AX ₁₄₆
2000 AY ₁₄₆	14.6	0.15	20000226	128.27197	84.48582	269.56764	20.32717	0.1597469	1.9200185	35	2	1993–2000	0.54	M-v	4	Spahr	38000 2000 AY ₁₄₆
2000 AZ ₁₄₆	15.1	0.15	20000206	49.08760	18.35230	40.75875	6.04701	0.2429308	2.3301958	12	1	29 days	1.24			Nakano	2000 AZ ₁₄₆
2000 AA ₁₄₇	13.1	0.15	20000117	183.31917	328.88809	339.55728	12.93599	0.1535267	2.5395831	24	1	39 days	0.65			Williams	2000 AA ₁₄₇
2000 AB ₁₄₇	16.2	0.15	20000117	20.59995	135.65028	307.97611	4.45426	0.2244772	2.5855440	44	1	36 days	0.52			Spahr	2000 AB ₁₄₇
2000 AD ₁₄₇	14.7	0.15	19991228	320.69344	204.17424	297.79379	6.29195	0.0369986	2.2616971	23	1	46 days	0.58			Williams	2000 AD ₁₄₇
2000 AB ₁₄₈	15.8	0.15	20000117	72.55350	270.28549	120.59446	7.53135	0.1183775	2.2838606	33	1	43 days	0.49			Williams	2000 AB ₁₄₈
2000 AC ₁₄₈	13.9	0.15	20000117	317.66750	238.04213	289.00000	7.71921	0.0856828	3.0846664	16	1	29 days	0.48			Williams	2000 AC ₁₄₈
2000 AD ₁₄₈	13.3	0.15	20000117	195.11248	165.13234	120.35098	16.35255	0.1212264	2.9248545	29	1	43 days	0.45			Williams	2000 AD ₁₄₈
2000 AJ ₁₄₈	13.4	0.15	20000226	10.79016	140.48715	261.03273	17.95574	0.1489683	3.2041146	21	1	171 days	0.63	M-v	4	Williams	2000 AJ ₁₄₈
2000 AW ₁₄₈	14.9	0.15	20000226	42.06445	243.72943	147.58552	8.68381	0.2990396	2.7413940	36	2	1994–2000	0.56	M-v	4	Spahr	38000 2000 AW ₁₄₈
2000 AX ₁₄₈	13.4	0.15	20000226	83.97050	175.64229	177.32984	9.40662	0.1626004	2.7701386	29	1	83 days	0.40	M-v	4	Williams	2000 AX ₁₄₈
2000 AZ ₁₄₈	13.8	0.15	20000226	314.29825	10.45530	139.79248	11.30897	0.0504778	2.3632812	37	2	1998–2000	0.61	M-v	4	Spahr	38000 2000 AZ ₁₄₈
2000 AA ₁₄₉	13.4	0.15	20000226	88.58751	218.84179	137.67829	11.58620	0.0744970	2.9594848	39	2	1998–2000	0.61	M-v	3	Williams	38001 2000 AA ₁₄₉
2000 AC ₁₄₉	15.2	0.15	20000226	64.58300	225.41229	164.04547	6.57338	0.1106614	2.2729527	29	1	90 days	0.50	M-v	4	Williams	2000 AC ₁₄₉
2000 AF ₁₄₉	13.5	0.15	20000226	117.09134	189.07151	134.09307	12.78765	0.1896723	2.6119315	40	4	1986–2000	0.58	M-v	2	Williams	38001 2000 AF ₁₄₉
2000 AQ ₁₄₉	14.2	0.15	19991228	62.02143	185.36823	185.17663	6.31282	0.2653275	2.5585594	19	1	42 days	0.54			Williams	2000 AQ ₁₄₉
2000 AE ₁₅₀	14.6	0.15	19991228	344.07475	339.96483	148.80346	9.33527	0.2452058	3.0373666	23	1	59 days	0.43			Spahr	2000 AE ₁₅₀
2000 AJ ₁₅₀	13.9	0.15	20000226	103.14915	100.78595	251.34477	12.25799	0.2044910	2.7213879	30	2	1998–2000	0.51	M-v	3	Williams	38001 2000 AJ ₁₅₀
2000 AN ₁₅₀	13.7	0.15	20000117	326.84537	262.96288	248.93114	25.16553	0.1777680	3.3093152	21	1	29 days	0.39			Spahr	2000 AN ₁₅₀
2000 AQ ₁₅₀	13.9	0.15	20000117	8.81155	314.67390	139.35503	19.10767	0.1946881	3.1014483	20	1	17 days	0.25			Williams	2000 AQ ₁₅₀
2000 AU ₁₅₀	14.7	0.15	20000226	8.23225	330.39598	153.11305	10.53034	0.1832272	2.3476264	36	1	116 days	0.48	M-v	3	Williams	2000 AU ₁₅₀

2000 AV ₁₅₀	13.4	0.15	20000226	160.11280	158.91414	166.92266	11.12330	0.0702215	2.8596663	39	3	1988-2000	0.59	M-v	4	Spahr	38001	2000 AV ₁₅₀
2000 AD ₁₅₁	16.0	0.15	20000117	359.84638	169.98171	313.38577	8.48987	0.0667484	2.3083818	29	1	37 days	0.91			Williams		2000 AD ₁₅₁
2000 AE ₁₅₁	15.7	0.15	20000117	359.90196	181.92634	303.25839	4.21714	0.2312294	3.1203524	15	1	24 days	0.54			Williams		2000 AE ₁₅₁
2000 AF ₁₅₁	15.1	0.15	20000117	81.56104	77.33576	302.93981	11.39844	0.2055949	2.6028536	39	1	33 days	0.48			Williams		2000 AF ₁₅₁
2000 AH ₁₅₁	14.3	0.15	20000226	47.05647	300.54162	119.11323	14.15806	0.1755076	2.7142386	45	1	60 days	0.51	M-v	4	Williams		2000 AH ₁₅₁
2000 AO ₁₅₁	12.4	0.15	20000117	10.89390	178.81696	208.48674	8.87228	0.2067349	2.9217157	18	1	20 days	0.32			Williams		2000 AO ₁₅₁
2000 AK ₁₅₂	16.2	0.15	20000226	29.14917	192.90614	261.12095	17.40229	0.0973660	1.9697729	30	1	62 days	0.44	M-v	4	Williams		2000 AK ₁₅₂
2000 AU ₁₅₂	15.2	0.15	20000226	323.65313	279.04662	277.44168	20.94551	0.2568297	2.2867618	37	1	64 days	0.52	M-v	4	Williams		2000 AU ₁₅₂
2000 AD ₁₅₃	14.6	0.15	19991228	283.77877	62.02998	142.18915	23.70040	0.2253386	2.3095973	33	1	52 days	0.40			Williams		2000 AD ₁₅₃
2000 AE ₁₅₃	13.7	0.15	20000117	280.74318	302.02663	273.88882	4.23201	0.1271076	3.1820152	29	1	39 days	1.33			Williams		2000 AE ₁₅₃
2000 AH ₁₅₃	15.5	0.15	20000117	62.21615	106.48715	313.26016	8.31403	0.1323432	2.3243348	25	1	36 days	0.71			Williams		2000 AH ₁₅₃
2000 AN ₁₅₃	15.5	0.15	20000117	181.71997	180.13123	128.67364	7.12285	0.1229205	2.3808433	11	1	21 days	0.33			Williams		2000 AN ₁₅₃
2000 AO ₁₅₃	13.6	0.15	20000226	349.50771	167.17423	273.40872	21.25412	0.0440948	2.6538401	25	1	93 days	0.53	M-v	4	Williams		2000 AO ₁₅₃
2000 AD ₁₅₄	14.1	0.15	19991228	103.66154	251.56336	80.38261	14.02392	0.2080798	2.6850175	15	1	28 days	0.44			Williams		2000 AD ₁₅₄
2000 AG ₁₅₄	14.0	0.15	19991228	290.04824	210.67094	322.63850	8.54052	0.0499648	3.0401848	19	1	28 days	0.48			Williams		2000 AG ₁₅₄
2000 AM ₁₅₄	13.4	0.15	20000117	164.56291	336.41098	330.96988	10.62478	0.0689058	3.2086809	23	1	40 days	0.52			Williams		2000 AM ₁₅₄
2000 AR ₁₅₄	15.9	0.15	19991118	30.21938	82.13920	284.73442	8.22411	0.2311216	2.3153811	26	1	57 days	0.63			Williams		2000 AR ₁₅₄
2000 AU ₁₅₄	15.5	0.15	19991228	65.53180	90.17253	272.30635	5.99318	0.0653879	2.2684857	14	1	4 days	0.57		E	Williams		2000 AU ₁₅₄
2000 AQ ₁₅₅	15.7	0.15	19991208	17.83029	146.99801	263.59741	2.94355	0.2452139	2.6287247	23	1	57 days	0.54			Williams		2000 AQ ₁₅₅
2000 AZ ₁₅₅	16.1	0.15	20000117	245.52365	297.11443	281.21536	18.96620	0.0599843	1.9089586	15	1	31 days	0.54			Williams		2000 AZ ₁₅₅
2000 AJ ₁₅₈	15.3	0.15	20000117	351.52500	43.58042	79.13564	4.39523	0.1527774	2.7380748	16	1	28 days	0.69			Williams		2000 AJ ₁₅₈
2000 AN ₁₅₈	15.9	0.15	20000117	333.01461	79.97427	64.54894	5.03266	0.1035757	2.3064239	17	1	27 days	0.51			Williams		2000 AN ₁₅₈
2000 AQ ₁₅₈	13.6	0.15	20000226	327.37971	96.29302	64.37908	2.22262	0.1137525	3.2099142	46	1	70 days	0.63	M-v	4	Williams		2000 AQ ₁₅₈
2000 AU ₁₅₈	16.5	0.15	20000117	2.25144	170.06170	301.67374	5.32434	0.1813928	2.3236292	23	1	31 days	0.65			Spahr		2000 AU ₁₅₈
2000 AV ₁₅₈	14.6	0.15	20000226	39.45677	141.05450	300.98441	13.04164	0.0541514	2.6030991	38	3	1996-2000	0.52	M-v	2	Williams	38001	2000 AV ₁₅₈
2000 AW ₁₅₈	13.1	0.15	20000117	194.50527	183.28289	100.16413	10.66765	0.0627772	3.0548658	19	1	39 days	0.50			Williams		2000 AW ₁₅₈
2000 AX ₁₅₈	15.4	0.15	19991228	39.70957	108.43027	302.96442	11.90303	0.1886584	2.5447615	22	1	47 days	0.72			Williams		2000 AX ₁₅₈
2000 AZ ₁₅₈	15.9	0.15	20000117	0.64613	152.90232	320.03743	6.95197	0.1167337	2.3780281	17	1	27 days	0.63			Williams		2000 AZ ₁₅₈
2000 AA ₁₅₉	13.7	0.15	20000117	196.42405	188.10372	95.49703	12.77413	0.1524640	2.5404924	22	1	39 days	0.50			Williams		2000 AA ₁₅₉
2000 AB ₁₅₉	14.6	0.15	19991228	34.21350	114.01664	304.74908	10.79006	0.2231933	3.1404900	31	1	51 days	0.79			Williams		2000 AB ₁₅₉
2000 AD ₁₅₉	15.8	0.15	20000117	42.60586	16.19061	38.13871	2.68138	0.2094500	2.3990708	18	1	28 days	0.41			Williams		2000 AD ₁₅₉
2000 AK ₁₅₉	15.3	0.15	20000117	88.73704	44.37585	323.58172	4.60353	0.1841270	2.1783712	21	1	39 days	0.59			Williams		2000 AK ₁₅₉
2000 AL ₁₅₉	13.7	0.15	20000117	177.13552	351.66895	310.13554	9.87189	0.0429720	2.9828746	20	1	39 days	0.61			Williams		2000 AL ₁₅₉
2000 AT ₁₅₉	15.6	0.15	20000117	20.72806	22.09026	70.20793	3.32715	0.1485088	2.6266243	29	1	39 days	0.74			Williams		2000 AT ₁₅₉
2000 AU ₁₅₉	16.1	0.15	20000117	40.11765	346.25931	76.84836	3.30359	0.1892129	2.4139553	25	1	39 days	0.48			Williams		2000 AU ₁₅₉
2000 AQ ₁₆₀	14.2	0.15	19991228	211.78094	325.82998	295.22837	14.76217	0.0824457	3.1262672	12	1	25 days	0.61			Williams		2000 AQ ₁₆₀
2000 AX ₁₆₀	15.4	0.15	20000117	47.52306	70.96697	336.67771	6.08695	0.2413607	2.7923784	29	1	39 days	0.59			Williams		2000 AX ₁₆₀
2000 AC ₁₆₁	14.5	0.15	20000117	9.84364	68.42185	41.62161	5.24611	0.1369884	3.0861834	13	1	39 days	0.60			Williams		2000 AC ₁₆₁
2000 AE ₁₆₁	14.3	0.15	19991228	313.08327	105.74013	67.70827	7.84901	0.1090975	3.1709301	16	1	26 days	0.47			Williams		2000 AE ₁₆₁
2000 AF ₁₆₁	14.9	0.15	20000117	10.96321	111.57996	354.69776	5.79161	0.1767817	2.3374007	22	1	39 days	0.39			Williams		2000 AF ₁₆₁
2000 AX ₁₆₁	15.7	0.15	20000117	354.31886	248.65128	231.70462	0.54862	0.1269575	2.4471352	20	1	30 days	0.60			Spahr		2000 AX ₁₆₁
2000 AB ₁₆₂	14.4	0.15	20000117	81.76238	63.05014	310.03512	11.14546	0.2285716	3.1600135	23	1	41 days	0.52			Williams		2000 AB ₁₆₂
2000 AE ₁₆₂	15.4	0.15	20000117	78.92981	54.51275	338.89332	3.32908	0.1004263	2.3104826	32	1	38 days	0.62			Williams		2000 AE ₁₆₂
2000 AG ₁₆₂	14.4	0.15	20000117	120.14345	289.31698	74.38211	3.09950	0.0339933	2.9065634	26	1	38 days	0.61			Williams		2000 AG ₁₆₂
2000 AK ₁₆₂	15.0	0.15	20000117	8.62615	150.37961	329.51573	4.81544	0.1174253	2.9876539	27	1	38 days	0.82			Williams		2000 AK ₁₆₂
2000 AO ₁₆₂	16.6	0.15	20000117	308.99757	232.11151	306.15224	17.58805	0.0525371	1.9842915	23	1	32 days	0.62			Williams		2000 AO ₁₆₂
2000 AR ₁₆₂	13.4	0.15	20000226	66.05196	107.98388	331.66599	12.00878	0.1356647	2.6748965	35	1	70 days	0.56	M-v	5	Williams		2000 AR ₁₆₂
2000 AT ₁₆₂	14.4	0.15	20000117	37.62474	325.27498	148.54576	9.17448	0.1040875	2.7692439	22	1	38 days	0.63			Williams		2000 AT ₁₆₂
2000 AH ₁₆₃	13.6	0.15	20000117	293.73831	60.69842	120.52484	10.38938	0.1799807	2.7846525	20	1	29 days	0.31			Williams		2000 AH ₁₆₃
2000 AY ₁₆₃	14.5	0.15	20000117	45.46900	297.58051	130.21658	4.45747	0.0670280	2.5865910	34	1	43 days	0.40			Williams		2000 AY ₁₆₃
2000 AC ₁₆₄	17.0	0.15	20000117	15.66481	192.90105	265.74751	2.82151	0.1808597	2.3140389	23	1	32 days	0.60			Spahr		2000 AC ₁₆₄
2000 AD ₁₆₄	14.1	0.15	20000117	236.04670	2.16822	255.42259	3.00264	0.0819599	2.6423665	18	1	29 days	0.58			Williams		2000 AD ₁₆₄
2000 AG ₁₆₄	13.0	0.15	20000117	318.62578	337.93399	214.62971	4.57408	0.1591482	2.9110704	16	1	31 days	0.57			Williams		2000 AG ₁₆₄

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2000 AS ₁₆₄	16.5	0.15	20000117	35.86925	282.47620	148.11479	2.43530	0.1935056	2.4076248	31	1	34 days	0.81		Williams	2000 AS ₁₆₄
2000 AL ₁₆₅	13.1	0.15	20000226	4.78200	324.44505	103.90079	18.09516	0.2047820	3.1527403	43	1	93 days	0.38	M-v 3	Williams	2000 AL ₁₆₅
2000 AN ₁₆₅	12.5	0.15	20000226	41.38863	184.20563	225.97544	21.13496	0.0449811	3.2300499	34	1	83 days	0.48	M-v 4	Williams	2000 AN ₁₆₅
2000 AP ₁₆₅	13.8	0.15	20000226	50.61068	194.20677	200.14737	12.77328	0.1655832	2.6729459	39	1	109 days	0.47	M-v 4	Williams	2000 AP ₁₆₅
2000 AD ₁₆₆	13.1	0.15	20000117	15.20703	316.16787	136.63258	24.70909	0.1434077	3.1757434	15	1	27 days	0.29		Spahr	2000 AD ₁₆₆
2000 AH ₁₆₇	15.8	0.15	19991228	20.89296	275.45588	170.11160	9.05588	0.1260212	2.3839998	18	1	7 days	0.53		Williams	2000 AH ₁₆₇
2000 AM ₁₆₇	14.2	0.15	20000117	289.21864	78.31207	144.72495	22.97148	0.2484885	2.2930021	47	1	36 days	0.65		Williams	2000 AM ₁₆₇
2000 AY ₁₆₇	14.3	0.15	20000117	48.10882	274.10006	161.82995	5.75384	0.1175573	2.2768306	20	1	27 days	0.34		Williams	2000 AY ₁₆₇
2000 AG ₁₆₈	15.8	0.15	20000117	24.83194	86.68685	60.62186	7.60212	0.0489391	2.3281955	15	1	27 days	1.24		Spahr	2000 AG ₁₆₈
2000 AK ₁₆₈	14.6	0.15	20000117	64.37753	179.14010	219.09720	4.24803	0.1290119	3.1227678	22	1	22 days	0.34		Marsden	2000 AK ₁₆₈
2000 AL ₁₆₈	15.9	0.15	20000117	14.62609	320.37591	135.54195	10.02222	0.1632975	2.7042176	27	1	22 days	0.42		Marsden	2000 AL ₁₆₈
2000 AP ₁₆₈	15.7	0.15	20000117	141.22289	212.19455	129.60046	7.25647	0.0519036	2.7383988	11	1	31 days	0.29		Williams	2000 AP ₁₆₈
2000 AW ₁₆₈	14.8	0.15	20000226	18.23615	270.34969	162.66984	7.58752	0.0822792	2.2674997	41	1	83 days	0.50	M-v 4	Williams	2000 AW ₁₆₈
2000 AB ₁₆₉	15.1	0.15	20000226	47.41479	241.76096	142.91875	9.31828	0.2621430	2.4838046	25	1	72 days	0.36	M-v 4	Williams	2000 AB ₁₆₉
2000 AY ₁₆₉	13.6	0.15	20000226	78.29436	145.31851	197.47834	10.80497	0.2496493	3.1036927	32	1	83 days	0.52	M-v 4	Williams	2000 AY ₁₆₉
2000 AD ₁₇₀	13.4	0.15	20000117	260.41881	109.52842	101.51106	22.23423	0.2631824	2.3800199	19	1	27 days	0.47		Williams	2000 AD ₁₇₀
2000 AO ₁₇₀	13.7	0.15	20000226	60.08510	256.33684	116.88820	13.94006	0.2175186	2.6843390	32	1	89 days	0.41	M-v 4	Williams	2000 AO ₁₇₀
2000 AY ₁₇₀	13.6	0.15	20000226	52.93042	252.13129	130.75708	9.49390	0.2439453	2.6190200	42	1	115 days	0.38	M-v 4	Williams	2000 AY ₁₇₀
2000 AP ₁₇₂	14.2	0.15	20000226	30.37915	296.19389	126.72426	10.59824	0.1814658	2.7432006	31	1	106 days	0.38	M-v 4	Williams	2000 AP ₁₇₂
2000 AK ₁₇₃	14.5	0.15	20000117	24.35779	291.32827	129.58040	12.13657	0.1800620	2.6399445	18	1	27 days	0.43		Williams	2000 AK ₁₇₃
2000 AN ₁₇₅	14.0	0.15	20000117	28.42820	286.93071	135.70929	11.17889	0.1294055	2.9678037	18	1	27 days	0.44		Williams	2000 AN ₁₇₅
2000 AP ₁₇₅	14.0	0.15	20000117	73.39620	246.24216	124.03112	15.08567	0.1473889	2.6143059	17	1	27 days	0.31		Williams	2000 AP ₁₇₅
2000 AD ₁₇₆	14.0	0.15	20000226	291.60764	51.34839	132.58369	13.89569	0.1744437	2.7227424	21	2	1996–2000	0.60	M-v 4	Williams	38002 2000 AD ₁₇₆
2000 AO ₁₇₇	13.9	0.15	20000226	353.22877	314.47545	173.56015	6.75918	0.1937806	2.7619625	26	1	107 days	0.30	M-v 4	Williams	2000 AO ₁₇₇
2000 AV ₁₇₈	14.0	0.15	20000117	246.70148	96.52135	140.55591	13.36939	0.1455528	2.6543128	14	1	28 days	0.39		Williams	2000 AV ₁₇₈
2000 AC ₁₇₉	14.0	0.15	20000117	342.66109	311.48929	182.92602	8.63475	0.1532813	3.0801189	14	1	28 days	0.53		Spahr	2000 AC ₁₇₉
2000 AO ₁₇₉	14.1	0.15	20000117	316.46726	27.13769	136.01377	14.09521	0.0948929	2.5937951	20	1	27 days	0.45		Williams	2000 AO ₁₇₉
2000 AW ₁₇₉	15.5	0.15	20000117	297.43784	290.88960	270.32662	19.98845	0.2228154	2.2717640	16	1	35 days	0.61		Williams	2000 AW ₁₇₉
2000 AM ₁₈₀	13.9	0.15	20000117	18.68853	300.75315	152.25167	10.71186	0.0425163	2.9946064	14	1	26 days	0.40		Spahr	2000 AM ₁₈₀
2000 AQ ₁₈₁	15.0	0.15	19991228	309.11044	310.83110	217.23842	5.92991	0.0678515	2.3276963	23	1	56 days	0.38		Williams	2000 AQ ₁₈₁
2000 AT ₁₈₄	14.7	0.15	20000226	45.35802	275.66764	150.13394	9.25460	0.1866459	2.3697108	22	1	107 days	0.46	M-v 5	Williams	2000 AT ₁₈₄
2000 AG ₁₈₅	14.8	0.15	20000117	303.75613	41.68316	148.66202	13.65383	0.1108598	2.5354552	18	1	28 days	0.43		Williams	2000 AG ₁₈₅
2000 AJ ₁₈₅	11.9	0.15	20000117	23.44078	302.80347	154.51613	15.98027	0.1020036	5.1877869	14	1	28 days	0.49		Spahr	2000 AJ ₁₈₅
2000 AK ₁₈₅	14.0	0.15	20000226	28.54360	188.95738	267.02077	10.23244	0.1822148	2.6088477	55	3	1986–2000	0.60	M-v 2	Williams	38002 2000 AK ₁₈₅
2000 AL ₁₈₅	15.4	0.15	19991228	23.56415	185.61299	253.53832	7.54785	0.2318520	2.6694991	21	1	59 days	0.63		Williams	2000 AL ₁₈₅
2000 AZ ₁₈₅	13.7	0.15	20000117	31.74027	175.38429	207.86333	14.60010	0.1179015	2.6995769	15	1	29 days	0.52		Spahr	2000 AZ ₁₈₅
2000 AH ₁₈₆	15.2	0.15	20000226	46.38312	228.33089	140.21787	9.33224	0.3040319	2.4209589	26	1	119 days	0.51	M-v 4	Williams	2000 AH ₁₈₆
2000 AT ₁₈₆	14.5	0.15	19991208	32.20198	234.02647	140.57544	8.14310	0.1433842	2.4140604	20	1	39 days	0.64		Williams	2000 AT ₁₈₆
2000 AA ₁₈₇	13.9	0.15	20000226	16.99352	282.14937	140.64505	9.25631	0.2543704	2.6796731	24	1	96 days	0.51	M-v 4	Williams	2000 AA ₁₈₇
2000 AE ₁₈₇	14.1	0.15	20000226	10.07273	282.89700	150.21560	12.72719	0.1238617	2.5666710	33	1	96 days	0.47	M-v 4	Williams	2000 AE ₁₈₇
2000 AX ₁₈₇	15.2	0.15	19991228	331.48801	343.02918	136.13084	12.28450	0.1879676	2.4016127	16	1	26 days	0.39		Williams	2000 AX ₁₈₇
2000 AB ₁₈₈	14.2	0.15	20000226	315.47875	309.02869	197.10336	13.29923	0.0944920	2.5408884	42	1	109 days	0.47	M-v 4	Williams	2000 AB ₁₈₈
2000 AE ₁₈₈	14.6	0.15	20000117	17.75574	288.11893	124.29611	13.39641	0.3328846	2.7122520	20	1	27 days	0.29		Williams	2000 AE ₁₈₈
2000 AQ ₁₈₈	14.5	0.15	20000226	24.26712	284.86015	146.11340	10.89433	0.2322939	2.3667927	25	1	89 days	0.46	M-v 3	Williams	2000 AQ ₁₈₈
2000 AY ₁₈₉	13.0	0.15	20000226	71.69306	153.47956	218.21423	12.91503	0.1940792	2.7028846	26	1	98 days	0.63	M-v 4	Williams	2000 AY ₁₈₉
2000 AP ₁₉₂	14.1	0.15	20000117	53.78799	196.19754	196.60385	10.96274	0.2510013	2.7791136	17	1	29 days	0.49		Williams	2000 AP ₁₉₂
2000 AQ ₁₉₂	14.8	0.15	20000117	359.98411	297.41586	176.75363	10.10512	0.1825677	2.4326930	26	1	29 days	0.34		Williams	2000 AQ ₁₉₂
2000 AC ₁₉₃	13.6	0.15	20000117	346.75338	336.96557	156.20859	16.47336	0.1192775	2.6203696	22	1	36 days	0.40		Williams	2000 AC ₁₉₃
2000 AQ ₁₉₃	14.1	0.15	20000117	285.11180	22.01179	185.99726	12.62928	0.1194290	2.6774171	23	1	31 days	0.52		Spahr	2000 AQ ₁₉₃
2000 AY ₁₉₃	15.1	0.15	20000117	327.93814	20.04440	144.78509	15.22296	0.1909450	2.6556768	18	1	27 days	0.30		Williams	2000 AY ₁₉₃
2000 AB ₁₉₄	12.6	0.15	20000226	228.90001	63.40209	200.12611	10.48506	0.0530096	2.9961686	38	3	1977–2000	0.53	M-v 2	Williams	38002 2000 AB ₁₉₄
2000 AH ₁₉₄	13.8	0.15	20000117	357.06367	316.04653	168.31062	14.90008	0.1130200	3.2021432	12	1	29 days	0.57		Spahr	2000 AH ₁₉₄
2000 AJ ₁₉₄	12.7	0.15	20000226	30.57131	195.84013	257.05279	16.82115	0.1302168	3.1684769	50	1	114 days	0.53	M-v 4	Williams	2000 AJ ₁₉₄

2000 AK ₁₉₄	13.2	0.15	20000117	199.48457	38.91183	247.19125	15.40847	0.0392807	3.1683593	19	1	31 days	0.51		Spahr	2000 AK ₁₉₄
2000 AU ₁₉₄	15.1	0.15	20000117	320.42872	358.63125	176.98199	8.24875	0.1661506	2.6675617	16	1	31 days	0.41		Spahr	2000 AU ₁₉₄
2000 AO ₁₉₅	13.3	0.15	20000226	9.64838	289.27614	194.65924	9.70991	0.0440527	2.9923481	44	3	1996-2000	0.57	M-v 3	Williams	38002 2000 AO ₁₉₅
2000 AU ₁₉₅	13.5	0.15	20000117	282.03734	63.75729	151.00759	14.03851	0.1163540	2.6147525	29	1	40 days	0.70		Williams	2000 AU ₁₉₅
2000 AL ₁₉₆	15.1	0.15	20000117	27.00173	247.78591	197.02037	6.09078	0.2037312	2.6943047	18	1	27 days	0.59		Williams	2000 AL ₁₉₆
2000 AM ₁₉₆	13.3	0.15	20000226	340.24366	244.27796	277.96718	14.43707	0.1256761	3.1661517	30	1	70 days	0.61	M-v 4	Williams	2000 AM ₁₉₆
2000 AP ₁₉₆	13.6	0.15	20000226	326.34788	284.14112	249.45393	9.41215	0.0420835	2.9797905	49	3	1996-2000	0.55	M-v 4	Spahr	38003 2000 AP ₁₉₆
2000 AR ₁₉₆	16.2	0.15	20000117	356.06346	346.90001	146.08547	14.35723	0.2595535	2.6918965	36	1	32 days	0.43		Williams	2000 AR ₁₉₆
2000 AT ₁₉₆	15.5	0.15	20000117	33.87443	197.70337	230.30427	11.59599	0.1373917	2.3730594	16	1	29 days	0.54		Williams	2000 AT ₁₉₆
2000 AV ₁₉₆	13.9	0.15	19991228	133.42549	157.79132	171.40290	13.92701	0.1759116	3.1571254	25	1	57 days	0.64		Williams	2000 AV ₁₉₆
2000 AC ₁₉₇	13.6	0.15	20000117	143.49696	78.21484	264.05094	14.64352	0.0854813	3.2020030	15	1	32 days	0.43		Spahr	2000 AC ₁₉₇
2000 AF ₁₉₇	14.4	0.15	20000117	41.54750	259.61383	171.43831	8.80631	0.2159298	2.4104846	23	1	28 days	0.42		Williams	2000 AF ₁₉₇
2000 AP ₁₉₇	14.8	0.15	19991228	7.13251	233.85215	238.84680	9.52668	0.1190771	2.4402477	16	1	54 days	0.72		Spahr	2000 AP ₁₉₇
2000 AS ₁₉₇	13.4	0.15	20000226	62.32637	152.90941	271.13414	13.00665	0.1463557	2.4238265	27	1	63 days	0.31	M-v 4	Williams	2000 AS ₁₉₇
2000 AY ₁₉₇	13.7	0.15	20000117	9.83648	268.88482	211.92314	8.60118	0.0913660	3.3844870	23	1	36 days	0.46		Williams	2000 AY ₁₉₇
2000 AZ ₁₉₇	13.0	0.15	20000226	359.38345	220.23578	283.51331	16.75210	0.1121143	3.1038860	25	1	93 days	0.44	M-v 4	Williams	2000 AZ ₁₉₇
2000 AE ₁₉₈	13.5	0.15	20000117	270.76893	51.33731	193.30232	7.88814	0.2080312	2.7737568	21	1	32 days	0.29		Spahr	2000 AE ₁₉₈
2000 AF ₁₉₈	14.2	0.15	20000117	349.54835	350.42624	152.78464	17.96711	0.0679102	2.8089238	32	1	38 days	0.30		Williams	2000 AF ₁₉₈
2000 AG ₁₉₈	13.9	0.15	20000117	357.33593	337.58175	157.99450	14.80690	0.0702808	2.9785315	33	1	39 days	0.63		Williams	2000 AG ₁₉₈
2000 AK ₁₉₈	13.6	0.15	20000117	323.01581	294.82048	240.86840	7.88774	0.0656031	2.9849689	20	1	29 days	0.48		Williams	2000 AK ₁₉₈
2000 AL ₁₉₈	13.1	0.15	20000117	253.23896	85.10833	160.93430	16.54766	0.0478892	3.1256958	19	1	29 days	0.51		Williams	2000 AL ₁₉₈
2000 AR ₁₉₈	11.8	0.15	20000226	118.05522	89.89199	282.82404	16.24360	0.1618124	3.1830059	28	1	90 days	0.73	M-v 5	Williams	2000 AR ₁₉₈
2000 AA ₁₉₉	14.7	0.15	20000117	322.94574	351.63562	185.50210	9.14711	0.0995523	2.7598868	19	1	34 days	0.60		Williams	2000 AA ₁₉₉
2000 AQ ₁₉₉	12.9	0.15	20000226	333.08187	324.07226	137.51105	14.37092	0.1025384	2.5557264	36	1	94 days	0.48	M-v 4	Williams	2000 AQ ₁₉₉
2000 AT ₁₉₉	14.1	0.15	20000226	354.93453	330.01716	114.75480	15.78320	0.2244128	2.6445252	27	1	145 days	0.48	M-v 4	Williams	2000 AT ₁₉₉
2000 AC ₂₀₀	14.1	0.15	20000226	15.16354	270.16145	145.79904	13.93311	0.1835826	2.7390971	24	1	92 days	0.66	M-v 4	Williams	2000 AC ₂₀₀
2000 AR ₂₀₀	12.5	0.15	20000226	38.44086	246.66945	142.80804	13.62648	0.1723753	2.5750142	46	1	145 days	0.32	M-v 3	Williams	2000 AR ₂₀₀
2000 AS ₂₀₀	13.5	0.15	20000226	5.09188	280.48125	155.92949	13.77658	0.1479872	2.6015619	37	1	151 days	0.45	M-v 3	Williams	2000 AS ₂₀₀
2000 AM ₂₀₁	14.4	0.15	20000226	34.91853	285.73238	142.36656	23.27243	0.2976209	2.3200292	32	1	121 days	0.44	M-v 3	Williams	2000 AM ₂₀₁
2000 AS ₂₀₁	15.4	0.15	19991228	305.28803	329.44582	217.06780	10.34366	0.1142427	2.3698065	21	1	55 days	0.60		Spahr	2000 AS ₂₀₁
2000 AT ₂₀₁	16.1	0.15	20000117	47.39816	284.25200	140.25620	23.79006	0.1145717	1.9184056	44	1	34 days	0.56		Williams	2000 AT ₂₀₁
2000 AA ₂₀₂	11.6	0.15	20000226	112.33733	95.44257	301.92498	20.73343	0.0462370	3.2352719	36	1	99 days	0.56	M-v 4	Williams	2000 AA ₂₀₂
2000 AD ₂₀₂	13.5	0.15	19991228	60.61470	159.27334	208.19635	15.82965	0.1395126	3.0751435	15	1	3 days	0.98		E Williams	2000 AD ₂₀₂
2000 AG ₂₀₃	14.3	0.15	20000117	333.86727	2.39892	188.67224	13.45363	0.2091028	2.6577559	15	1	31 days	0.65		Williams	2000 AG ₂₀₃
2000 AM ₂₀₃	12.0	0.15	20000117	246.49492	27.68129	255.23284	13.60831	0.0248738	3.2957524	14	1	18 days	1.05		Williams	2000 AM ₂₀₃
2000 AN ₂₀₃	14.7	0.15	20000117	346.08031	229.80166	308.31346	21.30639	0.2378945	2.2719094	18	1	19 days	0.52		Williams	2000 AN ₂₀₃
2000 AV ₂₀₃	13.4	0.15	20000117	349.62229	235.73264	303.98458	13.12297	0.0408452	2.6520573	12	1	18 days	0.47		Williams	2000 AV ₂₀₃
2000 AY ₂₀₃	12.9	0.15	20000117	102.28439	137.87322	273.92371	8.58409	0.0473488	2.5691894	18	1	31 days	0.45		Williams	2000 AY ₂₀₃
2000 AB ₂₀₄	14.4	0.15	20000117	94.61918	214.20075	175.11646	10.53248	0.1170287	2.9690887	18	1	36 days	0.61		Williams	2000 AB ₂₀₄
2000 AC ₂₀₄	15.7	0.15	20000117	265.30149	108.38101	115.74190	3.02492	0.0853503	2.5407222	11	1	22 days	0.37		Spahr	2000 AC ₂₀₄
2000 AD ₂₀₄	14.7	0.15	20000226	348.17048	208.48193	305.47462	7.65954	0.1144089	2.5785009	55	2	1993-2000	0.58	M-v 4	Williams	38003 2000 AD ₂₀₄
2000 AF ₂₀₄	13.3	0.15	19991228	351.78539	61.37890	92.55086	11.11641	0.1285984	2.6772434	9	1	13 days	0.60		D Williams	2000 AF ₂₀₄
2000 AG ₂₀₄	14.4	0.15	20000117	130.00210	192.72313	141.34050	9.55638	0.1604159	2.7270047	18	1	21 days	0.33		Marsden	2000 AG ₂₀₄
2000 AH ₂₀₄	16.9	0.15	20000117	306.64435	81.98533	102.05780	6.26997	0.1383277	2.2177750	30	1	22 days	0.31		Marsden	2000 AH ₂₀₄
2000 AJ ₂₀₄	15.0	0.15	20000117	259.41970	124.75791	134.14954	3.28598	0.2607311	2.3487137	40	1	28 days	0.43		Marsden	2000 AJ ₂₀₄
2000 AL ₂₀₄	15.0	0.15	20000117	218.96507	61.27311	226.20291	3.52385	0.2067157	2.3466928	16	1	19 days	0.43		Spahr	2000 AL ₂₀₄
2000 AP ₂₀₄	13.9	0.15	20000117	280.02161	16.33982	199.30411	12.31031	0.2069157	2.5816880	16	1	29 days	0.44		Williams	2000 AP ₂₀₄
2000 AZ ₂₀₄	15.4	0.15	20000117	146.31689	337.01684	349.89644	1.50887	0.0807777	2.6932494	18	1	29 days	0.75		Spahr	2000 AZ ₂₀₄
2000 AA ₂₀₅	13.1	0.15	20000226	89.22120	33.17350	356.51433	11.00942	0.0899561	3.0290290	26	2	1998-2000	0.61	M-v 5	Spahr	38003 2000 AA ₂₀₅
2000 AC ₂₀₅	12.8	0.15	20000117	214.10259	301.01059	36.07222	23.42781	0.2559460	2.3486776	12	1	31 days	0.63		Williams	2000 AC ₂₀₅
2000 AD ₂₀₅	18.6	0.15	20000226	57.99651	191.78385	157.37174	7.92332	0.5859583	1.6928699	43	1	31 days	0.54	M-v 6	Williams	2000 AD ₂₀₅
2000 AE ₂₀₅	22.9	0.15	20000226	72.85237	150.07814	271.82126	4.46050	0.1366761	1.1629890	72	1	31 days	0.59	M-v 5	Williams	2000 AE ₂₀₅
2000 AF ₂₀₅	21.5	0.15	20000226	137.37789	127.11985	220.26329	2.40647	0.2769260	1.0341720	65	1	31 days	0.58	M-v 6	Williams	2000 AF ₂₀₅

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2000 AG ₂₀₅	19.8	0.15	20000226	350.93741	248.96873	270.05578	18.41559	0.5195470	2.2923109	26	1	30 days	0.61	M-v	6	Williams	2000 AG ₂₀₅
2000 AJ ₂₀₅	14.0	0.15	20000117	90.39593	67.29604	315.72245	7.88086	0.1735936	2.7772029	38	1	41 days	0.62			Williams	2000 AJ ₂₀₅
2000 AL ₂₀₅	16.4	0.15	20000117	336.74161	296.87351	219.69431	0.91668	0.1028130	2.3574998	34	1	22 days	0.52			Spahr	2000 AL ₂₀₅
2000 AM ₂₀₅	16.3	0.15	20000117	345.92317	36.77735	109.24575	4.07076	0.1090084	2.5343895	18	1	38 days	0.42			Williams	2000 AM ₂₀₅
2000 AR ₂₀₅	15.1	0.15	20000117	14.18642	186.79035	286.38321	4.38998	0.0160890	2.7076254	24	1	28 days	0.92			Spahr	2000 AR ₂₀₅
2000 AS ₂₀₅	15.2	0.15	20000117	352.02293	5.88721	119.40980	6.67148	0.0590264	2.5550749	19	1	26 days	0.55			Williams	2000 AS ₂₀₅
2000 AT ₂₀₅	15.9	0.15	19991228	11.72237	163.17292	293.33503	11.30602	0.1107230	2.7765241	15	1	21 days	1.12			Williams	2000 AT ₂₀₅
2000 AU ₂₀₅	16.0	0.15	20000117	32.57441	135.60885	305.24949	5.45825	0.0794790	2.3917050	28	1	37 days	0.95			Williams	2000 AU ₂₀₅
2000 AV ₂₀₅	14.4	0.15	20000117	34.62958	338.04544	102.10818	10.18669	0.0824051	2.9340033	35	1	39 days	0.85			Williams	2000 AV ₂₀₅
2000 AX ₂₀₅	16.3	0.15	20000117	211.32305	160.66850	112.14944	19.20354	0.1481738	2.3044609	12	1	22 days	0.44			Spahr	2000 AX ₂₀₅
2000 AJ ₂₀₆	16.4	0.15	19991228	357.86050	359.97791	104.83569	3.50224	0.1722208	2.6965618	13	1	5 days	0.91	E		Williams	2000 AJ ₂₀₆
2000 AJ ₂₀₆	12.9	0.15	19991228	30.49262	325.07524	105.22260	23.10260	0.0608654	5.2483208	9	1	26 days	0.12			Williams	2000 AJ ₂₀₆
2000 AE ₂₀₇	17.7	0.15	20000117	338.54715	256.65939	259.79486	0.82904	0.2117618	2.2075411	16	1	31 days	0.35			Williams	2000 AE ₂₀₇
2000 AF ₂₀₇	14.9	0.15	20000117	332.55359	217.73973	301.45679	9.38471	0.0824610	2.9944577	23	1	34 days	0.52			Spahr	2000 AF ₂₀₇
2000 AH ₂₀₇	16.4	0.15	20000117	329.50099	216.93515	303.55970	6.05090	0.0594631	2.2205365	14	1	33 days	0.44			Williams	2000 AH ₂₀₇
2000 AK ₂₀₇	14.0	0.15	20000117	278.18923	149.14019	75.77707	0.27880	0.1119247	3.1755968	19	1	39 days	0.30			Williams	2000 AK ₂₀₇
2000 AL ₂₀₇	17.4	0.15	20000117	21.85403	149.53804	309.65169	2.33728	0.1249259	2.3188401	21	1	39 days	0.42			Williams	2000 AL ₂₀₇
2000 AM ₂₀₇	14.4	0.15	20000117	85.54548	98.93903	311.80663	8.18377	0.0602620	2.9568038	16	1	32 days	0.55			Williams	2000 AM ₂₀₇
2000 AC ₂₀₉	14.6	0.15	20000117	15.88825	347.37728	123.03321	10.16146	0.0530676	2.7393010	14	1	30 days	0.33			Williams	2000 AC ₂₀₉
2000 AD ₂₀₉	15.4	0.15	20000226	25.63553	349.94966	118.59374	4.38040	0.0956326	2.3708216	72	1	66 days	0.49	M-v	5	Williams	2000 AD ₂₀₉
2000 AE ₂₀₉	14.4	0.15	20000117	338.85655	128.18978	26.72399	0.71350	0.0925857	3.2220120	24	1	38 days	0.41			Williams	2000 AE ₂₀₉
2000 AM ₂₁₁	17.2	0.15	20000117	342.87626	204.13319	307.01952	7.89144	0.1851022	2.4195179	17	1	31 days	0.59			Williams	2000 AM ₂₁₁
2000 AW ₂₁₁	13.3	0.15	20000117	107.65988	61.55774	315.30992	12.91892	0.1859993	2.5704660	31	1	38 days	0.67			Williams	2000 AW ₂₁₁
2000 AC ₂₁₂	16.3	0.15	20000117	21.52764	327.98236	141.20300	6.30723	0.1721426	2.3699436	16	1	37 days	0.75			Williams	2000 AC ₂₁₂
2000 AM ₂₁₂	16.1	0.15	20000117	8.67526	352.16003	137.84680	3.19903	0.1605378	2.4200279	12	1	37 days	0.50			Williams	2000 AM ₂₁₂
2000 AZ ₂₁₃	14.1	0.15	20000117	38.50174	129.94887	303.93033	13.53689	0.0788558	5.2202988	12	1	32 days	0.33			Spahr	2000 AZ ₂₁₃
2000 AC ₂₁₄	14.9	0.15	19991228	270.63365	282.99499	298.14893	24.91246	0.1630208	2.7298243	15	1	20 days	0.36			Spahr	2000 AC ₂₁₄
2000 AD ₂₁₄	14.0	0.15	20000117	78.55439	56.14276	328.52496	2.98941	0.1378386	5.1674313	9	1	24 days	0.24			Williams	2000 AD ₂₁₄
2000 AG ₂₁₄	16.4	0.15	20000117	43.52730	287.88653	134.03344	5.04503	0.2046605	2.2884894	24	1	36 days	0.54			Williams	2000 AG ₂₁₄
2000 AL ₂₁₄	16.7	0.15	20000117	0.69517	272.97650	211.50551	0.83695	0.1261143	2.4928087	10	1	27 days	0.53			Spahr	2000 AL ₂₁₄
2000 AO ₂₁₄	15.0	0.15	20000117	155.11274	75.14341	251.28756	0.51035	0.1261386	2.2104861	14	1	30 days	0.28			Williams	2000 AO ₂₁₄
2000 AJ ₂₁₅	16.1	0.15	20000117	332.51339	225.05955	283.01747	1.88097	0.0992016	2.3446098	14	1	27 days	0.43			Williams	2000 AJ ₂₁₅
2000 AK ₂₁₅	15.3	0.15	20000226	358.76438	18.85912	111.40661	6.46495	0.0946695	2.2671841	33	1	70 days	0.44	M-v	4	Williams	2000 AK ₂₁₅
2000 AT ₂₁₅	17.6	0.15	20000117	13.32842	147.41435	311.58981	1.80125	0.1609667	2.3753228	9	1	21 days	0.24			Williams	2000 AT ₂₁₅
2000 AB ₂₁₆	15.1	0.15	20000117	101.74247	236.33857	144.21854	12.32324	0.2100839	2.6155306	16	1	35 days	0.47			Williams	2000 AB ₂₁₆
2000 AC ₂₁₆	15.8	0.15	20000117	110.67996	62.18060	315.12632	17.37619	0.1109626	1.9159600	21	1	30 days	0.77			Spahr	2000 AC ₂₁₆
2000 AJ ₂₁₇	16.6	0.15	20000117	337.95419	225.31257	283.29725	6.46923	0.2967806	3.2869999	10	1	26 days	0.69			Spahr	2000 AJ ₂₁₇
2000 AD ₂₁₈	16.9	0.15	20000117	351.38247	192.06888	290.25614	3.91837	0.1693015	2.6212196	12	1	22 days	0.24			Williams	2000 AD ₂₁₈
2000 AZ ₂₁₈	15.6	0.15	19991228	346.31956	30.15392	98.74704	4.64188	0.1153021	3.1317740	12	1	31 days	0.59			Spahr	2000 AZ ₂₁₈
2000 AF ₂₁₉	14.8	0.15	20000117	141.95763	25.71235	301.54193	10.01455	0.1112681	2.9629447	10	1	30 days	0.52			Spahr	2000 AF ₂₁₉
2000 AQ ₂₁₉	14.0	0.15	20000117	191.74512	353.04500	300.52913	21.49593	0.6817830	2.5138843	9	1	23 days	0.68			Spahr	2000 AQ ₂₁₉
2000 AD ₂₂₀	14.8	0.15	20000117	125.23675	266.71659	79.73766	2.87706	0.0663069	2.9634391	12	1	18 days	0.35			Williams	2000 AD ₂₂₀
2000 AJ ₂₂₀	15.9	0.15	20000117	11.30893	158.24460	304.77872	9.86297	0.1284830	3.1032278	9	1	21 days	0.12			Williams	2000 AJ ₂₂₀
2000 AL ₂₂₁	16.9	0.15	19991228	93.77295	9.64736	343.14977	1.94479	0.2283608	2.3675074	12	1	7 days	0.18	D		Williams	2000 AL ₂₂₁
2000 AG ₂₂₅	15.9	0.15	19991228	50.84890	104.25399	269.88926	1.18902	0.2268625	2.3616673	13	1	9 days	0.33			Williams	2000 AG ₂₂₅
2000 AU ₂₂₅	18.7	0.15	20000117	341.98305	205.11305	297.41121	3.53111	0.2709223	2.2132924	9	1	13 days	0.58			Williams	2000 AU ₂₂₅
2000 AW ₂₂₅	12.7	0.15	20000117	124.30972	33.00556	306.23362	2.54004	0.0257014	5.2667685	9	1	17 days	0.08			Williams	2000 AW ₂₂₅
2000 AN ₂₂₆	16.3	0.15	20000117	11.11188	153.33791	304.63156	3.36094	0.0142863	2.7896961	9	1	17 days	0.22			Williams	2000 AN ₂₂₆
2000 AW ₂₂₆	15.0	0.15	20000117	342.59351	208.38895	301.38021	3.59897	0.1031236	3.2172549	18	1	25 days	0.47			Spahr	2000 AW ₂₂₆
2000 AZ ₂₂₆	16.7	0.15	20000117	234.67155	313.61627	308.41187	7.34633	0.0880756	2.3717859	12	1	23 days	0.17			Spahr	2000 AZ ₂₂₆
2000 AA ₂₂₇	14.8	0.15	20000117	138.91731	29.28847	312.22107	11.26902	0.1590310	2.7309956	15	1	27 days	0.43			Williams	2000 AA ₂₂₇
2000 AF ₂₂₇	13.5	0.15	20000226	326.40379	234.25493	319.96449	4.12586	0.1108456	3.1158113	25	1	68 days	0.52	M-v	5	Williams	2000 AF ₂₂₇
2000 AG ₂₂₇	14.1	0.15	20000117	312.11858	232.66186	323.30822	19.79213	0.0347059	3.1433515	14	1	25 days	0.45			Williams	2000 AG ₂₂₇

2000 AK ₂₂₇	15.2	0.15	20000117	72.67537	93.98515	316.78542	5.41745	0.1510889	2.2675483	30	1	33 days	0.59	Williams	2000 AK ₂₂₇
2000 AS ₂₂₇	15.6	0.15	20000117	138.43617	36.61195	318.66686	17.34815	0.0827625	1.9195293	14	1	27 days	0.34	Williams	2000 AS ₂₂₇
2000 AL ₂₂₈	15.3	0.15	20000117	230.00820	325.00536	299.77818	1.38524	0.0656487	2.6694038	26	1	21 days	0.59	Williams	2000 AL ₂₂₈
2000 AN ₂₂₈	16.4	0.15	20000117	59.57659	285.59762	126.72844	5.78209	0.1480254	2.3041570	23	1	24 days	0.61	Spahr	2000 AN ₂₂₈
2000 AA ₂₂₉	12.3	0.15	20000226	237.86385	67.10385	147.54660	16.07876	0.0705637	3.0361488	35	1	98 days	0.50	Williams	2000 AA ₂₂₉
2000 AB ₂₂₉	14.0	0.15	20000226	0.19873	171.74223	313.96640	68.71944	0.9559962	52.0271503	176	1	34 days	0.53	Williams	2000 AB ₂₂₉
2000 AC ₂₂₉	16.6	0.15	20000226	3.64607	358.29477	112.95075	52.30095	0.5589741	4.1389019	76	1	33 days	0.52	Williams	2000 AC ₂₂₉
2000 AO ₂₂₉	15.9	0.15	20000117	35.36705	29.49220	40.30283	4.93068	0.1017966	2.1623637	20	1	39 days	0.38	Williams	2000 AO ₂₂₉
2000 AK ₂₃₀	15.1	0.15	19991228	15.38392	25.96638	73.42508	10.40741	0.1572630	2.7370867	13	1	26 days	0.71	Williams	2000 AK ₂₃₀
2000 AP ₂₃₀	14.4	0.15	20000117	325.98077	189.56147	342.90954	9.74963	0.1122483	2.7953479	42	1	39 days	0.58	Williams	2000 AP ₂₃₀
2000 AY ₂₃₀	15.8	0.15	20000226	47.47003	242.71469	141.16917	6.62902	0.2911261	2.3748758	41	1	89 days	0.47	Williams	2000 AY ₂₃₀
2000 AD ₂₃₁	12.7	0.15	20000117	219.65814	131.94348	145.10863	17.45932	0.1942399	3.1453656	27	1	37 days	0.31	Williams	2000 AD ₂₃₁
2000 AT ₂₃₁	16.5	0.15	20000117	25.55726	346.79638	91.50089	3.46195	0.1807072	2.3803375	13	1	27 days	0.45	Williams	2000 AT ₂₃₁
2000 AV ₂₃₁	15.8	0.15	20000117	11.99834	170.46744	291.53816	2.12039	0.0808843	2.2748573	16	1	30 days	0.50	Williams	2000 AV ₂₃₁
2000 AX ₂₃₁	14.7	0.15	20000117	50.25312	294.93297	113.76007	2.26827	0.1772281	3.0963580	13	1	26 days	0.63	Williams	2000 AX ₂₃₁
2000 AA ₂₃₂	14.1	0.15	20000117	202.73792	167.42913	121.01582	8.26020	0.2262914	2.5519537	27	1	39 days	0.39	Williams	2000 AA ₂₃₂
2000 AN ₂₃₂	14.9	0.15	20000117	45.98040	132.16625	301.54053	4.98312	0.0620262	2.8016834	19	1	30 days	0.72	Williams	2000 AN ₂₃₂
2000 AD ₂₃₃	15.1	0.15	20000226	355.05931	92.32972	58.04579	3.45179	0.1163826	2.4102273	26	1	69 days	0.48	Williams	2000 AD ₂₃₃
2000 AH ₂₃₃	14.6	0.15	20000117	118.20844	60.26425	299.20241	6.57514	0.0807754	2.7496555	32	1	37 days	0.56	Williams	2000 AH ₂₃₃
2000 AK ₂₃₃	13.7	0.15	20000117	116.26188	253.64857	132.88149	11.48031	0.1679683	2.6657523	20	1	38 days	0.52	Williams	2000 AK ₂₃₃
2000 AL ₂₃₃	12.1	0.15	20000117	40.01232	327.38036	119.93484	1.72420	0.0439423	5.1150928	22	1	38 days	0.48	Williams	2000 AL ₂₃₃
2000 AO ₂₃₃	15.0	0.15	20000117	348.00060	179.01558	350.96477	12.00200	0.1826989	2.6100238	15	1	38 days	0.46	Williams	2000 AO ₂₃₃
2000 AR ₂₃₃	13.1	0.15	20000117	16.95540	327.25292	66.56612	16.30155	0.1211205	2.7757502	11	1	30 days	0.27	Williams	2000 AR ₂₃₃
2000 AU ₂₃₄	13.9	0.15	20000117	318.23958	245.03434	274.54870	3.59083	0.0963966	3.1893241	16	1	29 days	0.49	Williams	2000 AU ₂₃₄
2000 AV ₂₃₄	16.1	0.15	20000117	54.81799	177.21567	212.72525	2.35080	0.2601478	2.2630189	18	1	29 days	0.51	Williams	2000 AV ₂₃₄
2000 AW ₂₃₄	13.2	0.15	20000117	305.17387	8.61105	166.01189	3.60722	0.0630868	3.9561741	17	1	29 days	0.54	Spahr	2000 AW ₂₃₄
2000 AY ₂₃₄	15.5	0.15	20000117	293.52189	277.28138	268.60347	5.81725	0.0504057	2.3167746	20	1	29 days	0.40	Williams	2000 AY ₂₃₄
2000 AN ₂₃₅	15.5	0.15	20000117	320.41429	238.90480	288.81964	3.89944	0.1317976	2.4697349	16	1	29 days	0.34	Williams	2000 AN ₂₃₅
2000 AU ₂₃₅	15.9	0.15	19991228	354.24377	338.75203	142.06650	0.97670	0.1783638	3.0949731	9	1	21 days	0.36	Williams	2000 AU ₂₃₅
2000 AV ₂₃₅	14.6	0.15	20000117	222.72253	27.97156	225.69320	1.55969	0.0303086	2.9237531	15	1	29 days	0.51	Williams	2000 AV ₂₃₅
2000 AX ₂₃₅	14.7	0.15	20000117	34.27741	321.60478	121.33904	12.56189	0.0798136	2.9886477	29	1	37 days	0.61	Williams	2000 AX ₂₃₅
2000 AG ₂₃₆	15.3	0.15	20000117	1.97725	209.38761	275.82755	11.58477	0.1314178	2.7293493	14	1	36 days	0.59	Williams	2000 AG ₂₃₆
2000 AL ₂₃₆	16.8	0.15	20000117	9.67892	170.22938	300.42865	4.06799	0.1565469	2.3623378	14	1	29 days	0.51	Williams	2000 AL ₂₃₆
2000 AZ ₂₃₆	14.2	0.15	20000117	263.04326	112.88826	150.65856	6.59082	0.1748279	2.2404460	24	1	37 days	0.44	Williams	2000 AZ ₂₃₆
2000 AA ₂₃₇	14.8	0.15	20000117	341.23141	263.97114	268.53718	5.72211	0.1338631	2.2228978	22	1	34 days	0.76	Williams	2000 AA ₂₃₇
2000 AF ₂₃₇	12.9	0.15	19991228	346.68308	348.00375	177.15951	12.76640	0.0990807	2.7534852	26	1	54 days	0.71	Williams	2000 AF ₂₃₇
2000 AH ₂₃₇	13.2	0.15	20000117	90.94018	139.04276	278.35348	5.98654	0.0582477	2.5148825	22	1	34 days	0.81	Williams	2000 AH ₂₃₇
2000 AL ₂₃₇	13.0	0.15	19991228	346.70718	0.02254	163.90184	13.08716	0.0982884	2.5669603	30	1	59 days	0.53	Williams	2000 AL ₂₃₇
2000 AN ₂₃₇	14.2	0.15	20000226	31.10446	342.62845	128.07363	10.30332	0.1774151	2.7552318	26	1	68 days	0.53	Williams	2000 AN ₂₃₇
2000 AQ ₂₃₈	14.9	0.15	20000226	42.89339	14.09316	74.68913	3.63435	0.2024197	2.3817859	30	1	69 days	0.47	Williams	2000 AQ ₂₃₈
2000 AR ₂₃₈	14.0	0.15	20000117	48.58823	120.50082	295.13308	12.47459	0.1449237	3.0977751	26	1	28 days	0.39	Spahr	2000 AR ₂₃₈
2000 AS ₂₃₈	16.5	0.15	20000117	6.96071	163.02882	305.95152	5.12214	0.1103516	2.7588682	9	1	23 days	0.21	Williams	2000 AS ₂₃₈
2000 AZ ₂₃₈	15.8	0.15	20000117	54.52969	293.92943	115.08219	8.04520	0.1306161	2.3186159	18	1	36 days	0.54	Williams	2000 AZ ₂₃₈
2000 AE ₂₃₉	14.9	0.15	20000117	158.60323	20.25206	292.62149	4.26674	0.1756988	2.2073013	15	1	28 days	0.44	Williams	2000 AE ₂₃₉
2000 AG ₂₃₉	15.3	0.15	20000117	0.18072	11.18752	106.69162	2.91042	0.1180120	3.1478796	12	1	25 days	0.29	Spahr	2000 AG ₂₃₉
2000 AK ₂₃₉	15.5	0.15	20000117	76.16266	275.27549	109.50414	8.42297	0.1544434	2.6452482	19	1	26 days	0.68	Spahr	2000 AK ₂₃₉
2000 AR ₂₃₉	13.7	0.15	20000117	341.82394	60.30460	115.51922	17.12728	0.2082172	2.7642585	10	1	30 days	0.67	Nakano	2000 AR ₂₃₉
2000 AS ₂₃₉	13.1	0.15	20000117	330.52838	91.83874	99.98642	12.24833	0.2110091	2.6599393	10	1	30 days	0.61	Nakano	2000 AS ₂₃₉
2000 AA ₂₄₀	15.1	0.15	20000117	33.08222	319.94901	147.30999	5.75287	0.1117914	2.3259505	16	1	36 days	0.49	Williams	2000 AA ₂₄₀
2000 AB ₂₄₀	15.4	0.15	20000117	20.84378	329.58329	145.85844	8.24648	0.2085637	2.3764238	21	1	41 days	0.55	Williams	2000 AB ₂₄₀
2000 AC ₂₄₀	12.9	0.15	20000117	40.19853	298.74727	163.30748	10.08398	0.1229837	2.7377181	15	1	30 days	0.39	Williams	2000 AC ₂₄₀
2000 AD ₂₄₀	14.1	0.15	20000117	320.77423	231.25551	331.30252	7.39948	0.0696814	2.6403182	17	1	33 days	0.71	Spahr	2000 AD ₂₄₀
2000 AB ₂₄₂	14.5	0.15	19991228	292.15531	0.68498	217.40369	10.67474	0.1577768	2.9844322	26	1	56 days	0.59	Spahr	2000 AB ₂₄₂

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2000 AO ₂₄₂	17.1	0.15	20000117	29.06429	327.27463	124.82093	24.11196	0.0799375	1.9380904	20	1	29 days	0.39		Spahr	2000 AO ₂₄₂
2000 AP ₂₄₂	13.5	0.15	20000117	208.02473	162.03821	141.75469	8.04497	0.1888798	2.3716479	12	1	26 days	0.53		Spahr	2000 AP ₂₄₂
2000 AR ₂₄₂	13.1	0.15	20000226	291.16220	126.11439	122.46854	9.57271	0.2345517	2.7594626	31	1	87 days	0.43	M-v 5	Williams	2000 AR ₂₄₂
2000 AU ₂₄₂	13.7	0.15	20000226	348.77615	335.88039	208.22904	9.46012	0.4883319	4.7995998	72	1	40 days	0.53	M-v 5	Williams	2000 AU ₂₄₂
2000 AD ₂₄₃	14.2	0.15	19991228	352.93215	237.28453	266.38121	10.53040	0.1198004	2.5829045	22	1	56 days	0.60		Williams	2000 AD ₂₄₃
2000 AE ₂₄₃	12.6	0.15	19991228	219.55247	66.58430	220.15549	9.13349	0.0792433	2.9876714	26	1	59 days	0.59		Williams	2000 AE ₂₄₃
2000 AK ₂₄₃	13.7	0.15	19991228	12.16863	281.00191	199.75828	10.72184	0.1230407	3.1848760	21	1	56 days	0.50		Spahr	2000 AK ₂₄₃
2000 AO ₂₄₃	15.3	0.15	20000117	346.44374	125.30649	35.34680	4.05744	0.1309026	2.2323270	17	1	35 days	0.47		Williams	2000 AO ₂₄₃
2000 AW ₂₄₃	14.8	0.15	20000117	2.96581	24.20780	122.33213	11.73757	0.1947261	2.5340634	21	1	34 days	0.50		Williams	2000 AW ₂₄₃
2000 AO ₂₄₄	15.5	0.15	20000117	39.84163	357.26448	71.38410	14.50446	0.1474397	2.6490990	16	1	25 days	0.66		Williams	2000 AO ₂₄₄
2000 AT ₂₄₄	13.7	0.15	20000117	38.75383	194.67957	251.20189	8.87604	0.0632725	3.0596049	23	1	34 days	0.44		Williams	2000 AT ₂₄₄
2000 AU ₂₄₄	16.5	0.15	20000117	49.42242	153.16935	269.03161	16.30842	0.1078667	2.0027288	13	1	26 days	0.69		Williams	2000 AU ₂₄₄
2000 AR ₂₄₅	13.5	0.15	20000117	325.14033	299.10761	267.42718	12.37654	0.1313077	2.7110131	13	1	18 days	0.50		Williams	2000 AR ₂₄₅
2000 AT ₂₄₅	14.8	0.15	19991228	43.08479	106.12995	4.27410	22.63951	0.2738076	2.2600180	9	1	5 days	0.33	E	Williams	2000 AT ₂₄₅
2000 AA ₂₄₆	16.8	0.15	20000117	19.27186	341.35657	9.03084	2.72597	0.2364131	2.5118215	20	1	20 days	0.34		Williams	2000 AA ₂₄₆
2000 AB ₂₄₆	17.5	0.15	20000117	18.84052	312.44334	29.65566	3.74840	0.5055544	2.3683513	24	1	19 days	0.30		Williams	2000 AB ₂₄₆
2000 BA	16.7	0.15	20000117	58.60798	271.60193	141.89405	3.61608	0.1465172	2.2173741	12	1	19 days	0.45		Williams	2000 BA
2000 BB	15.5	0.15	20000117	247.23937	124.37692	110.94786	2.20310	0.0745735	2.2791603	22	1	26 days	0.49		Williams	2000 BB
2000 BC	14.4	0.15	20000117	324.04296	66.42912	131.34200	6.21178	0.0997982	2.6175261	30	1	43 days	0.81		Williams	2000 BC
2000 BD	13.7	0.15	20000226	18.69304	356.44189	148.03398	12.51962	0.0839818	2.9677646	22	1	71 days	0.74	M-v 5	Williams	2000 BD
2000 BE	15.5	0.15	20000117	323.98911	228.16288	300.32922	6.87351	0.1349527	2.5606647	26	1	23 days	1.16		Williams	2000 BE
2000 BF	14.5	0.15	20000117	230.66653	320.30963	304.49488	12.77419	0.1266907	2.5304959	38	1	39 days	0.77		Williams	2000 BF
2000 BG	17.7	0.15	20000117	27.37023	354.08279	85.66161	2.45401	0.1468890	2.4206516	8	1	15 days	1.05		Spahr	2000 BG
2000 BH	14.3	0.15	20000226	13.96446	171.84474	285.76908	0.90850	0.0726870	2.6964303	38	1	63 days	0.66	M-v 5 D	Williams	2000 BH
2000 BL	13.7	0.15	20000117	42.37916	149.48695	286.37942	8.08346	0.0212638	3.2170317	16	1	9 days	0.97	E	Spahr	2000 BL
2000 BM	15.7	0.15	20000117	331.53939	226.12628	297.51088	5.23095	0.1880210	3.1466370	11	1	14 days	0.94		Williams	2000 BM
2000 BN	16.6	0.15	20000117	344.32827	208.52340	294.74765	1.74263	0.1598880	2.3410750	26	1	39 days	0.96		Williams	2000 BN
2000 BO	15.9	0.15	20000117	35.83745	303.42638	129.65425	14.32993	0.2563852	2.6717018	28	1	35 days	0.76		Williams	2000 BO
2000 BP	15.9	0.15	20000117	279.47567	287.09965	285.37770	4.31117	0.1203544	2.4821745	13	1	7 days	0.49	E	Spahr	2000 BP
2000 BR	15.6	0.15	20000117	105.18707	76.98767	292.44465	8.72320	0.0327961	2.6926097	11	1	7 days	0.17	E	Spahr	2000 BR
2000 BT	14.5	0.15	20000117	61.07415	136.33341	271.55429	8.84901	0.0837730	3.2336972	15	1	10 days	0.43		Williams	2000 BT
2000 BU	14.9	0.15	20000117	350.76684	334.85354	154.66793	6.63353	0.1307834	3.0414772	29	1	35 days	0.69		Williams	2000 BU
2000 BV	16.0	0.15	20000226	26.52643	79.97400	337.64461	26.81130	0.4117197	2.6466405	28	1	42 days	0.54	M-v 5	Williams	2000 BV
2000 BW	15.6	0.15	20000226	351.30041	214.08535	297.15986	19.53179	0.0273995	1.9202080	24	1	60 days	0.41	M-v 4	Williams	2000 BW
2000 BD ₁	15.1	0.15	20000117	24.18465	286.32229	170.70363	27.10024	0.2665000	1.9684956	28	1	43 days	0.39		Williams	2000 BD ₁
2000 BF ₁	17.1	0.15	20000117	28.19063	146.60117	304.48565	3.85729	0.1427921	2.2644415	23	1	14 days	0.44		Williams	2000 BF ₁
2000 BK ₁	15.2	0.15	20000117	58.55271	293.01986	121.07234	4.20722	0.0604143	2.9558308	15	1	17 days	0.59		Williams	2000 BK ₁
2000 BL ₁	16.6	0.15	20000117	328.93787	231.84155	295.96351	0.61119	0.2333842	3.0093659	9	1	4 days	0.14	E	Williams	2000 BL ₁
2000 BN ₁	18.3	0.15	20000117	208.73340	330.20833	303.38098	16.28488	0.0632701	1.8607660	9	1	3 days	0.21	E	Williams	2000 BN ₁
2000 BO ₁	15.9	0.15	20000117	36.18267	337.47004	84.58909	1.12254	0.2534582	3.0983045	13	1	18 days	0.30		Williams	2000 BO ₁
2000 BR ₁	15.9	0.15	20000117	215.84840	335.76193	301.40476	1.95261	0.1769010	2.3510123	13	1	12 days	0.57		Williams	2000 BR ₁
2000 BC ₂	14.4	0.15	20000117	182.71742	164.66315	162.80830	8.85071	0.0819772	2.5963958	12	1	10 days	0.62	E	Spahr	2000 BC ₂
2000 BE ₂	16.0	0.15	20000117	90.31010	258.88998	119.96190	6.01567	0.1935705	2.2559791	21	1	38 days	0.76		Williams	2000 BE ₂
2000 BG ₂	15.7	0.15	20000117	354.83399	184.18910	313.44379	2.81282	0.1806931	2.2840296	15	1	9 days	0.71		Williams	2000 BG ₂
2000 BJ ₂	13.7	0.15	20000117	311.89193	156.82811	3.09535	26.65856	0.1303788	2.6652802	11	1	5 days	0.49	E	Williams	2000 BJ ₂
2000 BK ₂	16.6	0.15	20000226	356.77108	174.90040	322.02534	6.62986	0.5581044	3.5223937	20	1	49 days	0.39	M-v 4	Williams	2000 BK ₂
2000 BN ₂	14.0	0.15	20000117	33.65715	71.26486	0.76548	21.68357	0.0756392	2.6381503	11	1	3 days	0.37	E	Williams	2000 BN ₂
2000 BP ₂	13.3	0.15	20000117	175.13924	276.40834	79.78470	26.62635	0.0939055	1.8484086	14	1	6 days	0.53	E	Spahr	2000 BP ₂
2000 BV ₂	14.1	0.15	20000117	163.29093	13.51236	302.90227	13.23028	0.1035421	2.6084503	22	1	17 days	0.52		Williams	2000 BV ₂
2000 BW ₂	15.8	0.15	20000117	320.59647	207.50274	333.33176	3.89329	0.1322936	2.4010666	24	1	16 days	1.19		Williams	2000 BW ₂
2000 BX ₂	17.6	0.15	20000117	353.60336	21.89406	110.41060	1.81737	0.2077918	2.1664902	11	1	7 days	0.86	E	Spahr	2000 BX ₂
2000 BZ ₂	14.8	0.15	20000117	173.79729	186.53328	123.45597	12.84788	0.2458176	2.3561276	17	1	7 days	0.91	E	Spahr	2000 BZ ₂
2000 BA ₃	13.6	0.15	20000117	238.70668	145.18894	115.62551	4.15194	0.1507331	3.0510553	18	1	15 days	0.89		Williams	2000 BA ₃

2000 BB ₃	14.5	0.15	20000117	145.45825	199.75785	137.01062	9.57258	0.1855095	2.4261193	35	1	18 days	0.67	Williams	2000 BB ₃
2000 BD ₃	15.6	0.15	20000117	304.31243	180.15692	21.91546	2.48357	0.1397705	2.4208233	25	1	15 days	0.52	Williams	2000 BD ₃
2000 BE ₃	15.6	0.15	20000117	327.06882	75.46580	113.03222	4.02871	0.2681502	3.0560718	24	1	15 days	0.66	Williams	2000 BE ₃
2000 BG ₃	14.0	0.15	20000117	60.64600	303.79283	122.04783	2.38199	0.1224371	3.1332779	32	1	15 days	0.58	Williams	2000 BG ₃
2000 BH ₃	13.0	0.15	20000206	324.31998	73.57705	100.82840	13.68008	0.0628784	2.5402374	8	1	15 days	0.59	Nakano	2000 BH ₃
2000 BJ ₃	11.5	0.15	20000206	251.78306	241.17760	12.05681	9.63608	0.1166307	3.0780207	8	1	15 days	0.65	Nakano	2000 BJ ₃
2000 BK ₃	12.5	0.15	20000206	269.89229	236.09990	347.90560	12.82330	0.0083029	2.6690317	8	1	15 days	0.60	Nakano	2000 BK ₃
2000 BM ₃	14.4	0.15	20000206	0.92509	170.19195	328.63132	8.54071	0.1351051	2.6639331	40	1	15 days	0.41	Nakano	2000 BM ₃
2000 BN ₃	13.8	0.15	20000206	5.01740	59.78615	74.40067	2.57357	0.1366626	3.1169665	27	1	15 days	0.46	Nakano	2000 BN ₃
2000 BO ₃	13.6	0.15	20000206	108.72141	351.60314	20.40029	7.29499	0.1178764	2.2877151	9	1	15 days	0.60	Nakano	2000 BO ₃
2000 BT ₃	13.0	0.15	20000206	267.27882	132.05831	112.45872	8.84766	0.0519854	2.7682536	9	1	15 days	0.33	Nakano	2000 BT ₃
2000 BZ ₃	15.2	0.15	20000117	4.36168	151.70000	334.50437	4.58055	0.1852576	3.1081203	27	1	14 days	0.94	Williams	2000 BZ ₃
2000 BA ₄	13.7	0.15	20000117	124.22601	44.15098	333.06301	10.77856	0.0292564	3.0779456	21	1	14 days	0.77	Williams	2000 BA ₄
2000 BC ₄	16.2	0.15	20000117	79.99592	251.61968	127.91075	4.56367	0.1430109	2.3114930	16	1	8 days	0.71	Williams	2000 BC ₄
2000 BH ₄	11.6	0.15	20000117	292.26236	217.57219	322.84048	16.09174	0.1673918	3.1642482	12	1	14 days	0.30	Williams	2000 BH ₄
2000 BD ₅	11.5	0.15	20000117	205.04705	276.02965	315.48987	26.94398	0.1509234	3.3019300	25	1	7 days	0.74	E Spahr	2000 BD ₅
2000 BE ₅	16.3	0.15	20000117	26.62575	341.10275	103.20797	4.36924	0.1270258	2.2443431	30	1	15 days	0.39	Williams	2000 BE ₅
2000 BF ₅	18.1	0.15	20000117	18.16232	125.05461	329.49430	3.44820	0.1317622	2.1622158	11	1	5 days	0.49	E Spahr	2000 BF ₅
2000 BU ₅	14.9	0.15	20000117	80.57467	332.18423	46.79500	15.43319	0.1726539	2.7124596	11	1	3 days	0.46	E Williams	2000 BU ₅
2000 BV ₅	15.9	0.15	20000117	352.78012	58.96979	68.65198	2.47286	0.1038151	3.0484629	11	1	5 days	0.67	E Spahr	2000 BV ₅
2000 BB ₆	14.5	0.15	20000117	21.08753	61.09192	28.47890	13.66968	0.1539153	2.7504972	13	1	2 days	0.24	E Williams	2000 BB ₆
2000 BF ₆	14.9	0.15	20000117	33.05729	7.34790	65.34672	16.40278	0.1453524	2.6588016	23	1	6 days	0.72	E Williams	2000 BF ₆
2000 BK ₆	16.9	0.15	19991228	52.75674	310.50202	98.23377	24.71108	0.1101428	1.9112997	39	1	52 days	0.56	Williams	2000 BK ₆
2000 BN ₆	16.9	0.15	20000117	35.50262	116.68881	315.06893	22.99396	0.1324360	1.8817923	25	1	13 days	0.45	Williams	2000 BN ₆
2000 BO ₆	16.1	0.15	20000117	40.39416	99.94812	325.07374	19.75041	0.1489111	1.8388967	38	1	37 days	0.43	Spahr	2000 BO ₆
2000 BP ₆	17.3	0.15	20000117	137.86624	229.55265	111.01354	20.99558	0.0509250	1.8512544	39	1	8 days	0.86	Williams	2000 BP ₆
2000 BQ ₆	15.8	0.15	20000117	178.86955	222.86478	80.71992	12.52048	0.1808558	1.7697241	16	1	5 days	0.45	Williams	2000 BQ ₆
2000 BS ₆	13.9	0.15	20000117	243.62593	148.08976	85.90251	3.16084	0.1904784	2.4174445	9	1	6 days	0.55	E Spahr	2000 BS ₆
2000 BT ₆	13.6	0.15	20000117	329.32318	98.74206	45.42172	22.54199	0.0931004	3.1619531	21	1	8 days	0.77	E Spahr	2000 BT ₆
2000 BU ₆	16.4	0.15	20000117	66.15659	297.87772	101.59666	4.64346	0.1163762	2.5159308	10	1	5 days	0.26	E Spahr	2000 BU ₆
2000 BW ₆	15.1	0.15	20000117	32.95461	46.52018	20.75404	14.85935	0.0859935	2.4979375	13	1	6 days	0.39	E Spahr	2000 BW ₆
2000 BX ₆	12.5	0.15	20000117	190.12336	256.94283	24.43927	17.46337	0.1408405	3.1447985	18	1	6 days	0.35	E Spahr	2000 BX ₆
2000 BY ₆	13.6	0.15	20000117	306.86546	171.78470	10.42600	14.90251	0.1436679	2.7517167	18	1	6 days	0.41	E Spahr	2000 BY ₆
2000 BZ ₆	12.5	0.15	20000117	12.54346	114.21237	348.51855	21.61828	0.0365306	3.1686032	24	1	6 days	0.52	E Spahr	2000 BZ ₆
2000 BB ₇	13.5	0.15	20000117	325.96562	125.72124	32.89889	16.84010	0.0398388	3.1164900	11	1	6 days	0.52	E Spahr	2000 BB ₇
2000 BJ ₇	15.0	0.15	20000117	339.54155	161.02079	331.84843	7.11073	0.1686232	2.5607476	13	1	13 days	0.33	Williams	2000 BJ ₇
2000 BL ₇	15.4	0.15	20000117	331.05318	78.59208	82.60757	2.39324	0.1912378	2.9838517	11	1	8 days	0.59	E Spahr	2000 BL ₇
2000 BM ₇	16.0	0.15	20000117	281.14332	98.19562	107.04935	6.76400	0.0617377	2.3886384	26	1	13 days	0.77	Williams	2000 BM ₇
2000 BK ₈	15.7	0.15	20000117	323.30990	108.20425	52.15083	5.61692	0.0717219	2.3904428	15	1	13 days	0.70	Williams	2000 BK ₈
2000 BS ₈	15.0	0.15	20000117	84.55306	0.08728	26.65613	6.72558	0.0877509	2.2578726	18	1	4 days	0.34	E Spahr	2000 BS ₈
2000 BT ₈	16.6	0.15	20000117	3.23181	93.23485	21.85520	5.73219	0.2313248	2.4860042	15	1	25 days	1.12	Spahr	2000 BT ₈
2000 BU ₈	13.1	0.15	20000117	168.93539	271.71080	41.49588	7.81586	0.0051315	3.1871513	13	1	2 days	0.40	E Spahr	2000 BU ₈
2000 BV ₈	14.1	0.15	20000117	240.06353	245.06451	2.59156	9.47154	0.0618015	2.9536647	18	1	7 days	0.36	Spahr	2000 BV ₈
2000 BW ₈	14.7	0.15	20000117	288.36298	110.19080	97.03609	15.14208	0.1125007	2.6693570	25	1	7 days	0.55	E Spahr	2000 BW ₈
2000 BX ₈	14.8	0.15	19991228	42.38244	355.80832	71.24234	12.81451	0.0939044	2.6619716	42	1	57 days	0.54	Williams	2000 BX ₈
2000 BY ₈	15.4	0.15	20000117	35.98725	71.78609	352.14159	13.18669	0.2420729	2.7106777	18	1	4 days	0.54	E Spahr	2000 BY ₈
2000 BZ ₈	11.5	0.15	20000117	172.66824	234.06106	87.59206	17.36089	0.0344094	3.1555582	13	1	2 days	0.29	E Spahr	2000 BZ ₈
2000 BA ₉	13.8	0.15	20000117	137.14093	268.40433	71.94175	14.49486	0.0510187	3.0751386	10	1	2 days	0.70	E Spahr	2000 BA ₉
2000 BB ₉	15.8	0.15	20000117	111.64795	259.10148	97.32552	4.47450	0.0998017	2.5493068	12	1	21 days	0.35	Spahr	2000 BB ₉
2000 BF ₉	15.4	0.15	20000117	81.89820	143.41397	257.84442	0.92303	0.0456316	2.5226920	18	1	8 days	1.19	E Spahr	2000 BF ₉
2000 BH ₉	16.7	0.15	20000117	285.76506	296.83612	268.61617	1.10961	0.0197301	2.6316926	9	1	6 days	0.15	E Spahr	2000 BH ₉
2000 BJ ₉	16.2	0.15	20000117	62.37287	155.61634	258.17115	0.97104	0.1224973	2.9156338	9	1	6 days	0.09	E Spahr	2000 BJ ₉
2000 BK ₉	18.2	0.15	20000117	297.20934	64.73372	143.77829	3.01425	0.1595296	2.4529027	9	1	6 days	0.24	E Spahr	2000 BK ₉

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2000 BL ₉	17.3	0.15	20000117	44.01224	173.45833	266.80115	0.89111	0.0524507	2.5692955	9	1	6 days	0.20	E Spahr	2000 BL ₉
2000 BM ₉	16.9	0.15	20000117	48.82725	223.21750	193.50620	0.63710	0.2165976	2.4413669	9	1	6 days	0.11	E Spahr	2000 BM ₉
2000 BN ₉	14.9	0.15	20000117	66.05673	264.70545	134.50745	14.04858	0.2091191	2.6521679	22	1	16 days	0.77	Williams	2000 BN ₉
2000 BP ₉	15.9	0.15	20000117	87.49815	236.01728	135.22562	13.33837	0.2896930	2.7850144	12	1	13 days	0.24	Williams	2000 BP ₉
2000 BQ ₉	17.0	0.15	20000117	78.55018	255.84660	146.55054	1.89428	0.0728545	2.4441396	9	1	6 days	0.22	E Spahr	2000 BQ ₉
2000 BU ₉	14.7	0.15	20000117	299.76041	77.83106	136.22422	6.11443	0.2046293	3.3166501	33	1	16 days	0.47	Williams	2000 BU ₉
2000 BV ₉	17.0	0.15	20000117	92.06059	248.81691	140.51387	1.87936	0.0642702	2.1615558	13	1	13 days	0.43	Williams	2000 BV ₉
2000 BW ₉	16.5	0.15	20000117	34.62270	304.78698	150.11023	0.85424	0.0203623	2.7608949	12	1	15 days	0.38	Williams	2000 BW ₉
2000 BX ₉	16.4	0.15	20000117	149.22959	198.30253	133.64137	17.01390	0.2144734	2.3108820	9	1	4 days	0.24	E Williams	2000 BX ₉
2000 BY ₉	16.2	0.15	20000117	74.03369	280.82732	133.84555	24.10428	0.0198057	2.6888349	10	1	8 days	0.69	Spahr	2000 BY ₉
2000 BZ ₉	17.0	0.15	20000117	109.34393	69.15114	304.00646	1.16277	0.0685503	2.2154952	12	1	15 days	0.29	Williams	2000 BZ ₉
2000 BA ₁₀	14.9	0.15	20000117	261.74987	120.58884	134.71552	7.11322	0.2317098	3.1124910	9	1	15 days	0.07	Williams	2000 BA ₁₀
2000 BB ₁₀	15.0	0.15	20000117	142.56157	205.70634	135.93149	2.20229	0.1462808	3.2181565	9	1	15 days	0.17	Williams	2000 BB ₁₀
2000 BD ₁₀	16.0	0.15	20000117	61.65100	292.20913	130.92641	1.08602	0.0599279	2.5611282	23	1	19 days	0.48	Williams	2000 BD ₁₀
2000 BE ₁₀	16.9	0.15	20000117	172.49472	2.09394	315.25189	2.25253	0.1595151	2.3197615	12	1	15 days	0.20	Williams	2000 BE ₁₀
2000 BF ₁₀	15.5	0.15	20000117	100.75461	52.89024	315.26251	6.77964	0.2191250	2.3817811	22	1	16 days	0.53	Williams	2000 BF ₁₀
2000 BG ₁₀	15.6	0.15	20000117	254.81118	125.34389	133.17568	8.68923	0.2146447	2.3369612	9	1	16 days	0.33	Williams	2000 BG ₁₀
2000 BH ₁₀	16.4	0.15	20000117	89.35112	258.46075	132.74659	4.43827	0.1041610	2.8012486	9	1	15 days	0.19	Williams	2000 BH ₁₀
2000 BJ ₁₀	15.4	0.15	20000117	189.35211	349.61547	317.69834	3.48927	0.2284287	2.5841251	12	1	15 days	0.14	Williams	2000 BJ ₁₀
2000 BK ₁₀	15.5	0.15	20000117	68.32090	283.78260	132.21220	5.80344	0.0760187	2.9252785	16	1	15 days	0.27	Williams	2000 BK ₁₀
2000 BQ ₁₀	18.0	0.15	20000117	344.84237	31.05362	115.32548	2.83254	0.2167541	2.4942808	15	1	6 days	0.61	E Spahr	2000 BQ ₁₀
2000 BR ₁₀	15.7	0.15	20000117	13.78474	353.32900	113.48893	2.68982	0.0948184	2.5334871	27	1	14 days	0.40	Williams	2000 BR ₁₀
2000 BS ₁₀	15.5	0.15	20000117	94.39530	245.24702	120.20989	6.77851	0.2261981	2.2625979	25	1	14 days	0.53	Williams	2000 BS ₁₀
2000 BT ₁₀	15.2	0.15	20000117	278.41016	110.91988	110.11204	2.99509	0.1244220	3.0690899	9	1	2 days	0.29	E Williams	2000 BT ₁₀
2000 BV ₁₀	15.1	0.15	20000117	232.88509	345.01781	299.90169	1.86997	0.1038038	2.4096983	14	1	8 days	0.62	E Spahr	2000 BV ₁₀
2000 BX ₁₀	14.8	0.15	20000117	47.98513	294.72565	136.18731	7.21627	0.0720552	2.3965726	30	1	8 days	0.60	Williams	2000 BX ₁₀
2000 BZ ₁₀	15.3	0.15	20000206	91.54387	330.73118	46.35433	6.02140	0.1449860	2.2412800	18	1	10 days	0.38	Nakano	2000 BZ ₁₀
2000 BR ₁₁	16.3	0.15	20000117	352.16273	189.72872	293.85153	7.19483	0.1964076	2.7383880	13	1	30 days	0.33	Spahr	2000 BR ₁₁
2000 BW ₁₁	16.9	0.15	20000117	51.91100	110.12797	301.37002	8.03867	0.1560566	2.8164175	9	1	16 days	0.15	Williams	2000 BW ₁₁
2000 BY ₁₁	17.3	0.15	20000117	30.53282	329.79173	111.46980	2.04010	0.1596033	2.3827486	13	1	6 days	0.57	E Spahr	2000 BY ₁₁
2000 BE ₁₂	16.9	0.15	20000117	40.08144	313.62809	136.54361	7.24933	0.0453227	2.8706055	9	1	10 days	0.20	E Spahr	2000 BE ₁₂
2000 BG ₁₂	14.4	0.15	20000117	90.80899	258.94925	137.33744	7.22095	0.0694491	3.1400566	17	1	14 days	0.57	Williams	2000 BG ₁₂
2000 BH ₁₂	16.0	0.15	20000206	259.30388	119.65499	136.61735	12.42204	0.1601629	2.6687758	15	1	17 days	0.20	Williams	2000 BH ₁₂
2000 BJ ₁₂	15.5	0.15	20000117	249.40095	130.91492	132.13651	2.66746	0.1844128	2.4685352	12	1	14 days	0.42	Williams	2000 BJ ₁₂
2000 BM ₁₂	16.2	0.15	20000117	253.05471	279.84326	327.09977	2.99333	0.0390834	2.8998660	9	1	10 days	0.27	E Spahr	2000 BM ₁₂
2000 BO ₁₂	18.3	0.15	20000117	20.73110	118.96451	341.08053	1.09257	0.1990461	2.3435057	9	1	4 days	0.23	E Spahr	2000 BO ₁₂
2000 BP ₁₂	14.4	0.15	20000117	300.36480	221.61584	352.65980	1.13718	0.1680226	3.1937145	20	1	14 days	0.47	Williams	2000 BP ₁₂
2000 BU ₁₂	15.1	0.15	20000117	48.67681	305.80828	133.24547	8.31831	0.0878590	2.7310551	15	1	14 days	0.45	Williams	2000 BU ₁₂
2000 BB ₁₃	16.0	0.15	20000206	1.46070	172.42100	326.42430	7.02081	0.1233419	2.6037299	16	1	18 days	0.35	Williams	2000 BB ₁₃
2000 BE ₁₃	14.5	0.15	20000117	307.18135	220.40633	339.84139	2.73121	0.1272101	2.4092360	19	1	14 days	0.66	Williams	2000 BE ₁₃
2000 BF ₁₃	19.3	0.15	20000117	22.97742	319.06676	123.84600	27.38643	0.2085260	1.8889152	13	1	24 days	0.42	Spahr	2000 BF ₁₃
2000 BG ₁₃	19.0	0.15	20000117	12.15776	171.99394	294.27873	1.18840	0.2024870	2.1206226	13	1	5 days	0.72	E Williams	2000 BG ₁₃
2000 BJ ₁₃	17.7	0.15	20000117	67.78943	270.58194	134.68810	2.64350	0.1396867	2.2592467	13	1	10 days	0.80	Williams	2000 BJ ₁₃
2000 BK ₁₃	16.8	0.15	20000117	10.11226	159.81315	314.75984	1.74019	0.1705850	2.6440057	9	1	12 days	0.28	Williams	2000 BK ₁₃
2000 BL ₁₃	16.1	0.15	20000206	109.40430	53.38412	314.88825	4.14612	0.1778300	2.7107073	12	1	16 days	0.28	Williams	2000 BL ₁₃
2000 BN ₁₃	16.5	0.15	20000117	245.80678	300.66701	314.18547	7.67937	0.1724004	2.4054369	15	1	4 days	0.78	E Spahr	2000 BN ₁₃
2000 BO ₁₃	17.2	0.15	20000117	341.32256	195.05623	318.19619	3.89284	0.2422081	2.4136506	27	1	13 days	0.33	Williams	2000 BO ₁₃
2000 BP ₁₃	17.9	0.15	20000117	346.41093	47.87246	95.33446	1.83341	0.1742748	2.8189018	9	1	3 days	0.19	E Spahr	2000 BP ₁₃
2000 BT ₁₃	15.0	0.15	20000117	258.62372	310.62553	296.73196	1.20803	0.1575809	2.7050434	19	1	13 days	0.55	Williams	2000 BT ₁₃
2000 BV ₁₃	17.1	0.15	20000206	331.66106	206.50582	321.02728	5.66349	0.0443416	2.3462321	12	1	16 days	0.20	Williams	2000 BV ₁₃
2000 BW ₁₃	15.9	0.15	20000117	306.24153	238.61822	318.46651	12.41685	0.1191605	2.5693828	23	1	36 days	0.56	Williams	2000 BW ₁₃
2000 BY ₁₃	14.2	0.15	20000117	53.92273	315.00673	101.92968	11.14127	0.1009688	2.9713645	27	1	18 days	0.74	Williams	2000 BY ₁₃
2000 BA ₁₄	15.7	0.15	20000117	321.40616	148.04674	35.08360	1.20341	0.1588588	2.3758828	36	1	14 days	0.48	Williams	2000 BA ₁₄

2000 BB ₁₄	15.9	0.15	20000117	4.16806	163.16138	321.69110	9.96095	0.1654900	2.4383167	33	1	16 days	0.73	Williams	2000 BB ₁₄
2000 BD ₁₄	14.4	0.15	20000117	238.33861	298.86503	331.64573	7.36277	0.1682837	2.5290159	26	1	14 days	0.51	Williams	2000 BD ₁₄
2000 BE ₁₄	13.7	0.15	20000206	297.76395	92.25312	129.49348	14.33058	0.1131072	2.5730921	26	1	14 days	0.68	Nakano	2000 BE ₁₄
2000 BF ₁₄	15.4	0.15	20000117	49.09418	84.82750	344.40618	2.72741	0.1462952	2.5247081	24	1	14 days	1.06	Williams	2000 BF ₁₄
2000 BH ₁₄	14.8	0.15	20000117	200.00667	227.28333	78.08989	7.40058	0.1118081	2.3491743	13	1	9 days	0.47	Williams	2000 BH ₁₄
2000 BK ₁₄	15.7	0.15	20000206	32.16933	346.30802	101.92065	8.71852	0.2973282	2.7817764	14	1	12 days	0.65	Nakano	2000 BK ₁₄
2000 BL ₁₄	13.7	0.15	20000206	49.83383	359.75056	85.14955	6.95051	0.1146002	2.3897406	6	1	12 days	0.44	Nakano	2000 BL ₁₄
2000 BN ₁₄	14.5	0.15	20000117	78.12287	290.45125	124.18221	11.87156	0.0905648	2.5362035	18	1	14 days	0.55	Williams	2000 BN ₁₄
2000 BQ ₁₄	11.5	0.15	20000206	11.86101	60.44439	77.79893	17.27933	0.2704033	3.0942472	6	1	12 days	0.11	Nakano	2000 BQ ₁₄
2000 BS ₁₄	14.0	0.15	20000206	52.89572	72.97760	350.58906	11.86079	0.2894400	2.7026115	22	1	14 days	0.54	Nakano	2000 BS ₁₄
2000 BT ₁₄	12.6	0.15	20000206	321.67351	141.27615	48.59511	5.21450	0.0236873	2.7028958	16	1	14 days	0.63	Nakano	2000 BT ₁₄
2000 BV ₁₄	11.6	0.15	20000206	312.26620	141.00565	52.02499	10.93992	0.0282829	3.1498354	6	1	9 days	0.56	Nakano	2000 BV ₁₄
2000 BW ₁₄	12.1	0.15	20000206	89.48000	314.90558	87.21971	10.25567	0.1245675	3.0500892	6	1	9 days	0.40	Nakano	2000 BW ₁₄
2000 BX ₁₄	12.5	0.15	20000206	26.88730	47.31046	60.67329	9.45327	0.1307004	2.6310464	6	1	9 days	0.35	Nakano	2000 BX ₁₄
2000 BZ ₁₄	11.8	0.15	20000206	247.82006	238.46800	31.40220	11.05592	0.1131332	3.3860108	6	1	9 days	0.35	Nakano	2000 BZ ₁₄
2000 BA ₁₅	13.9	0.15	20000206	30.92781	44.30524	53.02217	7.01326	0.2056680	2.3584886	6	1	9 days	0.32	Nakano	2000 BA ₁₅
2000 BB ₁₅	12.9	0.15	20000206	341.01005	127.68950	43.72034	8.52103	0.1881304	2.5999201	6	1	9 days	0.13	Nakano	2000 BB ₁₅
2000 BC ₁₅	14.1	0.15	20000206	27.08062	108.06635	358.13840	15.76596	0.1496124	2.6234865	6	1	9 days	0.34	Nakano	2000 BC ₁₅
2000 BD ₁₅	14.0	0.15	20000206	2.41031	75.03073	66.80054	7.54287	0.0955296	2.3344129	6	1	9 days	0.48	Nakano	2000 BD ₁₅
2000 BE ₁₅	11.9	0.15	20000206	314.64981	106.76113	90.42571	13.40298	0.0647361	2.9845881	6	1	9 days	0.42	Nakano	2000 BE ₁₅
2000 BF ₁₅	12.3	0.15	20000206	294.79932	173.23399	46.29756	10.86044	0.0790393	2.9927851	6	1	9 days	0.12	Nakano	2000 BF ₁₅
2000 BH ₁₅	13.8	0.15	20000206	18.17225	30.64864	91.90099	12.20227	0.1207326	2.6938238	6	1	9 days	0.45	Nakano	2000 BH ₁₅
2000 BK ₁₅	15.8	0.15	20000117	29.16836	61.14517	14.76478	5.55726	0.2193519	2.6210220	9	1	5 days	0.41	Spahr	2000 BK ₁₅
2000 BL ₁₅	17.0	0.15	20000117	335.12155	47.36005	111.00264	9.30963	0.1293597	2.3955691	14	1	12 days	0.32	Williams	2000 BL ₁₅
2000 BN ₁₅	13.5	0.15	20000117	281.13754	164.85299	53.58281	17.82933	0.2050517	3.2096425	11	1	6 days	0.47	E Spahr	2000 BN ₁₅
2000 BO ₁₅	12.7	0.15	20000117	102.89893	303.29903	67.73251	15.67263	0.0692263	3.0004409	12	1	6 days	0.26	E Spahr	2000 BO ₁₅
2000 BU ₁₅	15.7	0.15	20000117	4.31909	83.14027	30.32834	5.00693	0.0723709	2.1910535	17	1	13 days	0.48	Williams	2000 BU ₁₅
2000 BB ₁₆	14.8	0.15	20000117	135.04003	304.95146	31.81038	7.50065	0.1367070	2.3810655	17	1	5 days	0.50	E Williams	2000 BB ₁₆
2000 BH ₁₆	14.0	0.15	20000117	4.78629	103.49334	323.34014	6.84460	0.3430473	3.5569083	16	1	4 days	0.85	E Spahr	2000 BH ₁₆
2000 BN ₁₆	16.1	0.15	20000117	76.21434	283.64382	100.40138	4.66219	0.1665088	2.4156957	18	1	4 days	0.67	E Williams	2000 BN ₁₆
2000 BS ₁₆	14.3	0.15	20000117	294.03171	86.27585	115.32421	13.14650	0.2101920	2.6576548	15	1	12 days	0.48	Williams	2000 BS ₁₆
2000 BE ₁₇	15.3	0.15	20000117	49.49788	304.22610	101.70112	2.77764	0.2007002	2.4135701	18	1	14 days	0.46	Williams	2000 BE ₁₇
2000 BF ₁₇	14.4	0.15	20000117	62.25460	66.58124	338.46335	4.75085	0.0731371	2.7877091	12	1	12 days	0.51	Williams	2000 BF ₁₇
2000 BL ₁₇	17.0	0.15	20000117	355.98737	55.26511	67.30653	3.44577	0.1256336	2.3312991	10	1	8 days	0.42	E Spahr	2000 BL ₁₇
2000 BN ₁₇	14.7	0.15	20000117	78.31775	291.50080	84.33830	5.55416	0.2057024	2.5740304	12	1	12 days	0.49	Williams	2000 BN ₁₇
2000 BR ₁₇	14.5	0.15	20000117	348.29218	65.80614	64.16130	6.15627	0.0213490	2.7658261	10	1	12 days	0.33	Williams	2000 BR ₁₇
2000 BU ₁₇	15.9	0.15	20000117	29.67192	112.81066	327.80674	5.42053	0.1298199	2.2880561	28	1	40 days	0.71	Williams	2000 BU ₁₇
2000 BV ₁₇	16.5	0.15	20000117	34.94922	118.95126	315.42047	4.66149	0.1206638	2.3862154	14	1	12 days	0.58	Williams	2000 BV ₁₇
2000 BW ₁₇	14.4	0.15	20000206	258.62693	155.22513	82.18137	3.24539	0.1150951	2.8197369	22	1	13 days	0.46	Williams	2000 BW ₁₇
2000 BX ₁₇	15.6	0.15	20000206	84.79951	266.51216	112.52832	11.13581	0.1780241	2.7333498	20	1	13 days	0.59	Williams	2000 BX ₁₇
2000 BY ₁₇	14.7	0.15	20000117	276.60934	272.38148	319.01358	6.27988	0.2478115	2.3535940	30	1	38 days	0.37	Williams	2000 BY ₁₇
2000 BA ₁₈	17.2	0.15	20000117	334.60000	114.42479	41.70635	3.30139	0.1958403	2.3575199	10	1	8 days	0.58	E Spahr	2000 BA ₁₈
2000 BB ₁₈	14.6	0.15	20000226	70.34411	312.82622	81.10030	6.31459	0.2198160	2.5532939	20	1	87 days	0.42	M-v 5 Williams	2000 BB ₁₈
2000 BG ₁₈	15.6	0.15	20000117	272.04210	216.78107	356.69573	5.58408	0.0574003	2.3880456	16	1	12 days	0.39	Williams	2000 BG ₁₈
2000 BN ₁₈	14.1	0.15	20000117	91.63312	283.88709	96.65391	3.62235	0.0740641	2.8247509	9	1	12 days	0.45	Williams	2000 BN ₁₈
2000 BP ₁₈	15.9	0.15	20000117	334.93747	180.22402	332.17736	2.44168	0.1241353	2.3506242	9	1	12 days	0.51	Williams	2000 BP ₁₈
2000 BR ₁₈	14.8	0.15	20000117	324.00338	68.56588	110.65336	8.59095	0.2530874	3.2690721	9	1	12 days	0.49	Williams	2000 BR ₁₈
2000 BU ₁₈	14.9	0.15	20000117	341.74744	143.83909	356.42640	1.88889	0.1559733	2.9667215	15	1	12 days	0.53	Williams	2000 BU ₁₈
2000 BW ₁₈	15.9	0.15	20000117	99.06649	41.96615	335.68462	18.66377	0.0914633	1.9309629	20	1	34 days	0.56	Spahr	2000 BW ₁₈
2000 BZ ₁₈	16.1	0.15	20000117	310.63151	211.21556	356.96567	5.48382	0.3029889	2.2131818	40	1	12 days	0.46	Williams	2000 BZ ₁₈
2000 BA ₁₉	14.3	0.15	20000117	172.60566	314.37745	283.90906	21.10971	0.0013506	1.7413370	12	1	3 days	0.74	E Williams	2000 BA ₁₉
2000 BB ₁₉	15.0	0.15	20000117	158.54853	343.61628	352.33184	21.04120	0.0894278	1.9813267	15	1	3 days	0.40	Spahr	2000 BB ₁₉
2000 BC ₁₉	14.2	0.15	20000117	72.05491	258.63884	134.86036	2.91576	0.0628175	2.7422237	21	1	13 days	0.38	Williams	2000 BC ₁₉

