The MINOR PLANET CIRCULARS/MINOR PLANETS AND COMETS are published, on behalf of Commission 20 of the International Astronomical Union, usually in batches on the date of each full moon, by:

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EDITORIAL NOTICE.

Contributors of perturbed orbital elements are advised that use of the Epoch 1993 Jan. 13.0 TT (rather than 1992 June 27.0 TT) will become effective FOLLOWING the 1992 Sept. 12 batch of MPCs. Although the new epoch is not the last 200-day date of the year and therefore not one of the official dates used for elements in 'Efemeridy Malykh Planet', it has been decided that epoch updates in the Minor Planet Circulars and the Computer Service will in the future be made EVERY 200 days.

With apologies for the delay, the Minor Planet Center announces that the diskettes for the monthly batches of Minor Planet Circulars are again available. The diskettes for the present batch, as well as for the seven batches 1992 Jan. 19-July 14, are being mailed to those who have been subscribing to this service. The diskettes include an updated J2000.0 version of the GETELS program (MS-DOS, 8087 coprocessor required) to extract the orbits from electronic versions of the actual MPC pages.

Diskettes are also now available for the 1992 (J2000.0) editions of the 'Catalogue of Cometary Orbits' and the 'Catalogue of Orbits of Unnumbered Minor Planets' (see MPC 19347 and IAUC 5483). The formats are compatible with the output of the GETELS program on the MPC monthly diskettes. In diskette form each catalogue costs $100.00 (that for minor planets consisting of a pair of diskettes), and the two together can be purchased for $175.00. The comet diskette includes programs to extract individual orbits and to compute cometary ephemerides in the J2000.0 system. No extraction and ephemeris programs are provided with the minor planet diskettes. Unlike the previous editions, there is now no supplementary diskette giving the orbital elements of the numbered minor planets; these elements are included in the STAMP software (see MPC 18486-18487) provided by the Institute for Theoretical Astronomy, Naberezhnaya Kutuzova 10, St. Petersburg 191187, Russia (e-mail sokolsky@iiii.spb.su). The comet catalogue is available from the Minor Planet Center by e-mail for $50.00.

A new edition (the seventh) of the magnetic tape of observations is also now available. Complete through the 1992 July 14 MPCs, it contains a total of 695 856 observations: 412 043 of numbered minor planets, 243 630 of unnumbered minor planets and 40 183 of comets. All the observations are in the J2000.0 system in the format described on MPC 18848-18849. The 104 files are available either on a labeled VAX/VMS tape or on an unlabeled 9-track tape (80-byte records, 8000-byte blocks, density 6250 bpi) for $300.00.

Since 1984 the Minor Planet Center has been supplying orbital elements (for comets and numbered and selected unnumbered minor planets) on an

individual basis as part of the dial-up Computer Service it shares with the Central Bureau for Astronomical Telegrams. There is also a capability for computing ephemerides. The Computer Service can be contacted by SPAN or by modem, and it is hoped that there will be access by Internet in the rather near future. In the expectation that the MPC diskettes will eventually be discontinued, an Extended Computer Service is now being offered. In addition to supplying the information that is currently on those diskettes, the Extended Computer Service allows the user to extract monthly extensions to other files (e.g., of minor planet identifications and names), and there is also the possibility of obtaining all the available astrometric observations of specific objects. For further information (including charges) about subscribing to the Computer Service and the Extended Computer Service, contact the Minor Planet Center at the address given above.

* * * * *

ERRATA.

MPC	Line	
20090	- 9	For S. Marco read M. Scandia
20200	22	For AGK3, SAOC read GSC
20519	-15	For (2749) Schrutka = 1937 TD read (2665) Schrutka = 1938 DW1
20519	-14	For 1937 Oct. 11 by K. Reinmuth read 1938 Feb. 24 by A. Bohrmann
20522	3	Add: Under his leadership, from 1978 to 1992, the ASP has grown into a nationally and internationally recognized science education organization, serving teachers, amateurs and the public. In addition to editing "Mercury", Fraknoi founded and edited "The Universe in the Classroom", a newsletter for teachers. He also organized workshops and wrote a nationally syndicated newspaper column. He hosted a radio talk show on science for two years and regularly explains astronomical developments on radio and television. An outspoken critic of astrology, he has given more than 300 public lectures on astronomical and skeptical topics. Citation provided by J. Wujek.
20523	13	For 1990 Nov. 13 read 1990 Dec. 18

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CORRECTED OBSERVATIONS.

The following observations correct those previously published.