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2000 BE ₁₉	17.8	0.15	20000117	17.30949	326.18863	71.76182	10.09600	0.5590852	1.8681805	94	1	14 days	0.43		Marsden	2000 BE ₁₉
2000 BG ₁₉	17.7	0.15	20000117	331.67456	79.13959	148.00208	12.56418	0.5551237	2.6646201	28	1	11 days	0.34		Williams	2000 BG ₁₉
2000 BH ₁₉	19.4	0.15	20000226	9.19590	134.55014	349.52752	1.31815	0.4556402	2.0262593	159	1	93 days	0.42	M-v 4	Williams	2000 BH ₁₉
2000 BJ ₁₉	16.2	0.15	20000117	198.13569	175.42874	131.29793	31.32710	0.7654276	1.2924896	89	1	12 days	0.44		Williams	2000 BJ ₁₉
2000 BK ₁₉	22.2	0.15	20000117	351.65871	200.66098	310.74002	14.76127	0.5755618	2.4115776	72	1	11 days	1.00		Williams	2000 BK ₁₉
2000 BL ₁₉	19.6	0.15	20000206	348.79967	241.16942	314.88656	15.09876	0.6374022	2.7113709	44	1	11 days	0.41		Nakano	2000 BL ₁₉
2000 BM ₁₉	18.2	0.15	20000206	145.32001	247.27994	70.70433	6.92529	0.3596637	0.7409360	68	1	13 days	0.69		Williams	2000 BM ₁₉
2000 BO ₁₉	24.8	0.15	20000117	300.44637	272.33943	310.24258	16.62709	0.3791816	1.1932421	13	1	4 days	1.81		Spahr	2000 BO ₁₉
2000 BQ ₁₉	16.7	0.15	20000117	254.41144	303.35058	299.19601	4.46959	0.0830387	2.2300361	16	1	8 days	0.71	E	Spahr	2000 BQ ₁₉
2000 BR ₁₉	16.9	0.15	20000117	35.45929	159.58088	278.12137	1.44872	0.1776824	2.4830251	9	1	8 days	0.49	E	Spahr	2000 BR ₁₉
2000 BT ₁₉	16.3	0.15	20000117	108.25318	56.50030	306.67055	7.22130	0.1770618	2.3400581	10	1	8 days	0.52	E	Spahr	2000 BT ₁₉
2000 BW ₁₉	16.2	0.15	20000117	248.16622	116.42934	144.63651	3.31622	0.2034389	2.3967563	10	1	7 days	0.33	E	Spahr	2000 BW ₁₉
2000 BX ₁₉	16.4	0.15	20000117	330.05951	20.64305	148.24126	2.03615	0.1364093	3.0626208	9	1	15 days	0.11		Williams	2000 BX ₁₉
2000 BY ₁₉	16.3	0.15	20000117	53.89050	261.54394	156.31678	1.52719	0.1782247	3.1634567	9	1	15 days	0.25		Williams	2000 BY ₁₉
2000 BB ₂₀	17.8	0.15	20000117	50.54114	252.38918	172.06480	0.77408	0.1278476	2.0916721	10	1	8 days	0.43	E	Spahr	2000 BB ₂₀
2000 BC ₂₀	17.8	0.15	20000117	288.94380	271.43906	305.00351	4.51631	0.1414192	2.4006580	9	1	12 days	0.20		Spahr	2000 BC ₂₀
2000 BD ₂₀	16.5	0.15	20000117	231.86709	131.04044	135.73719	7.69621	0.1080424	2.1990675	17	1	16 days	0.52		Williams	2000 BD ₂₀
2000 BE ₂₀	17.0	0.15	20000117	241.67781	306.88998	308.45076	3.10202	0.0582437	2.7937862	12	1	15 days	0.30		Williams	2000 BE ₂₀
2000 BF ₂₀	16.5	0.15	20000117	96.35915	69.95790	309.92934	7.01879	0.1234157	2.2803930	14	1	12 days	0.39		Williams	2000 BF ₂₀
2000 BG ₂₀	15.4	0.15	20000117	62.23004	263.94135	143.92084	1.94683	0.1975359	3.1816265	12	1	16 days	0.19		Williams	2000 BG ₂₀
2000 BH ₂₀	17.0	0.15	20000117	50.15899	116.72534	310.98873	4.09251	0.1266312	2.5274290	9	1	12 days	0.25		Spahr	2000 BH ₂₀
2000 BJ ₂₀	16.2	0.15	20000117	24.16240	150.40912	312.73631	5.76669	0.0485210	2.3225788	39	1	38 days	0.58		Williams	2000 BJ ₂₀
2000 BK ₂₀	19.1	0.15	20000117	25.16128	319.79540	133.09872	1.67978	0.1774282	2.3990378	9	1	15 days	0.16		Williams	2000 BK ₂₀
2000 BM ₂₀	16.5	0.15	20000117	56.26706	103.35489	313.02274	4.51370	0.1804795	3.0324935	9	1	12 days	0.16		Spahr	2000 BM ₂₀
2000 BN ₂₀	16.6	0.15	20000117	54.64551	295.49385	134.44769	3.61987	0.0769626	3.0482904	9	1	15 days	0.22		Williams	2000 BN ₂₀
2000 BP ₂₀	14.5	0.15	20000117	86.21763	255.01892	135.02899	5.69972	0.1465066	3.1767265	12	1	19 days	0.13		Williams	2000 BP ₂₀
2000 BT ₂₀	15.7	0.15	20000117	57.00212	277.78355	124.32990	14.07106	0.2223115	2.7458363	12	1	28 days	0.30		Spahr	2000 BT ₂₀
2000 BU ₂₀	16.2	0.15	20000117	289.14006	111.27651	100.88018	1.28454	0.1603171	2.2681962	13	1	14 days	0.31		Williams	2000 BU ₂₀
2000 BV ₂₀	15.1	0.15	20000117	296.51081	83.01576	124.48405	16.12604	0.1747637	3.2841090	10	1	8 days	0.46	E	Spahr	2000 BV ₂₀
2000 BX ₂₀	17.0	0.15	20000117	57.29696	284.61216	134.51818	6.27746	0.1551768	2.3162316	9	1	6 days	0.44	E	Spahr	2000 BX ₂₀
2000 BE ₂₁	17.0	0.15	20000117	38.61661	130.62221	302.76064	3.24669	0.1709507	2.1577931	15	1	5 days	0.85	E	Williams	2000 BE ₂₁
2000 BF ₂₁	15.0	0.15	20000117	125.93801	42.89797	310.09210	13.82497	0.1286998	2.5542725	16	1	8 days	0.31		Williams	2000 BF ₂₁
2000 BJ ₂₁	17.9	0.15	20000117	343.05049	204.83707	303.10383	2.76738	0.1253289	2.0715769	11	1	5 days	0.33	E	Spahr	2000 BJ ₂₁
2000 BK ₂₁	14.5	0.15	20000117	120.82479	57.24827	308.92485	9.45839	0.0349625	2.9539906	37	1	9 days	0.59		Williams	2000 BK ₂₁
2000 BM ₂₁	16.7	0.15	20000117	334.69956	211.70121	313.05512	16.31251	0.1537475	3.0893645	9	1	9 days	0.24	E	Spahr	2000 BM ₂₁
2000 BN ₂₁	15.8	0.15	20000117	229.01954	319.37076	313.12715	7.86958	0.1241583	2.8005620	12	1	12 days	0.12		Williams	2000 BN ₂₁
2000 BO ₂₁	16.6	0.15	20000117	350.45298	187.29283	312.27441	8.43033	0.0360082	2.2936923	23	1	9 days	0.42		Williams	2000 BO ₂₁
2000 BP ₂₁	15.6	0.15	20000117	144.97180	29.37120	313.02191	7.92125	0.0847142	3.1913075	9	1	9 days	0.20	E	Spahr	2000 BP ₂₁
2000 BQ ₂₁	11.5	0.15	20000117	62.09822	113.91202	314.01354	8.60196	0.0389758	5.1802472	36	1	36 days	0.66		Williams	2000 BQ ₂₁
2000 BR ₂₁	15.9	0.15	20000117	196.71831	343.47163	313.96136	18.73221	0.0599313	3.1043659	9	1	9 days	0.16	E	Spahr	2000 BR ₂₁
2000 BS ₂₁	16.6	0.15	20000117	319.53172	227.77002	312.96045	11.10313	0.1097991	2.9952021	9	1	9 days	0.15	E	Spahr	2000 BS ₂₁
2000 BU ₂₁	14.8	0.15	20000117	259.12725	115.38955	134.52544	2.63179	0.1501457	3.0233822	9	1	12 days	0.41		Williams	2000 BU ₂₁
2000 BV ₂₁	16.1	0.15	20000206	20.05712	152.89779	316.20170	7.58076	0.1561760	2.7368336	12	1	16 days	0.26		Williams	2000 BV ₂₁
2000 BW ₂₁	17.0	0.15	20000117	240.61006	297.79405	319.07885	5.02123	0.0608005	2.4178243	9	1	12 days	0.25		Williams	2000 BW ₂₁
2000 BX ₂₁	17.0	0.15	20000117	356.20679	168.09223	329.41749	1.79402	0.1458745	3.2223443	9	1	12 days	0.18		Williams	2000 BX ₂₁
2000 BY ₂₁	16.4	0.15	20000117	107.11097	52.27286	319.17629	5.25275	0.1287968	2.3575491	9	1	12 days	0.22		Williams	2000 BY ₂₁
2000 BZ ₂₁	16.3	0.15	20000117	82.01489	273.37937	119.67512	1.58519	0.1639426	3.1653307	9	1	12 days	0.15		Williams	2000 BZ ₂₁
2000 BA ₂₂	18.4	0.15	20000117	31.66011	116.29987	319.13702	4.55423	0.2119731	2.5328810	9	1	3 days	0.59	E	Williams	2000 BA ₂₂
2000 BD ₂₂	15.1	0.15	20000206	163.14259	192.12941	135.58698	6.13294	0.2621076	2.3521596	15	1	15 days	0.47		Williams	2000 BD ₂₂
2000 BE ₂₂	16.4	0.15	20000206	6.78324	173.50552	314.67470	1.54573	0.1447897	2.4218947	22	1	15 days	0.37		Williams	2000 BE ₂₂
2000 BH ₂₂	16.1	0.15	20000117	83.36655	66.45998	325.78363	4.67369	0.1706553	2.5537490	9	1	8 days	0.22	E	Spahr	2000 BH ₂₂
2000 BO ₂₂	13.8	0.15	20000117	178.35701	23.06245	276.52047	11.17034	0.0531129	3.4006914	12	1	9 days	0.72	E	Williams	2000 BO ₂₂
2000 BP ₂₂	15.9	0.15	20000117	321.59721	57.40794	131.72736	6.33479	0.2204135	2.5982998	19	1	16 days	0.64		Williams	2000 BP ₂₂

2000 BS ₂₂	15.6	0.15	20000117	334.15202	174.38701	351.78186	4.21419	0.1577242	2.5656595	10	1	14 days	0.52	Williams	2000 BS ₂₂
2000 BT ₂₂	14.2	0.15	20000117	332.26036	45.40872	128.33323	1.84393	0.1198976	3.2005465	24	1	14 days	0.74	Williams	2000 BT ₂₂
2000 BV ₂₂	16.3	0.15	20000117	244.55548	104.74121	143.71508	7.53901	0.0320550	2.2581525	16	1	5 days	0.55	E Williams	2000 BV ₂₂
2000 BZ ₂₂	14.7	0.15	20000117	144.31005	200.57735	140.70427	12.23039	0.1132472	2.6941450	28	1	12 days	0.38	Williams	2000 BZ ₂₂
2000 BA ₂₃	15.6	0.15	20000117	354.83422	188.33559	309.98531	10.91325	0.1388220	3.0331052	21	1	7 days	0.65	Williams	2000 BA ₂₃
2000 BB ₂₃	14.3	0.15	20000117	226.39651	328.77487	304.64903	9.70800	0.0770295	2.9651157	30	1	37 days	0.49	Williams	2000 BB ₂₃
2000 BC ₂₃	13.9	0.15	20000117	258.05764	62.00717	196.73954	1.28130	0.2138287	3.2758155	18	1	5 days	0.64	E Williams	2000 BC ₂₃
2000 BD ₂₃	14.2	0.15	20000117	217.54868	334.10376	313.42195	13.20693	0.1782071	2.9817769	18	1	5 days	0.43	E Williams	2000 BD ₂₃
2000 BH ₂₃	16.2	0.15	20000117	49.33450	143.88625	271.44596	2.63317	0.2504059	2.5384957	33	1	32 days	0.60	Williams	2000 BH ₂₃
2000 BK ₂₃	15.0	0.15	20000117	252.03396	287.86708	332.84361	5.95239	0.1931775	2.3008528	32	1	12 days	0.62	Williams	2000 BK ₂₃
2000 BO ₂₄	15.3	0.15	20000117	4.94883	94.57794	25.72741	11.97261	0.1294253	2.4727707	14	1	13 days	0.34	Williams	2000 BO ₂₄
2000 BR ₂₄	14.6	0.15	20000117	11.78206	86.57615	26.59104	10.16323	0.1945655	3.0939162	18	1	8 days	0.57	Williams	2000 BR ₂₄
2000 BS ₂₄	14.3	0.15	20000117	155.47022	297.27815	33.15729	10.01169	0.1289896	2.2476069	28	1	33 days	0.48	Spahr	2000 BS ₂₄
2000 BX ₂₄	15.8	0.15	20000117	49.06642	76.63561	358.06243	18.98008	0.1046852	1.9461632	25	1	10 days	0.34	Spahr	2000 BX ₂₄
2000 BG ₂₅	15.3	0.15	20000206	224.35931	318.42174	310.60789	6.92415	0.1038606	2.2760935	20	1	17 days	0.40	Williams	2000 BG ₂₅
2000 BM ₂₅	15.0	0.15	20000117	272.29778	97.68706	125.29632	7.49345	0.1217526	2.2588583	30	1	45 days	0.37	Williams	2000 BM ₂₅
2000 BO ₂₅	15.8	0.15	20000117	3.39502	169.96353	306.40492	6.11916	0.1849396	2.6680786	10	1	9 days	0.19	Williams	2000 BO ₂₅
2000 BP ₂₅	14.7	0.15	20000117	77.47617	278.42367	122.89778	7.28748	0.0314021	2.7866863	11	1	12 days	0.69	Williams	2000 BP ₂₅
2000 BQ ₂₅	13.9	0.15	20000117	106.42917	45.25156	311.67202	11.84335	0.1886263	2.9862070	23	1	41 days	0.58	Williams	2000 BQ ₂₅
2000 BS ₂₅	15.3	0.15	20000117	351.15202	185.10346	309.44078	6.93879	0.1518341	2.7008365	10	1	9 days	0.43	Williams	2000 BS ₂₅
2000 BT ₂₅	16.1	0.15	20000117	317.04702	223.40087	311.27293	6.00318	0.1067009	2.3872200	16	1	38 days	0.54	Williams	2000 BT ₂₅
2000 BU ₂₅	15.4	0.15	20000117	40.06569	308.19589	132.89190	4.38164	0.0351606	2.7592385	17	1	16 days	0.58	Williams	2000 BU ₂₅
2000 BV ₂₅	14.1	0.15	20000117	4.10690	21.94666	97.00181	3.34277	0.0688343	3.1385262	14	1	12 days	0.39	Williams	2000 BV ₂₅
2000 BW ₂₅	14.4	0.15	20000117	280.68867	99.50710	116.65855	8.06954	0.1112262	2.8370062	11	1	12 days	0.50	Williams	2000 BW ₂₅
2000 BY ₂₅	14.6	0.15	20000117	303.63633	71.72354	112.88168	3.17859	0.0883606	2.6162100	23	1	14 days	0.49	Williams	2000 BY ₂₅
2000 BA ₂₆	15.3	0.15	20000117	42.86106	105.45250	322.87954	7.84426	0.1837404	2.7102936	13	1	12 days	0.52	Williams	2000 BA ₂₆
2000 BB ₂₆	14.1	0.15	20000117	226.71786	306.66126	321.76927	7.03721	0.0626111	2.7917158	28	1	12 days	0.70	Williams	2000 BB ₂₆
2000 BE ₂₆	15.3	0.15	20000117	321.25797	185.62593	350.10272	1.78371	0.0861914	2.5435977	13	1	12 days	0.55	Williams	2000 BE ₂₆
2000 BF ₂₆	15.1	0.15	20000117	342.64650	35.31931	113.75658	9.48854	0.0792373	2.7311502	13	1	12 days	0.45	Williams	2000 BF ₂₆
2000 BH ₂₆	16.2	0.15	20000117	343.02113	176.72902	337.61266	5.24164	0.2305736	2.5847809	12	1	12 days	0.29	Williams	2000 BH ₂₆
2000 BJ ₂₆	15.4	0.15	20000117	58.10534	322.04396	93.67722	3.62343	0.1438922	2.2351036	28	1	12 days	0.43	Williams	2000 BJ ₂₆
2000 BK ₂₆	15.1	0.15	20000117	30.52487	309.23021	131.03409	5.41981	0.2579433	3.0547763	24	1	13 days	0.34	Williams	2000 BK ₂₆
2000 BN ₂₆	15.4	0.15	20000117	344.25488	107.24508	43.00348	2.71227	0.1361113	2.4097560	13	1	12 days	0.29	Williams	2000 BN ₂₆
2000 BS ₂₆	14.7	0.15	20000117	233.50742	174.32628	101.65761	1.96083	0.1934115	2.4119478	16	1	12 days	0.43	Williams	2000 BS ₂₆
2000 BT ₂₆	15.7	0.15	20000117	343.97339	34.69924	120.01196	3.71488	0.1762726	2.6605468	23	1	12 days	0.54	Williams	2000 BT ₂₆
2000 BU ₂₆	15.2	0.15	20000117	317.33922	227.32109	315.13002	7.96149	0.0880031	2.4360163	21	1	7 days	0.49	E Williams	2000 BU ₂₆
2000 BY ₂₆	15.7	0.15	20000117	23.32059	108.37148	352.00289	2.43079	0.1524382	2.4182357	18	1	12 days	0.42	Williams	2000 BY ₂₆
2000 BZ ₂₆	14.2	0.15	20000117	41.91562	313.10294	128.51022	8.48473	0.1415445	3.2142947	14	1	12 days	0.56	Williams	2000 BZ ₂₆
2000 BB ₂₇	14.5	0.15	20000117	55.50508	328.15403	107.18413	4.58260	0.0455661	2.7830258	14	1	12 days	0.42	Williams	2000 BB ₂₇
2000 BC ₂₇	13.3	0.15	20000117	166.87013	346.70872	336.22693	13.30540	0.2877173	2.5949556	12	1	12 days	0.40	Williams	2000 BC ₂₇
2000 BD ₂₇	14.5	0.15	20000117	91.32086	296.08637	99.15801	7.10599	0.0595005	2.7044945	12	1	12 days	0.55	Williams	2000 BD ₂₇
2000 BF ₂₇	15.2	0.15	20000117	304.36319	209.95580	348.94793	4.89217	0.1066507	2.2495072	12	1	12 days	0.28	Williams	2000 BF ₂₇
2000 BH ₂₇	13.8	0.15	20000117	58.80242	93.05064	341.26372	1.33458	0.0320133	2.8999265	24	1	14 days	0.54	Williams	2000 BH ₂₇
2000 BK ₂₇	14.8	0.15	20000117	84.01845	54.90035	331.91765	6.64917	0.2112847	2.2158593	30	1	36 days	0.52	Williams	2000 BK ₂₇
2000 BL ₂₇	15.4	0.15	20000117	327.47185	34.23571	139.47914	5.19195	0.1018638	2.3300074	22	1	12 days	0.38	Williams	2000 BL ₂₇
2000 BN ₂₇	15.7	0.15	20000206	30.41850	126.27875	330.68236	1.80386	0.1855468	2.3555200	26	1	16 days	0.57	Williams	2000 BN ₂₇
2000 BQ ₂₇	16.2	0.15	20000117	21.21036	9.56016	98.10912	1.71131	0.1226898	2.2440346	17	1	12 days	0.52	Williams	2000 BQ ₂₇
2000 BS ₂₇	16.1	0.15	20000117	315.58037	186.13749	356.52073	3.92883	0.1229394	2.3455454	12	1	12 days	0.62	Williams	2000 BS ₂₇
2000 BT ₂₇	16.1	0.15	20000206	28.94532	21.50504	85.23259	1.45240	0.0505799	2.2203318	18	1	13 days	0.84	Williams	2000 BT ₂₇
2000 BU ₂₇	14.0	0.15	20000117	97.46155	293.68606	97.48935	3.44954	0.0632443	2.7788117	13	1	12 days	0.46	Williams	2000 BU ₂₇
2000 BW ₂₇	15.9	0.15	20000117	356.02174	171.52254	325.25834	25.58508	0.1879305	2.3402379	13	1	12 days	0.29	Williams	2000 BW ₂₇
2000 BX ₂₇	14.2	0.15	20000117	295.42206	122.50481	104.32860	2.28565	0.2010973	3.0915913	17	1	12 days	0.33	Williams	2000 BX ₂₇
2000 BZ ₂₇	11.9	0.15	20000117	287.24916	124.13477	151.98529	2.90946	0.5179397	3.4624465	12	1	12 days	0.29	Williams	2000 BZ ₂₇

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2000 BB ₂₈	14.3	0.15	20000117	260.21403	195.87424	41.52640	5.16551	0.0301563	2.3455561	13	1	12 days	0.30	Williams	2000 BB ₂₈
2000 BC ₂₈	14.2	0.15	20000117	228.11208	146.84745	137.56629	15.22893	0.3363529	2.3073287	35	1	7 days	0.56	E Spahr	2000 BC ₂₈
2000 BE ₂₈	14.1	0.15	20000206	95.66765	249.87721	136.70752	14.25735	0.1108007	2.5600244	29	1	11 days	0.60	Williams	2000 BE ₂₈
2000 BG ₂₈	16.5	0.15	20000206	32.56563	111.81887	331.71047	3.19976	0.2251737	2.3663419	28	1	11 days	0.54	Williams	2000 BG ₂₈
2000 BH ₂₈	17.6	0.15	20000117	20.49977	338.70050	121.20186	5.97774	0.1450345	2.4293968	18	1	12 days	0.66	Williams	2000 BH ₂₈
2000 BN ₂₈	14.4	0.15	19991228	0.33431	95.88520	35.06457	10.25386	0.0802314	2.2420110	21	1	52 days	0.35	Spahr	2000 BN ₂₈
2000 BO ₂₈	20.0	0.15	20000206	306.33860	302.60731	320.32597	6.27635	0.5961670	1.6903494	33	1	15 days	0.55	Williams	2000 BO ₂₈
2000 BR ₂₈	15.3	0.15	20000117	274.16841	162.68701	49.48891	2.25051	0.0370236	2.3217909	15	1	12 days	0.44	Williams	2000 BR ₂₈
2000 BT ₂₈	12.8	0.15	20000117	212.86280	162.01559	131.17591	5.94938	0.1154932	3.1783251	26	1	35 days	0.43	Williams	2000 BT ₂₈
2000 BU ₂₈	13.2	0.15	20000117	235.34086	165.19065	106.49297	10.29599	0.1243872	2.7494492	14	1	12 days	0.36	Williams	2000 BU ₂₈
2000 BW ₂₈	14.8	0.15	20000206	345.31407	24.49515	135.28451	16.14859	0.0760001	2.8379996	16	1	16 days	0.50	Williams	2000 BW ₂₈
2000 BA ₂₉	15.1	0.15	20000117	82.75407	285.10507	106.64779	8.45253	0.2092520	2.5718561	12	1	12 days	0.38	Williams	2000 BA ₂₉
2000 BE ₂₉	15.0	0.15	20000117	250.47994	289.96618	329.28897	6.32141	0.1761058	2.3624824	26	1	17 days	0.81	Williams	2000 BE ₂₉
2000 BL ₂₉	16.4	0.15	20000117	29.07283	113.98806	332.59073	6.16439	0.1913635	2.2903608	17	1	14 days	0.55	Williams	2000 BL ₂₉
2000 BY ₂₉	15.5	0.15	20000117	335.80387	68.74864	106.52663	5.13341	0.3871275	3.3804819	11	1	12 days	0.63	Williams	2000 BY ₂₉
2000 BA ₃₀	15.1	0.15	20000117	40.26217	340.91250	91.43041	5.53178	0.2340861	2.5866936	11	1	12 days	0.55	Williams	2000 BA ₃₀
2000 BC ₃₀	14.7	0.15	20000117	45.55412	89.15117	345.35448	4.68093	0.1542143	2.3121708	13	1	12 days	0.27	Williams	2000 BC ₃₀
2000 BJ ₃₀	16.9	0.15	20000117	85.62220	250.94080	125.49512	15.62207	0.1669616	2.6645169	12	1	18 days	0.36	Williams	2000 BJ ₃₀
2000 BK ₃₀	14.8	0.15	20000117	76.82497	269.50670	140.35649	6.90622	0.0721111	2.7647153	15	1	15 days	0.56	Williams	2000 BK ₃₀
2000 BM ₃₀	13.5	0.15	20000117	151.55507	18.06312	322.05077	16.86995	0.1735230	3.1034896	20	1	15 days	0.40	Williams	2000 BM ₃₀
2000 BN ₃₀	16.9	0.15	20000117	348.38165	139.43141	6.23114	2.41986	0.1604865	2.4192547	13	1	15 days	0.95	Williams	2000 BN ₃₀
2000 BP ₃₀	16.1	0.15	20000206	107.28843	248.83767	107.77171	3.21238	0.1351603	2.1888930	19	1	17 days	0.48	Marsden	2000 BP ₃₀
2000 CA	12.4	0.15	20000206	337.61348	78.43351	90.28373	13.49817	0.0619669	3.0934146	6	1	9 days	0.45	Nakano	2000 CA
2000 CC	16.5	0.15	20000206	39.26270	48.04474	38.70592	3.56305	0.0802719	2.5589032	10	1	9 days	0.20	Williams	2000 CC
2000 CD	15.5	0.15	20000206	116.35208	75.49304	303.62457	14.10892	0.0130138	2.4620433	23	1	11 days	0.46	Williams	2000 CD
2000 CF	14.4	0.15	20000206	227.03501	144.74990	131.65304	12.27448	0.0662688	2.9892532	16	1	10 days	0.62	Williams	2000 CF
2000 CG	16.1	0.15	20000206	46.42543	5.78621	49.82834	0.79923	0.3321139	2.9982445	16	1	13 days	0.89	Williams	2000 CG
2000 CH	15.8	0.15	20000206	283.68467	91.90969	122.58332	3.30283	0.0036129	2.3202741	22	1	10 days	0.57	Williams	2000 CH
2000 CJ	16.3	0.15	20000206	26.69523	344.06557	125.75882	3.69060	0.1027011	2.3111145	18	1	11 days	1.04	Williams	2000 CJ
2000 CK	17.2	0.15	20000117	25.43521	332.08201	132.93843	6.91905	0.0923206	2.2339872	8	1	4 days	0.29	Spahr	2000 CK
2000 CL	17.3	0.15	20000206	353.97772	175.54800	335.55178	3.34653	0.1896001	2.4402880	11	1	9 days	0.46	Williams	2000 CL
2000 CN	15.7	0.15	20000117	257.47984	96.99047	151.95096	6.66373	0.0555956	2.4057803	12	1	2 days	3.32	E Spahr	2000 CN
2000 CP	14.9	0.15	20000117	243.91927	318.83774	314.73096	5.66708	0.1589395	2.6306511	13	1	2 days	0.48	E Spahr	2000 CP
2000 CQ	14.6	0.15	20000117	78.04746	32.92308	2.83362	3.21855	0.1759441	2.7722641	24	1	12 days	0.56	Williams	2000 CQ
2000 CR	15.7	0.15	20000206	76.52596	295.17384	127.64497	3.97767	0.0345291	2.5181635	13	1	8 days	0.65	Williams	2000 CR
2000 CS	16.2	0.15	20000206	7.14681	164.53509	328.00796	6.78669	0.1321161	2.2327265	25	1	15 days	0.35	Williams	2000 CS
2000 CU	15.2	0.15	20000117	298.14154	69.12942	162.39575	6.18302	0.2454298	2.3964205	21	1	5 days	0.50	E Williams	2000 CU
2000 CV	13.3	0.15	20000206	18.46060	336.90517	147.84588	14.05480	0.1233483	2.6948709	23	1	10 days	0.34	Williams	2000 CV
2000 CW	15.1	0.15	20000206	249.04046	293.76158	337.71980	9.31119	0.1113360	2.6633583	18	1	10 days	0.76	Williams	2000 CW
2000 CX	14.5	0.15	20000206	230.22911	136.04702	147.49996	6.56090	0.0373894	2.9672130	23	1	10 days	0.59	Williams	2000 CX
2000 CY	14.2	0.15	20000206	275.68367	288.03842	339.12485	17.57616	0.2997469	2.7269161	18	1	10 days	0.87	Williams	2000 CY
2000 CZ	14.6	0.15	20000206	158.15446	203.85454	131.30881	4.13590	0.1206007	2.6323650	27	1	10 days	1.13	Williams	2000 CZ
2000 CA ₁	15.3	0.15	20000117	359.13059	28.39544	109.29737	0.75916	0.0706925	2.5745836	30	1	16 days	1.10	Williams	2000 CA ₁
2000 CB ₁	15.2	0.15	20000206	283.31240	118.29823	121.68453	1.88184	0.1831089	2.4651044	35	1	9 days	0.64	Williams	2000 CB ₁
2000 CC ₁	16.2	0.15	20000206	49.11158	33.28033	39.97550	0.71893	0.1930137	2.3904656	23	1	9 days	1.40	Williams	2000 CC ₁
2000 CD ₁	16.1	0.15	20000206	14.07509	336.23101	148.47983	2.72149	0.1846237	2.3976116	16	1	7 days	0.94	Williams	2000 CD ₁
2000 CE ₁	14.7	0.15	20000206	104.62167	245.55223	149.88363	5.07938	0.0680024	2.3855639	15	1	7 days	0.65	Williams	2000 CE ₁
2000 CF ₁	14.3	0.15	20000206	233.57354	131.88242	144.40328	22.53413	0.0436323	2.5633225	19	1	7 days	0.83	Williams	2000 CF ₁
2000 CG ₁	16.1	0.15	20000206	49.30434	113.63359	323.78512	6.12545	0.1586244	2.2269550	13	1	7 days	0.61	Williams	2000 CG ₁
2000 CH ₁	15.7	0.15	20000206	97.95508	12.81545	6.44145	4.02109	0.2390821	2.4261127	18	1	11 days	0.79	Williams	2000 CH ₁
2000 CL ₁	14.7	0.15	20000206	336.33878	35.94707	147.29089	15.35908	0.1267549	2.6805229	15	1	9 days	0.70	Williams	2000 CL ₁
2000 CN ₁	15.6	0.15	20000206	321.80280	204.94836	341.23912	1.99526	0.0817798	2.3616011	25	1	9 days	0.64	Williams	2000 CN ₁
2000 CO ₁	16.9	0.15	20000206	35.08800	85.81453	339.60124	4.43812	0.2689411	2.7215479	7	1	9 days	0.42	Williams	2000 CO ₁

2000 CQ ₁	14.5	0.15	20000206	51.79727	324.21959	125.09661	2.69902	0.1001046	2.9618399	11	1	9 days	0.78	Williams	2000 CQ ₁
2000 CR ₁	15.4	0.15	20000206	86.82321	263.48775	143.13933	4.15423	0.1395469	2.2549493	26	1	14 days	0.94	Williams	2000 CR ₁
2000 CS ₁	13.5	0.15	20000206	276.41776	86.76881	168.47075	7.78605	0.1631141	3.1540051	12	1	9 days	0.55	Williams	2000 CS ₁
2000 CT ₁	13.6	0.15	20000206	331.62085	13.62061	178.67742	0.76650	0.1154362	3.1620141	34	1	17 days	0.64	Williams	2000 CT ₁
2000 CU ₁	13.9	0.15	20000206	104.76276	78.57169	332.52749	6.86673	0.0016070	2.6248502	18	1	9 days	0.37	Williams	2000 CU ₁
2000 CV ₁	13.7	0.15	20000206	16.06988	328.49062	168.09125	6.84061	0.1233393	3.2469845	18	1	9 days	0.46	Williams	2000 CV ₁
2000 CW ₁	14.8	0.15	20000206	263.60366	327.72556	307.60423	3.05767	0.2186710	2.2592281	13	1	9 days	0.52	Williams	2000 CW ₁
2000 CX ₁	13.5	0.15	20000206	140.06225	229.53826	140.98345	5.80365	0.0779850	2.6559281	24	1	11 days	0.87	Williams	2000 CX ₁
2000 CY ₁	15.2	0.15	20000206	50.19489	342.00035	115.13496	7.40467	0.2940359	2.5456054	13	1	13 days	0.79	Williams	2000 CY ₁
2000 CZ ₁	13.8	0.15	20000206	202.67253	148.70546	153.55193	8.42368	0.0147301	3.2057344	24	1	9 days	0.60	Williams	2000 CZ ₁
2000 CA ₂	15.1	0.15	20000206	17.14124	319.21709	164.86814	3.20292	0.0444747	2.3567050	27	1	9 days	0.63	Williams	2000 CA ₂
2000 CB ₂	14.5	0.15	20000206	299.12967	124.71907	105.42898	6.02743	0.1667295	2.3591083	11	1	9 days	0.71	Nakano	2000 CB ₂
2000 CC ₂	13.4	0.15	20000206	291.67646	107.93131	133.89821	14.93924	0.1820049	2.6165684	11	1	9 days	0.48	Nakano	2000 CC ₂
2000 CD ₂	14.2	0.15	20000206	21.55295	19.44745	89.39936	4.50047	0.3079576	2.7160139	6	1	9 days	0.42	Nakano	2000 CD ₂
2000 CE ₂	12.2	0.15	20000206	128.19287	6.68394	358.78684	15.02768	0.2582774	2.4399807	6	1	9 days	0.53	Nakano	2000 CE ₂
2000 CG ₂	12.7	0.15	20000206	207.96811	311.23024	4.29523	13.65217	0.2129598	2.7680537	10	1	9 days	0.73	Nakano	2000 CG ₂
2000 CJ ₂	14.6	0.15	20000206	81.21416	355.54953	64.46949	6.98341	0.0944170	2.4003862	15	1	9 days	0.94	Williams	2000 CJ ₂
2000 CL ₂	12.6	0.15	20000206	67.29958	322.50544	123.67632	12.82387	0.0258907	2.9565595	6	1	9 days	0.49	Nakano	2000 CL ₂
2000 CM ₂	12.1	0.15	20000206	43.44463	86.47620	352.17589	22.59547	0.2997490	3.2119024	6	1	9 days	0.50	Nakano	2000 CM ₂
2000 CO ₂	12.2	0.15	20000206	117.07712	268.57560	125.34622	11.67193	0.0691248	3.0610917	6	1	9 days	0.48	Nakano	2000 CO ₂
2000 CP ₂	12.6	0.15	20000206	57.26312	45.56809	13.61236	6.340176	0.3404596	3.2043479	6	1	9 days	0.66	Nakano	2000 CP ₂
2000 CQ ₂	11.6	0.15	20000206	182.07168	303.08261	30.22570	13.43328	0.1303619	2.6126668	6	1	7 days	0.31	Nakano	2000 CQ ₂
2000 CR ₂	11.3	0.15	20000206	291.03262	192.23668	35.93444	11.14275	0.0237626	2.8031699	6	1	7 days	0.42	Nakano	2000 CR ₂
2000 CS ₂	12.0	0.15	20000206	275.01812	139.02150	123.36392	16.49632	0.1649135	2.6254121	6	1	7 days	0.32	Nakano	2000 CS ₂
2000 CX ₂	15.6	0.15	20000206	37.61926	347.71188	101.67033	3.62519	0.1393311	2.6456931	17	1	9 days	0.64	Williams	2000 CX ₂
2000 CY ₂	16.7	0.15	20000206	79.28081	94.03618	311.83147	19.82152	0.1017695	1.8847579	24	1	8 days	0.55	Williams	2000 CY ₂
2000 CZ ₂	16.2	0.15	20000206	345.81710	7.42667	149.55498	11.14106	0.1637470	2.3351893	26	1	10 days	0.64	Williams	2000 CZ ₂
2000 CA ₃	14.4	0.15	20000206	30.24500	119.21660	331.26704	26.02927	0.3743501	3.1522392	16	1	10 days	0.53	Williams	2000 CA ₃
2000 CV ₆	15.8	0.15	20000206	359.66525	43.46714	81.88481	7.26165	0.0946633	2.3904550	13	1	9 days	0.74	Williams	2000 CV ₆
2000 CW ₆	13.8	0.15	20000206	227.20123	311.74960	315.93891	6.79313	0.1559732	2.7158705	17	1	9 days	0.60	Williams	2000 CW ₆
2000 CB ₇	15.0	0.15	20000206	235.36072	160.08302	107.02192	9.23446	0.1808006	2.2751293	12	1	9 days	0.66	Williams	2000 CB ₇
2000 CG ₇	16.1	0.15	20000206	320.73527	57.40087	120.28636	4.93694	0.0639587	2.2961517	19	1	9 days	0.84	Williams	2000 CG ₇
2000 CH ₇	13.3	0.15	20000117	152.33265	352.40425	331.84601	3.95115	0.3810637	2.7956615	12	1	6 days	0.76	E Spahr	2000 CH ₇
2000 CL ₇	16.2	0.15	20000206	332.61556	60.54872	108.59375	6.72787	0.1344920	2.3043519	12	1	9 days	0.56	Williams	2000 CL ₇
2000 CM ₇	14.9	0.15	20000226	3.91522	91.03957	42.19840	3.14359	0.1519126	2.9306889	16	1	87 days	0.45	M-v 5 Williams	2000 CM ₇
2000 CN ₇	14.1	0.15	20000206	51.85144	94.46509	339.07156	7.90140	0.0763204	3.0165387	15	1	9 days	0.63	Williams	2000 CN ₇
2000 CO ₇	15.9	0.15	20000206	4.28515	154.27288	332.02642	7.85903	0.2461565	2.7379728	14	1	9 days	0.30	Williams	2000 CO ₇
2000 CP ₇	14.6	0.15	20000206	272.38705	124.90671	102.98186	6.46483	0.0588705	2.7375278	13	1	9 days	0.67	Williams	2000 CP ₇
2000 CR ₇	14.1	0.15	20000206	173.06630	220.16702	99.33565	10.44149	0.0349330	2.9708895	12	1	9 days	0.54	Williams	2000 CR ₇
2000 CT ₇	16.0	0.15	20000206	71.55336	337.77053	66.38296	4.04958	0.1722117	2.2361340	27	1	9 days	0.47	Williams	2000 CT ₇
2000 CU ₇	14.8	0.15	20000206	46.88347	318.61632	121.59612	18.65382	0.1035064	2.7352516	18	1	8 days	0.55	Williams	2000 CU ₇
2000 CX ₇	15.6	0.15	20000117	68.87904	20.85987	28.27178	5.93230	0.1077145	2.2108825	23	1	6 days	0.66	E Williams	2000 CX ₇
2000 CB ₈	15.9	0.15	20000117	217.88152	289.42682	346.16442	16.10293	0.0699203	1.9633285	13	1	4 days	0.35	Williams	2000 CB ₈
2000 CC ₉	14.1	0.15	20000206	28.84645	298.56775	136.19468	15.91980	0.2490508	3.1224979	13	1	9 days	0.48	Williams	2000 CC ₉
2000 CF ₉	14.5	0.15	20000117	39.66278	306.52042	125.85219	10.12067	0.0620505	2.9839733	14	1	5 days	0.49	E Spahr	2000 CF ₉
2000 CG ₉	14.8	0.15	20000117	60.70645	282.99878	121.24600	19.57532	0.1110362	3.2445240	13	1	5 days	0.61	E Spahr	2000 CG ₉
2000 CP ₉	14.4	0.15	20000117	270.49636	285.12431	291.93829	6.80751	0.0815520	2.8079786	17	1	29 days	0.74	Williams	2000 CP ₉
2000 CQ ₉	14.3	0.15	20000206	4.71303	228.75743	247.62704	4.32831	0.1090970	3.1440382	18	1	9 days	0.71	Williams	2000 CQ ₉
2000 CR ₉	15.8	0.15	20000117	338.29405	227.04566	278.59291	5.30360	0.1209135	2.3023322	15	1	6 days	0.58	E Spahr	2000 CR ₉
2000 CS ₉	14.4	0.15	20000117	43.82729	164.83178	237.45123	3.15085	0.3084927	3.2626021	14	1	6 days	0.60	E Spahr	2000 CS ₉
2000 CT ₉	15.8	0.15	20000117	0.79708	312.75198	163.87150	3.69167	0.1880900	2.5451949	14	1	6 days	0.43	E Spahr	2000 CT ₉
2000 CB ₁₀	13.6	0.15	20000206	109.66738	211.69888	133.15249	2.24275	0.2930261	3.2151604	18	1	10 days	0.39	Williams	2000 CB ₁₀
2000 CU ₁₀	16.4	0.15	20000206	1.86529	199.05645	286.68017	4.96502	0.2429742	2.4598042	19	1	9 days	0.59	Williams	2000 CU ₁₀

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2000 CV ₁₀	15.5	0.15	20000206	80.05099	244.21471	150.49719	5.39395	0.1062961	2.3558780	21	1	9 days	1.41	Williams	2000 CV ₁₀
2000 CP ₁₁	15.2	0.15	20000206	316.94347	17.75583	163.02928	3.31403	0.1194371	2.5630262	24	1	9 days	0.60	Williams	2000 CP ₁₁
2000 CQ ₁₁	15.7	0.15	20000117	133.80297	134.84629	208.98189	1.63533	0.0558765	2.2355837	22	1	9 days	0.75	Williams	2000 CQ ₁₁
2000 CR ₁₁	15.5	0.15	20000206	347.84483	211.59396	292.97871	1.21697	0.1593608	2.4993312	15	1	9 days	0.47	Williams	2000 CR ₁₁
2000 CB ₁₂	16.0	0.15	20000206	202.71091	152.18282	135.76481	6.08722	0.0545433	2.3185069	15	1	8 days	0.91	Williams	2000 CB ₁₂
2000 CC ₁₂	16.0	0.15	20000206	16.72254	329.87267	133.74183	9.30327	0.2093579	2.6956176	23	1	8 days	0.93	Williams	2000 CC ₁₂
2000 CR ₁₂	11.5	0.15	20000117	73.29433	220.77824	184.45450	7.51068	0.0643086	5.1558833	17	1	6 days	0.46	E Spahr	2000 CR ₁₂
2000 CS ₁₂	14.6	0.15	20000206	31.07109	166.22796	275.11303	6.57404	0.2258569	3.0813579	14	1	13 days	0.39	Williams	2000 CS ₁₂
2000 CA ₁₃	17.8	0.15	20000206	356.74250	314.56075	191.62089	1.43951	0.5643236	3.7002675	48	1	8 days	0.43	Williams	2000 CA ₁₃
2000 CD ₁₃	14.9	0.15	20000117	33.91476	183.74602	258.13399	2.81401	0.1191593	2.6878928	12	1	4 days	0.54	E Spahr	2000 CD ₁₃
2000 CF ₁₃	14.6	0.15	20000206	324.35356	249.11635	288.95783	6.19318	0.1609985	3.0732737	23	1	9 days	0.84	Williams	2000 CF ₁₃
2000 CG ₁₃	15.7	0.15	20000206	36.44442	190.19883	249.84408	2.11091	0.1729901	2.5604501	31	1	9 days	0.53	Williams	2000 CG ₁₃
2000 CM ₁₃	14.8	0.15	20000206	263.87342	78.16776	159.73999	3.14207	0.1003659	2.4198158	23	1	9 days	0.71	Williams	2000 CM ₁₃
2000 CO ₁₃	16.1	0.15	20000206	5.23634	342.48189	140.47231	12.62894	0.2029163	2.6280964	13	1	9 days	0.40	Williams	2000 CO ₁₃
2000 CR ₁₃	14.0	0.15	20000206	337.21413	2.74443	151.62827	9.81157	0.0437666	3.1789760	26	1	8 days	0.59	Williams	2000 CR ₁₃
2000 CT ₁₃	15.1	0.15	20000117	351.56462	293.24344	202.22870	3.85139	0.0758902	2.7210407	19	1	6 days	0.93	E Williams	2000 CT ₁₃
2000 CU ₁₃	13.5	0.15	20000117	59.89681	139.29820	253.28224	6.08567	0.2933489	3.2440963	17	1	6 days	0.76	E Spahr	2000 CU ₁₃
2000 CA ₁₄	15.5	0.15	20000117	341.79320	290.87918	220.97088	4.58417	0.2060552	2.6798614	18	1	4 days	0.33	E Williams	2000 CA ₁₄
2000 CD ₁₄	16.2	0.15	20000117	41.13060	119.73826	298.34965	23.85105	0.2645118	2.2956837	11	1	4 days	0.67	Williams	2000 CD ₁₄
2000 CH ₁₄	13.8	0.15	20000117	117.74123	78.43974	269.91389	8.08554	0.2481403	2.7645431	13	1	4 days	0.62	E Spahr	2000 CH ₁₄
2000 CO ₁₄	15.4	0.15	20000206	2.35634	338.88576	148.75389	6.21594	0.2160298	2.5862979	15	1	9 days	0.53	Williams	2000 CO ₁₄
2000 CP ₁₄	15.6	0.15	20000206	329.22925	359.74252	166.30368	2.90345	0.0710844	2.4512376	17	1	9 days	0.73	Williams	2000 CP ₁₄
2000 CT ₁₄	14.6	0.15	20000206	174.32520	178.67476	135.41046	5.52210	0.1667595	2.2641248	13	1	9 days	0.44	Williams	2000 CT ₁₄
2000 CV ₁₄	16.4	0.15	20000117	10.73561	328.11311	139.15689	3.03027	0.2170937	2.7315249	12	1	6 days	0.47	E Williams	2000 CV ₁₄
2000 CW ₁₄	14.8	0.15	20000206	164.38760	189.51195	130.97860	10.93632	0.2037854	2.4366244	13	1	8 days	0.87	Williams	2000 CW ₁₄
2000 CX ₁₄	15.0	0.15	20000206	317.05029	270.48522	273.52378	2.47117	0.1169179	2.6380609	13	1	9 days	0.45	Williams	2000 CX ₁₄
2000 CB ₁₅	14.2	0.15	20000206	37.84960	68.24642	13.66595	3.31342	0.0900166	3.2092788	11	1	9 days	0.66	Williams	2000 CB ₁₅
2000 CG ₁₅	15.6	0.15	20000117	119.66383	207.80746	140.68386	8.67012	0.2610366	2.2198503	15	1	5 days	0.66	E Spahr	2000 CG ₁₅
2000 CH ₁₅	14.8	0.15	20000206	270.26124	223.02328	9.95914	3.60065	0.0908946	2.7019703	17	1	9 days	0.59	Williams	2000 CH ₁₅
2000 CJ ₁₅	15.9	0.15	20000206	339.49510	63.50836	96.08051	5.29045	0.1178114	2.4302266	12	1	9 days	0.51	Williams	2000 CJ ₁₅
2000 CK ₁₅	14.3	0.15	20000206	62.64012	308.32763	98.77147	6.70412	0.2109735	3.2325580	13	1	9 days	0.67	Williams	2000 CK ₁₅
2000 CL ₁₆	15.2	0.15	20000117	117.47392	116.57825	238.35393	1.15221	0.1202003	2.3472129	11	1	4 days	0.38	E Spahr	2000 CL ₁₆
2000 CE ₁₇	16.2	0.15	20000117	330.77869	302.17890	216.98593	1.15879	0.0910439	2.3077593	9	1	4 days	0.79	E Spahr	2000 CE ₁₇
2000 CF ₁₇	16.1	0.15	20000117	322.19258	18.59648	155.03895	8.92959	0.1376395	2.3759498	9	1	4 days	0.64	E Spahr	2000 CF ₁₇
2000 CM ₁₇	15.1	0.15	20000206	269.61689	324.26807	274.62747	4.41310	0.1511954	2.3027864	18	1	8 days	0.72	Williams	2000 CM ₁₇
2000 CO ₁₇	16.7	0.15	20000117	303.98268	342.13065	216.03899	1.47298	0.1568770	2.3838363	23	1	7 days	0.48	Williams	2000 CO ₁₇
2000 CP ₁₇	14.9	0.15	20000117	101.94429	217.85588	143.15829	9.42070	0.2327367	2.3469868	15	1	4 days	0.53	E Williams	2000 CP ₁₇
2000 CQ ₁₇	16.0	0.15	20000117	25.73992	183.94404	267.43145	1.89089	0.1413583	2.3517083	20	1	4 days	0.44	E Williams	2000 CQ ₁₇
2000 CR ₁₇	15.5	0.15	20000117	212.21289	115.67822	171.59928	2.54799	0.2418030	2.3614528	22	1	7 days	0.51	Williams	2000 CR ₁₇
2000 CS ₁₇	16.7	0.15	20000117	328.31233	18.64715	146.10985	5.79987	0.1157405	2.1789397	14	1	4 days	0.48	E Spahr	2000 CS ₁₇
2000 CT ₁₇	16.4	0.15	20000117	337.11734	316.30818	206.63911	1.34033	0.2452700	2.5523726	22	1	4 days	0.99	E Williams	2000 CT ₁₇
2000 CX ₁₇	15.9	0.15	20000117	77.83048	224.57710	174.55644	1.84016	0.0905945	2.7045266	17	1	7 days	0.82	Williams	2000 CX ₁₇
2000 CY ₁₇	15.7	0.15	20000117	258.91823	48.20967	185.21826	1.54178	0.0423831	2.7568409	37	1	7 days	0.67	Williams	2000 CY ₁₇
2000 CZ ₁₇	17.2	0.15	20000117	22.43570	311.24498	146.64659	3.70569	0.1163891	2.4309069	27	1	7 days	0.69	Williams	2000 CZ ₁₇
2000 CC ₁₈	14.8	0.15	20000117	358.75387	208.27667	279.99358	5.55264	0.1330621	2.8988242	22	1	4 days	0.79	E Williams	2000 CC ₁₈
2000 CD ₁₈	16.0	0.15	20000117	35.32974	270.97149	167.80259	4.81150	0.1583756	2.6921123	23	1	7 days	0.69	Williams	2000 CD ₁₈
2000 CF ₁₈	11.4	0.15	20000117	275.59170	82.81196	142.84023	17.02397	0.1131572	3.9704236	35	1	38 days	0.35	Williams	2000 CF ₁₈
2000 CH ₁₈	14.1	0.15	20000117	114.09011	170.56540	187.17086	3.85839	0.1714098	2.6758226	16	1	4 days	0.55	E Williams	2000 CH ₁₈
2000 CX ₁₈	15.5	0.15	20000206	45.46115	288.53359	136.96390	11.12735	0.2240121	2.4839405	15	1	9 days	0.43	Williams	2000 CX ₁₈
2000 CY ₁₈	14.5	0.15	20000206	352.04254	356.79110	143.94953	2.47899	0.0160021	2.6261067	14	1	9 days	0.32	Williams	2000 CY ₁₈
2000 CZ ₁₈	14.2	0.15	20000206	196.42158	141.08459	157.64452	1.30584	0.0939242	2.4833728	15	1	9 days	0.46	Williams	2000 CZ ₁₈
2000 CC ₁₉	14.0	0.15	20000117	210.56879	32.26780	255.30411	1.21726	0.1720644	2.9030652	17	1	8 days	0.68	Williams	2000 CC ₁₉
2000 CF ₁₉	16.2	0.15	20000117	29.57770	156.52001	290.97050	5.52271	0.1418626	2.2708602	21	1	6 days	0.52	E Williams	2000 CF ₁₉

2000 CG ₁₉	14.2	0.15	20000206	312.75649	43.47236	145.10646	11.29858	0.0885241	2.9996249	29	1	13 days	0.77	Williams	2000 CG ₁₉
2000 CH ₁₉	16.5	0.15	20000117	293.05813	15.18180	198.96872	1.28679	0.1736557	2.3968907	26	1	36 days	0.49	Williams	2000 CH ₁₉
2000 CO ₁₉	14.9	0.15	20000117	309.97967	23.27612	161.80768	6.56194	0.0761869	2.4688811	17	1	4 days	0.55	E Williams	2000 CO ₁₉
2000 CP ₁₉	15.1	0.15	20000117	150.86822	56.51179	281.87720	7.71050	0.0193520	3.0160590	21	1	6 days	0.62	E Williams	2000 CP ₁₉
2000 CQ ₁₉	13.7	0.15	20000117	266.37956	309.66890	282.47752	6.99425	0.0736699	3.0695444	15	1	4 days	0.55	E Williams	2000 CQ ₁₉
2000 CS ₁₉	15.6	0.15	20000206	319.77874	295.78793	257.48112	4.78110	0.2071437	2.9864591	32	1	10 days	0.91	Williams	2000 CS ₁₉
2000 CU ₁₉	16.1	0.15	20000117	1.77006	339.93382	144.18983	23.16173	0.2512428	3.1858361	18	1	6 days	0.55	E Williams	2000 CU ₁₉
2000 CA ₂₀	15.6	0.15	20000117	8.18286	237.32327	242.62237	4.95841	0.0789779	2.7118627	17	1	4 days	0.57	E Williams	2000 CA ₂₀
2000 CD ₂₀	15.1	0.15	20000206	276.37919	354.86231	236.14828	4.08871	0.1101089	2.3076258	32	1	8 days	0.65	Williams	2000 CD ₂₀
2000 CE ₂₀	15.8	0.15	20000117	18.84840	279.75541	182.07309	4.36789	0.1639917	2.5362481	11	1	5 days	2.98	Spahr	2000 CE ₂₀
2000 CG ₂₀	13.4	0.15	20000206	207.69569	130.33905	160.86254	9.76703	0.0877272	2.6314581	18	1	10 days	0.47	Williams	2000 CG ₂₀
2000 CK ₂₀	16.3	0.15	20000117	37.23126	300.70846	144.29852	4.80653	0.0824641	2.3121852	16	1	5 days	0.41	E Williams	2000 CK ₂₀
2000 CL ₂₀	15.9	0.15	20000206	303.99593	72.45920	137.14292	10.98340	0.1774443	2.4984344	13	1	8 days	0.57	Williams	2000 CL ₂₀
2000 CM ₂₀	15.3	0.15	20000206	60.11963	155.41863	259.66680	1.69926	0.1859922	2.4426974	13	1	9 days	0.35	Williams	2000 CM ₂₀
2000 CN ₂₀	13.0	0.15	20000206	208.65366	137.60413	158.43245	1.67389	0.2234646	3.0207468	26	1	9 days	0.53	Williams	2000 CN ₂₀
2000 CO ₂₀	14.4	0.15	20000117	168.62356	20.79275	299.41520	4.05083	0.1694486	2.7297379	12	1	5 days	0.26	E Spahr	2000 CO ₂₀
2000 CP ₂₀	15.0	0.15	20000206	301.10482	70.73480	143.48495	2.24092	0.1841875	2.3816100	33	1	9 days	0.50	Williams	2000 CP ₂₀
2000 CR ₂₀	16.8	0.15	20000117	309.73987	278.39259	273.94687	1.29569	0.1345222	2.3084579	12	1	5 days	0.43	E Spahr	2000 CR ₂₀
2000 CS ₂₀	15.4	0.15	20000206	117.05375	232.72041	139.61918	4.18685	0.0591512	2.5397761	37	1	13 days	0.64	Williams	2000 CS ₂₀
2000 CU ₂₀	15.7	0.15	20000206	49.75857	283.81676	150.12723	2.00177	0.1225058	2.3454250	32	1	9 days	0.42	Williams	2000 CU ₂₀
2000 CW ₂₀	15.6	0.15	20000206	279.56238	88.21126	144.24468	3.03454	0.1417145	2.4752355	25	1	9 days	0.76	Williams	2000 CW ₂₀
2000 CX ₂₀	16.2	0.15	20000206	358.06928	200.11299	298.13532	5.14317	0.0910823	2.2663790	21	1	9 days	0.71	Williams	2000 CX ₂₀
2000 CY ₂₀	16.1	0.15	20000117	14.15307	281.88624	188.56089	2.13616	0.1353484	2.4173114	13	1	6 days	0.58	E Spahr	2000 CY ₂₀
2000 CZ ₂₀	15.7	0.15	20000117	262.95271	297.69792	306.98810	13.31022	0.1412726	2.7053710	28	1	7 days	0.73	Williams	2000 CZ ₂₀
2000 CA ₂₁	15.1	0.15	20000117	333.19020	226.86504	292.84492	6.05593	0.0158456	2.7490134	49	1	9 days	0.59	Williams	2000 CA ₂₁
2000 CB ₂₁	16.6	0.15	20000117	3.55002	337.43809	145.88288	9.36861	0.1760323	2.3683868	16	1	4 days	0.69	E Williams	2000 CB ₂₁
2000 CE ₂₁	14.3	0.15	20000206	108.24506	209.10295	163.27845	6.48689	0.1472256	2.4432035	11	1	8 days	0.34	Williams	2000 CE ₂₁
2000 CV ₂₁	14.3	0.15	20000206	248.68922	341.84452	279.48212	4.37438	0.1331389	2.7548633	30	1	8 days	0.62	Williams	2000 CV ₂₁
2000 CW ₂₁	15.1	0.15	20000206	355.92537	203.50897	297.68814	7.16508	0.0428972	2.5209048	35	1	8 days	0.66	Williams	2000 CW ₂₁
2000 CX ₂₁	14.8	0.15	20000206	106.34338	195.63677	179.34917	4.12614	0.1496563	2.4287975	27	1	8 days	0.56	Williams	2000 CX ₂₁
2000 CZ ₂₁	15.5	0.15	20000117	73.80328	255.77869	144.79044	7.95605	0.1397071	2.3295352	14	1	4 days	0.69	E Spahr	2000 CZ ₂₁
2000 CA ₂₂	14.4	0.15	20000117	237.38422	123.71218	146.59791	7.32118	0.1802859	2.6044822	14	1	4 days	0.56	E Spahr	2000 CA ₂₂
2000 CE ₂₂	16.9	0.15	20000117	326.76773	310.15815	224.87080	1.45150	0.1615564	2.3053189	12	1	4 days	0.41	E Spahr	2000 CE ₂₂
2000 CM ₂₂	16.1	0.15	20000117	198.59516	6.80455	291.90181	5.23919	0.1334279	2.3005019	27	1	9 days	0.77	Williams	2000 CM ₂₂
2000 CN ₂₂	12.8	0.15	20000117	121.71824	42.16917	307.12369	13.92551	0.3139874	2.9342489	20	1	6 days	0.54	E Spahr	2000 CN ₂₂
2000 CO ₂₂	16.6	0.15	20000117	39.59403	261.41159	173.68450	3.39121	0.1778615	2.2656748	11	1	4 days	0.48	E Spahr	2000 CO ₂₂
2000 CP ₂₂	16.2	0.15	20000117	50.86073	259.09985	169.09312	4.08147	0.1203872	2.2061007	18	1	6 days	0.52	Spahr	2000 CP ₂₂
2000 CQ ₂₂	15.7	0.15	20000206	3.95977	338.29236	153.42466	7.49185	0.2035274	2.7137050	24	1	11 days	0.34	Williams	2000 CQ ₂₂
2000 CR ₂₂	15.9	0.15	20000206	33.45378	292.30818	164.28896	6.01032	0.1004100	2.3234815	12	1	8 days	0.64	Williams	2000 CR ₂₂
2000 CT ₂₂	15.9	0.15	20000117	16.66274	308.62306	161.44759	6.96002	0.1568244	3.1290569	16	1	5 days	0.69	E Williams	2000 CT ₂₂
2000 CU ₂₂	16.3	0.15	20000206	36.02104	276.37823	166.38335	6.79055	0.2143046	2.3338119	19	1	9 days	0.66	Williams	2000 CU ₂₂
2000 CW ₂₂	15.8	0.15	20000117	342.40411	278.66258	238.86158	3.47129	0.1937492	2.6673907	15	1	4 days	0.65	E Spahr	2000 CW ₂₂
2000 CB ₂₃	16.0	0.15	20000117	92.77105	111.88099	268.35788	5.21718	0.1848815	2.3409919	21	1	5 days	0.99	E Williams	2000 CB ₂₃
2000 CH ₂₃	15.2	0.15	20000117	135.52382	56.21489	291.76241	8.91381	0.1694188	2.6386014	21	1	5 days	0.81	E Williams	2000 CH ₂₃
2000 CJ ₂₃	15.7	0.15	20000117	305.15843	10.27019	194.49898	3.64005	0.1757073	2.3317855	26	1	6 days	0.70	E Williams	2000 CJ ₂₃
2000 CK ₂₃	15.4	0.15	20000117	60.73841	256.55426	161.71917	7.87614	0.1176911	2.2264125	18	1	6 days	0.47	Spahr	2000 CK ₂₃
2000 CL ₂₃	14.8	0.15	20000117	58.83059	248.37035	158.07858	9.49137	0.2429662	2.4707802	15	1	4 days	0.39	E Spahr	2000 CL ₂₃
2000 CM ₂₃	14.5	0.15	20000117	36.14839	255.06416	193.97687	4.60024	0.1172573	2.9814223	17	1	6 days	0.63	E Spahr	2000 CM ₂₃
2000 CN ₂₃	15.6	0.15	20000206	68.31238	250.70531	165.39256	5.93571	0.1202323	2.3316110	17	1	10 days	0.83	Williams	2000 CN ₂₃
2000 CC ₂₄	14.4	0.15	20000206	351.15331	10.66190	138.37601	12.48788	0.1142451	3.0776948	17	1	9 days	0.46	Williams	2000 CC ₂₄
2000 CD ₂₄	16.3	0.15	20000206	14.11303	327.16501	146.13492	1.08514	0.2589490	2.8709283	12	1	8 days	0.75	Williams	2000 CD ₂₄
2000 CP ₂₄	13.5	0.15	20000206	240.92480	133.57374	140.19801	24.23691	0.1770784	2.7216685	15	1	9 days	0.50	Williams	2000 CP ₂₄
2000 CV ₂₄	13.8	0.15	20000117	205.70983	142.27075	156.40633	10.31609	0.2118582	2.5463902	14	1	4 days	0.71	E Spahr	2000 CV ₂₄

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2000 CW ₂₄	14.1	0.15	20000206	99.90192	92.70997	302.08761	10.49359	0.0442232	2.6835650	15	1	8 days	0.37	Williams	2000 CW ₂₄
2000 CX ₂₄	13.8	0.15	20000117	294.59360	260.09989	313.28362	22.91293	0.1044993	3.0298483	15	1	4 days	0.46	E Spahr	2000 CX ₂₄
2000 CY ₂₄	15.6	0.15	20000117	341.76930	299.64325	214.64308	3.07608	0.1023470	2.2985066	13	1	6 days	0.30	E Spahr	2000 CY ₂₄
2000 CZ ₂₄	14.9	0.15	20000206	65.58785	130.93323	275.78357	4.47504	0.2347294	2.3657374	20	1	8 days	0.49	Williams	2000 CZ ₂₄
2000 CA ₂₅	15.5	0.15	20000206	295.85624	348.66145	235.82562	2.84074	0.1890186	2.3275709	20	1	8 days	0.75	Williams	2000 CA ₂₅
2000 CC ₂₅	15.4	0.15	20000117	38.71356	295.83507	147.86025	16.51560	0.1308381	2.5503723	13	1	4 days	0.56	Williams	2000 CC ₂₅
2000 CD ₂₅	14.1	0.15	20000206	99.13760	223.54002	159.13145	9.53151	0.1656821	2.7636497	17	1	8 days	0.48	Williams	2000 CD ₂₅
2000 CF ₂₅	14.8	0.15	20000117	31.37916	285.00855	163.48595	9.38289	0.1933381	3.1025649	19	1	7 days	0.97	Williams	2000 CF ₂₅
2000 CG ₂₅	14.4	0.15	20000117	227.87874	105.83913	165.16876	9.50156	0.0489481	2.6405300	19	1	31 days	0.45	Williams	2000 CG ₂₅
2000 CH ₂₅	14.7	0.15	20000206	35.22338	260.74855	196.79167	4.49581	0.0925031	2.5845972	19	1	10 days	0.35	Williams	2000 CH ₂₅
2000 CN ₂₅	14.7	0.15	20000117	297.51100	57.76469	162.44018	6.44540	0.2102133	2.5255750	14	1	4 days	0.21	E Spahr	2000 CN ₂₅
2000 CW ₂₅	12.8	0.15	20000117	225.09901	0.36247	287.08005	2.05521	0.2248326	3.1745733	13	1	6 days	0.46	E Williams	2000 CW ₂₅
2000 CZ ₂₅	16.0	0.15	20000206	346.88064	207.83015	307.63065	3.56222	0.1084659	2.1865177	16	1	10 days	1.26	Williams	2000 CZ ₂₅
2000 CA ₂₆	15.6	0.15	20000117	61.67410	237.62698	176.68588	1.06192	0.1614477	2.3677016	12	1	6 days	0.37	E Williams	2000 CA ₂₆
2000 CH ₂₆	14.4	0.15	20000117	307.69107	267.49722	295.38170	3.69481	0.1324179	3.1712374	12	1	6 days	0.59	E Williams	2000 CH ₂₆
2000 CN ₂₆	16.3	0.15	20000117	56.94225	109.06337	315.05136	5.24606	0.1283275	2.4061491	11	1	6 days	0.43	E Williams	2000 CN ₂₆
2000 CL ₂₆	14.5	0.15	20000117	274.92191	300.40815	307.53280	2.07032	0.2397197	2.4169793	13	1	6 days	0.25	E Williams	2000 CL ₂₆
2000 CP ₂₆	16.2	0.15	20000206	352.96460	318.17743	191.73935	1.07756	0.1192572	2.4147686	17	1	9 days	0.43	Williams	2000 CP ₂₆
2000 CR ₂₆	13.1	0.15	20000206	0.35693	185.67358	315.85646	11.26510	0.1325211	2.9812312	26	1	8 days	0.34	Williams	2000 CR ₂₆
2000 CU ₂₆	14.1	0.15	20000206	130.40242	183.99684	168.74162	3.49169	0.2559127	2.2273507	16	1	9 days	0.27	Williams	2000 CU ₂₆
2000 CV ₂₆	14.8	0.15	20000117	26.82382	151.91034	311.37135	8.71625	0.1107025	2.7867355	18	1	6 days	0.96	E Spahr	2000 CV ₂₆
2000 CP ₂₇	15.9	0.15	20000206	322.53908	47.83137	148.65914	8.28604	0.2093055	2.4372912	28	1	9 days	0.59	Williams	2000 CP ₂₇
2000 CT ₂₇	13.0	0.15	20000206	166.22687	180.69574	152.82751	8.52834	0.1154871	2.2552908	13	1	11 days	0.51	Williams	2000 CT ₂₇
2000 CU ₂₇	15.3	0.15	20000117	307.24028	22.75218	178.93517	1.87161	0.1197254	2.5909817	18	1	6 days	0.58	E Williams	2000 CU ₂₇
2000 CV ₂₇	13.5	0.15	20000206	125.61538	181.83058	185.17730	0.88862	0.1206072	3.2642513	17	1	9 days	0.43	Williams	2000 CV ₂₇
2000 CW ₂₇	15.8	0.15	20000206	327.67272	238.93267	304.24187	1.92163	0.1284341	2.4768116	19	1	11 days	0.37	Williams	2000 CW ₂₇
2000 CX ₂₇	13.5	0.15	20000206	225.22187	339.39832	308.09480	3.77787	0.1325393	2.7632361	13	1	9 days	0.21	Williams	2000 CX ₂₇
2000 CY ₂₇	15.4	0.15	20000206	299.51031	259.76395	315.38442	5.89013	0.1157961	2.4699875	13	1	9 days	0.49	Williams	2000 CY ₂₇
2000 CZ ₂₇	15.5	0.15	20000206	358.80915	337.13036	165.92940	2.13899	0.0789390	2.1305526	16	1	10 days	0.40	Nakano	2000 CZ ₂₇
2000 CA ₂₈	15.6	0.15	20000117	260.05539	300.51613	306.87389	3.39387	0.0957729	2.2636409	13	1	6 days	0.35	E Williams	2000 CA ₂₈
2000 CB ₂₈	15.0	0.15	20000206	93.10630	223.82004	159.80504	2.92165	0.2414460	2.3684395	16	1	9 days	0.48	Williams	2000 CB ₂₈
2000 CD ₂₈	15.1	0.15	20000206	33.84591	302.00208	152.36632	6.82134	0.1874213	2.5905464	22	1	9 days	0.52	Williams	2000 CD ₂₈
2000 CE ₂₈	14.1	0.15	20000117	220.51955	117.43367	171.94351	2.40165	0.1581335	2.4043097	24	1	37 days	0.54	Williams	2000 CE ₂₈
2000 CF ₂₈	13.2	0.15	20000206	149.08493	41.30816	305.24336	6.42404	0.1680514	2.7041966	14	1	8 days	0.35	Williams	2000 CF ₂₈
2000 CH ₂₈	16.1	0.15	20000206	44.81376	184.11259	244.70081	1.55487	0.2766763	2.2840560	13	1	8 days	0.86	Williams	2000 CH ₂₈
2000 CJ ₂₈	15.1	0.15	20000206	38.24274	260.58703	192.69000	1.83476	0.1395948	2.5621579	19	1	9 days	0.51	Williams	2000 CJ ₂₈
2000 CM ₂₈	15.0	0.15	20000206	18.72674	312.64096	159.88013	5.88109	0.2235592	2.5212903	14	1	8 days	0.37	Williams	2000 CM ₂₈
2000 CU ₂₈	13.5	0.15	20000206	317.91887	54.84851	147.77520	19.28333	0.1805818	3.1815657	18	1	9 days	0.42	Williams	2000 CU ₂₈
2000 CV ₂₈	15.6	0.15	20000117	311.11659	295.42361	263.67005	1.39883	0.1406642	2.3557807	14	1	6 days	0.42	E Spahr	2000 CV ₂₈
2000 CY ₂₈	14.3	0.15	20000206	14.08067	328.21694	157.00201	1.45953	0.1264539	2.4307504	26	1	9 days	0.35	Williams	2000 CY ₂₈
2000 CZ ₂₈	13.0	0.15	20000206	142.11657	201.36468	150.14760	11.77861	0.2130051	2.9103839	14	1	9 days	0.70	Williams	2000 CZ ₂₈
2000 CQ ₂₉	15.6	0.15	20000206	349.29306	198.42509	317.86466	4.11974	0.0699671	2.4295798	20	1	9 days	0.49	Williams	2000 CQ ₂₉
2000 CT ₂₉	13.0	0.15	20000206	298.06084	72.97258	156.42226	1.99927	0.1935365	3.2022790	19	1	9 days	0.41	Williams	2000 CT ₂₉
2000 CU ₂₉	13.9	0.15	20000117	71.95658	73.29975	323.16916	12.20649	0.2942406	3.0220842	12	1	4 days	0.71	E Spahr	2000 CU ₂₉
2000 CW ₂₉	14.8	0.15	20000206	59.27243	271.21873	154.16157	2.97971	0.1800386	2.3626441	19	1	9 days	0.34	Williams	2000 CW ₂₉
2000 CB ₃₀	13.3	0.15	20000206	19.03626	335.75947	149.72985	2.19381	0.0358884	2.9367290	20	1	9 days	0.48	Williams	2000 CB ₃₀
2000 CK ₃₀	14.5	0.15	20000206	290.85627	77.63765	161.82390	6.22122	0.2061122	2.6350349	15	1	9 days	0.48	Williams	2000 CK ₃₀
2000 CM ₃₀	13.6	0.15	20000206	34.04529	302.59616	167.44927	3.98164	0.0514362	2.8846147	29	1	9 days	0.54	Williams	2000 CM ₃₀
2000 CN ₃₀	15.1	0.15	20000206	262.48614	70.06177	178.48184	2.04717	0.0429707	2.2320361	24	1	9 days	0.73	Williams	2000 CN ₃₀
2000 CP ₃₀	15.6	0.15	20000117	1.85178	310.12739	172.82598	2.32454	0.1353229	2.5159217	17	1	4 days	0.52	E Williams	2000 CP ₃₀
2000 CU ₃₀	15.7	0.15	20000117	223.04673	113.56794	157.28322	6.02295	0.0772038	2.2292608	27	1	9 days	0.61	Williams	2000 CU ₃₀
2000 CW ₃₀	15.1	0.15	20000117	256.46670	17.76299	222.31630	3.88242	0.0645119	2.5853549	16	1	6 days	0.68	E Williams	2000 CW ₃₀

2000 CA ₃₁	13.1	0.15	20000117	168.49007	65.79150	252.37424	2.40940	0.5203530	2.4514356	14	1	6 days	0.54	E Spahr	2000 CA ₃₁
2000 CD ₃₁	17.5	0.15	20000117	12.74668	325.31262	140.47437	9.61892	0.2375199	2.2738474	11	1	4 days	1.11	Williams	2000 CD ₃₁
2000 CL ₃₁	17.1	0.15	20000117	348.37807	335.54257	168.03475	3.88693	0.1193169	2.0349995	14	1	4 days	1.03	E Spahr	2000 CL ₃₁
2000 CO ₃₁	15.0	0.15	20000117	132.90354	179.47176	164.89706	4.80045	0.2485623	2.2511388	11	1	4 days	0.57	E Spahr	2000 CO ₃₁
2000 CR ₃₁	13.8	0.15	20000117	198.11929	52.59344	247.22642	0.95277	0.0819099	2.6438935	11	1	6 days	0.36	E Williams	2000 CR ₃₁
2000 CS ₃₁	14.9	0.15	20000206	129.70233	84.05943	274.55622	3.62510	0.1450639	2.2184896	15	1	8 days	0.48	Williams	2000 CS ₃₁
2000 CU ₃₁	14.9	0.15	20000117	15.52961	318.94599	149.02489	12.10213	0.2521649	3.0955979	12	1	6 days	0.46	E Williams	2000 CU ₃₁
2000 CB ₃₂	13.6	0.15	20000117	98.80562	78.10278	304.82546	3.75168	0.1749642	3.2097270	12	1	6 days	0.52	E Williams	2000 CB ₃₂
2000 CD ₃₂	17.6	0.15	20000206	353.53196	29.78246	139.56145	24.55173	0.2346351	1.7974445	40	1	4 days	0.57	Williams	2000 CD ₃₂
2000 CE ₃₂	16.2	0.15	20000206	315.45719	35.27792	167.24613	5.08900	0.1662605	2.4134206	18	1	10 days	1.21	Williams	2000 CE ₃₂
2000 CF ₃₂	15.6	0.15	20000206	331.44218	15.45041	168.18879	4.97660	0.1819895	2.6205514	18	1	8 days	0.84	Williams	2000 CF ₃₂
2000 CJ ₃₂	13.8	0.15	20000117	150.41918	20.81395	324.69414	12.17265	0.1402904	2.6800078	14	1	4 days	0.58	E Spahr	2000 CJ ₃₂
2000 CM ₃₂	14.4	0.15	20000117	149.44883	110.47230	224.32708	1.25175	0.0906194	2.8491637	14	1	8 days	0.45	Williams	2000 CM ₃₂
2000 CN ₃₂	14.5	0.15	20000117	262.79651	88.46468	148.14890	12.08727	0.0600981	2.9690427	14	1	6 days	0.74	E Spahr	2000 CN ₃₂
2000 CO ₃₂	17.0	0.15	20000117	9.22636	190.78983	287.40529	2.08005	0.1384675	2.6396264	20	1	5 days	0.86	E Williams	2000 CO ₃₂
2000 CX ₃₂	16.3	0.15	20000117	30.29790	164.78532	299.55336	2.28486	0.0977550	2.3956501	16	1	5 days	0.60	E Williams	2000 CX ₃₂
2000 CZ ₃₂	13.5	0.15	20000206	311.67647	249.84777	313.87065	4.94072	0.0832504	2.4180344	14	1	13 days	0.32	Williams	2000 CZ ₃₂
2000 CF ₃₃	13.7	0.15	20000206	4.60351	346.05556	156.02904	3.41093	0.1379845	2.6216471	14	1	9 days	0.19	Williams	2000 CF ₃₃
2000 CH ₃₃	14.2	0.15	20000206	323.71594	59.06865	142.84250	1.96612	0.1596471	3.0892379	20	1	6 days	1.06	E Williams	2000 CH ₃₃
2000 CJ ₃₃	17.4	0.15	20000206	100.10188	244.88419	319.26236	28.01889	0.1045405	1.8415004	70	1	13 days	0.63	Williams	2000 CJ ₃₃
2000 CK ₃₃	18.4	0.15	20000206	102.14876	215.67573	124.91118	18.18554	0.4157016	0.9695717	101	1	12 days	0.58	Williams	2000 CK ₃₃
2000 CL ₃₃	18.1	0.15	20000206	23.23555	127.50563	298.23656	8.88429	0.5533826	2.4810930	42	1	8 days	0.58	Nakano	2000 CL ₃₃
2000 CM ₃₃	21.2	0.15	20000226	346.75585	50.08521	132.98261	11.55569	0.2720471	1.3224014	157	1	37 days	0.55	M-v 6 Williams	2000 CM ₃₃
2000 CN ₃₃	19.3	0.15	20000206	4.53048	351.49322	129.67922	17.67441	0.5862112	2.5923522	71	1	11 days	0.42	Marsden	2000 CN ₃₃
2000 CO ₃₃	21.5	0.15	20000206	0.12693	178.82876	319.73434	18.22706	0.5654605	2.3383492	60	1	7 days	0.58	Williams	2000 CO ₃₃
2000 CP ₃₃	14.8	0.15	20000206	68.13874	300.42118	100.86311	13.97109	0.2589099	2.6741405	12	1	11 days	0.44	Williams	2000 CP ₃₃
2000 CQ ₃₃	14.0	0.15	20000206	80.39239	272.15530	127.27807	7.62343	0.1634048	3.1345619	16	1	6 days	0.77	E Williams	2000 CQ ₃₃
2000 CR ₃₃	15.2	0.15	20000206	5.83267	171.27522	323.46114	15.48900	0.0998682	2.6156584	17	1	8 days	0.65	Williams	2000 CR ₃₃
2000 CS ₃₃	14.5	0.15	20000117	118.17697	228.94527	137.98931	10.99587	0.1401164	2.4300208	30	1	16 days	0.60	Williams	2000 CS ₃₃
2000 CT ₃₃	14.9	0.15	20000206	8.42049	122.60879	9.07099	1.05905	0.1109068	2.8503254	25	1	8 days	0.95	Williams	2000 CT ₃₃
2000 CU ₃₃	15.2	0.15	20000206	35.90070	126.15200	336.33700	3.03371	0.0921467	2.5205764	7	1	2 days	1.03	E Spahr	2000 CU ₃₃
2000 CV ₃₃	15.0	0.15	20000206	314.08812	62.07609	136.61923	4.91244	0.0539591	2.4811570	11	1	6 days	0.59	E Williams	2000 CV ₃₃
2000 CW ₃₃	14.7	0.15	20000206	262.57997	269.58194	346.39183	3.12562	0.0921370	2.3845533	11	1	6 days	0.43	E Williams	2000 CW ₃₃
2000 CX ₃₃	15.1	0.15	20000206	18.02990	331.04942	143.10203	11.17132	0.2986478	3.1542959	14	1	6 days	1.42	E Williams	2000 CX ₃₃
2000 CY ₃₃	13.5	0.15	20000206	220.17842	158.06283	150.32160	18.44874	0.2392329	2.4710413	10	1	6 days	0.68	E Williams	2000 CY ₃₃
2000 CZ ₃₃	14.9	0.15	20000206	36.03974	126.16550	339.88619	5.65198	0.1291968	2.6494742	10	1	6 days	0.59	E Williams	2000 CZ ₃₃
2000 CC ₃₄	15.3	0.15	20000206	42.91019	56.34873	46.59798	0.23853	0.0677790	2.2906420	17	1	8 days	0.79	Williams	2000 CC ₃₄
2000 CD ₃₄	15.0	0.15	20000206	42.39391	108.74156	340.60742	2.77847	0.2067799	2.4283905	17	1	8 days	0.35	Williams	2000 CD ₃₄
2000 CE ₃₄	13.5	0.15	20000206	55.82906	277.82356	150.63153	5.13701	0.2763605	3.4174276	19	1	8 days	0.86	Williams	2000 CE ₃₄
2000 CG ₃₄	15.6	0.15	20000206	358.22250	358.82770	155.07882	6.65303	0.0692706	2.4366867	13	1	9 days	0.82	Williams	2000 CG ₃₄
2000 CK ₃₄	14.4	0.15	20000206	209.66107	337.08627	332.79433	6.47303	0.1325139	2.2700258	18	1	9 days	1.12	Williams	2000 CK ₃₄
2000 CM ₃₄	15.3	0.15	20000206	66.89810	81.38210	298.83973	1.63676	0.1975967	2.5150370	8	1	7 days	0.76	E Williams	2000 CM ₃₄
2000 CN ₃₄	17.5	0.15	20000206	339.28238	21.45157	140.37813	10.10154	0.1975988	2.6562036	8	1	7 days	0.40	Williams	2000 CN ₃₄
2000 CR ₃₄	14.4	0.15	20000206	190.94018	200.15526	129.27493	3.24648	0.2422602	2.4072447	9	1	8 days	0.79	Williams	2000 CR ₃₄
2000 CS ₃₄	15.2	0.15	20000206	80.18963	278.55368	132.25188	3.45628	0.2055603	2.4893082	10	1	8 days	0.53	Williams	2000 CS ₃₄
2000 CT ₃₄	15.0	0.15	20000206	250.63621	99.51309	160.12063	8.62080	0.1386851	3.0741574	14	1	7 days	0.63	Williams	2000 CT ₃₄
2000 CV ₃₄	14.3	0.15	20000117	60.69821	256.57604	136.64663	8.80152	0.2716259	2.8280628	11	1	4 days	0.55	E Spahr	2000 CV ₃₄
2000 CW ₃₄	13.5	0.15	20000206	111.51775	83.35948	286.01133	8.99897	0.0901717	3.1303666	19	1	8 days	0.48	Williams	2000 CW ₃₄
2000 CX ₃₄	15.1	0.15	20000206	271.70521	2.71133	230.81136	3.26823	0.1305983	2.3234495	22	1	9 days	0.49	Williams	2000 CX ₃₄
2000 CY ₃₄	15.7	0.15	20000206	334.21101	353.58797	168.31573	5.12565	0.0887513	2.2702348	24	1	8 days	0.55	Williams	2000 CY ₃₄
2000 CB ₃₅	13.7	0.15	20000117	173.72792	169.33384	142.43670	14.06365	0.1809425	2.6077578	21	1	30 days	0.60	Williams	2000 CB ₃₅
2000 CC ₃₅	18.3	0.15	20000117	350.73026	197.12423	302.11643	3.23548	0.2345534	2.2888796	26	1	7 days	1.08	Williams	2000 CC ₃₅
2000 CE ₃₅	15.2	0.15	20000117	177.41580	106.90091	204.42667	2.76322	0.0786512	2.6199998	22	1	9 days	0.66	Williams	2000 CE ₃₅

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2000 CF ₃₅	14.4	0.15	20000117	163.59177	170.50915	148.12476	4.24640	0.2762351	2.2506663	21	1	11 days	0.55		Williams	2000 CF ₃₅
2000 CG ₃₅	14.8	0.15	20000117	241.98314	61.24496	202.16027	3.59835	0.1824839	2.3309194	9	1	4 days	0.63	E Spahr	Williams	2000 CG ₃₅
2000 CH ₃₅	11.2	0.15	20000117	161.53325	155.65052	172.81478	6.58122	0.0305187	5.1522069	14	1	4 days	0.53	E Spahr	Williams	2000 CH ₃₅
2000 CJ ₃₅	14.5	0.15	20000117	357.24844	192.09873	301.44041	10.05183	0.1249192	3.0876942	12	1	4 days	0.37	E Spahr	Williams	2000 CJ ₃₅
2000 CK ₃₅	16.1	0.15	20000117	23.70067	306.81214	153.60489	5.73516	0.0819124	2.3157658	22	1	7 days	0.89		Williams	2000 CK ₃₅
2000 CL ₃₅	13.1	0.15	20000206	123.53430	206.11497	153.08652	6.91556	0.1382447	3.2472519	22	1	9 days	0.94		Williams	2000 CL ₃₅
2000 CM ₃₅	13.8	0.15	20000206	85.06494	80.66902	304.86413	11.29814	0.2174355	2.6672896	38	1	9 days	0.44		Williams	2000 CM ₃₅
2000 CN ₃₅	13.6	0.15	20000117	249.74401	79.45922	187.27046	7.48250	0.2322859	2.6047876	13	1	4 days	0.48	E Spahr	Williams	2000 CN ₃₅
2000 CO ₃₅	14.6	0.15	20000117	36.66069	244.75600	197.69296	5.91902	0.1756916	2.8269474	13	1	4 days	0.58	E Spahr	Williams	2000 CO ₃₅
2000 CQ ₃₅	15.0	0.15	20000117	291.39425	300.49163	262.63484	5.28561	0.0162357	2.2362953	13	1	4 days	0.46	E Spahr	Williams	2000 CQ ₃₅
2000 CR ₃₅	14.4	0.15	20000206	52.02998	253.49828	173.02259	7.42313	0.2157584	2.3589788	16	1	10 days	0.92		Williams	2000 CR ₃₅
2000 CS ₃₅	13.9	0.15	20000206	333.07408	276.00367	260.73389	4.44426	0.1099897	2.2690513	18	1	10 days	0.25		Williams	2000 CS ₃₅
2000 CT ₃₅	14.1	0.15	20000206	4.78657	217.76371	280.91045	3.95485	0.1104728	2.5240590	21	1	11 days	0.61		Williams	2000 CT ₃₅
2000 CU ₃₅	13.9	0.15	20000206	2.37193	318.27454	182.67743	8.41687	0.1669372	2.5978589	18	1	10 days	0.29		Williams	2000 CU ₃₅
2000 CW ₃₅	13.6	0.15	20000117	108.92591	71.68107	282.06780	9.60719	0.3400405	2.6354310	17	1	6 days	0.50	E Spahr	Williams	2000 CW ₃₅
2000 CX ₃₅	13.9	0.15	20000206	25.98199	283.34447	193.88980	6.72444	0.0624465	2.3764263	22	1	11 days	0.47		Williams	2000 CX ₃₅
2000 CY ₃₅	14.4	0.15	20000117	49.24267	272.84677	160.08026	8.86409	0.2102444	2.7649241	15	1	4 days	0.39	E Williams	Williams	2000 CY ₃₅
2000 CZ ₃₅	14.0	0.15	20000206	261.05988	105.42164	158.20813	12.78008	0.1389470	2.6386131	25	1	11 days	1.03		Williams	2000 CZ ₃₅
2000 CA ₃₆	13.0	0.15	20000206	36.29299	301.10884	156.75210	27.67111	0.1912703	3.1162114	21	1	11 days	0.67		Williams	2000 CA ₃₆
2000 CB ₃₆	13.4	0.15	20000117	326.15215	265.44752	282.52399	3.56036	0.1600770	2.5359215	26	1	39 days	0.78		Williams	2000 CB ₃₆
2000 CC ₃₆	14.4	0.15	20000117	297.28568	59.34952	175.77642	3.44580	0.2556984	2.4513896	13	1	4 days	0.59	E Spahr	Williams	2000 CC ₃₆
2000 CD ₃₆	15.6	0.15	20000206	24.23554	307.79077	156.01177	8.17299	0.2925551	2.7758478	24	1	12 days	0.58		Williams	2000 CD ₃₆
2000 CF ₃₆	14.9	0.15	20000206	322.27207	38.07293	161.45544	9.06204	0.1560180	2.3152083	15	1	11 days	0.61		Williams	2000 CF ₃₆
2000 CG ₃₆	13.4	0.15	20000206	272.84937	298.10524	307.73376	6.66478	0.0534597	2.7038518	17	1	10 days	0.87		Williams	2000 CG ₃₆
2000 CH ₃₆	15.7	0.15	20000117	8.03763	170.10003	316.93764	2.62751	0.2431430	2.4797117	15	1	5 days	0.90	E Williams	Williams	2000 CH ₃₆
2000 CJ ₃₆	12.8	0.15	20000117	208.97809	343.60776	324.40354	10.33389	0.1219341	2.7452441	11	1	4 days	3.46	E Spahr	Williams	2000 CJ ₃₆
2000 CK ₃₆	14.0	0.15	20000206	84.11206	105.84045	308.98847	5.58534	0.1207222	2.4106053	14	1	10 days	0.71		Williams	2000 CK ₃₆
2000 CL ₃₆	14.3	0.15	20000117	296.41332	300.49612	279.36628	3.87174	0.0917585	2.2797002	10	1	4 days	0.35	E Spahr	Williams	2000 CL ₃₆
2000 CM ₃₆	14.8	0.15	20000117	324.02087	239.77305	316.91814	8.99568	0.1537647	2.6016003	17	1	5 days	0.62	E Spahr	Williams	2000 CM ₃₆
2000 CN ₃₆	12.8	0.15	20000117	266.72644	356.64658	275.96994	3.08467	0.2440921	2.7342542	12	1	4 days	0.28	E Spahr	Williams	2000 CN ₃₆
2000 CO ₃₆	11.8	0.15	20000117	246.02250	83.15015	188.55387	5.12594	0.0138048	3.7032741	12	1	4 days	3.78	E Spahr	Williams	2000 CO ₃₆
2000 CP ₃₆	14.4	0.15	20000206	41.04243	288.31212	165.28461	5.29897	0.2088077	2.9743754	18	1	9 days	0.52		Williams	2000 CP ₃₆
2000 CQ ₃₆	12.9	0.15	20000206	111.99423	223.61931	162.53312	13.02970	0.1862499	2.9921492	15	1	9 days	0.67		Williams	2000 CQ ₃₆
2000 CR ₃₆	13.7	0.15	20000117	244.84238	301.55984	329.08101	3.04063	0.0281467	2.8914809	10	1	4 days	3.97	E Spahr	Williams	2000 CR ₃₆
2000 CS ₃₆	12.4	0.15	20000117	252.53374	327.17486	303.98807	3.96761	0.0850099	3.2300569	12	1	4 days	1.79	E Spahr	Williams	2000 CS ₃₆
2000 CU ₃₆	15.3	0.15	20000117	9.32102	165.86326	325.62426	10.88399	0.2356024	2.7228664	13	1	4 days	0.53	E Spahr	Williams	2000 CU ₃₆
2000 CV ₃₆	15.3	0.15	20000117	17.70276	305.01273	169.77590	8.82688	0.2939012	2.8120299	11	1	4 days	0.99	E Spahr	Williams	2000 CV ₃₆
2000 CW ₃₆	14.8	0.15	20000117	32.90301	267.38862	191.34836	1.23060	0.2151854	2.7117385	11	1	4 days	0.52	E Spahr	Williams	2000 CW ₃₆
2000 CX ₃₆	14.8	0.15	20000117	65.67102	94.29715	330.91190	4.75044	0.1509598	2.2439857	15	1	6 days	0.32	E Williams	Williams	2000 CX ₃₆
2000 CY ₃₆	14.7	0.15	20000117	280.61802	301.90674	308.18858	3.39139	0.1725467	2.2903224	10	1	4 days	0.32	E Spahr	Williams	2000 CY ₃₆
2000 CZ ₃₆	14.0	0.15	20000117	93.43798	146.20622	272.97641	1.80646	0.0143941	2.5958159	17	1	5 days	0.62	E Spahr	Williams	2000 CZ ₃₆
2000 CB ₃₇	14.9	0.15	20000117	98.24887	75.97528	328.73086	5.20438	0.0731194	2.1594386	11	1	4 days	0.53	E Spahr	Williams	2000 CB ₃₇
2000 CD ₃₇	12.8	0.15	20000117	213.36798	140.12645	167.90122	9.92274	0.0565390	2.9546272	12	1	4 days	0.38	E Spahr	Williams	2000 CD ₃₇
2000 CF ₃₇	12.4	0.15	20000117	258.74322	299.35240	335.19926	5.98148	0.1162807	3.5810006	10	1	4 days	2.52	E Spahr	Williams	2000 CF ₃₇
2000 CH ₃₇	14.7	0.15	20000117	276.73287	59.47425	189.64405	1.97826	0.1570774	2.2549552	9	1	4 days	0.34	E Spahr	Williams	2000 CH ₃₇
2000 CJ ₃₇	15.4	0.15	20000206	90.60092	8.74785	17.27902	4.79376	0.1683129	2.2449059	23	1	8 days	0.46		Williams	2000 CJ ₃₇
2000 CK ₃₇	16.8	0.15	20000206	337.22224	224.36959	298.81550	3.77916	0.1943462	2.4050382	16	1	5 days	0.71	E Williams	Williams	2000 CK ₃₇
2000 CL ₃₇	16.7	0.15	20000206	337.66325	36.88882	117.39450	2.66475	0.0736632	2.2031133	14	1	9 days	1.17		Williams	2000 CL ₃₇
2000 CM ₃₇	15.8	0.15	20000206	303.82653	268.39330	295.97388	3.49906	0.1837905	2.5809167	19	1	5 days	0.71	E Williams	Williams	2000 CM ₃₇
2000 CP ₃₇	16.5	0.15	20000206	331.15127	230.22826	305.51028	4.92032	0.2243192	2.2930175	13	1	5 days	0.42	E Williams	Williams	2000 CP ₃₇
2000 CQ ₃₇	17.2	0.15	20000206	335.61428	72.37824	99.00979	1.05613	0.2450539	2.2159445	13	1	8 days	0.67		Williams	2000 CQ ₃₇
2000 CS ₃₇	15.4	0.15	20000117	110.92047	175.89299	174.55105	2.38033	0.2846593	2.4242702	23	1	7 days	0.75		Williams	2000 CS ₃₇
2000 CT ₃₇	14.6	0.15	20000206	334.48359	60.30735	108.71139	1.79688	0.1921299	3.2472920	13	1	8 days	0.61		Williams	2000 CT ₃₇

2000 CV ₃₇	14.5	0.15	20000206	161.27401	8.46521	318.09440	4.16633	0.1314039	2.6043216	12	1	8 days	0.65	Williams	2000 CV ₃₇
2000 CW ₃₇	14.7	0.15	20000206	259.58423	271.20314	342.00699	1.22049	0.1890254	2.4063163	21	1	8 days	0.47	Williams	2000 CW ₃₇
2000 CY ₃₇	14.7	0.15	20000206	322.58948	216.10623	316.78070	10.32190	0.0381718	2.8928150	16	1	8 days	0.83	Williams	2000 CY ₃₇
2000 CZ ₃₇	15.4	0.15	20000206	340.14534	165.62202	359.51695	0.47563	0.2262567	3.0602609	15	1	8 days	0.54	Williams	2000 CZ ₃₇
2000 CA ₃₈	14.2	0.15	20000206	291.28075	85.37445	132.24498	3.08906	0.1338107	3.2304852	16	1	8 days	0.68	Williams	2000 CA ₃₈
2000 CB ₃₈	13.6	0.15	20000206	119.86231	18.45378	332.71908	4.90705	0.2614202	3.1179422	24	1	8 days	0.71	Williams	2000 CB ₃₈
2000 CD ₃₈	14.3	0.15	20000206	241.30387	174.77789	92.39872	3.89691	0.1686621	2.4016810	18	1	8 days	0.51	Williams	2000 CD ₃₈
2000 CE ₃₈	14.6	0.15	20000206	137.64353	265.89023	84.89469	3.88483	0.0682444	2.6845043	14	1	8 days	0.60	Williams	2000 CE ₃₈
2000 CF ₃₈	16.4	0.15	20000206	342.16779	41.14460	122.17957	1.58526	0.2311582	2.5753823	20	1	8 days	0.72	Williams	2000 CF ₃₈
2000 CH ₃₈	16.0	0.15	20000206	345.73862	23.80351	131.72033	1.46855	0.1755323	2.6813513	16	1	8 days	1.12	Williams	2000 CH ₃₈
2000 CJ ₃₈	16.8	0.15	20000206	327.20077	50.56325	134.48069	2.25470	0.2151346	2.1309729	16	1	8 days	0.92	Williams	2000 CJ ₃₈
2000 CL ₃₈	15.6	0.15	20000206	118.86378	32.99405	323.84838	7.79579	0.2083008	2.3133208	17	1	8 days	0.80	Williams	2000 CL ₃₈
2000 CM ₃₈	15.6	0.15	20000206	357.02304	173.51483	326.26083	4.58281	0.0356118	2.1505833	14	1	8 days	0.38	Williams	2000 CM ₃₈
2000 CO ₃₈	14.5	0.15	20000206	109.79783	253.10475	113.94155	3.20335	0.0927301	2.8736177	13	1	9 days	0.85	Williams	2000 CO ₃₈
2000 CS ₃₈	15.0	0.15	20000206	32.43935	102.78016	353.11432	2.65616	0.0775687	2.7796657	12	1	8 days	0.59	Williams	2000 CS ₃₈
2000 CT ₃₈	13.4	0.15	20000206	132.81329	223.38391	130.44777	11.68616	0.1350900	3.1041312	16	1	9 days	0.69	Williams	2000 CT ₃₈
2000 CU ₃₈	13.6	0.15	20000206	186.69445	216.15601	98.96002	1.84088	0.0870703	2.6819301	22	1	8 days	0.42	Williams	2000 CU ₃₈
2000 CV ₃₈	15.1	0.15	20000206	87.42246	56.46223	335.65184	5.36005	0.1821408	2.2583718	18	1	8 days	0.57	Williams	2000 CV ₃₈
2000 CW ₃₈	14.3	0.15	20000206	28.51153	336.45267	128.76522	8.82537	0.1186212	3.0999415	13	1	8 days	0.31	Williams	2000 CW ₃₈
2000 CY ₃₈	15.5	0.15	20000206	5.35235	146.57993	350.77718	9.71064	0.1806948	2.4911618	23	1	8 days	0.64	Williams	2000 CY ₃₈
2000 CZ ₃₈	16.4	0.15	20000117	339.22661	107.51590	67.19089	5.53021	0.2477732	2.5704869	12	1	3 days	0.45	Spahr	2000 CZ ₃₈
2000 CC ₃₉	16.8	0.15	20000206	24.62202	68.45989	33.05038	4.74744	0.2781442	2.6334689	21	1	5 days	0.62	E Spahr	2000 CC ₃₉
2000 CD ₃₉	15.0	0.15	20000117	88.80142	93.24358	276.94379	6.24662	0.2431803	2.3044585	22	1	6 days	0.68	E Williams	2000 CD ₃₉
2000 CF ₃₉	13.9	0.15	20000117	74.14110	240.96972	150.80840	10.97026	0.1713139	3.1396247	9	1	2 days	0.36	E Spahr	2000 CF ₃₉
2000 CG ₃₉	14.6	0.15	20000117	265.71020	90.03692	143.64959	12.43592	0.1179821	2.6887779	14	1	4 days	0.89	E Williams	2000 CG ₃₉
2000 CH ₃₉	15.9	0.15	20000117	28.93847	163.72298	290.11087	5.56687	0.0739636	2.2071315	20	1	6 days	0.66	E Williams	2000 CH ₃₉
2000 CJ ₃₉	14.9	0.15	20000206	316.73816	96.10158	102.59362	1.05884	0.1339154	2.2694601	17	1	7 days	0.24	Williams	2000 CJ ₃₉
2000 CN ₃₉	17.6	0.15	20000206	8.35203	351.84740	139.26784	20.82639	0.0675505	1.8342659	31	1	6 days	1.15	E Spahr	2000 CN ₃₉
2000 CO ₃₉	17.0	0.15	20000206	227.39754	131.89387	143.35815	23.88838	0.0650496	1.9894218	26	1	8 days	0.40	Marsden	2000 CO ₃₉
2000 CP ₃₉	16.1	0.15	20000206	311.73192	61.05420	138.53569	6.28662	0.1028412	2.2547161	18	1	9 days	1.07	Williams	2000 CP ₃₉
2000 CQ ₃₉	15.7	0.15	20000206	62.52137	283.49679	129.16994	7.64778	0.2039226	2.3809730	12	1	5 days	0.76	E Williams	2000 CQ ₃₉
2000 CR ₃₉	16.2	0.15	20000206	343.49218	33.03900	131.11171	1.74252	0.1607200	2.3401531	22	1	9 days	0.67	Williams	2000 CR ₃₉
2000 CS ₃₉	15.4	0.15	20000117	113.89502	265.31821	93.35707	25.27963	0.1382107	1.9512272	13	1	6 days	0.35	Spahr	2000 CS ₃₉
2000 CV ₃₉	16.1	0.15	20000117	44.35054	122.26783	289.38231	9.25269	0.3203646	2.3982310	13	1	6 days	0.62	E Spahr	2000 CV ₃₉
2000 CX ₃₉	16.5	0.15	20000117	23.88879	293.71467	143.17352	29.02923	0.3645035	2.5459780	14	1	6 days	0.35	Spahr	2000 CX ₃₉
2000 CC ₄₀	17.1	0.15	20000206	22.10153	320.50542	128.63465	13.95063	0.3295961	2.7012899	12	1	5 days	0.61	E Spahr	2000 CC ₄₀
2000 CE ₄₀	16.2	0.15	20000206	308.15522	311.01771	263.02667	4.75781	0.2747528	2.3110186	12	1	4 days	0.58	E Spahr	2000 CE ₄₀
2000 CF ₄₀	15.7	0.15	20000206	85.38365	99.14542	290.36671	4.41057	0.1864302	2.2383224	16	1	4 days	0.54	E Williams	2000 CF ₄₀
2000 CG ₄₀	15.2	0.15	20000206	106.03586	48.87391	338.75835	19.31083	0.1396865	1.9118582	25	1	7 days	0.34	Williams	2000 CG ₄₀
2000 CH ₄₀	16.4	0.15	20000206	3.69780	174.02293	331.38429	19.73373	0.0581129	1.8983949	15	1	9 days	0.61	Williams	2000 CH ₄₀
2000 CJ ₄₀	13.1	0.15	20000206	63.19617	329.30022	139.49899	24.68159	0.1927428	2.3595822	13	1	4 days	0.55	Spahr	2000 CJ ₄₀
2000 CK ₄₀	13.6	0.15	20000206	186.94497	241.92267	124.66826	25.44708	0.1389863	1.8338308	11	1	4 days	0.46	Spahr	2000 CK ₄₀
2000 CL ₄₀	13.5	0.15	20000206	358.00557	115.50391	76.20829	27.63162	0.2467545	2.1686382	13	1	4 days	0.34	Spahr	2000 CL ₄₀
2000 CN ₄₀	14.6	0.15	20000117	43.64180	290.72472	138.51288	12.89890	0.2535884	3.0883188	26	1	16 days	1.16	Williams	2000 CN ₄₀
2000 CO ₄₀	15.3	0.15	20000206	32.21563	304.53590	153.71812	5.13339	0.1603363	2.6172771	18	1	8 days	0.25	Nakano	2000 CO ₄₀
2000 CQ ₄₀	16.8	0.15	20000206	11.86283	25.25000	102.34850	4.30821	0.2384194	2.6252790	17	1	10 days	0.46	Williams	2000 CQ ₄₀
2000 CR ₄₀	16.2	0.15	20000206	14.54145	82.55306	46.33712	3.32078	0.1208004	2.3810645	13	1	10 days	0.36	Williams	2000 CR ₄₀
2000 CS ₄₀	15.3	0.15	20000206	310.53276	77.01984	134.38068	15.41753	0.1076763	3.0817579	11	1	10 days	0.61	Williams	2000 CS ₄₀
2000 CT ₄₀	15.3	0.15	20000206	200.79154	232.03500	80.54430	4.93148	0.0437590	2.6639841	13	1	10 days	0.53	Williams	2000 CT ₄₀
2000 CU ₄₀	13.7	0.15	20000206	176.87329	310.49121	24.66831	6.15257	0.0533730	2.8685856	21	1	10 days	0.39	Williams	2000 CU ₄₀
2000 CX ₄₀	16.6	0.15	20000206	6.40077	38.47916	99.00491	3.95466	0.1610054	2.3387899	13	1	9 days	0.49	Williams	2000 CX ₄₀
2000 CA ₄₁	15.3	0.15	20000117	4.31094	168.95798	337.64430	26.52480	0.2134176	2.6592841	13	1	6 days	0.46	Spahr	2000 CA ₄₁
2000 CB ₄₁	15.4	0.15	20000206	4.30146	173.54489	323.69655	9.00808	0.1892260	3.1483456	10	1	5 days	0.39	E Williams	2000 CB ₄₁

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2000 CE ₄₁	14.3	0.15	20000206	119.73251	225.73073	147.93577	19.68785	0.1953244	3.1315555	7	1	2 days	0.21	E Williams	2000 CE ₄₁
2000 CF ₄₁	15.7	0.15	20000206	276.42711	255.26715	347.88387	2.24377	0.1053144	2.2513119	15	1	7 days	0.75	E Williams	2000 CF ₄₁
2000 CG ₄₁	15.7	0.15	20000206	81.21624	39.78711	343.25562	2.17443	0.1943391	2.5264205	11	1	4 days	0.40	E Williams	2000 CG ₄₁
2000 CH ₄₁	15.6	0.15	20000206	125.20377	21.57232	344.88853	3.08922	0.2065384	2.1493530	13	1	6 days	0.82	E Williams	2000 CH ₄₁
2000 CQ ₄₁	17.1	0.15	20000117	26.54930	174.58405	280.07096	4.16596	0.1088218	2.3277278	16	1	9 days	0.45	Williams	2000 CQ ₄₁
2000 CT ₄₁	15.4	0.15	20000117	75.28354	126.79332	274.37935	5.96893	0.1119356	2.4320270	12	1	6 days	0.66	E Spahr	2000 CT ₄₁
2000 CU ₄₁	14.7	0.15	20000206	329.40101	258.67801	273.13367	6.71225	0.0985645	3.0356382	11	1	8 days	0.70	Williams	2000 CU ₄₁
2000 CW ₄₁	14.5	0.15	20000117	236.83217	328.69514	305.45343	13.93326	0.2445759	2.4375263	14	1	6 days	0.68	E Spahr	2000 CW ₄₁
2000 CX ₄₁	14.8	0.15	20000206	3.77355	345.59526	143.64305	15.23251	0.1806998	3.1871939	25	1	9 days	0.79	Williams	2000 CX ₄₁
2000 CY ₄₁	15.9	0.15	20000117	88.42649	98.41827	289.05087	4.62413	0.1188471	2.1931396	14	1	6 days	0.53	E Spahr	2000 CY ₄₁
2000 CZ ₄₁	15.3	0.15	20000117	92.03924	93.50751	294.77638	6.10130	0.0846488	2.3310892	18	1	6 days	0.66	E Spahr	2000 CZ ₄₁
2000 CA ₄₂	16.0	0.15	20000206	54.76291	161.23015	264.31728	2.16313	0.1488091	2.2565329	18	1	9 days	0.68	Williams	2000 CA ₄₂
2000 CL ₄₂	15.5	0.15	20000206	356.38235	344.30907	156.07944	2.15564	0.0755378	2.4163744	19	1	9 days	0.48	Williams	2000 CL ₄₂
2000 CN ₄₂	15.0	0.15	20000117	227.17197	340.10903	300.90506	8.03774	0.2176878	2.3275691	18	1	6 days	0.83	E Spahr	2000 CN ₄₂
2000 CO ₄₂	15.8	0.15	20000117	52.53460	269.35299	155.93574	7.85080	0.1378652	2.4610252	14	1	6 days	0.77	E Spahr	2000 CO ₄₂
2000 CP ₄₂	14.6	0.15	20000206	300.33066	70.90313	146.28166	25.89784	0.1867077	3.0926152	13	1	9 days	0.94	Williams	2000 CP ₄₂
2000 CT ₄₂	15.5	0.15	20000117	272.69853	14.05488	213.05002	6.07889	0.0600844	2.4028359	13	1	6 days	0.66	E Spahr	2000 CT ₄₂
2000 CU ₄₂	13.2	0.15	20000206	189.33794	131.83324	178.98939	10.52636	0.0954499	3.0662211	17	1	10 days	0.49	Williams	2000 CU ₄₂
2000 CV ₄₂	13.8	0.15	20000117	272.22839	56.62945	167.94974	12.62915	0.0238347	2.8360029	20	1	35 days	0.61	Williams	2000 CV ₄₂
2000 CD ₄₃	16.0	0.15	20000117	97.33210	132.35717	245.27755	3.66347	0.1727650	2.2089701	21	1	7 days	0.56	Williams	2000 CD ₄₃
2000 CC ₄₃	16.1	0.15	20000117	29.58388	249.09153	204.26784	3.77876	0.1335948	2.3445650	13	1	6 days	0.58	E Spahr	2000 CC ₄₃
2000 CL ₄₃	16.1	0.15	20000206	42.69344	170.09878	272.38647	1.31562	0.1738542	2.4306799	16	1	9 days	0.48	Williams	2000 CL ₄₃
2000 CX ₄₃	14.0	0.15	20000117	6.77446	337.67513	153.03126	8.96413	0.0560021	3.0717038	14	1	6 days	0.52	E Spahr	2000 CX ₄₃
2000 CJ ₄₆	15.7	0.15	20000206	291.64542	83.12795	156.71208	1.76612	0.2354913	2.4722397	16	1	9 days	1.10	Williams	2000 CJ ₄₆
2000 CK ₄₇	15.3	0.15	20000206	52.91768	212.31736	202.25344	4.48850	0.2515870	2.6746551	15	1	8 days	0.54	Williams	2000 CK ₄₇
2000 CL ₄₇	15.5	0.15	20000206	60.04014	148.26650	268.11756	4.92429	0.1923442	2.5630847	11	1	9 days	0.47	Williams	2000 CL ₄₇
2000 CQ ₄₇	13.4	0.15	20000117	80.75504	127.05645	279.86226	7.72918	0.1611914	3.1979073	13	1	6 days	0.70	E Spahr	2000 CQ ₄₇
2000 CC ₄₈	14.5	0.15	20000206	298.57874	270.80166	302.67454	10.36157	0.0301626	2.5855569	18	1	9 days	0.53	Williams	2000 CC ₄₈
2000 CZ ₄₈	14.4	0.15	20000206	25.10015	305.42794	162.37077	10.49561	0.2266344	3.0060099	17	1	14 days	0.53	Williams	2000 CZ ₄₈
2000 CF ₅₀	14.6	0.15	20000117	39.55009	241.44572	182.40171	7.03692	0.3874192	2.7970998	14	1	6 days	0.51	E Spahr	2000 CF ₅₀
2000 CN ₅₀	15.7	0.15	20000206	3.87815	339.39253	164.55290	5.59529	0.1008707	2.4746318	11	1	12 days	0.44	Williams	2000 CN ₅₀
2000 CW ₅₀	15.8	0.15	20000206	328.16044	314.37061	235.20509	1.62721	0.1198578	2.3827718	10	1	11 days	0.45	Williams	2000 CW ₅₀
2000 CB ₅₁	13.6	0.15	20000206	332.56448	225.81941	320.24995	16.43433	0.1006776	3.1035901	16	1	11 days	0.98	Williams	2000 CB ₅₁
2000 CV ₅₁	13.8	0.15	20000206	71.20672	271.29887	160.92539	6.83175	0.0803771	3.1171759	14	1	12 days	0.58	Williams	2000 CV ₅₁
2000 CW ₅₁	15.8	0.15	20000206	6.94507	178.45638	321.50427	4.23956	0.1323740	2.4275151	23	1	13 days	0.65	Williams	2000 CW ₅₁
2000 CC ₅₂	15.8	0.15	20000206	347.66996	206.03554	320.02539	2.80580	0.1470306	2.3651684	15	1	12 days	0.56	Williams	2000 CC ₅₂
2000 CD ₅₂	14.3	0.15	20000206	0.83538	339.80252	172.03375	1.46241	0.1371735	3.2421657	10	1	12 days	0.59	Williams	2000 CD ₅₂
2000 CE ₅₂	15.1	0.15	20000206	340.79035	21.08738	152.86604	15.39877	0.0824342	2.5171032	12	1	9 days	0.57	Williams	2000 CE ₅₂
2000 CB ₅₃	13.5	0.15	20000206	92.54237	253.89911	160.53174	14.19874	0.0820463	3.1486349	17	1	11 days	0.48	Williams	2000 CB ₅₃
2000 CD ₅₃	14.0	0.15	20000206	239.23718	130.89363	160.12008	14.46130	0.1652917	2.6132275	12	1	9 days	0.50	Williams	2000 CD ₅₃
2000 CE ₅₃	14.8	0.15	20000117	340.86069	17.44102	126.11411	10.92363	0.0455423	3.0234848	12	1	16 days	0.15	Williams	2000 CE ₅₃
2000 CL ₅₃	15.6	0.15	20000117	21.64040	253.81285	216.54804	0.55690	0.2399750	2.6214695	9	1	6 days	0.38	E Williams	2000 CL ₅₃
2000 CQ ₅₃	15.1	0.15	20000117	262.79336	318.81971	305.56468	2.93095	0.1270135	2.2606406	28	1	39 days	0.43	Williams	2000 CQ ₅₃
2000 CR ₅₃	15.9	0.15	20000206	21.39382	161.49241	326.37886	3.89916	0.1607289	2.5562035	10	1	14 days	0.46	Williams	2000 CR ₅₃
2000 CU ₅₃	13.5	0.15	20000206	302.12904	83.93272	176.59749	0.84605	0.3288452	3.2629638	16	1	14 days	0.51	Williams	2000 CU ₅₃
2000 CW ₅₄	13.0	0.15	20000206	183.72624	2.99956	2.53527	24.18807	0.1613131	2.4415513	10	1	6 days	0.59	E Spahr	2000 CW ₅₄
2000 CX ₅₄	13.6	0.15	20000206	174.21181	212.08098	105.36633	2.11373	0.1150224	3.1285784	17	1	5 days	0.56	E Spahr	2000 CX ₅₄
2000 CA ₅₅	16.0	0.15	20000206	15.16210	341.56883	127.28075	8.44429	0.2254218	2.5936242	19	1	8 days	0.40	Williams	2000 CA ₅₅
2000 CD ₅₅	14.1	0.15	20000206	121.23075	70.94486	290.28628	8.90505	0.0346406	2.9679746	15	1	8 days	0.59	Williams	2000 CD ₅₅
2000 CE ₅₅	15.6	0.15	20000206	10.13358	126.80345	352.85136	2.12446	0.1114733	2.6934516	12	1	5 days	0.48	E Spahr	2000 CE ₅₅
2000 CM ₅₅	15.7	0.15	20000206	80.30180	203.24255	192.84501	4.46886	0.1320085	2.3030729	12	1	4 days	0.57	E Spahr	2000 CM ₅₅
2000 CN ₅₅	16.1	0.15	20000206	29.73726	293.24971	163.26898	4.19232	0.1462566	2.3382206	15	1	6 days	0.40	E Williams	2000 CN ₅₅
2000 CP ₅₅	15.2	0.15	20000206	102.35396	217.65823	159.49615	2.17013	0.1586258	2.2100933	18	1	7 days	0.59	E Williams	2000 CP ₅₅

2000 CS ₅₅	15.2	0.15	20000206	22.11929	149.25005	321.33543	1.61693	0.1501207	2.6798932	11	1	7 days	0.52	Williams	2000 CS ₅₅
2000 CT ₅₅	14.9	0.15	20000117	40.22669	121.67316	321.11297	8.84605	0.1505275	2.7774985	21	1	18 days	0.38	Williams	2000 CT ₅₅
2000 CU ₅₅	16.1	0.15	20000226	53.25125	107.98552	319.87419	5.58866	0.2429643	2.3352713	37	1	72 days	0.60	M-v 5 Williams	2000 CU ₅₅
2000 CV ₅₅	14.7	0.15	20000206	276.81290	102.75787	141.05245	14.16868	0.1647256	2.6801994	13	1	7 days	0.70	Williams	2000 CV ₅₅
2000 CW ₅₅	15.9	0.15	20000206	70.86537	247.20096	160.23231	0.71355	0.1993053	2.2518386	21	1	10 days	0.52	Williams	2000 CW ₅₅
2000 CX ₅₅	14.1	0.15	20000206	105.22099	244.41649	143.49303	10.15061	0.0833178	2.7212973	33	1	15 days	0.64	Williams	2000 CX ₅₅
2000 CZ ₅₅	14.3	0.15	20000206	310.89707	230.28259	324.62930	13.09900	0.0370794	2.8048145	18	1	10 days	0.54	Williams	2000 CZ ₅₅
2000 CA ₅₆	14.5	0.15	20000206	33.93344	310.25730	147.66228	1.76473	0.1618963	3.1862292	16	1	7 days	0.59	Williams	2000 CA ₅₆
2000 CB ₅₆	15.7	0.15	20000206	51.53816	225.09554	200.08659	0.55666	0.2524293	2.5206395	16	1	7 days	0.67	Williams	2000 CB ₅₆
2000 CC ₅₆	16.4	0.15	20000206	31.18725	133.37529	324.96136	4.42862	0.1911842	2.3724522	14	1	7 days	0.62	Williams	2000 CC ₅₆
2000 CD ₅₆	13.9	0.15	20000206	89.44941	70.97206	326.29467	9.82761	0.1662021	2.6380236	14	1	7 days	0.38	Williams	2000 CD ₅₆
2000 CG ₅₆	15.0	0.15	20000206	284.96133	159.76635	70.74088	3.52226	0.0532789	2.2248484	27	1	7 days	0.49	Williams	2000 CG ₅₆
2000 CJ ₅₆	12.5	0.15	20000206	273.26488	280.50515	349.37352	13.02327	0.2852008	2.7317058	29	1	7 days	0.31	Williams	2000 CJ ₅₆
2000 CK ₅₆	13.8	0.15	20000206	147.94053	234.89110	121.27468	7.63095	0.1394640	2.3308867	25	1	7 days	0.72	Williams	2000 CK ₅₆
2000 CL ₅₆	14.6	0.15	20000206	254.79291	175.26668	104.07753	5.15828	0.2288533	2.2432590	16	1	7 days	0.86	Williams	2000 CL ₅₆
2000 CM ₅₆	15.0	0.15	20000206	227.77710	260.39178	28.76276	4.38371	0.0861107	2.1657017	17	1	7 days	0.67	Williams	2000 CM ₅₆
2000 CP ₅₆	14.8	0.15	20000206	24.22347	120.51962	353.01352	10.12208	0.1996181	2.6945751	14	1	7 days	0.51	Williams	2000 CP ₅₆
2000 CQ ₅₆	15.1	0.15	20000206	351.39785	348.92894	158.99858	10.11186	0.0867599	2.7660885	12	1	4 days	0.63	E Spahr	2000 CQ ₅₆
2000 CS ₅₆	13.7	0.15	20000206	181.39881	129.33060	191.99532	0.79904	0.0948414	3.2174612	10	1	7 days	0.17	Williams	2000 CS ₅₆
2000 CU ₅₆	13.3	0.15	20000206	140.65750	34.90633	323.13679	15.91575	0.0968019	3.1711139	12	1	4 days	0.64	E Williams	2000 CU ₅₆
2000 CY ₅₆	16.0	0.15	20000206	230.90991	59.54720	205.55497	0.86514	0.1000156	2.3881192	10	1	3 days	0.52	E Williams	2000 CY ₅₆
2000 CB ₅₇	16.0	0.15	20000206	65.55718	84.24708	329.14271	3.84790	0.1251896	2.2589949	17	1	6 days	1.09	E Williams	2000 CB ₅₇
2000 CD ₅₇	15.1	0.15	20000206	75.36275	348.88510	55.23961	3.92115	0.1376895	2.4258292	30	1	6 days	0.65	E Williams	2000 CD ₅₇
2000 CE ₅₇	14.7	0.15	20000206	46.10152	86.03164	347.49599	11.45983	0.1665428	2.8909309	21	1	5 days	0.48	E Williams	2000 CE ₅₇
2000 CF ₅₇	15.3	0.15	20000206	266.07298	232.93588	7.52381	6.93912	0.0944401	2.2486229	19	1	5 days	0.77	E Williams	2000 CF ₅₇
2000 CP ₅₇	13.7	0.15	20000206	60.43999	359.46633	65.09661	14.63428	0.1847665	2.7111783	15	1	3 days	0.54	E Spahr	2000 CP ₅₇
2000 CR ₅₇	15.2	0.15	20000206	300.47026	71.32115	169.28365	1.51116	0.2406603	2.4816207	18	1	9 days	1.03	Williams	2000 CR ₅₇
2000 CT ₅₇	15.9	0.15	20000206	331.19601	208.60390	340.29626	2.18295	0.1257468	2.3797328	17	1	8 days	0.45	Williams	2000 CT ₅₇
2000 CU ₅₇	15.2	0.15	20000206	37.45717	129.23729	332.56152	12.19835	0.1696819	2.5881633	17	1	7 days	0.44	Marsden	2000 CU ₅₇
2000 CY ₅₇	12.4	0.15	20000206	101.22564	55.12626	342.66361	10.15124	0.2017548	3.0064378	14	1	6 days	0.68	E Williams	2000 CY ₅₇
2000 CB ₅₈	14.0	0.15	20000206	306.00090	239.10467	339.54875	12.30424	0.0525851	2.6558173	10	1	6 days	0.38	E Williams	2000 CB ₅₈
2000 CC ₅₈	13.0	0.15	20000206	340.15464	50.57557	143.87447	11.83928	0.1320193	2.7196845	14	1	6 days	0.39	E Williams	2000 CC ₅₈
2000 CR ₅₈	16.1	0.15	20000117	78.84120	97.79927	302.74757	17.18507	0.1053501	1.9325476	21	1	35 days	0.43	Williams	2000 CR ₅₈
2000 CS ₅₈	14.5	0.15	20000206	346.77923	206.61879	324.03697	32.31935	0.1393407	2.6055457	14	1	11 days	0.36	Williams	2000 CS ₅₈
2000 CT ₅₈	16.2	0.15	20000206	91.38242	253.49919	150.61333	22.82805	0.1181258	1.9219158	14	1	9 days	0.63	Williams	2000 CT ₅₈
2000 CV ₅₈	15.8	0.15	20000206	143.62733	353.11397	350.83052	18.46521	0.0767127	1.9038891	19	1	5 days	0.54	Williams	2000 CV ₅₈
2000 CW ₅₈	16.4	0.15	20000206	43.20409	292.26057	146.04054	23.94694	0.0996337	1.9143602	17	1	5 days	0.35	Williams	2000 CW ₅₈
2000 CX ₅₈	16.1	0.15	20000206	257.21264	328.20599	277.90109	18.83215	0.1195907	1.9314964	11	1	5 days	0.36	Williams	2000 CX ₅₈
2000 CY ₅₈	16.8	0.15	20000117	15.91168	309.43011	145.18169	25.81994	0.2318830	2.1851362	20	1	32 days	0.69	Williams	2000 CY ₅₈
2000 CA ₅₉	16.7	0.15	20000206	21.64144	319.45858	148.88349	23.17300	0.0698051	1.9082985	17	1	5 days	0.40	Williams	2000 CA ₅₉
2000 CC ₅₉	14.0	0.15	20000206	348.03553	46.42430	150.08133	14.04755	0.2018900	2.6053514	12	1	11 days	0.56	Williams	2000 CC ₅₉
2000 CD ₅₉	17.1	0.15	20000206	324.60151	234.74487	324.69343	3.87013	0.2487997	2.4612469	15	1	5 days	0.36	E Williams	2000 CD ₅₉
2000 CE ₅₉	20.3	0.15	20000206	249.07540	307.63196	318.83040	12.33645	0.1681272	1.1394572	81	1	10 days	0.75	Williams	2000 CE ₅₉
2000 CF ₅₉	16.6	0.15	20000206	48.34041	222.28275	141.93905	41.58221	0.6391772	1.6765257	79	1	10 days	0.74	Williams	2000 CF ₅₉
2000 CG ₅₉	17.7	0.15	20000206	32.88307	29.34388	29.80357	4.10372	0.4916630	2.4852983	31	1	5 days	0.53	Williams	2000 CG ₅₉
2000 CH ₅₉	19.5	0.15	20000206	157.76927	108.82922	214.33632	3.27059	0.4221009	0.8623435	58	1	8 days	0.61	Williams	2000 CH ₅₉
2000 CJ ₅₉	17.8	0.15	20000206	308.41426	68.90639	142.83701	41.20019	0.2135607	1.7796613	49	1	9 days	0.55	Williams	2000 CJ ₅₉
2000 CK ₅₉	24.3	0.15	20000206	8.33561	341.03882	139.45260	5.69711	0.3129792	1.4800119	28	1	4 days	0.53	Williams	2000 CK ₅₉
2000 CL ₅₉	18.0	0.15	20000206	21.56093	335.75850	143.75044	33.48622	0.1761889	1.7905452	30	1	5 days	0.72	Williams	2000 CL ₅₉
2000 CO ₅₉	13.2	0.15	20000206	237.89967	70.43591	189.79192	8.05918	0.1087203	3.2082287	14	1	9 days	0.67	Williams	2000 CO ₅₉
2000 CP ₅₉	15.8	0.15	20000206	343.63108	355.49971	153.53062	8.50742	0.0427081	2.3507257	12	1	8 days	0.63	Williams	2000 CP ₅₉
2000 CT ₅₉	14.0	0.15	20000206	278.64166	89.96191	152.85950	12.11322	0.2237172	2.9409782	13	1	8 days	0.66	Williams	2000 CT ₅₉
2000 CV ₅₉	13.3	0.15	20000206	168.48935	30.50603	296.45021	10.71356	0.1202078	3.0920240	16	1	9 days	0.55	Williams	2000 CV ₅₉

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2000 CW ₅₉	16.3	0.15	20000117	294.04949	48.51057	167.83848	5.97463	0.1664544	2.3958771	18	1	6 days	0.31	Marsden	2000 CW ₅₉
2000 CY ₅₉	14.5	0.15	20000206	242.41393	103.71184	156.80369	12.52306	0.0426083	2.6968460	16	1	10 days	0.52	Williams	2000 CY ₅₉
2000 CG ₆₀	15.5	0.15	20000206	102.69847	63.89319	312.20604	4.66070	0.2479713	2.3649527	23	1	9 days	0.61	Williams	2000 CG ₆₀
2000 CM ₆₀	13.2	0.15	20000117	248.70655	78.71497	196.84075	9.37105	0.2085668	3.0937893	15	1	6 days	0.62	E Spahr	2000 CM ₆₀
2000 CN ₆₀	15.4	0.15	20000206	359.21956	317.83636	190.27442	6.54805	0.0393730	2.3497026	17	1	9 days	0.72	Williams	2000 CN ₆₀
2000 CC ₆₁	13.9	0.15	20000117	234.03063	325.96332	329.48324	14.57112	0.2449884	2.9271911	16	1	7 days	0.66	Williams	2000 CC ₆₁
2000 CR ₆₂	13.9	0.15	20000206	276.32403	296.63522	321.40692	14.21978	0.1222230	2.6568322	12	1	9 days	0.74	Williams	2000 CR ₆₂
2000 CE ₆₃	15.2	0.15	20000206	285.85050	78.88405	179.30880	6.12643	0.2070777	2.5521997	13	1	14 days	0.46	Williams	2000 CE ₆₃
2000 CF ₆₃	13.4	0.15	20000206	247.65242	125.51796	175.47385	9.71963	0.2901142	2.5807879	19	1	14 days	0.49	Williams	2000 CF ₆₃
2000 CB ₆₄	15.2	0.15	20000206	305.24995	75.64755	162.68187	23.17598	0.2099381	2.2841995	12	1	9 days	0.51	Williams	2000 CB ₆₄
2000 CE ₆₄	14.5	0.15	20000206	173.49104	202.13995	117.04133	2.52718	0.0829247	2.5540485	16	1	8 days	0.47	Williams	2000 CE ₆₄
2000 CK ₆₄	15.3	0.15	20000206	352.13710	140.79938	1.99016	2.14001	0.1383422	3.0145665	11	1	8 days	0.66	Williams	2000 CK ₆₄
2000 CL ₆₄	16.4	0.15	20000206	332.81409	73.91363	99.19296	2.39452	0.1953259	2.4910285	14	1	8 days	0.85	Williams	2000 CL ₆₄
2000 CM ₆₄	15.6	0.15	20000206	30.87475	121.33110	336.55003	3.57757	0.0678151	2.5601697	12	1	8 days	0.63	Williams	2000 CM ₆₄
2000 CO ₆₄	14.5	0.15	20000206	306.73702	94.68534	115.81797	8.20702	0.2063134	3.2036235	20	1	8 days	0.69	Williams	2000 CO ₆₄
2000 CP ₆₄	16.3	0.15	20000206	43.23369	359.25037	75.66524	3.19931	0.1866633	2.4313802	14	1	8 days	0.50	Williams	2000 CP ₆₄
2000 CQ ₆₄	14.6	0.15	20000206	97.36671	53.75178	334.44930	9.33419	0.0856050	2.7823044	24	1	8 days	1.11	Williams	2000 CQ ₆₄
2000 CR ₆₄	16.2	0.15	20000206	333.76475	110.72208	57.71861	2.71317	0.1144924	2.3066602	23	1	8 days	0.68	Williams	2000 CR ₆₄
2000 CT ₆₄	15.4	0.15	20000206	27.97813	120.42524	339.92725	6.31263	0.1124612	2.7872812	16	1	8 days	0.62	Williams	2000 CT ₆₄
2000 CU ₆₄	14.2	0.15	20000206	66.42777	82.56298	336.22661	8.05778	0.0907600	3.0807737	18	1	8 days	0.64	Williams	2000 CU ₆₄
2000 CV ₆₄	14.5	0.15	20000206	40.27657	332.42751	113.09458	7.55840	0.1185076	3.1958269	12	1	8 days	0.49	Williams	2000 CV ₆₄
2000 CW ₆₄	16.1	0.15	20000206	337.83207	39.79125	124.20658	10.67514	0.1173613	2.4714407	16	1	8 days	0.47	Williams	2000 CW ₆₄
2000 CX ₆₄	14.6	0.15	20000206	153.71652	260.23658	75.69922	3.41773	0.1415892	2.5923262	13	1	8 days	0.46	Williams	2000 CX ₆₄
2000 CY ₆₄	15.2	0.15	20000206	320.74878	56.66810	130.79522	18.25039	0.1725169	2.9342784	11	1	8 days	1.02	Williams	2000 CY ₆₄
2000 CA ₆₅	14.2	0.15	20000206	190.99866	181.50582	130.47951	7.80133	0.1035109	2.7870895	14	1	8 days	0.52	Williams	2000 CA ₆₅
2000 CB ₆₅	15.0	0.15	20000206	211.34903	168.04848	125.66054	5.52305	0.0727246	2.4185273	15	1	8 days	0.63	Williams	2000 CB ₆₅
2000 CC ₆₅	14.1	0.15	20000206	307.85729	94.04765	111.17800	2.55483	0.1103998	3.0752324	12	1	8 days	1.12	Williams	2000 CC ₆₅
2000 CE ₆₅	14.1	0.15	20000206	189.04061	193.72466	123.52105	4.56897	0.2783268	2.3804614	13	1	8 days	1.16	Williams	2000 CE ₆₅
2000 CF ₆₅	16.1	0.15	20000206	296.87414	91.45017	123.50617	4.03205	0.0933339	2.3833144	12	1	10 days	0.56	Williams	2000 CF ₆₅
2000 CG ₆₅	14.3	0.15	20000206	218.42216	287.23313	4.83175	2.27337	0.1272656	2.5150934	13	1	8 days	0.41	Williams	2000 CG ₆₅
2000 CH ₆₅	14.6	0.15	20000206	120.56381	35.62064	330.44749	12.25259	0.1807475	2.6577369	9	1	7 days	0.44	E Williams	2000 CH ₆₅
2000 CJ ₆₅	15.4	0.15	20000206	27.17107	123.62985	344.78823	2.85344	0.0886194	2.6433885	10	1	8 days	0.68	Williams	2000 CJ ₆₅
2000 CK ₆₅	13.7	0.15	20000206	213.64890	310.47773	349.12470	3.27463	0.1871312	2.7475635	12	1	7 days	0.77	Williams	2000 CK ₆₅
2000 CL ₆₅	15.7	0.15	20000206	13.39909	145.83315	336.18145	2.17360	0.2246396	2.4630787	15	1	7 days	0.37	Williams	2000 CL ₆₅
2000 CM ₆₅	14.0	0.15	20000206	239.09640	319.85049	314.79372	0.70095	0.0349569	2.9651301	17	1	7 days	0.96	Williams	2000 CM ₆₅
2000 CN ₆₅	14.8	0.15	20000206	19.40907	343.25482	145.31772	6.90853	0.0219291	2.3741503	11	1	7 days	0.58	Williams	2000 CN ₆₅
2000 CO ₆₅	14.3	0.15	20000206	39.83409	310.99092	148.16202	13.30478	0.1323767	2.9050756	13	1	7 days	0.59	Williams	2000 CO ₆₅
2000 CQ ₆₅	13.9	0.15	20000206	62.12577	87.78853	350.19901	1.29207	0.0861036	2.4707268	15	1	7 days	0.41	Williams	2000 CQ ₆₅
2000 CR ₆₅	14.3	0.15	20000206	46.54150	42.65316	55.68127	4.41905	0.0768667	2.8105145	12	1	7 days	0.52	Williams	2000 CR ₆₅
2000 CS ₆₅	14.0	0.15	20000206	56.11845	109.25983	333.53749	1.01868	0.1109641	3.0447346	13	1	7 days	0.60	Williams	2000 CS ₆₅
2000 CT ₆₅	13.9	0.15	20000206	283.66312	84.98606	141.59330	3.14591	0.0025492	2.7623827	13	1	7 days	0.59	Williams	2000 CT ₆₅
2000 CX ₆₅	15.2	0.15	20000206	295.22775	64.46500	155.90527	5.82797	0.1810084	2.6785820	15	1	6 days	0.66	E Williams	2000 CX ₆₅
2000 CF ₆₆	14.1	0.15	20000206	121.95977	50.99696	305.77960	12.91857	0.2243292	2.7073448	11	1	4 days	0.54	E Williams	2000 CF ₆₆
2000 CG ₆₆	14.1	0.15	20000206	79.93823	21.92682	11.30665	6.04899	0.1849973	3.2006782	15	1	5 days	0.57	E Williams	2000 CG ₆₆
2000 CH ₆₆	16.2	0.15	20000206	353.24527	60.14998	83.68543	4.73058	0.1189095	2.3957293	14	1	5 days	0.49	E Williams	2000 CH ₆₆
2000 CJ ₆₆	14.1	0.15	20000206	278.79739	112.38215	110.73357	11.25344	0.0587112	3.0700858	18	1	5 days	0.64	E Williams	2000 CJ ₆₆
2000 CU ₆₆	14.5	0.15	20000206	273.85128	341.07221	243.07474	11.26784	0.0428009	2.5878854	14	1	5 days	0.59	E Williams	2000 CU ₆₆
2000 CW ₆₆	15.0	0.15	20000206	36.10565	274.82983	172.97091	13.73572	0.1725480	2.4844228	20	1	5 days	0.33	E Williams	2000 CW ₆₆
2000 CX ₆₆	15.8	0.15	20000206	68.51960	185.91065	227.18767	5.97515	0.1463246	2.3360156	13	1	5 days	0.46	E Williams	2000 CX ₆₆
2000 CA ₆₇	15.9	0.15	20000206	316.02820	328.41932	239.79533	4.04690	0.1878115	2.3636945	14	1	5 days	0.37	E Williams	2000 CA ₆₇
2000 CE ₆₇	13.5	0.15	20000206	205.87773	149.38193	163.04240	23.05053	0.2457436	2.7458549	11	1	5 days	0.57	E Williams	2000 CE ₆₇
2000 CH ₆₇	10.8	0.15	20000206	182.66672	219.45058	154.49712	23.43502	0.0879783	3.4581197	16	1	5 days	0.59	E Williams	2000 CH ₆₇
2000 CX ₆₇	16.6	0.15	20000206	299.78357	49.44155	159.13786	1.40934	0.1256968	2.4073115	9	1	9 days	0.09	Williams	2000 CX ₆₇

2000 CJ ₆₈	17.3	0.15	20000206	143.80760	200.64624	140.10729	3.66877	0.1963353	2.1688976	9	1	9 days	0.12	Williams	2000 CJ ₆₈
2000 CK ₆₈	17.5	0.15	20000206	74.36617	253.46999	143.65611	2.67419	0.2100883	2.5062869	9	1	9 days	0.34	Williams	2000 CK ₆₈
2000 CO ₆₈	17.4	0.15	20000206	324.07822	38.76546	142.90256	1.60071	0.1265199	2.3759217	9	1	9 days	0.10	Williams	2000 CO ₆₈
2000 CT ₆₈	17.7	0.15	20000206	348.66958	13.90515	139.47155	1.90408	0.1961488	2.3584005	9	1	9 days	0.43	Williams	2000 CT ₆₈
2000 CU ₆₈	15.3	0.15	20000206	261.32098	113.76762	139.23999	4.83196	0.1664919	2.5370312	13	1	10 days	0.54	Williams	2000 CU ₆₈
2000 CX ₆₈	17.5	0.15	20000206	349.25797	356.27731	161.60532	0.37590	0.3087364	2.9770404	9	1	13 days	0.09	Williams	2000 CX ₆₈
2000 CY ₆₈	15.9	0.15	20000206	90.28656	85.64797	314.77046	3.78447	0.0536516	2.7504951	9	1	13 days	0.16	Williams	2000 CY ₆₈
2000 CZ ₆₈	16.9	0.15	20000206	353.99949	11.33462	133.81293	1.52899	0.1528656	3.1433145	12	1	9 days	0.84	Williams	2000 CZ ₆₈
2000 CA ₆₉	16.1	0.15	20000206	277.45762	101.26018	135.79589	3.13431	0.1547595	2.4409916	12	1	13 days	0.14	Williams	2000 CA ₆₉
2000 CB ₆₉	15.1	0.15	20000206	205.52849	346.57774	314.40293	4.78066	0.2474002	2.6680177	9	1	13 days	0.08	Williams	2000 CB ₆₉
2000 CE ₆₉	14.0	0.15	20000206	119.39959	232.30645	137.04859	16.26673	0.0894067	3.0386859	21	1	13 days	0.31	Williams	2000 CE ₆₉
2000 CG ₆₉	19.0	0.15	20000206	38.92721	308.14281	134.89001	1.66177	0.1741151	2.2603509	9	1	9 days	0.16	Williams	2000 CG ₆₉
2000 CH ₆₉	16.5	0.15	20000206	31.90743	138.49794	316.73221	2.46517	0.1387493	2.3452881	18	1	13 days	0.30	Williams	2000 CH ₆₉
2000 CJ ₆₉	16.4	0.15	20000206	306.43685	339.13319	224.95217	0.10277	0.1336403	2.2832993	10	1	10 days	0.51	Williams	2000 CJ ₆₉
2000 CM ₆₉	16.7	0.15	20000206	279.30921	269.79346	318.00222	4.68404	0.0847533	2.6953868	9	1	13 days	0.22	Williams	2000 CM ₆₉
2000 CP ₆₉	16.9	0.15	20000206	183.45446	23.49889	288.24718	1.01407	0.0391869	2.8612687	9	1	9 days	0.41	Williams	2000 CP ₆₉
2000 CR ₆₉	16.0	0.15	20000206	136.29661	50.98355	300.11361	0.96700	0.1177859	3.1862137	9	1	9 days	0.24	Williams	2000 CR ₆₉
2000 CU ₆₉	17.0	0.15	20000206	78.92523	79.85637	313.84762	4.75658	0.2037652	2.3248135	9	1	9 days	0.23	Williams	2000 CU ₆₉
2000 CV ₆₉	17.4	0.15	20000206	358.65371	181.67706	316.82563	5.26232	0.2038267	2.9827436	9	1	9 days	0.22	Williams	2000 CV ₆₉
2000 CW ₆₉	14.4	0.15	20000206	250.19612	114.11924	135.08330	1.75575	0.0252301	3.0923890	13	1	10 days	0.45	Williams	2000 CW ₆₉
2000 CY ₆₉	15.3	0.15	20000206	291.70556	255.99385	322.66941	3.06200	0.1160888	2.6162498	9	1	9 days	0.17	Williams	2000 CY ₆₉
2000 CX ₇₀	14.9	0.15	20000206	64.32372	211.32502	213.03499	5.42123	0.2414850	2.1977610	15	1	4 days	0.43	E Williams	2000 CX ₇₀
2000 CJ ₇₁	14.0	0.15	20000206	267.68569	11.14673	262.46169	2.13544	0.1828610	2.1998431	13	1	3 days	0.47	E Williams	2000 CJ ₇₁
2000 CU ₇₁	16.5	0.15	20000206	82.92155	257.01517	135.49965	15.60678	0.1679757	2.8508204	9	1	9 days	0.15	Williams	2000 CU ₇₁
2000 CW ₇₁	15.7	0.15	20000206	137.87374	222.86934	127.59436	0.98201	0.1494814	3.0705151	9	1	3 days	0.26	E Williams	2000 CW ₇₁
2000 CY ₇₁	18.3	0.15	20000206	4.81714	46.91793	84.83890	0.19608	0.1203541	2.2508151	9	1	3 days	0.13	E Williams	2000 CY ₇₁
2000 CC ₇₂	16.1	0.15	20000206	335.47026	207.37630	319.30881	6.33293	0.0767377	2.3084640	23	1	13 days	0.41	Williams	2000 CC ₇₂
2000 CD ₇₂	17.8	0.15	20000206	310.58370	227.47086	325.49092	1.34280	0.0572151	2.5885622	9	1	3 days	0.20	E Williams	2000 CD ₇₂
2000 CH ₇₂	17.0	0.15	20000206	357.22947	82.75177	78.45960	6.06405	0.3800720	2.5688639	12	1	6 days	1.36	Spahr	2000 CH ₇₂
2000 CJ ₇₂	15.4	0.15	20000206	269.09102	106.53664	135.57913	12.91561	0.1148618	2.6247887	11	1	7 days	0.80	E Williams	2000 CJ ₇₂
2000 CK ₇₂	15.6	0.15	20000206	157.84402	320.25284	16.33111	2.22013	0.0552491	2.2344906	14	1	11 days	0.94	Williams	2000 CK ₇₂
2000 CL ₇₂	14.8	0.15	20000206	143.19034	20.89009	339.51891	4.04452	0.0618806	2.1928143	18	1	6 days	0.62	E Williams	2000 CL ₇₂
2000 CM ₇₂	14.0	0.15	20000206	59.54248	303.65486	127.22953	3.05401	0.1802251	3.0856964	11	1	4 days	0.98	E Williams	2000 CM ₇₂
2000 CC ₇₃	16.7	0.15	20000206	315.66710	57.46439	137.82825	19.88755	0.1555892	2.1927095	10	1	4 days	0.45	Williams	2000 CC ₇₃
2000 CE ₇₃	14.9	0.15	20000206	68.04688	104.32236	319.12369	6.84028	0.0590530	2.7756125	11	1	4 days	0.41	E Williams	2000 CE ₇₃
2000 CT ₇₃	17.2	0.15	20000206	309.39278	69.97408	137.41572	12.20507	0.1884759	2.5956538	12	1	17 days	0.20	Williams	2000 CT ₇₃
2000 CX ₇₃	17.2	0.15	20000206	335.38877	37.13217	130.80057	3.07457	0.1045387	2.5041786	9	1	7 days	0.24	E Williams	2000 CX ₇₃
2000 CB ₇₄	17.0	0.15	20000206	333.41062	44.58816	127.05165	1.98746	0.1219892	2.3691442	16	1	11 days	0.32	Williams	2000 CB ₇₄
2000 CD ₇₄	16.4	0.15	20000206	53.16095	304.34187	133.56360	5.40292	0.0730940	2.5865254	16	1	15 days	0.34	Williams	2000 CD ₇₄
2000 CY ₇₄	16.4	0.15	20000206	45.56828	84.86933	350.23365	2.14107	0.1819395	2.3232914	14	1	9 days	0.85	Williams	2000 CY ₇₄
2000 CA ₇₅	15.9	0.15	20000206	250.18277	313.29419	299.70473	19.13965	0.0506091	1.9292714	14	1	5 days	0.34	Williams	2000 CA ₇₅
2000 CB ₇₅	14.3	0.15	20000206	67.43134	234.51711	152.16646	35.69333	0.3768529	2.6107913	14	1	5 days	0.54	Williams	2000 CB ₇₅
2000 CC ₇₅	13.9	0.15	20000206	98.95261	219.33441	168.31544	26.04707	0.2295655	2.3159569	13	1	3 days	0.32	E Williams	2000 CC ₇₅
2000 CD ₇₅	13.4	0.15	20000206	94.15539	27.70089	20.56104	9.81288	0.0369552	2.9670876	18	1	11 days	0.72	Williams	2000 CD ₇₅
2000 CE ₇₅	15.7	0.15	20000206	46.60331	97.28284	343.84187	2.51781	0.1113415	2.6362405	11	1	8 days	0.67	Williams	2000 CE ₇₅
2000 CG ₇₅	14.7	0.15	20000206	234.31249	5.31899	278.11520	5.63175	0.2612136	2.2283819	13	1	7 days	0.57	E Williams	2000 CG ₇₅
2000 CJ ₇₅	14.6	0.15	20000206	293.50932	223.55338	14.08473	1.28145	0.2361659	2.4041131	18	1	7 days	0.34	Williams	2000 CJ ₇₅
2000 CK ₇₅	12.9	0.15	20000206	234.26030	296.62933	352.05687	11.49086	0.1192382	3.0188190	13	1	7 days	0.48	Williams	2000 CK ₇₅
2000 CL ₇₅	14.3	0.15	20000206	221.29699	305.98930	336.78592	12.60581	0.1967792	2.4218249	11	1	6 days	0.46	E Williams	2000 CL ₇₅
2000 CO ₇₅	15.8	0.15	20000206	73.49597	205.87594	181.36537	8.76173	0.2902819	2.2333584	10	1	5 days	0.33	E Williams	2000 CO ₇₅
2000 CP ₇₅	15.7	0.15	20000206	22.69835	290.49365	174.11619	12.77516	0.1650066	2.7334844	11	1	5 days	0.64	E Williams	2000 CP ₇₅
2000 CQ ₇₅	12.2	0.15	20000206	141.71059	278.34728	117.66591	15.05939	0.2679740	2.4787735	11	1	5 days	0.30	E Williams	2000 CQ ₇₅
2000 CX ₇₅	15.5	0.15	20000206	40.90992	352.14342	84.12698	13.71267	0.1084562	2.3881996	33	1	6 days	0.44	Williams	2000 CX ₇₅

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2000 CZ ₇₅	13.7	0.15	20000206	281.12707	29.62752	205.37774	11.48471	0.2151255	2.9697709	12	1	3 days	0.42	E	Williams	2000 CZ ₇₅
2000 CD ₇₆	14.3	0.15	20000206	330.31374	220.00648	333.63347	14.67836	0.1384949	3.0987753	7	1	9 days	0.52		Williams	2000 CD ₇₆
2000 CE ₇₆	15.2	0.15	20000206	9.00131	350.31275	151.72256	7.03310	0.0630060	2.4593407	12	1	8 days	0.47		Williams	2000 CE ₇₆
2000 CH ₇₆	14.1	0.15	20000206	165.88416	356.73349	329.51789	10.03993	0.1929883	2.5307642	12	1	6 days	1.21	E	Williams	2000 CH ₇₆
2000 CK ₇₆	13.3	0.15	20000206	119.33833	222.35726	135.17695	16.72000	0.2735139	3.0672114	11	1	2 days	0.50	E	Williams	2000 CK ₇₆
2000 CL ₇₆	16.8	0.15	20000206	32.55082	313.48888	130.76332	6.53288	0.2642032	2.4586784	11	1	2 days	0.76	E	Williams	2000 CL ₇₆
2000 CN ₇₆	13.8	0.15	20000206	284.59159	227.74085	19.72049	2.24262	0.1865557	3.1646861	11	1	3 days	0.63	E	Williams	2000 CN ₇₆
2000 CP ₇₆	15.9	0.15	20000206	20.20419	3.13859	116.63942	2.62066	0.1948598	2.3626473	11	1	3 days	0.75	E	Williams	2000 CP ₇₆
2000 CQ ₇₆	13.3	0.15	20000206	261.34240	226.25932	52.71022	2.07187	0.2384464	3.0419598	10	1	3 days	0.69	E	Williams	2000 CQ ₇₆
2000 CS ₇₆	13.6	0.15	20000206	94.49659	286.25020	132.86155	5.91417	0.0116498	3.0900160	10	1	3 days	0.51	E	Williams	2000 CS ₇₆
2000 CT ₇₆	13.9	0.15	20000206	75.21777	343.67523	80.15350	2.38100	0.1360905	3.0145089	11	1	3 days	1.11	E	Williams	2000 CT ₇₆
2000 CU ₇₆	15.9	0.15	20000206	336.52533	141.66114	38.38805	1.70638	0.0942150	2.2473386	10	1	3 days	0.69	E	Williams	2000 CU ₇₆
2000 CV ₇₆	16.5	0.15	20000206	21.39191	92.04704	16.79445	2.07014	0.3125695	2.5150046	6	1	3 days	0.63	E	Williams	2000 CV ₇₆
2000 CW ₇₆	15.3	0.15	20000206	129.02091	29.95731	347.25494	5.79090	0.0958797	2.2937434	7	1	5 days	0.99	E	Williams	2000 CW ₇₆
2000 CX ₇₆	15.5	0.15	20000206	291.56795	249.55535	357.14436	4.49894	0.2227071	2.2924807	10	1	3 days	0.54	E	Williams	2000 CX ₇₆
2000 CY ₇₆	14.8	0.15	20000206	338.20818	194.07163	351.50506	13.97737	0.1199143	2.4354083	10	1	4 days	1.07	E	Williams	2000 CY ₇₆
2000 CZ ₇₆	15.2	0.15	20000206	36.98032	121.82982	343.89637	8.88498	0.2132714	2.5312810	6	1	4 days	0.66	E	Williams	2000 CZ ₇₆
2000 CB ₇₇	15.3	0.15	20000206	3.42239	168.44316	346.75352	1.90015	0.1544244	2.3992274	10	1	4 days	0.75	E	Williams	2000 CB ₇₇
2000 CC ₇₇	13.4	0.15	20000206	269.06401	112.41411	165.29932	13.61488	0.1703592	3.1263142	6	1	4 days	0.54	E	Williams	2000 CC ₇₇
2000 CE ₇₇	15.2	0.15	20000206	31.95784	320.26532	153.10666	6.29765	0.2069948	2.5847266	13	1	3 days	0.61	E	Williams	2000 CE ₇₇
2000 CF ₇₇	15.1	0.15	20000206	20.52323	122.30831	8.45092	1.68491	0.2102608	2.7180309	14	1	5 days	0.92	E	Williams	2000 CF ₇₇
2000 CG ₇₇	13.4	0.15	20000206	263.49962	293.92048	356.22525	2.57599	0.2585880	2.7177961	10	1	4 days	0.62	E	Williams	2000 CG ₇₇
2000 CH ₇₇	14.8	0.15	20000206	276.68235	96.60473	127.46833	7.92858	0.0333335	2.6577847	15	1	2 days	0.74	E	Williams	2000 CH ₇₇
2000 CK ₇₇	13.6	0.15	20000206	119.07823	160.14282	219.26768	0.12049	0.1753117	3.1170343	21	1	8 days	0.55		Williams	2000 CK ₇₇
2000 CP ₇₇	15.8	0.15	20000206	178.51601	47.22820	272.37212	3.71019	0.0367473	2.6803609	7	1	3 days	0.13	E	Williams	2000 CP ₇₇
2000 CO ₈₀	15.6	0.15	20000206	38.47526	120.39829	339.78697	28.05382	0.2158866	2.6055152	14	1	10 days	0.45		Williams	2000 CO ₈₀
2000 CU ₈₀	16.8	0.15	20000206	332.26172	275.44548	282.33048	2.22645	0.1283092	2.7690755	10	1	2 days	0.38	E	Williams	2000 CU ₈₀
2000 CV ₈₀	14.8	0.15	20000206	270.45290	313.12707	331.59862	9.67157	0.2657527	2.9873844	11	1	2 days	0.23	E	Williams	2000 CV ₈₀
2000 CY ₈₀	16.3	0.15	20000206	276.61115	76.35569	182.37001	3.76415	0.1292748	2.1963961	13	1	4 days	0.73	E	Williams	2000 CY ₈₀
2000 CZ ₈₀	13.2	0.15	20000206	300.54840	204.24842	14.26492	1.96529	0.1059607	2.4758902	19	1	5 days	0.73	E	Williams	2000 CZ ₈₀
2000 CF ₈₁	13.5	0.15	20000206	241.00915	319.91031	322.85447	16.94792	0.2653521	3.1456113	18	1	11 days	0.44		Williams	2000 CF ₈₁
2000 CM ₈₁	15.4	0.15	20000206	292.77698	273.82427	326.39979	20.80002	0.2580297	3.0435046	9	1	10 days	0.53		Williams	2000 CM ₈₁
2000 CF ₈₅	14.8	0.15	20000206	284.94245	271.77132	335.30250	15.20390	0.1959523	2.6389363	13	1	9 days	0.58		Williams	2000 CF ₈₅
2000 CP ₈₇	14.9	0.15	20000206	76.97967	265.90047	141.80429	10.58052	0.1654744	2.7238127	12	1	10 days	0.56		Williams	2000 CP ₈₇
2000 CQ ₈₇	14.8	0.15	20000206	34.56018	86.59840	4.62100	1.32484	0.2222490	3.3329969	9	1	10 days	0.37		Williams	2000 CQ ₈₇
2000 CT ₈₇	14.9	0.15	20000206	317.99431	222.63390	333.47684	13.59298	0.0726958	2.6537143	15	1	9 days	0.52		Williams	2000 CT ₈₇
2000 CG ₉₀	15.0	0.15	20000206	133.87711	207.02904	146.31299	2.70998	0.2012926	2.2656008	15	1	8 days	0.89		Williams	2000 CG ₉₀
2000 CL ₉₀	16.2	0.15	20000206	31.57260	314.07189	142.73783	5.74882	0.1685204	2.5760290	11	1	9 days	1.23		Williams	2000 CL ₉₀
2000 CC ₉₁	13.3	0.15	20000117	122.82854	212.95260	170.60846	2.04808	0.0819389	2.9356384	23	1	16 days	0.59		Williams	2000 CC ₉₁
2000 CU ₉₁	16.2	0.15	20000206	63.89632	283.95102	154.89530	3.74808	0.1283884	2.2487416	10	1	10 days	0.44		Williams	2000 CU ₉₁
2000 CW ₉₁	13.5	0.15	20000206	148.04489	204.42903	159.94175	13.98038	0.1748431	2.5788291	12	1	10 days	0.35		Williams	2000 CW ₉₁
2000 CA ₉₂	14.4	0.15	20000206	256.50913	260.78023	18.64241	2.04679	0.1441192	2.8075817	14	1	10 days	0.49		Williams	2000 CA ₉₂
2000 CJ ₉₂	15.8	0.15	20000206	334.91651	46.74497	144.71243	5.47763	0.1592954	2.4351499	13	1	10 days	0.46		Williams	2000 CJ ₉₂
2000 CM ₉₂	15.0	0.15	20000206	16.60304	349.14685	123.70642	0.41494	0.4644716	4.2554807	14	1	10 days	0.59		Williams	2000 CM ₉₂
2000 CN ₉₂	15.6	0.15	20000117	25.58233	329.99221	147.43869	1.60148	0.1386022	2.3958600	16	1	43 days	0.47		Williams	2000 CN ₉₂
2000 CO ₉₂	14.3	0.15	20000206	287.72760	77.36263	166.80469	3.85379	0.0800539	2.7961622	12	1	10 days	0.49		Williams	2000 CO ₉₂
2000 CP ₉₂	14.2	0.15	20000117	80.76569	268.02035	154.58363	7.17802	0.1209281	2.6726870	17	1	39 days	0.37		Williams	2000 CP ₉₂
2000 CQ ₉₂	14.3	0.15	20000206	15.80754	139.21473	359.28985	4.61130	0.1830205	3.2670888	13	1	10 days	0.55		Williams	2000 CQ ₉₂
2000 CB ₉₃	13.2	0.15	20000117	60.76343	91.73292	352.76653	16.84556	0.1776054	3.1237552	25	1	38 days	0.58		Williams	2000 CB ₉₃
2000 CE ₉₇	16.0	0.15	20000206	16.08177	122.36878	352.50013	2.05670	0.4547592	3.1572964	11	1	4 days	0.71		Williams	2000 CE ₉₇
2000 CG ₉₇	14.2	0.15	20000206	207.51392	155.83962	171.63278	21.89967	0.2028965	2.8249123	10	1	3 days	0.60	E	Williams	2000 CG ₉₇
2000 CK ₉₇	14.6	0.15	20000206	291.73685	46.17902	171.97857	15.59308	0.0458245	2.5812121	8	1	4 days	0.38	E	Williams	2000 CK ₉₇
2000 CO ₉₇	14.9	0.15	20000206	248.25517	128.34548	169.70902	32.16086	0.2202144	2.8259629	7	1	2 days	0.40	E	Williams	2000 CO ₉₇

2000 CM ₁₀₁	16.6	0.15	20000206	16.48354	147.52090	347.81717	8.80746	0.2513281	2.9178423	11	1	2 days	0.47	E	Williams	2000 CM ₁₀₁
2000 CO ₁₀₁	19.0	0.15	20000206	79.45585	65.12998	353.17942	15.29835	0.0895608	1.0750230	63	1	12 days	0.51		Williams	2000 CO ₁₀₁
2000 CP ₁₀₁	19.5	0.15	20000206	21.59154	247.16412	160.82303	10.29767	0.6096572	1.7353403	46	1	7 days	0.56		Williams	2000 CP ₁₀₁
2000 CQ ₁₀₁	17.7	0.15	20000226	336.58603	173.87161	29.98875	2.98521	0.4939645	2.2885019	24	1	42 days	0.54	M-v 6	Williams	2000 CQ ₁₀₁
2000 CR ₁₀₁	19.8	0.15	20000206	10.25165	152.85103	333.88460	0.60349	0.2467112	1.6994566	24	1	5 days	0.87		Williams	2000 CR ₁₀₁
2016 P-L	13.3	0.15	20000226	192.31790	136.09653	198.07748	6.60793	0.1459982	2.7890666	30	4	1960-2000	0.86	M-v 1	Spahr	33784 2016 P-L
2038 P-L	15.1	0.15	20000226	46.82972	268.28956	226.23292	5.95862	0.0575100	2.2786043	38	3	1960-2000	0.76	M-v 3	Spahr	34337 2038 P-L
2097 P-L	13.4	0.15	20000226	199.08558	131.74057	194.73150	7.69993	0.0542557	3.0370278	38	7	1960-2000	0.70	M-v 1	Spahr	35671 2097 P-L
2110 P-L	15.8	0.15	20000226	147.14412	23.57894	299.85323	1.91358	0.1482340	2.6153076	39	5	1960-2000	0.90	M-v 2	Spahr	37340 2110 P-L
2188 P-L	16.7	0.15	20000226	28.33034	112.99615	286.72876	2.15883	0.1707489	2.3218813	39	2	1960-1999	0.47	M-v 5	Williams	38003 2188 P-L
2208 P-L	15.5	0.15	20000226	64.26333	212.28268	225.22543	4.49843	0.2515580	2.6207254	37	4	1960-2000	0.87	M-v 2	Spahr	32785 2208 P-L
2512 P-L	13.7	0.15	20000226	168.85782	315.33227	349.01012	1.45137	0.0276185	2.6185016	31	3	1960-2000	0.65	M-v 4	Williams	38003 2512 P-L
2564 P-L	14.6	0.15	20000226	94.77261	10.23815	34.78746	2.66275	0.1005077	2.6095599	40	3	1960-2000	0.67	M-v 4	Williams	33383 2564 P-L
2565 P-L	14.9	0.15	20000226	179.52460	297.43310	23.71415	4.83085	0.0227966	2.4341319	85	3	1960-2000	0.65	M-v 3	Williams	38190 2565 P-L
2566 P-L	14.9	0.15	20000226	78.49629	238.78075	190.62610	1.94987	0.1836898	2.4403838	46	4	1960-2000	0.79	M-v 2	Spahr	32785 2566 P-L
2567 P-L	13.8	0.15	20000226	80.85153	5.11925	19.68246	2.24341	0.0722967	2.8319303	37	2	1960-2000	0.63	M-v 5	Williams	38004 2567 P-L
2577 P-L	15.0	0.15	20000226	233.39727	293.61246	348.80440	0.54208	0.1304745	2.4224887	53	5	1960-2000	0.77	M-v 1	Williams	33588 2577 P-L
2583 P-L	14.1	0.15	20000226	17.90349	245.06328	56.90456	2.94646	0.0757940	2.9225918	28	5	1960-1999	0.71	M-v 1	Marsden	35124 2583 P-L
2588 P-L	15.1	0.15	20000226	328.02660	93.78911	18.09510	6.18133	0.1721300	2.3214794	62	2	1960-2000	0.49	M-v 4	Williams	38190 2588 P-L
2589 P-L	13.6	0.15	20000226	350.71134	18.90381	145.38303	3.23240	0.1523284	2.6003145	82	3	1960-2000	0.61	M-v 2	Williams	38190 2589 P-L
2602 P-L	14.7	0.15	20000226	51.19685	8.86241	62.30855	2.85567	0.1932821	3.0961920	33	3	1960-2000	0.87	M-v 3	Williams	36120 2602 P-L
2616 P-L	15.1	0.15	20000226	40.69726	40.78045	31.54137	3.92495	0.0128287	2.4478076	25	3	1960-2000	0.65	M-v 4	Williams	38190 2616 P-L
2674 P-L	15.0	0.15	20000226	225.55113	216.93535	60.44558	1.74854	0.0742919	2.5995593	36	4	1960-2000	0.71	M-v 1	Williams	36120 2674 P-L
2695 P-L	13.6	0.15	20000226	22.58936	116.99594	329.92487	1.07597	0.0974890	3.0966931	54	3	1960-2000	0.55	M-v 4	Williams	38190 2695 P-L
2703 P-L	15.0	0.15	20000226	26.63236	265.62374	185.07779	6.56534	0.0993337	2.3036425	26	3	1960-2000	0.68	M-v 4	Williams	38190 2703 P-L
2777 P-L	14.4	0.15	20000226	293.23316	99.71081	159.67477	2.91920	0.1687254	2.4057487	32	10	1949-2000	0.93	M-v 2	Williams	33588 2777 P-L
2796 P-L	16.0	0.15	20000226	96.21786	247.35153	141.38210	3.27942	0.2241760	2.6181464	27	5	1960-2000	0.87	M-v 2	Williams	36120 2796 P-L
2861 P-L	14.8	0.15	20000226	27.81381	298.43499	171.92620	0.52766	0.1475950	3.0823925	31	3	1960-2000	0.51	M-v 4	Williams	36050 2861 P-L
3047 P-L	12.7	0.15	20000226	268.56586	257.90042	332.92122	13.36356	0.1697977	3.0440195	40	4	1954-2000	0.68	M-v 2	Williams	38004 3047 P-L
3082 P-L	13.8	0.15	20000226	44.22008	71.95376	310.08891	8.59845	0.0563648	2.6470358	33	2	1960-2000	0.72	M-v 4	Williams	38190 3082 P-L
3097 P-L	13.1	0.15	20000226	205.74071	357.44364	293.97915	7.01953	0.1995554	2.7956578	26	3	1960-2000	0.50	M-v 5	Spahr	38190 3097 P-L
3541 P-L	12.4	0.15	20000226	70.16513	34.48242	307.33854	8.42444	0.2994932	3.1024235	44	5	1960-2000	0.51	M-v 2	Williams	38190 3541 P-L
3567 P-L	14.8	0.15	20000226	2.45091	153.09039	319.32749	7.03721	0.0545396	2.3035860	63	4	1960-2000	0.65	M-v 3	Williams	38004 3567 P-L
4013 P-L	14.5	0.15	20000226	156.08263	135.87900	205.69502	7.33512	0.2440495	2.8012153	25	4	1960-2000	0.58	M-v 2	Spahr	36120 4013 P-L
4032 P-L	14.5	0.15	20000226	51.18896	125.12239	326.56580	4.94664	0.1275161	2.2946029	69	3	1960-2000	0.59	M-v 2	Williams	38190 4032 P-L
4083 P-L	14.1	0.15	20000226	225.95283	215.56422	341.17990	4.11357	0.0912363	2.3193099	57	3	1960-2000	0.52	M-v 3	Williams	38190 4083 P-L
4084 P-L	14.9	0.15	20000226	223.14138	70.30901	220.41114	2.15954	0.2107203	2.5866832	32	4	1960-2000	0.68	M-v 2	Spahr	30696 4084 P-L
4100 P-L	14.4	0.15	20000226	328.75171	226.26260	352.47924	12.93109	0.1269275	2.5766722	22	4	1960-2000	0.78	M-v 3	Spahr	25341 4100 P-L
4104 P-L	15.8	0.15	20000226	39.60734	171.86735	209.25854	6.09361	0.1231886	2.3217305	56	2	1960-2000	0.56	M-v 3	Williams	38190 4104 P-L
4274 P-L	15.5	0.15	20000226	310.46920	249.05758	280.55597	2.14853	0.0729242	2.2990544	29	4	1960-2000	0.54	M-v 2	Williams	38190 4274 P-L
4315 P-L	14.7	0.15	20000226	131.59246	61.03325	211.19688	1.45489	0.0227635	2.8736419	33	3	1960-1999	0.59	M-v 3	Williams	38191 4315 P-L
4517 P-L	13.5	0.15	20000226	128.08453	322.40694	9.84442	6.86372	0.1772133	2.3001639	60	5	1960-2000	0.76	M-v 3	Williams	38191 4517 P-L
4543 P-L	14.9	0.15	20000226	164.18067	295.32929	16.27384	2.43324	0.1599427	2.1677622	52	4	1960-2000	0.62	M-v 2	Williams	38191 4543 P-L
4595 P-L	15.8	0.15	20000226	250.62679	189.38462	176.64068	2.62989	0.1881992	2.3859519	42	5	1960-1999	0.69	M-v 2	Williams	34337 4595 P-L
4597 P-L	14.6	0.15	20000226	66.49967	252.93817	167.72370	3.72994	0.1998535	2.3005108	41	3	1960-2000	0.54	M-v 2	Williams	38191 4597 P-L
4602 P-L	14.0	0.15	20000226	88.79506	249.68414	150.02096	0.92587	0.1822572	3.0765060	76	3	1960-2000	0.52	M-v 3	Williams	34338 4602 P-L
4646 P-L	12.6	0.15	20000226	5.83221	289.00196	186.07955	10.83186	0.1207781	3.0850638	118	3	1960-2000	0.65	M-v 2	Spahr	38191 4646 P-L
4648 P-L	15.1	0.15	20000226	237.09939	97.53273	186.79217	0.94883	0.1760373	2.4153248	45	4	1960-2000	0.63	M-v 2	Williams	36120 4648 P-L
4659 P-L	14.2	0.15	20000226	98.29032	210.93630	183.22746	9.42176	0.1412876	3.0678468	30	4	1960-2000	0.61	M-v 1	Spahr	36121 4659 P-L
4758 P-L	14.6	0.15	20000226	51.20381	52.11670	9.79503	4.99986	0.1508065	3.0916896	40	3	1960-2000	0.67	M-v 3	Williams	38191 4758 P-L
4778 P-L	15.0	0.15	20000226	224.88866	87.54530	171.90739	4.50689	0.1219212	2.1648172	40	3	1960-2000	0.60	M-v 4	Spahr	38191 4778 P-L
4806 P-L	15.2	0.15	20000226	4.67761	338.69683	160.41578	2.63734	0.1100817	2.6071587	27	3	1960-2000	0.74	M-v 5	Williams	22701 4806 P-L
4858 P-L	14.1	0.15	20000226	37.45938	263.38571	182.15603	11.03219	0.1096012	3.0845315	34	3	1960-2000	0.81	M-v 3	Spahr	38191 4858 P-L

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4882 P-L	13.9	0.15	20000226	295.61418	191.48463	20.56115	10.03216	0.0523130	2.5989602	60	4	1960-2000	0.71	M-v	2	Williams	38191	4882 P-L
5016 P-L	15.5	0.15	20000226	175.92366	205.61585	14.50306	4.92523	0.1074282	2.2004053	87	5	1960-1999	0.84	M-v	2	Marsden	36121	5016 P-L
5565 P-L	14.3	0.15	20000226	72.52784	353.89532	35.82845	6.26681	0.1812372	2.1796331	67	3	1960-2000	0.77	M-v	3	Williams	38191	5565 P-L
6232 P-L	14.7	0.15	20000226	51.03757	229.84899	227.70462	4.80382	0.1676780	3.0702410	29	5	1960-2000	0.61	M-v	1	Spahr	36121	6232 P-L
6245 P-L	14.2	0.15	20000226	285.77342	14.73690	193.49654	13.03187	0.0871692	2.6021691	51	4	1960-2000	0.87	M-v	3	Spahr	38191	6245 P-L
6250 P-L	16.3	0.15	20000226	53.13055	170.71534	207.37549	3.80346	0.0667043	2.1872086	24	2	1960-1999	0.48	M-v	4	Williams	38191	6250 P-L
6276 P-L	15.2	0.15	20000226	58.83290	202.94055	205.52539	1.00693	0.2141957	3.0939164	26	3	1960-2000	0.61	M-v	3	Spahr	36121	6276 P-L
6556 P-L	13.8	0.15	20000226	154.81648	170.97067	173.27791	9.85823	0.1834709	2.8006000	27	5	1960-2000	0.64	M-v	2	Spahr	33384	6556 P-L
6572 P-L	15.7	0.15	20000226	54.64692	29.53950	11.38857	7.50937	0.2749556	2.3108949	31	2	1960-2000	0.56	M-v	4	Williams	38005	6572 P-L
6576 P-L	13.9	0.15	20000226	6.48854	77.29208	27.18666	4.05980	0.0850608	2.3027106	54	3	1960-2000	0.54	M-v	3	Williams	38191	6576 P-L
6577 P-L	13.6	0.15	20000226	194.34853	179.56034	126.16337	1.86503	0.1507307	2.7956873	53	4	1960-2000	0.67	M-v	2	Williams	38191	6577 P-L
6584 P-L	13.5	0.15	20000226	137.65890	166.34967	29.97187	3.40277	0.0312179	2.6894123	62	4	1960-1999	0.58	M-v	1	Marsden	35479	6584 P-L
6587 P-L	14.5	0.15	20000226	54.90275	296.07001	59.61112	2.18354	0.1987824	3.1115753	57	2	1960-1999	0.54	M-v	4	Williams	38191	6587 P-L
6617 P-L	14.7	0.15	20000226	326.49977	87.50296	18.71736	6.48225	0.1072195	2.4684875	59	2	1960-2000	0.53	M-v	4	Williams	38191	6617 P-L
6634 P-L	13.5	0.15	20000226	355.46627	20.55553	80.61529	3.65595	0.1204511	3.1037071	65	4	1960-2000	0.58	M-v	2	Williams	38191	6634 P-L
6722 P-L	15.7	0.15	20000226	123.14975	15.00348	17.04518	6.80276	0.0925311	2.2843678	41	3	1960-2000	0.65	M-v	3	Williams	33129	6722 P-L
6735 P-L	14.2	0.15	20000226	18.70011	27.05939	12.32989	5.15154	0.1630546	3.1233686	37	3	1960-2000	0.49	M-v	3	Williams	38191	6735 P-L
6793 P-L	15.2	0.15	20000226	271.56889	224.27432	45.04615	3.82266	0.1381636	2.2673510	18	3	1960-2000	0.60	M-v	4	Williams	33326	6793 P-L
6871 P-L	15.9	0.15	20000226	282.83231	114.63309	126.32271	2.01295	0.0978953	2.2750026	26	3	1960-2000	0.72	M-v	5	Williams	30088	6871 P-L
7061 P-L	15.2	0.15	20000226	116.97087	178.80376	213.48328	5.56164	0.1282518	2.4328402	67	4	1960-2000	0.69	M-v	2	Spahr	33784	7061 P-L
9072 P-L	14.2	0.15	20000226	278.56322	25.29546	213.14693	5.98616	0.0587489	2.7904058	33	5	1960-2000	0.63	M-v	1	Spahr	33589	9072 P-L
9097 P-L	14.2	0.15	20000226	353.40285	184.09595	359.42125	7.12252	0.1344897	2.5819153	17	3	1960-2000	0.75	M-v	4	Williams	33326	9097 P-L
9594 P-L	13.4	0.15	20000226	45.27777	59.81510	51.25522	2.09998	0.0172226	3.3430711	22	3	1960-2000	0.74	M-v	4	Williams	33784	9594 P-L
1104 T-1	13.9	0.15	20000226	105.88794	73.40360	352.86736	11.67891	0.1275696	2.3548901	35	5	1971-2000	0.75	M-v	2	Spahr	33129	1104 T-1
1148 T-1	15.6	0.15	20000226	263.66258	260.09156	359.04204	2.30923	0.0971785	2.1914046	37	4	1971-2000	0.89	M-v	2	Williams	33129	1148 T-1
1211 T-1	15.5	0.15	20000226	218.96956	18.81732	269.86072	1.71515	0.1621194	2.3850472	35	5	1971-2000	0.65	M-v	2	Spahr	36122	1211 T-1
2153 T-1	13.6	0.15	20000226	118.06352	209.94339	130.79669	3.04036	0.0829860	2.9296130	70	3	1971-2000	0.70	M-v	4	Spahr	38192	2153 T-1
2166 T-1	14.3	0.15	20000226	81.84602	0.50590	24.04833	5.44219	0.1502056	2.2085040	45	3	1971-2000	0.65	M-v	3	Williams	38192	2166 T-1
2214 T-1	14.3	0.15	20000226	176.16277	150.00441	178.69017	4.13168	0.0943927	2.3800802	51	3	1971-2000	0.78	M-v	4	Williams	34617	2214 T-1
2301 T-1	14.4	0.15	20000226	352.44129	357.11298	22.28305	6.17330	0.1832185	2.2553845	37	2	1971-1998	0.84	M-v	5	Marsden	32343	2301 T-1
2307 T-1	14.5	0.15	20000226	32.59284	102.79429	18.60891	6.56424	0.1058354	2.5878598	46	4	1971-2000	0.91	M-v	2	Williams	36122	2307 T-1
3078 T-1	15.1	0.15	20000226	218.85405	229.29206	204.11686	4.04659	0.2424179	2.2855425	57	3	1971-1999	0.71	M-v	3	Williams	35124	3078 T-1
3106 T-1	14.8	0.15	20000226	72.55007	61.40620	243.40922	2.93516	0.2087326	2.2694259	39	3	1971-1999	0.56	M-v	2	Williams	38192	3106 T-1
3109 T-1	15.3	0.15	20000226	159.56571	32.66342	246.89946	2.88978	0.1323346	2.4238981	36	3	1971-2000	0.74	M-v	4	Williams	38192	3109 T-1
3204 T-1	14.3	0.15	20000226	36.00344	56.08087	351.85269	5.97840	0.0958056	2.4094392	65	3	1971-2000	0.80	M-v	3	Spahr	38005	3204 T-1
3256 T-1	15.1	0.15	20000226	303.42580	147.02288	27.82690	2.60569	0.1619435	2.3919876	41	2	1971-2000	0.75	M-v	4	Williams	38005	3256 T-1
3273 T-1	14.9	0.15	20000226	247.29296	256.81585	14.37573	2.30548	0.1923333	2.3819484	38	3	1971-2000	0.71	M-v	2	Williams	34060	3273 T-1
3286 T-1	14.6	0.15	20000226	186.10046	128.53064	6.96857	13.20101	0.1247108	2.7323307	59	3	1971-1998	0.93	M-v	3	Marsden	32092	3286 T-1
3306 T-1	14.9	0.15	20000226	213.07424	136.16970	167.87221	2.46090	0.2111212	2.3850040	64	5	1971-2000	0.73	M-v	2	Williams	33589	3306 T-1
4131 T-1	14.4	0.15	20000226	295.32633	165.41135	45.24751	2.80095	0.1418424	2.3794540	33	2	1971-2000	0.58	M-v	4	Williams	38005	4131 T-1
4161 T-1	13.1	0.15	20000226	214.07385	142.89076	182.93479	14.77939	0.1432352	2.5875878	41	7	1971-2000	0.70	M-v	1	Spahr	33589	4161 T-1
4225 T-1	14.4	0.15	20000226	130.15894	312.93517	33.38218	8.24204	0.0302010	2.3937223	27	3	1971-2000	0.89	M-v	4	Williams	38005	4225 T-1
4298 T-1	15.1	0.15	20000226	239.37156	154.96641	135.63380	3.22636	0.1639358	2.3744631	30	7	1971-2000	0.91	M-v	1	Williams	33589	4298 T-1
4326 T-1	13.6	0.15	20000226	63.36394	164.87790	170.69910	10.77963	0.1222024	3.0027296	33	3	1971-2000	0.63	M-v	2	Williams	38192	4326 T-1
4406 T-1	14.2	0.15	20000226	302.07105	157.27604	18.76815	15.06309	0.0089374	2.6219004	58	4	1971-2000	0.80	M-v	2	Williams	38192	4406 T-1
4841 T-1	13.8	0.15	20000226	154.36252	295.15978	20.27311	13.27693	0.1785765	2.6424706	57	3	1971-2000	0.74	M-v	3	Williams	38192	4841 T-1
1004 T-2	15.0	0.15	20000226	127.77000	18.24061	356.98266	6.92211	0.0459429	2.5754561	42	4	1973-2000	0.89	M-v	3	Williams	33384	1004 T-2
1016 T-2	13.8	0.15	20000226	100.35219	188.35812	359.57085	5.04367	0.0121267	2.7476790	44	3	1973-1999	0.81	M-v	4	Williams	35480	1016 T-2
1171 T-2	13.6	0.15	20000226	112.25776	292.62800	0.12168	9.67553	0.0860915	2.9811014	48	2	1973-2000	0.80	M-v	4	Williams	38192	1171 T-2
1181 T-2	13.8	0.15	20000226	29.97753	61.16269	342.26924	1.03774	0.0996146	2.9633599	65	3	1973-2000	0.72	M-v	3	Williams	38192	1181 T-2
1259 T-2	13.3	0.15	20000226	17.20292	91.45841	31.98263	2.35941	0.0446606	2.8923677	92	3	1973-2000	0.77	M-v	3	Williams	38192	1259 T-2
1305 T-2	15.1	0.15	20000226	125.07834	353.83888	0.45985	6.87211	0.1323731	2.3508879	37	3	1973-2000	0.73	M-v	3	Williams	38006	1305 T-2
1329 T-2	13.9	0.15	20000226	0.78242	208.78447	218.62395	1.90826	0.1850677	2.9835722	75	3	1973-2000	0.70	M-v	2	Williams	38192	1329 T-2

1343 T-2	14.9	0.15	20000226	323.75101	185.35240	357.01257	3.00109	0.1009020	2.3378918	75	3	1973-2000	0.77	M-v	3	Williams	38192	1343 T-2
1494 T-2	15.0	0.15	20000226	275.22033	149.09035	74.21869	1.55581	0.0120634	2.5788758	53	4	1973-2000	0.82	M-v	2	Williams	38192	1494 T-2
2066 T-2	14.0	0.15	20000226	80.44938	117.81181	214.71135	4.96326	0.1030593	2.9753373	57	3	1973-2000	0.76	M-v	2	Williams	38192	2066 T-2
2104 T-2	14.4	0.15	20000226	98.73054	118.37089	251.31789	1.15735	0.1106659	2.9221218	87	4	1973-2000	0.83	M-v	3	Spahr	38192	2104 T-2
2124 T-2	16.1	0.15	20000226	105.12934	95.75536	286.33000	1.61206	0.1629551	2.3516021	31	4	1973-2000	0.89	M-v	2	Williams	32786	2124 T-2
2144 T-2	14.4	0.15	20000226	273.07062	278.78282	357.60191	4.45576	0.1325052	2.5343661	40	6	1973-2000	0.99	M-v	2	Williams	27732	2144 T-2
2148 T-2	14.1	0.15	20000226	112.42247	193.83551	188.62442	11.81942	0.1917723	2.5880170	59	3	1973-2000	0.75	M-v	2	Williams	38192	2148 T-2
2266 T-2	14.6	0.15	20000226	216.18169	128.93120	173.90569	5.51723	0.0381168	2.3289104	49	3	1973-2000	1.03	M-v	4	Williams	33384	2266 T-2
3063 T-2	14.2	0.15	20000226	22.83184	79.46389	9.69686	14.80749	0.0784174	2.6045701	38	4	1973-2000	0.90	M-v	2	Williams	38192	3063 T-2
3092 T-2	14.4	0.15	20000226	61.04965	77.92847	7.85838	12.94792	0.0409228	2.5754365	30	3	1973-2000	0.85	M-v	2	Williams	34060	3092 T-2
3159 T-2	14.0	0.15	20000226	58.90416	210.74217	170.10022	11.82237	0.1225309	2.6261952	49	3	1973-2000	0.79	M-v	3	Spahr	38192	3159 T-2
3162 T-2	13.5	0.15	20000226	133.58877	215.32791	169.08631	13.84097	0.1826511	2.5694759	36	4	1973-2000	0.66	M-v	2	Spahr	36123	3162 T-2
3178 T-2	13.7	0.15	20000226	132.98973	345.16508	29.86158	3.17478	0.0677427	2.8813925	57	5	1971-2000	0.85	M-v	2	Williams	34568	3178 T-2
3182 T-2	14.6	0.15	20000226	263.97731	86.72223	150.22049	6.93921	0.1758590	2.3275717	45	3	1973-2000	0.76	M-v	4	Spahr	38192	3182 T-2
3234 T-2	15.5	0.15	20000226	49.99539	314.25016	68.08481	3.63742	0.2102269	2.3839278	90	2	1973-2000	0.58	M-v	4	Williams	38192	3234 T-2
3306 T-2	16.0	0.15	20000226	62.20605	22.11022	37.67442	4.42605	0.1257600	2.1640339	47	3	1973-2000	0.90	M-v	3	Williams	38193	3306 T-2
3336 T-2	14.8	0.15	20000226	106.42876	231.05065	157.29538	4.89517	0.2066309	2.3467702	64	5	1973-2000	0.66	M-v	1	Williams	32537	3336 T-2
3356 T-2	14.7	0.15	20000226	17.67470	83.09080	13.61052	4.71451	0.3037111	2.6267944	63	3	1973-2000	0.62	M-v	2	Williams	38006	3356 T-2
4041 T-2	15.5	0.15	20000226	67.85827	335.95874	28.05313	2.34737	0.0929686	2.6314268	68	3	1973-1999	0.87	M-v	5	Williams	38193	4041 T-2
4149 T-2	15.7	0.15	20000226	141.54520	293.98910	58.33600	2.68028	0.1650260	2.1514867	38	4	1973-2000	0.79	M-v	2	Williams	32787	4149 T-2
4231 T-2	14.6	0.15	20000226	142.55686	323.57139	30.03215	7.37798	0.1340310	2.3414090	37	4	1973-2000	0.76	M-v	2	Williams	38193	4231 T-2
4257 T-2	14.2	0.15	20000226	175.08445	246.06102	71.37707	3.12369	0.0627796	2.8926488	49	3	1973-2000	0.83	M-v	4	Williams	38193	4257 T-2
4263 T-2	15.3	0.15	20000226	68.82314	323.68250	102.00614	3.24730	0.1991440	2.3552542	27	4	1973-2000	0.74	M-v	2	Williams	23681	4263 T-2
4278 T-2	14.9	0.15	20000226	51.64361	284.00557	172.05681	12.69673	0.1693936	2.5913139	28	3	1973-2000	0.80	M-v	4	Spahr	33059	4278 T-2
4281 T-2	13.5	0.15	20000226	240.86780	251.89914	18.05682	11.64299	0.1530135	2.8636952	25	3	1973-2000	0.80	M-v	5	Williams	38193	4281 T-2
4742 T-2	11.3	0.15	20000226	19.79230	268.03609	164.41659	7.27380	0.1108823	5.2339075	21	3	1973-2000	0.72	M-v	4	Williams	38193	4742 T-2
5030 T-2	11.2	0.15	20000226	16.51864	156.39562	289.89228	10.95235	0.1351083	5.2173472	46	3	1973-2000	0.66	M-v	2	Williams	38193	5030 T-2
5167 T-2	11.3	0.15	20000226	27.30804	143.11322	311.45116	10.64276	0.0406890	5.1278941	62	3	1973-2000	0.65	M-v	3	Williams	38007	5167 T-2
5205 T-2	14.3	0.15	20000226	323.33943	217.35184	294.23510	5.79750	0.0342235	2.3588218	52	4	1973-2000	0.70	M-v	2	Williams	38193	5205 T-2
5482 T-2	13.7	0.15	20000226	231.12051	6.01517	315.47562	6.95594	0.2000019	2.3040809	27	4	1973-2000	0.94	M-v	2	Spahr	33785	5482 T-2
1055 T-3	14.8	0.15	20000226	321.70185	259.76839	319.35389	10.53177	0.1640704	2.5580047	17	3	1977-2000	0.75	M-v	3	Spahr	36870	1055 T-3
1061 T-3	14.0	0.15	20000226	81.78332	172.92470	247.33005	9.69236	0.0588562	2.9895074	31	3	1977-2000	0.85	M-v	3	Spahr	38193	1061 T-3
1078 T-3	14.0	0.15	20000226	350.29125	268.94501	237.47177	14.05824	0.0702835	2.6085888	48	5	1954-2000	0.74	M-v	2	Spahr	38193	1078 T-3
1084 T-3	13.9	0.15	20000226	126.24379	125.27493	248.68055	8.37986	0.0974812	2.9845783	50	4	1977-2000	0.72	M-v	1	Spahr	34061	1084 T-3
1085 T-3	14.0	0.15	20000226	199.44700	20.62906	270.81769	6.35202	0.1176199	2.3151467	77	3	1977-2000	0.61	M-v	3	Spahr	38007	1085 T-3
1088 T-3	14.2	0.15	20000226	80.69509	69.04108	347.58818	9.26219	0.0640619	2.6062806	72	3	1977-2000	0.76	M-v	3	Williams	38193	1088 T-3
1107 T-3	12.9	0.15	20000226	257.73213	66.58223	241.49159	13.00554	0.1516961	2.8871586	44	5	1977-2000	0.88	M-v	2	Williams	36124	1107 T-3
1144 T-3	13.9	0.15	20000226	101.84669	76.46853	336.89400	8.66646	0.0569555	2.9737659	46	4	1977-2000	0.85	M-v	1	Williams	33589	1144 T-3
1157 T-3	13.8	0.15	20000226	118.70412	119.94329	264.37622	8.79056	0.0958554	2.9864537	41	3	1977-2000	0.85	M-v	3	Spahr	38193	1157 T-3
1182 T-3	14.0	0.15	20000226	247.24554	301.21480	331.21671	8.57801	0.0225597	2.9603177	25	3	1977-2000	0.84	M-v	3	Williams	22702	1182 T-3
2139 T-3	13.1	0.15	20000226	307.04392	256.43451	254.21472	3.57954	0.0587691	2.6430277	71	3	1977-2000	0.66	M-v	3	Spahr	38193	2139 T-3
2246 T-3	15.5	0.15	20000226	187.50643	344.02645	326.82469	4.84424	0.0090391	2.3198436	57	3	1977-2000	0.72	M-v	5	Spahr	32735	2246 T-3
2288 T-3	15.0	0.15	20000226	153.09959	7.42810	351.93022	5.07872	0.1974820	2.3064787	69	5	1977-2000	0.74	M-v	2	Williams	33590	2288 T-3
2466 T-3	13.2	0.15	20000226	151.04847	352.91693	4.00403	9.77311	0.0992715	2.9744165	39	3	1977-2000	0.68	M-v	3	Williams	36124	2466 T-3
3039 T-3	14.6	0.15	20000226	35.95980	259.66129	144.58353	3.30165	0.1014938	2.6614616	59	3	1977-2000	0.89	M-v	3	Spahr	38193	3039 T-3
3042 T-3	14.7	0.15	20000226	349.17943	125.78619	47.86586	7.23043	0.1356403	2.3100481	37	3	1977-2000	0.91	M-v	4	Williams	33061	3042 T-3
3101 T-3	14.7	0.15	20000226	192.95993	285.24955	39.65733	8.49595	0.0972722	2.3015285	70	4	1977-2000	0.84	M-v	3	Williams	34339	3101 T-3
3268 T-3	15.9	0.15	20000226	354.74779	320.29587	205.58466	5.88420	0.0430854	2.3078299	34	5	1977-2000	0.69	M-v	1	Spahr	33385	3268 T-3
3320 T-3	14.8	0.15	20000226	148.53612	293.64237	77.84837	2.05532	0.1266682	2.5809306	41	3	1977-2000	0.83	M-v	4	Williams	35125	3320 T-3
3382 T-3	14.9	0.15	20000226	226.33504	75.06339	192.67482	6.21720	0.1205453	2.3132171	47	5	1977-2000	0.69	M-v	4	Spahr	38193	3382 T-3
3417 T-3	13.8	0.15	20000226	56.94800	106.47852	24.96636	16.31909	0.1208137	2.5680641	50	4	1977-2000	0.73	M-v	1	Spahr	36125	3417 T-3
3437 T-3	14.6	0.15	20000226	260.44376	272.24939	13.87403	2.62582	0.1455463	2.5450580	46	5	1977-2000	0.87	M-v	2	Williams	33590	3437 T-3
3465 T-3	13.5	0.15	20000226	117.39186	294.54643	22.61829	11.02609	0.1450573	3.0470203	43	4	1977-2000	0.74	M-v	2	Williams	38193	3465 T-3

4031 T-3	15.2	0.15	20000226	110.68329	210.87142	153.74435	3.99422	0.1521645	2.3323194	25	3	1977-2000	0.73	M-v	4	Williams	32294	4031 T-3
4032 T-3	14.8	0.15	20000226	123.86270	325.76914	54.94541	4.68652	0.1762315	2.3157401	52	5	1949-2000	0.84	M-v	3	Williams	33590	4032 T-3
4052 T-3	14.6	0.15	20000226	348.08847	151.83339	55.02177	7.68810	0.0531610	2.2813558	45	4	1977-2000	0.70	M-v	2	Williams	34618	4052 T-3
4072 T-3	13.6	0.15	20000226	352.44949	293.77354	159.41475	5.86246	0.1294343	3.0833312	65	3	1977-2000	0.73	M-v	3	Spahr	38193	4072 T-3
4079 T-3	14.3	0.15	20000226	312.31899	142.86886	38.11501	10.79543	0.0412849	2.9950513	56	3	1977-2000	0.72	M-v	3	Williams	38193	4079 T-3
4181 T-3	15.7	0.15	20000226	135.97557	236.32198	102.66725	2.76129	0.2340460	2.3252346	44	4	1977-2000	0.69	M-v	3	Spahr	32538	4181 T-3
4203 T-3	13.8	0.15	20000226	316.88740	5.25157	185.61491	13.01533	0.1052853	2.5951735	64	5	1960-2000	0.75	M-v	2	Spahr	38193	4203 T-3
4235 T-3	13.9	0.15	20000226	347.15195	20.52283	67.96746	5.12467	0.0287733	2.3669133	74	4	1977-2000	0.63	M-v	4	Williams	38194	4235 T-3
4303 T-3	14.2	0.15	20000226	3.39094	60.09712	43.38600	9.55244	0.1063816	3.0519840	40	3	1977-2000	0.78	M-v	4	Williams	38194	4303 T-3
4310 T-3	14.4	0.15	20000226	312.70719	167.16437	65.72342	5.67579	0.0958637	2.2857260	58	5	1977-2000	0.77	M-v	3	Spahr	38194	4310 T-3
4327 T-3	14.1	0.15	20000226	336.16207	138.84002	56.07509	9.28684	0.1107015	2.5743713	53	4	1977-2000	0.83	M-v	2	Williams	33785	4327 T-3
4336 T-3	15.0	0.15	20000226	320.67530	51.16063	161.81716	7.69215	0.0479382	2.2971199	30	4	1977-2000	0.67	M-v	2	Williams	33590	4336 T-3
4672 T-3	14.5	0.15	20000226	26.27902	31.77884	77.40359	5.04518	0.1389736	2.6223069	47	3	1977-2000	0.67	M-v	3	Williams	38194	4672 T-3
5018 T-3	13.9	0.15	20000226	352.65111	38.23893	53.12682	15.84761	0.0865504	2.6592132	72	3	1977-2000	0.56	M-v	3	Williams	38194	5018 T-3
5078 T-3	12.2	0.15	20000226	114.51360	222.56906	67.56319	10.77642	0.0482606	3.1129326	52	3	1977-2000	0.84	M-v	2	Williams	38194	5078 T-3
5082 T-3	15.2	0.15	20000226	147.56862	247.27565	108.31438	5.57278	0.1485193	2.3127353	34	4	1977-2000	0.92	M-v	3	Williams	36125	5082 T-3
5155 T-3	13.4	0.15	20000226	93.73657	282.94614	111.20374	10.91362	0.1006147	3.0076962	51	2	1977-2000	0.65	M-v	4	Williams	38008	5155 T-3
5193 T-3	12.6	0.15	20000226	239.59357	83.59419	151.48547	12.53093	0.2013360	3.0012940	33	4	1977-2000	0.79	M-v	2	Williams	38194	5193 T-3
5710 T-3	14.9	0.15	20000226	247.13923	138.41696	52.08384	14.49140	0.0309405	2.6599920	31	2	1977-1999	0.68	M-v	5	Williams	38194	5710 T-3

1992 PZ₅ = 1992 QQ (M. E. Sansaturio)1999 UK₅ = 2000 AP₁₅₃ (G. V. Williams)1999 UL₁₅ = 2000 AO₁₀₁ (G. V. Williams)1999 VL₁₁₁ = 1999 XO₆₃ (M. E. Sansaturio)1999 XE₁₆₇ = 2000 AR₁₀ (G. V. Williams)1999 XF₁₇₈ = 2000 AE₂₀₄ (G. V. Williams)1999 YA₆ = 1999 TB (G. V. Williams)2000 AF₂₀₄ = 2000 AK₂₆ (K. Sárneczky)2000 AL₂₂₁ = 2000 AW₂₄₅ (G. V. Williams)2000 BH = 1999 XT₉₂ (G. V. Williams)

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C/1999 N2 (Lynn)

Date	TT	α_{2000}	δ_{2000}	Δ	r	Elements MPC 35814			
						ϵ	ϕ	m_1	m_2
2000 02 16	02 10.9	+84 05.5	2.944	3.263	100.0	17.3	17.0		
2000 02 26	03 12.6	+80 29.9	3.136	3.380	95.7	16.9	17.3		
2000 03 07	03 46.0	+77 11.9	3.343	3.495	90.5	16.5	17.6		
2000 03 17	04 10.4	+74 17.7	3.560	3.609	84.9	15.9	17.8		
2000 03 27	04 30.9	+71 46.7	3.783	3.722	78.9	15.3	18.1		
2000 04 06	04 49.18	+69 36.7	4.006	3.833	72.9	14.4	18.3		
2000 04 16	05 06.18	+67 45.1	4.227	3.944	66.9	13.5	18.6		
2000 04 26	05 22.24	+66 09.6	4.442	4.053	61.1	12.6	18.8		
2000 05 06	05 37.60	+64 47.9	4.647	4.161	55.6	11.5	19.0		
2000 05 16	05 52.35	+63 38.3	4.840	4.267	50.4	10.5	19.2		
2000 05 26	06 06.54	+62 39.3	5.018	4.373	45.8	9.6	19.4		
2000 06 05	06 20.21	+61 49.8	5.180	4.478	42.0	8.7	19.6		

P/1999 WJ₇ (Korlević)

Date	TT	α_{2000}	δ_{2000}	Δ	r	Elements MPC 38308			
						ϵ	ϕ	m_1	m_2
2000 02 16	04 20.84	+22 56.1	2.833	3.168	100.7	17.8	20.2		
2000 02 26	04 28.06	+23 02.2	2.971	3.168	92.2	18.2	20.3		
2000 03 07	04 36.95	+23 11.2	3.111	3.170	84.3	18.2	20.4		
2000 03 17	04 47.31	+23 21.7	3.251	3.172	76.7	17.8	20.5		

2000 03 27	04 58.90	+23 32.2	3.386	3.176	69.4	17.1	20.6		
2000 04 06	05 11.54	+23 41.5	3.517	3.180	62.4	16.2	20.6		
2000 04 16	05 25.07	+23 48.2	3.641	3.185	55.7	15.1	20.7		
2000 04 26	05 39.31	+23 51.4	3.756	3.191	49.2	13.8	20.7		
2000 05 06	05 54.12	+23 50.3	3.863	3.198	42.9	12.4	20.7		
2000 05 16	06 09.37	+23 44.3	3.959	3.206	36.7	10.9	20.7		
2000 05 26	06 24.94	+23 32.7	4.044	3.214	30.7	9.2	20.7		

C/2000 B2 (LINEAR)

Date	TT	α_{2000}	δ_{2000}	Δ	r	ϵ	ϕ	m_1	m_2	Elements MPC 38308
2000 02 16	06 16.80	+31 59.5	3.204	3.874	126.5	11.8	19.2			
2000 02 26	06 09.08	+29 34.4	3.370	3.895	115.1	13.3	19.4			
2000 03 07	06 04.38	+27 20.8	3.554	3.917	104.2	14.2	19.5			
2000 03 17	06 02.24	+25 19.7	3.749	3.942	93.8	14.6	19.7			
2000 03 27	06 02.23	+23 30.5	3.948	3.968	83.9	14.5	19.8			
2000 04 06	06 03.95	+21 51.6	4.146	3.996	74.4	14.0	19.9			
2000 04 16	06 07.06	+20 21.2	4.338	4.025	65.4	13.1	20.0			
2000 04 26	06 11.26	+18 57.2	4.520	4.056	56.7	12.0	20.0			
2000 05 06	06 16.31	+17 37.8	4.688	4.089	48.4	10.6	20.1			
2000 05 16	06 22.01	+16 21.4	4.840	4.123	40.4	9.1	20.1			
2000 05 26	06 28.17	+15 06.4	4.974	4.158	32.7	7.6	20.1			

P/2000 B3 (LINEAR)

Date	TT	α_{2000}	δ_{2000}	Δ	r	ϵ	ϕ	m_1	m_2	Elements MPC 38308
2000 02 16	06 40.46	+39 09.4	0.891	1.700	129.6	26.6	18.1	19.1		
2000 02 26	06 52.18	+36 35.5	0.949	1.704	123.0	29.2	18.2	19.3		
2000 03 07	07 07.07	+33 58.5	1.020	1.714	116.8	31.1	18.4	19.5		
2000 03 17	07 24.31	+31 21.1	1.101	1.729	111.1	32.5	18.6	19.8		
2000 03 27	07 43.09	+28 44.1	1.191	1.750	105.8	33.3	18.8	20.0		
2000 04 06	08 02.81	+26 07.7	1.291	1.776	100.9	33.6	19.0	20.2		
2000 04 16	08 23.03	+23 31.9	1.399	1.807	96.2	33.5	19.3	20.4		
2000 04 26	08 43.39	+20 56.8	1.515	1.842	91.6	33.1	19.6	20.6		
2000 05 06	09 03.67	+18 22.6	1.638	1.881	87.2	32.4	19.8	20.8		
2000 05 16	09 23.73	+15 49.4	1.767	1.924	82.9	31.4	20.1	21.0		

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2000 05 26	09 43.45	+13 17.5	1.901	1.970	78.6	30.3	20.3	21.2
2000 06 05	10 02.82	+10 47.1	2.040	2.018	74.3	29.0	20.6	21.3
2000 06 15	10 21.81	+08 18.6	2.182	2.069	70.0	27.5	20.9	21.5
2000 06 25	10 40.42	+05 52.4	2.327	2.122	65.7	25.9	21.1	21.6
2000 07 05	10 58.69	+03 28.6	2.474	2.176	61.3	24.2	21.3	21.8
2000 07 15	11 16.63	+01 07.5	2.620	2.232	56.8	22.4	21.6	21.9
2000 07 25	11 34.27	−01 10.4	2.765	2.290	52.3	20.5	21.8	22.0
2000 08 04	11 51.66	−03 25.1	2.908	2.348	47.6	18.6	22.0	22.1
2000 08 14	12 08.82	−05 36.3	3.048	2.407	42.9	16.7		22.2
2000 08 24	12 25.78	−07 43.5	3.182	2.466	38.1	14.6		22.3
2000 09 03	12 42.57	−09 46.7	3.310	2.526	33.1	12.6		22.4

C/2000 B4 (LINEAR)

Date	TT	α_{2000}	δ_{2000}	Δ	r	ϵ	ϕ	Elements <i>MPC</i> 38308	m_1	m_2
2000 02 16		08 01.18	+36 53.3	6.021	6.852	144.8	4.8			20.0
2000 02 26		07 58.17	+36 39.4	6.108	6.847	135.3	5.8			20.1
2000 03 07		07 56.11	+36 20.3	6.216	6.842	125.7	6.8			20.2
2000 03 17		07 55.16	+35 56.7	6.342	6.838	116.1	7.5			20.2
2000 03 27		07 55.35	+35 29.4	6.480	6.835	106.7	8.0			20.3
2000 04 06		07 56.67	+34 59.3	6.627	6.831	97.6	8.4			20.4
2000 04 16		07 59.09	+34 26.9	6.778	6.828	88.6	8.4			20.4
2000 04 26		08 02.51	+33 52.9	6.929	6.826	79.9	8.3			20.5
2000 05 06		08 06.83	+33 17.4	7.077	6.824	71.5	8.1			20.5
2000 05 16		08 11.95	+32 40.9	7.217	6.822	63.2	7.6			20.5
2000 05 26		08 17.76	+32 03.6	7.348	6.820	55.2	7.0			20.5
2000 06 05		08 24.13	+31 25.5	7.466	6.819	47.3	6.3			20.5
2000 06 15		08 30.98	+30 46.8	7.570	6.819	39.7	5.5			20.5
2000 06 25		08 38.20	+30 07.6	7.657	6.819	32.2	4.6			20.5

P/2000 C1 (Hergenrother)

Date	TT	α_{2000}	δ_{2000}	Δ	r	ϵ	ϕ	Elements <i>MPC</i> 38308	m_1	m_2
2000 02 16		12 12.97	+05 45.9	1.222	2.111	145.4	15.4	17.7		
2000 02 26		12 12.04	+06 49.6	1.162	2.103	155.6	11.2	17.6		
2000 03 07		12 08.72	+08 03.1	1.123	2.098	165.4	6.8	17.5		
2000 03 17		12 03.82	+09 16.3	1.107	2.096	171.1	4.2	17.4		
2000 03 27		11 58.49	+10 18.4	1.116	2.097	165.5	6.8	17.5		
2000 04 06		11 53.90	+11 00.4	1.147	2.100	155.8	11.2	17.5		
2000 04 16		11 51.08	+11 17.3	1.198	2.106	145.9	15.5	17.6		
2000 04 26		11 50.66	+11 08.1	1.268	2.115	136.5	19.1	17.8		
2000 05 06		11 52.84	+10 34.7	1.353	2.126	127.8	22.0	17.9		
2000 05 16		11 57.58	+09 40.5	1.450	2.140	119.8	24.2	18.1		
2000 05 26		12 04.59	+08 29.2	1.557	2.156	112.4	25.8	18.3		
2000 06 05		12 13.55	+07 04.5	1.672	2.175	105.5	26.7	18.5		
2000 06 15		12 24.17	+05 29.5	1.793	2.196	99.1	27.2	18.7		
2000 06 25		12 36.13	+03 46.9	1.919	2.219	93.0	27.2	18.9		
2000 07 05		12 49.20	+01 59.1	2.049	2.244	87.3	26.9	19.1		
2000 07 15		13 03.19	+00 08.1	2.182	2.270	81.7	26.3	19.3		
2000 07 25		13 17.93	−01 44.2	2.316	2.299	76.4	25.4	19.4		
2000 08 04		13 33.30	−03 36.4	2.451	2.329	71.1	24.3	19.6		
2000 08 14		13 49.23	−05 27.1	2.585	2.361	65.9	23.1	19.8		
2000 08 24		14 05.62	−07 14.9	2.719	2.393	60.8	21.6	20.0		
2000 09 03		14 22.43	−08 58.8	2.850	2.427	55.6	20.1	20.1		
2000 09 13		14 39.60	−10 37.8	2.977	2.463	50.5	18.4	20.3		
2000 09 23		14 57.08	−12 11.0	3.100	2.499	45.3	16.6	20.4		

2000 10 03	15 14.85	−13 37.5	3.218	2.536	40.1	14.7	20.6
2000 10 13	15 32.83	−14 56.8	3.329	2.573	34.8	12.8	20.7

C/2000 CT₅₄ (LINEAR)

Date	TT	α_{2000}	δ_{2000}	Δ	r	ϵ	ϕ	Elements <i>MPC</i> 38309	m_1	m_2
2000 02 16		14 03.34	−22 39.3	5.034	5.449	109.8	9.8			18.8
2000 02 26		14 01.47	−23 34.1	4.821	5.381	119.7	9.2			18.7
2000 03 07		13 58.15	−24 25.0	4.624	5.313	129.7	8.3			18.5
2000 03 17		13 53.37	−25 10.7	4.447	5.245	139.7	7.0			18.4
2000 03 27		13 47.25	−25 50.0	4.294	5.178	149.4	5.6			18.2
2000 04 06		13 40.02	−26 22.0	4.169	5.111	158.0	4.2			18.0
2000 04 16		13 32.02	−26 45.8	4.074	5.044	163.3	3.3			17.9
2000 04 26		13 23.71	−27 01.7	4.011	4.977	162.0	3.6			17.8
2000 05 06		13 15.56	−27 10.6	3.978	4.911	155.0	5.0			17.9
2000 05 16		13 08.06	−27 14.3	3.974	4.845	146.0	6.7			17.9
2000 05 26		13 01.62	−27 15.3	3.996	4.780	136.3	8.4			18.0
2000 06 05		12 56.54	−27 16.2	4.039	4.714	126.6	10.0			18.0
2000 06 15		12 53.00	−27 19.5	4.099	4.650	117.1	11.2			18.1
2000 06 25		12 51.08	−27 27.4	4.171	4.585	107.8	12.2			18.1
2000 07 05		12 50.79	−27 41.5	4.251	4.522	98.9	12.8			18.2
2000 07 15		12 52.06	−28 03.1	4.334	4.459	90.4	13.2			18.2
2000 07 25		12 54.82	−28 32.8	4.416	4.396	82.2	13.2			18.2
2000 08 04		12 58.96	−29 10.9	4.494	4.334	74.4	13.0			18.2
2000 08 14		13 04.38	−29 57.7	4.566	4.273	67.0	12.6			18.2
2000 08 24		13 10.99	−30 52.8	4.627	4.212	59.9	12.0			18.2
2000 09 03		13 18.72	−31 56.0	4.678	4.153	53.2	11.2			18.1
2000 09 13		13 27.48	−33 07.2	4.715	4.094	46.9	10.3			18.1
2000 09 23		13 37.24	−34 25.7	4.739	4.036	41.0	9.4			18.0
2000 10 03		13 47.96	−35 51.3	4.747	3.979	35.8	8.5			18.0
2000 10 13		13 59.62	−37 23.6	4.741	3.923	31.4	7.6			17.9

36P/Whipple

Date	TT	α_{2000}	δ_{2000}	Δ	r	ϵ	ϕ	Elements <i>CCO</i> 13	m_1	m_2
2000 03 17		15 55.89	−12 04.3	4.557	5.087	117.0	10.0	22.4	22.5	
2000 03 27		15 55.02	−11 39.9	4.413	5.077	127.1	9.0	22.3	22.4	
2000 04 06		15 52.82	−11 12.2	4.286	5.067	137.3	7.7	22.2	22.2	
2000 04 16		15 49.40	−10 42.0	4.180	5.057	147.6	6.1			22.1
2000 04 26		15 44.96	−10 10.8	4.100	5.046	157.7	4.3			22.0
2000 05 06		15 39.77	−09 40.1	4.048	5.035	166.7	2.6			21.8
2000 05 16		15 34.17	−09 11.5	4.025	5.024	170.1	2.0			21.8
2000 05 26		15 28.56	−08 46.6	4.032	5.012	163.7	3.2			21.8
2000 06 05		15 23.30	−08 27.0	4.068	5.001	154.2	5.1			22.0
2000 06 15		15 18.74	−08 13.6	4.130	4.989	144.1	6.9	22.0	22.1	
2000 06 25		15 15.14	−08 07.1	4.216	4.977	134.0	8.4	22.1	22.2	
2000 07 05		15 12.69	−08 07.5	4.321	4.964	124.2	9.8	22.1	22.3	
2000 07 15		15 11.50	−08 14.8	4.442	4.952	114.6	10.8	22.2	22.4	
2000 07 25		15 11.60	−08 28.2	4.573	4.939	105.3	11.4	22.2	22.5	
2000 08 04		15 12.98	−08 47.1	4.711	4.925	96.2	11.8	22.3	22.5	

C/1999 J4 (LINEAR)

Date	TT	α_{2000}	δ_{2000}	Δ	r	ϵ	ϕ	Elements <i>MPC</i> 34734	m_1	m_2
2000 03 27		08 03.5	+75 29.1	3.763	3.951	93.5	14.6			18.2
2000 04 06		07 36.9	+72 20.1	3.910	3.977	86.5	14.5			18.3
2000 04 16		07 24.04	+69 13.9	4.068	4.005	79.3	14.3			18.4

2000 FEB. 22

M.P.C. 38911

2000 04 26	07 18.87	+66 19.9	4.231	4.035	72.0	13.7	18.4
2000 05 06	07 18.23	+63 41.1	4.393	4.066	64.7	13.0	18.5
2000 05 16	07 20.37	+61 18.2	4.549	4.099	57.7	12.0	18.6
2000 05 26	07 24.24	+59 10.4	4.696	4.133	51.0	11.0	18.6
2000 06 05	07 29.21	+57 16.4	4.829	4.169	44.7	9.9	18.7
2000 06 15	07 34.83	+55 35.3	4.945	4.206	39.1	8.8	18.7
2000 06 25	07 40.79	+54 05.7	5.042	4.244	34.5	7.8	18.7
2000 07 05	07 46.87	+52 46.7	5.119	4.284	31.4	7.1	18.7
2000 07 15	07 52.86	+51 37.7	5.173	4.325	30.2	6.8	18.8

P/1996 A1 (Jedicke)

Elements MPC 31893

Date	TT	α_{2000}	δ_{2000}	Δ	r	ϵ	ϕ	m_1	m_2
2000 03 27		16 41.58	-22 39.1	7.779	8.245	114.7	6.3	20.6	22.5
2000 04 06		16 40.47	-22 34.9	7.656	8.268	124.8	5.7	20.6	22.5
2000 04 16		16 38.54	-22 28.9	7.550	8.291	135.1	4.9	20.6	22.4
2000 04 26		16 35.88	-22 21.3	7.465	8.313	145.5	3.9	20.6	22.3
2000 05 06		16 32.63	-22 12.2	7.405	8.336	155.9	2.8	20.6	22.2
2000 05 16		16 28.96	-22 01.8	7.372	8.358	166.5	1.6	20.6	22.2
2000 05 26		16 25.05	-21 50.5	7.369	8.381	177.0	0.4	20.6	22.0
2000 06 05		16 21.12	-21 38.8	7.396	8.403	172.5	0.9	20.6	22.1
2000 06 15		16 17.36	-21 27.0	7.453	8.425	162.0	2.1	20.6	22.2
2000 06 25		16 13.97	-21 15.9	7.538	8.447	151.7	3.3	20.7	22.3
2000 07 05		16 11.10	-21 06.0	7.649	8.468	141.5	4.3	20.7	22.4
2000 07 15		16 08.88	-20 57.6	7.784	8.490	131.4	5.2	20.7	22.5

C/1999 S3 (LINEAR)

Elements MPC 37478

Date	TT	α_{2000}	δ_{2000}	Δ	r	ϵ	ϕ	m_1	m_2
2000 03 27		21 25.5	+82 41.9	2.410	2.480	82.2	23.5	15.9	
2000 04 06		20 57	+87 52.4	2.482	2.552	82.5	22.9	16.0	
2000 04 16		10 37	+86 42.8	2.566	2.625	82.2	22.3	16.2	
2000 04 26		10 25.7	+81 25.9	2.665	2.700	81.2	21.6	16.4	
2000 05 06		10 31.0	+76 13.5	2.777	2.777	79.5	20.9	16.7	
2000 05 16		10 39.1	+71 11.3	2.904	2.854	77.1	20.2	16.9	
2000 05 26		10 48.24	+66 22.6	3.042	2.933	74.2	19.4	17.1	
2000 06 05		10 57.78	+61 49.5	3.190	3.012	70.7	18.5	17.3	
2000 06 15		11 07.51	+57 33.3	3.346	3.092	66.9	17.6	17.5	
2000 06 25		11 17.31	+53 34.3	3.507	3.172	62.7	16.5	17.7	
2000 07 05		11 27.14	+49 52.3	3.670	3.253	58.3	15.4	17.9	
2000 07 15		11 36.93	+46 26.7	3.832	3.334	53.8	14.2	18.1	
2000 07 25		11 46.66	+43 16.8	3.990	3.416	49.3	13.0	18.3	
2000 08 04		11 56.30	+40 21.7	4.143	3.497	44.8	11.8	18.5	
2000 08 14		12 05.83	+37 40.7	4.286	3.579	40.6	10.6	18.7	
2000 08 24		12 15.21	+35 13.0	4.419	3.660	36.8	9.5	18.9	
2000 09 03		12 24.42	+32 58.0	4.539	3.742	33.7	8.6	19.0	
2000 09 13		12 33.42	+30 55.3	4.644	3.823	31.6	7.9	19.2	
2000 09 23		12 42.17	+29 04.4	4.733	3.905	30.8	7.6	19.3	

OPPOSITION DATA

Planet	Opposition	α_{2000}	δ_{2000}	V	$\dot{\alpha}$	$\dot{\delta}$	ϕ_{MIN}	MPC
2000 AM ₁₅₉	2000 01 22.0	08 14.08	+24 02.8	18.0	-1.04	+ 2.2	1.3/21.3	38694
1994 PF ₃₇	2000 01 22.0	08 14.17	+13 33.9	16.8	-0.97	+ 5.9	2.7/23.3	38763
1999 UG ₁₁	2000 01 22.0	08 14.18	+36 14.1	16.1	-1.46	-12.2	7.4/21.9	38811
1995 BW ₁₁	2000 01 22.0	08 14.22	+21 15.9	17.7	-0.86	+ 3.1	0.4/21.8	38764
1998 QO ₁₀	2000 01 22.0	08 14.25	+12 56.0	18.0	-1.07	+ 3.9	2.5/23.3	38780

(12233)	2000 01 22.0	08 14.26	+20 16.0	17.1	-1.05	+ 5.4	0.2/22.0	36668
2000 BC ₂₅	2000 01 22.0	08 14.27	+19 28.2	17.4	-1.19	+ 4.5	0.2/22.1	38723
1991 RE ₄	2000 01 22.0	08 14.31	+25 20.8	19.9	-1.15	+ 2.4	1.9/21.2	35062
1993 FL ₃₃	2000 01 22.0	08 14.36	+27 02.1	17.6	-1.12	+ 3.8	2.9/20.8	38760
1994 PO ₆	2000 01 22.0	08 14.47	+18 12.9	18.0	-1.02	+ 2.8	0.7/22.4	38447
1999 XS ₂₀₆	2000 01 22.1	08 14.41	+30 32.4	16.7	-1.04	- 1.7	3.1/20.7	38859
2000 AV ₈₇	2000 01 22.1	08 14.41	+18 14.7	17.4	-0.86	+ 5.8	0.5/22.4	38654
1998 RG ₆₉	2000 01 22.1	08 14.46	+16 42.3	17.6	-0.93	+ 3.8	1.1/22.7	38788
1999 VE ₇₂	2000 01 22.1	08 14.47	+24 35.1	17.3	-1.00	+ 9.2	1.7/21.0	38820
1992 RV ₆	2000 01 22.1	08 14.60	+21 50.6	19.3	-0.84	+ 3.0	0.5/21.8	35686
1998 QY ₂₀	2000 01 22.1	08 14.63	+18 57.2	19.9	-1.05	+ 3.1	0.3/22.3	34591
1999 YE ₉	2000 01 22.1	08 14.66	+14 12.5	17.2	-1.02	+ 0.3	1.8/23.0	38863
1090 T-3	2000 01 22.1	08 14.66	+36 36.4	20.4	-1.19	+ 0.8	5.4/19.5	36124
2000 AG ₁₆₇	2000 01 22.1	08 14.67	+05 10.8	17.2	-0.76	+ 4.4	6.2/25.3	38698
2000 AX ₈₇	2000 01 22.1	08 14.68	+16 54.3	17.7	-1.01	- 1.3	1.0/22.5	38655
(13753)	2000 01 22.1	08 14.69	+17 47.1	17.2	-0.84	+ 4.7	0.7/22.6	38387
1998 QH ₅₂	2000 01 22.1	08 14.78	+24 03.8	16.6	-1.15	- 0.2	1.8/21.6	38783
1998 SJ ₁₃₅	2000 01 22.1	08 14.80	+14 33.6	18.3	-0.97	+ 4.2	1.7/23.2	38516
(12836)	2000 01 22.1	08 14.83	+18 10.1	16.9	-1.13	+ 4.4	0.8/22.5	37073
1994 PL ₃₅	2000 01 22.2	08 14.87	+14 59.6	18.0	-1.01	+ 3.5	1.9/23.1	38763
1998 SM ₁₂₉	2000 01 22.2	08 14.87	+16 48.8	18.4	-0.94	+ 3.6	1.0/22.8	38514
2000 BF ₂₅	2000 01 22.2	08 14.90	+20 32.6	17.5	-0.84	+ 3.2	0.2/22.1	38723
2000 AR ₉₀	2000 01 22.2	08 14.92	+16 30.9	17.6	-1.02	+ 1.8	1.4/22.8	38659
(13650)	2000 01 22.2	08 15.01	+06 02.3	18.4	-0.55	+ 1.9	2.8/24.9	38356
1997 UY ₂₀	2000 01 22.2	08 15.06	+03 53.8	18.9	-0.77	+ 2.6	4.0/25.2	38046
1997 GE ₁	2000 01 22.2	08 15.09	+16 23.5	18.4	-1.11	+ 4.0	1.4/22.9	38772
1999 VA ₇₂	2000 01 22.2	08 15.12	+21 16.3	17.5	-0.93	+ 4.3	0.5/22.0	38820
2000 AN ₁₁₉	2000 01 22.2	08 15.18	+11 32.4	17.4	-1.00	+ 5.5	3.5/23.9	38671
1998 WY ₈	2000 01 22.2	08 15.24	+17 24.8	17.8	-0.58	+ 1.4	0.5/22.7	38534
5167 T-2	2000 01 22.2	08 15.24	+22 17.1	17.9	-0.61	+ 0.7	0.5/21.9	38908
1998 SC ₄₃	2000 01 22.2	08 15.27	+26 21.6	18.5	-1.03	+ 3.1	2.1/21.1	38790
4031 T-3	2000 01 22.2	08 15.34	+16 12.1	18.2	-1.07	+ 5.1	1.4/23.0	38909
1999 XZ ₁₇₅	2000 01 22.2	08 15.35	+36 40.3	17.5	-1.15	+ 7.3	6.5/18.7	38856
1998 QE ₉₈	2000 01 22.3	08 15.28	+23 53.9	19.5	-1.09	+ 4.1	1.3/21.6	33089
2000 AY ₁₈₂	2000 01 22.3	08 15.32	+08 12.6	18.1	-0.55	+ 1.4	2.3/24.5	38700
2000 AE ₈₈	2000 01 22.3	08 15.49	+17 41.4	17.4	-1.07	+ 4.3	0.8/22.7	38655
1995 UQ ₁	2000 01 22.3	08 15.49	+11 19.1	17.3	-1.08	+ 3.9	3.7/23.9	38766
(13356)	2000 01 22.3	08 15.51	+10 38.2	17.5	-0.79	+ 3.8	2.8/24.1	37584
1999 XG ₁₆₄	2000 01 22.3	08 15.51	+30 12.6	16.5	-1.00	+ 9.8	4.1/19.8	38853
(9826)	2000 01 22.3	08 15.56	+06 41.4	17.8	-0.83	+ 2.5	3.8/24.8	38016
1998 QE ₅₄	2000 01 22.3	08 15.60	+21 32.0	16.2	-1.18	+ 0.9	0.7/22.1	38783
1998 PJ	2000 01 22.3	08 15.63	+20 28.2	18.8	-1.09	+ 3.0	0.2/22.3	38780
2000 AG ₈₈	2000 01 22.4	08 15.70	+17 37.1	18.1	-1.07	+ 3.2	0.8/22.8	38655
1998 SJ ₁₂₂	2000 01 22.4	08 15.71	+11 13.0	17.9	-0.83	+ 2.7	2.7/24.0	38792
1998 SV ₁₂₆	2000 01 22.4	08 15.82	+22 35.3	17.8	-0.93	+ 5.0	1.0/21.9	38792
1998 VH ₃₄	2000 01 22.4	08 15.83	+20 02.9	17.8	-0.87	+ 1.2	0.1/22.4	38797
1995 UA ₂	2000 01 22.4	08 15.92	+22 55.7	17.5	-1.07	+ 9.5	1.4/21.7	38766
(13595)	2000 01 22.4	08 15.94	+20 44.0	17.6	-1.06	+ 2.3	0.4/22.3	38341
1997 GV ₃	2000 01 22.4	08 15.98	+33 06.6	17.9	-1.24	+ 3.3	5.6/20.1	38042
1992 WU	2000 01 22.4	08 16.01	+11 04.6	16.8	-1.12	+ 3.0	3.9/23.9	38442
1998 RA ₃₉	2000 01 22.4	08 16.09	+09 53.7	18.2	-0.89	+ 6.0	3.4/24.6	38786

(13654)	2000 01 22.5	08 16.11 +27 36.6	17.7 -1.20 + 3.2	3.3/21.2	38358
1998 UD ₇	2000 01 22.5	08 16.11 +24 13.2	18.6 -0.99 + 3.1	1.3/21.7	38795
2000 AT ₉₀	2000 01 22.5	08 16.30 +17 20.8	17.7 -1.14 + 1.4	0.9/22.9	38659
(9779)	2000 01 22.5	08 16.33 +21 54.0	18.0 -1.10 + 2.9	0.7/22.2	33206
1998 RL ₆₁	2000 01 22.5	08 16.35 +24 56.9	17.6 -1.22 + 2.0	2.0/21.7	38787
1999 XD ₉₄	2000 01 22.5	08 16.41 +20 29.3	17.5 -0.59 + 0.6	0.1/22.4	38591
1998 QU ₁₀₃	2000 01 22.5	08 16.42 +21 45.2	17.1 -0.94 + 4.9	0.7/22.2	38785
2000 AR ₁₁₉	2000 01 22.5	08 16.43 +08 00.3	16.9 -0.98 - 2.1	6.0/24.1	38877
1993 FR ₂₅	2000 01 22.5	08 16.45 +17 05.6	16.8 -1.04 + 2.8	1.2/23.0	38760
1999 XM ₂₀₆	2000 01 22.5	08 16.56 +40 04.0	17.3 -1.00 + 7.2	6.7/17.7	38859
(13485)	2000 01 22.5	08 16.58 +18 35.0	17.9 -0.83 + 3.2	0.3/22.8	38312
1998 RN ₁₆	2000 01 22.6	08 16.59 +10 42.0	19.5 -1.05 + 4.6	3.1/24.3	35714
1999 XJ ₉₄	2000 01 22.6	08 16.68 +25 07.5	18.1 -1.01 + 8.1	1.9/21.4	38844
1997 GW ₁₄	2000 01 22.6	08 16.74 +14 52.3	18.5 -1.10 + 3.1	1.8/23.5	38458
2000 AD ₁₁₉	2000 01 22.6	08 16.78 +15 10.7	18.0 -0.99 + 3.7	1.6/23.5	38671
(11388)	2000 01 22.6	08 16.79 +08 10.0	16.4 -0.69 + 2.1	3.1/24.8	35587
1998 RL ₅₄	2000 01 22.6	08 16.83 +19 19.4	17.2 -0.92 + 1.3	0.1/22.7	38787
(13869)	2000 01 22.6	08 16.86 +05 13.7	17.7 -0.96 + 2.4	5.6/25.3	38419
1993 FL ₈₁	2000 01 22.6	08 16.87 +17 34.1	18.0 -1.04 + 4.4	0.8/23.1	38760
1998 TM ₅	2000 01 22.6	08 16.89 +24 32.3	19.1 -0.99 + 3.6	1.5/21.8	38065
1981 EH ₃₁	2000 01 22.6	08 16.91 +07 56.9	17.9 -0.95 + 7.2	5.1/25.3	38751
1997 ET ₁₇	2000 01 22.6	08 16.93 +17 45.5	16.4 -1.14 + 3.2	0.9/23.0	38771
4133 T-1	2000 01 22.6	08 16.95 +19 33.6	18.2 -1.14 + 5.2	0.1/22.7	38739
2000 AV ₅₅	2000 01 22.6	08 16.96 +21 33.8	17.2 -1.08 + 4.5	0.7/22.3	38639
1998 RS ₆₇	2000 01 22.7	08 16.96 +16 26.5	18.4 -0.97 + 2.7	1.1/23.3	38496
4758 P-L	2000 01 22.7	08 16.98 +27 05.1	18.4 -0.95 + 2.1	2.5/21.4	38906
1998 QA ₈₇	2000 01 22.7	08 17.01 +07 02.1	17.1 -0.98 - 1.0	5.0/24.5	38784
2000 AC ₈₈	2000 01 22.7	08 17.06 +16 28.7	17.4 -1.00 + 5.3	1.5/23.4	38655
(12467)	2000 01 22.7	08 17.09 +25 24.8	17.0 -1.22 + 4.5	2.5/21.7	36731
1990 SX ₃	2000 01 22.7	08 17.18 +22 02.6	16.8 -1.15 - 0.8	0.8/22.4	38755
1998 SN ₂₂	2000 01 22.7	08 17.39 -00 47.8	16.8 -0.86 + 4.6	7.9/27.0	38789
1998 MM ₇	2000 01 22.7	08 17.41 +27 13.2	18.9 -1.12 + 6.9	2.6/21.2	38468
1998 RV ₅	2000 01 22.7	08 17.43 +37 10.2	17.8 -1.04 + 2.7	6.0/19.5	38490
(13089)	2000 01 22.8	08 17.36 +12 26.0	17.8 -0.87 + 1.1	2.1/24.0	37511
1998 OQ ₁₀	2000 01 22.8	08 17.52 +19 40.0	16.4 -1.17 + 3.5	0.0/22.8	38779
(12796)	2000 01 22.8	08 17.71 +02 57.0	18.3 -1.08 + 0.6	7.3/25.6	37063
(13733)	2000 01 22.8	08 17.74 +11 58.0	17.1 -1.06 + 3.4	3.2/24.2	38381
(13025)	2000 01 22.8	08 17.77 +58 27.7	15.1 -2.21 -15.0	20.9/23.1	37494
2000 AR ₄	2000 01 22.8	08 17.79 +25 16.4	17.7 -0.96 + 5.6	1.9/21.7	38623
(13880)	2000 01 22.8	08 17.85 +18 15.1	16.3 -1.04 + 5.3	0.6/23.2	38422
1995 WX ₂	2000 01 22.9	08 17.78 +11 44.5	17.5 -1.06 + 2.6	3.6/24.2	38766
1998 UF ₄₂	2000 01 22.9	08 17.91 +22 50.6	17.8 -1.02 + 3.6	1.1/22.3	38796
1998 UD ₂₀	2000 01 22.9	08 17.99 +18 34.6	19.0 -0.82 + 3.7	0.3/23.2	34307
1993 FH ₁₆	2000 01 22.9	08 18.08 +21 19.8	17.3 -1.03 + 5.5	0.8/22.6	38760
2000 AY ₄₉	2000 01 23.0	08 18.22 +20 25.7	17.6 -0.98 + 7.7	0.3/22.8	38869
1998 QG ₉₈	2000 01 23.0	08 18.27 +08 10.7	19.6 -1.05 + 4.5	3.9/25.2	33349
1416 T-2	2000 01 23.0	08 18.28 +04 33.3	19.5 -0.53 + 2.5	2.8/26.2	35672
1998 QE ₅₁	2000 01 23.0	08 18.38 +21 25.1	19.4 -1.17 + 3.2	0.6/22.7	38783
2000 AU ₁₁₉	2000 01 23.0	08 18.46 +10 05.0	18.2 -1.01 + 5.3	4.1/24.9	38671
1998 SH ₂₅	2000 01 23.0	08 18.50 +27 15.1	16.6 -0.99 + 4.4	2.6/21.6	38790
1996 JF ₉	2000 01 23.0	08 18.61 +14 19.6	20.8 -0.83 + 4.0	1.5/24.1	27562

2000 AC ₁₈₅	2000 01 23.0	08 18.66 +09 02.9	17.9 -1.02 + 5.2	4.9/25.1	38701
1993 FR ₁₃	2000 01 23.0	08 18.71 +30 40.7	17.4 -1.12 + 4.4	4.9/21.0	38760
1998 QS ₂₆	2000 01 23.1	08 18.65 +14 13.3	18.3 -1.03 + 3.2	2.0/24.1	38476
2000 AY ₅₅	2000 01 23.1	08 18.68 +21 04.7	17.8 -1.17 + 2.6	0.6/22.9	38639
2000 AG ₅₅	2000 01 23.1	08 18.84 +22 27.9	17.9 -0.58 + 2.6	0.5/22.6	38639
1078 T-3	2000 01 23.1	08 18.88 -02 36.5	17.4 -0.96 + 0.0	8.6/26.6	38908
1999 XJ ₃₂	2000 01 23.1	08 18.92 +16 00.6	16.5 -0.99 + 6.1	1.8/23.9	38835
2000 AD ₁₈₅	2000 01 23.1	08 18.92 +08 59.9	16.9 -0.99 + 5.4	4.5/25.3	38701
1998 SG ₁₄₂	2000 01 23.1	08 19.12 +19 23.0	18.2 -1.07 + 5.5	0.1/23.2	38517
1992 EW ₁₇	2000 01 23.2	08 19.07 +01 35.8	17.9 -0.90 + 5.2	6.1/26.9	38758
1998 SX ₁₃₇	2000 01 23.2	08 19.08 +23 36.8	17.2 -0.94 + 3.7	1.4/22.4	38793
1998 SU ₁₆₃	2000 01 23.2	08 19.09 +33 35.7	17.6 -1.11 + 4.2	4.6/20.4	38794
4858 P-L	2000 01 23.2	08 19.16 +04 54.9	18.1 -0.80 + 4.7	4.9/26.3	38906
1998 SH ₁₃₄	2000 01 23.2	08 19.20 +18 51.4	17.3 -0.84 + 3.1	0.2/23.4	38793
2000 AV ₃₃	2000 01 23.2	08 19.29 +23 52.3	17.3 -1.02 + 4.8	2.0/22.4	38632
(13715)	2000 01 23.2	08 19.31 +20 20.0	18.1 -0.99 + 5.3	0.3/23.1	38376
(12365)	2000 01 23.2	08 19.32 +27 39.7	17.1 -0.87 + 6.5	2.4/21.4	36703
1998 RC ₇₄	2000 01 23.2	08 19.37 +10 10.6	17.6 -0.92 + 2.4	3.1/24.9	38788
(13461)	2000 01 23.2	08 19.39 +28 41.4	17.2 -1.23 + 0.7	3.7/21.9	37613
1998 OE ₆	2000 01 23.2	08 19.43 +18 32.9	18.5 -1.11 + 2.2	0.4/23.4	32757
1991 PO ₁₈	2000 01 23.2	08 19.43 +25 58.1	17.4 -1.21 + 2.4	2.3/22.2	38756
1998 OY ₁₁	2000 01 23.2	08 19.43 +23 26.4	20.3 -1.10 + 3.9	1.3/22.6	33079
1997 CC ₁₇	2000 01 23.2	08 19.46 +23 09.2	17.9 -1.18 + 3.9	1.4/22.6	38771
1998 SV ₁₆₄	2000 01 23.3	08 19.51 +24 53.7	16.9 -1.07 + 6.4	2.0/22.2	38794
1993 FH ₁₂	2000 01 23.3	08 19.56 +21 12.7	17.5 -1.08 + 5.2	0.7/23.0	38759
1979 QA ₂	2000 01 23.3	08 19.57 +21 46.6	17.1 -1.10 + 3.5	0.9/22.9	38751
2000 AC ₁₂₀	2000 01 23.3	08 19.62 +12 40.7	18.0 -1.01 + 5.5	2.6/24.7	38671
1999 TD ₁₁	2000 01 23.3	08 19.65 +22 36.5	16.6 -1.04 + 2.1	1.5/22.8	38807
2000 AK ₈₈	2000 01 23.3	08 19.74 +16 49.7	18.0 -1.08 + 5.4	1.0/23.9	38656
2000 AE ₁₂₃	2000 01 23.3	08 19.76 +14 22.1	18.3 -0.81 + 5.4	1.5/24.5	38673
1995 UB ₈	2000 01 23.3	08 19.77 +26 17.8	16.5 -1.09 + 4.9	3.1/22.1	38766
2000 BO ₁₈	2000 01 23.3	08 19.78 +22 05.0	18.0 -1.17 - 0.1	1.1/23.0	38720
1981 EU ₁₄	2000 01 23.3	08 19.86 +24 25.5	19.4 -1.12 + 1.9	1.8/22.6	26917
1995 DZ ₃	2000 01 23.3	08 19.90 +27 53.6	17.8 -0.97 + 0.1	2.2/22.1	38765
1973 SZ	2000 01 23.4	08 19.90 +16 57.3	18.3 -0.56 + 2.6	0.5/23.9	38017
1998 QJ ₄₆	2000 01 23.4	08 19.93 +27 29.2	18.7 -1.10 + 1.6	2.6/22.1	38782
(13735)	2000 01 23.4	08 19.94 +13 59.2	17.6 -0.88 + 2.9	2.0/24.4	38381
1998 QW ₈₅	2000 01 23.4	08 19.95 +09 16.8	17.8 -1.02 + 2.8	3.7/25.2	38784
1998 RV ₃₉	2000 01 23.4	08 19.96 +16 38.2	19.2 -0.97 + 5.5	1.0/24.0	38491
1992 PC ₃	2000 01 23.4	08 19.96 +10 58.9	17.1 -0.86 + 0.8	2.4/24.8	38758
1998 SN ₁	2000 01 23.4	08 19.98 +08 52.4	17.8 -0.96 + 4.0	3.9/25.4	38789
1988 XY ₄	2000 01 23.4	08 20.08 +32 20.6	17.2 -0.96 + 4.2	3.9/20.8	38753
1999 XE ₁₇₆	2000 01 23.4	08 20.12 +30 31.6	17.1 -1.17 + 5.5	4.5/21.2	38856
1996 EB ₁	2000 01 23.4	08 20.21 +24 52.1	17.4 -1.01 + 2.4	1.9/22.5	38769
(13273)	2000 01 23.4	08 20.25 +23 58.9	16.4 -1.22 + 1.1	2.1/22.8	37560
1999 XW ₁₇₈	2000 01 23.4	08 20.31 +35 12.0	17.8 -0.93 + 6.0	4.5/20.0	38857
1995 UC ₅₀	2000 01 23.4	08 20.33 +17 36.5	20.0 -1.13 + 3.8	0.8/23.8	35694
1999 XH ₁₇₆	2000 01 23.4	08 20.39 +24 37.4	17.5 -1.04 + 1.2	1.6/22.7	38606
1992 RG ₅	2000 01 23.5	08 20.35 +20 48.5	19.2 -0.86 + 3.3	0.4/23.3	38758
1998 SB ₁₂₉	2000 01 23.5	08 20.39 +12 03.0	17.1 -0.99 + 5.2	2.8/25.0	38793
1998 MP ₃₁	2000 01 23.5	08 20.45 +17 39.2	17.6 -1.16 + 2.1	0.7/23.8	38469

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1999 YM ₉	2000 01 23.5	08 20.50 +25 20.6 17.2	-1.05 + 0.7	2.5/22.7	38863
1995 WC ₁	2000 01 23.5	08 20.52 +17 07.5 17.5	-1.11 + 3.6	1.0/24.0	38766
1998 UP ₂₁	2000 01 23.5	08 20.54 +07 52.9 17.6	-0.82 + 4.7	4.0/26.0	38795
2000 AO ₈₈	2000 01 23.5	08 20.59 +18 52.6 16.8	-1.05 + 6.2	0.2/23.7	38656
(13349)	2000 01 23.5	08 20.67 +22 53.0 17.8	-0.99 + 1.9	1.1/23.0	37582
1997 GC ₁₉	2000 01 23.5	08 20.67 +28 43.8 18.6	-1.15 + 2.1	3.3/22.0	38772
1994 PO ₂₈	2000 01 23.6	08 20.79 +22 32.9 18.8	-1.05 + 3.4	1.1/23.1	38032
1997 OZ	2000 01 23.6	08 20.87 +21 56.2 19.2	-0.84 + 3.1	0.6/23.2	34016
1998 UG ₃₄	2000 01 23.6	08 20.88 +21 04.7 18.1	-1.06 + 2.9	0.5/23.4	38796
1998 QV ₃₃	2000 01 23.6	08 20.89 +16 36.6 18.9	-1.03 + 3.6	1.0/24.2	38477
(13287)	2000 01 23.6	08 20.97 +11 06.9 17.3	-1.02 + 4.9	3.1/25.3	37563
2000 AL ₈₈	2000 01 23.6	08 21.02 +14 58.7 16.8	-1.10 + 1.4	2.1/24.4	38656
1999 XN ₁₇₆	2000 01 23.6	08 21.09 +35 13.6 17.7	-1.10 + 6.7	5.1/20.1	38856
2000 AK ₅₀	2000 01 23.6	08 21.16 +20 18.8 17.0	-0.96 +12.2	0.3/23.5	38869
1999 XL ₃₂	2000 01 23.6	08 21.17 +22 09.5 17.2	-0.96 + 9.7	1.0/23.0	38835
2000 AN ₈₈	2000 01 23.7	08 21.27 +16 38.2 17.1	-1.13 + 4.3	1.2/24.2	38656
(13220)	2000 01 23.7	08 21.28 +10 29.0 16.9	-0.81 + 4.9	2.6/25.6	37545
2000 AJ ₈₈	2000 01 23.7	08 21.46 +16 31.6 18.3	-0.95 + 4.8	1.1/24.3	38655
1993 FE ₇₆	2000 01 23.7	08 21.49 +14 02.0 19.5	-0.95 + 3.4	1.6/24.8	34289
1998 RK ₄₇	2000 01 23.7	08 21.50 +21 02.8 17.3	-1.14 + 1.6	0.6/23.5	38786
1998 RP ₇₄	2000 01 23.7	08 21.51 +23 43.1 17.8	-1.19 + 2.3	1.6/23.1	38788
1999 YD ₅	2000 01 23.7	08 21.57 +16 41.8 18.2	-1.12 + 5.6	1.2/24.3	38862
1999 XP ₃₂	2000 01 23.7	08 21.64 +16 07.1 17.5	-1.19 + 1.5	1.5/24.3	38836
(13114)	2000 01 23.8	08 21.60 +34 39.9 17.7	-1.11 + 0.7	5.0/21.3	37517
1979 OZ ₁₀	2000 01 23.8	08 21.64 +13 14.7 17.6	-1.51 - 5.7	2.9/24.3	38430
2000 AN ₁₃₂	2000 01 23.8	08 21.75 +27 09.9 17.2	-1.21 + 4.1	3.6/22.4	38685
1997 EF ₃₂	2000 01 23.8	08 21.76 +21 27.8 18.6	-1.11 + 3.3	0.7/23.5	38771
1996 BH ₄	2000 01 23.8	08 21.81 +26 11.3 17.9	-1.03 + 7.6	2.2/22.4	27450
1998 SQ ₃₅	2000 01 23.8	08 21.82 +43 15.1 18.0	-1.09 + 3.2	7.4/18.7	38503
1998 OD ₁	2000 01 23.9	08 21.98 +13 51.2 18.3	-1.07 + 2.1	2.1/24.8	38779
2000 AF ₁₁₉	2000 01 23.9	08 22.07 +16 08.0 16.9	-0.83 + 6.6	1.1/24.7	38671
1998 UQ ₂₆	2000 01 23.9	08 22.08 +28 38.6 17.8	-0.87 + 4.4	2.8/22.0	38525
1998 ST ₁₃₀	2000 01 23.9	08 22.43 -00 37.5 17.6	-0.88 + 3.4	7.1/28.0	38514
1999 XH ₉₄	2000 01 23.9	08 22.46 +16 02.1 17.4	-0.99 + 0.3	1.6/24.5	38844
2000 BT ₁₈	2000 01 24.0	08 22.43 +22 23.1 18.0	-1.02 + 0.4	1.1/23.5	38720
(13666)	2000 01 24.0	08 22.56 +18 16.3 18.0	-1.05 + 4.1	0.4/24.2	38362
2000 AR ₈₈	2000 01 24.0	08 22.56 +18 19.0 18.1	-1.08 + 2.0	0.5/24.2	38656
1998 QY ₃₄	2000 01 24.0	08 22.64 +17 07.2 18.4	-1.10 + 1.4	0.8/24.4	38782
2000 AJ ₃₄	2000 01 24.0	08 22.69 +27 06.1 17.8	-1.11 + 4.1	2.6/22.6	38632
1998 QB ₁₀₅	2000 01 24.0	08 22.70 +39 57.8 21.2	-1.26 + 6.9	6.1/19.5	33349
1998 SO ₁₂₄	2000 01 24.1	08 22.91 +06 18.1 19.9	-0.82 + 3.9	3.6/27.0	35719
1998 QV ₉₀	2000 01 24.1	08 22.93 +26 58.9 18.0	-1.22 + 4.9	2.9/22.7	38785
1998 QS ₄₅	2000 01 24.1	08 22.96 +15 37.7 18.2	-1.05 + 2.4	1.4/24.8	38782
(12339)	2000 01 24.1	08 23.05 +19 15.3 16.2	-1.16 + 1.7	0.1/24.2	36696
4142 T-1	2000 01 24.1	08 23.05 +27 30.0 19.4	-1.21 + 4.3	3.1/22.6	34617
1993 VL ₁	2000 01 24.1	08 23.10 +40 09.8 18.2	-1.08 + 7.9	6.7/19.1	37637
1992 AJ ₁	2000 01 24.1	08 23.16 +14 55.7 16.2	-1.04 + 1.6	1.7/24.9	38757
1994 VU ₆	2000 01 24.1	08 23.23 -00 30.1 17.8	-0.91 + 3.5	6.3/28.3	38764
4259 T-2	2000 01 24.2	08 23.23 +19 49.4 20.3	-1.07 + 4.1	0.1/24.1	34273
1998 SR ₁₃₃	2000 01 24.2	08 23.24 +17 06.9 19.2	-1.03 + 3.6	0.7/24.6	35719
2000 AA ₅₆	2000 01 24.2	08 23.35 +19 56.5 17.6	-1.08 + 2.5	0.2/24.1	38639

2000 AE ₃₄	2000 01 24.2	08 23.37 +24 02.3 17.1	-1.23 + 0.2	2.0/23.6	38867
(13056)	2000 01 24.2	08 23.41 +33 20.6 16.9	-1.10 + 3.7	5.1/21.5	37502
1998 TU ₆	2000 01 24.2	08 23.42 +21 54.7 18.6	-0.89 + 3.5	0.7/23.7	38794
1998 QT ₇	2000 01 24.2	08 23.43 +20 34.4 18.6	-1.10 + 2.3	0.4/24.0	38474
1991 RX ₁₇	2000 01 24.2	08 23.53 +13 35.5 17.2	-1.05 + 4.6	2.1/25.4	38757
2000 AC ₅₆	2000 01 24.2	08 23.60 +19 37.6 17.7	-1.13 + 3.1	0.1/24.2	38640
2000 AN ₄₉	2000 01 24.2	08 23.75 +15 26.9 17.4	-0.99 +18.3	1.5/25.5	38869
1999 XM ₁₇₆	2000 01 24.3	08 23.70 +32 17.9 17.0	-1.07 + 5.6	4.8/21.6	38856
(11428)	2000 01 24.3	08 23.70 +39 03.0 18.1	-0.68 + 0.9	3.5/20.4	35598
(9801)	2000 01 24.3	08 23.72 +16 07.2 19.3	-0.94 + 3.2	0.9/24.9	38016
1995 QF	2000 01 24.3	08 23.85 +10 55.9 18.2	-1.10 + 5.2	3.5/26.0	37644
(13526)	2000 01 24.3	08 23.86 +15 50.8 18.2	-1.06 + 6.1	1.3/25.1	38323
1998 SN ₆₄	2000 01 24.3	08 23.94 +03 09.7 18.3	-0.90 + 4.5	5.0/27.7	38791
(13071)	2000 01 24.3	08 23.98 +31 36.9 17.4	-1.19 + 3.4	4.6/22.1	37506
(13611)	2000 01 24.3	08 24.06 +15 10.2 17.9	-0.97 + 2.8	1.3/25.1	38346
1998 SU ₂	2000 01 24.3	08 24.11 +21 29.8 18.2	-0.99 + 2.9	0.8/24.0	38789
2000 AM ₄₀	2000 01 24.3	08 24.14 +26 18.1 18.1	-1.23 + 3.1	3.1/23.2	38633
1989 SD	2000 01 24.4	08 24.12 +23 40.9 17.0	-1.23 + 3.8	1.9/23.6	38754
(12908)	2000 01 24.4	08 24.15 +41 19.0 16.3	-1.18 + 4.5	8.2/19.5	37094
1999 XL ₉₄	2000 01 24.4	08 24.28 +26 00.4 17.8	-1.11 + 7.0	2.8/23.0	38844
1998 SU ₁₂₄	2000 01 24.5	08 24.53 +17 56.2 17.2	-0.91 + 4.1	0.5/24.8	38792
(13370)	2000 01 24.5	08 24.67 +28 09.1 17.9	-1.21 + 4.5	3.2/22.8	37587
2000 AE ₅₆	2000 01 24.5	08 24.69 +18 34.4 17.1	-1.12 + 2.4	0.3/24.7	38640
1999 XK ₃₂	2000 01 24.5	08 24.79 +23 53.6 17.2	-0.93 +12.4	2.0/23.3	38835
2000 AW ₈₈	2000 01 24.5	08 24.79 +17 05.9 17.3	-1.04 + 7.4	0.9/25.0	38656
2000 AD ₁₉₅	2000 01 24.5	08 24.83 +03 47.6 18.3	-0.96 + 1.1	4.9/27.2	38703
6276 P-L	2000 01 24.5	08 24.92 +17 41.9 18.8	-0.89 + 3.2	0.5/24.9	38907
1997 GR ₂₅	2000 01 24.5	08 24.93 +23 51.1 18.1	-1.07 + 4.2	1.5/23.7	38773
2000 AM ₅₆	2000 01 24.5	08 24.95 +20 29.7 17.2	-1.17 + 1.3	0.5/24.4	38641
1978 XT	2000 01 24.6	08 24.91 +12 33.7 17.9	-1.11 + 3.6	2.7/25.9	38430
2000 AT ₁₂₀	2000 01 24.6	08 24.95 +11 05.7 17.8	-0.95 + 3.6	2.9/26.2	38672
1998 RN ₅₄	2000 01 24.6	08 25.05 +19 47.7 17.8	-1.16 + 1.2	0.2/24.5	38787
1991 PF ₅	2000 01 24.6	08 25.06 +20 30.0 17.3	-1.19 + 1.9	0.5/24.4	38756
2000 AX ₁	2000 01 24.6	08 25.12 +18 55.4 17.3	-1.05 + 7.3	0.1/24.7	38864
1994 PL ₁	2000 01 24.6	08 25.15 +05 14.1 18.2	-1.02 +11.1	5.1/28.1	38762
1981 EC ₁₇	2000 01 24.6	08 25.20 +21 09.1 17.7	-1.20 + 1.9	0.8/24.3	38751
3097 P-L	2000 01 24.6	08 25.27 +17 24.9 17.7	-0.93 + 1.7	0.5/25.0	38906
(13897)	2000 01 24.7	08 25.38 +10 47.1 18.5	-0.63 + 3.0	1.8/26.5	38427
(13604)	2000 01 24.7	08 25.49 +15 16.3 18.6	-1.08 + 3.6	1.5/25.4	38344
2000 AJ ₂	2000 01 24.7	08 25.50 +29 36.9 16.7	-1.25 - 1.3	4.0/23.4	38621
(13470)	2000 01 24.7	08 25.57 +22 37.6 17.4	-1.02 + 3.4	1.2/24.1	37615
1998 SU ₇₄	2000 01 24.7	08 25.76 +27 39.3 17.0	-1.11 + 5.1	3.3/23.0	38791
1998 RT ₁	2000 01 24.8	08 25.91 +28 05.7 18.8	-1.21 - 1.3	3.4/23.6	33092
2000 AS ₁₉₅	2000 01 24.8	08 25.91 +06 31.3 16.5	-0.99 + 1.7	5.2/27.1	38704
4181 T-3	2000 01 24.8	08 25.92 +20 50.0 19.2	-1.10 + 4.6	0.6/24.5	38909
(9908)	2000 01 24.8	08 25.95 +23 06.1 16.9	-0.93 + 3.3	1.3/24.1	38016
(13160)	2000 01 24.8	08 25.97 +28 27.0 18.1	-1.17 + 4.5	3.3/23.1	37529
1998 RX ₇₈	2000 01 24.8	08 26.10 +17 50.1 18.0	-0.92 + 5.8	0.5/25.2	38789
2000 AZ ₅₅	2000 01 24.8	08 26.11 +20 25.4 17.3	-0.86 + 2.8	0.5/24.6	38870
2000 AV ₅₀	2000 01 24.8	08 26.17 +14 38.2 16.9	-0.96 + 4.2	1.8/25.8	38636
2000 AH ₈₉	2000 01 24.9	08 26.20 +15 36.2 16.8	-1.10 + 6.1	1.6/25.6	38657

2000 AU ₁	2000 01 24.9	08 26.36 +19 26.9 17.4	-0.88 + 6.2	0.1/24.9	38864
2000 AJ ₅₆	2000 01 24.9	08 26.37 +21 33.4 17.6	-0.96 + 4.6	0.9/24.5	38640
(13044)	2000 01 24.9	08 26.55 +33 21.1 17.0	-1.26 - 2.1	6.1/23.1	37498
1998 UX ₈	2000 01 24.9	08 26.63 +06 53.9 18.9	-0.87 + 2.7	3.7/27.4	34594
1998 SL ₆₁	2000 01 24.9	08 26.64 +14 25.1 18.0	-1.09 + 2.5	1.7/25.8	38791
2000 AF ₃₄	2000 01 25.0	08 26.72 +24 53.5 17.0	-1.08 + 2.5	2.4/24.0	38867
1999 XK ₁₇₆	2000 01 25.0	08 26.74 +21 14.5 16.0	-1.21 - 6.3	1.0/24.9	38856
(13345)	2000 01 25.0	08 26.83 +04 39.5 17.4	-0.82 + 2.8	4.6/27.9	37580
1998 SA ₁₃₆	2000 01 25.0	08 26.93 +29 33.4 18.4	-1.14 + 3.8	3.4/23.1	34024
1993 FV ₄	2000 01 25.0	08 26.97 +17 56.6 17.8	-1.05 + 5.2	0.5/25.3	38759
1981 ES ₁₁	2000 01 25.0	08 27.09 +13 54.1 19.2	-1.02 + 2.5	1.8/26.0	38018
1998 OB ₁₂	2000 01 25.1	08 27.03 +23 07.0 20.0	-1.03 + 4.6	1.3/24.3	33079
1998 RE ₇₁	2000 01 25.1	08 27.21 +17 19.1 17.4	-0.85 + 5.3	0.7/25.5	38788
1998 SX ₁₄₇	2000 01 25.1	08 27.21 +19 47.5 18.4	-1.05 + 4.3	0.2/25.0	38794
1998 RY ₆₀	2000 01 25.1	08 27.22 +34 06.0 18.0	-1.19 + 0.6	4.8/22.7	38787
1998 RL ₅₆	2000 01 25.1	08 27.25 +32 32.4 18.7	-1.21 + 0.7	4.8/23.0	33565
1998 SV ₁₄₀	2000 01 25.1	08 27.26 +40 59.5 19.2	-1.23 + 2.0	6.7/21.0	34305
1993 OY ₁₂	2000 01 25.1	08 27.30 +11 41.4 16.8	-1.09 - 1.5	2.8/26.2	38761
(13013)	2000 01 25.1	08 27.35 +15 34.8 17.7	-0.86 + 3.4	1.1/25.9	37490
1995 WT ₈	2000 01 25.1	08 27.40 +12 29.9 18.4	-1.11 + 2.8	2.5/26.3	38767
2000 AK ₁₈₅	2000 01 25.1	08 27.43 +07 00.5 16.5	-1.02 - 1.4	5.4/27.0	38883
(13770)	2000 01 25.1	08 27.44 +17 28.4 17.2	-0.85 + 3.8	0.5/25.5	38392
2000 AG ₃₄	2000 01 25.1	08 27.47 +24 22.4 17.9	-1.13 + 2.2	2.6/24.3	38632
1998 MA ₃₆	2000 01 25.2	08 27.42 +25 36.4 20.6	-1.14 + 5.2	2.3/23.9	32756
1999 XM ₃₂	2000 01 25.2	08 27.60 +12 49.6 17.0	-1.00 + 0.4	2.9/26.3	38835
2000 AG ₅₆	2000 01 25.2	08 27.75 +20 10.0 17.9	-1.07 + 6.2	0.4/25.0	38640
1999 XG ₁₇₆	2000 01 25.2	08 27.86 +29 31.6 16.4	-1.08 + 5.5	4.7/23.0	38606
1999 XM ₉₄	2000 01 25.2	08 27.87 +17 44.5 16.4	-1.03 + 2.7	0.7/25.5	38844
(13081)	2000 01 25.2	08 27.91 +07 16.1 16.4	-0.91 + 7.9	4.1/28.1	37508
1993 FQ ₁₂	2000 01 25.3	08 27.91 +20 11.7 17.5	-1.06 + 5.4	0.4/25.1	38759
(13871)	2000 01 25.3	08 28.00 +14 16.3 18.0	-1.08 + 4.3	1.8/26.2	38420
1991 AK ₁	2000 01 25.3	08 28.02 +15 02.4 16.1	-0.91 + 1.1	1.9/26.0	38755
1998 SN ₁₁₉	2000 01 25.3	08 28.08 +17 13.9 18.6	-1.03 + 4.3	0.6/25.7	38512
2000 AE ₁₉₅	2000 01 25.3	08 28.10 +04 49.4 18.0	-0.91 + 2.9	5.5/28.2	38704
1993 FC ₄₆	2000 01 25.3	08 28.12 +18 33.5 19.1	-1.04 + 3.6	0.2/25.5	38760
2000 AR ₅₆	2000 01 25.3	08 28.13 +22 36.1 17.8	-0.86 + 4.9	1.0/24.6	38641
2000 AB ₁₉₅	2000 01 25.3	08 28.24 +05 19.1 17.8	-0.82 + 2.7	4.4/28.1	38703
1998 SU ₄₅	2000 01 25.3	08 28.29 +14 23.1 19.6	-1.03 + 4.7	1.7/26.3	35717
(13594)	2000 01 25.4	08 28.28 +21 45.0 18.1	-1.09 + 3.4	0.9/24.9	38341
2000 AP ₅₀	2000 01 25.4	08 28.34 +14 45.9 15.7	-1.07 0.0	1.5/26.1	38869
2000 AC ₂₃₁	2000 01 25.4	08 28.38 +11 20.1 16.7	-0.86 +11.6	3.4/27.5	38710
2000 AZ ₁	2000 01 25.4	08 28.39 +18 43.2 16.7	-1.09 + 6.9	0.1/25.5	38864
1998 SE ₁₆₁	2000 01 25.4	08 28.48 +03 27.6 18.1	-0.83 + 2.4	5.0/28.5	38794
1998 RB ₆	2000 01 25.4	08 28.52 +09 45.1 18.8	-0.93 + 5.5	3.2/27.5	38786
(13742)	2000 01 25.4	08 28.58 +16 12.5 18.2	-0.91 + 4.7	0.9/26.1	38383
1998 SY ₁₄₅	2000 01 25.4	08 28.68 +22 42.8 18.9	-1.06 + 3.6	1.2/24.8	38794
1999 XN ₁₆₄	2000 01 25.4	08 28.69 +25 38.4 17.1	-0.95 + 5.5	2.0/24.1	38853
1991 SA	2000 01 25.5	08 28.72 +13 35.8 18.7	-1.07 + 2.6	1.8/26.5	38757
1998 QN ₅₄	2000 01 25.5	08 28.74 +04 06.2 18.9	-0.90 + 4.3	4.9/28.7	33085
2000 AV ₁₂₀	2000 01 25.5	08 28.75 +11 03.3 17.9	-0.82 + 2.1	2.4/27.0	38672
1998 SQ ₁₃₉	2000 01 25.5	08 28.83 +08 18.7 17.5	-0.85 + 1.6	3.5/27.5	38793

1998 SE ₁₆₃	2000 01 25.5	08 28.93 +19 45.3 18.0	-1.08 + 5.7	0.3/25.4	38794
2000 AS ₅₇	2000 01 25.5	08 28.94 +20 46.1 17.0	-1.14 + 0.4	0.8/25.3	38641
(13737)	2000 01 25.5	08 28.95 +15 06.4 18.3	-1.01 + 5.2	1.3/26.4	38382
1998 QU ₂	2000 01 25.5	08 28.99 +04 17.0 17.5	-0.92 + 7.6	5.0/29.1	38780
1994 RL ₁	2000 01 25.5	08 29.03 +01 35.2 18.6	-0.91 + 5.0	5.6/29.4	38763
1998 QU ₁₀₆	2000 01 25.5	08 29.05 +24 57.0 17.4	-0.96 + 4.0	2.0/24.4	38488
2000 AO ₁₂₀	2000 01 25.5	08 29.07 +11 54.6 18.2	-0.82 + 3.2	2.4/27.0	38672
(13138)	2000 01 25.5	08 29.07 +01 44.6 18.0	-0.93 + 2.4	5.2/28.9	37523
1998 QU ₃₇	2000 01 25.5	08 29.15 +17 51.9 18.0	-0.98 + 3.0	0.4/25.8	38782
1995 YT	2000 01 25.6	08 29.09 +16 47.3 18.3	-1.09 + 4.6	0.9/26.0	38767
1998 SB ₂₆	2000 01 25.6	08 29.11 +38 44.8 18.2	-1.13 + 2.5	6.0/21.8	38502
1995 WO ₄₁	2000 01 25.6	08 29.21 +16 13.8 18.1	-1.00 + 2.1	0.9/26.1	38767
1995 WY ₄	2000 01 25.6	08 29.25 +22 20.1 17.3	-1.11 + 5.2	1.4/25.0	38767
1305 T-2	2000 01 25.6	08 29.31 +28 45.1 18.4	-1.20 + 2.1	3.7/24.0	38907
1998 UR ₂₃	2000 01 25.6	08 29.36 +13 25.1 17.6	-1.10 + 6.3	2.2/26.8	38796
2000 AA ₈₉	2000 01 25.6	08 29.48 +15 45.2 17.6	-0.94 + 3.2	1.1/26.3	38657
2000 AK ₁₂₀	2000 01 25.6	08 29.49 +15 16.6 17.9	-0.77 + 4.0	1.1/26.5	38672
1998 SP ₄₉	2000 01 25.6	08 29.57 +12 19.4 21.1	-1.02 + 4.2	2.1/27.0	33356
2000 AK ₂	2000 01 25.6	08 29.58 +27 42.3 16.7	-1.19 - 1.7	3.8/24.6	38621
2000 AQ ₃₄	2000 01 25.7	08 29.53 +27 07.4 17.7	-1.01 + 3.9	3.0/24.1	38867
2000 AL ₅₇	2000 01 25.7	08 29.53 +22 28.4 16.9	-1.20 + 2.8	1.5/25.1	38870
1997 LO ₃	2000 01 25.7	08 29.77 +17 33.2 17.2	-1.09 + 5.1	0.6/26.0	38773
1993 FW ₇₃	2000 01 25.7	08 29.86 +13 00.6 19.4	-1.01 + 3.5	2.0/26.9	38760
1999 XD ₁₇₉	2000 01 25.7	08 29.88 +29 10.6 17.2	-1.13 + 6.3	4.7/23.6	38857
(13711)	2000 01 25.7	08 29.89 +20 37.1 18.4	-1.07 + 3.3	0.5/25.5	38374
(13170)	2000 01 25.7	08 29.90 +22 18.2 17.4	-1.07 + 4.7	1.2/25.1	37532
(13685)	2000 01 25.7	08 29.91 +12 15.9 17.4	-0.81 + 5.5	1.9/27.3	38367
1999 XM ₁₆₄	2000 01 25.7	08 29.96 +29 58.0 17.1	-0.91 + 9.3	3.8/22.9	38853
1998 MD	2000 01 25.7	08 29.97 +16 21.1 18.6	-1.07 + 2.2	0.9/26.2	38778
(13034)	2000 01 25.8	08 29.97 +25 01.8 16.5	-1.23 + 3.2	2.6/24.7	37496
1999 XW ₁₇₆	2000 01 25.8	08 29.98 +28 19.7 17.3	-1.04 + 5.1	3.6/23.8	38606
(13752)	2000 01 25.8	08 30.03 +28 45.4 18.8	-1.13 + 2.5	3.3/24.0	38386
1999 XN ₃₄	2000 01 25.8	08 30.05 +08 32.8 16.2	-1.10 - 6.0	4.3/26.7	38836
1999 YF ₉	2000 01 25.8	08 30.14 +19 00.0 17.0	-1.04 + 0.8	0.0/25.8	38618
1998 SQ ₇₀	2000 01 25.8	08 30.16 +18 20.2 17.6	-0.88 + 3.8	0.2/26.0	38791
1998 SP ₂₈	2000 01 25.8	08 30.16 +31 49.8 17.9	-1.04 + 3.2	4.4/23.3	38503
2000 AJ ₈₉	2000 01 25.8	08 30.18 +15 01.9 18.2	-1.06 + 5.0	1.4/26.6	38657
1999 XL ₁₇₆	2000 01 25.8	08 30.21 +33 18.0 16.6	-1.15 + 8.2	5.9/22.3	38856
(13841)	2000 01 25.8	08 30.22 +17 18.8 16.2	-1.02 + 4.1	0.7/26.2	38412
2000 AF ₅₆	2000 01 25.8	08 30.34 +18 13.0 17.8	-0.83 + 3.2	0.2/26.0	38640
1999 XN ₉₄	2000 01 25.8	08 30.37 +24 59.0 17.1	-1.02 +10.0	2.3/24.4	38844
1998 SG ₅	2000 01 25.8	08 30.37 +02 28.0 17.3	-0.88 + 5.4	5.4/29.6	38789
1998 WJ ₈	2000 01 25.8	08 30.40 +36 04.5 17.3	-0.94 + 5.5	4.8/21.9	38797
1998 SN ₁₂₉	2000 01 25.9	08 30.45 +17 34.2 18.3	-0.95 + 3.9	0.5/26.2	38793
(13065)	2000 01 25.9	08 30.46 +10 38.2 18.4	-1.02 + 4.9	2.8/27.6	37504
1999 XN ₃₂	2000 01 25.9	08 30.59 +22 46.7 16.7	-0.96 +10.6	1.4/25.0	38836
1998 RZ ₇₉	2000 01 25.9	08 30.65 +23 17.8 16.4	-0.94 + 4.9	1.6/25.0	38789
1998 QR ₅₃	2000 01 25.9	08 30.65 +26 09.8 17.4	-1.08 + 0.4	2.7/24.8	38783
(13875)	2000 01 25.9	08 30.67 +17 10.8 17.5	-0.87 + 3.2	0.6/26.3	38421
1995 YD ₇	2000 01 25.9	08 30.81 +06 44.7 18.8	-1.00 + 2.8	5.5/28.3	38037
1998 QS ₈₅	2000 01 25.9	08 30.83 +19 26.6 18.2	-1.19 - 0.3	0.2/25.9	38784

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1997 PC ₁	2000 01 26.0	08 30.81 +20 46.7 19.5	-0.83 + 3.1	0.5/25.6	30788
1996 DO	2000 01 26.0	08 30.81 +23 21.9 16.9	-1.03 + 2.2	1.8/25.2	38768
1998 MC ₃₈	2000 01 26.0	08 30.82 +13 53.7 19.6	-1.07 + 6.6	1.8/27.1	32756
1977 PC ₁	2000 01 26.0	08 30.84 +15 51.5 16.4	-1.16 + 1.7	1.2/27.0	38750
1998 TH ₆	2000 01 26.0	08 30.88 +48 11.8 18.7	-1.19 + 2.2	9.2/19.8	38065
(13552)	2000 01 26.0	08 30.90 +20 37.6 16.5	-1.12 - 1.2	0.7/25.8	38330
1990 ST ₄	2000 01 26.0	08 30.94 +12 22.6 17.9	-1.02 + 5.2	2.3/27.4	38755
1993 FF ₂₄	2000 01 26.0	08 31.05 +20 20.1 18.7	-1.05 + 3.1	0.5/25.8	38760
(13796)	2000 01 26.0	08 31.11 +20 42.1 18.2	-0.84 + 2.8	0.5/25.7	38399
1999 VK ₇₂	2000 01 26.0	08 31.20 +20 28.4 16.7	-0.98 + 6.5	0.7/25.7	38820
2000 AQ ₅₇	2000 01 26.0	08 31.26 +17 41.4 17.2	-1.14 + 1.6	0.5/26.3	38641
2000 AZ ₈₈	2000 01 26.1	08 31.22 +17 06.0 17.2	-0.84 + 6.9	0.6/26.5	38657
1996 CE ₅	2000 01 26.1	08 31.27 +25 56.0 17.4	-1.38 - 6.0	2.9/25.5	38768
(13653)	2000 01 26.1	08 31.28 +18 26.4 18.1	-1.13 + 6.1	0.2/26.2	38358
1999 XG ₁₁₁	2000 01 26.1	08 31.38 +40 51.6 17.1	-1.14 + 4.7	8.3/21.0	38848
1996 BH ₂	2000 01 26.1	08 31.45 +22 47.1 16.6	-1.09 + 0.3	1.5/25.5	38768
1998 QT ₇₂	2000 01 26.1	08 31.67 +15 02.7 18.7	-1.12 + 1.9	1.4/26.8	38784
2000 AP ₅₇	2000 01 26.2	08 31.62 +19 03.6 17.9	-1.00 + 3.7	0.1/26.2	38641
(13090)	2000 01 26.2	08 31.65 +11 27.4 17.7	-0.86 + 1.4	2.1/27.6	37511
(12470)	2000 01 26.2	08 31.66 +17 06.5 17.8	-1.09 + 5.3	0.6/26.6	36731
1999 XW ₁₄₁	2000 01 26.2	08 31.69 -01 53.8 16.0	-2.83 -35.3	12.2/23.8	38851
2000 AC ₁₃₁	2000 01 26.2	08 31.83 +17 31.6 18.2	-0.86 + 3.9	0.4/26.5	38685
(13683)	2000 01 26.2	08 31.88 +08 56.1 17.4	-0.83 + 1.8	2.9/28.1	38366
1999 YS ₁₄	2000 01 26.2	08 31.88 +12 15.6 17.6	-1.11 + 3.7	2.4/27.5	38863
1014 T-3	2000 01 26.2	08 31.91 +31 27.0 20.1	-1.15 + 0.7	4.2/24.2	36124
2000 AB ₁₂₁	2000 01 26.2	08 31.92 +10 05.5 16.8	-0.90 + 0.8	2.9/27.8	38672
1998 SZ ₁₁₁	2000 01 26.2	08 31.96 +31 03.2 19.2	-1.07 + 3.1	3.8/23.9	38511
(12782)	2000 01 26.2	08 32.09 +12 56.9 16.9	-0.81 + 4.8	1.9/27.6	37059
1998 SX ₁₁	2000 01 26.3	08 32.16 +31 09.8 18.4	-1.13 + 4.7	4.9/23.7	38500
1998 QT ₅₁	2000 01 26.3	08 32.45 +20 56.6 17.4	-1.15 + 1.8	0.8/26.0	38783
1999 XP ₉₄	2000 01 26.3	08 32.47 +25 59.1 17.2	-0.97 + 9.3	2.8/24.6	38844
(13759)	2000 01 26.4	08 32.51 +21 35.3 18.1	-0.87 + 2.9	0.8/25.9	38389
2000 AT ₅₈	2000 01 26.4	08 32.74 +22 48.6 17.7	-1.13 + 3.9	1.6/25.7	38870
1994 RP ₅	2000 01 26.4	08 32.74 +15 37.1 20.9	-1.02 + 3.6	1.1/27.0	35691
1998 XO ₈₉	2000 01 26.4	08 32.84 +00 31.0 16.7	-0.57 + 0.3	3.5/30.1	38799
1999 XO ₁₆₄	2000 01 26.4	08 32.95 +26 38.1 17.5	-1.16 + 6.3	2.8/24.8	38853
1998 RW ₆₀	2000 01 26.5	08 32.88 +19 48.5 18.4	-1.12 + 2.1	0.4/26.3	38787
1995 CJ	2000 01 26.5	08 32.90 +18 28.8 17.2	-0.84 + 6.7	0.1/26.6	38765
(13539)	2000 01 26.5	08 32.96 +18 07.3 17.7	-1.09 +12.8	9.6/16.0	38326
1998 QM ₂₄	2000 01 26.5	08 32.97 +10 11.6 19.2	-0.90 + 5.3	2.8/28.4	38476
1997 GF ₁₇	2000 01 26.5	08 33.02 +09 11.5 16.9	-1.08 + 3.7	4.1/28.3	38772
1998 SM ₁₀₇	2000 01 26.5	08 33.07 +20 48.8 17.4	-1.02 + 2.8	0.7/26.2	38792
1997 SG ₇	2000 01 26.5	08 33.09 +20 36.3 18.0	-0.87 + 3.0	0.6/26.2	38774
1995 QB ₂	2000 01 26.5	08 33.10 +18 26.2 16.8	-1.19 + 2.4	10.7/16.0	38765
1991 VJ	2000 01 26.5	08 33.14 +45 53.2 19.1	-1.38 + 6.1	8.5/20.4	38439
(13110)	2000 01 26.6	08 33.27 +17 05.5 17.4	-1.07 + 0.3	0.6/26.9	37516
1998 RM ₆	2000 01 26.6	08 33.28 +02 37.4 18.1	-0.90 + 4.7	5.4/30.1	38059
1998 RJ ₆₄	2000 01 26.6	08 33.40 +17 32.1 19.2	-1.02 + 4.5	0.4/26.9	38496
2000 AL ₁₂₁	2000 01 26.6	08 33.51 +14 52.1 16.9	-1.10 + 3.9	1.6/27.4	38673
1990 ET ₁	2000 01 26.6	08 33.51 +14 37.7 16.9	-1.13 + 0.5	2.0/27.3	38435
1993 FS ₂₆	2000 01 26.6	08 33.67 +17 09.4 16.4	-1.07 + 2.7	0.6/27.0	38760

1999 YR ₉	2000 01 26.6	08 33.74 +25 09.5 17.5	-0.96 + 5.4	2.5/25.3	38863
1998 RJ ₄₆	2000 01 26.7	08 33.69 +06 16.9 17.2	-0.86 + 4.1	5.2/29.4	38786
(13684)	2000 01 26.7	08 33.71 +14 44.1 16.4	-0.97 - 1.9	1.3/27.3	38367
2000 AY ₁₂₈	2000 01 26.7	08 33.83 +09 15.8 17.4	-0.97 + 5.5	4.1/28.8	38682
2000 AL ₄₃	2000 01 26.7	08 33.85 +25 53.6 18.7	-1.05 + 4.1	2.5/25.3	38633
(12569)	2000 01 26.7	08 33.87 +17 16.5 17.2	-0.80 + 4.0	0.4/27.1	36760
1998 QQ ₈₇	2000 01 26.7	08 34.01 +00 11.5 17.9	-0.96 + 0.9	6.6/30.2	38784
1998 OP ₇	2000 01 26.7	08 34.01 +16 14.3 18.7	-1.05 + 3.8	0.9/27.3	38779
1998 RY ₅₇	2000 01 26.7	08 34.13 +19 33.4 17.9	-1.05 + 4.6	0.3/26.6	38787
1998 QN ₂₆	2000 01 26.7	08 34.19 +25 14.8 18.2	-1.15 + 0.4	2.4/25.8	38781
1999 XX ₂₀₆	2000 01 26.8	08 34.15 +36 18.8 18.4	-1.11 + 3.7	5.4/23.2	38859
1999 XS ₃₂	2000 01 26.8	08 34.21 +13 29.6 17.7	-1.08 + 2.5	2.4/27.8	38836
1981 EX ₄₂	2000 01 26.8	08 34.24 +24 26.4 17.9	-1.09 + 2.1	2.6/25.8	38432
2000 AM ₈₉	2000 01 26.8	08 34.25 +16 39.3 17.0	-0.86 + 3.7	0.7/27.0	38657
(13671)	2000 01 26.8	08 34.30 +19 19.3 18.7	-0.96 + 4.8	0.2/26.7	38363
1998 QX ₄₀	2000 01 26.8	08 34.31 +12 04.6 19.3	-1.03 + 4.7	2.2/28.2	38782
2000 AK ₁₂₁	2000 01 26.8	08 34.40 +15 54.4 17.4	-0.94 + 6.2	0.9/27.5	38673
2000 AM ₁₆₈	2000 01 26.8	08 34.40 +25 24.3 18.8	-1.08 + 1.7	2.6/25.7	38698
2000 AO ₁₉₅	2000 01 26.8	08 34.44 +04 46.5 17.4	-0.81 + 4.1	4.6/29.9	38884
2000 AX ₅₀	2000 01 26.8	08 34.45 +25 44.4 18.6	-1.06 + 3.8	2.6/25.5	38869
(13481)	2000 01 26.8	08 34.47 +27 03.1 16.9	-1.00 + 6.1	3.7/25.0	38311
(13208)	2000 01 26.9	08 34.57 +13 27.9 18.1	-0.98 + 4.4	1.7/28.0	37542
1998 QN ₂₀	2000 01 26.9	08 34.65 +17 20.9 18.7	-1.09 + 1.9	0.5/27.2	32499
2000 AO ₅	2000 01 26.9	08 34.71 +19 29.8 16.9	-0.86 + 3.7	0.2/26.8	38624
1989 EB ₁	2000 01 26.9	08 34.75 +30 40.9 16.3	-1.09 - 1.8	4.1/25.2	38754
2000 AU ₅₈	2000 01 26.9	08 34.76 +23 36.1 18.0	-1.10 + 4.7	1.9/25.9	38642
1981 EZ ₂₉	2000 01 26.9	08 34.80 +24 01.1 18.6	-1.22 + 3.1	2.1/26.0	38751
2000 AP ₁₂₃	2000 01 26.9	08 34.80 +11 30.9 17.5	-0.90 + 4.6	2.6/28.5	38674
2000 AW ₁₂₃	2000 01 26.9	08 34.82 +10 21.8 17.0	-0.93 + 8.4	3.0/29.0	38674
1999 XA ₃₉	2000 01 26.9	08 34.88 +02 21.1 17.0	-1.01 - 3.8	7.5/29.0	38837
(12375)	2000 01 26.9	08 34.92 +12 14.7 16.7	-1.13 + 2.2	2.6/28.1	36706
1995 SP ₅₂	2000 01 26.9	08 34.92 +24 22.4 18.2	-1.09 + 2.6	2.8/25.9	38450
1998 SK ₅₇	2000 01 26.9	08 34.95 +27 58.8 17.8	-1.23 + 3.3	3.9/25.2	38790
2000 AA ₅₈	2000 01 26.9	08 35.00 +21 40.3 16.8	-1.04 + 6.5	1.2/26.3	38870
2000 AW ₅₇	2000 01 26.9	08 35.01 +20 09.8 17.1	-0.91 + 0.5	0.5/26.7	38642
(13574)	2000 01 27.0	08 34.92 +15 57.9 17.4	-1.01 + 4.0	0.9/27.5	38336
1998 OZ ₉	2000 01 27.0	08 34.99 +18 50.0 19.4	-1.16 + 2.1	0.1/27.0	32491
(13708)	2000 01 27.0	08 35.03 +24 27.9 16.6	-1.25 + 0.9	2.6/26.1	38373
1999 XU ₁₇₆	2000 01 27.0	08 35.05 +32 06.8 16.8	-1.21 + 3.7	6.2/24.3	38856
2000 AQ ₈₉	2000 01 27.0	08 35.15 +17 35.2 17.4	-1.09 + 2.0	0.4/27.2	38658
(13014)	2000 01 27.0	08 35.17 +29 22.7 17.5	-0.92 + 2.8	3.3/24.9	37490
2000 AA ₂₀₅	2000 01 27.0	08 35.26 +32 02.0 17.5	-1.02 + 1.1	4.2/24.6	38884
4079 T-3	2000 01 27.0	08 35.30 +35 19.2 18.5	-1.00 + 3.2	5.4/23.5	38909
1996 CP ₁	2000 01 27.0	08 35.37 +24 34.6 17.1	-0.99 + 6.6	2.4/25.7	38453
1999 YU ₁₃	2000 01 27.0	08 35.41 +21 18.9 17.5	-0.86 + 4.5	0.9/26.5	38619
1998 UF ₄₁	2000 01 27.1	08 35.35 +05 34.5 17.9	-0.82 + 4.1	3.9/30.0	38796
1994 PK ₈	2000 01 27.1	08 35.41 +17 20.1 17.5	-1.09 + 3.7	0.5/27.4	38763
(9786)	2000 01 27.1	08 35.44 +18 38.6 17.5	-0.92 + 3.0	0.0/27.1	38749
3306 T-2	2000 01 27.1	08 35.45 +27 31.3 18.0	-1.21 + 3.8	4.2/25.4	38908
1999 XR ₁₆₅	2000 01 27.1	08 35.49 +13 11.2 16.9	-1.61 - 8.6	2.8/27.4	38854
1998 SK ₁₆₃	2000 01 27.1	08 35.51 +24 05.7 19.7	-0.98 + 2.7	1.7/26.1	33300

2000 AV ₁₂₃	2000 01 27.1	08 35.56 +09 52.0	17.9	-0.81	+	5.5	2.7/29.1	38674
1998 QF ₃₈	2000 01 27.1	08 35.58 +16 17.8	18.4	-1.05	+	6.8	0.8/27.7	38782
2000 AO ₅₈	2000 01 27.1	08 35.59 +21 08.5	17.6	-1.23	+	1.8	1.1/26.7	38642
1998 SV ₁	2000 01 27.1	08 35.61 +25 50.4	17.4	-0.96	+	5.1	2.6/25.6	38789
(13647)	2000 01 27.1	08 35.66 +22 45.9	18.3	-0.81	+	3.5	1.0/26.3	38356
1989 EE	2000 01 27.1	08 35.71 -11 01.3	16.3	-0.72	+	14.3	11.2/06.6	38021
2000 AP ₂₃₂	2000 01 27.1	08 35.84 +19 54.1	17.5	-1.17	+	0.8	0.6/27.0	38711
1994 TH ₁₅	2000 01 27.2	08 35.76 +01 13.5	18.0	-0.98	+	5.0	6.6/01.0	38764
1999 YO ₉	2000 01 27.2	08 35.87 +26 32.1	17.3	-1.19	+	2.9	3.3/25.8	38618
2000 AT ₁₂₃	2000 01 27.2	08 35.94 +10 41.9	17.3	-1.00	+	7.0	3.4/29.0	38674
2000 AZ ₁₂₃	2000 01 27.2	08 35.94 +11 24.1	17.5	-0.98	+	0.3	2.8/28.4	38878
1999 XT ₁₅₃	2000 01 27.2	08 36.17 +09 40.5	17.5	-1.04	-	0.2	3.4/28.7	38852
(13049)	2000 01 27.2	08 36.18 -02 24.3	16.5	-0.90	+	6.1	8.2/01.5	37500
1998 QA ₄₆	2000 01 27.2	08 36.19 +22 14.1	17.9	-1.21	+	1.6	1.4/26.7	38782
2000 AO ₈₉	2000 01 27.3	08 36.36 +16 08.4	17.3	-0.82	+	3.8	0.8/27.9	38658
1997 JL	2000 01 27.3	08 36.48 +18 30.0	18.1	-1.00	+	4.9	0.0/27.4	38773
1981 EE ₂₆	2000 01 27.3	08 36.51 +11 14.5	17.8	-0.96	+	4.7	3.2/28.9	38431
1998 RC ₇₈	2000 01 27.3	08 36.55 +17 45.2	17.8	-0.91	+	4.9	0.3/27.6	38789
1998 TD	2000 01 27.3	08 36.63 +23 40.5	18.4	-1.15	+	2.9	1.8/26.4	38519
(13580)	2000 01 27.4	08 36.90 +16 35.2	17.9	-0.97	+	2.0	0.6/27.8	38338
1998 QB ₄₁	2000 01 27.4	08 36.94 +13 27.7	19.5	-0.98	+	4.5	1.8/28.5	32706
1999 XQ ₁₆₄	2000 01 27.4	08 37.01 +13 44.5	16.7	-1.65	-	11.7	2.7/27.6	38853
2000 AR ₈₉	2000 01 27.4	08 37.01 +16 54.8	17.1	-0.96	+	1.5	0.5/27.8	38874
1998 SC ₁₄₁	2000 01 27.4	08 37.06 +02 40.5	18.7	-0.87	+	4.1	4.8/31.0	34305
1991 TQ ₂	2000 01 27.5	08 37.12 +15 14.4	16.7	-1.04	+	2.4	1.6/28.1	38757
1998 SA ₁	2000 01 27.5	08 37.12 +17 19.5	17.9	-0.83	+	3.4	0.4/27.8	38789
1998 RM ₇₂	2000 01 27.5	08 37.22 +16 58.2	18.1	-0.99	+	4.5	0.6/27.9	38788
1998 SD ₁₂₄	2000 01 27.5	08 37.34 +12 34.6	17.6	-1.04	+	5.4	2.4/28.8	38792
1993 BM ₃	2000 01 27.5	08 37.37 +30 11.9	17.9	-1.18	+	3.6	4.8/25.2	38759
1998 TC ₂	2000 01 27.5	08 37.39 +23 23.0	18.1	-0.89	+	2.0	1.6/26.6	38794
(13731)	2000 01 27.5	08 37.41 +14 12.9	18.3	-1.10	+	4.8	1.6/28.4	38380
1998 QM ₃₀	2000 01 27.6	08 37.45 +24 11.8	18.3	-1.11	+	2.5	2.0/26.6	38781
1999 YP ₉	2000 01 27.6	08 37.61 +29 48.7	17.7	-1.15	+	2.1	3.9/25.6	38618
1999 XV ₁₆₃	2000 01 27.6	08 37.61 +26 32.1	17.1	-0.95	+	6.7	2.5/25.7	38853
1999 XO ₉₄	2000 01 27.6	08 37.62 +24 51.1	17.0	-0.84	+	10.0	2.2/25.9	38844
1998 TG ₁₇	2000 01 27.6	08 37.64 +11 52.7	19.8	-0.99	+	3.6	2.1/29.0	34306
1998 QV ₅₁	2000 01 27.6	08 37.69 +20 36.3	17.7	-1.12	+	1.4	0.7/27.3	38783
1993 VU ₁	2000 01 27.6	08 37.72 +04 34.3	17.9	-0.85	+	2.1	4.1/30.5	38762
1998 UO ₈	2000 01 27.6	08 37.75 +14 10.5	17.7	-0.91	+	2.9	1.4/28.5	38523
2000 AP ₉₁	2000 01 27.6	08 37.81 +17 30.6	17.4	-1.08	+	7.2	0.4/27.9	38659
1999 XB ₁₆	2000 01 27.6	08 37.92 +36 22.6	16.6	-1.25	+	1.3	7.6/24.2	38833
2000 AT ₅₀	2000 01 27.7	08 37.88 +20 17.9	16.1	-0.89	+	10.2	0.7/27.2	38869
(13669)	2000 01 27.7	08 38.06 +15 48.5	18.2	-0.98	+	4.3	0.9/28.3	38363
1998 QO ₄₉	2000 01 27.7	08 38.11 +09 11.0	17.8	-0.91	+	9.3	3.3/30.2	38783
1999 XW ₂₃₀	2000 01 27.7	08 38.12 +35 47.2	17.4	-1.12	+	6.7	5.9/23.7	38861
2000 AK ₂₃₆	2000 01 27.8	08 38.42 +18 06.3	17.9	-1.07	+	3.0	0.2/27.9	38712
(13367)	2000 01 27.9	08 38.71 +38 50.5	18.0	-0.95	+	4.2	5.5/23.1	37586
2000 AU ₅₇	2000 01 27.9	08 38.71 +20 32.6	17.8	-0.58	+	1.2	0.4/27.5	38642
1998 RE ₁₁	2000 01 27.9	08 38.72 +17 56.5	19.2	-1.09	+	4.2	0.2/28.0	38490
1997 GT ₁₄	2000 01 27.9	08 38.76 +06 03.2	18.8	-1.03	+	3.8	4.7/30.4	38772
1990 TW ₁₁	2000 01 27.9	08 38.77 +21 13.2	17.8	-1.06	+	2.7	1.1/27.4	38755

(13199)	2000 01 27.9	08 38.80 +30 27.6	17.6	-1.25	+	2.9	5.1/25.6	37539
2000 AR ₉₁	2000 01 27.9	08 38.92 +17 03.5	17.4	-1.03	+	4.1	0.6/28.2	38660
1998 SZ ₃₆	2000 01 27.9	08 38.93 +20 37.2	17.8	-1.06	+	4.0	0.9/27.5	38790
1999 XQ ₃₂	2000 01 27.9	08 39.02 +20 34.4	16.8	-0.96	+	6.9	0.9/27.5	38836
1998 SZ ₂₄	2000 01 27.9	08 39.04 +13 40.3	18.2	-0.94	+	5.5	1.5/29.0	38502
2000 CS ₁₃	2000 01 27.9	08 39.10 +12 55.7	17.8	-0.89	+	4.1	2.0/29.2	38727
1998 RO ₇₈	2000 01 27.9	08 39.16 +21 41.0	18.6	-1.05	+	4.7	1.1/27.3	38789
1998 QL ₅₅	2000 01 28.0	08 39.39 +19 38.4	19.3	-0.85	+	3.1	0.3/27.8	34301
2000 AE ₁₂₄	2000 01 28.0	08 39.46 +14 50.0	16.9	-0.91	+	7.5	1.3/28.9	38674
1998 SB ₅₆	2000 01 28.0	08 39.47 +10 15.1	19.2	-1.03	+	5.3	2.7/29.8	38506
1998 RK ₆₂	2000 01 28.1	08 39.56 +03 17.9	19.0	-0.85	+	6.1	4.8/01.0	38787
1991 RP ₃	2000 01 28.1	08 39.62 +10 31.5	19.5	-1.04	+	4.0	2.7/29.7	38756
1998 UG ₁₅	2000 01 28.1	08 39.63 +21 25.9	17.2	-1.05	+	7.7	1.2/27.4	38795
2000 CJ ₁₃	2000 01 28.1	08 39.68 +15 37.1	18.3	-1.12	+	3.7	1.1/28.7	38727
1998 QM ₉₉	2000 01 28.1	08 39.74 +27 47.4	19.5	-1.12	+	2.6	2.9/26.4	35713
2000 AH ₁₂₄	2000 01 28.1	08 39.79 +15 55.9	17.6	-1.05	+	6.8	1.1/28.7	38675
2000 AM ₁₉₆	2000 01 28.1	08 39.94 +06 11.5	17.3	-0.91	-	1.2	4.2/30.1	38884
1982 VN ₃	2000 01 28.1	08 39.97 +22 34.6	17.8	-1.02	+	5.2	1.7/27.3	38432
1998 SA ₁₅₅	2000 01 28.2	08 39.90 +13 42.8	19.5	-0.93	+	3.6	1.4/29.2	33365
1999 XW ₁₆₃	2000 01 28.2	08 40.02 +18 09.3	16.4	-1.14	-	2.8	0.1/28.3	38853
(9806)	2000 01 28.2	08 40.06 +18 49.9	17.2	-0.84	+	6.1	0.1/28.1	33213
1998 RL ₅₅	2000 01 28.2	08 40.09 +20 02.3	18.0	-1.20	+	2.3	0.7/27.9	38493
1993 FV ₅₀	2000 01 28.2	08 40.09 +15 32.7	17.2	-1.00	+	3.4	1.4/28.8	38760
(9737)	2000 01 28.2	08 40.15 +00 51.5	17.7	-0.97	+	2.6	5.8/31.6	38749
1995 DG ₁₃	2000 01 28.2	08 40.35 +17 16.9	17.8	-0.85	+	3.6	0.3/28.5	38449
1991 RV	2000 01 28.3	08 40.37 +18 19.7	18.0	-1.07	+	5.1	0.0/28.3	38756
(13452)	2000 01 28.3	08 40.43 +35 31.1	17.9	-1.20	+	1.5	5.9/25.0	37610
1999 XE ₁₇₉	2000 01 28.3	08 40.48 +28 31.9	18.0	-0.91	+	5.4	3.0/26.0	38607
(13021)	2000 01 28.3	08 40.55 +15 46.1	17.2	-0.89	+	3.7	0.8/28.9	37492
1994 PY ₂₁	2000 01 28.3	08 40.57 +16 57.7	17.6	-1.04	+	5.2	0.5/28.6	38763
1998 SL ₄₅	2000 01 28.3	08 40.68 +27 48.5	18.2	-1.10	+	2.9	3.7/26.5	38504
2000 CL ₁₃	2000 01 28.4	08 40.75 +16 20.2	17.4	-0.83	+	3.2	0.7/28.8	38727
2000 AV ₁₄₀	2000 01 28.4	08 40.79 +08 17.5	17.8	-0.98	+	5.8	4.7/30.7	38880
1998 SB ₁₃	2000 01 28.4	08 40.90 +14 46.1	19.3	-1.06	+	6.1	1.2/29.2	38500
2000 AL ₅₈	2000 01 28.4	08 40.93 +19 21.0	17.3	-0.98	+	2.0	0.3/28.2	38870
1998 QN ₄₀	2000 01 28.4	08 40.98 +11 51.8	17.4	-1.04	+	2.8	2.6/29.7	38782
1998 SX ₁₆	2000 01 28.4	08 40.98 +11 45.5	17.8	-1.01	+	5.4	2.6/29.9	38789
2000 AB ₁₂₉	2000 01 28.4	08 41.10 +10 54.1	17.7	-1.11	+	1.7	3.4/29.8	38683
1999 XV ₃₂	2000 01 28.4	08 41.15 +11 41.6	16.5	-1.06	+	0.3	2.5/29.6	38836
1998 RD ₄₉	2000 01 28.5	08 41.15 +15 08.8	19.9	-1.04	+	4.5	1.1/29.2	36085
2000 AX ₁₄₀	2000 01 28.5	08 41.18 +07 33.7	17.0	-0.98	+	5.5	4.8/30.9	38880
(13793)	2000 01 28.5	08 41.21 +18 37.4	18.4	-0.83	+	3.6	0.1/28.4	38398
(13566)	2000 01 28.5	08 41.22 +10 27.8	17.9	-0.77	+	3.7	2.1/30.2	38334
1991 RN ₄	2000 01 28.5	08 41.23 +12 39.1	17.1	-1.04	+	6.8	2.2/29.8	38756
2000 AM ₅₈	2000 01 28.5	08 41.29 +20 37.2	17.2	-1.08	+	5.7	1.0/28.0	38642
(13757)	2000 01 28.5	08 41.37 +16 20.8	17.1	-1.07	+	6.0	0.8/29.0	38388
1998 QV ₃₆	2000 01 28.5	08 41.52 +21 29.6	20.7	-1.07	+	1.0	1.0/28.0	35710
1998 SC ₁₃₈	2000 01 28.5	08 41.59 +15 54.8	18.0	-0.88	+	3.8	0.8/29.1	38793
(13119)	2000 01 28.6	08 41.66 +38 31.3	17.8	-1.02	+	3.6	6.0/24.0	37519
1995 SO ₅₄	2000 01 28.6	08 41.73 +18 18.1	16.8	-1.09	+	6.1	0.0/28.6	38765
1998 QH ₁₀₃	2000 01 28.6	08 41.74 +31 48.7	19.5	-1.12	+	2.6	4.3/26.0	35713

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1999 YN₉ 2000 01 28.6 08 41.81 +24 18.0 17.0 -1.04 + 4.4 2.7/27.4 38863
 (13299) 2000 01 28.6 08 41.98 +11 50.5 16.9 -1.04 + 5.4 2.5/30.0 37567
 1998 RR₂₉ 2000 01 28.7 08 42.02 +17 04.6 18.6 -0.96 + 5.3 0.4/29.0 38786
 (13218) 2000 01 28.7 08 42.05 +21 39.4 16.8 -1.05 + 2.5 1.3/28.1 37545
 (13668) 2000 01 28.7 08 42.05 +24 33.7 17.9 -1.16 + 3.7 2.4/27.5 38362
 (13286) 2000 01 28.7 08 42.06 +21 47.0 16.4 -1.15 + 1.4 1.4/28.1 37563
 (12558) 2000 01 28.7 08 42.08 +12 56.9 17.2 -0.89 + 4.3 1.7/29.9 36757
 1998 QM₄₉ 2000 01 28.7 08 42.42 +26 29.6 19.2 -1.14 + 2.5 2.9/27.2 33084
 1993 TM₃₁ 2000 01 28.7 08 42.43 +19 17.0 17.6 -0.89 + 4.4 0.4/28.6 38762
 1998 SH₁₁₆ 2000 01 28.8 08 42.39 +10 41.2 17.2 -0.91 + 2.8 2.6/30.3 38792
 2000 AJ₅₈ 2000 01 28.8 08 42.48 +20 05.8 17.3 -0.90 + 3.0 0.7/28.4 38642
 (13319) 2000 01 28.8 08 42.55 +28 57.3 17.3 -1.21 + 5.3 4.4/26.5 37573
 1999 XX₃₂ 2000 01 28.8 08 42.56 +10 37.0 16.9 -1.05 - 0.3 2.6/30.1 38836
 2000 AZ₄₀ 2000 01 28.8 08 42.72 +23 48.8 17.1 -1.06 + 3.3 2.5/27.7 38868
 1998 SS₂₇ 2000 01 28.8 08 42.73 +15 09.0 16.1 -1.27 - 4.6 1.1/29.2 38790
 (12392) 2000 01 28.8 08 42.75 +30 21.1 17.1 -1.03 + 4.9 4.2/26.2 36710
 2000 AE₅₈ 2000 01 28.8 08 42.79 +15 54.8 17.0 -1.01 + 0.4 0.9/29.3 38870
 1998 QY₄₃ 2000 01 28.8 08 42.82 +24 52.6 18.2 -1.19 + 3.6 2.8/27.6 38782
 2294 T-3 2000 01 28.9 08 42.80 +13 44.8 20.0 -0.95 + 3.5 1.4/29.8 35673
 1999 XU₁₆₃ 2000 01 28.9 08 42.81 +27 14.8 17.5 -0.84 + 8.4 2.8/26.5 38853
 1998 SH₁₁₁ 2000 01 28.9 08 42.83 +00 47.0 19.5 -0.89 + 4.7 5.5/01.9 33568
 1998 SO₅₆ 2000 01 28.9 08 42.94 +21 58.7 19.5 -1.07 + 3.6 1.3/28.2 35718
 (13889) 2000 01 28.9 08 43.02 +17 02.4 16.4 -1.00 + 5.8 0.5/29.2 38424
 1998 RO₄₉ 2000 01 28.9 08 43.04 +18 52.8 18.4 -0.86 + 3.8 0.2/28.8 38786
 1987 QH 2000 01 28.9 08 43.04 +20 33.4 18.3 -1.11 + 2.0 0.8/28.5 38753
 2000 AZ₁₂₄ 2000 01 28.9 08 43.13 +10 27.9 17.4 -0.90 + 7.5 2.9/30.9 38676
 (13601) 2000 01 28.9 08 43.22 +06 45.0 17.5 -0.92 + 7.6 4.2/01.0 38343
 2000 AO₁₉₆ 2000 01 28.9 08 43.22 +05 29.2 18.1 -0.95 + 2.6 5.6/31.6 38704
 1998 QA₅ 2000 01 28.9 08 43.22 +07 27.0 17.4 -1.01 + 2.9 4.5/31.1 38780
 1981 EB₃₆ 2000 01 28.9 08 43.30 +21 39.2 17.4 -1.03 + 2.9 1.6/28.3 38751
 (13771) 2000 01 29.0 08 43.25 +35 34.6 18.2 -1.04 + 1.0 6.1/25.6 38392
 2000 AS₁₂₄ 2000 01 29.0 08 43.29 +11 09.9 17.3 -1.16 - 0.9 3.2/30.0 38878
 1998 RT₄₆ 2000 01 29.0 08 43.38 +18 38.5 17.9 -1.08 + 2.2 0.2/28.9 38786
 1998 UB₁₆ 2000 01 29.0 08 43.44 +38 27.7 17.8 -1.13 + 4.9 7.4/24.1 38795
 1998 QK₁₀₄ 2000 01 29.0 08 43.48 +17 37.5 18.7 -1.04 + 6.0 0.2/29.2 38785
 (9809) 2000 01 29.0 08 43.49 +23 10.0 19.0 -1.02 + 3.7 1.7/28.0 38016
 1998 VU 2000 01 29.0 08 43.61 +34 42.9 18.8 -0.97 + 3.5 4.9/25.4 38796
 (12740) 2000 01 29.0 08 43.66 +11 11.6 15.6 -0.89 +10.6 2.6/31.0 37048
 1995 SK₂₉ 2000 01 29.0 08 43.68 +11 54.1 18.0 -1.08 + 5.3 2.3/30.4 38450
 1981 UC₂₃ 2000 01 29.1 08 43.74 +05 24.6 18.0 -0.78 + 3.6 3.9/32.0 38752
 1998 SF₄₃ 2000 01 29.1 08 43.75 +26 46.1 18.8 -1.18 + 3.2 3.0/27.4 33356
 2000 AU₅₀ 2000 01 29.1 08 43.93 +16 31.4 17.0 -0.89 + 2.3 0.5/29.5 38636
 5022 T-2 2000 01 29.1 08 44.13 +05 33.7 20.4 -1.01 + 3.3 4.1/31.7 34274
 2000 AA₁₂₉ 2000 01 29.2 08 44.05 +12 11.7 18.3 -0.90 + 1.2 1.9/30.3 38683
 2000 AW₅₉ 2000 01 29.2 08 44.10 +18 07.6 17.5 -1.15 - 2.4 0.0/29.2 38871
 1998 SH₁₁₉ 2000 01 29.2 08 44.11 +20 00.5 19.5 -0.87 + 3.4 0.6/28.8 33286
 1993 FD₄₄ 2000 01 29.2 08 44.13 +22 20.3 19.2 -1.01 + 3.3 1.2/28.4 27714
 1995 YC₈ 2000 01 29.2 08 44.15 +14 42.0 20.2 -1.08 + 4.3 1.3/29.9 30784
 2000 AK₁₄₃ 2000 01 29.2 08 44.21 +07 11.1 18.3 -0.88 + 3.1 3.3/31.5 38690
 1998 RM₇₁ 2000 01 29.2 08 44.27 +13 42.0 17.5 -0.88 + 5.9 1.7/30.3 38788
 2000 AP₁₂₄ 2000 01 29.2 08 44.31 +14 17.4 17.6 -1.10 + 3.5 1.6/30.0 38675

2000 AL₁₂₅ 2000 01 29.2 08 44.33 +13 23.5 17.7 -1.05 - 1.6 1.8/30.0 38676
 1998 RJ₅₀ 2000 01 29.2 08 44.39 +18 12.4 17.3 -0.88 + 4.1 0.0/29.2 38786
 1998 RW₅ 2000 01 29.3 08 44.45 +22 20.2 19.1 -1.16 + 3.6 1.7/28.5 35713
 1988 SB₂ 2000 01 29.3 08 44.49 +21 26.5 16.8 -1.09 + 7.0 1.3/28.5 38753
 2000 AK₂₁₄ 2000 01 29.3 08 44.58 +16 32.6 18.5 -0.94 + 4.3 0.5/29.7 38708
 1998 SJ₁₁₅ 2000 01 29.3 08 44.66 +18 14.8 17.5 -0.90 + 3.1 0.1/29.3 38792
 (13747) 2000 01 29.3 08 44.69 +06 00.5 18.7 -0.87 + 5.1 3.8/01.2 38385
 (9751) 2000 01 29.3 08 44.82 +15 42.5 17.4 -1.00 + 4.7 0.8/29.9 33199
 1998 RW₆₈ 2000 01 29.3 08 44.83 +22 24.7 18.6 -1.11 + 3.8 1.5/28.5 35715
 2000 AW₁₂₄ 2000 01 29.4 08 44.88 +12 04.3 16.6 -0.91 + 9.0 2.1/30.9 38878
 (13205) 2000 01 29.4 08 44.89 +05 40.1 17.3 -1.04 + 4.0 4.8/31.9 37541
 1998 UJ₄₀ 2000 01 29.4 08 44.89 -00 35.8 16.7 -0.94 + 1.7 7.2/02.0 38796
 1991 RO₂₄ 2000 01 29.4 08 44.91 +12 43.2 20.8 -1.01 + 6.4 1.7/30.6 35684
 1998 RE₆₅ 2000 01 29.4 08 45.05 +16 59.5 18.2 -0.96 + 3.5 0.4/29.7 38787
 1998 QB₄₃ 2000 01 29.4 08 45.11 +03 14.1 16.4 -0.85 + 3.5 6.6/01.8 38782
 1979 MW₆ 2000 01 29.4 08 45.18 +14 10.5 18.7 -0.91 + 3.9 1.3/30.3 38751
 1998 VL₃₇ 2000 01 29.4 08 45.25 +38 32.5 18.4 -1.15 + 2.8 6.4/25.0 38797
 1998 QF₈₀ 2000 01 29.4 08 45.31 +12 55.6 17.1 -1.11 + 1.2 1.7/30.4 38784
 2000 AA₄₁ 2000 01 29.5 08 45.29 +25 34.9 16.9 -1.06 + 7.2 3.1/27.7 38868
 2000 AQ₁₂₄ 2000 01 29.5 08 45.29 +14 07.9 18.1 -1.07 + 5.4 1.5/30.4 38675
 4257 T-2 2000 01 29.5 08 45.30 +22 01.3 18.4 -0.90 + 3.9 1.2/28.6 38908
 2000 AC₁₂₉ 2000 01 29.5 08 45.37 +09 18.4 18.5 -0.95 + 1.8 3.0/31.2 38683
 1994 VD 2000 01 29.5 08 45.37 +00 05.4 18.8 -0.93 + 3.3 6.0/02.5 38764
 2000 AQ₅₉ 2000 01 29.5 08 45.39 +17 18.2 17.9 -1.12 + 2.3 0.3/29.7 38643
 2000 AP₁₉₆ 2000 01 29.5 08 45.42 +05 00.1 17.7 -0.86 + 1.7 4.3/01.1 38884
 1999 XU₃₂ 2000 01 29.5 08 45.44 +14 34.3 17.4 -1.03 + 3.7 1.5/30.2 38584
 1994 RT₂ 2000 01 29.5 08 45.44 +13 21.5 20.0 -0.98 + 5.0 1.5/30.6 35691
 1998 QO₅₅ 2000 01 29.5 08 45.48 +14 30.1 19.1 -1.02 + 4.4 1.2/30.3 38057
 1997 GR₃₅ 2000 01 29.5 08 45.52 -01 15.8 17.2 -0.96 + 4.3 7.0/03.1 38773
 1998 ST₁₃₂ 2000 01 29.5 08 45.56 +17 52.0 17.2 -0.95 + 2.4 0.1/29.6 38793
 2000 AN₁₃₀ 2000 01 29.5 08 45.60 +12 00.6 18.3 -0.84 + 2.8 2.0/30.8 38685
 1998 RB₇₇ 2000 01 29.5 08 45.63 +17 51.1 16.5 -0.91 + 5.4 0.1/29.6 38788
 2000 AU₅₉ 2000 01 29.5 08 45.75 +20 50.1 17.3 -1.00 + 5.3 1.1/29.0 38871
 1996 VO₄ 2000 01 29.6 08 45.70 +59 01.3 17.7 -1.99 + 4.7 17.6/18.4 38039
 1998 XN 2000 01 29.6 08 45.75 +14 31.7 18.3 -0.83 + 1.0 1.0/30.3 38798
 2000 AS₉₁ 2000 01 29.6 08 45.82 +16 16.5 17.9 -0.84 + 1.7 0.5/30.0 38660
 2000 AH₁₂₉ 2000 01 29.6 08 45.86 +09 25.9 17.9 -1.07 + 1.7 3.4/31.2 38683
 (13612) 2000 01 29.6 08 45.91 +12 48.1 17.9 -0.94 + 4.1 1.6/30.8 38346
 (13750) 2000 01 29.6 08 45.97 +27 31.0 17.8 -1.15 + 3.0 3.4/27.8 38386
 1998 SN₁₂₁ 2000 01 29.6 08 46.06 +16 03.3 18.2 -0.87 + 2.4 0.6/30.1 38792
 1998 SX₁₀₇ 2000 01 29.6 08 46.07 +24 59.8 17.7 -1.00 + 2.1 2.4/28.3 38792
 (10514) 2000 01 29.6 08 46.13 +20 59.1 17.3 -0.97 + 3.0 1.0/29.1 38016
 1999 XD₁₇₇ 2000 01 29.6 08 46.19 +29 49.9 16.5 -1.12 + 6.0 5.5/26.9 38856
 1998 RH 2000 01 29.7 08 46.19 +22 50.5 16.9 -1.04 + 7.7 2.0/28.5 38785
 1998 SY₁₄₆ 2000 01 29.7 08 46.28 +15 03.9 18.0 -0.90 + 4.1 1.0/30.4 38794
 2000 AH₂₁₄ 2000 01 29.7 08 46.30 +16 10.0 18.2 -0.80 + 3.3 0.5/30.1 38708
 1998 OX₁₁ 2000 01 29.7 08 46.32 +20 12.0 20.3 -1.11 + 0.9 0.7/29.4 33079
 4203 T-3 2000 01 29.7 08 46.33 -00 12.1 17.1 -0.87 + 6.2 6.9/03.2 38909
 2000 AS₄ 2000 01 29.7 08 46.36 +18 26.8 17.3 -1.20 + 2.2 0.2/29.7 38864
 2000 AC₁₂₅ 2000 01 29.7 08 46.44 +09 27.9 17.5 -1.01 + 5.5 3.2/31.7 38676
 1996 XU₁₄ 2000 01 29.7 08 46.51 +25 30.4 16.9 -1.65 - 5.8 3.7/29.1 38770

2000 AE ₁₂₅	2000 01 29.8	08 46.53 +09 06.9 17.9	-1.06 + 3.3	3.3/31.6	38676	1987 SP ₁₁	2000 01 30.4	08 49.18 +16 25.4 18.7	-1.03 + 5.2	0.5/30.7	38753
1998 QO ₉₁	2000 01 29.8	08 46.54 +05 25.7 17.5	-0.90 + 6.7	4.0/01.9	38785	1990 SV	2000 01 30.4	08 49.18 +19 05.7 19.5	-1.03 + 2.9	0.4/30.2	33068
1998 RE ₃₇	2000 01 29.8	08 46.65 +15 07.7 17.8	-0.92 + 2.0	0.9/30.4	38786	1996 HF ₁₄	2000 01 30.4	08 49.19 +21 42.4 17.9	-0.91 + 3.5	1.3/29.6	38769
1999 XY ₁₇₆	2000 01 29.8	08 46.66 +36 15.4 17.1	-0.99 + 7.8	7.9/24.9	38606	2000 AL ₁₉₇	2000 01 30.4	08 49.27 +03 24.3 17.8	-1.02 + 2.4	5.0/02.3	38704
1998 SH ₅₈	2000 01 29.8	08 46.68 +08 18.6 17.9	-0.92 + 5.4	3.1/01.1	38791	2000 AU ₁₂₅	2000 01 30.4	08 49.28 +15 39.3 17.0	-1.01 + 6.4	0.9/30.9	38677
1999 XP ₃₄	2000 01 29.8	08 46.83 +13 27.7 16.8	-1.10 - 0.9	1.8/30.6	38836	1998 RJ ₆₆	2000 01 30.4	08 49.37 +14 13.0 19.2	-0.95 + 3.9	1.1/31.2	38787
(13896)	2000 01 29.8	08 46.86 +19 27.4 17.9	-1.07 + 5.2	0.6/29.5	38427	(12749)	2000 01 30.4	08 49.38 +16 52.7 16.2	-1.02 + 7.2	0.4/30.7	37051
(13877)	2000 01 29.8	08 46.88 +18 19.0 18.1	-1.17 + 3.6	0.1/29.8	38421	(13293)	2000 01 30.4	08 49.44 +26 32.1 17.0	-1.05 + 5.4	3.5/28.5	37565
1995 YU	2000 01 29.8	08 46.92 +23 28.2 18.0	-1.07 + 5.6	2.0/28.7	38767	1997 SN ₁₀	2000 01 30.5	08 49.39 +11 48.4 18.0	-0.78 + 3.5	1.6/31.8	38774
1998 OW ₆	2000 01 29.8	08 46.93 +11 20.8 18.6	-0.93 + 8.9	2.0/31.6	38779	1999 XE ₁₇₇	2000 01 30.5	08 49.44 +32 11.4 17.2	-1.06 + 7.9	6.1/26.8	38856
1998 RG ₆₃	2000 01 29.8	08 46.94 +16 52.7 19.7	-0.96 + 5.2	0.3/30.1	38787	(13473)	2000 01 30.5	08 49.48 +11 51.8 17.1	-1.07 + 5.9	2.4/31.8	38309
1998 SA ₉	2000 01 29.9	08 46.92 +19 18.3 19.0	-0.88 + 3.5	0.4/29.6	37766	1996 GP ₁	2000 01 30.5	08 49.49 +49 15.9 17.4	-1.50 - 2.0	11.3/24.8	38769
(13100)	2000 01 29.9	08 46.93 +18 57.0 17.1	-1.04 + 5.4	0.4/29.7	37514	(12262)	2000 01 30.5	08 49.54 +08 52.4 16.7	-0.90 + 3.8	3.1/01.5	36676
1999 XR ₉₄	2000 01 29.9	08 46.97 +24 38.6 16.8	-1.08 + 7.5	2.9/28.3	38844	(12397)	2000 01 30.5	08 49.60 +31 15.9 17.1	-0.93 + 3.1	4.3/27.5	36712
1998 QE ₄₃	2000 01 29.9	08 47.05 +17 44.7 16.9	-0.91 + 4.9	0.1/30.0	38480	1998 UF ₁₄	2000 01 30.5	08 49.69 +21 45.3 17.6	-0.89 + 3.8	1.2/29.7	38795
(13554)	2000 01 29.9	08 47.05 +22 03.8 18.2	-0.93 + 3.4	1.2/29.0	38330	1999 YT ₉	2000 01 30.5	08 49.70 +32 11.1 17.4	-1.02 + 4.7	4.9/27.2	38863
(13682)	2000 01 29.9	08 47.06 +16 35.6 18.1	-0.80 + 3.8	0.4/30.2	38366	1979 MZ ₅	2000 01 30.5	08 49.73 +13 44.3 19.5	-0.93 + 3.3	1.3/31.4	30778
2000 AS ₁₂₅	2000 01 29.9	08 47.21 +14 59.9 17.7	-1.11 + 2.9	1.1/30.5	38677	1997 GB ₇	2000 01 30.5	08 49.77 +23 32.1 17.4	-1.09 + 4.4	2.3/29.3	38772
(13365)	2000 01 29.9	08 47.35 +05 49.8 17.2	-0.82 + 2.4	3.4/01.5	37586	1999 YL ₉	2000 01 30.5	08 49.84 +16 42.8 17.2	-1.01 + 0.1	0.4/30.8	38863
(13606)	2000 01 29.9	08 47.35 +13 27.2 18.2	-1.01 + 4.3	1.6/30.9	38344	1993 RA ₃	2000 01 30.6	08 49.86 +00 22.6 17.5	-0.86 + 4.1	5.2/03.6	38761
2000 BW	2000 01 30.0	08 47.35 +07 32.3 17.2	-1.64 -10.2	5.4/30.5	38887	(12751)	2000 01 30.6	08 49.87 +21 52.3 16.0	-1.08 + 5.5	1.7/29.7	37051
2000 AT ₂₂₃	2000 01 30.0	08 47.56 +17 43.8 19.3	-1.12 + 5.1	0.1/30.1	38709	(12563)	2000 01 30.6	08 49.88 +17 54.4 16.4	-0.93 + 4.3	0.1/30.6	36759
2000 AV ₆₀	2000 01 30.0	08 47.63 +18 45.8 16.8	-1.21 0.0	0.4/29.9	38871	1998 QY ₉₀	2000 01 30.6	08 49.93 +05 29.6 18.1	-0.91 + 6.7	4.1/02.6	38785
1995 VZ	2000 01 30.0	08 47.65 +15 01.6 17.1	-1.07 + 5.0	1.2/30.7	38766	1998 QO ₂₂	2000 01 30.6	08 50.02 +23 42.6 18.4	-1.09 + 3.9	2.1/29.4	38781
2000 AP ₁₂₅	2000 01 30.0	08 47.68 +15 47.7 18.1	-1.02 + 5.6	0.8/30.5	38677	2000 AY ₁₂₅	2000 01 30.6	08 50.14 +14 36.9 17.2	-1.10 + 1.8	1.2/31.2	38878
(12429)	2000 01 30.0	08 47.71 +16 45.5 16.5	-1.00 + 5.9	0.5/30.3	36720	1982 UD ₄	2000 01 30.6	08 50.15 +20 22.2 18.2	-1.04 + 3.6	0.9/30.1	38752
1989 RP ₁	2000 01 30.0	08 47.71 +07 43.2 17.8	-0.86 + 5.9	2.9/01.5	38754	2000 AS ₂₃₀	2000 01 30.6	08 50.18 +16 35.1 18.1	-0.90 + 5.3	0.4/30.9	38710
(13768)	2000 01 30.0	08 47.72 +16 05.4 17.9	-0.89 + 3.5	0.6/30.5	38391	1998 QZ ₁₁	2000 01 30.6	08 50.21 +13 14.3 17.0	-1.10 - 0.2	1.7/31.4	38780
2000 AQ ₁₂₅	2000 01 30.0	08 47.74 +16 34.9 17.6	-1.05 + 7.1	0.5/30.4	38677	2000 AY ₁₂₄	2000 01 30.7	08 50.29 +11 17.5 17.8	-0.80 + 5.5	1.9/01.3	38675
2000 AQ ₄₃	2000 01 30.0	08 47.79 +15 56.6 17.3	-1.13 + 2.8	0.8/30.5	38868	(9727)	2000 01 30.7	08 50.35 +15 48.1 17.1	-0.87 + 4.1	0.6/31.2	33194
(13522)	2000 01 30.1	08 47.81 -08 58.5 16.0	-0.73 + 2.9	13.0/05.4	38322	(12568)	2000 01 30.7	08 50.47 +19 39.6 17.3	-0.86 + 3.4	0.6/30.3	36760
(10761)	2000 01 30.1	08 47.88 +16 43.8 16.5	-0.98 + 3.2	0.5/30.4	34760	1999 YU ₉	2000 01 30.7	08 50.48 +30 56.6 17.2	-1.02 + 0.3	4.0/28.3	38618
2000 AJ ₁₂₅	2000 01 30.1	08 47.91 +12 09.3 17.0	-0.78 + 5.5	1.7/31.5	38878	(13798)	2000 01 30.7	08 50.50 +25 00.9 18.5	-0.93 + 3.4	2.2/29.1	38399
1998 RJ ₇₇	2000 01 30.1	08 48.01 +15 13.8 17.9	-0.95 + 5.9	0.9/30.8	38788	1998 VL ₁₆	2000 01 30.7	08 50.56 +30 24.2 17.9	-0.91 + 4.5	3.8/27.8	38796
1998 QG ₆	2000 01 30.1	08 48.01 -10 52.9 18.6	-0.75 + 4.3	8.3/06.8	33559	1999 XP ₁₄₁	2000 01 30.7	08 50.62 +04 40.0 16.0	-1.69 -15.1	7.0/01.0	38851
2000 AU ₂₂₆	2000 01 30.1	08 48.15 +16 34.4 18.1	-0.92 + 3.0	0.4/30.4	38710	6801 P-L	2000 01 30.8	08 50.67 +17 32.7 19.4	-1.00 + 5.0	0.0/30.8	38191
2000 AO ₁₂₄	2000 01 30.1	08 48.24 +15 03.9 17.1	-0.91 + 6.1	1.2/30.9	38675	1998 SP ₆₂	2000 01 30.8	08 50.79 +26 44.0 18.2	-1.00 + 3.0	3.1/28.9	38791
(13763)	2000 01 30.2	08 48.17 +34 52.6 18.0	-0.96 + 2.8	5.4/26.5	38390	1997 OT	2000 01 30.8	08 50.81 +20 46.7 19.9	-0.86 + 1.8	0.8/30.2	30903
2000 AN ₁₆₁	2000 01 30.2	08 48.22 +25 56.2 17.2	-1.22 + 2.8	3.5/28.6	38695	(11254)	2000 01 30.8	08 50.82 +15 40.0 16.4	-0.92 + 7.8	0.9/31.3	38016
1998 SW ₁₅₆	2000 01 30.2	08 48.23 +22 30.6 18.5	-1.04 + 2.3	1.5/29.3	38794	2000 AJ ₆₀	2000 01 30.8	08 50.88 +18 30.7 17.3	-1.11 + 5.0	0.4/30.7	38871
1998 MW ₁₃	2000 01 30.2	08 48.27 +17 56.5 17.8	-1.13 + 2.3	0.0/30.2	38778	1998 QU ₇₀	2000 01 30.8	08 50.90 -00 05.9 18.1	-0.94 + 3.0	6.9/03.8	38784
(13767)	2000 01 30.2	08 48.50 +20 27.3 17.3	-1.00 + 3.8	0.9/29.7	38391	(13758)	2000 01 30.8	08 50.92 +22 00.7 17.0	-0.94 + 5.3	1.6/29.8	38388
1998 UU ₂₈	2000 01 30.2	08 48.65 +30 30.3 18.0	-0.90 + 4.6	3.6/27.3	38796	(12875)	2000 01 30.8	08 50.98 +12 21.1 17.4	-0.95 + 4.1	2.0/01.0	37085
(13546)	2000 01 30.3	08 48.60 +06 10.6 18.1	-0.92 + 4.6	4.2/01.9	38328	1995 VH ₁	2000 01 30.8	08 51.06 +03 51.2 18.2	-1.07 + 3.4	5.4/02.8	38766
2000 AB ₁₂₅	2000 01 30.3	08 48.62 +09 17.4 17.9	-0.87 + 3.6	2.9/01.2	38676	1996 EK ₆	2000 01 30.8	08 51.10 +09 56.6 17.7	-0.88 + 5.1	2.4/01.7	38769
1998 SG ₅₈	2000 01 30.3	08 48.62 +27 04.0 19.4	-1.16 + 2.8	3.3/28.5	34222	(13596)	2000 01 30.9	08 51.06 +12 27.4 17.6	-0.99 + 6.2	1.9/32.0	38342
1998 VD ₁₃	2000 01 30.3	08 48.76 +22 46.3 17.9	-0.91 + 3.6	1.5/29.3	38796	1997 QD	2000 01 30.9	08 51.23 +14 05.4 20.1	-0.99 + 1.3	1.0/31.6	30904
1999 XZ ₃₂	2000 01 30.3	08 48.80 +12 13.0 17.3	-1.05 - 0.1	2.1/31.3	38584	2000 AT	2000 01 30.9	08 51.25 +16 05.2 19.6	-1.03 + 3.7	0.5/31.3	37990
1998 QN ₈₆	2000 01 30.3	08 48.80 +12 16.7 16.7	-0.99 + 1.2	2.0/31.4	38784	2000 AA ₆₀	2000 01 30.9	08 51.28 +17 45.1 16.5	-0.90 + 0.7	0.0/30.9	38871
1993 TD ₁₈	2000 01 30.3	08 48.86 +31 08.2 19.6	-0.99 + 2.8	4.4/27.5	33237	1993 FQ ₁	2000 01 30.9	08 51.31 +16 01.3 16.7	-1.00 + 6.8	0.6/31.3	38759
2000 AS ₁₉₆	2000 01 30.4	08 49.11 +06 09.8 17.8	-1.06 + 3.5	5.3/01.8	38704	(13680)	2000 01 30.9	08 51.33 +15 26.0 18.6	-0.87 + 3.6	0.7/31.4	38366

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1994 AU ₆	2000 01 30.9	08 51.41 +18 03.0	18.3	-0.79	+	3.6	0.1/30.9	38762
1998 TO	2000 01 30.9	08 51.44 +17 31.2	19.1	-0.92	+	8.0	0.0/31.0	37791
(13343)	2000 01 30.9	08 51.46 +13 42.5	17.1	-0.88	+	5.6	1.4/31.9	37580
(13843)	2000 01 30.9	08 51.51 +14 56.6	17.2	-1.08	+	4.2	1.2/31.6	38412
2000 AB ₄₇	2000 01 31.0	08 51.46 +21 55.0	17.8	-0.94	+	1.3	1.3/30.2	38868
(13446)	2000 01 31.0	08 51.46 +08 05.5	17.2	-0.83	+	2.1	2.7/02.0	37609
1998 SB ₁₃₁	2000 01 31.0	08 51.55 +16 34.8	17.2	-0.94	+	3.2	0.4/31.2	38793
1998 SA	2000 01 31.0	08 51.65 +11 41.4	18.3	-0.94	+	4.3	1.8/01.3	38499
1995 WR ₁₇	2000 01 31.0	08 51.67 +21 59.0	18.1	-1.05	+	2.7	2.2/30.2	38767
1998 RS ₁₄	2000 01 31.0	08 51.68 +29 38.3	18.9	-1.00	+	1.6	4.1/28.6	38786
1999 XW ₃₂	2000 01 31.0	08 51.70 +11 11.8	17.1	-0.92	+	0.8	2.4/01.3	38836
1994 PN ₃₇	2000 01 31.0	08 51.70 +13 12.3	18.2	-1.01	+	5.9	1.5/32.0	38763
1998 TX ₂	2000 01 31.0	08 51.72 +23 28.0	17.8	-0.92	+	2.6	2.1/29.8	38794
2000 AW ₁₂₅	2000 01 31.0	08 51.74 +15 33.4	16.9	-0.89	+	6.5	0.7/31.6	38677
1999 XC ₃₂	2000 01 31.0	08 51.74 +09 55.7	17.2	-1.06	+	2.5	3.2/01.6	38835
(12800)	2000 01 31.0	08 51.85 +18 52.6	16.4	-1.08	+	4.0	0.5/30.8	37064
2000 AZ ₅₉	2000 01 31.0	08 51.87 +20 43.1	17.9	-0.88	+	4.0	1.0/30.4	38643
1998 SX ₆₆	2000 01 31.1	08 51.88 +19 18.4	17.8	-0.88	+	4.4	0.5/30.7	38791
(13364)	2000 01 31.1	08 51.88 +40 25.4	16.7	-1.17	+	2.1	7.3/26.0	37586
2000 AL ₁₂₆	2000 01 31.1	08 52.27 +09 36.1	17.5	-1.07	+	3.0	3.1/01.8	38678
1999 XR ₃₄	2000 01 31.1	08 52.28 +15 06.2	17.2	-1.10	+	4.4	1.1/01.0	38836
2000 AP ₆₀	2000 01 31.1	08 52.35 +16 14.4	16.9	-1.15	+	1.5	0.5/31.4	38871
1997 GE ₉	2000 01 31.2	08 52.27 +16 30.3	20.1	-1.05	+	3.7	0.4/31.4	38458
(13577)	2000 01 31.2	08 52.28 +19 25.3	17.2	-1.05	+	5.7	0.7/30.8	38337
(13734)	2000 01 31.2	08 52.29 +10 53.0	17.5	-1.08	+	4.8	2.9/01.6	38381
(12301)	2000 01 31.2	08 52.37 +23 41.1	17.6	-1.15	+	3.5	2.6/30.0	36686
1995 SP	2000 01 31.2	08 52.55 +33 33.0	17.3	-1.29	+	0.9	7.1/28.4	38765
1997 GL ₁₄	2000 01 31.2	08 52.56 +16 41.3	18.7	-1.08	+	3.4	0.3/31.4	38772
2000 AD ₁₂₉	2000 01 31.2	08 52.57 +14 34.6	17.5	-1.05	+	4.4	1.2/31.9	38683
2000 AF ₂	2000 01 31.2	08 52.69 +31 44.2	17.0	-1.26	+	3.9	6.0/28.3	38621
2000 AE ₂	2000 01 31.2	08 52.72 +28 04.4	17.1	-1.08	+	3.5	4.1/29.0	38621
1998 UN ₁₅	2000 01 31.2	08 52.73 +19 23.1	18.0	-0.82	+	3.6	0.5/30.9	38795
1999 XS ₉₄	2000 01 31.2	08 52.73 +29 24.4	17.0	-0.87	+	11.6	4.0/27.7	38844
2228 P-L	2000 01 31.3	08 52.72 +10 54.6	19.7	-1.02	+	3.5	2.2/01.7	33383
1998 SA ₆₆	2000 01 31.3	08 52.75 +17 09.7	19.1	-1.03	+	5.4	0.1/31.4	38791
1998 SN ₃	2000 01 31.3	08 52.77 +24 07.7	18.0	-0.94	+	5.9	2.5/29.7	38789
1998 RR ₅₉	2000 01 31.3	08 52.78 +17 37.5	18.0	-1.11	+	2.9	0.0/31.3	38787
2000 AT ₂₃₀	2000 01 31.3	08 52.79 +16 15.3	17.4	-1.04	+	4.6	0.5/31.6	38710
(13797)	2000 01 31.3	08 52.89 +19 04.6	18.0	-0.89	+	3.2	0.5/31.0	38399
1998 SA ₁₆₃	2000 01 31.3	08 52.91 +08 29.0	17.1	-0.90	+	4.6	3.4/02.4	38794
1990 VP ₆	2000 01 31.3	08 52.92 -01 38.3	16.7	-0.89	+	4.7	6.5/04.9	38755
1997 HV ₂	2000 01 31.3	08 53.02 +22 48.5	19.6	-1.14	+	3.7	2.0/30.3	32963
1998 QG ₈₆	2000 01 31.3	08 53.03 +07 51.3	16.3	-1.03	-	1.8	4.0/01.9	38784
2158 T-2	2000 01 31.3	08 53.06 +14 28.5	19.4	-1.04	+	5.0	1.1/32.0	33130
1998 SH ₃₄	2000 01 31.3	08 53.07 +51 28.8	19.4	-1.72	-	1.2	12.0/24.6	35717
1998 SK ₁₄	2000 01 31.3	08 53.11 +47 29.3	19.6	-1.39	-	1.4	8.9/26.3	35716
1997 HM ₁₀	2000 01 31.4	08 53.12 +14 39.5	20.3	-0.99	+	4.2	0.9/32.0	33344
1998 UM ₂₄	2000 01 31.4	08 53.17 +03 41.9	18.2	-0.92	+	3.5	4.4/03.4	38796
1998 UH ₁₅	2000 01 31.4	08 53.24 +00 30.8	18.0	-0.86	+	4.8	5.0/04.5	38523
(13375)	2000 01 31.4	08 53.26 +18 22.0	17.0	-0.90	+	3.3	0.3/31.2	37589
1998 MA ₄₂	2000 01 31.4	08 53.31 +14 05.6	19.7	-1.10	+	3.4	1.2/01.1	33078

1986 QO ₂	2000 01 31.4	08 53.40 +17 57.3	18.1	-0.80	+	3.6	0.1/31.4	38752
2000 AQ ₁₂₆	2000 01 31.4	08 53.42 +13 55.3	17.5	-1.09	+	3.2	1.4/01.2	38678
1998 QN ₅₅	2000 01 31.4	08 53.44 +11 37.9	19.4	-1.02	+	4.8	1.9/01.8	33268
(12338)	2000 01 31.4	08 53.45 +23 46.1	15.4	-1.04	+	7.9	2.9/29.9	36696
1997 GU ₆	2000 01 31.4	08 53.50 +30 14.5	18.4	-1.13	+	3.3	4.5/28.8	38772
(13729)	2000 01 31.4	08 53.59 +12 38.7	17.2	-1.00	+	5.9	2.1/01.6	38380
1998 RV ₅₀	2000 01 31.5	08 53.60 +13 23.4	18.5	-0.95	+	3.9	1.5/01.4	38492
1998 RA ₇₂	2000 01 31.5	08 53.62 +18 45.3	17.6	-0.87	+	3.8	0.4/31.2	38788
2000 AY ₆₀	2000 01 31.5	08 53.62 +20 07.5	17.9	-0.98	+	3.5	1.0/31.0	38643
(13765)	2000 01 31.5	08 53.68 +16 45.8	17.9	-0.90	+	3.4	0.2/31.7	38390
(10415)	2000 01 31.5	08 53.73 -04 48.2	16.6	-0.81	+	2.8	7.0/05.7	34163
1998 OB ₄	2000 01 31.5	08 53.78 +12 45.9	17.7	-1.06	+	5.0	2.1/01.6	38779
1998 RL ₂	2000 01 31.5	08 53.79 +18 23.7	18.5	-1.10	+	7.1	0.4/31.3	38785
1996 FJ ₁₈	2000 01 31.6	08 53.90 +24 46.2	17.5	-0.91	+	3.3	2.1/30.0	29114
1998 QU ₂₉	2000 01 31.6	08 54.09 +06 13.6	18.3	-1.07	+	3.1	4.8/02.9	38477
2000 AD ₁	2000 01 31.6	08 54.09 +15 21.0	17.9	-1.09	+	1.9	0.8/32.0	38620
1999 XT ₃₂	2000 01 31.6	08 54.14 +13 32.9	16.7	-0.95	-	0.8	1.8/01.3	38836
2000 AA ₁₂₆	2000 01 31.6	08 54.15 +12 51.0	17.7	-0.93	+	4.1	1.7/01.7	38678
1997 MJ ₆	2000 01 31.6	08 54.21 +22 51.3	19.9	-0.96	+	5.8	1.8/30.4	33077
1343 T-2	2000 01 31.6	08 54.38 +21 34.1	17.2	-1.11	+	3.2	1.8/30.8	38908
1998 SK ₁₃₀	2000 01 31.7	08 54.34 +27 22.6	18.8	-1.18	+	3.3	3.5/29.6	38064
1998 RY ₇₇	2000 01 31.7	08 54.35 +13 56.5	16.5	-1.02	+	7.1	1.5/01.5	38788
1997 EY ₂	2000 01 31.7	08 54.49 +18 47.2	16.9	-1.07	+	6.6	0.6/31.4	38771
1998 WO ₂₂	2000 01 31.7	08 54.51 +24 57.8	18.8	-0.97	+	4.3	2.1/30.0	38537
(12918)	2000 01 31.7	08 54.62 +34 23.2	16.8	-0.97	+	3.6	5.0/27.7	37097
2000 AY ₂₃₉	2000 01 31.7	08 54.68 +15 22.5	18.5	-0.88	+	3.7	0.7/01.2	38713
2000 AD ₂₀₄	2000 01 31.7	08 54.72 +15 57.7	17.2	-1.06	0.0	0.6/32.0	38884	
2130 P-L	2000 01 31.8	08 54.80 +26 58.5	20.1	-0.89	+	2.0	2.4/29.8	33735
(13884)	2000 01 31.8	08 54.81 +23 16.8	18.0	-1.20	+	2.8	2.6/30.7	38423
1998 QO ₆₀	2000 01 31.8	08 54.94 +32 01.7	17.7	-1.07	+	2.3	4.4/28.7	38784
1998 SN ₅₇	2000 01 31.8	08 55.00 +20 44.8	17.2	-0.95	+	3.9	1.1/31.1	38790
(13528)	2000 01 31.8	08 55.17 +04 05.3	17.8	-0.99	+	10.0	4.4/04.4	38323
1999 XC ₂₂₃	2000 01 31.8	08 55.21 +29 36.7	17.4	-1.17	+	5.1	4.6/29.1	38615
(13738)	2000 01 31.8	08 55.22 +08 57.5	18.3	-0.96	+	5.0	3.0/02.8	38382
1998 XQ ₁₂	2000 01 31.9	08 55.26 +19 10.4	16.8	-0.83	+	7.0	0.5/31.5	38798
1998 RN ₆₈	2000 01 31.9	08 55.26 +19 38.7	18.5	-0.97	+	3.3	0.8/31.4	38788
1998 WK ₁₇	2000 01 31.9	08 55.31 -14 11.3	17.1	-0.84	-	0.3	9.9/07.5	38067
1997 UT ₂	2000 01 31.9	08 55.31 +40 25.9	18.5	-0.99	+	2.2	5.6/26.5	38775
2000 AT ₁₉₇	2000 01 31.9	08 55.47 +05 54.9	18.1	-0.78	+	4.8	3.3/03.8	38704
1998 SB ₁₃₉	2000 01 31.9	08 55.48 +12 48.4	17.5	-0.91	+	3.2	1.5/02.0	38793
1978 VM ₇	2000 02 01.0	08 55.75 +08 09.0	19.6	-0.93	+	3.4	2.7/03.0	34572
1998 RH ₅₈	2000 02 01.0	08 55.81 +27 25.0	18.8	-1.09	+	2.0	3.5/30.0	33272
(13689)	2000 02 01.0	08 55.86 +15 25.5	17.7	-0.78	+	5.7	0.5/01.5	38368
1998 SX ₁₀₁	2000 02 01.0	08 55.97 +23 01.7	19.3	-1.09	+	3.7	1.8/30.9	35719
(13373)	2000 02 01.0	08 55.97 +15 47.7	17.9	-0.87	+	3.6	0.5/01.4	37588
(13163)	2000 02 01.0	08 55.97 +35 46.0	16.6	-1.25	+	4.0	7.2/28.0	37530
(13719)	2000 02 01.0	08 56.05 +09 01.0	18.0	-1.09	+	5.3	3.3/02.9	38377
1998 WB ₇	2000 02 01.1	08 56.11 +17 40.6	18.0	-0.86	+	3.3	0.1/01.1	38797
1999 XC ₃₃	2000 02 01.1	08 56.16 +15 45.1	16.5	-1.14	+	1.9	0.7/01.4	38836
(10200)	2000 02 01.1	08 56.18 +23 28.4	19.1	-0.94	+	4.1	1.8/30.7	33906
1494 T-2	2000 02 01.1	08 56.32 +19 29.7	18.2	-0.98	+	4.4	0.8/31.7	38908

1999 XY ₃₂	2000 02 01.1	08 56.44 +09 34.3 16.9	-1.02 + 0.2	3.4/02.6	38836
1995 UQ ₁₂	2000 02 01.1	08 56.45 +21 30.3 16.9	-1.13 + 3.5	1.9/31.3	38766
1995 US ₁₂	2000 02 01.2	08 56.44 +22 00.1 17.8	-1.09 + 3.1	2.2/31.3	38766
(11397)	2000 02 01.2	08 56.45 -05 18.3 17.1	-0.55 + 0.7	4.1/06.5	35589
2000 AE ₁₆₄	2000 02 01.2	08 56.45 +15 53.0 17.6	-0.96 + 4.0	0.5/01.5	38697
(13776)	2000 02 01.2	08 56.60 +15 24.4 17.3	-0.83 + 3.7	0.6/01.7	38393
(12231)	2000 02 01.2	08 56.60 +22 11.1 17.0	-1.06 + 3.7	2.0/31.2	36668
1995 WC	2000 02 01.2	08 56.71 +06 53.8 18.0	-1.06 + 4.4	4.0/03.6	37650
(13224)	2000 02 01.3	08 56.97 +19 21.5 16.9	-0.88 + 1.8	0.6/31.9	37546
2000 AD ₂₀₉	2000 02 01.3	08 57.01 +19 07.6 17.6	-1.00 + 6.8	0.8/31.9	38885
2000 AP ₁₂₆	2000 02 01.3	08 57.08 +12 38.2 16.8	-0.88 + 0.8	1.4/02.3	38678
1998 ON ₁₃	2000 02 01.3	08 57.12 +19 15.0 16.5	-1.22 + 0.4	0.8/01.0	38779
1998 QS ₃₆	2000 02 01.3	08 57.13 +20 10.6 18.2	-1.15 - 1.0	1.1/31.9	38782
(13314)	2000 02 01.3	08 57.17 +24 37.5 17.5	-0.97 + 3.6	2.3/30.8	37571
2000 AC ₅₀	2000 02 01.3	08 57.18 +18 01.6 17.0	-0.88 + 2.0	0.3/01.2	38635
1979 MH ₃	2000 02 01.3	08 57.22 +19 21.2 17.8	-1.04 + 6.6	0.8/31.9	38430
1999 VJ ₈	2000 02 01.3	08 57.24 +10 26.6 16.7	-1.03 + 0.8	2.3/02.7	38814
1998 SZ ₁₀₆	2000 02 01.4	08 57.18 +13 00.3 17.4	-0.91 + 4.3	1.5/02.4	38792
2000 AF ₁₆₂	2000 02 01.4	08 57.20 +19 17.4 17.9	-0.92 + 3.1	1.0/32.0	38695
1999 XA ₃₃	2000 02 01.4	08 57.24 +10 55.1 17.0	-0.97 - 1.1	2.5/02.5	38836
(13745)	2000 02 01.4	08 57.27 +17 55.2 17.4	-0.99 + 3.6	0.2/01.3	38384
2000 AS ₁₉₇	2000 02 01.4	08 57.30 +00 46.0 16.3	-1.10 - 0.6	6.9/04.4	38884
1998 SU ₄₂	2000 02 01.4	08 57.38 +05 50.3 17.3	-0.83 + 5.7	4.6/04.3	38504
(13017)	2000 02 01.4	08 57.43 +39 05.5 16.9	-1.26 + 1.4	8.4/27.7	37491
(13336)	2000 02 01.4	08 57.52 +18 36.4 17.6	-0.89 + 4.7	0.4/01.1	37578
1998 SE ₆₀	2000 02 01.4	08 57.63 +25 08.1 18.5	-1.01 + 3.8	2.7/30.7	37772
1998 QH ₄₂	2000 02 01.4	08 57.68 +28 18.2 17.5	-1.20 - 0.7	4.1/30.6	35711
2246 T-3	2000 02 01.4	08 57.68 +19 30.4 18.2	-1.13 + 2.2	0.9/01.0	38908
1998 WX ₂₂	2000 02 01.5	08 57.61 +14 06.4 19.1	-0.90 + 3.8	0.9/02.2	38798
1991 OV	2000 02 01.5	08 57.64 +12 32.8 18.4	-1.03 + 5.8	1.6/02.6	38756
1998 SQ ₇₂	2000 02 01.5	08 57.69 +00 30.1 18.9	-0.88 + 5.6	5.1/05.7	34304
1999 XD ₃₂	2000 02 01.5	08 57.77 +10 32.5 17.1	-1.06 + 2.8	3.0/02.9	38835
1998 WE ₃₁	2000 02 01.5	08 57.82 +17 09.3 17.4	-0.78 + 9.3	0.0/01.6	38798
(12988)	2000 02 01.5	08 57.83 +09 59.8 18.1	-1.14 + 2.3	3.0/02.9	37484
1998 SN ₅₄	2000 02 01.5	08 57.90 +23 23.6 16.7	-1.18 + 1.5	2.6/31.4	38790
1992 FC ₂	2000 02 01.5	08 57.95 +19 30.1 16.4	-1.03 + 3.6	1.0/01.1	38758
1989 CC ₃	2000 02 01.5	08 58.01 +07 28.8 18.0	-0.89 + 0.9	2.8/03.5	38434
2000 AT ₁₂₆	2000 02 01.5	08 58.02 +12 01.3 17.0	-0.92 + 1.0	1.7/02.6	38878
2000 AB ₁₄₁	2000 02 01.5	08 58.07 +05 53.7 17.5	-0.94 + 1.3	3.4/03.8	38880
(13515)	2000 02 01.6	08 58.00 +10 48.1 18.3	-0.97 + 4.5	2.2/03.0	38320
1998 UG ₇	2000 02 01.6	08 58.10 +19 38.2 17.8	-0.89 + 3.5	0.8/01.1	38795
1994 PQ ₆	2000 02 01.6	08 58.14 +17 56.7 21.0	-1.05 + 4.3	0.3/01.5	35690
2000 AF ₁₄₁	2000 02 01.6	08 58.15 +07 35.9 18.0	-1.05 + 2.8	3.5/03.6	38687
1999 XA ₃₂	2000 02 01.6	08 58.17 +09 28.5 16.2	-0.89 + 0.3	2.4/03.1	38835
1993 TB ₂₆	2000 02 01.6	08 58.19 +21 54.1 16.8	-0.90 + 4.3	1.6/31.5	38446
(13687)	2000 02 01.6	08 58.24 +03 58.4 16.8	-0.80 + 3.7	4.0/04.7	38368
1998 ML ₂₄	2000 02 01.6	08 58.26 +23 15.1 20.7	-1.14 + 6.3	2.1/31.2	32756
1986 QH ₁	2000 02 01.6	08 58.38 +29 15.9 17.6	-0.97 + 0.5	3.4/30.3	38433
(11351)	2000 02 01.6	08 58.42 +03 43.7 17.5	-0.53 + 1.6	2.4/04.9	35578
4081 T-2	2000 02 01.7	08 58.41 +26 49.4 19.8	-1.02 + 3.6	3.0/30.5	36123
2000 AE ₆₂	2000 02 01.7	08 58.41 +13 52.9 16.9	-1.31 - 2.9	1.2/02.1	38871

1998 QC ₄₅	2000 02 01.7	08 58.43 +08 32.4 18.0	-0.96 + 3.7	3.0/03.6	38480
1998 UC ₂₆	2000 02 01.7	08 58.44 +08 48.0 18.3	-0.86 + 5.1	2.7/03.7	38796
2000 AW ₆₂	2000 02 01.7	08 58.46 +23 21.8 18.2	-1.07 + 4.1	2.5/31.3	38644
(12710)	2000 02 01.7	08 58.57 +16 50.6 16.5	-0.92 + 7.6	0.1/01.8	37040
1998 RA ₈₀	2000 02 01.7	08 58.66 +26 43.3 17.9	-1.16 + 5.4	3.7/30.5	38789
1998 SG ₁₃	2000 02 01.7	08 58.71 +23 22.3 18.9	-0.98 + 4.8	2.1/31.3	38500
1998 TD ₃₄	2000 02 01.8	08 58.85 +03 38.6 17.8	-0.80 + 4.7	4.1/05.1	38795
(13756)	2000 02 01.8	08 58.85 +20 04.5 17.8	-0.88 + 4.4	1.0/01.1	38388
1995 VL ₁₅	2000 02 01.8	08 58.88 +25 28.1 18.2	-1.18 + 5.4	3.3/30.9	38766
1996 BM ₁₇	2000 02 01.8	08 58.90 +26 14.4 17.1	-1.04 + 4.0	3.8/30.8	38768
1998 SO ₉	2000 02 01.8	08 59.02 +09 07.7 18.1	-0.87 + 4.4	2.7/03.7	38789
1998 QR ₈₆	2000 02 01.8	08 59.06 +14 23.6 17.9	-0.98 + 2.1	0.8/02.4	38784
(9728)	2000 02 01.8	08 59.09 +09 39.2 18.7	-0.99 + 2.6	2.4/03.4	38016
1994 AM	2000 02 01.9	08 59.26 +03 11.0 17.2	-0.90 0.0	4.3/04.5	38762
1999 XU ₁₆₄	2000 02 01.9	08 59.28 +16 10.5 16.7	-1.11 - 2.3	0.5/02.1	38854
1211 T-1	2000 02 01.9	08 59.28 +15 11.5 19.0	-1.04 + 3.9	0.7/02.3	38907
1981 ED ₃₀	2000 02 01.9	08 59.35 +06 17.4 18.6	-0.77 + 1.6	3.1/04.3	38431
1998 SM ₂₄	2000 02 01.9	08 59.42 +22 59.6 18.1	-0.99 + 4.0	2.2/31.6	38790
2000 AQ ₁₂₉	2000 02 01.9	08 59.46 +15 50.1 18.5	-0.96 + 3.3	0.4/02.2	38683
1998 TZ ₆	2000 02 01.9	08 59.53 +01 59.5 19.5	-0.84 + 5.5	4.4/05.7	35721
1998 TY ₆	2000 02 01.9	08 59.66 +23 02.7 19.0	-0.92 + 5.4	1.7/31.5	38520
2000 AT ₄₁	2000 02 01.9	08 59.67 +22 08.2 17.5	-1.32 - 2.7	2.3/01.3	38868
1998 VM ₁₆	2000 02 01.9	08 59.68 +36 37.6 16.7	-0.93 + 5.0	6.6/27.8	38796
1994 PL ₂₃	2000 02 01.9	08 59.72 +19 21.3 17.0	-0.99 + 4.0	1.0/01.5	38763
1999 XH ₃₃	2000 02 02.0	08 59.63 +18 37.6 17.1	-1.08 + 8.8	0.7/01.6	38836
1999 XW ₂₁	2000 02 02.0	08 59.81 +06 30.2 16.9	-1.03 - 0.2	3.9/03.9	38834
1998 TA ₃₂	2000 02 02.0	08 59.83 +14 29.8 17.3	-0.96 + 3.2	0.9/02.6	38795
1998 QP ₆₀	2000 02 02.0	08 59.85 +08 17.9 18.3	-1.01 + 3.4	3.2/03.9	38784
1995 BJ ₁₁	2000 02 02.0	08 59.91 +16 26.3 17.8	-0.81 + 4.4	0.2/02.2	38764
1997 JZ	2000 02 02.0	09 00.02 -05 00.1 18.9	-0.96 + 3.8	7.7/07.1	38773
1999 YJ ₁₄	2000 02 02.1	09 00.11 +17 34.0 17.9	-0.95 + 4.6	0.2/02.0	38620
1998 VR ₂₇	2000 02 02.1	09 00.22 +08 56.0 16.3	-0.82 + 2.9	2.7/04.0	38797
2000 AR ₆₁	2000 02 02.1	09 00.23 +21 17.4 17.7	-0.87 + 5.9	1.4/01.1	38643
2000 AD ₁₄₁	2000 02 02.1	09 00.24 +06 19.5 17.6	-1.02 + 4.6	4.5/04.6	38687
1998 OS ₁₂	2000 02 02.1	09 00.26 +19 59.0 18.1	-1.11 + 0.2	1.0/01.6	38779
2000 AB ₁₉₉	2000 02 02.1	09 00.31 +03 59.4 18.0	-0.81 + 1.3	3.9/04.9	38706
1998 SV ₁₃₁	2000 02 02.1	09 00.45 -03 51.0 18.0	-0.90 + 3.4	7.1/07.1	38793
1997 GP ₁₀	2000 02 02.1	09 00.46 +09 11.0 19.4	-1.00 + 5.6	2.8/04.0	33497
2000 AW ₁₉₇	2000 02 02.1	09 00.53 +04 57.1 17.8	-0.92 + 2.5	4.1/04.8	38705
2000 AU ₆₁	2000 02 02.2	09 00.65 +16 15.1 16.3	-1.05 + 1.8	0.3/02.4	38871
1998 SV ₆₅	2000 02 02.2	09 00.66 -00 33.1 16.3	-0.91 + 6.8	7.0/06.7	38063
1998 SG ₇₁	2000 02 02.2	09 00.74 +25 01.2 18.9	-0.96 + 3.9	2.6/31.4	35718
1999 XZ ₉₄	2000 02 02.2	09 00.77 +21 20.4 16.8	-0.93 + 6.5	1.9/01.2	38844
(13663)	2000 02 02.2	09 00.84 +15 51.1 18.2	-1.03 + 3.9	0.4/02.5	38361
2000 AG ₁₄₁	2000 02 02.2	09 00.86 +06 44.4 17.4	-1.08 + 3.2	4.3/04.4	38880
2674 P-L	2000 02 02.2	09 00.90 +19 40.6 18.6	-0.98 + 4.3	0.9/01.7	38906
(13661)	2000 02 02.3	09 00.88 +09 53.3 18.2	-1.02 + 4.2	2.8/03.9	38360
(13032)	2000 02 02.3	09 00.90 +11 55.1 17.3	-0.89 + 5.3	1.8/03.5	37495
(13098)	2000 02 02.3	09 00.90 +19 35.6 17.7	-1.03 + 5.0	0.9/01.7	37513
6577 P-L	2000 02 02.3	09 00.97 +17 17.7 17.9	-0.88 + 4.2	0.1/02.3	38907
1998 QJ ₄₁	2000 02 02.3	09 01.01 +17 22.1 19.3	-1.06 + 3.8	0.1/02.2	37720

2000 FEB. 22

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2000 AX ₂₄₁	2000 02 02.3	09 01.05 +02 19.8 17.6	-0.82 +10.5	6.0/06.7	38714	2000 AM ₆₇	2000 02 03.0	09 03.70 +21 15.6 17.7	-1.12 + 7.1	1.9/01.9	38872
1999 XS ₁₆₅	2000 02 02.3	09 01.08 +22 59.5 16.7	-1.05 + 6.1	2.8/31.9	38854	2000 AJ ₆₃	2000 02 03.0	09 03.75 +22 12.3 17.9	-1.20 + 2.5	2.2/01.9	38644
1998 RN ₇₃	2000 02 02.3	09 01.10 +13 16.7 18.7	-0.98 + 3.8	1.2/03.2	38788	1998 UZ ₂₇	2000 02 03.0	09 03.89 +15 35.2 17.0	-0.91 + 6.2	0.4/03.3	38796
(12215)	2000 02 02.3	09 01.13 +26 13.2 17.5	-1.12 + 5.8	3.5/31.2	36663	1995 BP ₁₁	2000 02 03.0	09 03.95 +17 39.6 19.7	-0.82 + 4.1	0.2/02.8	32943
(11320)	2000 02 02.3	09 01.13 +21 02.6 17.4	-0.90 + 3.6	1.3/01.4	35570	1998 RV ₆₆	2000 02 03.0	09 04.01 +11 49.7 17.9	-1.10 + 4.1	1.8/04.1	38788
1998 UU ₄₀	2000 02 02.3	09 01.13 +15 49.6 18.8	-0.89 + 3.6	0.3/02.6	38796	1997 EO ₁₇	2000 02 03.0	09 04.02 +29 12.4 17.1	-1.17 + 5.3	5.0/31.2	38771
(13061)	2000 02 02.3	09 01.20 +27 40.9 17.1	-1.06 + 0.8	3.6/31.3	37503	2000 AY ₆₂	2000 02 03.0	09 04.03 +24 03.8 17.1	-0.85 + 5.8	2.5/01.2	38871
1998 SW ₁₃₄	2000 02 02.3	09 01.32 +07 46.0 18.1	-0.86 + 5.4	3.1/04.7	38515	2000 AN ₂	2000 02 03.0	09 04.03 +25 33.2 17.3	-1.17 - 1.2	3.4/01.6	38622
2000 AV ₁₂₉	2000 02 02.3	09 01.32 +09 35.5 18.2	-1.11 + 3.3	2.9/03.9	38684	(13360)	2000 02 03.0	09 04.10 +20 42.9 16.7	-0.89 + 4.3	1.2/02.1	37585
2000 AV ₁₂₆	2000 02 02.3	09 01.32 +15 22.6 17.5	-1.03 + 6.7	0.6/02.8	38679	2000 AA ₆₂	2000 02 03.0	09 04.11 +20 53.2 17.1	-0.91 + 8.2	1.3/02.0	38644
1997 EJ ₁₁	2000 02 02.3	09 01.35 +12 00.2 18.7	-1.06 + 6.9	2.1/03.6	38771	1998 OZ ₆	2000 02 03.0	09 04.14 +11 29.9 17.9	-0.97 + 3.4	1.7/04.3	38779
1999 XT ₉₄	2000 02 02.4	09 01.29 +19 59.3 16.7	-1.02 + 4.4	1.4/01.7	38844	(13141)	2000 02 03.0	09 04.15 +21 11.4 17.2	-0.96 + 3.5	1.5/02.1	37524
1999 XB ₃₂	2000 02 02.4	09 01.30 +12 16.1 17.6	-0.97 + 3.6	1.9/03.4	38584	2000 AJ ₁₂₇	2000 02 03.1	09 04.12 +06 53.7 17.7	-1.10 + 0.2	4.7/04.9	38878
1998 SP ₁₄₃	2000 02 02.4	09 01.33 +23 03.2 17.5	-0.97 + 3.4	2.2/01.1	38793	2000 AM ₂	2000 02 03.1	09 04.20 +26 30.4 16.7	-1.13 + 3.9	3.9/32.0	38622
1998 QJ ₅₃	2000 02 02.4	09 01.37 +19 05.6 18.7	-1.01 + 2.4	0.7/02.0	38783	(9754)	2000 02 03.1	09 04.22 +15 14.2 18.1	-1.01 + 5.1	0.5/03.5	33200
1998 QT ₁₆	2000 02 02.4	09 01.43 +19 36.4 18.1	-1.04 + 3.2	0.9/01.9	38781	1998 SA ₅₉	2000 02 03.1	09 04.31 +25 19.0 18.0	-0.98 + 3.3	2.8/01.2	38507
2000 AS ₁₂₆	2000 02 02.4	09 01.45 +14 44.1 17.4	-0.92 + 3.2	0.8/02.9	38678	1993 RM ₁₆	2000 02 03.1	09 04.32 +12 48.6 20.3	-0.87 + 4.8	1.2/04.1	34503
1998 VC ₈	2000 02 02.4	09 01.46 +03 18.4 18.0	-0.80 + 5.3	4.3/06.0	38796	1998 SB ₁₃₅	2000 02 03.1	09 04.34 +16 15.1 18.2	-0.84 + 4.6	0.1/03.3	38516
2000 AO ₁₆₁	2000 02 02.4	09 01.53 +24 39.2 18.4	-0.91 + 3.1	2.6/31.7	38695	(13667)	2000 02 03.1	09 04.35 +13 07.9 17.4	-1.04 + 5.1	1.4/04.0	38362
(13646)	2000 02 02.4	09 01.60 +15 11.2 18.2	-0.88 + 3.8	0.6/02.9	38355	1990 VS ₄	2000 02 03.1	09 04.49 -00 39.7 18.7	-0.89 + 4.8	5.4/07.5	38755
1978 WU	2000 02 02.5	09 01.81 +03 58.2 18.6	-0.94 + 3.4	4.1/05.4	38750	2000 AQ ₆₂	2000 02 03.1	09 04.50 +22 16.3 16.8	-1.02 + 7.9	2.2/01.7	38871
(13881)	2000 02 02.5	09 01.87 +16 41.3 18.2	-1.00 + 5.2	0.1/02.6	38422	(12802)	2000 02 03.1	09 04.50 +23 19.8 16.6	-1.02 + 5.0	3.0/01.6	37064
2000 AR ₄₁	2000 02 02.5	09 01.92 +25 15.8 17.9	-1.15 + 1.8	3.6/31.9	38633	1998 SR ₅₇	2000 02 03.1	09 04.56 +21 46.3 20.4	-1.16 + 4.9	1.8/02.1	35718
1993 TH ₂₄	2000 02 02.5	09 02.07 +21 28.1 18.4	-0.90 + 4.0	1.4/01.5	38761	1985 PG	2000 02 03.1	09 04.58 +10 13.2 17.8	-0.91 + 5.8	2.1/04.8	38752
1998 WW ₂₀	2000 02 02.6	09 02.09 +33 02.1 17.7	-0.95 + 4.7	4.9/29.5	38798	2000 AD ₆₂	2000 02 03.2	09 04.57 +15 51.8 17.1	-0.93 + 1.2	0.3/03.4	38871
1994 PU ₃₇	2000 02 02.6	09 02.27 +14 41.3 17.9	-0.98 + 5.5	0.8/03.2	38763	1998 SS ₅₀	2000 02 03.2	09 04.59 +19 49.0 20.8	-1.03 + 3.9	1.0/02.5	38505
1998 SJ ₁₂₄	2000 02 02.6	09 02.28 +27 49.5 19.0	-1.09 + 3.7	3.6/31.2	35719	1998 QP ₅₅	2000 02 03.2	09 04.59 +20 50.1 19.3	-0.95 + 3.8	1.2/02.3	35711
1991 PH ₇	2000 02 02.6	09 02.31 +20 49.8 19.0	-1.11 + 4.1	1.4/01.8	38756	1998 WF ₁	2000 02 03.2	09 04.61 +39 47.8 17.3	-1.14 +12.2	7.0/26.8	37803
(13063)	2000 02 02.6	09 02.40 +08 48.5 18.1	-1.06 + 4.8	2.9/04.5	37503	1999 XN ₃₃	2000 02 03.2	09 04.74 +14 41.1 16.9	-1.06 + 3.9	0.8/03.7	38836
2000 AT ₆₁	2000 02 02.6	09 02.54 +18 02.9 17.0	-0.98 + 6.8	0.6/02.4	38871	2000 AS ₁₂₉	2000 02 03.2	09 04.80 +15 04.5 17.5	-0.84 + 8.9	0.7/03.7	38879
(13478)	2000 02 02.6	09 02.55 +23 50.5 16.9	-1.79 - 8.9	3.6/02.2	38310	(13561)	2000 02 03.2	09 04.88 +36 21.7 17.4	-1.01 + 1.0	5.2/30.0	38332
1998 RW	2000 02 02.7	09 02.64 +15 32.3 18.7	-1.05 + 2.5	0.5/03.0	38489	2000 AN ₁₄₁	2000 02 03.2	09 04.91 +08 40.3 16.5	-1.01 + 8.3	3.3/05.4	38687
2000 AS ₄₁	2000 02 02.7	09 02.68 +25 56.3 17.5	-1.08 + 4.8	3.9/31.6	38633	1989 GF ₃	2000 02 03.3	09 04.96 +09 31.4 18.4	-1.00 + 4.2	2.7/04.9	38434
1998 SY ₅₃	2000 02 02.7	09 02.76 +03 22.1 18.3	-0.94 + 5.7	4.8/06.1	38790	1988 BY ₃	2000 02 03.3	09 05.04 +10 20.9 16.6	-0.90 + 7.4	2.6/05.0	38753
2000 AK ₁₄₁	2000 02 02.7	09 02.84 +07 11.1 17.1	-1.02 + 5.6	4.3/05.1	38880	1998 UW ₁₉	2000 02 03.3	09 05.04 +19 14.2 18.2	-0.85 + 3.4	0.8/02.7	38795
(13219)	2000 02 02.7	09 02.89 +09 25.3 17.1	-0.95 - 1.2	2.2/04.1	37545	2000 AM ₁₄₃	2000 02 03.3	09 05.27 +07 46.9 18.1	-1.00 + 3.5	3.8/05.3	38690
1998 QV ₈₈	2000 02 02.7	09 02.93 +07 37.8 18.8	-1.01 + 3.2	2.9/04.8	38484	2000 AJ ₁₆₂	2000 02 03.3	09 05.33 +17 01.7 17.2	-1.18 + 2.1	0.2/03.3	38696
2000 CM ₇	2000 02 02.8	09 03.11 +22 15.3 18.0	-0.91 + 3.7	2.1/01.6	38894	2000 AZ ₁₉₇	2000 02 03.3	09 05.36 +01 33.2 16.9	-0.94 - 1.5	5.2/06.1	38884
2000 AW ₆₁	2000 02 02.8	09 03.11 +15 47.3 17.8	-0.94 + 2.3	0.3/03.1	38643	2000 AH ₁₆₂	2000 02 03.3	09 05.38 +17 39.6 17.8	-1.07 + 2.3	0.4/03.2	38696
1998 VB ₂₈	2000 02 02.8	09 03.21 +19 09.5 18.0	-0.85 + 2.6	0.6/02.3	38797	2000 BS ₉	2000 02 03.3	09 05.40 +16 03.4 17.9	-0.96 + 6.3	0.2/03.5	38718
2000 AT ₆₃	2000 02 02.9	09 03.31 +16 20.5 17.0	-1.16 - 0.7	0.2/03.0	38645	1998 QM ₈₀	2000 02 03.4	09 05.34 +01 13.1 20.8	-0.90 + 6.4	4.6/07.5	33561
1999 XU ₃₄	2000 02 02.9	09 03.36 +06 23.8 16.8	-1.18 - 3.6	3.9/04.4	38836	1998 YU ₆	2000 02 03.4	09 05.48 +02 03.1 17.1	-0.79 + 1.5	3.9/06.6	38799
(13901)	2000 02 02.9	09 03.43 +08 39.7 18.2	-0.85 + 2.6	2.4/04.7	38428	1995 YR	2000 02 03.4	09 05.54 +32 31.6 16.9	-1.15 + 6.5	6.6/30.3	38767
1998 SK ₁₁₈	2000 02 02.9	09 03.44 +27 10.9 17.0	-1.17 + 3.1	4.0/31.7	38792	2000 BH ₁₃	2000 02 03.4	09 05.56 +16 20.8 18.4	-0.83 + 4.2	0.1/03.5	38719
1998 QD	2000 02 02.9	09 03.45 +15 15.4 20.1	-1.00 + 5.2	0.5/03.3	38473	2000 AE ₆₃	2000 02 03.4	09 05.56 +21 57.7 17.8	-1.03 0.0	2.0/02.5	38644
2000 AD ₁₂₇	2000 02 02.9	09 03.47 +10 00.2 17.1	-0.87 + 1.0	1.9/04.3	38679	2000 AA ₁₂₇	2000 02 03.4	09 05.56 +14 45.9 17.1	-0.85 + 3.9	0.6/03.9	38679
(13131)	2000 02 02.9	09 03.57 +10 35.0 17.5	-0.96 + 4.5	2.5/04.4	37522	1998 SQ ₂	2000 02 03.4	09 05.62 +08 16.9 19.1	-1.01 + 1.1	2.4/05.1	38789
1998 ST ₁₄₃	2000 02 02.9	09 03.60 +13 57.2 18.8	-0.90 + 3.7	0.9/03.6	38517	2000 AB ₆₂	2000 02 03.4	09 05.65 +18 49.9 18.2	-0.89 + 4.6	0.8/02.9	38644
1998 SR ₁₁₄	2000 02 02.9	09 03.67 +18 09.5 18.3	-1.08 + 5.8	0.5/02.7	38792	1999 XU ₉₄	2000 02 03.4	09 05.67 +20 05.7 16.9	-0.98 + 4.1	1.5/02.7	38844
2000 AZ ₁₂₆	2000 02 02.9	09 03.72 +13 11.8 16.9	-0.92 + 2.1	1.1/03.7	38679	1998 QA ₁₁	2000 02 03.5	09 06.00 +23 19.7 17.3	-1.35 + 2.8	3.0/02.2	38780
1991 RF ₁	2000 02 02.9	09 03.75 +15 32.3 18.2	-1.08 + 5.7	0.4/03.3	38756	1998 QA ₂₀	2000 02 03.5	09 06.07 +13 27.0 17.7	-1.06 + 0.7	1.1/04.2	33559

(12737)	2000 02 03.5	09 06.21 +23 33.5 17.1	-1.04 + 6.4	2.4/01.9	37048
1998 QG ₃₉	2000 02 03.6	09 06.14 +23 51.8 19.7	-1.04 + 2.2	2.2/02.1	33082
1998 SD ₇₂	2000 02 03.6	09 06.16 +20 03.5 19.0	-0.88 + 3.9	1.0/02.8	34304
2000 AQ ₁₂₇	2000 02 03.6	09 06.22 +14 23.3 17.0	-0.96 + 3.2	0.7/04.1	38680
1997 FN ₃	2000 02 03.6	09 06.39 +24 09.3 19.0	-1.08 + 4.1	2.5/01.9	34296
1998 TM ₃₂	2000 02 03.6	09 06.42 +15 58.5 17.7	-1.03 + 4.0	0.2/03.8	38795
1997 GY ₁₇	2000 02 03.6	09 06.57 +28 38.0 18.0	-1.20 + 3.2	5.3/01.0	35699
1998 SC ₁₃₂	2000 02 03.7	09 06.57 +15 25.2 18.5	-1.13 + 3.4	0.4/04.0	38514
2000 AB ₁₂₇	2000 02 03.7	09 06.58 +14 12.8 16.9	-0.94 + 0.7	0.8/04.2	38679
1998 QS ₁₈	2000 02 03.7	09 06.62 +14 01.8 18.8	-1.13 + 3.7	0.9/04.3	33081
(9757)	2000 02 03.7	09 06.72 +15 52.3 17.3	-0.87 + 3.6	0.2/03.9	33201
1995 UL ₈	2000 02 03.7	09 06.89 +22 14.5 17.3	-1.06 + 4.1	2.6/02.5	38766
1993 BT ₁₄	2000 02 03.7	09 06.92 +11 33.5 16.4	-1.03 + 4.2	2.2/04.9	38759
1998 SR ₁₁₇	2000 02 03.7	09 06.95 +30 31.0 17.6	-1.07 + 1.6	4.7/31.8	38792
2000 AW ₁₂₉	2000 02 03.7	09 07.03 +12 54.8 17.8	-1.06 + 6.9	1.4/04.7	38684
1998 SF ₁₄₃	2000 02 03.8	09 07.07 +08 17.1 18.5	-0.86 + 4.8	2.8/05.8	38517
2000 AO ₁₄₃	2000 02 03.8	09 07.13 +08 59.4 18.1	-0.94 + 6.3	3.0/05.7	38690
(9903)	2000 02 03.8	09 07.20 +14 25.9 19.6	-0.79 + 3.6	0.5/04.4	38016
(13777)	2000 02 03.8	09 07.25 +15 19.4 17.8	-0.87 + 3.6	0.4/04.1	38394
2000 AN ₁₄₃	2000 02 03.8	09 07.28 +08 54.6 18.0	-0.85 + 6.3	2.2/06.0	38690
2000 CF ₂₁	2000 02 03.8	09 07.32 +11 18.6 18.0	-0.98 + 4.7	1.8/05.1	38727
1997 JJ ₁₄	2000 02 03.8	09 07.33 +15 25.1 20.3	-1.01 + 5.2	0.4/04.1	38773
1998 WL ₂	2000 02 03.8	09 07.38 -00 50.4 19.0	-0.72 + 7.3	4.6/08.9	35725
2000 CJ ₂₁	2000 02 03.8	09 07.40 +07 53.4 18.5	-1.03 + 4.7	3.5/05.8	38727
1999 XV ₃₃	2000 02 03.8	09 07.42 +14 30.2 16.7	-1.15 + 4.9	0.9/04.3	38836
1993 FB ₂₂	2000 02 03.9	09 07.46 +18 22.1 17.2	-1.04 + 4.0	0.8/03.5	38760
4021 T-3	2000 02 03.9	09 07.64 +22 10.3 19.4	-1.10 + 5.1	2.2/02.7	26417
1997 PJ	2000 02 03.9	09 07.70 +07 38.7 18.7	-0.85 + 4.9	2.7/06.1	38774
1998 WC ₁₆	2000 02 03.9	09 07.80 +30 46.6 17.8	-0.91 + 4.9	4.1/31.3	38535
1998 OS ₁₃	2000 02 03.9	09 07.81 +18 36.8 17.9	-1.12 - 0.4	0.8/03.6	38779
1998 RM ₁₆	2000 02 03.9	09 07.83 +14 36.3 20.6	-1.13 + 4.2	0.7/04.4	35714
(13285)	2000 02 03.9	09 07.84 +07 32.3 17.9	-0.95 + 5.8	3.2/06.2	37563
2000 AP ₂	2000 02 04.0	09 07.77 +29 19.5 17.6	-1.17 + 3.6	5.0/01.2	38622
1991 VA ₅	2000 02 04.0	09 07.98 +39 16.7 15.8	-1.04 + 8.7	10.1/28.1	38757
1999 XE ₃₃	2000 02 04.0	09 08.14 +19 20.4 17.3	-0.99 + 5.4	1.3/03.4	38836
1999 VO ₂	2000 02 04.1	09 08.25 +30 23.6 16.9	-1.08 +13.7	4.9/30.9	38813
1994 WA ₄	2000 02 04.1	09 08.30 -02 27.0 16.8	-0.85 + 4.9	6.9/09.0	38764
1998 QX ₇₇	2000 02 04.1	09 08.33 +20 26.0 17.2	-1.11 + 0.2	1.4/03.4	38784
2000 BL ₂₁	2000 02 04.1	09 08.38 +16 02.2 17.2	-0.89 + 0.5	0.1/04.2	38721
1998 SB ₁₁₆	2000 02 04.1	09 08.46 +08 18.4 18.5	-0.82 + 4.0	2.4/06.1	38792
1998 RN ₅₈	2000 02 04.1	09 08.49 +15 14.5 17.1	-0.95 + 3.9	0.4/04.4	38787
(13226)	2000 02 04.1	09 08.52 +07 08.8 18.0	-0.87 + 1.8	2.8/06.2	37547
1998 VT ₄	2000 02 04.1	09 08.57 +14 57.6 18.7	-0.88 + 3.7	0.5/04.5	38527
1998 TE ₈	2000 02 04.1	09 08.61 +04 08.9 20.0	-1.00 + 4.6	4.1/07.0	34305
1981 EM ₃₇	2000 02 04.1	09 08.62 +12 05.4 17.8	-1.14 + 4.2	1.8/05.1	38751
1994 PG ₁₉	2000 02 04.1	09 08.65 +19 14.5 17.9	-1.05 + 2.7	1.0/03.6	38763
1989 RX	2000 02 04.2	09 08.61 +05 22.3 17.0	-0.91 + 3.7	3.5/06.8	38754
2000 AU ₁₂₉	2000 02 04.2	09 08.62 +16 29.9 17.0	-0.87 +12.5	0.0/04.2	38879
(9750)	2000 02 04.2	09 08.73 +35 34.2 18.5	-1.10 + 3.6	5.6/30.6	33199
1998 RM ₇₈	2000 02 04.2	09 08.75 +29 28.3 16.4	-1.09 + 4.1	5.3/01.1	38789
(13806)	2000 02 04.2	09 08.82 +18 02.5 18.0	-0.85 + 4.5	0.5/03.9	38402

2000 AM ₁₂₇	2000 02 04.2	09 08.83 +14 36.9 16.7	-0.98 + 9.2	0.7/04.7	38680
2000 BW ₂₂	2000 02 04.2	09 08.93 +14 11.7 18.3	-0.93 + 4.4	0.8/04.8	38722
2000 AO ₂	2000 02 04.2	09 08.93 +23 51.1 17.2	-1.13 + 4.9	3.3/02.6	38864
2000 AR ₁₂₇	2000 02 04.2	09 08.97 +13 30.7 17.6	-1.02 + 4.8	1.0/04.9	38680
1996 HB ₁₂	2000 02 04.2	09 09.04 +36 25.5 17.2	-0.98 + 3.3	5.5/30.2	38769
9548 P-L	2000 02 04.3	09 09.03 +13 40.3 20.9	-0.78 + 4.1	0.7/05.0	36122
1992 EF ₂₂	2000 02 04.3	09 09.05 +24 21.6 17.6	-1.04 + 3.7	3.2/02.5	38758
1998 QR ₁₆	2000 02 04.3	09 09.09 +14 54.2 18.7	-1.07 + 3.4	0.5/04.6	38475
(13227)	2000 02 04.3	09 09.13 +22 04.7 17.3	-0.89 + 2.5	1.8/03.0	37547
2000 AE ₅	2000 02 04.3	09 09.26 +21 34.7 17.3	-1.18 + 3.3	2.3/03.3	38865
(12766)	2000 02 04.3	09 09.30 +27 50.1 16.8	-0.88 + 5.4	3.6/01.4	37055
9093 P-L	2000 02 04.3	09 09.33 +17 59.7 19.5	-1.03 + 3.9	0.5/04.0	36122
1999 XF ₃₃	2000 02 04.3	09 09.37 +21 23.0 17.2	-0.91 + 7.9	1.9/03.0	38836
2496 T-3	2000 02 04.4	09 09.38 +02 41.8 18.2	-0.81 + 3.8	4.2/07.7	33590
1998 RV ₇₄	2000 02 04.4	09 09.39 +16 38.5 19.1	-0.97 + 3.8	0.1/04.3	38788
2000 AU ₁₄₁	2000 02 04.4	09 09.42 +06 38.9 17.7	-1.05 + 3.7	3.8/06.6	38688
1999 XB ₃₃	2000 02 04.4	09 09.59 +19 21.2 16.4	-0.95 + 6.8	1.4/03.7	38836
(13775)	2000 02 04.4	09 09.61 +28 17.1 16.8	-1.06 + 2.7	4.7/01.7	38393
1998 SU ₁₄₇	2000 02 04.4	09 09.64 +21 15.3 17.4	-0.95 + 4.6	1.7/03.3	38794
2000 AF ₆₂	2000 02 04.4	09 09.73 +21 23.2 16.4	-0.89 +11.4	2.0/03.0	38871
1998 SN ₈	2000 02 04.4	09 09.76 +09 53.5 19.7	-1.06 + 5.9	2.6/06.0	33015
1998 SJ ₄₈	2000 02 04.4	09 09.85 +17 57.5 19.0	-0.90 + 3.6	0.5/04.1	34592
2000 BX ₂₂	2000 02 04.4	09 09.85 +13 12.8 18.2	-1.03 + 2.9	1.1/05.2	38722
2000 AK ₆₂	2000 02 04.5	09 09.79 +15 14.1 16.4	-0.93 + 0.2	0.4/04.7	38871
1998 OY ₄	2000 02 04.5	09 09.81 +01 46.4 17.3	-0.95 + 4.0	5.8/08.0	38779
1998 RM ₃₄	2000 02 04.5	09 09.87 +15 08.0 16.9	-1.00 + 8.9	0.5/04.8	38786
(13842)	2000 02 04.5	09 09.88 +14 05.8 16.5	-1.01 + 1.1	0.8/05.0	38412
1998 QK ₂₉	2000 02 04.5	09 09.93 +10 31.0 18.6	-1.04 + 2.3	2.3/06.0	38477
1998 SB ₆₆	2000 02 04.5	09 10.01 +22 38.6 18.6	-0.97 + 4.8	1.9/03.0	38063
(13701)	2000 02 04.5	09 10.06 +09 21.9 17.6	-1.06 + 4.6	3.1/06.2	38371
1998 QK ₅₁	2000 02 04.5	09 10.07 +09 24.6 16.9	-0.99 + 6.9	2.9/06.3	38783
(13677)	2000 02 04.5	09 10.08 +13 20.1 18.0	-0.81 + 3.4	0.9/05.3	38365
2000 AN ₆₄	2000 02 04.5	09 10.08 +20 57.3 17.8	-1.07 + 1.0	1.8/03.7	38646
(12910)	2000 02 04.5	09 10.09 +18 00.4 17.2	-0.94 + 5.5	0.6/04.1	37094
1998 SE ₁₃₃	2000 02 04.5	09 10.19 +14 41.3 19.7	-1.03 + 4.1	0.5/05.0	38515
1994 PK ₁₇	2000 02 04.6	09 10.19 +13 10.7 19.6	-0.96 + 5.7	1.1/05.4	32747
1998 ST ₅₈	2000 02 04.6	09 10.24 +12 41.1 17.9	-1.08 + 5.9	1.3/05.5	38507
1997 EM ₁₅	2000 02 04.6	09 10.42 +24 30.9 18.9	-1.20 + 3.2	3.2/02.9	38771
1998 VP ₁₆	2000 02 04.6	09 10.43 +27 51.5 17.7	-0.95 + 6.4	4.1/01.6	38529
2000 CV ₂₀	2000 02 04.6	09 10.45 +14 51.5 18.2	-0.87 + 3.9	0.5/05.0	38727
(13599)	2000 02 04.6	09 10.49 +12 19.6 18.0	-0.94 + 6.7	1.3/06.0	38343
1998 QK ₆₁	2000 02 04.6	09 10.50 +11 24.0 16.8	-0.98 + 8.1	2.1/06.0	38784
1999 XV ₁₆₄	2000 02 04.6	09 10.51 +24 24.8 16.2	-0.93 + 6.0	3.4/02.6	38854
1993 FQ ₃₅	2000 02 04.6	09 10.51 +22 17.9 17.6	-1.09 + 4.2	2.3/03.3	38760
(13525)	2000 02 04.6	09 10.54 +19 14.3 17.6	-0.86 + 4.4	0.9/03.9	38323
2000 AU ₁₂₇	2000 02 04.6	09 10.60 +15 44.8 18.1	-1.09 + 6.1	0.2/04.8	38681
1998 TO ₆	2000 02 04.6	09 10.63 +09 21.7 19.0	-1.02 + 4.6	2.5/06.0	38520
1992 DR ₆	2000 02 04.7	09 10.60 +18 39.4 18.0	-0.96 + 5.1	0.9/04.1	38440
1999 XV ₂₁	2000 02 04.7	09 10.65 +19 27.4 17.1	-0.95 +12.0	1.4/03.8	38834
1993 FL ₉	2000 02 04.7	09 10.73 +15 18.6 18.0	-0.98 + 6.2	0.3/05.0	38759
(13228)	2000 02 04.7	09 10.74 +19 46.7 17.6	-0.80 + 3.8	0.9/03.9	37547

2000 FEB. 22

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(9802)	2000 02 04.7	09 10.82 +22 47.7 18.8	-1.01 + 3.8	2.1/03.2	38016
1998 RP ₂₀	2000 02 04.7	09 10.83 +00 45.9 20.4	-0.89 + 2.8	4.6/08.3	33563
2000 AL ₂	2000 02 04.7	09 10.88 +25 07.8 17.4	-0.90 + 4.2	2.6/02.6	38622
1998 RO ₆₆	2000 02 04.7	09 10.91 +21 28.6 17.3	-0.95 + 1.3	1.9/03.7	38787
2000 AX ₆₃	2000 02 04.7	09 10.94 +16 12.3 16.9	-0.89 + 1.7	0.0/04.8	38645
1990 QA ₈	2000 02 04.7	09 10.95 +15 05.7 19.4	-0.98 + 5.4	0.4/05.1	38755
1998 SQ ₁₁₀	2000 02 04.7	09 10.95 +22 20.8 18.0	-1.21 + 3.4	2.3/03.5	38792
1998 QH ₄₄	2000 02 04.7	09 10.95 +14 36.9 18.2	-1.06 + 7.5	0.6/05.2	38782
2000 AY ₉₄	2000 02 04.8	09 11.01 +15 40.0 17.2	-0.82 + 3.9	0.2/04.9	38660
1998 OD ₁₅	2000 02 04.8	09 11.04 +17 52.0 19.3	-1.10 + 3.6	0.6/04.5	32758
1997 EM ₅₄	2000 02 04.8	09 11.15 +22 14.3 18.3	-1.14 + 3.8	2.3/03.5	37139
1998 RJ ₄₉	2000 02 04.8	09 11.23 +17 33.7 17.1	-1.00 + 3.6	0.5/04.5	38786
(13888)	2000 02 04.8	09 11.29 +23 06.7 17.9	-1.13 + 2.8	2.6/03.4	38424
(9788)	2000 02 04.8	09 11.35 +18 40.9 17.0	-0.85 + 4.1	0.8/04.3	33208
1998 VQ ₇	2000 02 04.8	09 11.49 +27 20.1 17.0	-1.09 + 5.7	4.0/02.1	38796
1998 QH ₉₅	2000 02 04.8	09 11.49 +00 02.1 17.9	-1.03 + 0.2	6.3/08.2	38785
2000 BC ₂₆	2000 02 04.9	09 11.50 +17 59.7 17.8	-0.83 + 4.4	0.6/04.5	38723
1999 XG ₃₃	2000 02 04.9	09 11.53 +09 01.7 15.4	-0.95 + 0.1	3.5/06.4	38836
2000 AM ₁₉₈	2000 02 04.9	09 11.60 +04 04.1 17.1	-1.01 + 4.1	5.2/07.8	38705
1999 XJ ₃₃	2000 02 04.9	09 11.61 +11 43.3 16.5	-0.90 + 3.1	2.0/06.0	38836
1994 TN ₁₅	2000 02 04.9	09 11.66 +14 29.7 19.4	-0.96 + 4.6	0.6/05.4	38764
1998 SC ₁₃₉	2000 02 04.9	09 11.68 +09 12.2 18.1	-1.03 + 4.2	2.6/06.5	38793
2000 BY ₂₂	2000 02 04.9	09 11.75 +13 36.2 17.7	-0.89 + 5.0	1.0/05.6	38722
1998 QT ₇₆	2000 02 04.9	09 11.76 +08 19.5 16.7	-1.12 + 1.6	3.6/06.5	38784
1998 QL ₈₄	2000 02 04.9	09 11.88 +08 43.8 16.9	-1.04 + 0.3	2.7/06.5	38784
1999 XZ ₂₁	2000 02 05.0	09 11.81 +15 43.3 16.7	-0.91 + 9.5	0.2/05.1	38834
1994 PL ₁₁	2000 02 05.0	09 11.94 +14 09.1 17.9	-1.05 + 2.8	0.7/05.5	38763
2000 CF ₇₅	2000 02 05.0	09 12.02 +20 48.3 18.7	-1.10 + 5.8	1.6/03.9	38731
1996 CX ₈	2000 02 05.0	09 12.07 +25 47.2 17.7	-1.05 + 2.7	3.4/02.9	38768
1997 PP ₂	2000 02 05.0	09 12.18 +12 58.9 19.1	-0.95 - 0.8	0.9/05.7	38461
(13713)	2000 02 05.0	09 12.19 +14 35.3 18.3	-1.09 + 5.5	0.6/05.4	38375
1998 UH	2000 02 05.0	09 12.19 +22 19.1 18.9	-0.99 - 0.1	1.6/03.9	37794
1998 TH ₅	2000 02 05.0	09 12.24 +16 11.7 18.5	-0.82 + 4.3	0.0/05.1	38794
1998 UL ₂₅	2000 02 05.0	09 12.25 +10 10.6 19.0	-0.91 + 5.2	1.8/06.6	38796
2000 AQ ₁₄₁	2000 02 05.1	09 12.20 +09 57.6 17.9	-0.86 + 7.3	1.9/06.8	38688
1998 RZ ₄₈	2000 02 05.1	09 12.24 +12 23.9 19.7	-0.91 + 4.6	1.2/06.0	38786
1998 TV ₂₆	2000 02 05.1	09 12.25 +23 14.0 18.4	-1.09 + 4.4	2.6/03.5	38795
1998 RW ₄₂	2000 02 05.1	09 12.26 +08 57.6 19.8	-1.04 + 4.5	2.5/06.8	35714
1998 TT ₃₁	2000 02 05.1	09 12.35 +31 05.2 18.2	-0.92 + 4.5	4.6/01.3	35721
1981 EB ₈	2000 02 05.1	09 12.35 +17 14.9 17.2	-1.13 + 0.4	0.5/04.9	38751
1979 MS ₇	2000 02 05.1	09 12.39 +09 57.6 19.8	-0.89 + 3.5	1.9/06.6	30779
1999 XD ₁₈₀	2000 02 05.1	09 12.48 +33 21.4 16.8	-1.16 + 5.3	7.3/31.6	38857
(13511)	2000 02 05.1	09 12.48 +30 53.5 17.6	-0.99 + 6.0	4.5/01.3	38319
1993 TM ₂₂	2000 02 05.1	09 12.49 +06 04.7 17.7	-0.82 + 5.9	3.3/07.8	38446
1999 XT ₁₆₄	2000 02 05.1	09 12.55 +24 56.7 17.2	-0.94 + 4.7	3.9/03.0	38853
2000 AQ ₂	2000 02 05.1	09 12.55 +31 58.6 17.6	-0.88 + 3.2	4.1/01.2	38622
1998 SH ₁₃₆	2000 02 05.1	09 12.64 +18 50.5 19.0	-1.08 + 5.7	0.9/04.5	33759
1999 YR ₁₃	2000 02 05.2	09 12.61 +13 07.5 16.6	-1.09 + 3.7	1.1/05.9	38863
(13644)	2000 02 05.2	09 12.68 +16 47.8 17.5	-0.83 + 3.7	0.2/05.1	38355
1998 TJ ₃₄	2000 02 05.2	09 12.68 +10 44.2 18.0	-0.80 + 4.9	1.6/06.6	38795
1995 GW ₂	2000 02 05.2	09 12.69 +39 46.1 18.8	-1.07 + 2.0	8.7/30.1	38034

1998 TQ ₃₀	2000 02 05.2	09 12.75 +13 17.7 18.6	-0.95 + 4.2	0.9/05.9	38795
(9803)	2000 02 05.2	09 12.77 +23 16.9 18.3	-1.05 + 4.0	2.4/03.6	38016
1998 SM ₄₉	2000 02 05.2	09 12.79 +16 41.6 19.2	-0.84 + 3.8	0.2/05.1	38790
2000 AP ₆₃	2000 02 05.2	09 12.79 +23 46.7 17.5	-1.04 + 8.3	3.2/03.2	38871
1998 SV ₁₃₆	2000 02 05.2	09 12.95 +28 53.6 17.9	-1.01 + 4.7	4.4/02.1	38516
(13700)	2000 02 05.2	09 13.04 +14 41.4 17.9	-1.15 + 2.9	0.5/05.6	38371
1993 FR ₅₂	2000 02 05.3	09 13.01 +13 21.3 17.9	-0.88 + 7.6	1.4/06.0	38760
2000 AB ₆₄	2000 02 05.3	09 13.01 +19 52.5 17.6	-1.11 + 5.5	1.4/04.4	38871
1993 FZ ₆	2000 02 05.3	09 13.05 +21 00.4 18.2	-1.05 + 5.1	1.7/04.1	38759
3495 T-3	2000 02 05.3	09 13.14 +20 24.1 20.3	-0.95 + 4.1	1.2/04.3	33385
1998 RK ₇₄	2000 02 05.3	09 13.18 +06 42.8 20.3	-0.97 + 5.1	2.9/07.6	33352
2000 AC ₉₅	2000 02 05.3	09 13.21 +15 14.9 17.6	-1.15 + 2.6	0.3/05.5	38661
1998 SX ₇₂	2000 02 05.3	09 13.23 +26 44.6 17.8	-1.18 + 4.9	4.1/02.8	35718
2000 AJ ₁₅₃	2000 02 05.3	09 13.35 +20 45.4 17.5	-1.14 + 3.7	1.8/04.3	38693
1998 QL ₁₀₅	2000 02 05.3	09 13.38 +25 12.4 16.7	-1.10 + 6.3	4.2/03.1	38785
(12556)	2000 02 05.3	09 13.41 +05 22.8 17.0	-0.95 + 5.8	4.4/08.1	36757
1998 SG ₄	2000 02 05.3	09 13.44 +13 50.7 17.9	-1.14 + 3.4	1.0/05.9	38789
1994 PU ₂	2000 02 05.3	09 13.44 +16 09.6 19.3	-1.02 + 3.7	0.0/05.4	38762
1998 SE ₄₇	2000 02 05.4	09 13.46 +25 07.1 17.3	-0.91 + 3.4	3.0/03.2	38790
1999 XL ₃₃	2000 02 05.4	09 13.50 +13 12.9 16.9	-1.09 + 3.0	1.3/06.0	38836
1998 TZ ₁₇	2000 02 05.4	09 13.62 +28 02.5 15.7	-1.19 - 1.2	4.7/03.2	38521
1989 SA ₂	2000 02 05.4	09 13.65 +25 36.9 19.9	-0.96 + 4.3	2.9/03.1	34284
1997 FD ₄	2000 02 05.4	09 13.65 +07 34.9 17.8	-0.99 + 7.2	3.6/07.6	38772
1998 SQ ₁₄₄	2000 02 05.4	09 13.71 +14 58.6 17.2	-0.88 + 4.0	0.4/05.7	38794
2000 AJ ₁₉₈	2000 02 05.4	09 13.74 +05 05.4 18.2	-0.81 + 2.5	3.3/08.1	38705
2000 AP ₁₆₂	2000 02 05.4	09 13.76 +23 28.1 18.3	-1.23 + 3.2	3.2/03.9	38696
1979 ML ₆	2000 02 05.4	09 13.77 +14 39.1 18.5	-0.98 + 6.0	0.5/05.8	38751
1998 QO ₇₄	2000 02 05.4	09 13.79 +05 24.0 17.1	-1.03 + 0.5	4.0/07.6	38784
1996 HT ₁₅	2000 02 05.5	09 13.82 +14 32.3 17.2	-0.85 + 4.5	0.5/05.9	38769
(12893)	2000 02 05.5	09 13.84 +13 16.0 17.8	-0.87 + 4.4	0.9/06.2	37090
1999 XS ₃₄	2000 02 05.5	09 13.86 +22 19.2 17.4	-0.98 + 7.5	2.5/03.8	38836
2000 AO ₁₂₇	2000 02 05.5	09 13.87 +13 21.2 17.1	-0.87 + 8.9	1.0/06.0	38878
2000 AS ₁₂₇	2000 02 05.5	09 13.92 +14 51.3 17.2	-0.92 + 7.8	0.5/05.8	38680
1998 RS ₄₈	2000 02 05.5	09 13.95 +13 03.3 17.7	-0.88 + 4.0	1.0/06.2	38786
(12745)	2000 02 05.5	09 13.96 +16 02.0 16.4	-1.17 + 3.7	0.0/05.5	37050
1997 KE ₃	2000 02 05.5	09 13.98 -02 55.0 19.7	-0.87 + 4.2	5.8/10.4	33344
4084 P-L	2000 02 05.5	09 14.10 +12 41.9 19.1	-0.93 + 4.3	1.0/06.3	38906
1998 WA ₈	2000 02 05.5	09 14.11 +32 08.4 17.2	-0.92 + 4.2	4.6/01.4	34596
1999 VH ₈	2000 02 05.5	09 14.28 +20 54.2 16.7	-0.83 + 7.0	1.5/04.2	38814
1998 VX ₃₆	2000 02 05.5	09 14.31 +17 53.2 18.1	-1.07 + 3.9	0.7/05.2	38531
(13524)	2000 02 05.5	09 14.32 +10 26.4 18.3	-1.04 + 4.7	1.9/06.9	38322
(13466)	2000 02 05.6	09 14.21 +01 19.5 17.7	-0.81 + 3.7	4.6/09.3	37614
(13256)	2000 02 05.6	09 14.23 +14 32.1 16.9	-0.95 + 9.2	0.5/06.0	37555
1998 SL ₁₄₀	2000 02 05.6	09 14.24 +13 51.8 19.7	-0.96 + 3.9	0.7/06.1	35720
2000 AZ ₆₃	2000 02 05.6	09 14.26 +17 41.2 17.0	-1.06 + 1.2	0.7/05.3	38645
1989 GN ₃	2000 02 05.6	09 14.26 +00 48.0 16.3	-0.73 + 6.5	5.4/09.9	38754
1995 YY ₅	2000 02 05.6	09 14.28 +20 18.7 18.8	-1.09 + 5.9	1.5/04.6	38767
2000 CS ₆₄	2000 02 05.6	09 14.29 +20 29.0 18.3	-0.87 + 4.0	1.4/04.5	38730
1998 SW ₁₀	2000 02 05.6	09 14.42 +02 52.1 20.6	-0.87 + 5.8	3.7/09.1	35716
1997 GC ₃₃	2000 02 05.6	09 14.43 +18 47.3 17.0	-1.11 + 3.2	1.3/05.0	38773
6297 P-L	2000 02 05.6	09 14.45 +34 28.3 19.3	-1.21 + 0.1	6.6/01.9	32785

1981 EE ₄₈	2000 02 05.6	09 14.47 +01 20.7 20.1	-0.81 + 6.4	5.2/09.6	26923
2000 AN ₁₉₈	2000 02 05.6	09 14.47 +05 03.3 18.0	-0.95 + 6.4	4.3/08.4	38705
1995 WZ ₄₁	2000 02 05.6	09 14.55 -23 04.7 17.6	-1.08 + 2.6	13.7/17.6	38036
1980 FQ ₁	2000 02 05.6	09 14.60 +04 00.8 17.8	-0.79 + 5.9	3.7/08.9	38751
1998 WB	2000 02 05.7	09 14.62 +21 04.6 17.8	-0.80 + 9.3	1.5/04.2	38797
1992 VF	2000 02 05.7	09 14.65 +11 16.0 17.5	-1.10 + 5.8	1.9/06.8	38442
1998 QZ ₄₈	2000 02 05.7	09 14.65 +14 23.1 18.3	-1.04 + 5.8	0.6/06.1	38481
1981 EL ₁₁	2000 02 05.7	09 14.73 +08 19.7 18.6	-1.09 + 3.1	3.6/07.4	38431
(13744)	2000 02 05.7	09 14.78 +25 34.6 17.6	-1.00 + 3.6	3.2/03.5	38384
1998 OQ ₁₁	2000 02 05.7	09 14.83 +15 40.5 19.5	-1.03 + 5.5	8.7/26.0	38471
(13760)	2000 02 05.7	09 14.83 +19 49.8 18.2	-0.99 + 3.9	1.2/04.8	38389
(13658)	2000 02 05.7	09 14.90 +10 54.2 17.8	-1.08 + 6.2	2.1/07.0	38359
2000 AT ₁₄₁	2000 02 05.7	09 14.92 +07 43.1 17.5	-0.76 + 6.1	2.5/08.0	38688
1998 UP ₈	2000 02 05.7	09 14.93 +14 05.6 18.6	-0.91 + 3.8	0.6/06.2	34306
1998 SA ₇₄	2000 02 05.7	09 15.01 +26 36.5 17.9	-1.03 + 4.4	3.7/03.2	33758
(12914)	2000 02 05.7	09 15.03 +38 00.3 16.2	-1.17 + 1.8	8.3/31.5	37095
1999 XU ₃₃	2000 02 05.7	09 15.10 +15 14.4 17.2	-0.97 + 4.1	9.5/26.0	38584
(9726)	2000 02 05.7	09 15.10 +14 32.8 18.1	-0.87 + 3.8	0.4/06.1	33193
1998 VT ₂₇	2000 02 05.8	09 15.03 +31 46.5 18.0	-0.94 + 3.7	4.6/01.8	38530
2000 CP ₇₃	2000 02 05.8	09 15.05 +15 30.7 18.8	-0.91 + 7.7	8.6/17.0	38731
(13688)	2000 02 05.8	09 15.07 +16 48.6 18.4	-0.82 + 2.6	0.2/05.6	38368
1998 QN ₆	2000 02 05.8	09 15.08 +26 11.6 18.4	-1.03 + 3.6	3.3/03.4	35709
2000 AB ₉₅	2000 02 05.8	09 15.17 +13 54.9 17.7	-1.08 + 1.4	0.9/06.2	38661
1997 GC ₁₅	2000 02 05.8	09 15.22 +20 18.5 18.9	-1.10 + 3.7	1.6/04.9	38772
1994 PG	2000 02 05.8	09 15.36 +07 45.2 16.4	-0.89 +11.0	3.4/08.3	38762
(12909)	2000 02 05.8	09 15.39 +19 53.3 16.7	-1.00 + 3.5	1.6/05.0	37094
1999 XX ₁₆₄	2000 02 05.8	09 15.40 +14 42.6 16.4	-1.12 - 2.9	0.6/06.0	38854
1999 XW ₁₆₄	2000 02 05.8	09 15.49 +26 18.7 16.8	-0.97 + 8.6	4.7/03.0	38854
(12680)	2000 02 05.8	09 15.49 +22 39.6 17.1	-1.15 + 4.6	3.0/04.3	37032
2000 AL ₆₄	2000 02 05.9	09 15.52 +21 25.7 17.7	-0.94 + 4.3	1.8/04.6	38646
1988 RQ ₄	2000 02 05.9	09 15.61 +14 48.6 19.2	-1.08 + 5.1	0.4/06.2	32511
1990 RT ₈	2000 02 05.9	09 15.71 +14 29.9 18.9	-0.96 + 5.2	0.4/06.3	38755
1998 RX ₆₈	2000 02 05.9	09 15.72 +28 24.8 17.6	-1.08 + 2.2	4.1/03.2	38060
1991 RH ₁₄	2000 02 05.9	09 15.74 +18 07.1 16.6	-1.14 + 1.2	1.0/05.5	38756
2000 AW ₂₃₇	2000 02 05.9	09 15.79 +14 15.3 17.7	-0.98 + 3.1	0.6/06.3	38713
(13533)	2000 02 05.9	09 15.80 +17 41.1 17.8	-0.80 + 4.1	0.5/05.5	38325
1998 UO ₆	2000 02 05.9	09 15.89 +15 48.3 18.8	-0.87 + 4.8	7.8/26.0	38795
(13648)	2000 02 06.0	09 15.96 +06 52.7 17.7	-0.79 + 5.6	2.7/08.4	38356
2000 CK ₃₁	2000 02 06.0	09 15.97 +10 12.5 18.4	-1.08 + 2.9	2.2/07.2	38728
1999 XP ₃₃	2000 02 06.0	09 16.00 +21 06.7 17.2	-1.02 + 7.3	2.3/04.7	38836
2000 AX ₁₂₇	2000 02 06.0	09 16.02 +14 25.8 17.2	-0.92 + 9.0	0.6/06.4	38878
1998 SN ₂₅	2000 02 06.0	09 16.10 +15 19.4 17.0	-0.87 + 6.3	0.2/06.2	38790
1996 DL ₁	2000 02 06.0	09 16.16 +15 59.9 17.2	-1.02 + 1.5	0.1/06.0	38768
3273 T-1	2000 02 06.0	09 16.16 +19 08.4 18.3	-1.07 + 4.4	1.2/05.3	38907
1993 QP ₉	2000 02 06.0	09 16.18 +16 11.0 18.4	-0.87 + 5.7	0.1/06.0	38761
1998 TJ ₃₂	2000 02 06.0	09 16.24 +09 02.0 18.4	-0.82 + 3.6	2.1/07.8	38521
5155 T-3	2000 02 06.0	09 16.31 +22 48.0 17.6	-0.84 + 6.5	2.1/04.2	38909
1998 RC ₅₂	2000 02 06.0	09 16.33 +24 18.3 20.0	-1.09 + 4.0	2.6/04.1	33564
1998 UB ₁	2000 02 06.1	09 16.25 +15 11.0 20.2	-0.87 + 4.0	0.2/06.3	38795
2000 BS ₂₀	2000 02 06.1	09 16.32 +15 51.1 18.5	-0.94 + 4.2	0.0/06.1	38721
2000 AT ₁₂₇	2000 02 06.1	09 16.40 +14 38.3 17.4	-0.80 + 3.9	0.4/06.4	38681

1998 QM ₉₀	2000 02 06.1	09 16.48 -03 02.4 17.2	-1.06 + 0.3	7.5/10.0	38485
1997 LZ ₄	2000 02 06.1	09 16.62 +08 36.2 18.5	-0.90 + 4.2	2.3/07.9	38773
1999 XM ₃₃	2000 02 06.1	09 16.63 +17 22.8 17.3	-0.92 + 6.8	0.7/05.8	38836
1998 SO ₃₅	2000 02 06.1	09 16.64 +12 19.3 18.2	-0.90 + 4.4	1.2/07.0	38503
(12282)	2000 02 06.1	09 16.68 +11 37.8 15.9	-0.89 + 7.6	1.6/07.3	36681
2000 AA ₁₂₈	2000 02 06.2	09 16.80 +12 48.4 17.0	-0.82 + 9.1	0.9/07.1	38681
(13778)	2000 02 06.2	09 16.82 -07 01.1 17.8	-0.87 + 4.6	8.1/12.2	38394
2000 AR ₁₄₅	2000 02 06.2	09 16.87 +07 02.5 18.1	-1.04 + 5.6	3.3/08.4	38692
1998 UC ₇	2000 02 06.2	09 16.96 -01 46.0 17.7	-0.81 + 3.9	5.6/10.8	38522
2000 AP ₄₇	2000 02 06.2	09 17.00 +16 22.6 18.1	-0.87 + 3.6	0.2/06.1	38634
(13514)	2000 02 06.2	09 17.03 +04 30.4 17.4	-1.05 + 3.2	4.3/08.7	38319
1998 YC ₆	2000 02 06.3	09 17.03 -05 07.8 17.1	-0.90 + 1.5	6.9/10.9	38799
2000 AD ₁₃₀	2000 02 06.3	09 17.12 +12 59.9 17.4	-1.14 + 0.8	1.2/06.9	38684
2000 AD ₆₄	2000 02 06.3	09 17.14 +18 36.1 17.9	-1.09 + 5.6	1.1/05.6	38646
1998 QV ₄₆	2000 02 06.3	09 17.17 +18 56.0 19.1	-1.07 + 1.0	1.0/05.7	33560
(13631)	2000 02 06.3	09 17.22 +05 12.2 18.2	-1.05 + 3.5	4.0/08.8	38351
(13018)	2000 02 06.3	09 17.24 -05 15.1 16.7	-0.90 + 3.4	6.8/11.4	37491
1999 XZ ₁₅	2000 02 06.3	09 17.25 +11 41.2 16.7	-1.01 + 3.8	1.9/07.3	38833
2000 AP ₆₇	2000 02 06.3	09 17.26 +16 49.4 17.8	-1.07 + 3.7	0.4/06.1	38648
1998 SS ₁₉	2000 02 06.3	09 17.27 +14 50.1 17.9	-0.96 + 4.2	0.3/06.6	38501
(13662)	2000 02 06.3	09 17.29 +23 36.4 18.0	-1.16 + 3.1	3.0/04.6	38360
1996 HW ₂₀	2000 02 06.3	09 17.29 +15 19.6 19.3	-0.77 + 3.9	0.1/06.5	38769
1998 VW ₈	2000 02 06.3	09 17.52 +16 23.6 17.7	-1.09 + 3.5	0.2/06.3	38796
1999 XY ₁₅	2000 02 06.4	09 17.44 +14 43.4 16.5	-0.95 + 6.3	0.4/06.7	38833
1998 SR ₃₇	2000 02 06.4	09 17.46 +07 19.1 17.8	-0.90 + 4.5	2.8/08.5	38790
(13518)	2000 02 06.4	09 17.48 +02 46.1 18.1	-0.93 + 3.8	4.1/09.6	38321
(10417)	2000 02 06.4	09 17.53 +16 50.1 16.6	-0.84 + 3.8	0.3/06.2	34164
1997 JY ₄	2000 02 06.4	09 17.58 +34 24.3 19.1	-1.10 + 4.3	6.0/01.7	33498
2000 AY ₁₂₇	2000 02 06.4	09 17.59 +15 34.0 16.4	-0.87 + 9.8	0.1/06.5	38681
(13164)	2000 02 06.4	09 17.64 +06 02.3 17.7	-1.05 + 3.8	3.7/08.7	37530
(12922)	2000 02 06.4	09 17.66 +23 08.6 17.9	-0.81 + 5.0	2.1/04.5	37097
2000 AC ₄₈	2000 02 06.4	09 17.72 +18 14.6 17.5	-0.80 + 7.7	0.8/05.7	38869
1998 OW ₁₃	2000 02 06.4	09 17.72 +17 39.4 19.4	-1.12 + 2.7	0.7/06.0	32757
1999 XO ₃₃	2000 02 06.4	09 17.76 +23 25.4 15.9	-0.89 +11.2	2.9/04.1	38836
1999 XX ₂₁	2000 02 06.4	09 17.77 +08 58.9 16.8	-0.87 + 4.3	3.1/08.1	38834
1998 WN ₅	2000 02 06.4	09 17.78 +16 36.5 18.8	-0.85 + 3.7	0.2/06.3	38797
(12702)	2000 02 06.4	09 17.85 +19 00.3 17.8	-1.00 + 4.7	1.1/05.7	37038
1981 ES ₂₆	2000 02 06.4	09 17.93 +11 32.1 17.6	-0.98 + 4.8	1.7/07.5	38431
2000 AF ₆₄	2000 02 06.5	09 17.85 +19 00.2 17.4	-1.02 + 7.2	1.3/05.6	38646
1998 UJ ₂₃	2000 02 06.5	09 17.87 +05 10.2 18.6	-0.90 + 1.0	3.0/08.8	38525
1998 UE ₄₃	2000 02 06.5	09 17.90 +09 34.5 17.4	-0.90 + 3.3	2.1/08.0	38526
2000 BE ₂₃	2000 02 06.5	09 17.93 +13 21.2 18.5	-1.11 + 3.2	1.0/07.0	38722
1998 SQ ₁₄₀	2000 02 06.5	09 17.94 +19 58.0 19.4	-1.11 + 4.0	1.4/05.6	35720
2000 AC ₂₃₃	2000 02 06.5	09 18.08 +22 43.1 17.9	-1.11 + 2.2	3.2/05.0	38711
2000 AR ₆₄	2000 02 06.5	09 18.11 +21 55.3 17.6	-1.09 + 1.9	2.3/05.2	38647
1999 XT ₃₄	2000 02 06.5	09 18.17 +09 50.6 16.8	-1.04 - 0.3	2.4/07.7	38836
2000 AC ₁₃₀	2000 02 06.5	09 18.31 +10 35.2 17.6	-1.08 + 2.2	1.8/07.7	38684
2000 CF ₆₉	2000 02 06.5	09 18.33 +15 54.0 19.6	-0.99 + 5.5	0.1/06.5	38731
1998 SE ₆₆	2000 02 06.5	09 18.34 +33 52.7 17.6	-1.16 + 4.1	6.2/02.1	37774
(13544)	2000 02 06.6	09 18.26 +12 35.0 17.5	-0.92 + 7.9	1.1/07.5	38328
1998 SX ₉	2000 02 06.6	09 18.29 +09 11.8 19.7	-0.90 + 5.2	1.9/08.3	34022

2000 FEB. 22

M.P.C. 38925

2000 CG₂₃ 2000 02 06.6 09 18.33 +09 38.9 18.3 -0.90 + 5.0 2.2/08.1 38728
 1998 QO₄₇ 2000 02 06.6 09 18.35 +11 12.4 19.9 -0.84 + 5.4 1.3/07.8 32712
 1999 XL₃₄ 2000 02 06.6 09 18.48 +12 30.0 17.5 -0.97 + 5.8 1.4/07.5 38836
 (13195) 2000 02 06.6 09 18.50 +31 22.6 16.0 -1.18 + 5.9 6.9/02.5 37538
 2000 AF₁₆₄ 2000 02 06.6 09 18.55 +14 33.7 15.9 -0.89 +10.5 0.4/07.0 38697
 1998 QU₄₄ 2000 02 06.6 09 18.64 +13 59.3 18.0 -1.03 + 3.8 0.6/07.1 38782
 (13723) 2000 02 06.6 09 18.67 +09 04.2 18.0 -0.89 + 4.4 2.2/08.3 38378
 1999 XA₃₄ 2000 02 06.6 09 18.69 +15 49.1 16.6 -0.93 + 1.1 0.0/06.7 38836
 1999 XT₁₆₅ 2000 02 06.7 09 18.81 +21 44.1 17.1 -0.91 + 6.0 2.5/05.1 38854
 1999 XK₃₄ 2000 02 06.7 09 18.86 +11 24.9 17.4 -1.06 + 4.9 1.9/07.8 38836
 1999 XQ₃₃ 2000 02 06.7 09 18.89 +40 12.5 17.3 -1.31 +24.0 10.7/28.2 38836
 (13766) 2000 02 06.7 09 18.91 +17 48.0 17.9 -1.10 + 3.8 0.8/06.3 38391
 1998 RJ₆₀ 2000 02 06.7 09 19.00 +23 31.6 18.9 -1.05 + 2.0 2.5/05.1 38495
 1998 RV₄₈ 2000 02 06.7 09 19.03 +12 21.3 18.8 -0.97 + 4.4 1.3/07.6 35714
 2000 AB₆₅ 2000 02 06.7 09 19.03 +13 55.5 16.8 -1.09 - 1.4 0.7/07.1 38872
 1998 QU₂₈ 2000 02 06.7 09 19.08 +07 44.1 18.5 -1.02 + 4.3 3.1/08.7 38477
 1997 JN₁₆ 2000 02 06.8 09 19.04 +10 05.0 18.0 -0.91 + 4.9 1.7/08.2 38773
 1999 XA₂₂ 2000 02 06.8 09 19.11 +06 23.2 17.2 -0.95 + 1.3 3.5/08.8 38834
 1998 QK₁ 2000 02 06.8 09 19.17 +14 18.6 17.9 -1.12 + 2.6 0.5/07.1 38780
 1976 QK₂ 2000 02 06.8 09 19.34 +23 34.2 19.2 -0.94 + 4.9 2.2/04.8 38750
 1995 WA₂ 2000 02 06.8 09 19.40 +09 05.2 16.8 -0.93 + 5.0 3.2/08.5 38766
 1998 SK₁ 2000 02 06.9 09 19.47 +18 06.5 17.0 -0.84 + 4.0 0.8/06.3 38789
 1998 RC₆₂ 2000 02 06.9 09 19.48 +07 25.6 19.7 -0.98 + 6.3 2.9/09.0 34022
 1998 TH₂₉ 2000 02 06.9 09 19.64 +17 06.2 17.6 -0.88 + 3.6 0.5/06.6 38795
 2000 AG₆₄ 2000 02 06.9 09 19.67 +19 52.5 17.0 -1.00 + 9.1 1.7/05.7 38871
 1991 RG₁₇ 2000 02 06.9 09 19.69 +16 34.2 17.6 -1.03 + 6.1 0.4/06.7 38756
 1998 RS₇₉ 2000 02 06.9 09 19.70 +11 58.8 21.8 -0.91 + 5.6 1.1/07.9 33275
 2565 P-L 2000 02 06.9 09 19.72 +23 21.2 18.1 -1.07 + 3.8 2.9/05.1 38906
 1991 NV₆ 2000 02 06.9 09 19.74 +13 58.1 18.3 -0.81 + 2.4 0.4/07.3 38756
 1999 XZ₂₂₀ 2000 02 06.9 09 19.77 -03 44.8 16.6 -0.96 + 3.2 8.9/11.5 38614
 2000 BF₂₃ 2000 02 06.9 09 19.89 +14 25.2 18.0 -1.03 + 4.7 0.5/07.3 38723
 1998 UC₃ 2000 02 06.9 09 19.91 +15 56.1 17.9 -0.89 + 3.7 0.1/06.9 38795
 1998 TQ₃₁ 2000 02 06.9 09 19.93 +04 31.0 17.6 -1.00 + 5.9 4.3/09.8 38795
 2000 AE₁₂₈ 2000 02 07.0 09 19.96 +12 18.3 17.2 -0.89 + 6.3 1.2/07.9 38681
 1993 TF₁₆ 2000 02 07.0 09 19.99 +03 50.4 20.8 -0.82 + 5.0 3.3/10.1 32933
 1998 SF₅₇ 2000 02 07.0 09 20.11 +17 58.8 18.4 -1.02 + 4.7 0.8/06.5 38506
 1999 XS₃₃ 2000 02 07.0 09 20.15 +21 32.2 16.6 -1.03 + 7.7 2.3/05.5 38836
 1998 RC₁₆ 2000 02 07.0 09 20.17 +22 59.9 18.6 -1.07 + 5.0 2.6/05.2 34021
 1998 SD₁₅₉ 2000 02 07.0 09 20.31 +16 06.1 16.8 -0.95 + 3.0 0.2/07.0 38794
 2000 BW₂₀ 2000 02 07.1 09 20.26 +15 43.9 19.2 -1.00 + 7.5 0.1/07.1 38721
 1998 US₃₇ 2000 02 07.1 09 20.31 +27 43.1 18.5 -1.13 + 5.0 4.5/04.1 34027
 2000 AJ₁₂₈ 2000 02 07.1 09 20.32 +07 15.0 17.5 -1.04 + 0.9 3.2/08.8 38682
 1999 XE₁₆₄ 2000 02 07.1 09 20.33 +20 54.6 16.9 -0.97 + 4.2 2.3/05.8 38853
 2000 AD₉₅ 2000 02 07.1 09 20.37 +14 54.3 16.7 -0.91 + 1.4 0.2/07.3 38875
 4281 T-2 2000 02 07.1 09 20.39 +31 29.7 18.1 -1.01 + 2.6 4.7/03.2 38908
 (10068) 2000 02 07.1 09 20.40 +05 48.3 17.7 -0.99 + 4.6 3.5/09.5 38750
 1999 XQ₂₃₁ 2000 02 07.1 09 20.43 +37 56.2 17.2 -0.94 + 5.7 8.7/31.6 38861
 (9805) 2000 02 07.1 09 20.44 +04 31.2 16.6 -0.97 + 1.5 3.5/09.5 33212
 1993 QQ₅ 2000 02 07.1 09 20.46 +09 40.7 18.6 -0.86 + 4.8 1.8/08.6 38761
 2000 AE₆₄ 2000 02 07.1 09 20.52 +19 04.4 17.2 -0.91 + 9.1 1.2/06.1 38646
 (13096) 2000 02 07.1 09 20.59 +15 11.0 17.2 -0.73 + 2.9 0.1/07.3 37513

(12820) 2000 02 07.1 09 20.65 +17 06.1 17.0 -0.85 + 4.8 0.5/06.8 37069
 1998 SG₃₀ 2000 02 07.1 09 20.71 +19 12.3 18.3 -1.13 + 4.6 1.5/06.3 38790
 2000 AQ₆₇ 2000 02 07.2 09 20.67 +21 19.6 17.6 -1.03 + 5.6 2.5/05.8 38872
 1998 QV₇₇ 2000 02 07.2 09 20.71 +18 46.3 18.5 -1.07 + 0.5 1.1/06.6 38484
 2000 AG₁₃₃ 2000 02 07.2 09 20.74 +24 56.9 16.5 -0.97 + 1.5 3.1/05.1 38685
 1992 EZ₂₈ 2000 02 07.2 09 20.75 +04 31.0 17.8 -0.87 + 8.2 3.8/10.3 38758
 1998 UW₁₂ 2000 02 07.2 09 20.85 +13 04.3 19.9 -1.00 + 4.9 0.8/07.8 35722
 1992 EN₁₂ 2000 02 07.2 09 20.89 +19 00.7 17.0 -0.96 + 5.6 1.4/06.4 38758
 2000 AY₁₂₉ 2000 02 07.2 09 20.97 +13 17.5 17.8 -0.89 + 5.3 0.8/07.8 38684
 1032 T-3 2000 02 07.2 09 21.06 +17 12.7 17.3 -0.95 + 0.9 0.6/06.9 38742
 1997 UC₂₂ 2000 02 07.3 09 21.10 +03 22.0 17.1 -0.83 + 0.8 3.1/10.0 38775
 1996 DU 2000 02 07.3 09 21.16 +08 35.1 16.2 -0.82 +11.8 2.9/09.5 38768
 1997 GP₁₂ 2000 02 07.3 09 21.32 +20 48.1 17.7 -1.07 + 4.7 1.9/06.1 38772
 1998 RX₇₂ 2000 02 07.3 09 21.37 +06 17.4 17.7 -0.81 + 5.7 2.8/09.9 38788
 1999 XK₃₃ 2000 02 07.3 09 21.39 +36 58.8 17.8 -1.18 +23.4 9.6/30.0 38836
 1999 XY₁₆₄ 2000 02 07.3 09 21.43 +21 27.3 16.8 -1.04 + 3.6 2.6/06.0 38854
 1998 SB₁₄₀ 2000 02 07.3 09 21.54 +20 28.2 17.3 -1.11 + 2.6 1.9/06.3 38793
 1998 SV₇₄ 2000 02 07.4 09 21.49 +24 52.5 18.1 -0.88 + 3.9 3.0/05.0 38510
 1998 OA₁₃ 2000 02 07.4 09 21.50 +15 46.4 17.8 -1.13 + 2.9 0.1/07.3 38779
 1998 VX₅ 2000 02 07.4 09 21.54 +19 28.6 18.2 -0.85 + 3.7 1.1/06.4 38796
 1998 TX₂₈ 2000 02 07.4 09 21.63 +26 43.6 18.1 -0.89 + 3.0 3.6/04.6 37288
 2000 AT₆₄ 2000 02 07.4 09 21.93 +21 32.2 16.6 -0.93 + 1.1 2.0/06.2 38647
 1981 DN 2000 02 07.5 09 21.89 +12 17.6 17.1 -1.06 - 1.2 1.5/08.1 38751
 (9860) 2000 02 07.5 09 21.92 +11 48.5 17.6 -0.75 + 5.7 1.0/08.5 33459
 1999 XD₁₆₅ 2000 02 07.5 09 22.04 +17 58.6 16.5 -1.22 - 2.3 1.1/07.1 38854
 2000 BF₂ 2000 02 07.5 09 22.08 +18 09.4 18.1 -0.81 + 3.9 0.8/06.8 38715
 1999 XU₁₆₅ 2000 02 07.5 09 22.13 +20 00.5 16.8 -1.15 + 0.5 2.2/06.6 38854
 1998 SX₆₂ 2000 02 07.5 09 22.15 +32 31.6 17.9 -1.02 + 1.2 5.7/03.7 38508
 1998 OU₁₂ 2000 02 07.5 09 22.16 +17 15.6 19.0 -1.03 + 7.5 0.6/07.1 33079
 2000 BQ₂₆ 2000 02 07.5 09 22.31 +21 05.5 17.3 -1.05 + 4.5 2.6/06.2 38724
 1998 ST₂ 2000 02 07.6 09 22.27 +06 40.5 18.2 -1.04 + 0.6 3.1/09.4 38789
 1998 TN₃₃ 2000 02 07.6 09 22.28 +19 04.2 17.5 -0.87 + 4.6 1.2/06.7 38795
 1998 RB₄₉ 2000 02 07.6 09 22.29 +10 00.5 21.0 -0.93 + 5.5 1.7/09.0 35714
 2000 AM₅₀ 2000 02 07.6 09 22.33 +19 41.5 17.4 -0.85 +12.2 1.7/06.2 38869
 1994 PQ₁₅ 2000 02 07.6 09 22.52 +14 52.3 18.1 -1.01 + 3.9 0.2/07.8 38763
 2000 AA₆₄ 2000 02 07.6 09 22.55 +18 30.2 17.3 -0.66 + 4.4 0.7/06.8 38645
 2000 AY₁₄₁ 2000 02 07.6 09 22.56 +09 07.8 17.1 -1.03 + 6.9 2.5/09.3 38688
 2000 AN₅₀ 2000 02 07.6 09 22.60 +14 54.6 16.9 -0.88 + 3.8 0.1/07.8 38636
 1998 RQ₄₂ 2000 02 07.6 09 22.69 +12 42.4 18.0 -1.08 + 3.5 1.0/08.3 38786
 (13502) 2000 02 07.6 09 22.70 +27 44.1 17.5 -1.13 + 3.1 4.2/04.8 38316
 1998 TK₃₄ 2000 02 07.6 09 22.73 +08 47.0 19.0 -1.03 + 6.2 2.3/09.3 38795
 2000 AH₁₃₀ 2000 02 07.7 09 22.69 +09 09.4 17.8 -0.92 + 2.9 2.1/09.2 38879
 1995 FA₈ 2000 02 07.7 09 22.70 +15 43.2 18.0 -0.78 + 5.9 0.1/07.6 38765
 1999 XE₂₂ 2000 02 07.7 09 22.72 +16 19.2 16.9 -0.94 + 9.8 0.4/07.4 38834
 1998 TR₂₈ 2000 02 07.7 09 22.72 +12 59.4 18.1 -0.92 + 4.1 0.8/08.3 38521
 1994 PF₂₅ 2000 02 07.7 09 22.81 +18 13.9 19.5 -1.00 + 5.0 0.9/07.0 32939
 1998 QW₄₇ 2000 02 07.7 09 22.87 +13 34.3 18.9 -1.03 + 4.1 0.6/08.2 38783
 1990 OH₁ 2000 02 07.7 09 22.90 -23 42.7 18.1 -0.82 + 1.0 9.8/17.5 31273
 (13803) 2000 02 07.7 09 22.94 +12 10.0 17.4 -1.03 + 4.7 1.1/08.5 38401
 2000 BD₁₂ 2000 02 07.7 09 22.99 +15 05.5 19.8 -0.88 + 3.8 0.1/07.8 38718
 1998 RW₇₄ 2000 02 07.7 09 23.01 +15 22.6 19.2 -0.98 + 4.1 0.0/07.8 38498

2000 AM ₁₃₆	2000 02 07.7	09 23.03 +23 42.9 17.6	-0.83 + 8.1	2.8/05.3	38879
(12553)	2000 02 07.7	09 23.09 +19 03.5 16.3	-1.06 + 7.0	1.7/06.8	36756
1998 XL ₅	2000 02 07.7	09 23.10 +14 05.0 16.7	-0.79 + 6.5	0.4/08.1	38798
(13699)	2000 02 07.8	09 23.06 +08 25.1 17.3	-1.07 + 4.2	2.5/09.4	38371
1998 VO ₁₈	2000 02 07.8	09 23.15 +19 30.2 17.1	-0.87 + 2.5	1.3/06.8	38797
1998 SQ ₁₂₉	2000 02 07.8	09 23.15 +25 03.0 18.3	-1.12 + 4.1	3.4/05.5	38793
2000 AR ₁₉₈	2000 02 07.8	09 23.32 +00 06.7 16.9	-0.83 + 1.0	4.1/11.4	38884
(13476)	2000 02 07.8	09 23.36 +11 48.7 18.1	-1.07 + 4.7	1.3/08.7	38310
(13341)	2000 02 07.8	09 23.44 +02 47.8 17.2	-0.84 + 6.3	4.4/11.3	37579
1998 SC ₁₁₂	2000 02 07.8	09 23.46 +28 03.2 17.3	-1.11 + 4.1	5.1/04.7	37778
1994 PF ₂	2000 02 07.8	09 23.46 +14 35.6 19.3	-0.98 + 5.0	0.2/08.1	38762
1999 XR ₁₃₆	2000 02 07.8	09 23.54 +14 40.1 16.2	-1.14 + 0.2	0.2/08.0	38850
1998 TD ₂₇	2000 02 07.9	09 23.72 +25 18.5 17.4	-0.96 + 3.9	3.3/05.4	38795
(13368)	2000 02 07.9	09 23.75 +19 37.0 17.7	-0.87 + 4.1	1.3/06.9	37587
1998 UO ₂₃	2000 02 07.9	09 23.86 -17 03.0 18.6	-0.82 + 1.7	8.4/17.0	34307
1993 QN ₃	2000 02 08.0	09 23.92 +12 30.1 17.4	-0.88 + 5.7	0.9/08.7	38761
1998 SL ₇₄	2000 02 08.0	09 24.26 +35 42.3 17.3	-1.08 + 2.9	7.3/02.9	38791
1997 MS ₃	2000 02 08.0	09 24.30 +15 25.5 18.5	-0.86 + 5.6	0.1/08.0	38774
1998 VU ₃₃	2000 02 08.0	09 24.33 +19 02.4 19.5	-0.90 + 4.3	1.2/07.1	35724
1998 TE ₃₄	2000 02 08.1	09 24.39 +16 00.5 18.4	-1.06 + 6.5	0.3/07.9	38522
1998 OD ₁₃	2000 02 08.1	09 24.41 +17 14.6 19.1	-1.03 + 4.7	0.7/07.6	38779
1998 QE ₈₆	2000 02 08.1	09 24.58 -08 59.5 19.2	-0.89 + 5.9	7.6/15.2	34020
1984 UR	2000 02 08.1	09 24.70 +27 20.4 17.1	-1.13 + 4.6	4.3/05.3	38752
1998 QW ₂₂	2000 02 08.1	09 24.71 +21 27.0 16.5	-1.11 + 3.5	2.7/06.8	38781
1991 RN ₂₂	2000 02 08.2	09 24.72 +21 49.6 18.8	-1.13 + 4.1	2.3/06.7	34837
1998 QF ₄₄	2000 02 08.2	09 24.76 +19 23.1 18.0	-1.02 + 3.5	1.5/07.2	38782
1998 OK ₁₂	2000 02 08.2	09 24.76 +28 13.5 19.0	-1.14 + 4.3	4.9/05.1	33559
1999 XO ₃₈	2000 02 08.2	09 24.82 +25 54.5 17.4	-1.05 + 4.8	4.1/05.6	38837
1997 GE ₂₂	2000 02 08.2	09 24.95 +25 22.4 17.8	-1.12 + 4.7	3.6/05.7	38458
1998 QT ₃₁	2000 02 08.2	09 24.96 +19 24.7 18.4	-1.01 + 5.3	1.4/07.2	38477
1998 QA ₅₆	2000 02 08.2	09 24.98 +08 47.2 19.1	-1.00 + 6.0	2.2/09.9	38783
1994 PX ₂₀	2000 02 08.2	09 25.06 +16 20.7 18.2	-1.05 + 4.3	0.4/08.0	38763
2000 BC ₃	2000 02 08.2	09 25.07 +19 18.1 18.2	-1.10 + 5.4	1.7/07.3	38716
(13675)	2000 02 08.2	09 25.10 +17 27.8 17.9	-0.95 + 3.6	0.8/07.7	38364
2000 BQ ₂₂	2000 02 08.2	09 25.10 +16 24.4 17.9	-1.02 + 6.6	0.5/08.0	38722
1998 PL ₁	2000 02 08.3	09 25.08 +06 58.6 16.7	-0.99 + 4.2	3.2/10.3	38780
2000 CB ₂₅	2000 02 08.3	09 25.10 +09 37.6 17.8	-1.12 + 3.0	2.1/09.5	38728
1998 SX ₂₁	2000 02 08.3	09 25.18 +14 26.4 18.4	-0.98 + 5.5	0.2/08.5	38789
1998 TC ₁₀	2000 02 08.3	09 25.19 +17 30.3 17.4	-0.82 + 3.9	0.7/07.7	38794
2000 BL ₂₆	2000 02 08.3	09 25.25 +15 28.8 17.9	-0.81 + 3.9	0.1/08.3	38724
1998 QF ₄₅	2000 02 08.3	09 25.25 +00 30.3 17.9	-0.86 + 8.0	5.2/12.7	38480
1998 SX ₁₃₂	2000 02 08.3	09 25.29 +16 15.5 17.1	-1.01 + 3.4	0.4/08.1	38793
2000 AA ₆₅	2000 02 08.3	09 25.31 +18 45.7 17.7	-0.88 + 4.9	1.2/07.4	38872
(13716)	2000 02 08.3	09 25.33 +06 30.7 17.6	-0.97 + 6.5	3.1/10.6	38376
1999 XY ₃₁	2000 02 08.3	09 25.42 +12 19.2 17.1	-0.97 + 5.1	1.2/09.1	38835
(13743)	2000 02 08.3	09 25.42 +17 48.7 18.3	-1.05 + 6.8	1.0/07.7	38384
1997 GS ₂₁	2000 02 08.4	09 25.48 +28 10.1 18.5	-1.07 + 4.2	4.4/05.2	37274
1996 GL ₃	2000 02 08.4	09 25.57 +19 43.3 18.0	-0.91 + 5.2	1.6/07.2	38769
1998 RJ ₄₀	2000 02 08.4	09 25.63 +18 04.2 17.2	-0.97 + 8.8	1.2/07.6	38786
2000 CB ₄₃	2000 02 08.4	09 25.82 +10 27.1 18.0	-0.99 + 2.3	1.6/09.5	38729
1998 SE ₆₇	2000 02 08.4	09 25.87 +18 19.7 18.0	-0.99 + 6.0	1.1/07.7	38791

(9853)	2000 02 08.4	09 25.88 +11 21.3 17.0	-0.87 + 9.0	1.1/09.6	33458
1998 RL ₆	2000 02 08.4	09 25.91 +18 50.0 17.0	-1.09 + 4.4	1.4/07.6	38786
1991 VY ₁	2000 02 08.5	09 25.89 -12 47.0 18.0	-1.11 + 0.4	9.2/14.9	38025
1998 UD ₃₈	2000 02 08.5	09 25.92 +30 11.8 18.9	-0.98 + 4.1	4.5/04.7	35723
1998 SE ₁₃₄	2000 02 08.5	09 25.94 +09 32.5 18.1	-0.90 + 5.1	1.8/10.0	38515
2000 BP ₂₄	2000 02 08.5	09 25.95 +38 19.3 17.9	-1.07 + 6.1	7.5/01.7	38723
(13844)	2000 02 08.5	09 26.01 +19 02.8 17.1	-1.04 + 6.5	1.4/07.5	38413
1998 TG ₃₄	2000 02 08.6	09 26.43 +07 37.7 18.0	-0.98 + 6.2	2.5/10.6	38795
1998 SK ₈	2000 02 08.6	09 26.47 -02 14.0 17.5	-0.79 + 7.9	6.7/13.9	38500
1259 T-2	2000 02 08.6	09 26.60 +18 45.4 16.9	-0.89 + 3.9	1.3/07.7	38907
1998 SM ₁₁₅	2000 02 08.6	09 26.65 +15 14.3 16.9	-0.84 + 3.8	0.1/08.6	38792
1998 QK ₃₅	2000 02 08.6	09 26.65 +20 20.1 19.5	-1.00 + 3.8	1.7/07.4	33082
(13074)	2000 02 08.6	09 26.67 +21 18.5 17.4	-1.11 + 3.7	2.2/07.2	37506
(12849)	2000 02 08.7	09 26.65 +13 57.4 15.9	-0.79 + 7.1	0.3/09.0	37077
1998 QK ₇₇	2000 02 08.7	09 26.66 -18 57.2 19.8	-0.84 + 8.2	10.0/20.6	33349
1991 RR ₉	2000 02 08.7	09 26.72 +17 37.1 18.2	-1.08 + 4.1	0.9/08.1	38756
2000 AA ₁₄₂	2000 02 08.7	09 26.73 +07 31.5 16.9	-1.00 + 5.8	3.3/10.6	38880
1995 VZ ₄	2000 02 08.7	09 26.77 +17 56.0 18.5	-1.07 + 6.5	1.1/08.0	38766
1999 XD ₃₄	2000 02 08.7	09 26.86 +16 10.5 17.1	-1.08 + 2.7	0.4/08.5	38585
1990 QT ₆	2000 02 08.7	09 26.95 +17 29.7 17.5	-1.05 + 4.4	0.9/08.2	38755
1999 XF ₂₂	2000 02 08.8	09 27.10 +04 25.1 16.5	-1.02 + 0.1	4.1/10.9	38834
2000 AB ₁₄₂	2000 02 08.8	09 27.38 +06 17.6 17.2	-1.02 + 2.7	4.0/10.9	38880
2602 P-L	2000 02 08.8	09 27.41 +19 31.2 18.4	-0.86 + 4.2	1.5/07.7	38906
1998 RZ ₅₅	2000 02 08.8	09 27.50 +15 14.4 15.8	-1.17 + 3.0	0.1/08.8	38787
1993 HL ₃	2000 02 08.9	09 27.57 +16 33.5 17.6	-0.99 + 6.6	0.7/08.5	38761
2000 AM ₁₂₈	2000 02 08.9	09 27.63 +07 11.8 17.5	-0.89 + 0.5	2.3/10.6	38879
2000 AD ₂₃₃	2000 02 08.9	09 27.75 +21 37.0 17.4	-1.01 + 5.0	2.9/07.3	38886
2000 BR ₂₂	2000 02 08.9	09 27.86 +16 31.1 18.0	-0.88 + 5.3	0.5/08.6	38722
1998 SL ₅₇	2000 02 09.0	09 27.87 +22 53.1 16.7	-1.10 + 3.8	3.5/07.1	38790
1992 BQ ₂	2000 02 09.0	09 27.89 +07 05.0 16.8	-0.95 + 4.2	3.2/10.9	38757
1998 UC ₄₁	2000 02 09.0	09 27.91 +09 07.6 16.9	-0.96 + 5.3	2.2/10.5	38526
2000 BR ₂₆	2000 02 09.0	09 27.99 +20 07.9 17.6	-1.09 + 4.7	2.1/07.8	38724
1993 PS ₅	2000 02 09.0	09 28.00 +07 14.9 19.7	-0.83 + 7.1	2.3/11.2	32932
1998 SG ₁₀	2000 02 09.0	09 28.10 +27 54.5 15.9	-1.08 + 5.9	5.8/05.5	38789
1998 OZ ₁₁	2000 02 09.0	09 28.12 +19 19.7 17.9	-1.17 + 2.1	1.7/08.1	38779
2000 BC ₁₄	2000 02 09.0	09 28.17 +18 00.1 17.5	-0.96 + 6.6	1.0/08.2	38719
1998 UB ₈	2000 02 09.0	09 28.19 +18 21.7 18.9	-0.93 + 4.4	1.0/08.2	33761
1999 XB ₁₆₅	2000 02 09.0	09 28.28 +21 30.6 16.7	-1.12 + 2.5	3.0/07.6	38601
2000 AE ₉₂	2000 02 09.1	09 28.41 +04 40.1 16.9	-0.94 + 2.8	4.2/11.6	38660
(13572)	2000 02 09.1	09 28.52 +17 20.7 17.3	-0.99 + 6.7	1.1/08.5	38335
(9742)	2000 02 09.1	09 28.58 +20 00.3 16.8	-0.81 + 4.9	1.6/07.8	33197
1998 SH ₇₉	2000 02 09.1	09 28.68 +21 55.2 17.7	-1.07 + 5.7	2.5/07.4	38792
2124 T-2	2000 02 09.1	09 28.72 +13 19.4 19.1	-1.05 + 4.5	0.6/09.6	38908
2000 AD ₁₄₂	2000 02 09.1	09 28.72 +06 45.2 16.4	-0.93 + 2.1	2.8/11.0	38688
4806 P-L	2000 02 09.2	09 28.74 +13 12.2 17.8	-0.90 + 5.7	0.7/09.7	38906
1994 UQ ₇	2000 02 09.2	09 28.81 +22 13.4 19.3	-1.05 + 3.0	2.7/07.5	35692
1998 RO ₆₀	2000 02 09.2	09 28.85 +08 59.2 18.1	-1.08 + 4.6	2.2/10.6	38787
1998 RP ₄₄	2000 02 09.2	09 28.91 +14 36.5 16.8	-0.93 + 9.3	0.1/09.3	38786
(13840)	2000 02 09.2	09 28.92 +11 02.6 16.4	-0.99 + 4.4	1.7/10.2	38411
1998 SB ₇₄	2000 02 09.2	09 29.08 +15 48.0 17.9	-0.82 + 5.2	0.3/09.0	38791
1998 SM ₁₁₆	2000 02 09.3	09 29.05 +05 53.9 16.8	-0.87 + 4.3	3.1/11.6	38792

2000 FEB. 22

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1998 RQ₆₆ 2000 02 09.3 09 29.09 +09 24.3 17.9 -0.97 + 4.7 2.1/10.7 38787
 1997 QS 2000 02 09.3 09 29.10 +18 28.6 18.8 -0.86 + 3.9 1.1/08.4 38774
 1993 FS₅₀ 2000 02 09.3 09 29.10 +15 58.9 18.8 -1.03 + 4.2 0.4/09.0 33071
 1998 QU₇₁ 2000 02 09.3 09 29.11 +02 29.6 17.6 -1.00 + 1.9 4.7/12.2 38784
 1998 SC₁₆₄ 2000 02 09.3 09 29.13 +13 37.5 17.7 -1.00 + 6.6 0.4/09.6 38519
 1998 QN₉₁ 2000 02 09.3 09 29.24 +30 53.0 18.7 -1.14 + 1.7 4.9/05.7 33089
 1999 XU₃₁ 2000 02 09.3 09 29.25 +08 22.0 16.8 -1.02 + 0.7 2.6/10.7 38835
 1993 FS₃₁ 2000 02 09.3 09 29.26 +22 44.0 17.7 -1.05 + 4.9 2.9/07.4 38760
 1998 UU₂₂ 2000 02 09.3 09 29.26 -00 02.6 18.3 -0.81 + 3.6 4.5/13.2 38524
 1997 NW₂ 2000 02 09.3 09 29.33 +08 09.8 18.8 -0.88 + 1.9 2.2/11.0 38461
 1997 HT₁₁ 2000 02 09.3 09 29.34 +22 21.6 19.5 -1.10 + 4.8 2.6/07.5 30691
 1994 YK₂ 2000 02 09.3 09 29.38 +26 50.0 17.2 -0.91 + 5.6 4.5/06.0 38764
 1999 XC₃₄ 2000 02 09.3 09 29.44 +21 29.6 17.1 -1.04 + 7.5 2.5/07.6 38836
 (13454) 2000 02 09.3 09 29.49 +08 16.4 17.9 -0.94 + 6.7 2.4/11.2 37611
 1998 PW 2000 02 09.3 09 29.49 +17 41.5 20.1 -1.06 + 3.7 1.0/08.7 33079
 (13807) 2000 02 09.3 09 29.50 +19 16.9 17.9 -0.88 + 4.4 1.4/08.2 38402
 1998 SP₆₆ 2000 02 09.3 09 29.54 +25 34.4 17.6 -1.17 + 6.4 4.2/06.6 38791
 1997 QK 2000 02 09.4 09 29.63 +09 09.0 18.0 -0.84 + 2.2 1.6/10.8 38774
 1998 WQ₁₄ 2000 02 09.4 09 29.67 +01 55.6 17.6 -0.79 + 3.7 4.1/12.8 38798
 (13902) 2000 02 09.4 09 29.68 +18 25.9 17.9 -0.93 + 5.1 1.1/08.5 38428
 1998 SJ₁₃₂ 2000 02 09.4 09 29.71 +14 21.2 17.5 -0.95 + 2.7 0.2/09.6 38793
 2000 BF₃ 2000 02 09.4 09 29.73 +14 22.8 17.9 -1.04 + 3.9 0.2/09.6 38716
 1998 UX₁ 2000 02 09.4 09 29.75 +13 59.3 17.3 -0.78 + 6.4 0.2/09.7 38795
 1993 FC₃₃ 2000 02 09.4 09 29.82 +15 41.5 18.7 -1.00 + 6.5 0.4/09.2 38443
 1998 SB₅₁ 2000 02 09.5 09 29.83 +12 48.1 18.9 -1.00 + 4.9 0.6/10.0 35717
 1998 QA₈₉ 2000 02 09.5 09 29.85 +05 27.5 19.5 -1.03 + 4.4 3.2/11.8 35340
 (9795) 2000 02 09.5 09 29.99 +12 56.2 18.1 -0.84 + 4.4 0.6/10.0 38749
 2000 AY₁₅₀ 2000 02 09.5 09 30.07 +08 35.1 15.9 -0.80 +15.1 2.1/11.7 38693
 1999 XD₂₂ 2000 02 09.5 09 30.10 +14 16.5 16.8 -0.83 + 8.9 0.2/09.7 38834
 1998 SL₄ 2000 02 09.5 09 30.11 +16 30.5 17.6 -1.14 + 4.7 0.7/09.1 38789
 (9725) 2000 02 09.5 09 30.11 +11 52.4 18.3 -0.99 + 5.0 1.0/10.3 33193
 2000 AJ₉₅ 2000 02 09.6 09 30.23 +16 54.7 18.1 -0.88 + 5.8 0.7/09.0 38661
 2000 AJ₆₅ 2000 02 09.6 09 30.55 +20 04.4 17.0 -1.04 + 6.6 2.2/08.3 38872
 1998 QU₄₈ 2000 02 09.6 09 30.59 +10 11.0 17.6 -0.99 + 6.9 1.9/10.9 38783
 (13805) 2000 02 09.6 09 30.62 +17 10.0 18.3 -0.77 + 3.6 0.6/09.0 38401
 (9784) 2000 02 09.6 09 30.65 +23 27.0 17.0 -0.96 + 3.8 2.9/07.5 33207
 1998 SU₂₅ 2000 02 09.6 09 30.66 +23 11.5 19.2 -1.02 + 4.8 2.7/07.5 34022
 1995 WN₂₀ 2000 02 09.6 09 30.71 +16 26.4 17.8 -1.04 + 6.8 0.7/09.2 38767
 1998 SH₉ 2000 02 09.7 09 30.62 +08 59.4 18.4 -0.88 + 5.7 2.0/11.2 38500
 1998 UR₁ 2000 02 09.7 09 30.81 +07 05.1 20.3 -1.06 + 5.7 2.8/11.6 33970
 1998 VR₃₄ 2000 02 09.7 09 30.84 +14 33.2 18.2 -0.87 + 3.9 0.1/09.8 38797
 1998 RG₁₆ 2000 02 09.7 09 30.88 -02 48.7 17.9 -0.94 + 2.0 5.5/14.0 35714
 2000 AR₁₄₃ 2000 02 09.7 09 30.90 +13 01.4 17.7 -0.92 +12.6 0.6/10.3 38690
 4672 T-3 2000 02 09.7 09 30.91 +22 53.6 17.2 -0.95 + 5.5 3.3/07.6 38909
 1998 SU₇₃ 2000 02 09.8 09 31.01 +21 40.7 18.3 -1.07 + 5.0 2.4/08.0 34023
 1998 SA₁₃₃ 2000 02 09.8 09 31.15 +26 10.2 17.8 -1.20 + 2.9 4.3/07.2 38793
 1998 RS₇₃ 2000 02 09.8 09 31.17 +10 46.6 19.0 -0.93 + 4.4 1.2/11.0 38788
 1998 VK₇ 2000 02 09.8 09 31.18 +07 07.2 18.4 -1.04 + 3.9 2.7/11.6 38796
 1993 UK 2000 02 09.8 09 31.22 +19 07.6 16.9 -0.87 + 4.6 1.4/08.7 38762
 1998 SP₁₄₄ 2000 02 09.8 09 31.28 +07 47.4 17.7 -0.87 + 4.9 2.3/11.7 38517
 (13142) 2000 02 09.8 09 31.49 -06 40.4 16.6 -0.87 + 3.9 7.7/15.8 37524

(13784) 2000 02 09.9 09 31.43 +16 58.1 17.5 -1.04 + 5.8 0.8/09.3 38395
 1992 EW₁₆ 2000 02 09.9 09 31.43 +15 27.7 17.3 -0.97 + 3.4 0.3/09.7 38758
 1998 SL₇₁ 2000 02 09.9 09 31.50 +13 40.6 18.3 -0.83 + 4.8 0.3/10.2 38791
 1998 OK₁₄ 2000 02 09.9 09 31.52 +16 54.2 20.8 -0.94 + 5.7 0.7/09.3 33079
 1999 XV₃₄ 2000 02 09.9 09 31.56 +20 09.6 17.1 -0.98 + 8.4 2.3/08.4 38836
 2000 AG₁₄₂ 2000 02 09.9 09 31.56 +05 56.9 17.6 -1.04 0.0 3.3/11.7 38689
 (13585) 2000 02 09.9 09 31.68 +21 13.3 18.3 -0.92 + 4.1 2.0/08.3 38339
 1996 HT₁₆ 2000 02 09.9 09 31.70 +12 52.1 18.0 -0.84 + 4.5 0.6/10.4 38769
 1991 PG₁₈ 2000 02 09.9 09 31.74 +12 49.0 18.5 -0.74 + 3.4 0.4/10.4 38438
 (13503) 2000 02 09.9 09 31.80 +14 14.8 16.9 -1.16 + 2.3 0.2/10.1 38317
 (11380) 2000 02 10.0 09 31.97 +12 39.1 16.8 -1.04 + 3.3 0.7/10.5 35585
 1981 ER₄₀ 2000 02 10.0 09 32.04 +14 14.6 17.9 -0.99 + 3.9 0.2/10.1 38751
 1991 PT₄ 2000 02 10.0 09 32.07 +13 18.0 19.2 -0.74 + 3.6 0.3/10.4 38756
 1996 CE₃ 2000 02 10.0 09 32.08 +40 24.8 17.0 -1.39 - 2.4 9.3/05.0 38037
 1994 PM₁₄ 2000 02 10.0 09 32.12 +13 21.6 19.3 -0.97 + 5.2 0.4/10.4 38763
 1998 QB₂₄ 2000 02 10.0 09 32.20 +06 54.4 17.6 -1.03 + 3.3 3.0/11.9 38781
 2000 BX₂₆ 2000 02 10.0 09 32.22 +17 59.4 18.0 -0.86 + 4.8 1.1/09.2 38724
 (9821) 2000 02 10.0 09 32.30 +09 58.3 18.1 -0.96 + 6.3 1.6/11.3 33216
 1989 SK₁ 2000 02 10.1 09 32.25 +21 31.3 19.5 -0.92 + 4.4 2.0/08.3 33741
 1999 XC₁₆₅ 2000 02 10.1 09 32.30 +21 24.1 17.0 -1.02 + 1.2 2.7/08.6 38854
 1981 EK₁₇ 2000 02 10.1 09 32.31 +06 05.5 17.9 -0.94 + 5.3 3.0/12.3 38751
 2000 AO₁₂₈ 2000 02 10.1 09 32.32 +09 19.5 18.0 -0.85 + 4.9 1.7/11.5 38682
 (12895) 2000 02 10.1 09 32.48 +17 06.3 16.3 -0.97 + 9.3 1.1/09.4 37090
 1996 LS₂ 2000 02 10.1 09 32.63 +22 44.8 17.8 -0.80 + 5.2 2.1/07.9 38769
 1998 VX₈ 2000 02 10.1 09 32.69 +05 19.4 17.2 -1.02 + 3.5 3.4/12.4 38528
 1998 VL₁₄ 2000 02 10.2 09 32.61 -01 03.6 18.6 -0.91 + 3.9 4.7/14.2 35724
 1998 RQ₄₆ 2000 02 10.2 09 32.63 +13 42.7 20.1 -1.06 + 4.1 0.3/10.4 35714
 2000 AL₁₄₂ 2000 02 10.2 09 32.72 +02 14.4 17.0 -0.97 + 2.4 4.4/13.0 38880
 (13785) 2000 02 10.2 09 32.78 +13 48.7 17.8 -0.87 + 4.0 0.2/10.4 38396
 (13547) 2000 02 10.2 09 32.88 +07 25.9 17.8 -0.92 + 5.1 3.0/12.1 38328
 1998 US₂₃ 2000 02 10.2 09 32.91 +30 53.1 18.5 -0.98 + 3.9 5.2/06.0 38525
 1998 QR₆ 2000 02 10.2 09 32.98 +16 12.7 19.8 -0.92 + 4.5 0.5/09.9 35709
 1998 SK₁₂₅ 2000 02 10.2 09 32.99 +12 00.0 18.2 -0.95 + 6.9 0.9/11.0 38792
 1998 TY₂₀ 2000 02 10.3 09 33.05 +13 58.4 17.7 -0.88 + 4.0 0.2/10.5 38795
 2000 AO₉₅ 2000 02 10.3 09 33.05 +16 43.8 17.1 -1.10 + 6.0 0.9/09.8 38661
 1998 MQ₃₇ 2000 02 10.3 09 33.08 +10 39.3 20.3 -1.09 + 3.8 1.3/11.2 32756
 1999 XT₃₁ 2000 02 10.3 09 33.28 +12 17.2 17.1 -0.94 + 4.6 0.9/11.0 38835
 1998 RZ₆₂ 2000 02 10.4 09 33.44 +19 40.1 18.7 -1.01 + 4.8 1.7/09.1 38787
 1998 YR₈ 2000 02 10.4 09 33.44 +14 05.7 17.3 -0.76 + 7.8 0.1/10.5 38799
 1998 UG₁₇ 2000 02 10.4 09 33.69 +13 06.1 18.1 -0.93 + 3.1 0.5/10.8 38795
 2000 AY₄₇ 2000 02 10.4 09 33.79 +19 15.9 17.8 -1.01 + 8.6 1.7/09.1 38635
 (13312) 2000 02 10.4 09 33.82 +07 45.3 16.6 -0.89 + 5.8 2.6/12.3 37571
 1999 XW₁₂₇ 2000 02 10.4 09 33.90 +39 31.8 15.9 -1.17 + 2.5 9.6/04.1 38850
 1997 JH₁₀ 2000 02 10.5 09 33.83 +10 22.5 17.3 -0.99 + 5.6 1.8/11.6 38773
 1991 NK₄ 2000 02 10.5 09 33.84 +17 52.3 17.3 -1.06 + 7.5 1.2/09.6 38438
 1992 UH₃ 2000 02 10.5 09 33.90 +23 53.3 16.9 -1.21 + 2.9 4.1/08.4 38027
 1998 QW₃₆ 2000 02 10.5 09 33.94 +08 46.0 18.8 -1.05 + 3.5 2.1/11.9 38478
 1993 QT₆ 2000 02 10.5 09 34.11 +18 30.3 19.4 -0.93 + 3.3 1.3/09.6 33485
 4149 T-2 2000 02 10.5 09 34.14 +19 09.5 18.7 -1.14 + 5.5 1.8/09.4 38908
 (12978) 2000 02 10.5 09 34.18 +08 24.9 17.9 -1.04 + 5.4 2.1/12.1 37481
 1999 XE₁₆₅ 2000 02 10.5 09 34.23 +21 10.9 16.5 -1.08 + 3.1 2.6/09.0 38854

1998 VH ₂₁	2000 02 10.6	09 34.26 +22 20.3 17.8	-0.96 + 3.6	2.6/08.6	38530	1999 XX ₃₄	2000 02 11.4	09 37.38 +11 42.9 16.9	-1.01 + 2.9	1.0/12.0	38836
2000 BE ₂₇	2000 02 10.6	09 34.35 +21 28.8 17.7	-0.97 + 4.2	2.7/08.8	38724	1978 PG ₄	2000 02 11.4	09 37.47 +10 44.0 17.8	-1.10 + 3.5	1.2/12.2	38750
2000 AD ₆₆	2000 02 10.6	09 34.45 +15 29.3 17.5	-1.08 + 5.3	0.4/10.4	38647	(13609)	2000 02 11.4	09 37.52 +10 32.9 17.5	-0.96 + 4.8	1.3/12.4	38345
1998 QG ₅₄	2000 02 10.7	09 34.58 +04 52.4 18.5	-0.92 + 4.9	3.1/13.2	38783	1998 QK ₄₄	2000 02 11.4	09 37.55 +17 21.7 18.8	-1.02 + 5.0	1.1/10.6	33083
1999 XB ₃₄	2000 02 10.7	09 34.68 +20 40.9 17.2	-1.01 + 6.6	2.8/09.0	38836	1991 PL ₈	2000 02 11.4	09 37.57 +16 06.6 18.8	-0.80 + 3.9	0.5/10.9	38756
(13012)	2000 02 10.7	09 34.80 +21 57.0 16.9	-0.91 + 2.2	2.3/08.9	37490	1998 OM ₁₄	2000 02 11.4	09 37.63 +13 00.7 17.5	-0.89 + 8.8	0.4/11.8	38472
1998 VM ₁₈	2000 02 10.7	09 34.95 -08 20.8 17.1	-0.95 + 2.5	8.4/16.4	38530	1993 FD ₂₅	2000 02 11.4	09 37.63 +19 50.9 17.5	-1.09 + 3.1	2.1/10.1	38760
1998 QV ₁₀₄	2000 02 10.7	09 34.95 +22 30.7 18.5	-0.97 + 5.0	2.7/08.7	35713	2000 AT ₁₄₃	2000 02 11.4	09 37.70 +06 54.1 17.3	-0.88 + 1.7	2.3/13.2	38691
1998 VR ₁₇	2000 02 10.7	09 34.97 +17 30.5 18.9	-1.01 + 4.5	1.0/10.0	38797	1998 SC ₅₆	2000 02 11.4	09 37.78 +08 50.6 18.1	-0.91 + 5.2	1.9/12.9	38506
2214 T-1	2000 02 10.7	09 34.97 +10 11.8 17.6	-0.97 + 6.1	1.5/11.9	38907	1998 SN ₄₃	2000 02 11.5	09 37.84 +22 44.1 17.9	-0.95 + 4.4	3.0/09.3	33757
1998 RU ₇₃	2000 02 10.8	09 35.00 +03 53.0 19.1	-0.95 + 5.4	3.6/13.6	34022	1998 SE ₁₄₇	2000 02 11.5	09 38.04 +16 14.8 17.5	-0.83 + 4.3	0.7/11.0	38794
(12004)	2000 02 10.8	09 35.07 +13 35.5 18.0	-0.78 + 4.1	0.2/11.0	36273	1998 WP ₁₁	2000 02 11.5	09 38.17 +35 03.5 17.9	-1.03 + 5.3	6.3/05.5	38798
1994 SM ₈	2000 02 10.8	09 35.15 +22 19.2 20.6	-1.04 + 3.3	2.5/08.9	32668	1998 SR ₁₁₅	2000 02 11.6	09 38.18 +28 47.2 17.2	-1.05 + 1.2	5.0/08.2	34593
1998 QJ ₄₃	2000 02 10.8	09 35.18 +17 57.5 17.7	-1.03 + 9.0	1.5/09.8	38480	(11373)	2000 02 11.6	09 38.23 +17 31.0 18.4	-1.11 + 5.1	1.3/10.8	35583
2000 AS ₁₂₈	2000 02 10.8	09 35.20 +11 56.8 16.6	-1.11 + 4.6	1.0/11.4	38682	1998 QX ₄	2000 02 11.6	09 38.30 +04 22.9 18.4	-1.00 + 4.7	3.6/14.1	38474
1978 VY ₃	2000 02 10.8	09 35.45 +10 03.6 18.3	-0.96 + 4.1	1.5/12.0	38750	1998 QN ₄₆	2000 02 11.6	09 38.33 +12 11.5 18.5	-0.99 + 5.9	0.7/12.1	38783
1998 QY ₁₉	2000 02 10.9	09 35.45 +08 44.0 16.7	-0.90 +10.0	2.5/12.6	38781	(13037)	2000 02 11.6	09 38.34 +05 20.8 17.4	-1.01 + 5.8	3.5/13.9	37497
2000 AH ₁₄₂	2000 02 10.9	09 35.54 +06 58.1 17.4	-0.74 + 5.9	2.2/13.1	38689	2000 AR ₉₅	2000 02 11.6	09 38.41 +14 42.8 17.1	-0.99 + 1.6	0.2/11.5	38875
2000 AH ₁₆₄	2000 02 10.9	09 35.58 +06 01.3 18.0	-0.77 + 5.8	2.5/13.3	38697	(13376)	2000 02 11.6	09 38.50 +09 17.9 16.9	-0.96 + 2.2	1.5/12.8	37589
1998 SH ₁₄₆	2000 02 10.9	09 35.65 +05 05.0 18.7	-0.99 + 6.1	3.2/13.4	35720	4391 T-3	2000 02 11.6	09 38.55 +19 47.5 20.0	-1.03 + 5.9	1.8/10.2	33130
(13106)	2000 02 10.9	09 35.69 +06 40.4 16.8	-0.95 + 7.0	2.9/13.1	37515	1999 XX ₃₁	2000 02 11.6	09 38.57 +20 04.6 15.5	-0.76 +11.6	2.5/09.7	38835
1999 XA ₃₅	2000 02 10.9	09 35.84 +20 26.2 16.5	-0.86 + 8.1	2.7/09.2	38836	2000 AR ₆₆	2000 02 11.7	09 38.70 +15 26.1 17.4	-1.24 - 0.6	0.6/11.5	38872
(13874)	2000 02 11.0	09 35.86 +08 22.1 17.0	-0.92 + 0.6	1.9/12.3	38420	1998 UL ₁₆	2000 02 11.7	09 38.87 +21 19.0 17.7	-0.95 + 4.8	2.1/09.9	35722
4536 P-L	2000 02 11.0	09 35.89 +11 52.5 18.0	-0.79 + 4.4	0.7/11.7	38735	(9825)	2000 02 11.7	09 38.99 +15 14.0 17.0	-0.91 + 1.9	0.4/11.5	38016
1998 SE ₁₅₇	2000 02 11.0	09 35.92 +16 52.1 19.3	-1.01 + 4.7	0.9/10.4	35720	1998 UE ₇	2000 02 11.8	09 38.99 -03 49.2 20.0	-0.85 + 5.4	4.9/16.9	35722
1993 LF	2000 02 11.0	09 35.94 +23 13.0 16.1	-0.93 + 9.1	2.9/08.3	38761	1993 TK ₂₅	2000 02 11.8	09 39.38 +10 57.8 19.3	-0.85 + 5.0	0.9/12.7	35689
(13534)	2000 02 11.0	09 36.05 +15 37.4 18.7	-0.77 + 3.6	0.3/10.7	38325	1994 PQ ₈	2000 02 11.9	09 39.34 +13 37.5 19.5	-1.00 + 4.8	0.1/12.0	38447
1998 VS ₂₁	2000 02 11.0	09 36.15 +11 27.1 17.7	-0.92 + 3.5	1.0/11.8	38797	(13023)	2000 02 11.9	09 39.39 +43 12.7 16.6	-1.15 + 1.4	9.8/04.7	37493
1998 QQ ₂₂	2000 02 11.0	09 36.16 +20 49.7 17.9	-1.00 + 5.1	2.3/09.4	38781	1995 VQ ₁₂	2000 02 11.9	09 39.45 +02 22.4 18.2	-0.99 + 7.1	4.6/15.2	38766
1999 XK ₁₈₀	2000 02 11.0	09 36.16 +36 05.6 17.7	-1.00 + 5.9	7.3/04.7	38607	1996 VG ₉	2000 02 11.9	09 39.53 +55 44.5 18.6	-1.96 + 2.2	16.8/30.6	37270
(13694)	2000 02 11.0	09 36.21 +07 10.9 17.2	-0.52 + 2.4	1.3/13.1	38369	2000 CU ₅₅	2000 02 11.9	09 39.53 +13 27.9 17.9	-1.15 + 1.7	0.2/12.1	38902
1996 DH ₂	2000 02 11.1	09 36.27 +26 21.7 18.1	-1.07 + 2.5	4.0/08.2	38038	1997 GK ₁₃	2000 02 11.9	09 39.57 +23 30.6 19.0	-1.06 + 3.7	3.0/09.6	33258
1991 UE ₁	2000 02 11.1	09 36.28 +15 49.5 17.4	-1.06 + 4.4	0.6/10.7	38757	4013 P-L	2000 02 11.9	09 39.72 +04 28.6 19.4	-0.81 + 4.8	2.6/14.6	38906
1998 SO ₁₄₅	2000 02 11.1	09 36.37 +17 11.6 18.1	-1.01 + 5.1	1.0/10.4	38794	1995 UQ ₃	2000 02 11.9	09 39.78 +09 58.2 16.3	-1.08 + 5.1	1.7/13.0	38766
1998 QS ₅	2000 02 11.1	09 36.58 +17 32.9 18.0	-1.00 + 2.5	1.1/10.4	38780	(13712)	2000 02 12.0	09 39.73 +15 48.8 17.3	-1.00 + 7.0	0.7/11.5	38375
(13143)	2000 02 11.2	09 36.68 +05 24.2 17.0	-0.94 + 2.0	2.7/13.3	37525	1061 T-3	2000 02 12.0	09 39.86 -01 01.2 18.3	-0.82 + 3.2	4.7/16.0	38908
2577 P-L	2000 02 11.2	09 36.76 +14 39.0 18.3	-1.00 + 4.8	0.1/11.1	38906	1997 FV ₃	2000 02 12.0	09 39.86 +22 15.2 17.6	-1.16 + 2.7	3.2/10.1	38457
1999 XC ₂₂₁	2000 02 11.2	09 36.83 -04 18.0 17.3	-0.86 + 3.9	5.6/16.3	38614	1998 SW ₅₃	2000 02 12.0	09 39.92 +10 05.2 17.9	-1.11 + 4.7	1.6/13.0	38790
(10379)	2000 02 11.2	09 36.90 +16 40.9 17.9	-0.72 + 5.1	0.7/10.6	38016	1996 EW	2000 02 12.0	09 40.05 +05 19.4 17.0	-0.81 +11.4	3.4/14.9	38768
1998 VR ₂₃	2000 02 11.2	09 36.98 +24 25.5 19.1	-0.92 + 4.5	3.2/08.6	33516	(13681)	2000 02 12.0	09 40.11 +20 19.1 18.3	-0.93 + 1.9	1.9/10.5	38366
2000 AV ₄₇	2000 02 11.2	09 37.05 +19 56.2 16.9	-0.93 + 8.5	2.7/09.6	38634	(13483)	2000 02 12.0	09 40.17 +12 58.1 17.7	-1.01 + 6.0	0.3/12.3	38311
1994 RT ₁	2000 02 11.3	09 37.03 +00 59.3 19.7	-0.88 + 9.8	4.1/15.4	33073	1988 RM ₂	2000 02 12.0	09 40.20 +07 32.5 17.3	-1.08 + 4.0	2.4/13.7	38433
2000 BA ₂₇	2000 02 11.3	09 37.09 +15 51.2 17.9	-0.54 + 2.3	0.3/10.9	38724	(13177)	2000 02 12.1	09 40.13 +17 16.0 17.5	-0.86 + 4.0	1.0/11.2	37534
1998 QE ₅₃	2000 02 11.3	09 37.23 -03 32.5 18.9	-0.85 + 7.3	5.8/16.7	35711	2236 T-1	2000 02 12.1	09 40.33 +17 45.8 17.3	-0.94 + 5.0	1.5/11.1	38737
1998 QT ₄₇	2000 02 11.3	09 37.27 +06 59.1 16.9	-0.84 +10.2	2.7/13.6	38783	1998 SP ₄₈	2000 02 12.1	09 40.39 +06 50.4 17.9	-0.92 + 4.8	2.7/14.0	38790
2000 AS ₁₄₃	2000 02 11.3	09 37.31 +06 27.5 16.9	-1.07 + 2.7	3.8/13.1	38880	1998 SX ₁₂₂	2000 02 12.1	09 40.51 +11 28.7 19.9	-0.98 + 5.0	0.8/12.8	34024
4882 P-L	2000 02 11.3	09 37.36 +29 20.5 17.4	-1.09 + 2.6	5.5/07.6	38907	1999 XD ₂₂₁	2000 02 12.1	09 40.55 -03 37.0 16.6	-0.92 + 2.4	6.3/16.5	38614
1998 WK ₁	2000 02 11.3	09 37.39 +20 54.0 18.4	-1.12 + 0.8	2.2/10.0	38531	(9789)	2000 02 12.2	09 40.53 +17 00.8 16.2	-0.83 + 4.0	1.0/11.4	38016
1994 EW	2000 02 11.3	09 37.44 +13 44.3 20.3	-1.11 + 5.5	0.2/11.5	38762	1999 WF ₁₈	2000 02 12.2	09 40.53 +24 44.7 16.4	-0.92 +10.5	4.1/08.8	38831
1998 WR ₉	2000 02 11.3	09 37.44 +12 07.1 18.6	-0.87 + 4.5	0.6/11.9	38797	(10007)	2000 02 12.2	09 40.58 -07 03.0 15.8	-0.80 + 2.1	6.8/17.8	38016
2000 AR ₁₂₈	2000 02 11.4	09 37.37 +08 47.0 17.2	-0.94 + 0.6	1.5/12.6	38682	(13459)	2000 02 12.2	09 40.62 +14 54.6 16.9	-1.02 + 7.9	0.4/11.9	37612

2000 FEB. 22

M.P.C. 38929

1988 PL ₂	2000 02 12.2	09 40.69 +17 27.7 18.9	-1.14 + 3.2	1.3/11.4	38753
1998 SK ₁₄₆	2000 02 12.2	09 40.86 +07 34.7 16.8	-0.78 + 5.5	2.0/14.1	38518
1993 FV ₁₆	2000 02 12.2	09 40.94 +16 25.0 18.7	-0.98 + 5.5	0.8/11.6	38760
1997 TS ₁₈	2000 02 12.2	09 40.95 +16 40.0 17.7	-0.96 + 2.4	0.9/11.6	38775
(13225)	2000 02 12.2	09 40.96 +12 31.1 17.4	-0.83 + 5.1	0.5/12.7	37546
(12548)	2000 02 12.3	09 40.91 +15 14.7 16.3	-0.95 + 6.7	0.6/11.9	36754
2000 AX ₁₄₂	2000 02 12.3	09 41.01 +03 50.1 17.2	-0.99 + 5.9	3.8/15.0	38689
(13139)	2000 02 12.3	09 41.07 +28 41.0 17.3	-1.01 + 4.3	5.3/08.5	37524
1998 SN ₅₈	2000 02 12.3	09 41.11 +12 22.1 19.0	-0.99 + 5.6	0.5/12.7	38791
1998 UM ₂₀	2000 02 12.3	09 41.17 +17 04.6 17.7	-0.81 + 4.5	1.0/11.5	38795
1998 SD ₁₁₈	2000 02 12.3	09 41.19 +11 35.7 18.3	-0.95 + 4.6	0.7/12.9	38512
2000 AP ₉₅	2000 02 12.3	09 41.21 +16 04.7 17.6	-0.89 + 5.7	0.7/11.8	38661
1994 YC ₂	2000 02 12.3	09 41.22 -01 05.5 17.6	-0.95 + 2.5	5.0/16.1	38764
1993 FG ₅₀	2000 02 12.3	09 41.29 +13 51.0 18.1	-1.04 + 4.4	0.0/12.4	38444
1992 US ₈	2000 02 12.3	09 41.31 +11 42.5 18.0	-1.13 + 4.8	0.9/12.9	38441
1998 TG	2000 02 12.3	09 41.35 +15 52.0 19.6	-1.02 + 4.5	0.7/11.9	33366
2000 AV ₁₄₃	2000 02 12.4	09 41.47 +10 13.2 17.0	-0.77 + 6.7	1.0/13.5	38691
1998 SS ₁₃₀	2000 02 12.4	09 41.51 +15 37.4 16.8	-1.13 + 4.4	0.7/12.0	38793
4664 P-L	2000 02 12.4	09 41.54 +25 11.9 18.4	-0.96 + 2.8	3.3/09.6	36121
1998 WJ ₁₂	2000 02 12.4	09 41.56 +01 27.6 18.8	-0.80 + 3.9	3.6/15.8	38798
1998 QS ₅₁	2000 02 12.4	09 41.57 +09 16.3 19.2	-1.02 + 5.1	1.7/13.6	33084
1999 XJ ₁₆₅	2000 02 12.4	09 41.64 +14 31.1 16.7	-1.14 - 0.8	0.3/12.3	38854
(13774)	2000 02 12.4	09 41.68 +26 12.4 17.5	-0.94 + 2.5	3.8/09.3	38393
1998 RV ₅₅	2000 02 12.5	09 41.73 +03 09.7 18.1	-0.88 + 5.7	3.6/15.5	38493
6556 P-L	2000 02 12.5	09 41.86 +06 37.6 18.4	-0.80 + 6.1	2.0/14.6	38907
(13536)	2000 02 12.5	09 41.87 +13 48.1 17.8	-0.78 + 4.0	0.0/12.5	38326
2000 AT ₁₄₂	2000 02 12.5	09 41.94 +03 49.9 16.0	-1.11 - 1.4	4.5/14.4	38880
(9715)	2000 02 12.5	09 41.97 +28 04.4 17.5	-0.90 + 2.9	4.3/08.8	33191
1998 SR ₁₂₄	2000 02 12.5	09 41.99 +13 13.9 17.6	-0.95 + 5.7	0.2/12.7	38792
2000 BM ₂₇	2000 02 12.5	09 42.08 +14 32.9 17.2	-1.03 + 3.7	0.3/12.4	38725
1088 T-3	2000 02 12.5	09 42.08 +20 45.4 17.6	-1.06 + 1.5	2.5/11.0	38908
(13033)	2000 02 12.5	09 42.15 +09 55.4 17.3	-0.86 + 6.6	1.3/13.7	37496
1999 XG ₃₄	2000 02 12.5	09 42.17 +18 56.0 16.9	-1.00 + 9.0	2.2/11.1	38836
(12999)	2000 02 12.6	09 42.09 +12 14.3 17.0	-1.01 + 7.4	0.6/13.0	37486
2000 BR ₃	2000 02 12.6	09 42.10 +17 42.4 16.9	-1.07 + 3.1	1.8/11.7	38716
1994 VH ₁	2000 02 12.6	09 42.13 +19 42.0 16.7	-0.93 + 5.6	2.2/11.0	38764
1998 NA	2000 02 12.6	09 42.22 +16 47.5 16.9	-1.04 + 2.1	1.0/11.9	38779
(13075)	2000 02 12.6	09 42.23 +11 52.9 16.9	-1.08 + 2.8	0.7/13.1	37507
1998 VW ₁₂	2000 02 12.6	09 42.34 +14 08.6 18.6	-0.81 + 4.6	0.1/12.6	38796
1998 SG ₁₃₃	2000 02 12.6	09 42.47 -06 05.4 17.8	-0.84 + 6.3	7.2/18.6	38793
1998 SY ₁₃₈	2000 02 12.7	09 42.56 +23 24.3 17.8	-1.12 + 3.0	3.8/10.4	38793
1991 PV	2000 02 12.7	09 42.72 +10 43.3 18.9	-1.04 + 5.4	1.0/13.5	38756
1084 T-3	2000 02 12.7	09 42.72 +01 10.7 18.5	-0.81 + 3.5	3.7/16.1	38908
1994 SZ ₁	2000 02 12.7	09 42.74 +18 35.0 21.2	-0.99 + 4.8	1.6/11.5	35691
(13207)	2000 02 12.7	09 42.80 +12 38.2 17.2	-0.97 + 7.9	0.5/13.1	37541
1998 UF ₄₀	2000 02 12.7	09 42.85 +16 44.1 18.9	-1.06 + 4.2	1.0/12.0	34594
2000 AC ₆₆	2000 02 12.7	09 42.90 +18 01.1 17.1	-0.84 + 4.6	1.3/11.6	38647
1982 QP	2000 02 12.8	09 42.87 +06 25.3 17.6	-1.01 + 2.1	2.3/14.5	38752
(10247)	2000 02 12.8	09 42.89 +11 56.9 17.2	-0.51 + 3.1	0.3/13.3	33917
1991 LM ₃	2000 02 12.8	09 42.91 +05 14.2 20.3	-1.07 + 5.3	3.0/14.9	33479
1978 VA	2000 02 12.8	09 42.91 +64 59.4 16.6	-1.29 - 1.8	24.4/27.0	38750

1998 QJ ₃₃	2000 02 12.8	09 43.10 +10 02.8 17.6	-1.08 + 3.1	1.4/13.7	38781
1999 VE ₉	2000 02 12.8	09 43.13 +15 38.0 16.5	-0.97 + 5.5	0.9/12.3	38814
3101 T-1	2000 02 12.8	09 43.15 +11 25.5 18.0	-1.02 + 4.6	0.8/13.4	38738
(13445)	2000 02 12.8	09 43.16 +07 55.0 17.2	-0.78 + 2.4	1.6/14.3	37609
1998 WO ₁	2000 02 12.8	09 43.18 +13 07.7 18.1	-0.75 + 4.3	0.1/13.0	38797
1998 QJ ₄₅	2000 02 12.9	09 43.27 +01 26.8 18.1	-0.85 + 8.5	4.1/16.7	38782
1995 FX ₁₀	2000 02 12.9	09 43.32 +27 47.5 18.5	-0.98 + 1.1	5.2/09.5	32945
1998 UJ ₄₁	2000 02 12.9	09 43.33 +34 15.3 19.6	-1.02 + 3.6	6.4/07.3	35723
1995 VD	2000 02 12.9	09 43.39 +17 24.9 17.2	-1.05 + 3.9	1.6/12.0	38766
(13859)	2000 02 12.9	09 43.39 +02 42.7 14.9	-1.04 - 1.9	4.5/15.0	38417
2000 BZ ₁₃	2000 02 12.9	09 43.43 +19 18.7 17.1	-0.99 + 6.1	2.5/11.4	38719
2000 AX ₂₄₄	2000 02 12.9	09 43.44 +07 55.1 17.0	-0.92 + 6.1	2.4/14.5	38715
2000 BB ₃₀	2000 02 12.9	09 43.54 +19 49.9 17.4	-1.04 + 8.2	2.6/11.2	38726
4648 P-L	2000 02 12.9	09 43.57 +12 35.1 18.5	-0.99 + 5.3	0.4/13.2	38906
1996 EY ₇	2000 02 12.9	09 43.62 +11 18.1 17.9	-0.87 + 5.7	0.7/13.6	38454
1998 WG ₁₇	2000 02 12.9	09 43.70 +13 20.4 18.5	-0.93 + 4.8	0.1/13.1	38798
1998 VQ ₂₉	2000 02 13.0	09 43.80 -03 36.1 17.6	-0.90 + 3.2	5.1/17.5	38797
2000 AZ ₉₅	2000 02 13.0	09 43.84 +14 54.5 17.6	-1.06 + 3.7	0.5/12.7	38875
4091 P-L	2000 02 13.0	09 43.92 +09 17.5 20.1	-0.92 + 4.9	1.3/14.2	33053
2000 AN ₁₆₈	2000 02 13.0	09 43.97 +13 33.0 17.7	-0.88 + 7.1	0.0/13.1	38698
3306 T-1	2000 02 13.0	09 43.98 +12 00.7 18.6	-0.97 + 5.7	0.5/13.5	38907
1998 QK ₉₈	2000 02 13.0	09 44.06 +22 28.0 17.8	-0.93 + 4.9	3.0/10.7	38486
(13570)	2000 02 13.0	09 44.12 +18 19.1 18.4	-1.01 + 5.8	1.6/11.8	38335
1998 UD ₂₈	2000 02 13.0	09 44.17 +55 14.0 19.9	-1.32 + 0.6	10.8/31.9	34594
1999 XD ₄₀	2000 02 13.1	09 44.05 +27 43.6 17.0	-0.98 + 9.9	5.6/08.7	38837
1999 VG ₈₇	2000 02 13.1	09 44.07 +04 35.3 17.5	-1.04 + 2.3	3.2/15.3	38822
1998 RT ₅₆	2000 02 13.1	09 44.15 +08 16.0 17.0	-0.90 + 5.2	2.1/14.6	38787
1998 QX ₁	2000 02 13.1	09 44.24 +10 58.4 18.9	-0.94 + 3.3	0.8/13.8	38474
1979 ML ₅	2000 02 13.1	09 44.28 +09 49.2 18.8	-0.85 + 5.9	1.2/14.2	33065
2000 CY ₅₅	2000 02 13.1	09 44.32 +13 16.3 17.9	-1.03 + 4.1	0.1/13.2	38730
2000 BZ ₂₉	2000 02 13.1	09 44.35 +17 14.0 17.1	-0.83 + 4.2	1.2/12.2	38725
2000 AS ₉₅	2000 02 13.1	09 44.39 +18 27.5 17.2	-0.79 + 6.8	1.5/11.7	38662
(12669)	2000 02 13.1	09 44.41 -00 54.4 17.2	-0.94 + 1.6	4.8/16.6	37030
1998 QP ₃₆	2000 02 13.1	09 44.53 +10 17.1 21.4	-0.93 + 4.3	0.9/14.1	33348
2000 AT ₉₅	2000 02 13.2	09 44.54 +17 03.0 17.6	-0.84 + 5.2	1.1/12.3	38662
1999 XX ₃₃	2000 02 13.2	09 44.61 +16 42.7 16.7	-0.92 + 6.8	1.5/12.3	38585
1996 HY ₁₇	2000 02 13.2	09 44.61 +13 22.1 19.6	-0.77 + 4.3	0.1/13.3	38769
1998 RB ₄₃	2000 02 13.2	09 44.66 +12 11.3 19.6	-1.01 + 3.6	0.5/13.6	38786
(11369)	2000 02 13.2	09 44.81 +06 53.6 17.0	-0.98 + 5.4	2.9/15.0	38016
1998 SJ ₆₂	2000 02 13.2	09 44.92 +01 01.7 19.0	-0.96 + 5.0	4.0/16.6	34023
2000 CX ₃₈	2000 02 13.2	09 44.93 +16 18.0 18.1	-1.01 + 5.5	1.0/12.6	38729
2000 AG ₉₂	2000 02 13.3	09 44.84 +06 59.1 16.8	-1.04 - 0.3	2.4/14.7	38874
1998 TA	2000 02 13.3	09 44.87 +21 43.8 16.6	-1.15 + 2.8	3.2/11.4	38794
1998 QA ₆₉	2000 02 13.3	09 44.89 +01 52.0 18.9	-0.89 + 8.3	3.9/16.9	34591
(13288)	2000 02 13.3	09 45.07 -01 43.5 16.9	-0.82 + 9.5	6.0/18.4	37564
1997 MY ₄	2000 02 13.3	09 45.24 +12 43.7 17.6	-0.98 + 6.4	0.3/13.6	38774
1992 EY ₅	2000 02 13.4	09 45.39 +12 56.0 16.6	-0.84 +11.9	0.2/13.6	38440
1998 QD ₄₄	2000 02 13.4	09 45.43 +17 54.8 18.8	-1.10 + 4.3	1.6/12.4	38782
1993 BL ₂	2000 02 13.4	09 45.58 +18 13.6 16.4	-0.96 + 9.7	2.0/12.0	38442
1995 DR ₆	2000 02 13.5	09 45.63 +16 10.3 19.2	-0.78 + 3.8	0.7/12.8	28087
1998 VF ₆	2000 02 13.5	09 45.67 +11 16.0 17.0	-0.83 + 2.9	0.7/14.1	38796

1998 TV ₃₀	2000 02 13.5	09 45.70 +14 43.4 18.2	-0.95 + 4.2	0.4/13.2	38795	1989 EV ₂	2000 02 14.2	09 48.80 +02 01.7 17.1	-0.98 + 4.3	4.7/17.2	38434
1998 TF ₃₂	2000 02 13.5	09 45.79 +28 10.8 19.4	-1.04 + 2.9	4.5/09.8	34306	1998 SO ₅₇	2000 02 14.2	09 48.81 +17 21.7 17.5	-0.95 + 5.1	1.6/13.2	38507
4659 P-L	2000 02 13.5	09 45.84 +04 41.4 18.7	-0.76 + 5.9	2.5/16.1	38906	1998 SN ₁₃₁	2000 02 14.2	09 48.84 +16 33.1 16.8	-0.97 + 2.1	1.2/13.5	38514
1998 UP ₆	2000 02 13.5	09 46.04 +37 37.2 18.1	-1.13 + 2.3	6.8/07.2	38795	(13613)	2000 02 14.3	09 48.76 +11 06.1 16.9	-0.92 + 4.8	0.8/14.9	38347
3020 T-2	2000 02 13.6	09 46.06 +28 23.3 18.8	-0.97 + 2.1	4.0/09.8	33589	1995 VM ₁	2000 02 14.3	09 48.78 +23 54.4 16.9	-1.09 + 6.0	3.9/11.4	38766
4231 T-2	2000 02 13.6	09 46.12 +25 08.6 18.1	-1.11 + 3.9	4.2/10.7	38908	1993 TD ₁₇	2000 02 14.3	09 48.84 +15 37.3 18.3	-0.88 + 4.8	0.8/13.7	38761
(13870)	2000 02 13.6	09 46.17 +03 50.5 17.6	-0.92 + 6.4	3.8/16.3	38419	1997 GA ₂₆	2000 02 14.3	09 48.86 +26 45.5 17.2	-1.16 + 5.6	5.5/10.6	38773
(13335)	2000 02 13.6	09 46.18 +20 38.9 17.3	-1.04 + 1.3	2.4/12.0	37578	2000 AV ₁₄₂	2000 02 14.3	09 48.95 +06 10.8 17.0	-0.78 + 4.8	2.3/16.3	38689
1995 UG ₅	2000 02 13.6	09 46.22 +20 14.0 18.4	-1.13 + 4.8	2.5/11.9	38766	1998 RP ₄₂	2000 02 14.3	09 49.05 +06 14.3 17.2	-0.95 + 4.0	2.7/16.2	38491
1996 TZ ₃₆	2000 02 13.6	09 46.28 +10 28.3 18.9	-0.51 + 2.7	0.5/14.5	28309	(13519)	2000 02 14.3	09 49.17 +38 13.9 18.1	-1.10 + 5.5	7.7/07.2	38321
(13664)	2000 02 13.7	09 46.48 +19 23.9 17.9	-1.15 + 2.7	2.7/12.3	38361	1998 SQ ₁₈	2000 02 14.3	09 49.18 +09 09.4 18.1	-0.95 + 7.0	1.4/15.5	38789
1997 KA	2000 02 13.7	09 46.75 -06 00.8 17.2	-0.89 + 2.9	5.9/18.8	38773	2047 T-2	2000 02 14.3	09 49.19 +16 05.8 19.4	-0.96 + 3.7	0.9/13.6	33326
1998 XY ₆	2000 02 13.7	09 46.77 +14 22.3 19.9	-0.86 + 4.9	0.3/13.5	33530	1998 WA ₂₂	2000 02 14.4	09 49.16 +18 17.3 18.8	-1.00 + 5.5	1.7/13.0	38798
1994 PE ₂₀	2000 02 13.7	09 46.81 +11 58.1 19.6	-0.97 + 4.7	0.5/14.2	38763	1999 XP ₃₈	2000 02 14.4	09 49.16 +25 18.7 16.4	-0.85 + 6.8	3.8/10.7	38837
(13703)	2000 02 13.7	09 46.82 +13 07.5 17.7	-0.99 + 5.7	0.1/13.9	38372	(13038)	2000 02 14.4	09 49.31 +16 04.9 17.2	-0.91 + 2.0	0.9/13.7	37497
1999 XS ₁₃₆	2000 02 13.8	09 46.91 -00 42.1 15.1	-1.13 - 3.2	6.0/16.3	38850	1998 SA ₈₀	2000 02 14.4	09 49.37 +07 15.4 18.0	-0.95 + 6.2	2.4/16.1	38792
1998 SK ₁₆₄	2000 02 13.8	09 46.96 +21 58.6 15.9	-0.89 + 7.6	3.3/11.2	38794	1998 QN ₉₂	2000 02 14.4	09 49.59 +28 39.3 17.6	-0.98 + 1.8	4.5/10.6	38785
1998 SX ₁₁₅	2000 02 13.8	09 47.03 +14 54.4 17.4	-0.99 + 3.8	0.6/13.5	38511	1998 SR ₂₆	2000 02 14.4	09 49.60 +00 31.9 17.8	-0.84 + 6.2	4.4/18.2	38502
(9775)	2000 02 13.8	09 47.06 +09 29.5 18.5	-0.90 + 4.5	1.2/14.9	33205	1994 QE	2000 02 14.5	09 49.57 +13 40.8 19.4	-1.03 + 3.9	0.2/14.4	38448
(9823)	2000 02 13.8	09 47.20 +24 31.3 18.8	-1.08 + 4.5	3.9/10.9	33216	(13741)	2000 02 14.5	09 49.65 +14 42.0 17.1	-0.88 + 4.6	0.5/14.1	38383
2000 CD ₆₅	2000 02 13.8	09 47.21 +15 25.7 18.1	-0.80 + 4.0	0.5/13.3	38730	2000 BY ₂₈	2000 02 14.5	09 49.66 +15 56.0 17.6	-1.01 + 3.5	1.1/13.8	38725
2000 AU ₁₄₃	2000 02 13.8	09 47.23 +11 46.9 16.7	-0.79 +11.7	0.5/14.4	38880	(13642)	2000 02 14.5	09 49.72 +18 55.2 18.6	-0.84 + 3.2	1.5/13.0	38354
(13494)	2000 02 13.9	09 47.27 +16 04.9 17.7	-1.13 + 4.4	1.1/13.2	38314	1999 BN ₅	2000 02 14.5	09 49.73 +13 43.9 18.9	-0.87 + 5.7	0.2/14.4	38542
(13480)	2000 02 13.9	09 47.46 +10 57.6 18.3	-1.09 + 3.9	0.8/14.5	38311	1998 SR ₁₁₈	2000 02 14.5	09 49.75 +10 19.4 17.8	-0.92 + 5.5	1.0/15.3	38792
1998 QR ₁₀₂	2000 02 13.9	09 47.47 +20 50.8 17.7	-1.03 + 5.2	2.9/12.0	38487	1993 OO ₄	2000 02 14.5	09 49.85 +14 54.5 18.6	-0.91 + 6.0	0.6/14.1	38761
1996 HV	2000 02 13.9	09 47.50 +28 24.7 19.3	-0.97 + 5.1	5.1/09.6	38769	1998 SA ₁₁₀	2000 02 14.5	09 49.89 +16 57.2 17.7	-1.11 + 3.1	1.4/13.7	38511
1981 EL ₇	2000 02 13.9	09 47.57 -04 51.2 18.4	-0.88 + 8.7	7.2/19.8	26916	1991 PL ₁₈	2000 02 14.5	09 49.97 +10 17.3 18.4	-1.07 + 4.2	1.0/15.3	38756
1998 ST ₅₉	2000 02 13.9	09 47.61 +17 51.0 19.4	-0.99 + 5.4	1.5/12.8	33758	1998 SR ₁₁₁	2000 02 14.6	09 49.96 +32 57.1 16.6	-1.14 + 0.5	7.6/09.8	38792
1997 GM ₈	2000 02 13.9	09 47.62 +03 49.5 18.3	-0.94 + 5.4	3.3/16.6	38772	(13517)	2000 02 14.6	09 50.03 -02 11.4 18.4	-0.86 + 7.3	4.8/19.3	38320
1998 QY ₃₇	2000 02 14.0	09 47.68 +15 16.2 18.2	-1.10 + 3.5	0.7/13.5	38782	1992 OK ₂	2000 02 14.6	09 50.05 +08 14.1 19.5	-0.87 + 2.0	1.3/15.8	35685
1993 FB ₃₂	2000 02 14.0	09 47.72 +11 39.4 18.0	-0.97 + 6.5	0.6/14.5	38760	1998 SK ₁₂₇	2000 02 14.6	09 50.11 +12 27.1 18.9	-0.98 + 6.6	0.2/14.8	35719
1998 SW ₂₃	2000 02 14.0	09 47.74 +27 29.4 17.9	-1.09 + 4.2	5.7/10.3	38061	1996 GY ₁₇	2000 02 14.6	09 50.16 +15 42.7 18.2	-0.87 + 4.2	0.8/13.9	38454
2861 P-L	2000 02 14.0	09 47.76 +12 54.1 18.1	-0.82 + 4.4	0.1/14.1	38906	2000 AX ₉₅	2000 02 14.6	09 50.39 +17 33.8 17.7	-0.80 + 7.0	1.3/13.3	38662
2000 AW ₉₅	2000 02 14.0	09 47.77 +15 14.8 17.6	-0.87 + 4.1	0.6/13.5	38662	1998 MM ₅	2000 02 14.7	09 50.33 +15 24.0 20.0	-0.98 + 3.8	0.7/14.1	35709
1997 HY ₉	2000 02 14.0	09 47.88 +27 18.4 18.2	-1.06 + 4.6	4.8/10.3	37670	(9745)	2000 02 14.7	09 50.35 +10 49.2 17.6	-0.83 + 4.7	0.7/15.3	38016
(12767)	2000 02 14.0	09 47.99 +15 55.3 17.1	-0.83 + 4.1	0.8/13.4	37056	1998 RT ₅₃	2000 02 14.7	09 50.41 +03 51.7 17.2	-1.02 + 4.5	4.0/17.1	38492
1998 UA ₇	2000 02 14.0	09 47.99 +38 06.3 17.7	-0.88 + 6.6	6.7/06.0	35722	1998 OV ₁₃	2000 02 14.7	09 50.66 +14 30.0 18.2	-0.99 + 8.5	0.5/14.3	38471
1998 QX ₉₀	2000 02 14.0	09 48.00 +10 55.2 20.1	-0.96 + 7.0	0.7/14.7	32985	(13678)	2000 02 14.7	09 50.77 -04 23.9 17.6	-0.86 + 2.3	4.9/19.3	38365
1998 RG ₃	2000 02 14.1	09 48.00 +01 14.2 20.6	-0.87 + 4.8	3.4/17.5	33563	1998 QE ₃₂	2000 02 14.7	09 50.80 +15 48.2 17.9	-0.99 + 8.1	1.0/14.0	38781
(10001)	2000 02 14.1	09 48.18 +26 15.8 17.0	-1.11 + 4.0	5.0/10.8	38016	1977 DG ₃	2000 02 14.7	09 50.80 +13 02.4 16.6	-0.90 + 8.3	0.0/14.8	38750
2000 AY ₉₅	2000 02 14.1	09 48.24 +18 04.2 17.3	-0.80 + 7.0	1.4/12.7	38875	(13378)	2000 02 14.8	09 50.72 +02 22.0 16.2	-0.76 + 6.5	3.4/18.0	37590
2000 BS ₃	2000 02 14.1	09 48.24 +19 21.2 16.7	-0.99 + 5.0	2.8/12.5	38717	(13147)	2000 02 14.8	09 50.82 +13 24.0 16.9	-0.82 + 5.3	0.1/14.7	37526
1997 MR ₁	2000 02 14.1	09 48.46 -28 29.3 18.5	-1.10 - 1.7	16.3/24.5	34296	1998 WF ₄	2000 02 14.8	09 50.85 +17 02.5 18.8	-0.81 + 4.1	1.1/13.7	34596
(13477)	2000 02 14.2	09 48.42 +26 34.2 17.2	-1.03 + 5.4	4.4/10.5	38310	1998 SQ ₆₅	2000 02 14.8	09 50.92 +19 09.1 16.4	-0.99 + 6.0	2.6/13.1	38509
(10856)	2000 02 14.2	09 48.48 +35 22.0 18.5	-1.01 + 0.6	5.2/08.6	34785	1998 QF ₁₀₀	2000 02 14.8	09 51.15 +09 36.3 17.2	-0.82 +10.8	1.3/16.0	38785
1998 QL ₉₆	2000 02 14.2	09 48.61 +06 43.9 20.4	-1.01 + 3.5	2.1/16.0	35713	1996 HM ₂	2000 02 14.8	09 51.16 +17 58.7 16.5	-0.92 + 4.5	2.0/13.5	38769
1998 WR ₁₈	2000 02 14.2	09 48.68 +02 52.5 17.6	-0.89 + 3.6	3.4/17.0	38798	1998 SB ₁₄₄	2000 02 14.8	09 51.17 +13 40.7 18.7	-0.93 + 5.3	0.2/14.7	38794
1994 TW ₁₅	2000 02 14.2	09 48.69 +07 38.9 19.2	-0.93 + 5.2	1.8/16.0	38764	1998 SE ₁₄₀	2000 02 14.9	09 51.10 +21 58.7 18.1	-1.05 + 2.5	3.0/12.7	38793
(13386)	2000 02 14.2	09 48.74 +23 05.4 17.4	-0.77 + 6.5	2.5/11.3	37592	3230 T-2	2000 02 14.9	09 51.11 +16 33.8 18.6	-0.76 + 4.6	1.0/13.9	25337
(12897)	2000 02 14.2	09 48.78 +20 15.6 16.5	-1.10 + 3.9	3.2/12.5	37091	(13172)	2000 02 14.9	09 51.25 +05 07.0 17.2	-1.10 + 1.6	3.0/16.7	37532
1981 EJ ₂	2000 02 14.2	09 48.79 -00 38.3 19.3	-0.82 + 3.5	3.9/18.0	26914	1985 CL ₂	2000 02 14.9	09 51.32 +12 02.6 16.5	-0.94 + 5.9	0.4/15.2	38752

2000 FEB. 22

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1995 CG ₃	2000 02 14.9	09 51.41 +12 04.7 18.8	-0.81 + 7.0	0.3/15.2	38449
1994 NL ₂	2000 02 15.0	09 51.53 -18 58.6 18.1	-0.96 + 3.9	9.2/24.2	33940
1994 RW ₁₁	2000 02 15.0	09 51.60 +06 12.4 18.3	-0.96 + 5.6	2.2/16.8	38763
2000 BW ₃	2000 02 15.0	09 51.75 +18 04.3 17.4	-0.95 + 6.8	1.7/13.6	38717
1999 XH ₃₄	2000 02 15.0	09 51.77 +17 46.4 17.0	-0.81 + 8.1	2.0/13.6	38836
(13558)	2000 02 15.0	09 51.84 +14 14.7 18.2	-0.83 + 2.6	0.3/14.7	38332
(9882)	2000 02 15.0	09 51.94 +12 51.3 19.5	-0.98 + 5.5	0.0/15.1	33465
1998 QE ₄₂	2000 02 15.1	09 51.95 +19 49.9 18.0	-1.08 + 5.0	2.5/13.3	38782
1992 RJ ₅	2000 02 15.1	09 51.96 +17 25.2 19.1	-0.80 + 4.4	1.2/13.9	38758
1998 VY ₈	2000 02 15.1	09 51.97 -12 39.1 18.7	-0.79 + 4.3	7.8/23.1	34595
1998 SP ₁₀	2000 02 15.1	09 52.13 +02 39.4 20.1	-0.83 + 8.7	3.2/18.4	33354
1998 US ₁₃	2000 02 15.1	09 52.13 +17 46.1 19.3	-0.86 + 4.4	1.5/13.8	38523
1998 SG ₁₃₂	2000 02 15.1	09 52.25 +15 22.5 16.3	-1.15 + 2.8	1.0/14.6	38793
(13489)	2000 02 15.1	09 52.32 -00 46.9 17.6	-0.78 + 3.9	3.8/19.0	38313
1998 SB ₁₂₁	2000 02 15.2	09 52.44 +07 04.5 17.2	-0.84 + 7.1	2.2/17.0	38512
(13556)	2000 02 15.2	09 52.45 +03 08.7 18.2	-0.81 + 3.2	2.5/17.8	38331
2000 AC ₁₄₃	2000 02 15.2	09 52.60 +03 02.7 17.7	-0.85 + 1.7	2.7/17.8	38880
2000 AV ₁₉₈	2000 02 15.2	09 52.61 +02 52.4 17.6	-0.74 + 5.8	2.8/18.3	38705
1998 UZ ₂₆	2000 02 15.2	09 52.73 +11 27.4 19.4	-0.90 + 5.9	0.4/15.7	33762
1995 YE ₆	2000 02 15.3	09 52.67 +07 54.4 18.3	-1.02 + 5.7	2.2/16.6	38767
1998 SZ ₁₁₈	2000 02 15.3	09 52.93 +19 53.4 18.9	-0.95 + 3.5	2.2/13.5	34593
1998 SO ₈	2000 02 15.3	09 52.94 +05 08.8 20.9	-0.88 + 6.3	2.2/17.6	33354
1999 XB ₉₅	2000 02 15.3	09 52.95 +34 55.6 17.5	-0.87 + 5.5	5.8/08.5	38592
1998 QS ₃₅	2000 02 15.3	09 53.07 +18 47.3 18.0	-1.12 + 2.7	2.4/14.0	38478
4092 T-2	2000 02 15.3	09 53.14 +24 12.3 19.7	-0.93 + 3.2	3.2/12.4	36581
3161 T-2	2000 02 15.4	09 53.07 +17 56.1 19.3	-0.93 + 5.1	1.6/14.0	36123
1998 PU	2000 02 15.4	09 53.10 +14 00.1 18.3	-1.06 + 3.4	0.4/15.1	38472
1998 WS ₁₆	2000 02 15.4	09 53.24 +17 17.6 17.6	-0.87 + 4.5	1.4/14.2	38798
(13627)	2000 02 15.4	09 53.35 +21 09.8 17.4	-1.07 + 6.4	3.0/13.2	38350
1995 WT ₁	2000 02 15.4	09 53.53 +03 58.0 17.4	-1.03 + 5.0	3.4/17.8	38766
1989 TN ₁	2000 02 15.5	09 53.54 +18 21.4 18.2	-1.05 + 1.4	1.9/14.2	38754
1998 YL ₁	2000 02 15.5	09 53.60 +10 41.3 16.3	-1.02 + 1.3	0.7/16.0	38799
1996 JK ₁₃	2000 02 15.5	09 53.65 +14 48.1 18.1	-0.84 + 5.3	0.6/15.0	38769
1993 FG ₂₈	2000 02 15.5	09 53.70 +08 54.3 19.1	-0.96 + 5.0	1.2/16.6	35687
1999 XO ₁₃₆	2000 02 15.5	09 53.71 +23 52.1 16.2	-0.99 + 9.0	5.0/12.1	38850
1988 PU	2000 02 15.5	09 53.75 -05 36.7 16.8	-0.89 + 3.0	5.9/20.4	38753
1004 T-2	2000 02 15.5	09 53.76 +19 02.8 18.5	-1.02 + 2.8	2.2/14.0	38907
1987 CH	2000 02 15.5	09 53.79 +12 33.8 15.9	-0.96 + 9.2	0.1/15.6	38752
(13705)	2000 02 15.5	09 53.88 +15 13.9 17.1	-1.04 + 7.5	0.9/14.9	38373
1998 TU ₃₀	2000 02 15.6	09 53.88 +30 15.4 17.7	-0.94 + 2.3	5.8/10.9	34593
9072 P-L	2000 02 15.6	09 53.92 +03 50.5 18.0	-0.83 + 5.1	3.0/18.1	38907
4597 P-L	2000 02 15.6	09 54.00 +10 09.7 16.8	-1.00 + 7.6	1.1/16.4	38906
(12696)	2000 02 15.6	09 54.25 +09 42.3 17.3	-0.86 + 7.0	1.0/16.6	37037
(11349)	2000 02 15.7	09 54.33 +05 09.0 18.4	-0.95 + 6.1	2.7/17.8	35578
1996 EM ₁	2000 02 15.7	09 54.39 +16 25.5 16.6	-1.14 - 0.4	1.6/15.0	38453
1998 QT ₅₅	2000 02 15.7	09 54.55 +16 16.9 18.3	-1.09 + 5.5	1.3/14.8	38783
1994 VB	2000 02 15.7	09 54.70 +33 20.3 18.8	-1.09 + 3.2	6.3/10.2	38764
1993 LW ₁	2000 02 15.8	09 54.66 +33 04.5 17.3	-1.13 + 5.8	6.9/09.7	38761
2000 BZ ₂₈	2000 02 15.8	09 54.70 +20 20.8 17.6	-0.97 + 1.4	2.9/14.0	38725
1996 HX ₁₆	2000 02 15.8	09 54.77 +17 07.7 18.2	-0.86 + 4.5	1.4/14.6	38769
1991 PP ₁₂	2000 02 15.8	09 54.92 +11 45.6 18.2	-1.06 + 4.9	9.2/07.0	38756

1998 WS ₈	2000 02 15.8	09 54.93 -02 44.0 18.1	-0.87 + 2.0	4.8/19.8	38534
1998 QD ₄₆	2000 02 15.8	09 55.00 +12 11.3 19.9	-1.04 + 4.8	9.2/07.0	35711
1998 QR ₁₂	2000 02 15.9	09 55.01 +06 15.3 19.4	-1.04 + 3.2	2.2/17.5	38780
1994 TB ₃	2000 02 15.9	09 55.05 +32 01.0 17.7	-1.16 + 1.1	6.6/11.3	38763
1981 EZ ₉	2000 02 15.9	09 55.06 -02 42.9 19.2	-0.77 + 6.2	4.3/20.6	26916
(9759)	2000 02 15.9	09 55.07 +05 54.3 17.7	-0.78 + 3.5	1.9/17.8	33201
1998 TR ₁₇	2000 02 15.9	09 55.42 +11 24.3 18.9	-0.90 + 5.1	0.4/16.3	38794
1997 JB ₁₀	2000 02 16.0	09 55.40 +15 39.1 17.2	-0.98 + 7.0	1.3/15.1	38773
1991 AF ₂	2000 02 16.0	09 55.45 -00 05.9 17.7	-0.83 + 9.0	4.6/20.1	38755
(12818)	2000 02 16.0	09 55.45 +18 23.6 17.6	-0.89 + 5.1	1.8/14.4	37068
(11383)	2000 02 16.0	09 55.47 +15 27.3 16.5	-0.87 + 5.7	1.0/15.2	35586
(10500)	2000 02 16.0	09 55.60 +32 08.9 16.3	-1.05 + 4.5	7.2/10.2	34436
(13073)	2000 02 16.0	09 55.71 +16 35.0 17.4	-1.12 + 3.3	1.4/15.1	37506
1998 QC ₄₀	2000 02 16.0	09 55.77 +10 34.2 17.7	-0.96 + 5.6	0.7/16.6	38782
1998 UR ₇	2000 02 16.1	09 55.84 -00 29.0 20.0	-0.78 + 5.4	3.7/20.0	35722
1998 OS ₈	2000 02 16.1	09 55.87 +09 55.6 18.7	-1.10 + 4.3	1.0/16.8	38471
(9798)	2000 02 16.1	09 55.87 +24 44.8 16.5	-0.83 + 5.7	3.4/12.5	33211
1998 RB ₇₄	2000 02 16.1	09 56.01 +11 36.3 16.4	-1.01 + 1.5	0.4/16.4	38498
1998 SW ₇₅	2000 02 16.1	09 56.01 +13 51.1 17.0	-1.04 + 7.4	0.5/15.8	38792
1991 UJ ₂	2000 02 16.1	09 56.19 +20 56.4 17.4	-1.09 + 4.7	3.0/14.0	38757
(13702)	2000 02 16.1	09 56.20 +06 21.0 17.2	-1.08 + 1.3	2.2/17.6	38372
(13516)	2000 02 16.2	09 56.29 +15 27.8 17.6	-0.92 + 6.5	1.0/15.4	38320
1996 AP ₃	2000 02 16.2	09 56.52 +03 09.7 17.0	-1.03 + 4.0	3.2/18.7	38768
1989 TZ	2000 02 16.3	09 56.67 -06 56.8 17.8	-0.86 + 4.4	5.6/21.8	38021
(13053)	2000 02 16.3	09 56.68 +17 27.1 17.5	-0.96 + 7.3	2.0/14.9	37501
1998 UJ ₂₆	2000 02 16.3	09 56.79 +14 21.4 18.7	-0.78 + 5.7	0.5/15.8	33574
2000 AF ₄₅	2000 02 16.4	09 56.99 -01 36.5 17.5	-0.78 + 2.9	3.9/20.3	38634
1993 FL ₈	2000 02 16.4	09 57.04 +24 47.4 17.3	-1.10 + 4.3	4.6/13.1	38759
1993 FA ₅₃	2000 02 16.4	09 57.14 +10 30.9 17.6	-0.95 + 7.9	0.8/17.0	38444
1998 SQ ₂₂	2000 02 16.4	09 57.19 +19 51.7 18.8	-0.96 + 2.9	2.2/14.6	38501
2000 BG ₃₀	2000 02 16.4	09 57.38 +17 24.6 17.1	-0.93 + 6.3	2.2/15.1	38726
1997 GV ₃₅	2000 02 16.5	09 57.36 +02 14.3 18.5	-0.96 + 6.2	3.8/19.4	38773
(13804)	2000 02 16.5	09 57.37 +13 21.2 17.6	-0.81 + 3.0	0.2/16.3	38401
(13751)	2000 02 16.5	09 57.48 +08 14.0 17.0	-0.92 + 9.2	1.8/17.8	38386
2000 AA ₉₆	2000 02 16.5	09 57.60 +13 59.2 17.4	-0.84 + 4.1	0.5/16.1	38662
1998 RY ₇₂	2000 02 16.5	09 57.69 +10 19.4 17.4	-0.89 + 5.8	0.8/17.2	38497
1999 XF ₃₄	2000 02 16.5	09 57.73 +32 53.3 16.0	-0.79 +19.7	7.9/07.9	38836
1998 QU ₁₂	2000 02 16.5	09 57.80 +08 44.9 19.5	-1.02 + 6.6	1.3/17.6	33347
1998 RA ₇₉	2000 02 16.6	09 57.77 +11 35.1 19.2	-0.88 + 7.3	0.3/16.9	38789
2796 P-L	2000 02 16.6	09 57.86 +12 57.9 19.5	-0.92 + 6.0	0.2/16.5	38906
1999 AK ₃	2000 02 16.6	09 57.93 -10 00.0 17.4	-0.87 + 3.9	7.5/23.3	38799
1998 WA ₃₂	2000 02 16.6	09 57.94 +10 27.4 17.1	-0.83 + 4.5	0.6/17.2	38798
1157 T-3	2000 02 16.6	09 57.99 -00 02.1 18.3	-0.82 + 3.2	3.7/20.1	38908
(12975)	2000 02 16.6	09 58.03 -02 48.7 17.1	-0.83 + 9.0	5.2/21.6	37480
1993 YF	2000 02 16.6	09 58.07 +14 39.0 18.0	-0.81 + 4.9	0.7/16.0	38762
1998 SU ₃₅	2000 02 16.6	09 58.09 +28 49.5 19.4	-1.08 + 2.6	5.3/12.5	35717
(9936)	2000 02 16.6	09 58.17 +05 10.4 16.9	-0.83 + 1.6	1.9/18.5	35414
(11190)	2000 02 16.7	09 58.14 +21 29.2 18.8	-1.09 + 4.7	3.2/14.3	35260
1998 SS ₆₁	2000 02 16.7	09 58.19 -05 45.9 17.5	-0.85 + 6.8	6.4/22.4	38791
1998 QX ₃₉	2000 02 16.7	09 58.36 +12 22.2 18.0	-1.01 + 7.3	0.0/16.8	38479
1998 RM ₅₄	2000 02 16.7	09 58.38 +07 15.2 17.1	-1.03 + 3.8	2.1/18.1	38492

1991 PV ₅	2000 02 16.7	09 58.40 +14 00.2 20.2	-1.01 + 6.7	0.5/16.3	35683
1998 SZ ₃₅	2000 02 16.7	09 58.43 +25 37.6 19.6	-1.01 + 4.0	4.1/13.2	34023
1998 TW ₃₂	2000 02 16.7	09 58.47 -07 47.2 17.3	-0.84 + 6.8	6.6/23.1	38795
2000 CA ₂₉	2000 02 16.7	09 58.54 +12 12.3 17.5	-0.75 + 6.5	0.0/16.8	38728
1998 QH ₃	2000 02 16.8	09 58.50 +18 34.7 17.7	-1.27 - 2.1	2.2/15.6	38474
2000 AA ₂₀₂	2000 02 16.8	09 58.52 -03 34.6 16.4	-0.89 - 0.1	4.5/20.6	38884
4602 P-L	2000 02 16.8	09 58.61 +12 17.5 18.2	-0.81 + 4.6	0.0/16.8	38906
1999 XK ₁₆₅	2000 02 16.8	09 58.64 +21 53.4 17.6	-0.97 + 4.9	3.8/14.2	38854
1994 TJ	2000 02 16.8	09 58.73 +15 23.8 18.4	-1.02 + 3.4	1.1/16.1	38763
1998 RU ₅	2000 02 16.8	09 58.81 +04 30.9 17.7	-0.85 + 8.2	2.7/19.3	38490
1992 BP ₂	2000 02 16.8	09 58.89 +02 51.3 17.1	-0.91 + 5.9	3.7/19.6	38757
1993 UT	2000 02 16.8	09 58.90 +56 32.5 19.3	-1.34 + 3.4	10.3/01.0	38762
(13169)	2000 02 16.8	09 58.91 +09 45.4 17.0	-1.01 + 5.6	1.0/17.6	37532
1998 PX	2000 02 16.8	09 58.91 +14 25.8 18.7	-1.10 + 4.0	0.8/16.4	38780
(13616)	2000 02 16.8	09 58.94 +18 34.3 17.7	-0.90 + 5.1	2.0/15.1	38347
(13136)	2000 02 16.9	09 58.94 +14 07.3 17.9	-0.96 + 4.2	0.6/16.4	37523
1998 TZ	2000 02 16.9	09 58.99 +15 46.2 18.9	-1.13 + 5.9	1.4/16.0	38520
1981 UA	2000 02 16.9	09 59.03 +56 06.6 18.3	-2.16 - 8.0	18.4/12.2	38019
(12698)	2000 02 16.9	09 59.07 +10 20.3 16.9	-0.88 + 4.9	0.7/17.5	37037
2000 AZ ₂₀₁	2000 02 16.9	09 59.19 -00 13.1 17.1	-0.83 + 2.9	4.0/20.3	38706
1993 FD ₄₀	2000 02 16.9	09 59.21 +06 18.9 18.4	-0.92 + 8.0	2.4/18.8	38760
(12756)	2000 02 16.9	09 59.26 +20 45.8 17.0	-0.87 + 8.2	2.5/14.3	37053
1998 RO ₈₀	2000 02 16.9	09 59.27 +20 53.0 17.4	-1.11 + 2.6	3.7/14.9	33353
4259 P-L	2000 02 16.9	09 59.29 +06 27.9 20.5	-0.77 + 4.4	1.6/18.7	35047
1998 SY ₅₈	2000 02 17.0	09 59.35 +16 46.4 18.8	-1.04 + 4.9	1.5/15.8	35718
1998 SK ₇₅	2000 02 17.0	09 59.35 +14 42.6 16.6	-0.92 + 7.6	1.0/16.3	38792
(13571)	2000 02 17.0	09 59.40 +10 45.4 17.8	-0.94 + 7.7	0.5/17.5	38335
(13338)	2000 02 17.0	09 59.50 +26 05.2 16.4	-1.01 + 2.2	5.1/13.5	37578
1988 VQ ₄	2000 02 17.0	09 59.53 +08 36.3 16.8	-0.77 + 7.2	1.1/18.2	34176
2000 CV ₂₉	2000 02 17.0	09 59.55 +12 29.1 16.7	-0.90 + 6.8	0.1/17.0	38728
2000 AD ₁₄₃	2000 02 17.1	09 59.76 +01 11.9 16.9	-0.86 + 1.6	4.8/20.0	38689
1997 OM	2000 02 17.1	09 59.77 +12 28.5 18.9	-0.83 + 5.2	0.1/17.1	38774
1998 WQ ₁₆	2000 02 17.1	09 59.98 +24 29.6 18.3	-0.82 + 4.1	3.3/13.6	34933
1982 UE ₁₂	2000 02 17.1	10 00.01 +12 30.9 16.6	-1.07 + 1.3	0.1/17.1	38752
1998 UM ₂₆	2000 02 17.2	10 00.13 +15 13.3 17.5	-1.02 + 7.3	1.1/16.4	38796
(12983)	2000 02 17.2	10 00.19 +15 26.1 16.9	-0.74 + 7.2	0.9/16.2	37482
2000 AG ₂₄₃	2000 02 17.2	10 00.28 +17 20.3 16.1	-0.91 +34.0	2.3/15.1	38714
1998 SS ₁₂₁	2000 02 17.2	10 00.29 +05 09.8 18.6	-0.88 + 4.6	2.4/19.2	38513
1993 HX	2000 02 17.2	10 00.41 +13 29.7 16.7	-0.96 + 6.5	0.5/16.9	38761
2000 CK ₃₉	2000 02 17.2	10 00.51 +13 45.3 17.3	-0.92 + 6.5	0.7/16.8	38729
1998 SN ₂	2000 02 17.3	10 00.47 +12 21.1 19.0	-0.80 + 4.4	0.0/17.3	38789
1998 SB ₁₃₆	2000 02 17.3	10 00.47 +13 15.0 18.6	-0.96 + 6.3	0.3/17.0	35720
1998 RW ₄₆	2000 02 17.3	10 00.52 +06 19.5 18.9	-0.98 + 5.1	1.9/18.9	38786
1998 QS ₄₇	2000 02 17.3	10 00.54 +11 16.6 19.1	-0.96 + 6.5	0.3/17.6	37725
1998 TU ₁	2000 02 17.3	10 00.57 -06 53.2 18.1	-0.87 + 6.0	6.0/23.2	38794
5168 T-3	2000 02 17.3	10 00.61 +21 52.5 17.4	-0.81 + 6.8	3.0/14.3	38747
2000 AZ ₆₆	2000 02 17.3	10 00.67 +21 38.4 17.6	-0.79 + 6.1	2.5/14.4	38648
2311 T-3	2000 02 17.3	10 00.79 -00 16.4 18.4	-0.77 + 5.2	3.8/21.0	30683
1997 NU ₁	2000 02 17.4	10 00.84 +10 26.6 18.2	-0.84 + 4.6	0.5/17.9	38774
1998 UQ	2000 02 17.4	10 00.94 +27 03.6 20.6	-1.10 + 4.2	4.5/13.4	34306
1993 FX ₂₉	2000 02 17.4	10 00.98 +04 16.5 17.7	-0.98 + 4.7	3.2/19.5	38760

1994 WK ₂	2000 02 17.4	10 01.05 +24 56.0 15.6	-0.79 + 8.9	5.4/13.1	38764
1993 VH ₅	2000 02 17.5	10 01.21 +14 29.0 19.0	-0.83 + 5.2	0.7/16.8	38762
(10153)	2000 02 17.5	10 01.30 +10 18.5 18.1	-0.96 + 8.7	0.6/18.1	33894
(13302)	2000 02 17.5	10 01.41 +03 31.8 16.6	-1.02 + 3.8	3.8/19.8	37568
1998 RF ₁	2000 02 17.5	10 01.51 +12 25.8 19.2	-1.05 + 3.7	0.1/17.5	36085
1991 PR ₁₆	2000 02 17.5	10 01.61 +12 29.2 18.2	-1.01 + 6.0	0.1/17.5	38756
(13634)	2000 02 17.6	10 01.62 +06 48.5 17.5	-1.06 + 4.7	2.1/19.0	38352
(9846)	2000 02 17.6	10 01.70 +23 24.6 16.3	-1.21 + 1.9	4.7/14.8	33456
2000 AG ₁₄₃	2000 02 17.6	10 01.76 +03 52.8 17.1	-0.98 + 2.7	2.8/19.7	38690
2000 AW ₁₂₈	2000 02 17.6	10 01.88 +08 14.7 16.7	-0.91 + 1.5	1.2/18.6	38879
1998 QB ₇₅	2000 02 17.6	10 02.01 +00 24.9 17.5	-1.02 + 1.9	4.1/20.6	38784
1998 QF ₄₉	2000 02 17.7	10 02.01 +12 04.4 16.7	-0.85 + 8.2	0.0/17.7	38783
(13275)	2000 02 17.7	10 02.03 +13 14.0 17.1	-0.91 + 7.9	0.4/17.4	37560
(13730)	2000 02 17.7	10 02.15 +02 20.3 18.1	-0.96 + 6.2	3.4/20.5	38380
(12779)	2000 02 17.7	10 02.23 +15 59.0 17.2	-0.86 + 6.3	1.4/16.6	37059
1991 RO ₁₁	2000 02 17.7	10 02.28 +07 37.0 17.6	-0.91 + 0.2	1.2/18.8	38438
1998 QO ₃₆	2000 02 17.7	10 02.29 +06 07.3 18.5	-0.97 + 5.0	2.1/19.4	38782
1984 EQ	2000 02 17.8	10 02.51 +19 52.8 16.3	-1.01 0.0	2.7/16.0	38752
1998 WP ₁₅	2000 02 17.8	10 02.51 +36 44.9 17.5	-0.89 + 4.7	7.1/09.9	38798
1998 SW ₇₃	2000 02 17.8	10 02.59 +24 53.5 18.1	-1.11 + 4.3	4.5/14.4	35718
1998 TP ₂	2000 02 17.8	10 02.62 +10 02.1 17.5	-0.89 + 4.5	0.6/18.4	38794
1998 UT ₂₉	2000 02 17.8	10 02.83 +11 04.9 18.4	-0.87 + 7.2	0.3/18.2	38526
1997 GA ₃₇	2000 02 17.9	10 02.84 +03 17.9 17.8	-0.99 + 7.1	3.6/20.4	38773
1998 VN ₈	2000 02 17.9	10 02.86 +12 59.5 18.4	-0.98 + 4.4	0.3/17.6	38796
1994 PK ₁₅	2000 02 17.9	10 02.91 +08 26.7 16.6	-1.05 + 4.0	1.5/18.8	38448
(9824)	2000 02 17.9	10 02.99 +16 27.4 17.6	-0.85 + 4.8	1.4/16.7	33217
1993 TO ₂₂	2000 02 17.9	10 03.06 +15 59.4 18.8	-0.86 + 4.9	1.2/16.8	34191
1998 SF ₁₁₁	2000 02 17.9	10 03.13 +10 08.0 19.4	-0.97 + 5.3	0.6/18.5	37778
1991 PD ₁₁	2000 02 17.9	10 03.23 +13 16.9 17.2	-1.03 + 8.5	0.5/17.6	38756
1994 TX	2000 02 18.0	10 03.43 +17 05.8 18.7	-0.97 + 4.7	1.7/16.7	35691
1996 AV ₁	2000 02 18.0	10 03.46 +13 37.3 17.4	-0.95 + 6.4	0.7/17.6	38768
1998 QE ₂₃	2000 02 18.0	10 03.60 +18 20.8 16.5	-1.00 + 5.1	2.8/16.3	38781
1999 XF ₁₅	2000 02 18.0	10 03.64 -11 05.1 16.7	-1.66 -13.0	12.2/21.0	38833
(10179)	2000 02 18.1	10 03.65 +13 12.8 17.0	-0.84 + 9.3	0.4/17.7	33900
1993 FA ₁₅	2000 02 18.1	10 03.65 +25 01.1 17.8	-1.06 + 4.6	4.6/14.5	37263
1998 RA ₆₄	2000 02 18.1	10 03.83 +14 54.2 16.5	-0.92 + 6.9	1.3/17.3	38495
1998 RB ₆₃	2000 02 18.2	10 04.05 +09 34.9 18.2	-0.84 + 9.1	0.8/19.0	38495
1998 UR ₈	2000 02 18.2	10 04.08 +11 38.9 18.5	-0.91 + 4.3	0.1/18.3	33310
2000 BQ ₃	2000 02 18.2	10 04.11 +16 54.5 17.4	-0.85 + 6.4	1.7/16.7	38716
1997 OK	2000 02 18.2	10 04.26 +03 59.6 20.3	-0.90 + 2.5	2.2/20.3	30788
1991 RA ₁₇	2000 02 18.2	10 04.32 +23 18.6 18.3	-1.10 + 4.4	4.0/15.2	38756
(13792)	2000 02 18.3	10 04.46 +17 48.3 17.6	-0.82 + 4.2	1.8/16.6	38398
1994 TQ ₃	2000 02 18.3	10 04.46 +29 04.5 17.2	-1.10 + 2.4	5.7/13.8	38763
1998 QN ₃₄	2000 02 18.3	10 04.61 +14 26.3 19.5	-1.09 + 4.2	0.9/17.7	34591
1998 SK ₁₃₂	2000 02 18.3	10 04.71 +09 55.9 16.4	-0.98 + 3.0	0.8/18.9	38793
1998 SP ₁₃₅	2000 02 18.4	10 04.71 +17 05.0 19.0	-1.09 + 6.1	1.9/17.0	34024
1997 RQ ₃	2000 02 18.4	10 04.72 +12 42.7 18.2	-0.74 + 4.4	0.2/18.1	38774
1998 VR ₅	2000 02 18.4	10 04.82 +15 30.1 19.3	-0.92 + 4.0	1.0/17.4	35723
1998 RZ ₇₆	2000 02 18.4	10 04.90 +05 23.3 17.6	-0.80 +10.1	2.2/20.6	38499
1998 VK ₃₂	2000 02 18.4	10 05.05 -09 53.8 19.4	-0.84 + 4.9	5.7/25.0	35637
(13883)	2000 02 18.5	10 05.14 -02 08.4 17.3	-0.73 + 5.2	3.6/22.7	38423

2000 FEB. 22

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2000 BP ₃	2000 02 18.5	10 05.17 +16 00.8	16.6	-0.80	+	4.5	1.3/17.3	38716
1998 VP ₁₅	2000 02 18.5	10 05.26 +04 15.8	16.9	-0.98	+	6.2	3.2/20.6	38796
1995 DM ₉	2000 02 18.5	10 05.30 +14 20.3	20.1	-0.77	+	4.3	0.7/17.8	32944
1998 WF ₇	2000 02 18.5	10 05.45 +24 41.0	18.3	-1.03	+	5.8	4.3/14.8	38533
(12657)	2000 02 18.5	10 05.47 +09 43.7	16.8	-0.85	+	2.4	0.6/19.1	37026
2589 P-L	2000 02 18.5	10 05.49 +12 08.5	15.8	-0.86	+	6.8	0.2/18.5	38906
(11315)	2000 02 18.6	10 05.49 +08 52.4	17.8	-0.99	+	5.4	1.0/19.4	35569
1991 RB ₁₀	2000 02 18.6	10 05.50 +07 52.3	17.6	-1.04	+	4.2	1.4/19.6	38756
1990 SK ₂₈	2000 02 18.6	10 05.68 +12 59.3	17.3	-0.96	+	4.4	0.4/18.3	38755
2000 AF ₁₄₃	2000 02 18.6	10 05.68 +01 43.4	15.8	-1.07	+	2.4	4.7/21.0	38880
1998 QL ₅₇	2000 02 18.6	10 05.76 +09 32.4	17.3	-1.01	+	6.1	0.9/19.3	38783
1998 RW ₇₃	2000 02 18.6	10 05.76 +07 39.3	16.9	-0.99	+	3.3	1.7/19.7	38497
2000 AW ₂₁₅	2000 02 18.6	10 05.78 +10 06.2	17.8	-0.82	+	5.1	0.5/19.1	38709
(13491)	2000 02 18.6	10 05.78 +21 12.5	17.7	-1.11	+	4.2	3.4/16.2	38313
2000 BD ₁₁	2000 02 18.6	10 05.83 +24 01.7	17.5	-1.03	+	4.1	5.6/15.3	38718
1982 JR ₂	2000 02 18.6	10 05.84 +17 15.4	17.3	-0.84	+	6.6	2.0/17.0	34174
(9719)	2000 02 18.7	10 05.85 +16 52.9	16.9	-0.93	+	3.3	1.8/17.3	33192
(13823)	2000 02 18.7	10 06.01 +11 13.9	16.8	-0.86	+	2.3	0.1/18.9	38406
(9738)	2000 02 18.7	10 06.03 +12 04.5	16.0	-1.07	+	0.1	0.1/18.6	33196
2000 AA ₆₈	2000 02 18.7	10 06.21 +21 12.9	16.7	-1.01	+	7.9	4.0/15.9	38872
2000 AQ ₂₃₈	2000 02 18.7	10 06.29 +18 45.8	17.0	-0.99	+	5.6	3.2/16.8	38886
(13265)	2000 02 18.8	10 06.60 +14 31.0	17.0	-1.07	+	3.5	1.2/18.1	37558
1997 JC ₁₄	2000 02 18.8	10 06.66 +00 33.1	18.4	-0.85	+	6.5	3.3/22.2	38773
1997 GX ₂₃	2000 02 18.9	10 06.65 +26 45.5	18.5	-1.02	+	5.0	4.6/14.5	38772
1998 SO ₁₄₆	2000 02 18.9	10 06.79 +16 23.8	17.6	-0.89	+	5.2	1.6/17.6	34025
1992 DH ₁	2000 02 18.9	10 06.82 +07 42.7	16.0	-1.75	-	8.0	2.0/19.4	38440
1999 XN ₁₆₅	2000 02 18.9	10 06.99 +29 15.4	16.0	-0.99	+	6.8	6.9/13.4	38854
1996 BY ₂	2000 02 19.0	10 07.13 +10 26.2	16.0	-0.91	+	7.6	0.5/19.4	38768
2000 CE ₄₈	2000 02 19.0	10 07.14 +02 10.0	17.2	-0.90	+	2.6	3.2/21.5	38729
1996 GG ₂₀	2000 02 19.0	10 07.32 +12 22.4	18.0	-0.81	+	5.1	0.2/18.8	38769
(13590)	2000 02 19.0	10 07.43 +12 23.0	17.5	-0.79	+	4.2	0.3/18.9	38340
1998 QQ ₃	2000 02 19.1	10 07.47 +13 29.8	18.8	-1.31	-	2.9	0.7/18.8	38474
2148 T-2	2000 02 19.1	10 07.59 +00 02.0	18.1	-0.85	+	7.7	3.7/22.8	38908
(13754)	2000 02 19.1	10 07.91 +44 55.3	16.4	-1.36	-	1.2	11.7/10.5	38387
(9834)	2000 02 19.2	10 07.79 -02 09.2	17.4	-0.79	+	4.0	4.1/23.2	33453
(9890)	2000 02 19.2	10 07.86 +12 37.9	17.3	-1.08	+	6.1	0.4/18.9	33466
2000 AA ₂₁₆	2000 02 19.2	10 07.89 +08 59.3	18.0	-1.02	+	3.6	0.9/19.9	38709
1998 WO ₁₆	2000 02 19.2	10 07.96 +21 33.4	18.5	-0.81	+	4.3	3.1/16.3	34311
1998 QG ₉₂	2000 02 19.2	10 08.06 +15 34.0	19.8	-0.96	+	6.1	1.2/18.1	33562
1998 WJ ₁₉	2000 02 19.2	10 08.06 +08 21.0	17.7	-0.96	+	5.7	1.1/20.1	38798
1068 T-1	2000 02 19.2	10 08.10 -01 06.7	18.9	-0.83	+	5.6	3.5/23.0	36122
1994 PT ₂₀	2000 02 19.2	10 08.20 +10 41.1	19.1	-0.97	+	4.8	0.3/19.5	38032
1998 VG ₃₃	2000 02 19.2	10 08.23 +36 16.8	20.2	-1.07	+	4.7	7.3/11.9	33518
2000 AD ₆₈	2000 02 19.3	10 08.44 +22 53.3	16.8	-0.81	+	6.1	3.2/15.8	38648
(13222)	2000 02 19.3	10 08.58 +01 30.3	16.7	-0.94	+	1.7	3.6/21.9	37546
2000 AX ₁₄₃	2000 02 19.3	10 08.58 +02 56.0	17.0	-1.03	+	3.2	3.4/21.5	38880
1998 SU ₈₅	2000 02 19.4	10 08.77 +17 54.5	19.4	-1.13	+	4.2	2.5/17.8	33039
1998 WE ₁₂	2000 02 19.4	10 08.86 +15 46.4	17.0	-0.84	+	5.3	1.4/18.2	38534
1994 PB ₃	2000 02 19.4	10 08.99 +09 51.2	17.3	-0.89	+	8.5	0.6/20.0	38762
1997 JA ₁₃	2000 02 19.4	10 09.00 +10 25.9	18.6	-0.94	+	6.2	0.3/19.8	38459
2000 BX ₃	2000 02 19.5	10 09.08 +20 40.6	16.5	-1.12	-	0.8	3.7/17.5	38718

1998 ST ₁₂₄	2000 02 19.5	10 09.24 +23 01.4	19.5	-1.01	+	3.2	4.2/16.4	33042
1994 PQ ₃₂	2000 02 19.5	10 09.38 +05 30.6	19.0	-0.93	+	6.7	2.0/21.3	38763
(13140)	2000 02 19.6	10 09.34 +19 18.8	17.8	-0.95	+	5.3	2.6/17.4	37524
2000 AF ₂₂₂	2000 02 19.6	10 09.50 +09 28.9	17.1	-0.80	+	3.9	0.6/20.2	38709
(11394)	2000 02 19.6	10 09.57 +24 15.4	17.4	-0.79	+	5.8	3.5/15.6	35588
(13507)	2000 02 19.6	10 09.63 +16 41.5	17.9	-0.77	+	6.9	1.6/18.0	38318
1998 WO ₁₅	2000 02 19.6	10 09.66 +30 28.4	19.7	-0.95	+	5.3	5.5/13.8	35726
(9781)	2000 02 19.6	10 09.69 +24 29.1	17.8	-1.04	+	4.3	4.2/16.0	33207
2000 AA ₁₄₄	2000 02 19.6	10 09.71 +00 59.1	16.7	-0.85	+	2.5	3.3/22.5	38881
1994 RA ₁	2000 02 19.6	10 09.74 +10 06.3	19.7	-0.96	+	6.0	0.4/20.0	37640
(13320)	2000 02 19.7	10 09.80 +14 56.0	17.9	-0.99	+	6.5	1.2/18.7	37573
1998 SK ₁₄₅	2000 02 19.7	10 09.82 +09 25.1	19.3	-0.95	+	5.8	0.6/20.3	33297
1998 VN ₄₀	2000 02 19.7	10 09.85 +15 37.5	19.5	-0.82	+	4.9	1.3/18.5	36085
1999 VM ₇₂	2000 02 19.7	10 09.89 +18 47.8	17.2	-0.95	+	6.8	2.4/17.5	38820
1981 QL ₂	2000 02 19.7	10 09.94 +16 14.0	18.2	-1.11	+	3.9	1.8/18.5	38751
1993 SQ ₁₄	2000 02 19.7	10 10.05 -27 21.6	18.0	-1.13	+	5.6	16.1/04.7	38030
1998 XB ₁₄	2000 02 19.7	10 10.12 +08 09.4	18.7	-0.84	+	5.3	0.9/20.7	38798
1997 GJ ₁₃	2000 02 19.7	10 10.15 +08 15.0	19.5	-0.97	+	5.8	1.0/20.7	34296
1998 TN ₃₀	2000 02 19.8	10 10.15 +10 37.7	18.9	-0.95	+	5.3	0.2/20.0	38795
1996 HC ₂₅	2000 02 19.8	10 10.17 +11 07.5	18.0	-0.83	+	5.5	0.1/19.9	38769
2000 BU ₃	2000 02 19.8	10 10.22 +19 45.1	17.2	-1.07	+	6.3	3.6/17.4	38717
1999 YJ ₁₆	2000 02 19.8	10 10.34 +07 39.5	16.9	-1.12	+	3.5	1.5/20.8	38620
1998 RL ₇₈	2000 02 19.8	10 10.36 +18 57.7	18.9	-1.06	+	5.4	2.7/17.7	38789
1998 QY ₄₇	2000 02 19.8	10 10.38 +05 56.1	17.4	-0.93	+	8.3	2.1/21.5	38783
1998 SF ₁₆₄	2000 02 19.8	10 10.39 +30 29.6	18.7	-1.00	+	3.7	6.3/14.3	34305
1998 SG ₂₄	2000 02 19.8	10 10.42 +18 22.2	17.7	-1.00	+	5.3	2.7/17.9	38789
1993 TP ₂₅	2000 02 19.9	10 10.54 +21 42.7	19.8	-0.90	+	4.1	3.2/16.9	33486
1981 ED ₁₈	2000 02 19.9	10 10.61 +08 18.8	17.5	-0.83	+	5.3	1.0/20.8	38751
1998 XL ₄	2000 02 19.9	10 10.62 +19 39.7	18.2	-0.93	+	5.3	2.7/17.5	36086
1148 T-1	2000 02 19.9	10 10.86 +13 22.4	18.0	-1.10	+	4.9	0.9/19.4	38907
1998 SS ₁₃₃	2000 02 19.9	10 10.86 +15 37.6	17.6	-0.94	+	3.9	1.6/18.8	38515
(13357)	2000 02 19.9	10 10.86 -01 02.2	16.4	-0.81	+	5.2	4.9/23.6	37584
1998 SR ₇₄	2000 02 20.0	10 10.87 +24 31.7	17.1	-0.99	+	4.1	4.9/16.2	33758
1992 EZ ₆	2000 02 20.0	10 10.91 +17 25.7	18.2	-0.91	+	8.4	2.0/18.1	38758
2564 P-L	2000 02 20.0	10 10.94 +15 20.9	18.0	-0.94	+	4.6	1.4/18.9	38906
1998 ND	2000 02 20.0	10 10.95 -20 08.6	19.8	-1.09	+	1.6	9.4/28.7	33755
1997 CZ ₂₁	2000 02 20.0	10 11.04 +14 42.7	17.5	-1.12	+	4.8	1.6/19.1	38771
(13721)	2000 02 20.0	10 11.08 +02 33.7	17.4	-0.95	+	6.6	3.6/22.6	38377
1998 SS ₆₇	2000 02 20.0	10 11.15 +19 58.7	18.5	-1.08	+	6.4	3.1/17.6	38791
(13109)	2000 02 20.0	10 11.19 -01 34.8	16.5	-0.86	+	5.1	5.9/23.9	37516
1992 ED ₁₄	2000 02 20.0	10 11.22 +06 07.1	17.3	-0.86	+	6.8	1.5/21.6	38758
1998 QT ₃₇	2000 02 20.0	10 11.28 +08 03.1	19.8	-0.87	+	7.1	0.9/21.0	33082
(13781)	2000 02 20.0	10 11.29 +10 47.8	18.7	-0.94	+	5.1	0.1/20.2	38395
1981 EJ ₂₄	2000 02 20.0	10 11.34 +18 35.3	18.8	-1.05	+	3.7	2.7/18.1	26919
1998 MG ₁₆	2000 02 20.1	10 11.33 +11 14.8	19.9	-0.97	+	6.4	0.0/20.1	33078
2000 AE ₆₈	2000 02 20.1	10 11.62 +21 08.9	16.9	-0.82	+	8.3	3.7/16.9	38872
1996 BZ	2000 02 20.1	10 11.62 +17 23.8	16.9	-0.87	+	8.7	2.7/18.2	38768
1998 UR ₂₄	2000 02 20.1	10 11.64 +14 12.4	19.4	-0.79	+	4.6	0.8/19.3	35723
1998 VB ₂₀	2000 02 20.1	10 11.64 +24 19.7	18.9	-1.06	+	5.5	4.6/16.4	34595
1998 QD ₉₈	2000 02 20.1	10 11.66 +13 30.6	18.7	-1.00	+	7.4	0.8/19.5	38486
1997 QF	2000 02 20.2	10 11.66 +15 24.3	17.4	-0.78	+	8.6	1.3/18.8	38774

1997 FW ₃	2000 02 20.2	10 11.73 +13 18.4 18.5	-1.08 + 4.3	0.8/19.7	38772	1993 FX ₃	2000 02 20.9	10 14.47 +03 22.0 17.1	-0.97 + 7.5	3.2/23.1	38443
1993 FH ₂₀	2000 02 20.2	10 11.84 +08 54.1 17.8	-1.01 + 5.2	0.9/21.0	38760	1995 WK ₅	2000 02 20.9	10 14.50 +16 47.5 17.7	-1.05 + 5.1	2.2/19.3	38767
1993 FH ₁₁	2000 02 20.2	10 11.86 +25 42.4 17.7	-1.12 + 2.9	5.1/16.5	38759	(13622)	2000 02 20.9	10 14.58 +12 55.2 17.2	-0.77 + 5.4	0.7/20.3	38349
1991 VM ₅	2000 02 20.2	10 11.88 +21 23.5 17.5	-1.03 + 5.7	3.4/17.3	38757	1998 XE ₁₇	2000 02 21.0	10 14.75 +08 56.0 17.0	-0.75 + 5.3	0.6/21.6	38538
(10240)	2000 02 20.3	10 12.02 +09 11.9 16.9	-0.83 + 4.9	0.6/20.9	38016	1998 SM ₉	2000 02 21.0	10 14.84 +00 19.2 18.2	-0.82 + 6.9	3.4/24.3	35716
(12781)	2000 02 20.3	10 12.04 +10 53.8 17.6	-0.83 + 4.9	0.1/20.4	37059	1997 PE ₃	2000 02 21.0	10 14.87 +13 37.0 17.1	-1.05 + 1.2	1.1/20.4	38774
2621 P-L	2000 02 20.3	10 12.10 +21 13.9 19.7	-1.11 + 3.9	3.6/17.6	33383	(10063)	2000 02 21.0	10 14.91 +12 47.8 18.2	-0.64 + 4.1	0.5/20.4	33873
(10030)	2000 02 20.3	10 12.12 +11 42.4 18.5	-0.77 + 4.1	0.1/20.2	33865	1992 JQ	2000 02 21.0	10 14.95 -00 22.3 16.7	-0.82 + 8.9	4.1/24.7	38758
4820 P-L	2000 02 20.3	10 12.13 +23 16.9 18.3	-0.90 + 2.7	3.8/16.9	21121	1998 QZ ₇₆	2000 02 21.0	10 14.97 -03 46.9 19.6	-0.84 + 7.7	4.5/26.0	34591
2000 BY ₁₄	2000 02 20.3	10 12.17 +27 35.8 17.3	-1.01 + 5.0	5.8/15.6	38720	1998 QB ₁₄	2000 02 21.0	10 15.14 +06 08.1 18.7	-0.93 + 7.2	1.6/22.5	38780
2000 BV ₃	2000 02 20.3	10 12.31 +20 21.2 16.2	-0.84 + 7.2	3.0/17.4	38717	1996 GG ₁₈	2000 02 21.0	10 15.16 +04 07.1 17.5	-0.83 + 5.5	2.3/23.1	38769
5082 T-3	2000 02 20.4	10 12.46 +17 26.1 18.6	-1.00 + 7.0	2.2/18.5	38909	1986 QU	2000 02 21.1	10 15.09 +14 32.8 18.1	-0.78 + 3.8	1.0/20.0	33541
1998 TJ ₁₀	2000 02 20.4	10 12.75 +14 21.8 18.1	-0.83 + 4.4	1.0/19.5	38520	1995 WY ₇	2000 02 21.1	10 15.20 +12 57.8 17.9	-1.08 + 4.4	0.7/20.6	38767
1995 UX ₄₈	2000 02 20.4	10 12.84 +12 01.3 16.8	-1.04 + 5.4	0.4/20.2	38766	1998 SN ₁₃₈	2000 02 21.1	10 15.24 +15 56.7 17.2	-0.86 + 3.2	1.9/19.7	38793
1997 EQ ₃₂	2000 02 20.4	10 12.87 +17 57.4 19.3	-1.11 + 4.0	2.4/18.7	35699	(13093)	2000 02 21.1	10 15.29 -01 47.7 16.6	-0.75 + 6.3	4.0/25.1	37512
1998 WA ₁₈	2000 02 20.5	10 12.81 +06 14.6 17.3	-0.81 + 3.4	1.4/21.9	38798	2000 CH ₂	2000 02 21.1	10 15.49 +17 02.3 17.3	-1.17 + 2.3	2.5/19.7	38726
2000 AQ ₂₄₂	2000 02 20.5	10 12.85 +17 57.9 17.2	-1.07 + 7.7	2.8/18.5	38714	(13799)	2000 02 21.2	10 15.62 +09 54.4 18.4	-0.84 + 4.4	0.3/21.5	38400
1998 SJ ₂₆	2000 02 20.5	10 12.92 +35 21.9 17.0	-0.98 + 2.1	8.0/13.5	38790	1987 QX ₇	2000 02 21.2	10 15.64 +10 47.7 17.7	-0.79 + 5.7	0.0/21.2	38433
2000 AF ₂₂₇	2000 02 20.5	10 12.94 +09 41.5 17.2	-0.83 + 3.2	0.4/20.9	38885	1998 SO ₄₅	2000 02 21.2	10 15.76 +12 39.3 17.7	-0.95 + 6.0	0.8/20.7	38790
1992 EP ₁₀	2000 02 20.5	10 12.96 +05 57.5 17.1	-0.81 +11.5	1.8/22.3	38758	1992 WX ₁	2000 02 21.2	10 15.80 +06 32.6 17.6	-1.08 + 5.1	1.7/22.4	38759
1998 TQ ₃₃	2000 02 20.5	10 13.03 +36 28.1 16.6	-1.08 + 2.3	9.5/12.9	35721	1998 UW ₁₈	2000 02 21.2	10 15.89 +19 15.2 17.9	-0.82 + 3.8	2.5/18.8	38795
1998 SX ₄₇	2000 02 20.5	10 13.04 +14 36.2 18.6	-0.93 + 4.3	1.3/19.6	38505	(13513)	2000 02 21.3	10 15.88 +00 51.9 17.7	-0.95 + 6.8	4.3/24.2	38319
(12705)	2000 02 20.5	10 13.07 +19 32.8 16.8	-0.97 + 4.9	3.1/18.1	37039	1999 XV ₉₄	2000 02 21.3	10 16.00 +14 52.3 17.2	-1.05 + 4.6	1.4/20.2	38592
1990 VW ₈	2000 02 20.5	10 13.09 -11 07.3 16.7	-0.84 + 6.6	8.6/28.0	38755	1998 WD ₁	2000 02 21.3	10 16.09 +21 29.3 17.7	-0.74 + 8.3	2.8/17.7	33764
1998 RG ₆₀	2000 02 20.5	10 13.20 +05 15.1 20.6	-0.90 + 5.7	1.8/22.3	35715	1998 SV ₇₃	2000 02 21.3	10 16.28 +22 18.4 18.8	-1.08 + 4.8	4.0/18.2	38791
1996 BU	2000 02 20.5	10 13.22 +00 43.8 18.0	-1.00 + 3.8	3.8/23.4	38768	1981 DH ₃	2000 02 21.3	10 16.32 -04 01.4 18.8	-0.90 + 5.3	4.6/25.7	26914
2000 AO ₉₆	2000 02 20.6	10 13.17 +11 53.2 17.4	-0.96 + 2.2	0.3/20.4	38663	(13479)	2000 02 21.4	10 16.26 +21 22.2 18.0	-1.03 + 6.3	3.6/18.3	38310
1998 RG ₇₉	2000 02 20.6	10 13.21 +16 48.7 19.0	-1.05 + 6.6	2.0/19.0	34302	1997 GB ₃₆	2000 02 21.4	10 16.26 +25 53.4 17.4	-1.02 + 5.1	7.2/16.9	38459
1998 UE ₈	2000 02 20.6	10 13.28 +10 05.8 17.2	-0.77 + 4.9	7.8/12.0	38522	1998 UX ₁₉	2000 02 21.4	10 16.34 +10 58.1 17.4	-0.79 + 4.5	0.1/21.4	38524
(9756)	2000 02 20.6	10 13.36 +07 20.7 16.9	-0.84 + 6.4	1.3/21.7	38749	1998 QO ₉₅	2000 02 21.4	10 16.38 +01 03.4 17.8	-0.94 + 7.1	3.5/24.4	38785
(13388)	2000 02 20.6	10 13.53 -13 09.5 16.3	-0.90 + 3.8	8.4/28.0	37592	1998 VG ₂	2000 02 21.4	10 16.53 +14 28.9 19.8	-1.02 + 5.0	1.2/20.4	35723
1994 TJ ₁	2000 02 20.6	10 13.63 +05 54.5 18.7	-0.89 + 6.7	1.6/22.2	38763	1998 QN ₅₁	2000 02 21.4	10 16.56 +07 30.7 17.1	-1.08 + 4.5	1.4/22.3	38481
6871 P-L	2000 02 20.7	10 13.63 +12 35.4 18.3	-1.01 + 6.7	0.7/20.3	38907	1998 SC ₁₁₈	2000 02 21.4	10 16.68 +08 38.3 19.9	-0.97 + 5.5	0.7/22.1	38792
1998 QZ ₉₉	2000 02 20.7	10 13.70 +16 44.6 18.6	-0.99 + 5.2	2.0/19.1	34021	1998 SS ₃₇	2000 02 21.5	10 16.71 +05 04.6 18.7	-1.02 + 6.3	2.1/23.1	38790
1997 GX ₃₅	2000 02 20.7	10 13.87 +06 56.3 18.2	-0.94 + 7.0	1.4/22.0	38773	1997 TC	2000 02 21.5	10 16.75 +13 15.7 17.9	-0.83 + 4.3	0.8/20.8	38775
1998 RN ₂₂	2000 02 20.7	10 13.91 +08 41.9 17.6	-0.91 + 6.7	0.8/21.4	38490	(9858)	2000 02 21.5	10 16.96 +13 10.2 18.0	-0.74 + 4.5	0.6/20.8	33459
1998 SD ₄₉	2000 02 20.7	10 13.96 +09 15.5 19.5	-0.95 + 6.3	0.6/21.3	35717	1998 VG ₃₁	2000 02 21.5	10 16.98 +16 53.9 18.2	-0.96 + 3.6	2.0/19.9	38530
1994 ST ₇	2000 02 20.7	10 13.99 +10 24.1 18.1	-0.97 + 6.5	9.1/01.0	38763	1997 OJ ₁	2000 02 21.5	10 17.00 +14 39.6 18.6	-0.82 + 5.1	1.2/20.4	38774
1998 SO ₁₄₂	2000 02 20.8	10 13.94 +22 49.1 19.5	-1.02 + 5.0	4.0/17.4	33760	1991 QJ	2000 02 21.5	10 17.06 +09 09.1 17.7	-0.98 + 7.6	0.5/22.0	38756
1998 UQ ₁₈	2000 02 20.8	10 14.01 +28 35.8 16.7	-0.90 + 4.0	5.4/15.5	35722	(13686)	2000 02 21.6	10 17.09 +09 17.3 18.4	-0.75 + 4.4	0.3/22.0	38367
1988 VN ₇	2000 02 20.8	10 14.04 +25 36.4 18.5	-1.11 + 5.1	5.6/16.7	38753	(13674)	2000 02 21.7	10 17.54 +22 39.8 17.3	-0.97 + 7.3	4.8/18.0	38364
1998 SX ₁₂	2000 02 20.8	10 14.09 +12 31.4 16.9	-0.82 +15.0	0.5/20.3	38789	2000 CG ₅₅	2000 02 21.7	10 17.56 +18 32.6 18.0	-0.82 + 3.4	2.3/19.5	38730
1998 WL ₂₃	2000 02 20.8	10 14.14 +09 35.2 17.7	-0.83 + 4.6	0.4/21.2	38537	(13710)	2000 02 21.7	10 17.67 +08 20.6 17.1	-1.10 + 3.4	0.9/22.3	38374
1998 RU ₆₁	2000 02 20.8	10 14.15 +11 47.8 16.7	-1.05 + 3.5	0.4/20.6	38787	1994 RH ₉	2000 02 21.7	10 17.73 +16 28.9 19.1	-1.01 + 3.6	1.7/20.2	33551
1997 GK ₂₁	2000 02 20.9	10 14.34 +07 47.6 18.1	-1.02 + 6.7	1.3/21.8	38772	1990 QN ₇	2000 02 21.7	10 17.76 +15 03.1 17.0	-1.03 + 5.4	1.7/20.5	38755
2000 AN ₂₄₂	2000 02 20.9	10 14.38 +18 30.8 17.3	-1.02 + 1.4	2.5/19.0	38714	2000 AM ₉₆	2000 02 21.7	10 17.81 +19 41.3 17.1	-0.83 +10.9	3.1/18.6	38875
1999 XQ ₃₈	2000 02 20.9	10 14.38 +26 52.2 17.0	-1.00 + 5.3	6.1/16.3	38837	2000 AD ₂₁₂	2000 02 21.8	10 18.18 +12 27.9 17.7	-0.95 + 9.4	0.7/21.3	38708
1991 RW ₁₇	2000 02 20.9	10 14.40 +06 56.3 17.3	-0.99 + 6.6	1.5/22.1	38757	1994 PO ₂₂	2000 02 21.9	10 18.18 +13 16.0 17.8	-1.04 + 3.7	0.9/21.2	38448
1995 UR	2000 02 20.9	10 14.41 -23 02.1 16.8	-1.47 - 6.7	15.2/27.9	38765	1998 WF ₁₁	2000 02 21.9	10 18.22 +12 52.6 17.8	-0.82 + 5.5	0.7/21.2	38798
1993 FE ₂₂	2000 02 20.9	10 14.45 +09 04.6 19.2	-0.98 + 5.6	0.7/21.4	33683	1996 JT ₇	2000 02 21.9	10 18.22 +22 04.2 18.9	-0.82 + 4.7	3.2/18.4	38769
1998 SL ₁₆₄	2000 02 20.9	10 14.46 +18 26.2 20.9	-0.91 + 5.0	2.1/18.8	34593	(13591)	2000 02 21.9	10 18.23 +03 48.2 16.7	-0.86 + 1.5	2.0/23.7	38340

2000 FEB. 22

M.P.C. 38935

1993 BB	2000 02 21.9	10 18.24 +12 10.7 16.7	-0.87 + 9.7	0.7/21.4	38759	1993 OD ₂	2000 02 23.0	10 22.41 +15 37.0 17.1	-0.85 + 8.8	1.6/21.2	38761
1998 SZ ₅₃	2000 02 21.9	10 18.25 +09 15.7 17.6	-1.03 + 4.3	0.5/22.3	38505	1998 QO ₁₉	2000 02 23.0	10 22.53 +12 57.4 18.5	-0.98 + 7.5	1.0/22.2	38475
2000 AV ₂₃₉	2000 02 21.9	10 18.51 +03 55.5 17.0	-0.90 + 3.8	2.1/23.8	38713	1998 QY ₇₇	2000 02 23.0	10 22.57 -01 47.3 17.0	-1.00 + 4.4	5.0/26.4	38484
1998 SZ ₆₄	2000 02 21.9	10 18.61 +13 47.9 16.6	-0.99 + 7.9	1.3/21.0	38791	1998 SN ₁₂₅	2000 02 23.0	10 22.68 +22 13.2 17.1	-0.99 + 4.6	4.7/19.6	38513
1998 QE ₃₅	2000 02 21.9	10 18.62 +11 37.9 18.3	-0.96 + 6.8	0.4/21.7	38782	1998 VK ₃₀	2000 02 23.0	10 22.71 +13 34.1 17.7	-0.83 + 5.4	1.0/22.0	38797
1998 VN ₅	2000 02 21.9	10 18.62 +23 45.5 17.8	-0.88 + 2.5	3.8/18.3	38527	(13157)	2000 02 23.0	10 22.74 +15 01.0 16.3	-1.07 + 4.5	2.1/21.8	37528
1998 UW ₁	2000 02 22.0	10 18.59 +26 18.8 17.2	-0.89 + 6.7	4.5/17.0	35721	1998 TZ ₃₁	2000 02 23.0	10 22.78 +05 36.2 18.8	-0.86 + 4.2	1.4/24.4	33306
1994 RZ	2000 02 22.0	10 18.76 +11 11.9 18.9	-0.97 + 4.7	0.2/21.9	38763	(9776)	2000 02 23.0	10 22.79 +14 56.6 17.3	-0.83 + 5.2	1.5/21.6	38016
1998 SN ₁₃₃	2000 02 22.0	10 18.82 +04 00.4 18.0	-0.78 + 5.5	2.1/24.1	38515	1998 QL ₃₈	2000 02 23.1	10 22.80 +09 46.3 18.1	-1.08 + 3.9	0.1/23.2	38782
1998 SR ₆₅	2000 02 22.0	10 18.89 +14 07.5 18.4	-0.94 + 5.8	1.2/21.0	35718	1999 XZ ₃₄	2000 02 23.1	10 22.83 +20 20.2 17.1	-0.79 + 6.4	2.9/19.8	38836
2000 BJ ₁₄	2000 02 22.1	10 18.97 +19 09.0 16.8	-0.91 + 2.1	2.5/19.7	38719	1997 NB ₁	2000 02 23.1	10 23.02 +14 27.2 17.5	-1.02 + 5.4	1.7/21.9	38460
1988 RQ ₈	2000 02 22.1	10 19.01 +18 15.8 18.0	-1.08 + 5.2	2.7/20.0	38753	1997 OG ₁	2000 02 23.1	10 23.07 -20 08.4 18.6	-1.47 -11.0	14.8/25.9	37673
(13815)	2000 02 22.1	10 19.02 -06 41.9 18.0	-0.70 + 4.3	4.1/27.5	38404	(13761)	2000 02 23.1	10 23.07 +08 54.1 16.2	-0.90 + 6.9	0.5/23.5	38389
1998 SU ₄₀	2000 02 22.1	10 19.03 +08 03.3 18.1	-0.95 + 5.5	0.9/22.8	35441	2000 AQ ₂₃₆	2000 02 23.2	10 23.15 -03 19.9 17.4	-0.87 + 1.0	4.0/26.7	38712
1998 RU ₆₇	2000 02 22.1	10 19.04 +06 57.0 18.7	-1.03 + 5.8	1.2/23.1	33565	1999 XB ₃₅	2000 02 23.2	10 23.16 +20 22.5 17.2	-0.75 + 7.6	2.9/19.7	38836
1998 UL ₁₉	2000 02 22.1	10 19.07 +36 11.4 20.2	-1.06 + 2.5	7.1/14.8	38795	2000 AP ₉₆	2000 02 23.2	10 23.18 +16 53.0 16.8	-0.94 + 9.5	2.8/21.0	38663
(13047)	2000 02 22.1	10 19.16 +05 39.1 16.8	-0.94 + 4.8	1.9/23.5	37499	1995 BS ₁₁	2000 02 23.2	10 23.25 +11 57.0 17.8	-0.84 + 4.3	0.6/22.7	38764
6645 P-L	2000 02 22.1	10 19.22 +21 52.5 20.1	-1.06 + 3.5	3.7/19.1	33384	1994 PH	2000 02 23.2	10 23.29 +12 38.2 18.5	-1.02 + 4.4	0.8/22.5	38762
1998 RG ₇₅	2000 02 22.1	10 19.34 -00 34.4 16.6	-0.78 +10.4	4.1/26.0	38788	1996 DK ₂	2000 02 23.2	10 23.34 +13 35.9 17.3	-0.90 + 7.8	1.3/22.1	38768
1998 WJ ₂	2000 02 22.2	10 19.55 -03 54.5 17.9	-0.82 + 2.5	4.5/26.3	33764	1995 GL ₇	2000 02 23.2	10 23.40 +19 21.0 18.7	-0.81 + 4.6	2.6/20.4	38765
1986 XT	2000 02 22.2	10 19.59 +12 27.8 18.7	-0.96 + 4.5	0.6/21.7	38752	3178 T-2	2000 02 23.2	10 23.45 +14 18.1 17.8	-0.85 + 4.3	1.3/22.0	38908
1998 RN ₆₁	2000 02 22.3	10 19.73 +07 52.8 18.2	-0.93 + 5.0	0.9/23.0	35715	1998 RY ₇₃	2000 02 23.3	10 23.50 +08 00.7 18.3	-1.04 + 3.8	0.7/23.8	38498
1998 WM ₁₀	2000 02 22.3	10 19.77 +12 59.2 17.6	-0.79 + 5.6	0.8/21.5	38534	1998 RQ ₅	2000 02 23.3	10 23.56 +11 00.8 17.7	-1.03 + 5.6	0.4/23.0	38786
1998 SF ₂	2000 02 22.3	10 20.16 +16 58.2 19.3	-1.05 + 7.1	2.3/20.5	33566	1991 NQ ₆	2000 02 23.3	10 23.59 +03 00.0 18.0	-1.03 + 5.0	2.6/25.3	38756
1997 OL ₂	2000 02 22.4	10 20.36 +07 31.7 18.7	-0.78 + 4.0	0.8/23.3	38774	3009 P-L	2000 02 23.3	10 23.59 +03 23.5 19.9	-0.82 + 2.8	1.9/25.2	34264
1998 SR ₁	2000 02 22.4	10 20.43 +16 40.0 18.3	-1.00 + 6.3	2.1/20.6	38789	1995 WU ₅	2000 02 23.3	10 23.61 +09 18.8 17.6	-1.03 + 5.0	0.3/23.5	38767
1998 TT ₅	2000 02 22.5	10 20.50 +31 05.9 16.2	-0.87 + 3.8	7.4/15.9	38065	1998 VW ₃₂	2000 02 23.3	10 23.69 +11 20.0 18.5	-0.95 + 5.4	0.5/23.0	35724
2000 AO ₂₃₇	2000 02 22.5	10 20.56 +09 44.7 16.0	-1.10 + 0.2	0.2/22.7	38713	1998 SY ₁₄₃	2000 02 23.3	10 23.82 +11 05.1 18.2	-1.06 + 5.2	0.4/23.1	38794
1998 QW ₂₃	2000 02 22.5	10 20.59 +05 55.7 16.7	-0.88 +10.8	1.9/24.0	38476	(9967)	2000 02 23.3	10 23.85 +25 27.2 15.8	-1.02 + 4.3	6.0/18.7	33663
1995 WH ₅	2000 02 22.5	10 20.87 +03 08.5 18.1	-1.00 + 5.3	2.8/24.6	38767	1998 SW ₂₄	2000 02 23.3	10 23.85 +12 55.5 17.6	-0.91 + 8.5	1.1/22.4	38501
1998 TZ ₁	2000 02 22.6	10 20.94 +03 46.1 17.2	-0.82 + 9.7	2.3/24.8	38794	1997 JV ₇	2000 02 23.3	10 23.92 +06 30.2 16.5	-0.88 + 9.7	1.5/24.5	38773
2281 T-3	2000 02 22.6	10 20.96 +02 37.6 19.3	-0.90 + 5.7	2.8/24.9	38743	1998 RB ₅₇	2000 02 23.4	10 23.93 +09 25.6 16.8	-0.97 + 4.1	0.3/23.6	38787
1998 SE ₂₄	2000 02 22.6	10 20.99 +10 16.9 18.6	-0.94 + 6.8	0.0/22.6	38789	1990 DZ	2000 02 23.4	10 23.95 +11 15.1 16.4	-0.96 + 1.0	0.5/23.1	38754
1998 UX ₁₈	2000 02 22.6	10 21.05 +14 33.6 17.1	-0.86 + 4.4	1.4/21.4	38524	(12871)	2000 02 23.4	10 23.97 +16 26.8 16.8	-1.02 + 7.6	2.6/21.5	37084
1992 EK ₁₄	2000 02 22.6	10 21.21 +10 34.1 17.8	-0.93 + 4.4	0.1/22.6	38758	(11189)	2000 02 23.4	10 24.00 +18 00.8 18.0	-1.11 + 3.4	3.0/21.3	35260
(13499)	2000 02 22.7	10 21.21 +10 39.6 18.8	-0.73 + 4.5	0.1/22.6	38316	1998 RD ₂	2000 02 23.4	10 24.05 +12 18.0 18.4	-0.96 + 7.0	0.9/22.7	38785
1997 MC ₈	2000 02 22.7	10 21.26 +08 12.0 18.4	-0.87 + 5.1	0.7/23.3	38774	2000 CN ₇₂	2000 02 23.4	10 24.05 +12 26.6 17.0	-0.82 + 5.6	0.8/22.7	38731
1998 WE ₅	2000 02 22.7	10 21.33 +10 34.0 18.2	-0.72 + 7.6	0.1/22.6	35725	1990 UK ₅	2000 02 23.4	10 24.06 +16 46.2 18.0	-0.93 + 6.9	2.4/21.4	38755
1982 RK ₁	2000 02 22.7	10 21.33 +05 56.8 17.1	-0.97 + 4.2	1.5/23.9	38752	2000 AR ₉₆	2000 02 23.4	10 24.11 +10 39.6 16.2	-1.05 + 1.6	0.3/23.3	38663
1988 VJ ₁	2000 02 22.7	10 21.53 +01 46.8 17.8	-0.99 + 5.9	2.9/25.2	38753	1998 SZ ₆₂	2000 02 23.4	10 24.15 +12 37.8 19.5	-0.95 + 4.6	0.8/22.7	35718
(9831)	2000 02 22.8	10 21.68 +09 12.6 18.9	-0.94 + 6.1	0.3/23.1	33453	1990 VY ₅	2000 02 23.4	10 24.18 +29 23.1 16.9	-0.70 + 5.4	5.2/16.8	38437
1999 XF ₁₆₄	2000 02 22.8	10 21.77 +27 18.5 16.6	-0.97 +12.8	5.6/16.6	38853	1999 AA	2000 02 23.4	10 24.23 +14 48.3 17.2	-0.88 + 2.5	1.4/22.2	38540
(13879)	2000 02 22.8	10 21.78 +13 31.2 17.1	-0.95 + 4.1	1.3/21.9	38422	1998 WE ₁₆	2000 02 23.4	10 24.25 +19 54.6 18.5	-0.79 + 4.8	3.0/20.4	35726
1994 UW ₉	2000 02 22.8	10 21.79 +09 23.5 20.1	-0.93 + 4.8	0.3/23.1	33341	(13165)	2000 02 23.5	10 24.36 +16 20.4 17.5	-1.07 + 5.4	2.3/21.7	37530
2000 CE ₃₆	2000 02 22.8	10 21.80 +06 53.8 16.6	-1.03 + 0.8	1.2/23.6	38729	3092 T-2	2000 02 23.5	10 24.41 +23 42.5 17.8	-1.11 + 0.9	5.1/20.1	38908
1998 RT ₇₄	2000 02 22.8	10 21.83 +09 00.7 16.6	-0.96 + 4.4	0.5/23.2	38788	1998 QG ₂₀	2000 02 23.5	10 24.47 +03 15.1 19.2	-0.98 + 5.5	2.2/25.5	32761
1998 YT ₈	2000 02 22.8	10 22.01 +14 02.0 17.7	-0.82 + 5.2	1.1/21.7	38539	1995 UM ₅	2000 02 23.5	10 24.58 +07 17.3 18.0	-1.10 + 3.7	1.2/24.3	38766
2000 AR ₂₄₂	2000 02 22.8	10 22.02 +18 11.4 16.7	-0.87 + 8.3	2.7/20.3	38887	1998 TT ₃₀	2000 02 23.5	10 24.64 +16 45.3 17.2	-1.13 + 4.6	2.7/21.7	38795
1991 PC ₁₆	2000 02 22.9	10 22.03 +10 51.0 18.5	-0.74 + 4.3	0.2/22.7	30871	1998 SP ₂₁	2000 02 23.5	10 24.70 +06 51.2 19.5	-0.96 + 5.6	1.0/24.5	35716
1993 OX ₂	2000 02 22.9	10 22.26 +11 29.6 19.7	-0.82 + 6.2	0.4/22.6	38029	(13072)	2000 02 23.6	10 24.66 +15 00.1 17.0	-1.12 + 2.3	2.0/22.3	37506
2000 AP ₂₃₃	2000 02 22.9	10 22.27 +12 18.8 17.2	-0.99 + 7.7	1.0/22.3	38711	1997 TR	2000 02 23.6	10 24.75 +17 18.8 18.2	-0.84 + 2.9	2.0/21.5	38775

(9753)	2000 02 23.6	10 24.79 +12 27.2 17.6	-1.01 + 3.9	0.9/22.9	33200
1998 YV ₈	2000 02 23.6	10 24.94 +05 46.2 18.8	-0.82 + 5.2	1.2/24.9	35729
1998 QT ₅₄	2000 02 23.6	10 24.97 +02 17.2 17.1	-0.91 + 7.1	2.9/26.0	38482
1998 QM ₅₂	2000 02 23.6	10 24.98 +12 09.1 17.4	-0.93 + 8.8	0.9/23.0	38783
4032 P-L	2000 02 23.6	10 25.02 +08 30.9 16.6	-1.08 + 2.9	0.6/24.0	38906
1998 UT ₆	2000 02 23.6	10 25.03 +12 19.8 18.2	-0.82 + 4.5	0.7/23.0	38522
1998 SN ₃₃	2000 02 23.7	10 25.19 +26 33.3 20.1	-1.15 + 2.4	5.3/19.4	33567
1998 WU ₃₀	2000 02 23.7	10 25.26 +21 56.5 17.5	-0.77 + 7.6	3.5/19.7	38798
1993 FO ₂₀	2000 02 23.7	10 25.29 +13 07.2 17.5	-0.96 + 7.1	1.3/22.8	38760
1999 YK ₁₆	2000 02 23.7	10 25.39 +12 31.9 17.1	-0.75 + 8.1	0.8/22.9	38863
(10393)	2000 02 23.8	10 25.55 +20 02.9 17.9	-1.04 + 2.5	3.2/21.1	34158
1998 RH ₆₆	2000 02 23.8	10 25.56 -04 43.4 18.1	-0.79 +10.1	5.1/29.0	33352
1991 RP ₁₂	2000 02 23.8	10 25.69 +12 17.2 17.2	-1.11 + 3.6	0.9/23.2	38439
1998 SA ₁₁₈	2000 02 23.8	10 25.84 +17 48.7 17.1	-1.00 + 2.3	2.8/21.8	38512
1998 RD ₃	2000 02 23.8	10 25.85 +23 44.6 19.7	-1.04 + 2.7	4.1/20.2	35713
1997 GA ₁₇	2000 02 23.9	10 26.01 +10 39.3 18.9	-1.05 + 5.2	0.3/23.7	35699
1998 WT ₁₆	2000 02 23.9	10 26.01 -11 14.4 18.8	-0.88 + 5.0	6.5/01.5	35726
1996 EL ₁	2000 02 23.9	10 26.11 +12 49.9 16.1	-1.14 - 1.0	1.2/23.3	38769
1997 GU ₁₅	2000 02 23.9	10 26.12 +04 02.8 18.9	-0.96 + 8.7	2.3/25.8	35699
1998 UG ₂₉	2000 02 24.0	10 26.26 +08 25.5 17.2	-0.88 + 8.4	0.5/24.5	38526
(9811)	2000 02 24.0	10 26.36 +11 53.5 19.1	-1.02 + 5.6	0.7/23.4	33214
1991 TL ₁₄	2000 02 24.0	10 26.43 +19 30.6 17.6	-1.12 + 4.6	3.7/21.3	38439
2000 AV ₂₃₆	2000 02 24.0	10 26.46 +01 28.3 17.7	-0.94 + 5.3	2.8/26.5	38712
2000 AS ₂₄₂	2000 02 24.0	10 26.48 +13 27.7 17.1	-0.72 + 8.3	1.1/22.8	38714
1997 RC ₃	2000 02 24.0	10 26.48 +02 58.0 18.0	-0.80 + 7.8	2.1/26.0	38461
1994 HX	2000 02 24.0	10 26.54 +08 55.2 20.0	-1.04 + 6.5	0.3/24.3	32747
2000 AC ₁₄₄	2000 02 24.1	10 26.56 +03 18.6 16.7	-1.06 + 5.2	2.7/26.0	38881
2000 BP ₁₄	2000 02 24.1	10 26.61 +23 13.0 18.1	-1.09 + 3.9	5.5/20.5	38719
2000 AN ₉₆	2000 02 24.1	10 26.64 +17 40.4 16.6	-0.78 +14.1	3.3/21.1	38875
1996 GN ₂	2000 02 24.1	10 26.76 +01 01.8 18.1	-0.81 + 7.4	2.8/27.0	38769
1997 RJ ₁	2000 02 24.1	10 26.80 +13 50.0 18.6	-0.73 + 5.4	1.0/22.9	38774
1997 UB ₁₁	2000 02 24.1	10 26.83 +26 47.4 16.9	-1.00 + 0.1	4.8/19.7	38775
1982 US ₆	2000 02 24.2	10 26.93 +22 34.0 17.3	-0.99 + 4.3	4.2/20.5	38752
1991 UR ₂	2000 02 24.2	10 26.94 +24 15.2 17.2	-1.16 + 2.5	6.2/20.6	38439
1998 WC ₁₇	2000 02 24.2	10 27.04 +14 02.4 18.2	-0.87 + 5.4	1.4/22.9	34311
1996 GJ ₄	2000 02 24.2	10 27.05 +08 31.7 17.5	-0.83 + 7.2	0.4/24.6	32952
1996 AS	2000 02 24.2	10 27.08 +12 35.0 16.9	-0.91 + 8.0	1.1/23.3	38768
1998 QY ₈₅	2000 02 24.2	10 27.10 -04 57.3 18.8	-0.97 + 2.9	5.0/28.4	35712
1998 QU ₄₆	2000 02 24.2	10 27.22 +02 55.2 17.5	-1.02 + 3.9	2.5/26.1	38481
1997 QC ₂	2000 02 24.2	10 27.22 +13 16.8 19.1	-0.84 + 6.2	1.0/23.1	31010
1991 UR	2000 02 24.2	10 27.23 +16 59.1 17.5	-1.08 + 3.8	2.6/22.3	38757
1998 VD ₂₉	2000 02 24.3	10 27.40 +35 51.6 17.4	-0.89 + 3.8	7.5/15.8	35724
1998 UB ₂₀	2000 02 24.3	10 27.48 +10 39.1 18.8	-0.89 + 5.3	0.3/24.0	34307
2466 T-3	2000 02 24.3	10 27.49 +17 29.8 17.8	-0.88 + 2.7	2.2/22.1	38908
3336 T-2	2000 02 24.3	10 27.58 +09 19.6 17.9	-0.96 + 7.6	0.1/24.5	38908
1998 US ₁₆	2000 02 24.3	10 27.64 +15 01.7 18.7	-0.98 + 7.7	1.8/22.7	35722
1998 OT ₁₁	2000 02 24.4	10 27.70 +07 41.9 20.0	-0.97 + 6.1	0.7/25.0	33079
1998 WA ₁₇	2000 02 24.4	10 27.78 +07 44.4 17.7	-0.77 + 4.9	0.6/25.0	38536
1991 VV	2000 02 24.4	10 27.79 -28 32.2 18.7	-1.01 + 4.3	12.3/09.1	35601
1994 VY ₆	2000 02 24.4	10 27.83 +05 07.6 19.7	-0.91 + 5.1	1.4/26.0	33552
1998 OT ₁₄	2000 02 24.4	10 27.98 +08 11.2 18.5	-1.08 + 4.4	0.5/24.8	38472

1998 UM ₃	2000 02 24.4	10 28.03 +08 40.3 20.2	-0.98 + 6.0	0.3/24.7	34026
1997 PC ₄	2000 02 24.4	10 28.05 +08 34.0 19.1	-0.86 + 6.4	0.3/24.8	38774
1981 FP	2000 02 24.4	10 28.14 +07 31.5 17.9	-0.90 + 6.6	0.9/25.1	38751
1998 QJ ₉₉	2000 02 24.5	10 28.18 +14 29.3 18.6	-0.97 + 6.1	1.6/23.1	38785
1989 SW ₈	2000 02 24.5	10 28.21 +00 15.0 17.9	-0.80 + 8.0	2.8/27.6	38754
(13132)	2000 02 24.5	10 28.44 +03 24.5 16.2	-1.02 + 2.6	2.6/26.2	37522
1998 VG ₁	2000 02 24.5	10 28.46 +23 04.1 20.2	-1.04 + 5.4	4.1/20.6	35723
1988 SL ₁	2000 02 24.5	10 28.51 +09 13.4 19.4	-1.03 + 6.0	0.1/24.7	38753
1998 QA ₂₄	2000 02 24.6	10 28.55 +01 34.0 17.8	-0.96 + 7.2	3.1/27.1	38781
2000 CP ₄₀	2000 02 24.6	10 28.59 +17 16.6 18.1	-0.76 + 7.6	2.4/22.0	38729
1998 QT ₃₈	2000 02 24.6	10 28.63 +03 57.5 18.4	-1.01 + 4.9	2.1/26.2	38478
1977 QD ₂	2000 02 24.7	10 28.91 +12 04.1 17.8	-1.05 + 4.2	0.9/24.0	38750
1998 UR ₁₅	2000 02 24.7	10 28.96 +10 08.7 17.3	-0.79 + 4.4	0.2/24.5	38524
1997 PZ ₁	2000 02 24.7	10 29.02 +09 30.7 18.8	-0.78 + 5.3	0.0/24.7	38774
1997 RR ₈	2000 02 24.7	10 29.02 +00 05.2 17.1	-0.74 + 6.6	2.8/27.8	38774
(13468)	2000 02 24.7	10 29.06 +10 04.8 16.3	-0.91 + 6.1	0.3/24.6	37615
(13568)	2000 02 24.7	10 29.11 -02 37.9 16.9	-0.70 + 5.8	3.4/28.7	38334
1998 RE ₈₀	2000 02 24.7	10 29.12 +21 45.9 19.4	-0.94 + 4.0	3.7/21.2	33353
(13315)	2000 02 24.8	10 29.28 +18 51.4 16.9	-1.06 + 2.7	3.9/22.3	37571
1994 VE ₁	2000 02 24.9	10 29.60 +08 27.0 17.4	-0.89 + 5.9	0.3/25.2	38764
2000 AO ₁	2000 02 24.9	10 29.71 +51 01.1 17.6	-1.05 + 8.1	15.0/06.6	38864
1984 SA	2000 02 24.9	10 29.77 -00 15.9 17.9	-0.98 + 5.3	3.2/27.7	38752
1998 SO ₅₉	2000 02 24.9	10 29.78 +24 15.0 16.6	-1.11 + 1.9	6.1/21.0	38508
1996 HP ₁₈	2000 02 24.9	10 29.84 +42 41.2 18.3	-1.02 + 1.8	8.5/14.6	38769
4298 T-1	2000 02 24.9	10 29.94 +11 17.9 18.4	-0.96 + 6.8	0.7/24.4	38907
2000 AU ₂₃₆	2000 02 24.9	10 29.96 -01 36.5 17.2	-0.99 + 3.7	4.6/28.0	38712
1995 WS ₂	2000 02 24.9	10 30.02 +20 59.9 18.1	-1.10 + 4.8	4.2/21.8	38766
2266 T-2	2000 02 25.0	10 29.96 +06 22.4 17.4	-0.93 + 8.0	1.2/26.0	38908
1997 FQ ₃	2000 02 25.0	10 30.01 +11 19.4 18.4	-1.04 + 5.2	0.7/24.5	38772
1981 EJ ₁₁	2000 02 25.0	10 30.40 +05 12.2 17.8	-0.96 + 4.6	1.4/26.3	38431
1998 ST ₁₄₂	2000 02 25.1	10 30.37 +10 15.1 17.9	-1.05 + 5.6	0.3/24.9	38793
2000 AN ₂₃₇	2000 02 25.1	10 30.42 +17 46.1 17.1	-0.79 + 9.3	3.2/22.2	38886
1997 HG ₁₀	2000 02 25.1	10 30.42 +15 57.6 18.9	-1.01 + 5.5	2.4/23.2	38773
(13084)	2000 02 25.1	10 30.56 +17 39.9 17.6	-0.89 + 6.2	2.8/22.6	37509
1999 XD ₁₅	2000 02 25.1	10 30.61 -08 27.3 16.4	-1.61 - 7.7	8.6/27.8	38833
1996 DT ₃	2000 02 25.1	10 30.64 +07 42.9 17.6	-0.97 + 4.4	0.6/25.6	38768
1998 RJ ₅₆	2000 02 25.1	10 30.73 +08 49.2 17.7	-1.04 + 3.5	0.2/25.3	38494
(13510)	2000 02 25.2	10 30.75 +30 13.5 18.0	-1.06 + 3.8	6.7/18.9	38318
1998 QD ₄₅	2000 02 25.2	10 30.75 +01 10.0 17.5	-1.02 + 4.4	3.1/27.5	38782
2000 AT ₉₆	2000 02 25.2	10 30.77 +18 49.8 16.7	-1.03 + 6.0	4.4/22.4	38875
(13384)	2000 02 25.2	10 30.79 +21 01.7 17.4	-0.76 + 6.0	3.0/21.4	37591
(10649)	2000 02 25.2	10 30.89 -01 42.2 17.8	-0.79 + 6.8	3.8/28.8	34475
1997 RO	2000 02 25.2	10 30.93 +08 30.5 18.4	-0.83 + 6.6	0.3/25.5	38461
1998 QY ₅₀	2000 02 25.2	10 31.09 +12 20.1 18.5	-1.09 + 3.4	1.1/24.5	38783
1998 SO ₁₃₂	2000 02 25.3	10 31.17 -01 49.1 18.4	-0.83 + 5.6	3.7/28.8	35719
1998 SM ₇₃	2000 02 25.3	10 31.20 +07 49.6 17.3	-0.82 + 7.4	0.5/25.8	38791
1996 KN	2000 02 25.3	10 31.27 +11 54.9 17.9	-0.79 + 4.3	0.7/24.5	38769
1997 JR	2000 02 25.3	10 31.56 +30 55.1 18.3	-1.06 + 4.5	6.4/18.8	38773
1994 PS ₁₀	2000 02 25.4	10 31.54 +08 42.5 19.5	-0.97 + 5.0	0.2/25.6	38763
1994 UC ₁	2000 02 25.4	10 31.61 +11 40.3 16.8	-0.96 + 5.3	0.9/24.7	38764
2000 AT ₂₃₆	2000 02 25.4	10 31.62 -00 51.3 16.8	-0.96 + 4.9	4.5/28.3	38712

2000 FEB. 22

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1992 RB₃ 2000 02 25.4 10 31.64 +08 25.4 17.7 -0.79 + 4.6 0.2/25.7 38758
 1998 RU₆₅ 2000 02 25.4 10 31.72 +09 08.4 19.4 -0.98 + 5.2 0.0/25.5 38787
 2000 BO₁₄ 2000 02 25.4 10 31.75 +20 17.0 17.4 -0.84 + 3.8 3.4/22.1 38719
 1999 VL₄₀ 2000 02 25.4 10 31.77 -39 59.1 16.0 -0.90 - 8.3 26.6/17.0 38818
 1993 GA 2000 02 25.4 10 31.84 +16 52.1 18.7 -1.07 + 3.9 2.8/23.4 24231
 1998 VJ₃₀ 2000 02 25.4 10 31.85 +27 29.9 18.7 -0.83 + 4.5 5.1/19.7 35724
 1245 T-2 2000 02 25.5 10 31.86 +13 34.0 17.2 -1.01 + 2.1 1.7/24.4 34270
 1998 VT₅ 2000 02 25.5 10 31.96 -30 43.7 17.8 -0.80 + 3.6 10.8/11.9 38527
 2000 BR₁₄ 2000 02 25.5 10 32.02 +16 28.3 17.1 -0.85 + 2.7 2.0/23.5 38720
 1991 TK₈ 2000 02 25.5 10 32.11 +10 03.8 17.5 -0.94 + 8.5 0.3/25.3 38757
 1997 MY₅ 2000 02 25.5 10 32.15 -08 39.8 18.4 -0.84 + 5.8 7.1/02.2 33261
 4279 P-L 2000 02 25.5 10 32.22 +01 37.6 20.2 -0.91 + 6.8 2.6/27.9 38735
 1994 TW 2000 02 25.5 10 32.23 +26 22.8 18.7 -1.10 + 2.2 5.6/21.0 33551
 (10237) 2000 02 25.5 10 32.27 +10 40.7 17.3 -1.02 + 6.5 0.6/25.2 38750
 1989 WY₁ 2000 02 25.6 10 32.23 +32 19.9 17.6 -0.95 + 4.7 6.8/18.3 38435
 1991 PE₆ 2000 02 25.6 10 32.23 +12 23.3 17.2 -0.80 + 4.3 0.9/24.6 38756
 1994 BD₄ 2000 02 25.7 10 32.70 +09 01.6 17.1 -0.74 + 6.3 7.7/06.0 38762
 1998 UM₃₂ 2000 02 25.7 10 32.87 +25 50.5 18.5 -0.86 + 4.2 4.6/20.5 35723
 1991 RE₇ 2000 02 25.7 10 33.03 +24 48.5 17.0 -0.91 + 1.7 4.1/21.3 38756
 1991 RC₂ 2000 02 25.7 10 33.04 +08 18.5 16.7 -1.10 + 2.6 10.2/17.0 38756
 1998 SD₁₀₆ 2000 02 25.8 10 33.13 -00 12.2 17.8 -0.80 + 9.6 3.2/29.0 38511
 1998 WF 2000 02 25.8 10 33.39 +12 48.4 19.3 -0.88 + 6.4 1.1/24.7 34932
 1998 RV₅₄ 2000 02 25.8 10 33.46 +05 05.6 17.7 -1.03 + 3.0 1.6/27.0 38492
 (13560) 2000 02 25.9 10 33.47 +17 26.1 17.2 -0.87 + 2.7 2.4/23.6 38332
 1998 SQ₆₃ 2000 02 25.9 10 33.49 +13 59.9 17.8 -1.00 + 5.6 1.8/24.5 38791
 (13559) 2000 02 25.9 10 33.64 +18 09.8 17.6 -0.91 + 2.0 2.6/23.4 38332
 1991 RK₂₆ 2000 02 25.9 10 33.68 +18 01.0 18.3 -1.09 + 4.4 3.1/23.5 38757
 1989 TR₁₁ 2000 02 25.9 10 33.72 +22 21.3 18.1 -0.99 + 2.8 3.9/22.2 38754
 (9879) 2000 02 25.9 10 33.83 +03 11.1 19.2 -0.93 + 5.6 1.8/27.7 33464
 1998 RB₇₁ 2000 02 26.0 10 33.85 +10 05.5 17.0 -0.77 + 9.4 0.4/25.7 38788
 1997 JT₃ 2000 02 26.0 10 33.86 +13 43.7 19.3 -0.96 + 5.7 1.5/24.6 38773
 1994 UY 2000 02 26.0 10 34.13 +07 30.5 18.0 -0.93 + 4.7 0.5/26.5 38764
 1997 MG 2000 02 26.0 10 34.18 +17 52.9 16.7 -0.92 + 9.4 3.9/23.1 38460
 1988 RF₁₃ 2000 02 26.0 10 34.19 +32 36.4 18.7 -1.04 + 2.3 6.9/19.0 38753
 1990 VN₅ 2000 02 26.0 10 34.20 +32 22.6 18.7 -0.99 + 5.8 7.1/18.4 38755
 1998 TJ 2000 02 26.1 10 34.15 +15 10.5 18.9 -1.06 + 4.3 2.2/24.4 33570
 (13749) 2000 02 26.1 10 34.18 -02 19.7 16.4 -0.80 + 6.6 3.9/29.8 38386
 (9760) 2000 02 26.1 10 34.19 +08 44.2 18.4 -1.05 + 5.1 0.1/26.2 33201
 1978 RX₁ 2000 02 26.1 10 34.23 +11 10.7 17.9 -1.00 + 7.2 0.7/25.5 38750
 (13154) 2000 02 26.1 10 34.26 +08 04.8 16.9 -1.12 + 3.9 0.4/26.4 37528
 (13728) 2000 02 26.1 10 34.26 +10 08.2 16.7 -0.87 + 9.6 0.4/25.8 38379
 1998 VY₂₀ 2000 02 26.1 10 34.35 +07 50.7 18.0 -0.82 + 5.2 0.4/26.5 33575
 (12806) 2000 02 26.1 10 34.35 +14 50.4 16.5 -0.98 + 5.6 2.4/24.4 37065
 1981 EC₂₂ 2000 02 26.1 10 34.38 +07 59.4 18.0 -1.01 + 7.0 0.4/26.5 38751
 (11384) 2000 02 26.1 10 34.47 +07 39.6 19.0 -0.93 + 6.4 0.4/26.6 35586
 1997 SF₄ 2000 02 26.2 10 34.59 -01 36.2 19.8 -0.69 + 5.1 2.5/29.6 35701
 1182 T-3 2000 02 26.2 10 34.64 +07 29.6 18.0 -0.88 + 2.5 0.5/26.6 38908
 1998 WE₃ 2000 02 26.2 10 34.68 +09 18.1 17.8 -0.90 + 3.6 0.1/26.1 38797
 1995 SM₅₃ 2000 02 26.2 10 34.71 +03 18.0 19.1 -1.01 + 7.0 2.1/27.9 32749
 1991 RU₉ 2000 02 26.2 10 34.72 +07 17.9 18.6 -1.00 + 5.7 0.6/26.7 38756
 1998 WW₅ 2000 02 26.2 10 34.75 +12 38.0 17.9 -1.05 + 4.1 1.3/25.2 38532

1998 XG₂₅ 2000 02 26.2 10 34.78 +07 55.9 20.1 -0.80 + 5.4 0.3/26.6 35728
 1998 XV₁₂ 2000 02 26.3 10 34.91 +16 11.6 17.7 -0.73 + 5.5 2.1/24.0 38798
 1998 SX₇₁ 2000 02 26.3 10 34.93 +16 31.2 17.4 -1.02 + 4.8 3.1/24.1 38510
 1998 WH₁₂ 2000 02 26.3 10 35.06 +06 18.9 19.2 -0.92 + 5.9 0.8/27.1 35726
 1992 HD₄ 2000 02 26.3 10 35.14 -02 03.9 16.7 -0.83 + 6.8 4.4/29.9 38758
 (9785) 2000 02 26.3 10 35.19 +12 06.3 16.8 -0.89 + 4.2 1.1/25.4 33208
 4201 P-L 2000 02 26.3 10 35.23 +02 57.0 17.8 -0.85 + 4.3 2.0/28.1 38734
 1998 SQ₂₄ 2000 02 26.3 10 35.25 +18 33.2 18.5 -1.00 + 3.8 3.5/23.7 38790
 1998 QE₄₀ 2000 02 26.3 10 35.32 +05 12.4 17.5 -0.92 + 6.7 1.4/27.5 38479
 1998 SO₁₆₂ 2000 02 26.4 10 35.30 -10 49.4 19.1 -0.88 + 6.5 7.0/03.9 33760
 1998 WM₁ 2000 02 26.4 10 35.58 +01 19.4 17.7 -0.90 + 5.0 2.3/28.7 38532
 1979 MQ₁ 2000 02 26.4 10 35.72 -09 05.1 18.9 -0.94 + 2.1 6.1/02.4 30778
 1998 QL₅₀ 2000 02 26.5 10 35.83 +14 52.2 18.4 -1.02 + 5.6 2.3/24.8 38783
 1997 HF₇ 2000 02 26.5 10 35.95 +11 34.6 17.1 -1.02 + 5.7 1.1/25.8 38773
 1999 VH₈₇ 2000 02 26.5 10 36.01 +36 37.8 16.9 -1.04 +19.3 12.1/14.8 38822
 (11386) 2000 02 26.5 10 36.09 -02 04.5 17.8 -0.96 + 5.1 3.4/29.8 35586
 1989 OJ 2000 02 26.6 10 36.02 +31 50.9 19.1 -1.07 + 2.8 6.7/19.7 35681
 (13773) 2000 02 26.6 10 36.05 +08 06.9 16.2 -0.85 + 7.3 0.3/26.8 38393
 1998 US₆ 2000 02 26.6 10 36.19 +16 51.1 18.2 -0.94 + 4.2 2.8/24.3 38795
 (13605) 2000 02 26.6 10 36.31 +07 50.0 17.1 -1.01 + 4.0 0.3/26.9 38344
 1998 SG₄₃ 2000 02 26.6 10 36.47 +15 06.8 16.6 -0.99 + 6.3 2.4/24.8 38790
 2000 CH₅₆ 2000 02 26.6 10 36.48 +16 07.6 17.2 -1.02 + 6.9 3.3/24.5 38730
 (13374) 2000 02 26.7 10 36.40 +16 24.6 16.0 -1.09 + 5.9 3.1/24.5 37588
 1994 TT₃ 2000 02 26.7 10 36.49 -16 40.0 18.8 -0.86 + 7.5 7.3/06.4 38763
 1998 VE₃₃ 2000 02 26.7 10 36.53 -09 59.1 17.7 -0.85 + 6.3 6.3/03.7 38797
 (9749) 2000 02 26.7 10 36.58 +05 28.0 17.9 -0.95 + 4.9 1.1/27.7 33199
 1998 UX₆ 2000 02 26.7 10 36.63 +03 37.4 18.9 -1.01 + 5.1 1.8/28.2 34026
 (13555) 2000 02 26.7 10 36.70 -06 45.8 17.0 -0.82 + 6.4 5.0/02.8 38331
 1998 RE₅ 2000 02 26.7 10 36.78 +16 47.0 19.6 -1.08 + 6.1 2.8/24.4 33350
 1998 WH₁₄ 2000 02 26.7 10 36.82 +00 41.4 18.6 -0.82 + 5.3 2.5/29.3 38535
 1988 BL₅ 2000 02 26.7 10 36.82 -09 11.0 17.5 -0.99 + 2.5 6.6/02.9 38753
 1998 UO₃₁ 2000 02 26.8 10 36.77 +14 49.4 19.2 -1.06 + 6.2 2.1/25.0 35723
 1998 SB₁₂ 2000 02 26.8 10 36.78 +05 29.0 19.8 -0.79 + 5.5 1.0/27.8 35716
 1998 SG₈₇ 2000 02 26.9 10 37.31 +01 31.6 19.9 -0.88 + 5.4 2.1/29.1 34023
 1978 VD₈ 2000 02 26.9 10 37.32 +14 41.3 18.5 -1.04 + 5.8 2.3/25.2 38750
 (9934) 2000 02 26.9 10 37.35 +25 07.0 18.0 -1.08 + 2.2 4.9/22.4 33656
 (12727) 2000 02 26.9 10 37.39 +15 58.2 16.3 -0.95 + 8.4 3.1/24.6 37045
 2000 AW₉₆ 2000 02 26.9 10 37.44 +13 03.5 16.7 -0.92 + 8.3 2.0/25.6 38663
 1997 TV 2000 02 26.9 10 37.54 +14 13.6 17.9 -0.84 + 2.6 1.6/25.4 38775
 1996 GS₉ 2000 02 27.0 10 37.56 +06 37.5 19.3 -0.82 + 5.8 0.6/27.6 34014
 1981 RW₄ 2000 02 27.0 10 37.68 +14 25.4 18.0 -0.92 + 4.8 1.8/25.3 38752
 1991 VR₂ 2000 02 27.0 10 37.84 +45 02.8 19.5 -1.35 + 2.3 10.9/15.3 35684
 1990 SD₅ 2000 02 27.0 10 37.84 +13 51.8 17.3 -1.01 + 5.2 2.0/25.5 38755
 1998 TK₃₀ 2000 02 27.0 10 37.87 -05 26.4 18.2 -0.88 + 7.4 4.6/02.6 35721
 1998 QE₄₇ 2000 02 27.0 10 37.93 +14 01.5 19.5 -1.03 + 5.7 1.8/25.5 34591
 1994 VF 2000 02 27.0 10 37.94 +06 33.2 19.0 -0.91 + 5.1 0.7/27.7 35692
 1994 PO₃₉ 2000 02 27.0 10 37.94 +07 19.9 19.5 -0.96 + 5.1 0.4/27.5 35691
 (9731) 2000 02 27.1 10 37.97 -04 13.8 16.6 -0.92 + 7.0 5.0/02.0 33195
 1991 PP₈ 2000 02 27.1 10 38.27 +12 07.4 18.6 -0.75 + 4.5 0.9/26.1 38756
 1998 SL₁₂₄ 2000 02 27.1 10 38.29 +04 49.3 16.9 -0.91 + 9.6 1.7/28.4 38513
 1992 WK₉ 2000 02 27.2 10 38.28 +09 51.1 18.4 -0.75 + 4.4 0.3/26.8 38759

1998 UZ ₁₉	2000 02 27.2	10 38.31 +10 08.7 18.7	-0.87 + 4.8	0.5/26.7	38795	1996 HD ₂₂	2000 02 28.3	10 42.53 +31 06.1 17.3	-1.08 + 1.6	9.0/21.6	38769
1992 JL	2000 02 27.2	10 38.37 +26 29.9 17.5	-0.90 + 8.4	5.7/20.9	34008	1998 QF ₉₃	2000 02 28.3	10 42.65 -04 42.6 18.6	-0.81 + 7.7	3.8/03.7	35713
1998 WX ₁₂	2000 02 27.2	10 38.40 +06 31.3 17.9	-0.87 + 4.1	0.6/27.8	38798	(10076)	2000 02 28.3	10 42.68 +01 04.5 18.4	-0.98 + 1.8	1.9/01.2	33876
1994 PF ₁₁	2000 02 27.2	10 38.49 +06 43.7 17.8	-1.00 + 4.7	0.8/27.8	33550	1999 VK ₂₁	2000 02 28.3	10 42.75 +05 47.5 16.4	-0.99 + 2.3	1.0/29.0	38815
1998 SU ₁₃₂	2000 02 27.2	10 38.57 +01 09.5 18.4	-0.91 + 5.8	2.6/29.5	38514	1994 PF ₅	2000 02 28.4	10 42.87 +09 48.3 18.2	-0.93 + 8.2	0.6/27.9	38763
1998 QH ₅₃	2000 02 27.2	10 38.63 +04 49.7 19.7	-0.91 + 4.8	1.1/28.4	33561	1998 XQ ₉	2000 02 28.4	10 43.25 +01 38.0 18.4	-0.98 + 6.2	2.1/01.4	33713
1996 EY ₅	2000 02 27.2	10 38.71 +11 14.5 18.3	-0.94 + 4.8	1.0/26.5	38769	1985 RM ₃	2000 02 28.5	10 43.35 +08 18.8 17.7	-1.01 + 8.0	0.1/28.5	38752
(13351)	2000 02 27.3	10 38.69 -00 06.8 15.4	-0.91 + 8.3	3.8/01.1	37582	1998 QY ₄₀	2000 02 28.5	10 43.39 +04 55.7 18.8	-0.95 + 7.7	1.1/29.5	32975
1996 CT ₇	2000 02 27.3	10 38.76 +00 07.6 17.7	-0.91 + 7.1	3.0/30.0	38768	1998 VH ₃₃	2000 02 28.5	10 43.51 +14 08.6 19.2	-1.02 + 6.2	2.1/26.8	35724
(11321)	2000 02 27.3	10 38.94 +11 58.8 16.9	-0.86 + 2.6	1.0/26.4	35571	1998 QP ₉₂	2000 02 28.5	10 43.53 +13 13.9 19.0	-0.97 + 6.1	1.6/27.0	34302
1998 WL ₁₀	2000 02 27.3	10 38.98 +05 05.4 18.2	-0.76 + 5.8	1.0/28.5	38534	1998 SD ₁₁₀	2000 02 28.5	10 43.57 -06 21.6 16.8	-0.92 + 7.1	5.9/04.2	38792
1998 VL ₃	2000 02 27.3	10 38.98 +11 52.5 20.1	-0.85 + 4.7	1.1/26.4	33514	(10010)	2000 02 28.5	10 43.61 +06 15.1 17.9	-0.88 + 7.5	0.6/29.2	33860
(9747)	2000 02 27.3	10 39.04 +26 10.6 16.5	-0.81 + 5.6	5.6/21.4	33198	1998 VN ₂₁	2000 02 28.5	10 43.62 +06 12.6 20.2	-0.90 + 4.8	0.6/29.1	38797
2000 AF ₁₄₄	2000 02 27.3	10 39.09 -00 39.7 17.0	-1.01 + 2.9	3.7/29.9	38881	1998 UF ₉	2000 02 28.5	10 43.65 +12 35.4 17.5	-1.08 + 3.3	2.0/27.4	38795
1998 WB ₁₅	2000 02 27.4	10 39.16 +19 52.5 18.9	-0.87 + 5.4	3.5/23.9	34310	1998 WG ₇	2000 02 28.6	10 43.57 +16 48.3 17.9	-0.97 + 6.6	2.8/25.9	38797
1979 MT ₃	2000 02 27.4	10 39.22 +03 01.7 20.8	-1.05 + 5.9	2.0/29.0	30778	1992 YG ₂	2000 02 28.6	10 43.72 +04 16.7 18.2	-1.06 + 5.2	1.4/29.7	38759
1998 VK ₁₄	2000 02 27.4	10 39.38 +30 16.2 17.5	-1.15 + 1.4	7.8/21.4	34595	1998 NT	2000 02 28.6	10 43.73 +33 09.7 17.5	-1.07 +22.6	10.2/18.0	38053
1998 UY ₁₅	2000 02 27.5	10 39.45 +16 20.4 19.5	-1.01 + 4.4	2.5/25.3	35722	1998 UQ ₁₅	2000 02 28.6	10 43.78 +13 38.3 16.8	-0.85 + 5.4	1.8/26.9	38795
2000 AP ₁₄₄	2000 02 27.5	10 39.46 +00 35.3 16.4	-1.15 - 1.6	2.8/29.2	38691	1990 RN ₃	2000 02 28.6	10 43.82 +04 40.1 16.4	-0.94 + 7.8	1.2/29.7	38755
1997 TZ ₇	2000 02 27.5	10 39.63 +32 21.6 18.9	-0.86 + 3.1	5.5/19.8	38775	1998 RH ₆₃	2000 02 28.6	10 43.82 +12 15.9 18.2	-1.02 + 6.8	1.5/27.4	38787
1994 TZ ₁₄	2000 02 27.5	10 39.80 +05 06.1 18.2	-0.88 + 6.8	1.1/28.6	38763	1993 FW ₄₁	2000 02 28.6	10 43.82 +11 00.5 18.4	-1.01 + 4.6	1.1/27.8	38760
1998 UB ₉	2000 02 27.5	10 39.83 +05 21.5 18.3	-0.87 + 5.6	1.1/28.5	38523	2000 AC ₉₇	2000 02 28.6	10 43.85 +17 13.7 16.7	-0.85 + 8.8	3.1/25.6	38664
(12734)	2000 02 27.5	10 39.87 +32 44.2 16.2	-1.19 + 0.2	10.5/21.3	37047	1998 VV ₁₄	2000 02 28.6	10 43.94 +08 38.2 17.6	-1.04 + 5.4	0.2/28.5	38529
1998 WP	2000 02 27.6	10 39.93 -07 53.9 18.5	-0.83 + 4.8	4.4/03.7	38797	1998 QW ₃₁	2000 02 28.6	10 44.00 +10 06.3 18.1	-1.07 + 4.0	0.7/28.1	38781
1996 XT ₁₄	2000 02 27.6	10 40.25 +52 23.2 19.4	-1.52 + 6.0	17.7/11.0	38770	1986 QR ₁	2000 02 28.6	10 44.02 +09 44.3 16.9	-1.00 + 4.2	0.6/28.2	38752
1998 YH ₅	2000 02 27.7	10 40.17 +18 03.0 20.3	-0.73 + 9.2	2.4/24.3	34035	1997 GB ₁₄	2000 02 28.7	10 43.98 +01 28.2 17.6	-1.01 + 6.8	2.7/02.0	38458
1998 RB ₅₅	2000 02 27.7	10 40.28 -02 32.0 16.4	-0.95 + 5.5	4.9/02.0	38493	(9838)	2000 02 28.7	10 43.99 +17 13.1 17.2	-0.81 + 5.0	2.7/25.8	33454
1998 UJ ₄₃	2000 02 27.7	10 40.41 +01 52.7 17.0	-0.96 + 4.0	2.5/29.6	38526	(9815)	2000 02 28.7	10 44.06 +07 56.7 17.3	-0.88 + 3.6	0.0/28.8	33215
1994 YR	2000 02 27.7	10 40.49 +13 44.4 18.9	-0.86 + 5.5	1.5/26.1	38764	3268 T-3	2000 02 28.7	10 44.19 -00 02.9 18.4	-0.91 + 7.8	3.3/02.3	38908
1998 VC ₂₅	2000 02 27.7	10 40.62 +19 41.0 17.7	-1.06 + 5.8	4.6/24.4	34028	1998 RA ₅₂	2000 02 28.7	10 44.21 +15 54.9 17.3	-0.94 + 4.6	3.2/26.4	38786
(13028)	2000 02 27.8	10 40.72 +21 02.8 17.3	-0.90 + 7.9	3.8/23.6	37494	1996 HZ ₂₁	2000 02 28.7	10 44.38 +32 21.1 17.9	-1.11 + 1.4	9.1/21.6	38769
1998 WR ₇	2000 02 27.8	10 40.75 -10 31.7 20.1	-0.89 + 4.7	5.7/04.8	35726	1998 QJ ₉₁	2000 02 28.8	10 44.34 +00 01.0 20.1	-0.87 + 5.6	2.2/02.3	34302
1998 QS ₂₀	2000 02 27.8	10 40.94 +06 33.3 19.2	-1.05 + 6.3	0.7/28.4	38476	1998 RD ₇₁	2000 02 28.9	10 44.87 +09 39.5 17.9	-0.86 + 8.6	0.6/28.4	38788
(13787)	2000 02 27.9	10 40.95 +11 11.2 17.3	-0.77 + 4.9	0.8/27.0	38396	1993 FA ₄₅	2000 02 28.9	10 44.94 +12 07.0 17.5	-1.07 + 5.0	1.5/27.8	38760
1998 SG ₁₃₄	2000 02 27.9	10 40.98 +24 25.6 18.4	-1.08 + 2.0	5.4/23.6	33569	1998 RF ₅₆	2000 02 28.9	10 45.00 +03 52.4 17.9	-1.00 + 5.9	1.6/01.2	38493
1998 SU ₆₇	2000 02 27.9	10 41.00 +21 37.2 16.5	-0.89 + 5.8	5.5/23.6	38509	1998 WG ₂₃	2000 02 28.9	10 45.00 +02 29.0 18.7	-0.96 + 5.3	1.9/01.6	34311
1998 VD ₆	2000 02 27.9	10 41.04 +25 28.5 18.1	-1.01 + 4.3	5.7/22.7	38528	3101 T-3	2000 02 28.9	10 45.05 +21 21.9 18.1	-1.09 + 4.3	4.9/25.1	38908
1998 SR ₁₁₆	2000 02 27.9	10 41.23 +03 29.2 16.4	-0.93 + 4.2	1.9/29.4	38792	1997 HX ₉	2000 02 28.9	10 45.05 +22 11.5 19.6	-1.05 + 4.7	4.9/24.7	35700
2000 BB ₄	2000 02 27.9	10 41.27 +12 32.2 17.8	-0.75 + 6.9	1.2/26.6	38718	4153 T-2	2000 02 29.0	10 45.18 +12 15.0 18.8	-0.83 + 4.7	1.3/27.7	35673
1992 EK ₁₂	2000 02 28.0	10 41.40 +08 36.4 18.4	-0.84 + 9.8	0.1/27.9	38758	1996 AO ₁	2000 02 29.0	10 45.19 +14 47.6 18.2	-1.00 + 5.7	2.5/27.0	38768
1997 SR	2000 02 28.0	10 41.43 +03 08.1 18.4	-0.93 + 2.4	1.5/29.4	38774	1981 EH ₂₈	2000 02 29.0	10 45.27 +11 05.6 17.5	-0.96 + 4.9	1.3/28.1	38751
1996 BM ₆	2000 02 28.0	10 41.72 +12 04.9 20.9	-0.98 + 5.3	1.2/27.0	35694	(13303)	2000 02 29.0	10 45.37 +08 58.7 16.9	-0.90 + 6.5	0.4/28.7	37568
1995 SD ₄	2000 02 28.1	10 41.69 +02 23.7 19.3	-1.03 + 7.0	2.1/29.9	32518	(13316)	2000 02 29.0	10 45.41 +11 42.5 17.0	-1.00 + 5.8	1.7/27.9	37572
(9840)	2000 02 28.1	10 41.88 -01 07.1 16.0	-0.95 + 1.4	3.3/01.6	33455	1998 RF ₅₂	2000 02 29.0	10 45.41 +21 08.7 18.5	-1.10 + 1.4	4.8/25.7	33564
2000 AB ₉₇	2000 02 28.1	10 41.99 +10 56.9 16.7	-1.00 + 6.3	1.2/27.4	38663	1998 QQ ₁	2000 02 29.1	10 45.45 +08 22.6 17.9	-0.93 + 7.6	0.2/29.0	33347
1987 UX	2000 02 28.1	10 42.00 -17 57.8 19.0	-0.88 + 9.1	7.8/08.7	35679	(13615)	2000 02 29.1	10 45.80 +14 33.2 17.2	-0.85 + 8.7	2.1/26.9	38347
1998 ON ₁₄	2000 02 28.2	10 42.08 +12 23.1 17.8	-0.96 + 6.7	1.6/26.9	38472	1998 VN ₁₁	2000 02 29.1	10 45.80 +10 47.6 16.7	-1.06 + 7.1	1.2/28.3	38796
1975 SE ₁	2000 02 28.2	10 42.19 +20 12.1 19.3	-1.02 + 3.9	3.7/24.8	33538	1998 RV ₁₅	2000 02 29.1	10 45.81 +01 25.6 18.2	-0.81 + 9.0	2.0/02.4	33350
4263 T-2	2000 02 28.2	10 42.25 +13 20.1 17.9	-0.99 + 6.7	2.1/26.7	38908	(13636)	2000 02 29.2	10 46.18 +06 48.5 17.3	-0.94 + 5.6	0.4/29.6	38352
9594 P-L	2000 02 28.2	10 42.31 +11 18.0 18.0	-0.74 + 4.2	0.9/27.3	38907	(13217)	2000 02 29.2	10 46.21 +08 12.1 16.9	-0.91 + 7.9	0.2/29.2	37544
1981 EC ₁₄	2000 02 28.3	10 42.45 +05 34.3 18.0	-0.99 + 4.0	1.0/29.0	38751	2000 CF ₂	2000 02 29.2	10 46.23 +17 00.0 16.5	-1.09 + 4.5	3.3/26.7	38726

2000 FEB. 22

M.P.C. 38939

(13213) 2000 02 29.3 10 46.18 +15 25.3 16.2 -0.99 + 6.4 3.4/27.0 37543
 1998 RL₁₅ 2000 02 29.3 10 46.28 +07 07.7 17.2 -0.93 + 6.1 0.3/29.5 38490
 1998 US₃₁ 2000 02 29.3 10 46.32 +14 16.5 17.5 -0.89 + 5.2 2.1/27.3 35723
 1998 WD₁₅ 2000 02 29.3 10 46.52 +10 12.7 18.2 -0.80 + 5.7 0.8/28.6 38798
 1998 QV₂₄ 2000 02 29.4 10 46.98 +06 34.4 18.5 -0.96 + 7.6 0.4/29.9 38476
 1993 FS₁₁ 2000 02 29.5 10 47.11 +07 34.5 16.6 -0.88 + 9.5 0.1/29.6 38759
 1990 OR₃ 2000 02 29.5 10 47.21 +04 58.7 16.8 -1.01 + 3.8 1.0/01.3 38435
 (13535) 2000 02 29.6 10 47.37 +01 15.3 17.3 -1.05 + 4.8 2.5/02.4 38325
 1991 UZ₃ 2000 02 29.6 10 47.44 +09 17.7 18.0 -0.97 + 6.6 0.6/29.1 38757
 2000 AM₁₄₄ 2000 02 29.6 10 47.51 +03 04.5 16.5 -1.05 + 4.3 2.0/02.0 38691
 1998 SD₁₁₂ 2000 02 29.6 10 47.53 +10 09.1 18.9 -0.94 + 6.5 0.8/28.9 35634
 1998 SU₆₀ 2000 02 29.6 10 47.55 +13 37.9 18.1 -1.07 + 6.3 2.4/27.9 38791
 1998 QZ₂₅ 2000 02 29.6 10 47.78 +10 34.6 17.2 -0.98 + 4.8 1.1/28.9 38781
 1998 SK₁₁₅ 2000 02 29.7 10 47.72 +21 31.1 16.3 -1.10 0.0 5.5/26.2 34593
 1998 VX₃₂ 2000 02 29.7 10 47.76 +12 35.5 19.3 -0.92 + 5.2 1.6/28.2 34932
 1998 SD₁₄₄ 2000 02 29.8 10 48.11 -15 03.7 17.3 -0.77 +12.1 8.1/09.7 38794
 1987 QT 2000 02 29.8 10 48.15 +06 00.0 18.5 -1.05 + 3.5 0.6/01.3 38753
 1989 TA₁₆ 2000 02 29.8 10 48.26 +04 02.0 18.4 -0.88 + 5.5 1.1/01.9 33543
 7061 P-L 2000 02 29.8 10 48.47 +00 02.3 18.6 -0.91 + 6.9 2.6/03.3 38907
 (9735) 2000 02 29.9 10 48.45 +21 05.3 16.7 -0.99 + 8.3 5.1/25.4 33196
 1998 QF₂₀ 2000 02 29.9 10 48.58 -00 25.2 19.5 -0.98 + 6.2 2.8/03.4 32694
 (9827) 2000 02 29.9 10 48.58 -08 56.3 17.9 -0.68 + 6.3 4.0/06.7 33452
 (9758) 2000 02 29.9 10 48.60 -05 27.1 16.5 -0.88 + 2.0 5.6/04.7 33201
 2000 AR₁₆₂ 2000 02 29.9 10 48.64 +03 54.9 16.7 -1.03 + 1.1 1.3/02.0 38882
 1998 WX₃ 2000 02 29.9 10 48.65 +28 01.4 19.1 -0.93 + 4.7 5.5/23.5 35725
 1991 TB 2000 02 29.9 10 48.88 +18 24.8 18.2 -1.11 + 3.7 4.1/27.0 30782
 1998 RC₆₈ 2000 03 01.0 10 48.96 +04 14.4 17.9 -0.96 + 6.2 1.2/02.0 33565
 1978 PV₂ 2000 03 01.0 10 48.99 +04 05.5 17.6 -1.06 + 4.7 1.2/02.0 38750
 1169 T-2 2000 03 01.0 10 49.00 +07 25.2 17.1 -0.85 + 4.1 0.0/01.1 22701
 1998 VF₂₆ 2000 03 01.0 10 49.05 +01 43.9 19.3 -1.01 + 6.1 2.0/02.8 34538
 1991 RH₁ 2000 03 01.0 10 49.10 +10 25.5 19.0 -1.04 + 4.5 1.0/29.2 32925
 1998 RQ₆₁ 2000 03 01.1 10 49.26 +06 05.9 17.4 -0.95 + 4.0 0.5/01.5 38495
 (13325) 2000 03 01.1 10 49.27 +16 17.6 16.4 -1.01 + 7.3 3.6/27.3 37574
 2000 AY₉₆ 2000 03 01.1 10 49.29 +21 16.0 16.7 -0.82 + 7.4 4.9/25.4 38875
 1975 VZ₈ 2000 03 01.1 10 49.41 -04 41.8 17.3 -0.89 + 2.9 3.6/04.7 38750
 1998 QF₃₇ 2000 03 01.1 10 49.46 +02 30.5 20.1 -0.89 + 6.5 1.5/02.7 33082
 1998 QB₉₄ 2000 03 01.1 10 49.49 +01 59.6 19.5 -0.97 + 8.2 1.9/02.9 34591
 1996 JC₁ 2000 03 01.1 10 49.52 +15 39.9 17.2 -0.83 + 4.7 2.4/27.6 38454
 1978 VO₆ 2000 03 01.1 10 49.54 +01 18.7 17.6 -1.01 + 5.4 2.3/03.0 38750
 1998 WL₅ 2000 03 01.1 10 49.61 +10 44.5 17.7 -0.83 + 4.6 1.1/29.2 38532
 (10168) 2000 03 01.2 10 49.72 +15 21.7 18.5 -0.83 + 6.7 2.5/27.6 33898
 6763 P-L 2000 03 01.2 10 49.76 +03 40.1 19.6 -0.94 + 8.4 1.3/02.5 36121
 1993 FL₁ 2000 03 01.2 10 49.78 +19 35.2 16.6 -1.07 + 4.0 4.9/26.7 38759
 1998 SL₆₅ 2000 03 01.2 10 49.79 +11 32.1 17.1 -0.92 + 7.1 1.5/29.0 33758
 1990 OK₃ 2000 03 01.3 10 49.96 +10 08.9 18.4 -0.92 + 6.4 0.8/29.5 38754
 (13557) 2000 03 01.3 10 50.14 +20 19.3 17.2 -0.84 + 7.4 3.8/25.9 38331
 1998 QV₅₀ 2000 03 01.3 10 50.32 +10 54.2 19.0 -0.99 + 6.3 1.2/29.3 34020
 1998 TL₃₀ 2000 03 01.3 10 50.35 +04 46.4 19.2 -0.85 + 5.6 0.8/02.2 35721
 4200 P-L 2000 03 01.3 10 50.35 +02 58.7 19.2 -0.96 + 7.2 1.5/02.8 33784
 1985 PE₁ 2000 03 01.3 10 50.37 +04 23.5 17.7 -1.07 + 5.5 1.1/02.0 38752
 1998 SF₁₃₄ 2000 03 01.4 10 50.45 +10 54.3 18.9 -0.99 + 5.2 1.2/29.4 35719

1998 RY₅₅ 2000 03 01.4 10 50.48 +04 45.9 18.7 -1.06 + 4.9 1.0/02.2 35714
 1994 VH 2000 03 01.4 10 50.57 +17 03.5 18.8 -0.96 + 4.3 2.9/27.6 34582
 1997 RQ₅ 2000 03 01.4 10 50.73 +06 54.1 17.4 -0.77 + 4.9 0.1/01.6 38774
 1997 PA₄ 2000 03 01.5 10 50.76 -16 32.0 18.5 -0.90 + 0.8 6.2/08.5 38045
 1998 WY₅ 2000 03 01.5 10 50.98 +10 42.3 17.8 -0.76 + 5.0 0.9/29.5 38797
 1995 XH₁ 2000 03 01.5 10 51.10 +00 37.3 17.9 -1.01 + 5.5 2.4/03.6 38767
 1985 RN₃ 2000 03 01.6 10 51.12 +09 08.4 18.0 -1.09 + 4.7 0.7/01.1 38752
 2000 AD₉₇ 2000 03 01.6 10 51.14 +08 15.9 15.2 -1.10 - 0.2 0.5/01.4 38875
 1998 WB₁₉ 2000 03 01.6 10 51.14 +17 51.7 20.5 -0.89 + 5.3 3.0/27.3 35727
 1998 RR₅ 2000 03 01.6 10 51.23 +06 11.4 20.5 -0.93 + 6.4 0.4/02.0 35713
 1991 PO₅ 2000 03 01.6 10 51.49 +06 24.7 18.4 -0.73 + 4.4 0.2/02.0 38756
 1996 LG₄ 2000 03 01.7 10 51.46 +11 29.0 17.7 -0.81 + 5.1 1.1/29.4 28863
 (9720) 2000 03 01.7 10 51.57 +09 11.6 16.4 -0.97 + 0.6 0.7/01.2 33192
 (11291) 2000 03 01.7 10 51.66 +10 46.8 19.5 -0.72 + 4.4 0.8/29.6 35563
 1998 XD₁₇ 2000 03 01.7 10 51.81 +14 48.5 20.6 -0.85 + 5.9 2.2/28.4 33531
 1998 WK₁₄ 2000 03 01.8 10 51.88 +17 08.4 19.2 -0.87 + 4.9 3.1/27.7 35726
 1187 T-2 2000 03 01.8 10 51.97 +07 45.0 20.4 -0.92 + 4.7 0.2/01.7 33384
 1992 RM₇ 2000 03 01.8 10 51.99 +10 46.2 18.3 -0.79 + 4.7 1.0/29.7 38758
 1998 VO₃₈ 2000 03 01.8 10 51.99 -04 50.3 17.3 -0.76 + 5.1 3.7/05.8 38531
 1978 RH₉ 2000 03 01.8 10 52.05 +08 46.7 17.8 -1.00 + 8.0 0.6/01.4 38750
 1998 SE₄₃ 2000 03 01.8 10 52.06 +13 45.3 16.8 -1.11 + 2.8 2.8/29.1 38790
 2000 AO₁₄₄ 2000 03 01.8 10 52.16 -01 49.8 16.5 -1.05 + 2.6 4.1/04.3 38881
 1993 SK₂ 2000 03 01.9 10 52.33 +14 48.1 18.5 -1.00 + 2.6 2.2/28.8 38761
 (10749) 2000 03 01.9 10 52.34 +14 12.7 17.5 -0.94 + 6.3 2.9/28.8 34757
 1993 PP₅ 2000 03 01.9 10 52.56 +05 58.9 19.9 -0.84 + 6.4 0.3/02.4 24584
 (13576) 2000 03 02.0 10 52.60 +12 38.6 16.6 -1.00 + 6.5 2.1/29.3 38337
 (9952) 2000 03 02.0 10 52.93 +06 36.1 15.9 -0.89 + 4.6 0.2/02.2 33660
 1998 VD₂ 2000 03 02.1 10 53.04 +05 02.3 18.5 -0.79 + 5.0 0.7/02.8 35723
 (10086) 2000 03 02.1 10 53.09 +08 56.9 16.9 -1.07 + 1.9 0.7/01.7 33878
 1998 UV₃₅ 2000 03 02.1 10 53.13 +15 21.0 18.1 -1.07 + 5.3 3.3/28.7 38796
 1990 SC₃ 2000 03 02.1 10 53.21 +11 42.5 17.8 -0.92 + 6.9 1.5/29.7 38755
 1995 YY 2000 03 02.1 10 53.30 +15 23.8 17.0 -0.98 + 7.7 3.2/28.5 38767
 (13541) 2000 03 02.2 10 53.34 +21 47.5 16.5 -1.04 + 3.7 6.2/26.9 38327
 2666 P-L 2000 03 02.2 10 53.40 +06 05.1 20.3 -0.89 + 7.1 0.3/02.5 32536
 1995 QD₂ 2000 03 02.2 10 53.68 +01 18.4 18.3 -1.06 + 5.3 2.3/03.9 38765
 1993 TS₁₆ 2000 03 02.2 10 53.72 +06 47.9 16.9 -0.81 + 6.5 0.1/02.4 31538
 1993 SA₄ 2000 03 02.3 10 53.72 +03 28.3 17.1 -0.79 + 6.9 1.0/03.5 38761
 5552 P-L 2000 03 02.3 10 53.72 +16 01.9 19.5 -0.96 + 3.8 2.8/28.7 36121
 (13501) 2000 03 02.3 10 53.75 -03 38.5 16.9 -0.73 + 6.1 3.2/05.9 38316
 1994 YZ 2000 03 02.3 10 53.76 -10 06.9 18.0 -0.92 + 3.0 5.0/07.3 33749
 (13665) 2000 03 02.3 10 53.78 +06 07.2 16.9 -1.06 + 5.0 0.4/02.6 38361
 1993 QV₁ 2000 03 02.3 10 53.84 +05 04.2 17.7 -0.84 + 5.6 0.6/03.0 38761
 (13488) 2000 03 02.3 10 53.84 -08 14.2 16.5 -0.77 + 4.9 4.5/07.3 38313
 1998 SQ₁₆₁ 2000 03 02.3 10 53.90 +13 00.9 19.4 -0.95 + 4.7 2.0/29.6 35720
 1144 T-3 2000 03 02.3 10 53.94 +05 40.4 17.9 -0.87 + 2.6 0.4/02.7 38908
 1994 VZ₆ 2000 03 02.3 10 54.08 +00 54.1 19.5 -0.89 + 5.9 1.9/04.3 33073
 1997 JF₁₆ 2000 03 02.4 10 54.07 +04 02.3 18.1 -0.93 + 7.6 1.1/03.4 35700
 1997 WG₁ 2000 03 02.4 10 54.09 -07 45.1 17.7 -0.76 + 4.8 4.0/07.2 38775
 1991 UF₁ 2000 03 02.4 10 54.13 +12 35.6 18.3 -0.99 + 6.3 2.0/29.7 38757
 2000 AK₉₇ 2000 03 02.4 10 54.27 +15 03.9 16.6 -0.70 + 8.1 2.2/28.6 38875
 1978 VW₉ 2000 03 02.4 10 54.44 +10 58.3 18.3 -0.92 + 5.2 1.3/01.3 38750

(13633)	2000 03 02.4	10 54.45 +12 30.9 17.4	-1.10 + 4.6	2.4/29.9	38352
1998 ST ₆₃	2000 03 02.5	10 54.49 +02 52.7 17.5	-0.89 + 6.3	1.4/03.8	38508
1998 RU ₂	2000 03 02.5	10 54.50 +06 43.3 18.8	-0.95 + 5.2	0.1/02.6	38489
1998 SZ ₁₄₅	2000 03 02.5	10 54.52 +01 02.1 18.2	-0.92 + 7.6	1.9/04.4	38518
5111 T-3	2000 03 02.5	10 54.65 +30 13.5 18.8	-1.04 + 3.3	7.2/24.3	34618
1998 VJ ₂₆	2000 03 02.5	10 54.75 +05 13.2 19.1	-0.93 + 5.4	0.6/03.1	35637
1044 T-2	2000 03 02.5	10 54.77 +05 03.3 18.0	-1.04 + 4.6	0.7/03.1	24578
2288 T-3	2000 03 02.5	10 54.87 +08 25.9 18.5	-1.03 + 4.5	0.5/02.2	38908
1994 PC ₂₆	2000 03 02.6	10 54.81 +11 34.5 19.5	-0.94 + 7.7	1.6/01.1	29138
1979 SO	2000 03 02.6	10 54.91 +12 50.0 18.2	-0.87 + 3.6	1.6/29.9	38751
1998 TW ₁	2000 03 02.6	10 55.01 +22 51.5 18.4	-0.93 + 4.0	4.9/26.8	35720
1998 YB ₇	2000 03 02.6	10 55.15 -09 09.0 17.2	-0.94 + 2.9	5.0/07.4	38799
1998 SR ₁₀₇	2000 03 02.7	10 55.32 +08 13.7 16.1	-1.04 + 3.5	0.6/02.4	38792
1998 WG ₁₂	2000 03 02.7	10 55.38 -02 08.4 18.2	-0.94 + 6.6	3.1/05.5	38798
(13583)	2000 03 02.7	10 55.43 +12 32.6 17.0	-0.87 + 5.1	1.9/30.0	38338
1993 TM ₂₄	2000 03 02.7	10 55.47 +14 06.4 18.6	-0.85 + 4.6	2.2/29.5	38761
1998 YC ₈	2000 03 02.8	10 55.66 -10 03.7 17.6	-0.91 + 3.8	5.0/08.0	38799
4032 T-3	2000 03 02.8	10 55.66 +14 44.5 18.2	-1.02 + 5.4	2.8/29.5	38909
1998 SR ₁₁₉	2000 03 02.8	10 55.69 +04 12.1 18.9	-0.81 + 7.6	0.8/03.7	35719
2000 AM ₉₇	2000 03 02.8	10 55.82 +07 48.9 16.4	-0.87 + 2.1	0.4/02.6	38875
1998 QQ ₃₅	2000 03 02.8	10 55.99 +10 26.0 18.5	-0.99 + 5.3	1.3/01.8	33347
1995 UW ₄	2000 03 02.9	10 55.99 +20 27.1 18.0	-1.12 + 5.0	5.0/27.9	38766
1989 SZ ₃	2000 03 02.9	10 56.31 +11 39.6 17.6	-0.86 + 6.1	1.5/01.4	38754
(13069)	2000 03 02.9	10 56.33 +10 55.0 16.3	-1.14 + 2.0	1.8/01.9	37505
1998 VM ₃₂	2000 03 02.9	10 56.38 -07 15.8 16.1	-1.08 + 2.6	5.9/06.7	38797
1994 HB	2000 03 03.0	10 56.36 +05 14.0 20.1	-1.03 + 7.0	0.6/03.5	33340
(9716)	2000 03 03.0	10 56.38 +05 35.1 17.3	-0.91 + 6.3	0.4/03.4	33191
1977 RS ₁₇	2000 03 03.0	10 56.48 +06 06.3 17.0	-0.78 + 5.4	0.2/03.3	38750
1998 XS ₃₃	2000 03 03.0	10 56.54 +09 02.6 18.9	-0.92 + 5.0	0.7/02.4	38539
1998 WM ₁₄	2000 03 03.0	10 56.62 +05 10.8 18.6	-0.99 + 6.7	0.5/03.6	34933
1998 VM ₅	2000 03 03.0	10 56.71 +14 59.1 18.8	-0.95 + 3.9	2.5/29.7	35723
1996 OJ	2000 03 03.1	10 56.77 +08 40.1 18.6	-0.76 + 5.1	0.5/02.5	38769
4812 P-L	2000 03 03.1	10 56.84 +08 02.5 19.5	-0.79 + 4.8	0.4/02.7	36121
1998 SM ₆₃	2000 03 03.1	10 56.85 +03 09.4 16.4	-1.06 + 3.4	1.5/04.1	38791
1998 QM ₅₄	2000 03 03.2	10 57.12 +01 59.7 17.5	-1.03 + 5.2	1.7/04.6	38482
1998 XM ₁₈	2000 03 03.2	10 57.12 +07 26.6 19.7	-0.76 + 4.9	0.2/03.0	35728
1996 HP ₁	2000 03 03.2	10 57.15 -04 39.1 17.9	-0.77 + 9.4	4.3/07.2	38769
(13637)	2000 03 03.2	10 57.17 +05 48.0 17.1	-0.96 + 6.2	0.4/03.5	38353
1993 OY ₂	2000 03 03.2	10 57.19 +12 01.9 18.9	-1.04 + 1.6	1.6/01.8	33549
2000 AV ₁₃₆	2000 03 03.2	10 57.19 -01 16.0 16.0	-1.12 - 1.4	3.3/05.1	38880
1993 FY ₁₁	2000 03 03.2	10 57.38 +14 15.4 17.6	-1.07 + 5.0	2.9/01.0	24393
(13779)	2000 03 03.3	10 57.58 -01 31.3 17.0	-0.82 + 7.9	2.6/06.1	38394
1992 WA ₄	2000 03 03.3	10 57.63 +16 13.9 18.0	-0.75 + 4.4	2.5/29.3	38759
1998 UT ₂₃	2000 03 03.3	10 57.83 +12 48.7 16.4	-0.92 + 9.6	2.7/01.3	38796
2000 AJ ₉₇	2000 03 03.3	10 57.85 +12 15.9 16.7	-0.90 + 6.7	2.4/01.6	38875
1998 SK ₇₄	2000 03 03.4	10 57.79 +11 59.0 17.6	-0.83 + 6.4	1.9/01.7	38791
1998 XA ₃₃	2000 03 03.4	10 57.83 +11 20.4 17.3	-0.86 + 2.8	1.3/02.0	38798
1998 RN ₅₆	2000 03 03.4	10 57.86 +10 43.1 15.9	-1.26 - 3.2	1.9/02.6	38494
1998 XW ₃	2000 03 03.4	10 57.92 +23 21.7 16.2	-0.84 + 4.1	5.1/27.0	38798
2016 P-L	2000 03 03.4	10 57.92 +00 53.1 17.8	-0.78 + 6.2	1.6/05.3	38906
1998 UN ₆	2000 03 03.4	10 57.95 +18 42.2 19.5	-1.07 + 5.0	4.2/28.8	34930

(13800)	2000 03 03.4	10 57.99 -13 40.3 16.2	-0.85 + 5.7	7.0/10.4	38400
2121 P-L	2000 03 03.4	10 58.04 +18 12.0 18.8	-1.13 + 0.2	4.3/29.6	32785
1998 QX ₉₂	2000 03 03.4	10 58.11 -00 30.1 17.4	-0.79 + 7.5	2.2/05.9	38485
1998 WE	2000 03 03.5	10 58.19 +09 27.0 17.3	-0.75 + 5.2	0.9/02.6	38531
(9910)	2000 03 03.5	10 58.50 +11 37.4 18.0	-0.82 + 5.4	1.6/02.0	33471
(11382)	2000 03 03.6	10 58.58 +08 14.3 18.3	-1.00 + 7.7	0.6/03.1	38750
1998 WY ₁₃	2000 03 03.6	10 58.69 +09 12.0 18.3	-0.99 + 5.5	0.9/02.8	38535
2000 CK ₂	2000 03 03.6	10 58.83 +15 26.0 17.2	-0.91 + 8.7	3.8/29.7	38726
2097 P-L	2000 03 03.6	10 58.85 +00 29.8 17.9	-0.73 + 6.3	1.7/05.7	38906
1996 AW ₆	2000 03 03.7	10 58.95 +09 43.0 19.3	-1.00 + 5.2	1.1/02.8	32750
(10561)	2000 03 03.7	10 58.96 +16 15.1 17.5	-0.91 + 3.4	2.8/29.8	34452
1992 JH ₃	2000 03 03.7	10 58.97 +02 14.0 17.6	-0.89 + 6.3	1.5/05.1	38758
1998 VH ₁₅	2000 03 03.7	10 58.98 +10 25.7 19.0	-0.93 + 4.9	1.3/02.5	34595
1998 WZ ₂₁	2000 03 03.7	10 59.00 +06 31.8 17.6	-0.86 + 5.7	0.0/03.7	38798
2000 AR ₉₇	2000 03 03.7	10 59.03 +16 06.7 15.4	-1.08 + 5.1	3.9/29.9	38664
1992 SY ₂₄	2000 03 03.7	10 59.07 +08 42.4 17.4	-0.85 + 2.7	0.6/03.1	38758
1997 GU ₇	2000 03 03.8	10 59.48 +12 43.9 19.7	-0.99 + 6.1	2.1/01.9	30473
1991 VA ₉	2000 03 03.8	10 59.51 +21 04.4 17.3	-1.02 + 4.6	6.0/28.4	33229
1998 WW ₂₂	2000 03 03.8	10 59.62 +10 48.0 19.5	-0.78 + 4.9	1.3/02.5	35727
1998 QN ₁₀₅	2000 03 03.8	10 59.75 +14 07.8 18.0	-1.03 + 5.0	2.8/01.6	38785
1998 QE ₁₇	2000 03 03.9	11 00.09 +04 35.0 16.6	-1.05 + 2.7	0.6/04.5	38781
1998 SY	2000 03 03.9	11 00.10 +11 53.7 18.9	-0.93 + 4.5	1.8/02.4	34592
1993 FK ₉	2000 03 04.0	11 00.03 +15 24.6 17.8	-1.04 + 4.2	3.6/01.4	38759
1989 WH	2000 03 04.0	11 00.09 -05 42.6 18.1	-0.81 + 6.5	3.9/08.1	38754
2000 AX ₁₃₆	2000 03 04.1	11 00.48 +05 44.9 16.0	-1.02 + 2.5	0.2/04.3	38686
1998 SW ₁₂	2000 03 04.1	11 00.49 +54 36.1 20.1	-1.43 + 0.2	12.4/16.3	33757
6100 P-L	2000 03 04.1	11 00.52 +00 40.7 19.3	-0.93 + 8.4	2.0/06.0	33383
(13022)	2000 03 04.1	11 00.59 +03 38.7 16.3	-1.08 + 4.2	1.1/04.9	37493
1998 WJ ₁₄	2000 03 04.1	11 00.69 +05 53.4 18.9	-0.77 + 5.0	0.1/04.3	35726
1994 NQ	2000 03 04.1	11 00.82 +36 52.3 18.4	-1.04 + 7.3	8.8/22.0	38762
2000 AL ₁₄₄	2000 03 04.2	11 00.85 +16 40.2 16.9	-0.73 +15.9	4.0/29.0	38691
(9839)	2000 03 04.2	11 00.88 +09 51.5 17.3	-0.92 + 6.7	1.3/03.1	33454
1998 RA ₇₅	2000 03 04.2	11 00.95 +14 00.6 17.3	-1.05 + 1.2	2.9/02.2	38498
1989 BH	2000 03 04.3	11 01.16 +23 24.2 15.4	-0.82 + 9.3	7.7/26.9	38753
1997 GT ₁₈	2000 03 04.3	11 01.26 +05 31.3 18.0	-1.00 + 7.0	0.3/04.6	38772
1996 GO ₁₃	2000 03 04.3	11 01.29 +08 50.3 19.2	-0.88 + 7.8	1.0/03.5	27317
1990 UA ₂	2000 03 04.3	11 01.30 +11 39.6 19.2	-0.91 + 6.3	1.7/02.6	38755
(13732)	2000 03 04.3	11 01.35 -00 47.9 17.4	-0.90 + 7.9	2.6/06.7	38380
(13358)	2000 03 04.4	11 01.68 -05 56.2 15.8	-0.74 +10.1	4.5/08.9	37584
(13010)	2000 03 04.4	11 01.68 -01 16.2 16.8	-0.88 + 1.5	2.3/06.5	37489
1998 QW ₁₀₅	2000 03 04.4	11 01.75 +13 17.8 18.7	-0.89 + 8.9	2.5/02.1	35713
1998 WZ ₁₆	2000 03 04.4	11 01.87 +11 12.0 18.4	-0.86 + 5.3	1.6/02.9	38535
1998 QH ₁₀₁	2000 03 04.5	11 02.10 +09 51.6 17.4	-1.02 + 7.0	1.6/03.4	38785
1998 SG ₆₅	2000 03 04.6	11 02.31 +08 12.3 17.7	-0.94 + 6.9	0.7/04.0	38791
1996 FA ₄	2000 03 04.6	11 02.35 +27 33.5 17.2	-1.05 + 1.5	8.1/27.4	38769
1998 SV ₁₄₁	2000 03 04.6	11 02.38 +14 31.3 17.7	-1.02 + 7.6	3.5/02.0	38793
2000 AT ₁₄₄	2000 03 04.6	11 02.47 -03 00.8 16.5	-1.08 - 0.2	3.6/06.9	38692
1998 RR ₄₇	2000 03 04.7	11 02.67 +01 34.1 18.6	-1.01 + 4.2	1.7/06.0	35714
1979 MC ₉	2000 03 04.7	11 02.78 +04 31.4 19.6	-0.96 + 7.0	0.6/05.2	30685
(13448)	2000 03 04.7	11 02.80 +07 16.4 15.6	-0.95 + 4.3	0.5/04.4	37609
1992 UN	2000 03 04.7	11 03.04 +06 06.3 17.9	-0.74 + 4.9	0.0/04.8	35289

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1995 WW ₄₂	2000 03 04.8	11 03.10 +16 42.7 17.8	-1.03 + 5.4	4.2/01.6	38767
1988 SS ₂	2000 03 04.8	11 03.10 +06 52.8 18.6	-0.99 + 7.0	0.3/04.6	36064
1998 QZ ₅	2000 03 04.8	11 03.12 +09 04.8 20.2	-0.93 + 4.5	0.9/03.9	35709
1999 XL ₁₄	2000 03 04.8	11 03.13 +13 39.0 17.0	-0.74 + 6.8	2.0/02.2	38582
1998 WW ₁₀	2000 03 04.8	11 03.19 +13 18.2 18.4	-0.90 + 5.5	2.3/02.6	38798
1989 DB	2000 03 04.8	11 03.20 +11 45.5 15.5	-0.96 + 4.2	2.6/03.1	38753
2000 AJ ₂₃₇	2000 03 04.8	11 03.22 -04 38.4 17.2	-0.81 + 2.7	3.3/08.1	38712
1998 RL ₆₇	2000 03 04.8	11 03.26 +01 20.0 18.8	-1.00 + 6.1	1.7/06.3	33565
1981 EZ ₂₁	2000 03 04.8	11 03.36 +04 25.7 18.7	-0.81 + 5.5	0.5/05.4	31003
1993 FZ ₅₅	2000 03 04.8	11 03.42 +10 34.1 17.4	-0.93 + 7.6	1.5/03.4	38760
1998 ST ₂₂	2000 03 04.9	11 03.52 +27 10.2 18.5	-1.00 + 3.1	6.3/27.5	35716
(11378)	2000 03 04.9	11 03.55 +08 11.3 18.1	-0.93 + 7.1	0.8/04.3	35585
1994 PE ₁₈	2000 03 04.9	11 03.60 +05 28.9 17.7	-1.00 + 6.0	0.2/05.1	38763
1993 RB ₁₁	2000 03 04.9	11 03.69 +02 42.3 18.9	-0.78 + 7.7	1.0/06.1	34503
1989 RB	2000 03 04.9	11 03.75 +16 23.4 18.7	-1.03 + 2.2	2.9/02.1	33741
(13530)	2000 03 04.9	11 03.75 -02 39.5 16.4	-0.91 + 8.2	3.5/07.9	38324
1998 SD ₂₇	2000 03 04.9	11 03.79 +03 41.1 20.7	-0.92 + 6.1	0.7/05.7	34592
1998 QX ₃₄	2000 03 05.0	11 03.74 -02 55.0 19.1	-0.98 + 5.2	3.1/07.7	38478
1998 QL ₁₀₃	2000 03 05.0	11 03.79 +14 58.9 17.3	-1.01 + 6.5	4.0/02.2	38785
1998 SY ₆₃	2000 03 05.0	11 03.95 +19 21.3 15.2	-1.04 + 4.5	5.7/30.0	38791
1998 SX ₁₆₁	2000 03 05.0	11 03.98 +08 01.4 18.4	-0.89 + 6.8	0.7/04.4	38518
1998 QQ ₁₀₅	2000 03 05.0	11 04.00 +15 02.4 19.4	-0.99 + 4.0	3.1/02.4	33563
1998 QS ₉₂	2000 03 05.0	11 04.21 +16 20.6 17.4	-1.00 + 6.6	3.4/01.8	38485
1997 NP	2000 03 05.1	11 04.13 +00 03.5 17.9	-0.82 + 4.2	1.8/07.0	38774
1998 QJ ₅₄	2000 03 05.1	11 04.20 -03 18.5 16.6	-0.91 + 7.2	3.5/08.1	38481
1998 WL ₁₂	2000 03 05.1	11 04.25 +00 55.5 19.9	-0.96 + 5.8	1.5/06.7	36004
1991 RC ₉	2000 03 05.1	11 04.56 +10 06.6 17.6	-1.03 + 4.9	1.5/04.0	38756
1996 BM ₅	2000 03 05.2	11 04.48 +07 19.2 16.9	-1.00 + 4.6	0.5/04.8	38768
(13794)	2000 03 05.2	11 04.54 +10 09.8 17.1	-0.78 + 4.8	1.3/03.9	38398
1998 RH ₇₃	2000 03 05.2	11 04.74 -00 13.5 18.2	-0.91 + 8.0	2.2/07.3	38788
1991 PA	2000 03 05.2	11 04.78 +02 16.8 19.0	-0.74 + 4.0	0.8/06.4	32223
1994 PL ₂₀	2000 03 05.2	11 04.88 +05 46.6 17.4	-0.89 + 7.2	0.0/05.3	38763
1988 TK	2000 03 05.2	11 04.89 +10 53.4 17.8	-0.91 + 3.3	1.5/03.8	38753
1996 PF ₁	2000 03 05.3	11 04.88 +07 59.1 17.6	-0.81 + 3.6	0.6/04.7	38769
(13624)	2000 03 05.3	11 05.19 -01 26.7 17.0	-0.98 + 6.0	3.1/07.6	38349
2000 AT ₁₃₆	2000 03 05.3	11 05.23 +11 17.3 16.7	-0.89 + 9.7	2.2/03.5	38880
1998 SV ₅₉	2000 03 05.4	11 05.37 +10 46.5 19.2	-0.88 + 5.9	1.6/03.9	33357
1998 WQ	2000 03 05.4	11 05.41 +00 56.1 17.6	-0.94 + 7.6	1.6/07.0	38797
1998 WC ₆	2000 03 05.4	11 05.43 +12 50.7 18.0	-1.02 + 6.9	2.5/03.2	38797
2189 T-3	2000 03 05.4	11 05.59 +00 56.5 19.1	-0.87 + 5.5	1.5/07.0	36124
2000 AK ₂₀₃	2000 03 05.4	11 05.59 -10 26.6 17.1	-0.91 + 3.8	5.1/10.5	38707
1998 QS ₃₇	2000 03 05.4	11 05.61 +02 15.7 18.0	-1.00 + 6.5	1.4/06.6	38782
3335 T-2	2000 03 05.5	11 05.74 +11 52.6 18.2	-0.92 + 5.3	2.0/03.7	33785
2000 AS ₁₆₂	2000 03 05.5	11 05.83 +07 45.5 16.8	-1.07 + 3.9	0.8/05.0	38696
(10042)	2000 03 05.5	11 05.84 -03 34.9 17.8	-0.95 + 2.8	2.8/08.2	33868
1998 SJ ₁₃₉	2000 03 05.5	11 05.94 +02 45.5 19.6	-0.90 + 4.9	0.9/06.5	35720
1982 QA ₂	2000 03 05.5	11 06.02 -02 16.0 17.8	-0.98 + 4.5	2.7/07.9	38752
1998 XZ ₈	2000 03 05.5	11 06.03 -10 15.9 18.0	-0.83 + 2.5	3.9/10.5	38798
6186 P-L	2000 03 05.6	11 06.04 +00 01.0 19.1	-0.96 + 7.8	2.1/07.4	30293
1987 RL ₁	2000 03 05.6	11 06.09 +06 58.1 19.1	-0.97 + 6.4	0.4/05.3	30469
1998 SS ₁₆₃	2000 03 05.6	11 06.10 +25 08.8 19.2	-0.99 + 2.8	6.0/28.8	34305

1997 KS	2000 03 05.6	11 06.14 -02 37.7 17.2	-0.90 + 6.5	2.9/08.3	38773
1986 GZ	2000 03 05.6	11 06.20 -13 17.1 19.7	-0.88 +10.1	5.9/12.4	30469
1998 QA ₅₅	2000 03 05.6	11 06.24 +01 48.0 18.8	-0.95 + 7.7	1.3/07.0	38783
1997 JJ ₁₅	2000 03 05.6	11 06.27 -01 17.3 17.5	-0.95 + 7.4	2.6/07.9	38773
1998 XM ₅	2000 03 05.6	11 06.31 +10 17.8 16.6	-0.69 + 9.4	1.4/04.0	38798
1978 UY ₄	2000 03 05.6	11 06.41 +01 06.1 19.2	-0.99 + 7.0	1.7/07.1	32509
1998 RB ₆₆	2000 03 05.6	11 06.41 -00 17.4 17.0	-0.88 + 9.9	2.5/07.8	38496
1998 UA ₂₇	2000 03 05.6	11 06.43 +13 16.2 16.1	-0.99 + 8.2	3.2/03.2	38796
(13786)	2000 03 05.7	11 06.41 -12 37.3 16.3	-0.80 + 7.5	6.7/12.2	38396
1998 SM ₄	2000 03 05.7	11 06.48 +03 55.1 18.5	-0.92 + 6.3	0.6/06.3	34022
2000 AJ ₂₀₃	2000 03 05.7	11 06.51 -10 23.4 16.4	-0.82 + 2.6	6.1/10.6	38707
2000 AV ₉₇	2000 03 05.7	11 06.62 +13 16.6 16.1	-1.01 + 7.4	3.1/03.4	38875
1997 PE ₂	2000 03 05.7	11 06.66 +15 30.8 18.3	-0.82 + 8.6	2.6/02.3	38774
1993 FN ₉	2000 03 05.7	11 06.67 +12 37.7 17.5	-1.00 + 5.0	2.8/03.7	38759
3042 T-3	2000 03 05.8	11 06.77 +19 43.2 16.8	-1.04 + 3.3	6.4/01.6	38908
2307 T-1	2000 03 05.8	11 06.80 +12 39.7 17.4	-0.98 + 2.9	2.7/03.8	38907
2000 AO ₂₄₅	2000 03 05.8	11 06.88 -08 53.1 16.6	-0.82 + 4.0	5.2/10.4	38715
1998 QD ₄₂	2000 03 05.8	11 06.93 +14 33.2 17.5	-1.03 + 6.7	3.6/03.1	38782
(9819)	2000 03 05.9	11 07.11 +09 56.2 18.1	-1.06 + 6.3	1.6/04.6	33215
1998 SW ₂₂	2000 03 05.9	11 07.13 +07 09.6 18.1	-0.78 + 8.7	0.5/05.4	38789
1993 TB ₁₉	2000 03 05.9	11 07.19 +10 23.7 19.9	-0.84 + 4.9	1.4/04.4	27312
1997 SZ ₄	2000 03 05.9	11 07.28 +21 02.5 18.5	-0.94 + 0.8	4.2/01.6	38774
1998 XW ₈₂	2000 03 05.9	11 07.28 +02 00.5 17.2	-0.73 + 7.4	1.0/07.2	38799
1998 UF ₇	2000 03 05.9	11 07.39 -02 25.6 17.6	-0.78 + 9.2	2.4/08.8	33761
1998 XF ₉₃	2000 03 05.9	11 07.43 -06 27.8 17.4	-0.77 + 3.9	3.3/09.8	38539
1998 UW ₁₅	2000 03 05.9	11 07.46 +17 17.5 18.5	-1.01 + 4.5	3.9/02.5	35722
1998 QZ ₉₀	2000 03 06.0	11 07.54 +02 21.4 16.9	-0.78 +11.9	1.2/07.2	38485
1976 QA	2000 03 06.0	11 07.54 +03 54.1 17.8	-0.97 + 5.2	0.6/06.5	38750
1998 WS ₂₂	2000 03 06.0	11 07.76 +16 34.0 18.2	-1.00 + 6.3	4.0/02.6	34311
1998 QA ₉₈	2000 03 06.0	11 07.80 -02 30.3 15.6	-0.99 + 2.2	3.6/08.3	38785
6232 P-L	2000 03 06.0	11 07.82 -01 22.8 18.5	-0.77 + 5.7	2.2/08.4	38907
1997 NQ	2000 03 06.1	11 07.86 -07 37.2 18.3	-0.79 + 6.7	3.7/10.6	36077
(9991)	2000 03 06.1	11 07.96 +09 14.0 16.4	-0.76 + 4.9	1.2/04.9	33669
1998 WZ ₁₇	2000 03 06.1	11 08.17 -01 52.5 17.1	-0.80 + 4.0	2.5/08.5	38536
1998 RX ₇₄	2000 03 06.2	11 08.27 +04 13.5 17.2	-0.90 + 5.0	0.5/06.6	38788
1990 QT ₁	2000 03 06.2	11 08.37 +08 06.8 19.0	-0.91 + 6.5	0.8/05.4	35681
1998 QQ ₁₀₃	2000 03 06.2	11 08.37 +11 24.4 18.0	-1.04 + 4.9	2.2/04.5	38785
1998 SR ₅₈	2000 03 06.2	11 08.39 +02 11.0 17.3	-0.89 + 9.3	1.3/07.4	38791
(10232)	2000 03 06.2	11 08.57 +06 30.3 18.4	-0.72 + 4.9	0.2/06.0	38016
1981 EB ₃₄	2000 03 06.3	11 08.57 +01 16.8 18.7	-0.97 + 8.3	1.8/07.7	35678
1993 FL ₃₉	2000 03 06.3	11 08.63 +09 17.5 18.0	-1.02 + 5.7	1.4/05.2	38760
2000 AY ₉₇	2000 03 06.3	11 08.63 +10 12.9 16.8	-0.97 + 1.9	1.7/05.0	38664
1998 VN ₃₂	2000 03 06.3	11 08.67 +10 32.1 17.4	-0.80 + 5.3	1.5/04.7	38531
1998 QR ₄₅	2000 03 06.3	11 08.68 +00 45.5 18.4	-0.86 +10.7	1.6/08.0	33560
1994 TT	2000 03 06.3	11 08.79 +07 41.3 18.2	-0.96 + 4.1	0.7/05.7	38763
1998 XH ₂₅	2000 03 06.3	11 08.80 +17 02.7 18.3	-0.87 + 5.8	4.1/02.5	38538
1998 UX ₂₀	2000 03 06.3	11 08.86 -11 10.5 18.9	-0.81 + 6.9	5.0/12.1	33762
1986 RP ₅	2000 03 06.3	11 08.97 +17 07.1 18.6	-0.84 + 2.3	3.0/02.9	33541
1998 VO ₂₉	2000 03 06.4	11 09.04 +03 44.6 19.4	-0.80 + 4.7	0.5/07.0	35724
1998 UU ₂₀	2000 03 06.4	11 09.17 +14 51.1 18.4	-1.06 + 5.5	3.3/03.6	38524
2000 AV ₂₄₃	2000 03 06.4	11 09.24 +09 37.1 16.6	-1.08 + 0.7	1.6/05.4	38715

1989 VS ₂	2000 03 06.4	11 09.25 +27 21.7 17.7	-0.95 + 4.1	6.2/28.3	38754
(13009)	2000 03 06.5	11 09.32 +12 46.3 17.3	-0.82 + 8.5	2.1/04.0	37489
1998 UX	2000 03 06.5	11 09.32 -28 14.2 20.9	-1.01 + 4.6	10.0/18.4	34026
1998 SL ₁₂₉	2000 03 06.5	11 09.54 +04 51.0 19.2	-0.94 + 6.8	0.2/06.7	35719
1998 RM ₇₉	2000 03 06.6	11 10.15 +11 39.3 19.2	-1.06 + 6.1	2.2/04.8	35716
1993 FP ₁₃	2000 03 06.7	11 10.35 +17 47.9 18.3	-1.06 + 3.5	5.0/03.2	32930
1998 XZ ₄₀	2000 03 06.7	11 10.45 +11 46.4 18.0	-0.79 + 3.4	1.7/04.8	38798
(13295)	2000 03 06.7	11 10.48 +27 14.4 16.9	-0.87 + 3.1	6.8/28.5	37566
(13679)	2000 03 06.8	11 10.43 +09 55.4 16.2	-0.79 +11.7	1.6/05.1	38365
1997 GC ₃₈	2000 03 06.8	11 10.46 +01 46.4 17.9	-0.92 + 8.6	1.4/08.0	38773
(10116)	2000 03 06.8	11 10.56 +04 47.8 16.1	-0.71 + 8.4	8.1/27.0	38016
1998 QZ ₅₄	2000 03 06.8	11 10.71 +01 42.5 17.1	-1.01 + 3.1	1.4/07.9	38783
1998 SC ₁₁₄	2000 03 06.8	11 10.77 +11 05.2 20.1	-0.97 + 5.8	1.8/05.1	33758
1995 WE ₅	2000 03 06.8	11 10.81 +15 33.4 17.2	-1.05 + 5.0	4.1/03.8	38767
1998 RS ₆₈	2000 03 06.8	11 10.88 +09 53.1 17.2	-1.10 + 2.8	1.7/05.6	38788
1997 HV ₁₁	2000 03 06.9	11 10.79 +15 13.4 18.0	-1.07 + 4.0	3.9/04.0	38044
1993 TQ ₃₆	2000 03 06.9	11 10.84 +22 08.7 17.6	-0.89 + 4.2	5.1/01.5	38762
(13504)	2000 03 06.9	11 10.86 -02 24.7 16.4	-0.58 + 7.6	2.0/09.8	38317
1995 DW	2000 03 06.9	11 11.08 +09 56.5 17.6	-0.80 + 5.2	1.4/05.4	38765
2000 AY ₁₃₆	2000 03 06.9	11 11.18 +09 53.5 16.7	-0.84 + 6.7	1.8/05.4	38880
1998 SJ ₇₃	2000 03 07.0	11 11.18 +08 22.7 18.5	-0.91 + 6.6	1.0/06.0	38791
1998 QY ₃₈	2000 03 07.0	11 11.20 +04 05.4 19.1	-0.93 + 8.2	0.4/07.4	33082
1998 SV ₂₄	2000 03 07.0	11 11.21 +12 30.5 18.2	-0.91 + 5.9	2.5/04.7	38790
1998 VO ₆	2000 03 07.0	11 11.34 -03 43.3 17.3	-0.87 + 4.1	3.0/09.8	38528
(13453)	2000 03 07.0	11 11.46 +07 25.8 17.7	-0.78 + 5.3	0.7/06.3	37611
1998 VU ₉	2000 03 07.0	11 11.49 +01 41.6 17.7	-0.92 + 5.1	1.3/08.1	38796
(13115)	2000 03 07.0	11 11.54 +05 14.5 17.0	-0.88 + 5.4	0.0/07.1	37517
1998 QB ₁₀₆	2000 03 07.0	11 11.56 +11 07.4 18.6	-0.98 + 6.8	2.0/05.2	38785
2000 AZ ₁₃₆	2000 03 07.1	11 11.61 +12 47.6 16.7	-1.00 + 8.1	2.9/04.6	38880
1989 UX ₇	2000 03 07.1	11 11.65 -13 00.9 18.7	-0.82 + 6.3	5.0/13.4	33742
(13471)	2000 03 07.1	11 11.89 +12 48.5 17.1	-0.98 + 7.8	2.9/04.7	37615
1991 VO ₃	2000 03 07.1	11 11.97 +13 03.6 16.9	-0.99 + 5.0	3.3/04.8	38757
1992 PG ₂	2000 03 07.1	11 11.97 -00 13.5 18.5	-0.80 + 6.7	1.5/09.0	29943
1998 RD ₆₄	2000 03 07.2	11 11.94 +09 45.5 20.3	-0.94 + 4.7	1.5/05.8	33002
1991 UK ₁	2000 03 07.2	11 12.04 +03 06.9 18.0	-1.02 + 4.8	0.7/07.8	38757
1998 UQ ₂	2000 03 07.2	11 12.05 +06 05.1 19.1	-0.94 + 5.2	0.3/06.9	35636
2000 AF ₉₈	2000 03 07.2	11 12.20 +08 09.1 16.9	-1.01 + 2.3	1.1/06.4	38664
2244 T-2	2000 03 07.2	11 12.21 +04 56.0 19.1	-0.88 + 5.9	0.1/07.3	31023
1998 RT ₅₇	2000 03 07.2	11 12.27 +08 52.8 17.4	-0.90 + 7.1	1.5/06.1	38494
(13783)	2000 03 07.2	11 12.33 -03 24.6 17.7	-0.93 + 5.6	2.7/09.9	38395
1998 XK ₉	2000 03 07.3	11 12.41 +15 55.6 18.0	-0.84 + 5.5	3.3/03.8	38538
2000 AZ ₂₀₃	2000 03 07.3	11 12.49 -12 46.6 16.8	-1.03 + 0.3	6.8/12.2	38707
1998 YP ₇	2000 03 07.3	11 12.51 +20 37.3 18.7	-0.79 + 5.8	4.4/02.1	35729
(9822)	2000 03 07.3	11 12.52 +11 21.9 16.5	-0.95 + 6.2	2.7/05.4	33216
1998 SL ₆₄	2000 03 07.3	11 12.55 +12 41.2 16.6	-0.95 + 7.5	3.2/04.9	38509
4658 P-L	2000 03 07.4	11 12.77 +09 21.6 18.5	-0.84 + 4.6	1.2/06.1	34060
2000 CE ₃₇	2000 03 07.4	11 12.80 +05 37.7 17.4	-0.72 + 8.3	0.2/07.2	38729
1999 XK ₁₄	2000 03 07.4	11 12.83 +00 12.1 15.6	-1.08 - 1.0	2.0/08.6	38833
1998 RA ₄₅	2000 03 07.4	11 12.85 +06 09.9 16.6	-0.76 +11.7	0.4/07.0	38491
1998 SS ₆₂	2000 03 07.4	11 12.87 +08 06.1 18.7	-0.91 + 5.8	1.1/06.5	33758
1991 VZ ₂	2000 03 07.4	11 12.90 +08 55.0 19.8	-0.98 + 5.3	1.1/06.3	35684

(9734)	2000 03 07.4	11 12.93 -02 10.8 16.3	-1.02 + 3.8	3.2/09.5	38016
1989 AA	2000 03 07.4	11 12.97 -36 17.7 16.7	-1.17 - 0.2	20.2/23.1	38753
1997 HJ ₈	2000 03 07.5	11 13.38 +04 26.4 19.2	-0.93 + 6.6	0.2/07.8	35700
4124 T-3	2000 03 07.5	11 13.41 +08 19.3 19.9	-0.77 + 5.6	0.9/06.5	25540
1994 VR ₂	2000 03 07.5	11 13.44 +26 08.2 16.2	-1.07 + 1.5	8.4/01.3	38764
1998 SN ₁₃₄	2000 03 07.6	11 13.41 +11 18.0 17.3	-0.99 + 4.4	2.3/05.7	38793
1998 XP ₂₇	2000 03 07.6	11 13.46 +15 28.7 17.1	-1.01 + 4.8	3.6/04.4	38798
1998 QC ₅₈	2000 03 07.6	11 13.64 +04 33.2 19.3	-0.94 + 6.4	0.1/07.8	33085
1998 ST ₄₃	2000 03 07.6	11 13.66 +07 09.1 18.6	-0.92 + 6.6	0.7/07.0	34592
1998 RZ ₇₇	2000 03 07.6	11 13.74 +08 29.9 18.7	-1.01 + 7.4	1.3/06.6	34302
1995 UT ₈	2000 03 07.6	11 13.77 +12 17.7 17.6	-1.00 + 6.9	2.9/05.4	38766
1998 ST ₁₁₉	2000 03 07.6	11 13.77 +13 20.9 17.1	-0.93 + 4.7	3.2/05.1	38792
1981 EB ₁₁	2000 03 07.7	11 13.80 +00 42.9 19.2	-0.93 + 5.5	1.4/09.0	33540
(13124)	2000 03 07.7	11 13.86 +09 46.9 15.7	-0.79 +12.9	2.0/05.9	37520
5027 T-3	2000 03 07.7	11 14.11 +11 46.0 19.1	-0.97 + 8.1	2.5/05.5	24579
1993 TZ ₁₆	2000 03 07.8	11 14.16 +03 08.8 19.1	-0.80 + 6.5	0.5/08.4	23240
1993 FF ₂₂	2000 03 07.8	11 14.21 +07 54.6 17.9	-1.03 + 4.2	1.1/07.0	32664
1992 DP ₇	2000 03 07.8	11 14.26 +09 35.4 18.2	-0.89 + 6.6	1.7/06.3	38440
2000 AN ₉₇	2000 03 07.8	11 14.31 +17 41.6 15.7	-0.85 +10.0	5.5/03.1	38875
1990 QB ₆	2000 03 07.8	11 14.53 +09 26.5 17.5	-1.06 + 2.9	1.5/06.6	38754
1998 RY ₇₁	2000 03 07.9	11 14.56 +11 09.0 18.2	-1.08 + 4.2	2.3/06.1	38497
1997 BG	2000 03 07.9	11 14.64 +36 08.2 17.8	-1.13 +17.1	11.1/23.6	38770
1998 VS ₅	2000 03 07.9	11 14.65 +33 35.7 17.7	-1.24 - 1.3	10.0/29.0	38796
1998 QE ₄₄	2000 03 07.9	11 14.67 +07 06.9 19.5	-1.06 + 5.8	0.8/07.3	33083
4278 T-2	2000 03 07.9	11 14.72 +03 11.3 17.6	-0.78 +11.6	0.6/08.6	38908
(13789)	2000 03 07.9	11 14.79 +18 01.2 17.5	-0.99 + 6.3	4.5/03.7	38397
1998 QS ₅₄	2000 03 07.9	11 14.79 +00 36.3 19.2	-0.99 + 5.0	1.4/09.2	35711
1993 PF	2000 03 07.9	11 14.80 -18 06.9 17.6	-0.96 + 2.7	7.9/15.1	38761
1990 OX ₂	2000 03 07.9	11 14.92 +07 45.8 19.3	-0.91 + 6.5	0.9/07.1	33544
1055 T-3	2000 03 07.9	11 14.95 -05 39.7 17.5	-1.04 + 0.2	4.4/10.7	38908
2000 AZ ₉₇	2000 03 08.0	11 14.90 +15 03.0 16.1	-0.97 + 6.7	4.1/04.7	38875
1978 PA ₃	2000 03 08.0	11 15.02 +04 44.7 18.5	-0.99 + 7.1	0.0/08.1	33539
2000 AQ ₁₆₄	2000 03 08.0	11 15.10 -08 35.6 16.5	-0.79 + 4.0	4.6/12.3	38697
3311 T-2	2000 03 08.1	11 15.48 +07 37.0 20.3	-0.95 + 6.5	0.9/07.3	34618
1998 QQ ₅	2000 03 08.1	11 15.58 -02 22.0 17.6	-0.89 +23.6	3.1/11.1	32691
(13706)	2000 03 08.1	11 15.65 -08 15.7 17.2	-1.35 - 1.1	5.2/11.2	38373
1993 TW ₃₃	2000 03 08.1	11 15.66 +12 42.1 17.5	-0.83 + 5.8	2.5/05.6	33550
(13588)	2000 03 08.2	11 15.61 +13 23.7 17.7	-0.83 + 5.8	2.8/05.4	38339
1998 WK ₉	2000 03 08.2	11 15.64 +11 51.3 18.6	-0.82 + 5.7	2.2/05.9	38797
1998 SV	2000 03 08.2	11 15.70 +07 53.1 19.9	-1.06 + 5.5	1.2/07.3	35716
(9810)	2000 03 08.2	11 15.96 +03 07.1 17.4	-0.96 + 7.6	0.6/08.8	38749
6722 P-L	2000 03 08.3	11 15.99 +11 06.0 18.7	-1.08 + 3.7	2.4/06.5	38907
1998 XW ₂	2000 03 08.3	11 16.04 +11 04.1 19.2	-0.97 + 6.8	2.2/06.3	34031
1996 AH ₆	2000 03 08.3	11 16.14 +10 10.4 19.9	-0.97 + 5.8	1.8/06.7	33750
1987 UT	2000 03 08.3	11 16.16 -00 45.5 18.3	-0.96 + 5.3	1.7/10.0	38753
1998 XE ₁	2000 03 08.3	11 16.39 +10 03.5 19.0	-0.87 + 5.6	1.7/06.7	35727
(11293)	2000 03 08.4	11 16.60 +13 51.5 17.4	-1.00 + 6.3	3.3/05.5	35564
1991 RL ₈	2000 03 08.4	11 16.63 +11 58.4 18.6	-1.05 + 4.3	2.5/06.3	38756
1998 QT ₉₄	2000 03 08.4	11 16.63 +02 38.6 19.3	-0.98 + 6.5	0.7/09.1	32720
1982 UC ₁₁	2000 03 08.4	11 16.65 -00 43.3 18.6	-0.88 + 5.9	1.7/10.2	34574
2000 AA ₂₄₄	2000 03 08.4	11 16.80 +18 06.8 16.7	-1.06 + 3.2	6.2/04.6	38715

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M.P.C. 38943

1998 SJ ₁₀₉	2000 03 08.5	11 16.81 -11 43.1 17.9	-0.79 + 9.2	5.5/14.6	38063	1994 SC ₆	2000 03 09.7	11 21.38 +04 15.6 19.6	-0.89 + 6.9	0.0/09.7	35691
1997 SS ₃₁	2000 03 08.5	11 16.91 -01 42.9 17.7	-0.74 + 5.1	1.8/10.6	38775	(13740)	2000 03 09.7	11 21.39 +00 26.8 17.8	-0.95 + 4.4	1.2/10.9	38383
1998 SH ₁₀₅	2000 03 08.5	11 16.98 +09 39.5 16.8	-0.93 + 9.2	2.2/06.9	38792	(13639)	2000 03 09.7	11 21.49 +05 24.9 16.7	-0.80 +10.5	0.4/09.3	38353
1994 RE ₁₁	2000 03 08.5	11 17.04 +03 05.1 20.8	-0.84 + 8.8	0.4/09.1	33551	1987 UA ₁	2000 03 09.8	11 21.66 -13 06.4 17.4	-0.91 + 6.8	5.7/15.6	38020
1981 EW ₃₄	2000 03 08.5	11 17.06 +05 48.6 18.8	-1.05 + 2.0	0.5/08.3	26921	1998 SG ₁₄₁	2000 03 09.8	11 21.68 +07 57.3 20.2	-0.97 + 4.7	1.2/08.7	35720
1994 WF ₂	2000 03 08.6	11 17.21 +26 30.4 16.9	-0.93 + 5.3	6.6/01.3	38033	1990 ES ₆	2000 03 09.9	11 21.88 +02 48.0 17.0	-0.79 + 5.4	0.4/10.3	38754
1998 SD ₆₇	2000 03 08.6	11 17.36 +13 42.5 17.8	-1.05 + 5.3	3.1/05.9	38791	1991 LA	2000 03 09.9	11 21.89 +05 47.4 20.6	-1.04 + 6.7	0.6/09.4	33545
1998 QN ₁₀₂	2000 03 08.6	11 17.44 +08 34.4 17.4	-0.99 + 4.5	1.6/07.5	38487	(13629)	2000 03 09.9	11 21.91 +00 09.8 16.7	-0.90 + 6.9	1.8/11.2	38351
1998 WY ₃₀	2000 03 08.6	11 17.54 +07 58.9 17.9	-1.12 + 4.4	1.3/07.7	38798	1995 VB	2000 03 09.9	11 21.92 -05 20.7 17.5	-0.98 + 6.0	3.9/12.9	32749
1993 FO ₁₂	2000 03 08.7	11 17.48 +12 55.2 17.2	-1.01 + 5.1	3.4/06.1	38759	(13512)	2000 03 09.9	11 21.99 +02 45.2 17.3	-0.90 + 3.7	0.4/10.3	38319
(11389)	2000 03 08.7	11 17.72 +14 54.5 17.6	-0.78 + 4.4	3.0/05.4	35587	1998 QM ₉₂	2000 03 09.9	11 22.02 -01 23.5 18.3	-0.88 + 5.3	1.6/11.7	38785
1998 SS ₁₁₃	2000 03 08.7	11 17.75 +06 32.3 19.7	-0.92 + 7.4	0.6/08.1	34929	1997 GL ₆	2000 03 09.9	11 22.10 +01 59.2 18.2	-0.96 + 7.6	0.8/10.6	38772
1997 TV ₁₇	2000 03 08.7	11 17.77 -04 18.6 18.3	-0.69 + 6.3	2.4/11.8	38775	1991 SS ₁	2000 03 09.9	11 22.17 +11 31.4 20.9	-1.05 + 5.1	2.5/07.8	37628
1998 QF ₅₄	2000 03 08.8	11 17.87 -02 29.0 18.6	-0.94 + 8.0	2.5/11.1	33561	1997 HZ ₁₀	2000 03 09.9	11 22.30 +07 17.9 19.5	-1.01 + 5.5	1.1/09.0	32964
4500 T-2	2000 03 08.8	11 18.00 +08 49.3 19.4	-0.83 + 4.7	1.4/07.5	34273	1998 VW ₆	2000 03 10.0	11 22.29 -14 00.3 18.0	-0.83 + 5.8	5.5/16.2	35724
(13537)	2000 03 08.8	11 18.25 +07 11.4 17.6	-0.69 + 6.6	0.7/08.0	38326	(13354)	2000 03 10.0	11 22.30 -11 51.1 16.3	-0.79 + 8.1	5.6/15.8	37583
1996 CQ ₁	2000 03 08.9	11 18.35 -01 00.4 18.3	-1.00 + 4.2	1.9/10.5	35694	2000 AC ₁₃₇	2000 03 10.0	11 22.46 +08 02.9 17.1	-0.81 + 3.5	1.3/08.8	38687
2000 CL ₉₂	2000 03 08.9	11 18.63 +05 39.4 17.7	-0.75 + 5.4	0.4/08.6	38731	1997 KH ₄	2000 03 10.0	11 22.47 +15 47.6 16.0	-0.94 + 7.6	5.1/06.1	38773
1998 WF ₂₄	2000 03 09.0	11 18.57 +00 04.0 18.6	-0.96 + 6.0	1.6/10.4	35727	1983 RQ ₃	2000 03 10.0	11 22.67 +01 16.5 18.0	-0.97 + 4.8	0.9/10.9	35678
1990 HG	2000 03 09.0	11 18.69 +46 59.5 17.1	-1.49 - 1.8	16.8/23.0	38754	1998 SU ₁₄₀	2000 03 10.0	11 22.68 -00 49.0 19.0	-0.93 + 7.2	1.7/11.7	34305
1990 OB ₁	2000 03 09.0	11 18.78 -09 48.2 16.5	-0.95 + 6.9	5.6/13.6	38754	1998 RG ₆₁	2000 03 10.1	11 22.62 +03 20.4 18.3	-1.04 + 4.9	0.2/10.3	35715
1998 SN ₁₃₅	2000 03 09.0	11 18.86 +15 54.7 17.0	-1.04 + 3.9	4.3/05.7	38793	(13087)	2000 03 10.1	11 22.94 +02 47.0 16.8	-0.79 + 5.5	0.4/10.6	37510
1999 XJ ₃₄	2000 03 09.0	11 18.91 +23 21.1 16.2	-0.79 + 9.2	7.2/01.9	38836	(13600)	2000 03 10.2	11 23.01 +07 11.4 17.2	-0.96 + 6.6	1.3/09.2	38343
(13148)	2000 03 09.0	11 18.96 +14 24.4 16.1	-0.76 + 8.4	3.8/05.5	37526	1997 GG ₇	2000 03 10.2	11 23.02 +02 32.7 19.1	-0.92 + 7.3	0.5/10.7	35699
(9849)	2000 03 09.1	11 18.97 +01 33.2 16.4	-0.95 + 6.3	1.1/10.0	33457	2000 AH ₁₃₇	2000 03 10.2	11 23.03 +10 45.0 16.8	-0.97 + 7.9	2.3/08.0	38880
1998 SW ₁₂₉	2000 03 09.1	11 18.99 +18 31.5 17.0	-1.07 + 0.2	5.5/05.4	38793	1997 SD ₁	2000 03 10.2	11 23.05 -12 28.1 16.5	-0.79 + 7.5	6.1/16.0	38045
1998 SP ₉₇	2000 03 09.1	11 19.04 +10 02.7 19.0	-1.05 + 3.7	2.1/07.5	38792	1998 RQ ₇₂	2000 03 10.2	11 23.05 +06 43.5 19.9	-0.97 + 5.4	0.9/09.4	34927
1998 SD ₄₃	2000 03 09.1	11 19.22 +12 50.0 16.0	-1.10 + 0.8	4.2/06.9	38504	(13809)	2000 03 10.2	11 23.33 +06 50.9 16.7	-0.84 + 3.0	0.9/09.4	38402
1994 WC	2000 03 09.2	11 19.35 +18 55.2 19.4	-0.99 + 4.2	4.1/04.7	33552	1998 SF ₁₂₁	2000 03 10.2	11 23.38 -03 00.7 16.4	-0.98 + 4.3	3.0/12.4	38513
(13632)	2000 03 09.2	11 19.44 +13 43.5 17.3	-1.07 + 5.9	3.4/06.4	38351	2000 AB ₉₈	2000 03 10.2	11 23.42 +22 38.0 15.3	-0.80 + 8.8	6.9/03.3	38875
1994 WJ	2000 03 09.2	11 19.44 +12 32.9 19.4	-0.91 + 4.9	2.4/06.7	35692	1997 RY ₂	2000 03 10.3	11 23.35 +01 13.1 19.3	-0.80 + 5.9	0.8/11.2	33557
1971 UQ	2000 03 09.2	11 19.54 +10 08.5 19.0	-1.02 + 5.8	2.0/07.5	33064	1994 XV ₄	2000 03 10.3	11 23.36 -16 11.6 17.7	-0.90 + 4.0	6.7/16.9	38449
1993 UL	2000 03 09.2	11 19.67 -04 21.9 18.3	-0.78 + 7.8	2.5/12.3	38762	2000 CR ₉₂	2000 03 10.3	11 23.57 +06 44.0 17.8	-0.79 + 5.7	0.8/09.4	38731
1985 PF	2000 03 09.2	11 19.68 +09 59.3 18.4	-0.80 + 9.1	1.6/07.3	38432	1995 HR	2000 03 10.3	11 23.60 -04 09.0 17.1	-0.71 + 7.0	2.3/13.2	38765
2000 AT ₉₇	2000 03 09.3	11 19.71 +20 31.1 16.7	-0.81 +10.3	6.0/03.1	38875	3320 T-3	2000 03 10.3	11 23.70 +07 19.4 18.6	-0.88 + 5.6	1.1/09.3	38908
1998 UE	2000 03 09.3	11 19.88 -27 40.5 16.0	-1.57 - 8.6	14.8/15.4	38795	(10152)	2000 03 10.3	11 23.78 +03 00.3 16.8	-1.01 + 4.0	0.3/10.7	33894
(9912)	2000 03 09.3	11 19.90 +03 04.5 15.2	-1.00 + 1.9	0.5/09.7	33471	1998 SE ₁₃	2000 03 10.4	11 24.09 +21 00.6 17.3	-1.12 + 0.5	6.5/05.8	35716
1988 XE ₂	2000 03 09.3	11 19.93 +17 34.3 17.0	-1.04 + 6.6	4.5/05.1	38753	1998 QP ₃₈	2000 03 10.4	11 24.09 +02 43.1 17.5	-0.85 + 8.7	0.4/10.9	38478
1997 GT ₁₁	2000 03 09.3	11 19.93 +00 52.8 18.9	-1.01 + 6.8	1.3/10.4	35699	1988 UV	2000 03 10.4	11 24.14 -05 21.1 17.7	-0.93 + 8.8	3.6/13.6	33542
1998 YM ₇	2000 03 09.3	11 19.98 -03 20.3 18.1	-0.98 + 2.6	2.3/11.5	38539	(13171)	2000 03 10.4	11 24.18 -05 45.8 17.1	-0.98 + 4.1	3.9/13.4	37532
1998 VE	2000 03 09.3	11 20.10 +02 30.0 19.6	-0.91 + 5.7	0.6/10.0	35723	1989 TC ₄	2000 03 10.5	11 24.12 +05 49.5 19.4	-0.83 + 5.9	0.6/09.9	35681
1998 RO ₅₄	2000 03 09.4	11 20.07 -02 19.7 18.9	-0.98 + 6.4	2.4/11.5	33565	1981 ED ₁₁	2000 03 10.5	11 24.20 -02 49.1 19.5	-1.04 + 2.9	2.6/12.0	22270
1998 RY	2000 03 09.4	11 20.37 -00 35.2 19.7	-0.88 + 6.0	1.4/11.0	33756	2000 AR ₂₃₇	2000 03 10.5	11 24.29 -03 04.3 16.7	-1.03 + 1.8	2.4/12.4	38713
(13361)	2000 03 09.5	11 20.41 +12 51.8 16.6	-1.02 + 7.4	3.4/06.7	37585	(13812)	2000 03 10.5	11 24.50 -12 44.4 16.4	-0.81 + 3.4	5.1/15.8	38403
1993 FS ₄₆	2000 03 09.5	11 20.45 +02 20.1 17.3	-0.88 + 8.9	0.8/10.2	38760	1991 RH ₂₇	2000 03 10.5	11 24.51 +06 45.4 17.4	-0.96 + 8.0	1.0/09.6	38757
1989 SJ ₂	2000 03 09.5	11 20.49 +03 10.5 17.4	-0.80 + 9.9	0.3/09.9	38754	2000 AU ₁₄₄	2000 03 10.6	11 24.63 +11 31.4 15.8	-0.74 +11.8	2.9/07.7	38881
1981 ED ₃₄	2000 03 09.5	11 20.64 +01 37.9 18.8	-0.95 + 5.5	0.9/10.4	35415	1997 MT ₃	2000 03 10.6	11 24.72 +07 44.2 19.1	-0.90 + 6.8	1.4/09.4	33499
1996 RU ₂₅	2000 03 09.5	11 20.74 +04 03.2 18.4	-0.75 + 5.0	0.0/09.6	29319	(9729)	2000 03 10.6	11 24.78 -02 06.3 17.7	-0.97 + 2.6	1.8/12.3	33194
1993 FK ₁₃	2000 03 09.5	11 20.78 +14 35.5 17.8	-1.03 + 4.7	3.7/06.4	35687	1998 YW ₁₁	2000 03 10.6	11 24.85 -05 15.3 17.7	-0.80 + 2.8	2.7/13.5	38540
(9733)	2000 03 09.6	11 20.96 -04 20.5 18.8	-0.98 + 7.5	2.9/12.4	33195	1995 YG ₃	2000 03 10.6	11 24.89 +01 55.9 18.3	-1.00 + 5.1	0.7/11.2	33553
4196 T-3	2000 03 09.7	11 21.20 +06 59.0 18.5	-0.85 + 7.1	0.9/08.8	34061	(9755)	2000 03 10.7	11 24.85 -00 27.7 16.8	-0.86 + 7.6	1.4/12.1	33200

6793 P-L	2000 03 10.7	11 24.87 +09 53.2 17.8	-1.04 + 5.5	2.4/08.8	38907	1998 SU ₂₁	2000 03 11.7	11 28.55 +01 49.7 17.1	-0.93 + 8.0	0.7/12.2	38789
1998 XS ₇₃	2000 03 10.7	11 24.91 -04 21.3 17.2	-0.67 + 2.9	2.1/13.4	38799	1998 UY ₁₈	2000 03 11.7	11 28.65 -02 23.8 18.2	-0.89 + 5.6	2.1/13.6	36820
1998 WS ₉	2000 03 10.7	11 25.13 +15 57.0 16.9	-1.00 + 5.6	4.5/06.9	38797	(13621)	2000 03 11.7	11 28.66 +07 00.4 16.9	-0.87 + 2.4	1.1/10.7	38349
1998 SC ₁₃₀	2000 03 10.7	11 25.17 +06 26.7 18.9	-1.01 + 5.1	0.9/10.0	35719	1998 UZ ₂₄	2000 03 11.7	11 28.77 +12 57.9 18.1	-0.85 + 4.7	2.8/08.7	38796
1995 SS ₅₃	2000 03 10.7	11 25.18 +08 18.2 18.3	-1.06 + 5.1	1.8/09.4	30292	1998 VL ₉	2000 03 11.7	11 28.89 +12 35.0 17.3	-0.97 + 5.3	3.3/08.9	38528
1996 EP ₁	2000 03 10.7	11 25.23 +01 56.1 18.0	-0.84 + 6.7	0.5/11.4	38769	1994 BJ ₄	2000 03 11.7	11 28.92 -10 12.3 17.5	-0.79 + 3.9	4.2/16.2	38762
1993 XQ	2000 03 10.7	11 25.23 +02 14.2 17.2	-0.78 + 5.2	0.4/11.3	33687	1998 SB ₅₄	2000 03 11.8	11 28.95 -00 46.8 18.7	-0.96 + 6.9	1.5/13.1	33567
1998 UP	2000 03 10.7	11 25.25 -03 20.7 20.2	-0.93 + 6.8	2.3/13.1	33571	1998 QX ₅₇	2000 03 11.8	11 29.01 +02 44.6 17.4	-0.91 + 7.7	10.2/32.0	38783
1998 QH ₄₀	2000 03 10.8	11 25.36 -01 22.7 18.3	-0.95 + 6.2	1.8/12.5	38782	(9748)	2000 03 11.8	11 29.02 -02 07.4 16.7	-0.88 + 8.8	2.1/13.7	33199
1998 QM ₃₉	2000 03 10.8	11 25.46 +09 22.1 18.8	-0.98 + 5.7	2.0/09.1	32704	3005 P-L	2000 03 11.8	11 29.17 -11 19.5 17.3	-0.80 + 3.7	4.4/16.5	33588
1997 PU ₄	2000 03 10.8	11 25.54 -02 21.9 18.2	-0.84 + 4.6	1.9/12.8	38774	(13882)	2000 03 11.8	11 29.18 +05 36.6 17.2	-0.89 + 9.0	1.0/11.1	38423
1998 QT ₁₃	2000 03 10.9	11 25.65 +05 04.8 18.8	-0.97 + 7.0	0.5/10.5	32692	1997 JN ₁₅	2000 03 11.9	11 29.42 +06 39.8 18.7	-0.95 + 6.4	1.1/10.9	35700
1997 QF ₂	2000 03 10.9	11 25.82 +09 19.6 18.2	-0.84 + 2.5	1.5/09.3	38774	2000 AN ₂₃₃	2000 03 11.9	11 29.62 +06 37.5 17.4	-0.78 + 5.5	1.0/10.9	38711
(13540)	2000 03 10.9	11 25.84 +06 26.3 17.4	-0.98 + 5.6	1.0/10.1	38326	1998 QP ₆	2000 03 11.9	11 29.68 +06 53.5 18.3	-0.92 + 4.9	1.2/10.9	35629
1998 YV ₃	2000 03 10.9	11 25.86 +05 34.1 19.2	-0.71 + 5.0	0.5/10.3	35729	1998 VF ₇	2000 03 12.0	11 29.63 -13 00.4 18.3	-0.84 + 7.4	4.9/17.8	34308
1991 RR ₁₀	2000 03 10.9	11 26.02 +06 51.6 18.0	-1.05 + 3.8	1.2/10.1	38756	1994 WT	2000 03 12.0	11 29.65 +11 35.1 18.7	-0.91 + 5.0	2.5/09.4	38764
1998 RP ₇₈	2000 03 10.9	11 26.02 +08 01.3 17.8	-0.91 + 8.8	1.6/09.5	38499	1998 XD ₅₁	2000 03 12.0	11 29.81 -03 35.1 16.8	-0.69 + 2.7	1.8/14.2	38799
1997 RA ₁	2000 03 11.0	11 26.00 +04 52.8 17.9	-0.83 + 2.8	0.4/10.6	38774	1998 UL ₈	2000 03 12.0	11 29.85 +07 24.6 17.2	-0.77 + 5.0	1.3/10.7	38795
1994 XP	2000 03 11.0	11 26.04 -05 44.3 17.7	-0.85 + 6.6	2.8/14.2	38764	1996 BP ₁	2000 03 12.0	11 29.86 +09 23.7 17.0	-0.98 + 4.3	2.5/10.2	26751
1996 DQ ₂	2000 03 11.0	11 26.05 +12 27.1 16.9	-0.89 + 6.4	3.2/08.1	38768	(10061)	2000 03 12.0	11 30.01 -09 11.0 18.1	-0.90 + 2.9	3.6/15.8	33872
(13497)	2000 03 11.0	11 26.07 +21 40.0 15.0	-1.71 -11.2	9.1/09.0	38315	1996 GG ₁₄	2000 03 12.1	11 30.02 +07 39.2 20.5	-0.90 + 5.5	1.3/10.7	38454
(13811)	2000 03 11.0	11 26.18 -09 48.2 17.2	-0.74 + 5.4	3.6/15.6	38403	1998 SZ ₇₉	2000 03 12.1	11 30.08 +00 45.4 17.8	-0.97 + 5.3	1.0/12.9	35634
1997 JU ₇	2000 03 11.0	11 26.33 -08 48.1 17.5	-0.86 +10.6	4.3/15.6	38773	1993 TS ₃₁	2000 03 12.1	11 30.21 +05 28.0 19.1	-0.80 + 6.3	0.7/11.4	35689
1997 GX ₂₀	2000 03 11.1	11 26.38 -00 31.8 18.3	-1.00 + 7.5	1.6/12.4	38772	(10100)	2000 03 12.1	11 30.23 +06 06.9 17.6	-0.97 + 5.6	1.1/11.3	38016
1997 PN ₃	2000 03 11.1	11 26.41 +05 51.5 18.9	-0.82 + 4.6	0.7/10.4	38461	(13377)	2000 03 12.1	11 30.30 +09 19.2 17.1	-0.76 + 5.5	1.9/10.1	37589
1993 FX ₂₅	2000 03 11.1	11 26.48 +01 19.2 18.3	-1.02 + 4.5	0.9/11.8	26926	1993 TH ₄	2000 03 12.1	11 30.39 +03 04.3 18.2	-0.85 + 4.4	0.0/12.2	33486
3222 T-2	2000 03 11.2	11 26.80 +07 22.9 19.2	-0.99 + 5.3	1.3/10.1	36123	1238 T-1	2000 03 12.2	11 30.55 +02 38.7 18.8	-0.81 + 4.7	0.2/12.4	36122
(9778)	2000 03 11.2	11 26.83 +02 36.5 18.3	-0.91 + 6.4	0.3/11.5	38749	1998 SH ₆₄	2000 03 12.2	11 30.69 +13 03.7 18.9	-0.91 + 5.0	3.2/09.2	35718
1997 NE ₃	2000 03 11.2	11 27.02 -08 29.1 15.8	-0.96 + 2.6	5.5/14.8	38774	1998 QH ₉₉	2000 03 12.3	11 30.92 +07 44.4 19.1	-0.98 + 5.4	1.6/10.9	33090
1998 UV ₄₁	2000 03 11.2	11 27.05 +07 50.7 18.4	-0.92 + 6.1	1.4/09.9	35723	1998 WY ₁₈	2000 03 12.3	11 31.02 -00 22.4 18.4	-0.85 + 5.5	1.2/13.5	35727
(13542)	2000 03 11.2	11 27.11 +16 32.0 16.4	-1.03 + 4.0	5.1/07.4	38327	1993 FY ₅	2000 03 12.3	11 31.16 +08 17.0 17.8	-1.02 + 3.9	2.2/10.9	38759
1998 QC	2000 03 11.2	11 27.12 -03 05.4 16.5	-1.06 + 4.4	2.9/13.2	38473	(9854)	2000 03 12.4	11 31.08 +07 45.8 17.2	-0.84 + 7.2	1.6/10.8	33458
1998 UE ₁₅	2000 03 11.2	11 27.13 +14 56.8 18.8	-1.00 + 8.4	3.9/07.5	35722	1998 SF ₁₀	2000 03 12.4	11 31.20 +09 23.9 19.6	-0.92 + 4.4	2.0/10.5	33354
1994 PD ₈	2000 03 11.3	11 27.25 +00 05.7 18.5	-0.99 + 4.4	1.2/12.4	35690	1992 ET ₃₂	2000 03 12.4	11 31.41 -00 30.1 17.8	-0.64 + 4.2	1.0/13.7	33682
1997 SN ₁	2000 03 11.4	11 27.78 -02 25.1 17.4	-1.00 + 1.6	2.0/13.1	38774	1998 VN ₃₀	2000 03 12.5	11 31.63 -07 16.2 18.6	-0.94 + 5.7	3.4/15.8	34931
1998 VJ ₈	2000 03 11.4	11 27.82 +04 36.7 18.6	-0.84 + 6.1	0.4/11.1	34537	1998 YX ₂₁	2000 03 12.5	11 31.65 -14 28.2 19.5	-0.78 + 2.8	4.3/18.1	35730
1998 QC ₅₁	2000 03 11.5	11 27.81 +05 04.0 17.8	-0.96 + 8.1	0.6/11.0	38783	(13810)	2000 03 12.5	11 31.73 +28 19.6 16.9	-0.88 + 2.9	6.9/03.8	38403
(10193)	2000 03 11.5	11 27.88 +03 34.7 18.6	-0.77 + 5.0	0.0/11.5	33904	1996 VS ₁	2000 03 12.5	11 31.98 +50 53.2 16.2	-1.80 - 7.1	23.0/27.9	38456
1992 UJ ₂	2000 03 11.5	11 28.07 -07 55.7 17.3	-0.74 + 5.7	3.1/15.4	38758	1998 SC ₁₄₀	2000 03 12.6	11 31.88 -12 35.5 17.7	-0.81 + 8.9	5.2/18.4	34025
1998 XP ₆	2000 03 11.5	11 28.07 +12 15.0 18.5	-0.89 + 5.3	3.2/08.7	35727	1998 SR ₁₄	2000 03 12.6	11 32.22 +11 36.1 18.5	-0.97 + 4.9	3.0/10.0	33566
1998 XT ₁₇	2000 03 11.5	11 28.17 -00 59.2 18.6	-0.70 + 5.4	1.2/13.1	35728	1994 PP ₁₇	2000 03 12.6	11 32.27 +01 26.6 19.3	-0.92 + 5.9	0.5/13.2	33340
(9955)	2000 03 11.6	11 28.27 +02 09.4 17.9	-1.03 + 4.7	0.4/12.0	38016	1993 FX ₁₁	2000 03 12.7	11 32.21 +11 15.8 18.0	-1.03 + 4.3	3.4/10.2	33548
1998 YN ₄	2000 03 11.6	11 28.34 -15 28.9 18.0	-0.96 + 2.8	6.0/17.4	35729	1991 RU ₁₆	2000 03 12.7	11 32.30 +10 30.0 19.1	-1.05 + 4.6	2.7/10.5	33228
1998 ST ₁₄₆	2000 03 11.6	11 28.36 +07 18.6 17.4	-1.02 + 6.2	1.4/10.4	38794	1034 T-1	2000 03 12.7	11 32.32 -00 54.5 17.1	-0.94 + 8.6	1.6/14.0	34617
1999 BC ₃	2000 03 11.6	11 28.39 +02 22.1 18.4	-0.66 + 5.2	0.3/12.0	34042	1978 VH ₁₀	2000 03 12.7	11 32.48 +08 02.9 18.7	-0.79 + 5.1	1.5/11.1	33539
2000 CQ ₃₄	2000 03 11.6	11 28.41 +06 00.4 17.9	-0.75 + 4.7	0.8/10.8	38728	1998 SR ₆₂	2000 03 12.7	11 32.49 +05 47.9 19.0	-0.96 + 5.7	0.9/11.9	36085
(10044)	2000 03 11.6	11 28.41 -12 16.1 18.6	-0.94 + 2.7	4.2/16.3	35414	(13764)	2000 03 12.7	11 32.57 +10 30.2 17.2	-1.00 + 6.0	3.0/10.4	38390
3168 T-3	2000 03 11.6	11 28.42 +08 09.4 20.3	-1.00 + 5.1	1.6/10.2	36124	6110 P-L	2000 03 12.8	11 32.65 +02 28.5 19.2	-1.04 + 4.5	0.2/13.0	36121
1994 RP ₁₁	2000 03 11.6	11 28.43 -06 10.0 19.1	-0.92 + 6.0	3.2/14.7	35067	1996 AA ₆	2000 03 12.8	11 32.82 +04 06.7 19.9	-0.99 + 5.5	0.4/12.5	32673
1999 AC ₆	2000 03 11.6	11 28.52 +27 46.3 18.6	-0.90 + 5.5	6.5/03.3	36086	1998 QE ₂₉	2000 03 12.8	11 32.87 -13 56.5 18.2	-0.89 + 3.7	4.9/18.2	35710
2000 BD	2000 03 11.6	11 28.57 +11 17.0 17.4	-0.71 + 9.0	2.6/08.8	38887	(13714)	2000 03 12.8	11 32.92 -05 34.6 16.8	-0.97 + 6.9	3.5/15.6	38375

2000 FEB. 22

M.P.C. 38945

2000 CS ₈₉	2000 03 12.8	11 33.01 +11 58.6 17.6	-0.99 + 7.7	4.0/09.9	38731	1998 SC ₁₀₃	2000 03 14.0	11 37.33 +06 49.4 17.9	-1.01 + 5.0	1.8/12.8	38510
1996 RR ₅	2000 03 12.9	11 33.07 -28 19.5 19.1	-0.75 + 3.5	6.6/23.9	33696	2568 P-L	2000 03 14.0	11 37.38 +03 39.8 18.4	-0.84 + 4.4	0.4/13.7	33534
1996 AL ₁₉	2000 03 12.9	11 33.14 -01 51.4 18.2	-0.86 + 8.4	1.8/14.6	38768	1998 RX ₇₉	2000 03 14.0	11 37.38 -00 56.8 17.0	-0.98 + 3.3	1.2/15.1	38789
1972 TE	2000 03 12.9	11 33.17 -01 56.6 18.3	-0.82 + 6.0	1.4/14.6	34280	1993 FT ₂₁	2000 03 14.1	11 37.32 +00 49.6 18.5	-0.93 + 7.4	0.7/14.6	36332
1996 JE	2000 03 12.9	11 33.18 +29 42.7 18.2	-1.00 + 2.4	9.5/04.0	38038	(13538)	2000 03 14.1	11 37.38 +14 47.2 16.7	-1.05 + 6.6	4.5/10.1	38326
1998 YE ₁₀	2000 03 12.9	11 33.29 +29 14.1 17.7	-0.89 + 5.7	7.3/03.2	38799	1996 GP ₉	2000 03 14.1	11 37.41 +01 37.0 19.5	-0.83 + 6.5	0.3/14.4	30762
1998 SF ₆₁	2000 03 12.9	11 33.33 -03 57.6 16.8	-1.03 + 3.7	2.7/15.0	38791	1998 QB ₉₃	2000 03 14.1	11 37.54 +07 42.2 18.5	-0.87 + 5.9	1.6/12.4	34020
1998 UB ₁₇	2000 03 12.9	11 33.34 +39 10.3 18.6	-1.10 + 6.0	10.7/28.0	38795	1998 SW ₁₆₁	2000 03 14.2	11 37.76 +07 34.0 20.7	-0.96 + 6.1	1.7/12.6	33300
1993 TO ₁₅	2000 03 13.0	11 33.34 +01 28.8 18.4	-0.81 + 5.9	0.4/13.5	34503	1981 EK ₁	2000 03 14.2	11 38.01 +01 47.5 16.8	-1.06 + 1.7	0.2/14.4	38751
1998 RA ₅₇	2000 03 13.0	11 33.60 +01 03.7 18.4	-0.98 + 6.8	0.7/13.6	35715	1998 XF ₈₃	2000 03 14.2	11 38.05 +03 24.9 17.8	-0.70 + 7.9	0.3/13.9	38799
2566 P-L	2000 03 13.1	11 33.76 +01 45.8 17.8	-0.92 + 6.9	0.4/13.5	38906	(13640)	2000 03 14.2	11 38.07 +21 20.1 16.5	-1.05 + 0.6	7.4/08.9	38353
1994 AN ₁₅	2000 03 13.1	11 33.80 -06 16.7 18.3	-0.79 + 3.7	2.4/16.0	33747	1998 VU ₂₉	2000 03 14.3	11 38.07 -12 34.8 17.2	-0.83 + 5.2	4.7/19.4	38797
(9996)	2000 03 13.1	11 33.85 -03 54.8 17.8	-0.77 + 6.3	1.8/15.4	33670	(9917)	2000 03 14.3	11 38.07 +04 14.5 16.6	-0.89 + 8.2	0.6/13.7	33652
2000 AO ₁₃₇	2000 03 13.1	11 33.91 +05 22.2 16.5	-1.10 + 0.6	1.0/12.5	38880	1997 GV ₇	2000 03 14.3	11 38.09 +14 40.7 18.9	-1.04 + 4.4	4.3/10.6	35699
(9791)	2000 03 13.2	11 34.09 +16 46.9 16.8	-0.95 + 7.7	5.2/08.4	33209	1997 JD ₁₂	2000 03 14.3	11 38.17 -05 39.6 18.5	-0.93 + 7.7	2.8/17.0	34296
1998 RM ₃	2000 03 13.2	11 34.13 -00 07.4 17.5	-1.35 - 1.3	1.1/13.9	35713	1998 SY ₇₂	2000 03 14.3	11 38.23 +01 48.9 16.4	-0.88 +10.1	0.2/14.5	38791
(13693)	2000 03 13.2	11 34.15 +00 14.8 17.3	-0.89 + 6.0	0.9/14.0	38369	1997 LB ₄	2000 03 14.3	11 38.31 +00 48.4 18.9	-0.88 + 5.4	0.5/14.8	30788
1998 WW ₃₀	2000 03 13.2	11 34.16 +09 31.7 20.7	-0.81 + 6.8	1.9/11.0	34311	(9948)	2000 03 14.3	11 38.40 +02 28.3 18.0	-0.92 + 6.7	0.0/14.3	33659
(9787)	2000 03 13.2	11 34.18 +05 22.8 17.0	-0.83 + 5.2	0.9/12.4	33208	1998 UB ₇	2000 03 14.4	11 38.46 +15 08.5 18.5	-0.97 + 5.6	4.0/10.3	33761
1998 UH ₈	2000 03 13.2	11 34.19 +17 32.0 19.4	-1.02 + 4.2	4.6/08.7	34594	1985 SG ₃	2000 03 14.4	11 38.71 -11 32.1 17.9	-0.70 + 5.4	3.3/19.2	34004
(12987)	2000 03 13.2	11 34.30 -07 00.0 16.6	-0.97 + 3.9	3.7/16.2	37483	1994 VE ₄	2000 03 14.4	11 38.79 -08 30.6 19.0	-0.87 + 6.9	3.7/18.1	35692
1998 TH ₉	2000 03 13.2	11 34.38 +01 08.4 19.0	-0.93 + 6.5	0.6/13.8	35721	(10238)	2000 03 14.4	11 38.83 -02 27.8 18.0	-1.00 + 7.4	1.7/16.0	33915
(13054)	2000 03 13.2	11 34.41 -05 13.9 16.3	-1.01 + 3.6	3.2/15.6	37501	1998 RJ ₁₇	2000 03 14.5	11 39.05 +00 43.0 17.0	-0.85 +11.3	0.6/15.1	38786
1993 QN	2000 03 13.3	11 34.44 -35 17.8 18.9	-1.14 - 0.5	9.9/24.7	34010	(13886)	2000 03 14.6	11 39.19 +05 06.0 17.9	-0.82 + 4.6	0.9/13.7	38424
1996 GV ₂	2000 03 13.3	11 34.61 +24 55.5 18.0	-0.88 + 5.8	6.6/05.4	35695	1975 ST	2000 03 14.6	11 39.19 -01 45.5 17.6	-0.81 + 9.1	1.3/16.0	38750
(13255)	2000 03 13.3	11 34.67 +11 34.5 15.9	-0.90 + 8.6	3.7/10.4	37555	4327 T-3	2000 03 14.6	11 39.31 +18 17.5 17.1	-0.96 + 3.3	6.3/09.6	38909
(13019)	2000 03 13.3	11 34.71 -15 00.0 17.1	-0.97 + 2.2	5.8/18.5	37492	2000 CB ₉₄	2000 03 14.6	11 39.43 +00 26.5 18.2	-1.01 + 2.0	0.6/15.2	38732
2208 P-L	2000 03 13.4	11 34.85 -03 30.5 18.7	-0.88 + 7.1	2.2/15.5	38906	1998 YS ₈	2000 03 14.7	11 39.54 +08 21.2 18.5	-0.78 +10.0	2.0/12.5	35729
1993 FT ₅₆	2000 03 13.4	11 35.02 +09 48.6 17.1	-0.91 + 8.2	2.9/11.0	38444	1994 RO	2000 03 14.7	11 39.57 +00 29.2 20.3	-0.92 + 6.2	0.6/15.3	33340
1998 XX ₄₆	2000 03 13.4	11 35.14 -18 08.0 16.3	-0.95 + 2.8	7.2/19.7	38799	1994 NS	2000 03 14.7	11 39.70 -03 52.7 17.0	-0.99 + 9.3	2.5/16.7	38762
1996 BL ₃	2000 03 13.4	11 35.15 +05 37.8 17.0	-0.82 + 8.7	1.3/12.5	26753	1998 ST ₅₃	2000 03 14.7	11 39.77 -02 01.6 18.8	-0.98 + 4.0	1.4/16.0	35717
(13802)	2000 03 13.5	11 35.19 +16 32.0 16.6	-1.07 + 5.2	5.4/09.2	38400	1988 RA ₁₃	2000 03 14.7	11 39.79 -00 47.3 17.2	-0.97 + 8.7	1.2/15.7	38753
1991 RQ ₁₄	2000 03 13.6	11 35.49 +05 18.0 18.9	-0.72 + 4.5	0.7/12.7	33744	(13352)	2000 03 14.7	11 39.80 +26 10.2 16.3	-1.03 + 1.4	9.4/07.3	37582
1997 WV ₁₃	2000 03 13.6	11 35.49 +02 41.4 17.4	-0.79 + 3.5	0.0/13.6	38462	1998 SC ₁₂₂	2000 03 14.8	11 39.88 +01 42.0 17.8	-0.95 + 4.4	0.2/14.9	38792
(13495)	2000 03 13.6	11 35.80 +06 20.2 17.6	-1.00 + 7.1	1.4/12.5	38314	1998 SS ₁₅₆	2000 03 14.8	11 40.03 -01 17.8 18.6	-1.05 + 6.4	1.4/15.9	34025
1999 AJ ₂₄	2000 03 13.6	11 35.85 -14 06.0 18.9	-0.80 + 2.7	4.3/18.9	35731	1993 QA ₁	2000 03 14.8	11 40.04 +14 42.6 18.5	-0.81 + 6.7	3.5/10.5	35688
1998 SM ₆₄	2000 03 13.7	11 35.96 -06 10.8 17.0	-0.66 +13.5	2.9/17.3	37774	(9877)	2000 03 14.8	11 40.04 +11 40.1 17.8	-0.86 + 4.2	2.6/11.8	33463
1996 HJ ₂₀	2000 03 13.7	11 36.21 +05 19.5 18.6	-0.82 + 5.3	0.8/12.9	27720	3162 T-2	2000 03 14.8	11 40.09 +04 09.2 17.4	-0.80 + 9.4	0.6/14.1	38908
1993 FH ₄₃	2000 03 13.7	11 36.22 +03 19.7 17.4	-0.99 + 6.3	0.3/13.5	38760	1998 VN ₂₉	2000 03 14.8	11 40.16 -14 49.6 18.4	-0.86 + 6.6	5.8/20.7	35724
1991 LF ₂	2000 03 13.7	11 36.26 +01 54.1 17.2	-0.78 + 5.6	0.2/14.0	38756	(13791)	2000 03 14.8	11 40.16 -00 43.4 15.9	-0.91 + 5.6	1.3/15.8	38397
1985 QP	2000 03 13.8	11 36.29 +02 59.7 18.3	-1.04 + 5.5	0.2/13.7	38752	1979 MY ₆	2000 03 14.8	11 40.18 +02 34.3 19.7	-0.93 + 7.1	0.1/14.7	30779
1991 RY ₂₉	2000 03 13.8	11 36.42 -08 14.8 18.1	-1.00 + 5.6	4.1/17.2	33546	1998 UC ₂₃	2000 03 14.8	11 40.21 -06 59.3 17.4	-0.96 + 5.3	3.1/17.7	35723
1998 VQ ₃₈	2000 03 13.8	11 36.63 -11 35.3 16.8	-0.84 + 6.5	5.3/18.7	38797	1996 AR	2000 03 14.8	11 40.27 +10 01.7 18.4	-0.93 + 5.7	3.3/12.4	38767
1998 VL ₁₇	2000 03 13.9	11 36.63 +07 00.3 20.3	-0.95 + 5.4	1.5/12.5	34595	1993 FT ₁₉	2000 03 14.8	11 40.30 +13 14.2 18.0	-1.00 + 4.9	3.6/11.4	35687
1998 VK	2000 03 13.9	11 36.66 -11 57.2 18.4	-1.00 + 3.0	4.8/18.2	34307	(13221)	2000 03 14.9	11 40.30 -06 54.6 17.0	-0.93 + 2.9	3.3/17.6	37545
1998 SY ₁₂₂	2000 03 13.9	11 36.72 +06 51.2 18.6	-1.03 + 3.8	1.6/12.7	33759	1998 TQ ₆	2000 03 14.9	11 40.38 +13 33.7 17.7	-0.93 + 7.1	3.8/11.1	38794
1998 XR ₉₂	2000 03 13.9	11 36.84 -14 52.6 16.9	-0.84 + 6.4	5.7/19.8	38067	1987 SV ₃	2000 03 14.9	11 40.46 +04 53.6 17.5	-1.06 + 3.4	1.0/14.2	38753
1998 XK ₆₃	2000 03 13.9	11 36.93 -08 47.5 18.7	-1.03 + 4.9	3.9/17.4	36086	2039 P-L	2000 03 14.9	11 40.47 -02 39.2 20.2	-0.86 + 6.7	1.4/16.5	34616
2000 AL ₁₃₇	2000 03 13.9	11 37.01 +06 35.1 16.5	-0.81 + 3.5	1.3/12.7	38880	4161 T-1	2000 03 14.9	11 40.48 -01 07.7 17.0	-0.79 + 9.7	1.0/16.1	38907
1998 XS ₉	2000 03 14.0	11 36.96 +01 11.8 17.0	-0.96 + 7.2	0.5/14.4	38798	1998 XK ₇₂	2000 03 14.9	11 40.60 +03 09.9 18.1	-0.76 + 4.7	0.3/14.6	38799
1994 PG ₁₁	2000 03 14.0	11 37.31 +02 33.1 18.8	-0.92 + 6.3	0.0/14.0	34582	1981 EB ₂₃	2000 03 14.9	11 40.63 +04 22.4 18.1	-0.92 + 5.3	0.7/14.3	38751

1993 US	2000 03 14.9	11 40.69 +02 30.6 18.3	-0.82 + 5.9	0.1/14.9	38762	1998 UW ₁₆	2000 03 15.8	11 43.57 -08 28.1 18.7	-0.80 +13.6	3.0/19.8	35722
1997 GH ₂₂	2000 03 14.9	11 40.70 +11 11.5 18.2	-1.02 + 4.6	2.9/12.2	38772	1998 QP ₁₀₅	2000 03 15.8	11 43.61 +10 26.1 17.3	-0.99 + 5.4	3.6/13.1	38488
1995 YH ₁	2000 03 15.0	11 40.71 -04 01.5 17.6	-0.98 + 5.9	2.2/17.0	38767	1998 QA ₂₃	2000 03 15.8	11 43.67 +07 34.9 18.0	-1.00 + 5.6	2.2/14.0	38781
(13505)	2000 03 15.0	11 40.72 +16 59.2 17.0	-0.76 + 6.0	4.3/09.8	38317	1997 QL	2000 03 15.8	11 43.82 -11 41.8 18.7	-0.88 + 3.8	4.5/20.1	35701
1998 UB	2000 03 15.0	11 40.78 -31 53.9 19.2	-0.96 + 8.3	11.1/28.9	33571	2000 AP ₁₃₇	2000 03 15.8	11 43.89 +11 05.0 17.4	-0.83 + 5.2	3.0/12.8	38687
1994 UF	2000 03 15.0	11 40.87 -03 24.7 19.1	-0.84 + 8.6	1.6/17.0	33551	1998 QG ₅₆	2000 03 15.8	11 43.94 +03 17.5 18.0	-1.04 + 1.8	0.5/15.5	38783
1998 WU ₃	2000 03 15.0	11 40.91 +12 20.7 18.0	-0.95 + 4.8	3.3/11.9	38797	1998 XP ₂	2000 03 15.8	11 43.95 +04 39.3 17.1	-0.75 + 4.9	0.9/14.9	38798
1994 PP ₁₆	2000 03 15.1	11 41.07 +03 28.0 17.7	-0.97 + 6.8	0.6/14.7	38763	1976 YN ₇	2000 03 15.8	11 43.95 +21 51.0 17.6	-0.85 + 5.6	5.7/08.9	38750
1997 GZ ₁₆	2000 03 15.1	11 41.12 -04 25.4 18.2	-0.96 + 8.7	2.3/17.3	35699	1991 RU ₂	2000 03 15.9	11 43.95 -07 23.6 16.7	-0.92 + 6.3	4.0/18.9	38756
1998 SP ₁₂	2000 03 15.1	11 41.46 -39 00.4 19.0	-1.24 + 0.7	13.6/29.8	35716	1996 PT ₁	2000 03 15.9	11 44.00 +08 37.0 19.5	-0.72 + 5.6	1.8/13.5	35696
1998 VW ₄	2000 03 15.2	11 41.44 +01 33.6 18.5	-0.80 + 3.2	0.1/15.4	33762	1979 QX ₂	2000 03 15.9	11 44.05 -00 05.4 17.5	-1.00 + 5.1	0.7/16.5	17955
(10004)	2000 03 15.2	11 41.48 +21 52.2 18.2	-0.83 + 2.6	4.9/08.7	33859	1998 QC ₂₅	2000 03 15.9	11 44.06 +05 39.7 17.5	-0.99 + 8.2	1.6/14.6	33081
1998 RC ₅	2000 03 15.2	11 41.52 +01 11.5 17.7	-0.99 + 3.8	0.3/15.5	38786	(13579)	2000 03 15.9	11 44.06 +14 12.7 17.3	-0.85 + 7.2	4.2/11.7	38337
1998 VO ₁₃	2000 03 15.2	11 41.55 -00 31.1 17.5	-0.84 + 4.8	0.9/16.1	38528	1998 VG ₇	2000 03 15.9	11 44.10 -00 34.7 18.9	-0.91 + 5.0	0.7/16.7	34028
1998 YC ₁	2000 03 15.2	11 41.60 -00 15.9 17.2	-0.71 + 5.9	0.7/16.0	38799	6184 P-L	2000 03 15.9	11 44.20 -03 19.0 18.9	-0.92 + 8.2	1.8/17.6	36121
1996 GN ₁₅	2000 03 15.2	11 41.71 +05 05.7 20.8	-0.86 + 5.2	0.9/14.3	38454	1991 XR	2000 03 15.9	11 44.33 -40 31.0 18.8	-1.20 + 2.1	14.3/01.9	35602
(13626)	2000 03 15.3	11 41.76 +07 40.6 18.0	-1.08 + 4.9	2.1/13.6	38350	2027 P-L	2000 03 16.0	11 44.37 -00 46.3 19.1	-0.92 + 5.9	0.8/17.0	36119
1997 RL ₇	2000 03 15.3	11 41.85 +03 29.2 18.4	-1.04 + 2.2	0.5/14.9	33557	1997 GD ₃₈	2000 03 16.0	11 44.40 +14 25.5 18.8	-1.03 + 4.8	4.5/12.1	38773
1998 TD ₃₃	2000 03 15.3	11 41.92 +00 13.5 18.9	-0.99 + 7.4	0.6/15.9	35721	1992 NS	2000 03 16.0	11 44.51 -10 20.9 17.2	-0.81 + 7.7	4.0/20.2	38027
1997 SJ ₂₉	2000 03 15.3	11 41.97 -12 28.9 18.0	-0.83 + 3.7	4.5/20.0	34017	(13610)	2000 03 16.1	11 44.71 -00 42.2 17.0	-0.88 + 7.9	0.8/16.9	38345
1998 RF ₆₀	2000 03 15.3	11 42.00 -01 31.7 18.9	-0.92 + 4.9	1.2/16.4	33351	1993 FL ₅₄	2000 03 16.1	11 44.85 +15 58.6 16.8	-1.54 - 2.4	6.3/12.9	38760
1998 YV ₁₁	2000 03 15.4	11 42.07 +18 14.6 17.3	-1.10 + 6.9	5.9/09.9	38799	1990 RM ₉	2000 03 16.1	11 44.92 -06 24.0 18.6	-0.90 + 6.1	2.4/18.8	33742
1997 SR ₄	2000 03 15.4	11 42.11 -05 25.8 21.2	-0.90 + 3.2	2.0/17.6	36802	1989 GH ₃	2000 03 16.1	11 45.04 -08 25.8 16.8	-0.81 + 9.2	4.2/19.8	38021
2234 P-L	2000 03 15.4	11 42.26 +03 55.6 20.5	-1.06 + 3.9	0.7/14.9	36119	1991 PO ₄	2000 03 16.2	11 45.18 +02 40.8 18.1	-0.70 + 4.9	0.3/15.9	38756
(9783)	2000 03 15.4	11 42.32 -01 17.4 17.5	-0.85 + 5.3	1.0/16.5	33207	(13382)	2000 03 16.2	11 45.24 +00 04.0 17.0	-0.81 + 5.1	0.5/16.8	37591
2650 P-L	2000 03 15.4	11 42.34 +02 22.4 20.1	-0.96 + 6.9	0.2/15.3	36578	1998 RG ₃₇	2000 03 16.2	11 45.26 -05 40.9 18.5	-0.92 + 7.1	2.6/18.7	34591
1981 UU ₂₉	2000 03 15.4	11 42.37 -00 10.6 19.2	-0.97 + 6.4	0.7/16.1	34003	(9851)	2000 03 16.2	11 45.36 +11 40.7 17.1	-0.97 + 4.6	3.4/13.2	33457
1998 RL ₇₁	2000 03 15.4	11 42.47 +06 36.2 18.4	-0.93 + 6.4	1.6/14.0	38788	3511 T-3	2000 03 16.3	11 45.38 -01 10.4 19.9	-0.78 + 5.5	0.9/17.2	34276
1998 TA ₆	2000 03 15.5	11 42.54 -01 23.7 16.1	-0.73 +11.3	1.2/16.8	38794	1994 TU ₂	2000 03 16.3	11 45.41 -00 30.2 19.3	-0.90 + 6.6	0.6/17.0	33551
1998 SZ ₁₃₃	2000 03 15.5	11 42.55 -02 20.2 17.4	-0.87 + 8.0	1.5/17.0	38793	1991 RX ₄₀	2000 03 16.3	11 45.41 +03 23.8 19.4	-0.95 + 7.1	0.6/15.7	35063
1998 SH ₇₂	2000 03 15.5	11 42.57 +05 49.8 18.8	-0.95 + 5.4	1.3/14.3	34304	1978 US ₅	2000 03 16.3	11 45.65 +13 02.1 18.6	-0.97 + 2.4	3.3/12.9	31003
(13532)	2000 03 15.5	11 42.61 +03 28.0 17.7	-1.01 + 5.0	0.6/15.1	38325	1997 GO ₁₃	2000 03 16.3	11 45.71 +00 40.8 19.0	-1.04 + 6.6	0.3/16.6	33752
1993 FX ₁₆	2000 03 15.5	11 42.71 +03 38.1 18.9	-0.90 + 8.9	0.6/15.0	38443	(13727)	2000 03 16.3	11 45.76 +11 44.2 16.3	-1.03 + 4.2	4.3/13.3	38379
1998 VQ ₃₁	2000 03 15.5	11 42.74 -16 40.1 17.7	-0.83 + 6.2	5.6/22.1	38530	1991 RQ ₂	2000 03 16.3	11 45.82 -02 35.9 19.9	-0.93 + 7.7	1.4/17.8	34578
1998 QE ₁₀₁	2000 03 15.5	11 42.74 -06 43.1 19.0	-1.24 - 0.7	2.8/17.6	35713	(13573)	2000 03 16.4	11 45.91 +12 40.0 16.9	-1.00 + 5.8	4.2/12.9	38336
1997 QY	2000 03 15.6	11 42.84 -00 10.5 18.0	-0.81 + 8.0	0.6/16.3	31010	(13486)	2000 03 16.5	11 46.13 -09 04.0 16.7	-0.73 + 6.3	3.1/20.2	38312
3437 T-3	2000 03 15.6	11 42.88 +03 20.7 17.9	-0.92 + 5.0	0.5/15.2	38908	(13380)	2000 03 16.5	11 46.14 +01 51.6 16.1	-0.95 + 8.4	0.2/16.4	37590
(11391)	2000 03 15.6	11 43.01 +02 11.6 17.8	-0.97 + 5.4	0.1/15.5	35588	1997 SM ₃	2000 03 16.5	11 46.37 -13 46.2 16.3	-1.06 - 0.2	5.8/20.5	38774
1998 RK ₇₁	2000 03 15.6	11 43.07 +08 55.5 17.4	-1.08 + 3.3	3.1/13.6	38788	1998 SG ₄₆	2000 03 16.5	11 46.55 +03 00.0 18.4	-0.90 + 4.8	0.5/16.1	34303
2000 AV ₁₃₇	2000 03 15.6	11 43.16 -04 34.7 16.1	-1.18 - 3.0	2.8/17.0	38880	1998 QR ₉₃	2000 03 16.6	11 46.47 +22 23.9 17.5	-0.94 + 3.1	6.4/10.0	38785
1998 RZ ₅₇	2000 03 15.6	11 43.18 +03 27.1 16.7	-1.07 + 2.7	0.7/15.2	35715	1998 UR ₁₉	2000 03 16.6	11 46.58 +20 17.0 19.0	-1.09 + 2.8	6.2/11.1	35722
1998 WD ₂₀	2000 03 15.6	11 43.23 +04 14.7 17.6	-0.76 + 4.7	0.7/14.9	33526	1990 UC ₁	2000 03 16.6	11 46.61 +05 44.1 17.3	-1.06 + 3.2	1.5/15.4	38755
1981 EF ₃₂	2000 03 15.7	11 43.19 -12 05.8 19.2	-0.95 + 4.4	5.2/20.0	26921	1994 PW ₁₅	2000 03 16.6	11 46.64 +02 29.2 20.1	-0.89 + 7.0	0.3/16.3	33072
1978 UX ₇	2000 03 15.7	11 43.24 -00 57.7 18.1	-0.90 + 6.2	1.0/16.6	33738	4183 T-3	2000 03 16.6	11 46.65 -01 02.8 19.8	-0.89 +10.0	0.8/17.5	33130
2000 AK ₁₃₇	2000 03 15.7	11 43.26 +18 24.6 16.6	-0.74 +11.2	6.0/09.3	38880	(10147)	2000 03 16.6	11 46.77 +05 03.5 17.4	-0.76 + 4.5	1.2/15.5	33893
1985 UA ₅	2000 03 15.7	11 43.29 +25 24.7 17.2	-0.97 + 2.8	7.2/08.3	38752	1998 TJ ₃₃	2000 03 16.6	11 46.84 +07 29.0 19.1	-0.96 + 5.7	2.0/14.8	34306
1998 QP ₉₀	2000 03 15.7	11 43.33 +07 22.4 18.3	-1.14 + 3.4	2.1/14.2	38784	1997 SC	2000 03 16.7	11 46.86 -08 40.9 20.3	-0.80 + 4.8	2.7/20.0	31011
(13762)	2000 03 15.7	11 43.33 +06 44.1 17.6	-1.06 + 3.9	1.7/14.3	38389	1990 OH ₂	2000 03 16.7	11 46.89 +00 26.8 16.8	-0.80 + 3.7	7.4/26.0	38754
1995 HH ₃	2000 03 15.7	11 43.35 +08 08.8 20.3	-0.77 + 5.2	1.9/13.6	30875	(13617)	2000 03 16.7	11 47.27 +02 56.2 16.7	-1.18 - 1.5	0.6/16.4	38348
1996 GE ₂₀	2000 03 15.7	11 43.37 +09 15.0 17.5	-0.86 + 5.0	2.4/13.3	38769	(13808)	2000 03 16.8	11 47.28 -19 45.5 17.3	-0.78 + 2.9	5.5/23.8	38402
1995 YS ₂₅	2000 03 15.7	11 43.60 +10 59.5 19.1	-1.00 + 4.4	3.7/13.0	33342	(9864)	2000 03 16.8	11 47.31 -00 58.4 17.4	-0.74 + 4.8	0.6/17.6	33460

2000 FEB. 22

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1998 VU ₁₄	2000 03 16.8	11 47.60 -07 29.6 19.5	-0.92 + 6.8	3.0/19.8	34931	1998 RE ₇₄	2000 03 18.1	11 51.96 -04 30.7 18.6	-0.99 + 5.3	1.9/19.8	33565
1998 TC ₆	2000 03 16.8	11 47.63 +02 50.3 17.6	-0.90 + 7.2	0.6/16.4	38794	(10278)	2000 03 18.1	11 51.99 +01 03.5 18.2	-1.01 + 7.0	0.1/18.1	34131
1995 YH ₃	2000 03 16.8	11 47.64 +14 17.4 18.5	-0.96 + 7.1	4.3/12.6	38767	(10078)	2000 03 18.1	11 52.03 +01 42.0 16.9	-1.06 + 1.7	0.3/17.9	33876
1998 SP ₁₀₉	2000 03 16.9	11 47.57 -08 19.0 18.5	-0.95 + 7.4	3.6/20.1	33758	1991 TQ ₁	2000 03 18.1	11 52.20 +22 20.4 16.9	-1.31 - 0.9	7.5/12.9	38757
1998 RW ₇₀	2000 03 16.9	11 47.63 +06 56.8 17.9	-0.98 + 7.7	2.0/15.1	38788	1998 QN ₆₀	2000 03 18.1	11 52.38 +09 13.7 18.1	-1.00 + 2.6	2.7/15.8	38483
1997 TO ₂₄	2000 03 16.9	11 47.64 +08 15.6 18.9	-0.78 + 4.2	1.7/14.7	31013	1989 CF ₃	2000 03 18.3	11 52.83 -10 32.3 17.9	-0.90 + 7.0	4.6/22.1	35680
1998 XC ₅₁	2000 03 16.9	11 47.78 -14 51.9 17.5	-0.81 + 2.6	4.8/22.1	38539	1998 QU ₉₂	2000 03 18.3	11 52.92 +11 56.8 17.6	-0.96 + 5.2	3.7/14.8	38785
1997 VM ₂	2000 03 17.0	11 48.25 -01 25.3 17.6	-0.69 + 7.5	0.8/18.0	38775	1998 WE ₇	2000 03 18.4	11 53.21 +28 26.1 17.1	-1.04 + 2.7	10.5/08.8	38533
1986 QM	2000 03 17.0	11 48.26 -01 47.7 17.5	-0.96 + 5.6	1.1/18.0	35278	(9977)	2000 03 18.4	11 53.24 +03 38.5 17.0	-0.77 + 5.6	0.9/17.5	33666
1997 TR ₁₈	2000 03 17.1	11 48.35 -04 39.6 16.5	-0.72 + 7.6	1.8/19.2	38045	(9932)	2000 03 18.4	11 53.24 +00 48.7 16.7	-1.05 + 1.3	0.0/18.4	33655
(13900)	2000 03 17.1	11 48.35 -10 11.6 16.9	-0.78 + 6.9	3.5/21.2	38428	1989 TF ₁₄	2000 03 18.4	11 53.27 +06 28.4 16.9	-0.89 + 5.4	2.0/16.6	38754
4336 T-3	2000 03 17.1	11 48.49 +05 00.7 17.4	-0.86 +10.3	1.5/15.8	38909	1996 AA ₁₄	2000 03 18.4	11 53.36 +02 15.4 19.2	-0.99 + 4.1	0.5/18.0	35694
1998 TF	2000 03 17.1	11 48.51 +06 47.3 16.0	-0.96 + 1.6	2.2/15.6	38794	1995 CW ₁	2000 03 18.4	11 53.37 -24 22.4 18.7	-0.78 + 8.4	7.0/28.2	30455
1995 KZ ₁	2000 03 17.1	11 48.54 -16 35.8 16.7	-0.69 + 7.0	5.2/23.7	38034	1998 YU ₂₇	2000 03 18.4	11 53.38 -15 44.6 17.9	-0.87 + 4.0	4.5/23.7	34037
1998 QH ₅₅	2000 03 17.1	11 48.60 -02 02.1 17.6	-1.07 + 3.8	1.3/18.1	38783	(9894)	2000 03 18.4	11 53.49 +05 15.0 17.0	-0.98 + 4.9	1.6/17.1	33467
1998 RP ₅₄	2000 03 17.1	11 48.71 -04 41.8 18.9	-0.98 + 6.8	2.1/19.1	33351	1994 RK ₁₁	2000 03 18.5	11 53.40 -01 05.4 18.4	-0.92 + 5.8	0.6/19.1	35691
1996 BC ₁	2000 03 17.2	11 48.67 -02 17.2 18.0	-0.98 + 5.4	1.2/18.3	35694	1998 UO ₂₄	2000 03 18.5	11 53.47 -03 44.4 18.0	-0.80 + 7.4	1.4/20.1	38796
1996 BB ₂	2000 03 17.2	11 48.96 -12 19.8 17.1	-1.08 + 1.4	5.8/21.1	38768	1998 RB ₇₅	2000 03 18.5	11 53.71 +01 38.4 17.9	-1.07 + 3.6	0.4/18.3	35715
1998 SP ₄₂	2000 03 17.4	11 49.42 +00 44.9 17.5	-0.99 + 5.4	0.2/17.5	38790	5143 T-2	2000 03 18.6	11 53.77 -09 23.3 21.3	-1.00 + 4.5	3.4/21.6	26912
1995 BW	2000 03 17.4	11 49.54 +03 46.2 17.8	-0.85 + 4.7	0.8/16.6	38764	1998 SU ₆₅	2000 03 18.6	11 53.83 +11 09.9 15.9	-0.94 + 5.6	5.0/15.2	38791
1998 RP ₅₀	2000 03 17.4	11 49.64 +02 33.8 20.3	-1.05 + 5.8	0.5/17.0	33271	(10753)	2000 03 18.6	11 53.86 -05 17.3 17.6	-0.84 + 5.2	2.0/20.6	34758
1998 XR ₇₇	2000 03 17.5	11 49.89 +11 06.5 19.1	-0.87 + 5.3	2.9/14.3	34312	1998 QA ₅₂	2000 03 18.6	11 54.22 -08 22.3 18.8	-1.06 + 5.5	3.4/21.4	33560
(13608)	2000 03 17.5	11 49.89 +12 28.8 16.7	-1.02 + 4.9	4.2/14.0	38345	(13026)	2000 03 18.7	11 54.37 -30 07.9 16.5	-1.57 - 5.4	13.6/26.2	37494
1998 QO ₃₉	2000 03 17.5	11 50.10 +07 28.5 19.6	-0.96 + 6.6	2.1/15.5	35710	1998 WS ₇	2000 03 18.7	11 54.55 +09 15.1 17.8	-1.01 + 2.1	2.9/16.3	35726
1988 PL	2000 03 17.5	11 50.20 -00 39.4 17.8	-0.99 + 7.2	0.6/18.1	38753	(11305)	2000 03 18.8	11 54.51 +06 04.3 17.2	-0.98 + 5.6	2.0/17.1	35567
1998 UZ ₂₀	2000 03 17.6	11 50.16 +09 12.1 19.3	-1.00 + 4.7	2.8/15.1	35722	(13649)	2000 03 18.8	11 54.67 +02 03.2 16.5	-0.76 + 4.5	0.5/18.4	38356
(13801)	2000 03 17.6	11 50.49 +18 00.8 17.1	-0.82 + 6.1	6.0/11.7	38400	1998 VK ₅	2000 03 18.9	11 55.17 -00 23.6 18.9	-0.89 + 4.7	0.3/19.3	33763
1998 YA ₃	2000 03 17.7	11 50.50 +00 47.2 17.8	-0.81 + 5.8	0.1/17.8	35729	1997 TD ₁₉	2000 03 18.9	11 55.25 +01 02.5 17.6	-0.76 + 5.6	0.2/18.8	33956
1989 SS ₁	2000 03 17.7	11 50.63 +06 32.6 19.6	-0.90 + 5.5	1.7/16.0	30894	1973 SX ₂	2000 03 19.0	11 55.23 -08 21.8 16.5	-0.79 + 9.6	2.8/22.2	38017
2198 T-1	2000 03 17.7	11 50.67 +05 41.6 17.8	-0.75 + 4.7	1.4/16.2	33589	1978 SH ₃	2000 03 19.0	11 55.37 -03 24.7 18.0	-0.96 + 7.5	1.4/20.3	38750
1985 SX ₂	2000 03 17.7	11 50.83 -02 30.1 17.4	-0.89 + 4.7	1.1/18.9	38752	4233 T-2	2000 03 19.0	11 55.43 +03 56.9 20.3	-0.85 + 6.6	1.1/17.9	27117
1990 TF ₈	2000 03 17.7	11 50.85 -14 14.8 17.1	-0.80 +10.2	5.5/23.6	38755	1996 FJ ₅	2000 03 19.0	11 55.64 +07 50.3 16.4	-1.04 + 1.5	2.4/17.1	38769
1998 SO ₂₅	2000 03 17.7	11 50.91 +09 15.9 19.5	-0.97 + 4.8	2.7/15.2	34592	1993 FO ₅₀	2000 03 19.1	11 55.67 -00 43.3 18.2	-0.97 + 5.6	0.5/19.5	32931
1987 UT ₁	2000 03 17.8	11 50.88 -07 44.8 20.1	-0.98 + 5.2	2.7/20.5	30780	1997 NR ₁₀	2000 03 19.1	11 55.77 +03 49.7 20.1	-0.91 + 7.9	1.1/18.0	35700
1981 EO ₃₆	2000 03 17.8	11 50.98 -10 26.8 19.9	-1.05 + 2.6	4.6/21.0	30780	1998 QP ₉₃	2000 03 19.1	11 55.86 +11 33.5 17.4	-0.91 + 6.6	3.8/15.5	38785
1991 AE ₂	2000 03 17.8	11 51.15 +11 18.7 17.3	-0.81 + 9.7	3.4/14.1	38437	1997 MN ₄	2000 03 19.1	11 55.86 -07 18.2 19.0	-0.93 + 5.6	2.4/21.6	33698
1997 TF ₁₉	2000 03 17.8	11 51.15 +02 49.0 19.4	-0.72 + 4.4	0.4/17.3	35702	1998 SH ₁₄₅	2000 03 19.1	11 55.87 +02 56.9 19.6	-0.95 + 5.3	0.8/18.4	35720
(9964)	2000 03 17.8	11 51.19 +00 45.4 16.1	-1.01 + 3.4	0.1/17.9	33663	1999 YX ₁₃	2000 03 19.1	11 55.93 -06 23.6 15.0	-0.93 + 2.1	3.1/21.1	38619
1994 PW ₂₇	2000 03 17.8	11 51.20 +00 57.0 16.9	-1.01 + 4.9	0.0/17.9	38763	1992 ST ₁₃	2000 03 19.2	11 55.96 +03 31.5 17.9	-0.73 + 6.4	0.9/18.1	38758
1981 EU ₂₅	2000 03 17.8	11 51.26 +01 50.9 17.8	-0.90 + 7.9	0.3/17.6	38751	(10032)	2000 03 19.2	11 55.99 -01 32.9 18.7	-0.75 + 3.5	0.5/19.8	33865
1998 SW ₅₅	2000 03 17.9	11 51.27 +00 10.5 17.5	-1.09 + 3.1	0.3/18.1	38505	1998 RW ₃₂	2000 03 19.2	11 56.16 +00 37.3 19.0	-1.02 + 6.7	0.1/19.2	38491
6605 P-L	2000 03 17.9	11 51.31 +03 39.3 19.0	-0.85 + 6.6	0.9/17.0	33589	1998 XF ₂₃	2000 03 19.2	11 56.26 -02 03.1 16.7	-0.90 + 5.4	1.1/20.0	35728
(13549)	2000 03 17.9	11 51.32 -00 54.2 17.1	-0.91 + 6.1	0.7/18.5	38329	1981 EG ₂₂	2000 03 19.3	11 56.38 -03 28.8 17.3	-1.11 - 1.2	1.8/20.2	26919
1998 SK ₅₅	2000 03 18.0	11 51.79 +00 34.6 19.4	-0.91 + 6.8	0.1/18.1	34222	(13173)	2000 03 19.3	11 56.57 +06 38.7 16.6	-0.88 + 6.6	2.7/17.3	37532
1997 SF	2000 03 18.0	11 51.81 +10 31.1 18.9	-0.75 + 4.7	2.6/14.8	35701	1998 XM ₃	2000 03 19.3	11 56.65 +08 13.2 20.0	-0.89 + 4.3	2.1/16.9	35727
1998 XC ₉₂	2000 03 18.0	11 51.83 -14 21.9 17.4	-0.76 + 4.9	4.4/23.3	37808	1998 SE ₁₄₆	2000 03 19.4	11 56.97 -04 41.3 17.0	-0.79 + 7.8	1.7/21.2	35720
1998 SU ₃₇	2000 03 18.0	11 51.86 -06 19.9 16.7	-0.86 + 8.9	2.9/20.6	38062	1997 US ₁₀	2000 03 19.4	11 57.07 -12 13.6 17.8	-0.76 + 6.9	3.9/23.9	34298
1998 SW ₁₂₂	2000 03 18.0	11 51.93 -00 18.3 19.2	-0.93 + 6.0	0.4/18.5	35719	1997 GY	2000 03 19.5	11 57.09 -01 56.2 17.9	-0.92 + 8.1	1.1/20.3	35699
2654 P-L	2000 03 18.0	11 51.94 +02 29.5 19.0	-0.77 + 5.4	0.5/17.5	36120	1984 SO ₄	2000 03 19.5	11 57.09 -08 18.8 16.6	-0.99 + 5.5	3.1/22.2	38752
1998 VV ₃₄	2000 03 18.0	11 51.95 -00 23.4 16.7	-1.07 + 4.0	0.5/18.4	38797	1995 VR ₁	2000 03 19.5	11 57.23 +08 39.3 18.2	-1.01 + 7.1	3.0/16.9	33553
(10173)	2000 03 18.0	11 51.97 -06 47.9 19.1	-0.71 + 6.5	2.2/20.8	33899	1998 UE ₂₁	2000 03 19.6	11 57.50 -00 04.2 18.3	-0.96 + 6.3	0.1/19.7	35722

1974 PC	2000 03 19.6	11 57.53 +22 22.8 19.4	-0.93 +10.1	6.6/11.3	34001	(10046)	2000 03 20.9	12 02.59 +15 04.2 16.5	-0.99 + 7.7	5.9/15.6	33869
1998 SU ₂₆	2000 03 19.6	11 57.54 -21 53.6 18.1	-0.87 + 1.8	6.3/26.7	33757	1998 VQ ₂₅	2000 03 21.0	12 02.72 +07 18.0 16.8	-0.99 + 5.0	3.2/18.7	38797
1998 UN ₁₆	2000 03 19.6	11 57.59 +21 42.0 17.3	-0.91 + 1.4	7.1/13.1	35722	1998 SV ₁₀₅	2000 03 21.0	12 02.88 +03 57.9 16.9	-0.91 + 6.1	1.7/19.7	38063
1981 EY ₂₂	2000 03 19.7	11 57.81 +00 34.2 17.9	-0.97 + 8.6	0.1/19.6	26919	1998 RM ₆₅	2000 03 21.0	12 02.96 -00 31.0 19.5	-0.87 + 6.2	0.1/21.2	35715
1998 XT ₆₂	2000 03 19.7	11 58.13 -14 18.6 16.6	-0.95 + 0.1	4.7/23.8	38799	1991 FW ₃	2000 03 21.1	12 02.90 +00 53.0 17.1	-0.78 + 7.1	0.4/20.7	38023
(10117)	2000 03 19.7	11 58.17 -02 15.6 18.1	-0.71 + 7.3	0.7/20.7	33885	1995 YL ₃	2000 03 21.1	12 02.98 +07 04.5 18.0	-0.93 + 7.2	2.7/18.7	38767
(9796)	2000 03 19.8	11 58.30 +13 43.6 16.5	-1.07 + 0.9	4.9/16.1	33210	1998 RZ ₅₄	2000 03 21.1	12 03.00 -07 50.4 18.1	-1.05 + 5.6	2.8/23.4	33351
1998 QJ ₄	2000 03 19.8	11 58.44 +05 44.8 18.1	-0.99 + 5.5	2.0/18.1	38780	1990 OY ₃	2000 03 21.1	12 03.09 -06 43.1 17.5	-0.99 + 4.3	2.2/23.1	33742
1998 WK ₃	2000 03 19.8	11 58.46 -01 04.5 18.4	-0.83 + 5.4	0.4/20.3	35725	1998 RJ ₃	2000 03 21.1	12 03.12 -10 41.7 18.9	-1.57 - 3.8	5.0/23.1	32989
1982 UU ₈	2000 03 19.8	11 58.48 -11 41.8 18.4	-0.89 + 6.2	3.6/23.8	33739	1990 UC ₂	2000 03 21.2	12 03.30 +15 03.6 18.0	-0.93 + 5.2	4.9/16.2	38755
3479 T-3	2000 03 19.9	11 58.66 -00 56.8 20.0	-0.84 + 6.5	0.3/20.3	36125	1997 TB ₂₆	2000 03 21.3	12 03.65 +02 43.8 18.4	-0.70 + 5.7	0.8/20.2	33702
1998 WA ₂₀	2000 03 19.9	11 58.78 +16 55.1 17.2	-0.76 + 5.6	5.1/14.0	35727	1981 EV ₃	2000 03 21.3	12 03.72 -09 45.8 18.9	-0.91 + 6.2	3.3/24.4	34573
1998 SH ₁₁₇	2000 03 19.9	11 58.89 -06 47.8 19.3	-0.86 + 6.7	2.1/22.3	35719	1998 XG ₄₈	2000 03 21.3	12 03.74 +16 27.6 17.5	-0.81 + 3.7	4.6/15.7	38067
(10169)	2000 03 20.0	11 59.05 +05 21.7 16.3	-0.71 + 9.0	1.8/18.1	33898	1993 TS ₁₅	2000 03 21.3	12 03.75 +01 18.1 19.4	-0.80 + 5.8	0.5/20.8	30900
1998 UT ₂₂	2000 03 20.0	11 59.13 +22 50.7 19.7	-0.96 + 3.7	7.2/12.7	35722	(13670)	2000 03 21.3	12 03.88 +07 22.6 16.7	-0.97 + 5.8	3.5/18.9	38363
1994 VP ₁	2000 03 20.0	11 59.21 -10 58.0 19.3	-0.87 + 6.2	3.6/23.8	33246	2777 P-L	2000 03 21.3	12 03.98 +01 36.0 16.8	-0.90 + 7.6	0.8/20.7	38906
2144 T-2	2000 03 20.1	11 59.28 -00 14.4 17.4	-0.95 + 4.1	0.1/20.2	38908	(9832)	2000 03 21.3	12 04.00 -12 15.6 18.8	-0.92 + 5.8	3.9/25.2	33453
1991 RJ ₄₁	2000 03 20.1	11 59.37 +03 23.4 18.0	-1.06 + 3.7	1.2/19.2	38757	3178 T-3	2000 03 21.4	12 04.07 +00 31.3 19.0	-0.77 + 4.9	0.3/21.1	33785
1997 KJ ₂	2000 03 20.1	11 59.45 +09 53.3 18.9	-0.94 + 6.1	3.3/17.0	35700	6608 P-L	2000 03 21.4	12 04.35 +01 42.2 19.7	-0.96 + 4.2	0.7/20.8	33384
(13113)	2000 03 20.1	11 59.48 -00 40.4 17.5	-0.78 + 8.1	0.2/20.4	37517	1998 SQ ₁₀₉	2000 03 21.5	12 04.41 -09 25.0 18.1	-0.89 + 6.6	3.0/24.5	34023
1994 VH ₂	2000 03 20.1	11 59.60 +23 30.0 17.7	-1.06 + 0.9	8.5/13.2	38764	1982 KH ₁	2000 03 21.5	12 04.42 +16 49.5 16.5	-0.88 + 4.5	5.7/15.6	38752
1998 VQ ₁₃	2000 03 20.1	11 59.62 -02 21.1 18.8	-0.88 + 5.3	0.8/21.0	38529	1998 SZ ₂₁	2000 03 21.5	12 04.49 +00 51.7 17.8	-0.98 + 5.2	0.5/21.1	35716
1998 ST ₁₆₃	2000 03 20.1	11 59.64 +08 29.0 20.8	-0.92 + 4.2	2.5/17.6	35720	1998 QL ₆	2000 03 21.5	12 04.58 -01 40.0 19.1	-0.84 + 6.6	0.4/22.0	35709
5482 T-2	2000 03 20.2	11 59.67 -08 53.2 17.2	-1.03 + 4.3	3.2/22.8	38908	1997 SQ ₉	2000 03 21.6	12 04.70 -02 20.2 18.8	-0.88 + 1.5	0.6/22.1	33754
1988 XW ₄	2000 03 20.2	11 59.72 -00 54.1 17.4	-0.78 + 5.6	0.3/20.5	35680	1998 RX ₆₄	2000 03 21.6	12 04.74 -01 04.4 18.1	-0.92 + 7.1	9.7/11.0	35715
1998 TO ₅	2000 03 20.2	12 00.01 -09 22.5 17.9	-0.81 + 8.6	3.0/23.7	34305	1997 TS ₁₇	2000 03 21.6	12 04.97 -07 05.8 17.3	-0.72 + 6.7	1.8/24.0	38045
(9814)	2000 03 20.3	12 00.25 -04 52.7 19.2	-0.94 + 7.0	1.6/21.9	33214	1998 QD ₄₈	2000 03 21.6	12 05.09 -05 20.8 18.9	-0.96 + 7.4	1.7/23.3	35711
1998 RP ₄₆	2000 03 20.4	12 00.71 -04 12.7 19.9	-0.94 + 6.9	1.4/22.0	34021	1991 UP ₃	2000 03 21.7	12 05.33 +05 04.3 18.9	-0.96 + 6.0	2.0/20.0	32744
1981 EL ₉	2000 03 20.5	12 00.72 -10 03.7 19.2	-0.79 + 1.9	2.5/23.6	26916	1998 QN ₉₃	2000 03 21.7	12 05.45 -08 50.3 17.1	-0.79 + 9.3	2.5/24.8	38486
1998 WC ₈	2000 03 20.5	12 00.75 +12 56.1 17.9	-0.83 + 5.7	3.7/16.2	38797	1998 QQ ₉₃	2000 03 21.7	12 05.48 +18 18.3 17.5	-0.96 + 3.0	6.0/15.9	34021
1998 TH ₁₆	2000 03 20.5	12 00.77 +09 21.9 17.5	-0.96 + 6.3	3.5/17.5	38521	1998 WQ ₁	2000 03 21.8	12 05.49 -01 03.5 18.0	-0.74 + 5.2	7.3/11.0	35725
1998 UE ₄	2000 03 20.5	12 00.80 +12 27.4 18.2	-0.91 + 7.4	3.9/16.2	35636	3175 T-3	2000 03 21.8	12 05.54 +00 48.9 19.2	-0.79 + 4.5	0.4/21.4	21127
1994 WT ₃	2000 03 20.5	12 00.84 -09 03.1 19.5	-0.87 + 6.4	2.6/23.5	36071	1989 PU	2000 03 21.8	12 05.62 +28 21.3 18.3	-0.87 + 9.9	8.0/10.0	38754
1998 RA ₄₇	2000 03 20.5	12 00.91 -07 00.0 18.2	-0.89 +10.0	2.9/23.0	35714	3229 T-3	2000 03 21.8	12 05.73 +02 26.8 19.9	-0.88 + 5.2	0.9/20.9	34618
1998 SV ₂₂	2000 03 20.5	12 00.95 -04 26.5 18.0	-0.88 + 8.1	1.5/22.0	35716	3152 T-3	2000 03 21.8	12 05.84 +02 53.8 18.1	-0.80 + 4.7	1.1/20.7	30915
1998 SS ₁₃₂	2000 03 20.6	12 01.16 -01 44.3 17.4	-1.03 + 3.0	0.6/21.1	33362	1998 XN ₅₇	2000 03 21.8	12 05.86 +02 02.9 18.4	-0.82 + 5.9	0.8/21.0	34033
1998 SK ₅₀	2000 03 20.6	12 01.25 +05 12.5 19.0	-0.92 + 4.9	1.7/19.0	34023	1991 FQ ₂	2000 03 21.9	12 05.83 -00 42.8 17.0	-0.90 + 3.4	9.5/02.0	29098
2000 BY ₃	2000 03 20.6	12 01.34 +24 05.7 17.2	-0.96 + 2.4	9.9/12.7	38718	1998 WZ ₁₃	2000 03 21.9	12 05.89 -10 14.3 18.4	-0.92 + 6.4	3.3/25.1	35726
1992 RE ₂	2000 03 20.6	12 01.34 -00 34.3 17.7	-0.79 + 4.8	0.1/20.8	38027	1998 XZ ₇₃	2000 03 21.9	12 05.94 -02 26.7 17.1	-0.87 + 3.8	0.5/22.5	38799
1985 QD ₆	2000 03 20.6	12 01.47 +06 36.4 19.4	-0.84 + 6.1	1.9/18.4	33740	1998 UE ₂₄	2000 03 21.9	12 06.02 +13 00.0 18.3	-0.98 + 5.2	5.0/17.6	36085
(10069)	2000 03 20.7	12 01.47 -14 04.3 16.5	-0.77 + 5.0	4.1/25.4	38016	1994 RN ₁₂	2000 03 21.9	12 06.11 +02 49.2 17.4	-0.94 + 8.0	1.2/20.8	38763
(13593)	2000 03 20.7	12 01.48 +14 55.6 16.8	-1.01 + 7.1	5.8/15.6	38341	1994 PC ₃₀	2000 03 21.9	12 06.18 -04 47.5 20.0	-0.89 + 7.5	1.4/23.4	33243
1979 MF ₃	2000 03 20.7	12 01.59 -01 15.3 19.2	-0.83 + 6.2	0.3/21.1	30778	1996 QT ₁	2000 03 21.9	12 06.20 +03 41.1 17.9	-0.69 + 6.7	1.2/20.4	33948
(13487)	2000 03 20.7	12 01.64 +19 03.0 16.6	-1.03 + 1.3	6.5/15.2	38312	1981 EP ₉	2000 03 21.9	12 06.23 -07 43.1 18.8	-0.89 + 6.8	2.4/24.3	35677
1997 SB ₄	2000 03 20.7	12 01.71 +00 22.1 21.1	-0.82 + 5.6	0.2/20.6	35701	2078 T-2	2000 03 22.0	12 06.39 -01 16.4 18.5	-0.91 + 7.6	0.2/22.2	33589
1998 SA ₁₄₈	2000 03 20.7	12 01.73 +00 40.7 18.5	-0.85 + 7.1	0.3/20.5	35720	2127 T-2	2000 03 22.0	12 06.57 -02 50.8 18.6	-0.90 + 5.1	0.8/22.8	22088
1984 SM ₅	2000 03 20.7	12 01.81 +04 47.5 16.3	-0.93 + 9.3	1.9/19.1	38752	1997 LL ₂	2000 03 22.1	12 06.65 -05 15.7 18.5	-0.92 + 7.9	1.6/23.6	33556
1998 WH ₄	2000 03 20.8	12 02.03 +06 53.4 16.9	-0.86 + 5.0	2.4/18.6	38797	1996 GK ₁₇	2000 03 22.1	12 06.66 -01 22.9 16.8	-0.81 + 6.9	0.2/22.4	35695
1991 RU ₇	2000 03 20.8	12 02.04 +00 11.0 18.7	-0.92 + 8.6	0.1/20.7	32743	1998 AX ₈	2000 03 22.1	12 06.79 -03 44.7 19.8	-0.71 + 4.6	0.7/23.2	34215
1991 RQ ₇	2000 03 20.9	12 02.15 -13 05.4 17.6	-0.83 + 3.5	3.6/24.9	34007	1994 VA ₂	2000 03 22.2	12 07.00 +21 55.8 18.0	-0.97 + 3.5	7.3/15.0	38764
1993 QM ₄	2000 03 20.9	12 02.44 +00 21.1 17.4	-0.87 + 4.9	0.2/20.8	38761	1978 SD ₃	2000 03 22.2	12 07.03 -03 08.3 17.2	-1.09 + 4.8	0.9/22.9	33539