Object		Date	UT	R. A. (2000)	Decl.	Reference	Mag.	N Obs.
1979 SC		1979 09	16.24902	00 13 43.42	-03 48 19.9	MPC 4998		801
1979 SC	*	1979 09	17.23294	00 12 44.56	-03 52 48.0	MPC 4999	17	801
1979 SC		1979 09	17.25406	00 12 43.23	-03 52 52.6	MPC 5029		801
1979 SC		1979 09	18.24910	00 11 43.20	-03 57 24.0	MPC 4999		801
1979 SD		1979 09	16.24902	00 14 54.00	-03 44 49.8	MPC 4999		801
1979 SD	*	1979 09	17.23294	00 14 05.07	-03 49 15.4	MPC 4999	18	801
1979 SD		1979 09	17.25406	00 14 03.95	-03 49 19.9	MPC 5029		801

1979 SD	1979 09 18.24910	00 13 14.05	-03 53 47.8	MPC 4999			801
(125)	1990 08 22.03343	23 05 27.46	-04 24 38.9	MPC 20199		1	599
(1221)	1956 06 05.18848	17 28 43.01	+25 41 46.5	MPC 1470			754
(2989)	1988 03 12.91484	09 21 28.39	+20 54 53.2	MPC 13011			054

Note 1: observatory code originally erroenously given as 096.

* * * * *

IDENTIFICATION CHANGES.

Continuation to MPC 20368.

Object	Date	UT	R. A. (2000)	Decl.	Old desig.	Mag.	Obs.
1966 CA1 *	1966 02 14.59525		09 37 24.38	+16 19 11.2	1966 BY		330
1976 UZ20 *	1976 10 26.82880		00 15 27.80	+04 29 11.4	1976 SD4	17.0	095
1989 UB10 *	1989 10 21.40278		00 14 58.83	+11 33 21.1	1989 SK5	16.5	399
1989 UB10	1989 10 21.41910		00 14 58.18	+11 33 15.8	1989 SK5		399
1991 DR2 *	1991 02 19.93177		09 52 59.86	+10 35 35.2	1991 DA1		046
1991 DR2	1991 02 19.94450		09 52 59.29	+10 35 40.8	1991 DA1		046

* * * * *

OBSERVATIONS OF COMETS.

Observations are published here for the following observatory codes:

046 Klet. 0.6-m Maksutov reflector. Observers Z. Moravec, J. Ticha, M. Tichy and Z. Vavrova.
104 Pian dei Termini. 0.4-m f/5 reflector. Observers L. Tesi and P. Gigli. Measured by L. Tesi, reduction by G. Cattani.
372 Geisei. 0.60-m reflector. Observer T. Seki. In part from Orient. Astron. Assoc. Comet Bull.
376 Uenohara. 0.30-m reflector + CCD. Observer N. Kawasato.
399 Kushiro. 0.25-m reflector. Observer S. Ueda. Measured by H. Kaneda.
413 Siding Spring. Uppsala Southern Schmidt and 1.0-m reflector + CCD. Observers R. H. McNaught and D. I. Steel.
502 Colchester. Observer M. J. Hendrie.
503 Cambridge. Observer J. D. Shanklin.
589 Santa Lucia Stroncone. 0.50-m f/2.8 Ritchey-Chretien + CCD. Observers A. Vagnozzi, V. Risoldi and G. Bernabei.
595 Farra d'Isonzo. 0.4-m f/4.5 reflector. Observers G. Lombardi and F. Piani. Communicated by L. Bittesini.
657 Climenhaga Observatory, Victoria. 0.25-m Schmidt telescope and 0.5-m reflector + CCD. Observers J. B. Tatum and D. D. Balam.
675 Palomar. 0.46-m Schmidt. Observers E. Helin, H. E. Holt, K. Lawrence, L. Lee, J. Leonard, D. Moraru, C. S. Shoemaker and E. M. Shoemaker.
801 Oak Ridge. 1.5-m reflector + CCD. Observers R. E. McCrosky and C.-Y. Shao.
809 European Southern Observatory. Observers J. Storm, G. Meylan, K. Jockers and A. Noziglia. Measured by R. M. West. 3.6-m reflector, 3.5-m New Technology Telescope and 2.2-m reflector.
894 Otomo. 0.25-m f/3.4 reflector. Observer S. Otomo.

Object	Date	UT	R. A. (2000)	Decl.	Mag.	N Obs.
		Periodic Comet Grigg-Skjellerup				
/1987 X	1992 06 29.96634		09 31 47.30	+07 21 35.0		809
/1987 X	1992 06 29.97182		09 31 48.57	+07 21 33.9		809

/1987 X	1992	07	05.35009	09 53 39.57	+07 02 14.6			413
/1987 X	1992	07	05.35285	09 53 40.26	+07 02 14.0			413
/1987 X	1992	07	05.99440	09 56 19.72	+06 59 36.2			809
/1987 X	1992	07	09.96775	10 13 01.62	+06 41 50.4			809
/1987 X	1992	07	10.00064	10 13 09.95	+06 41 40.8			809
/1987 X	1992	07	10.00252	10 13 10.45	+06 41 40.4			809
/1987 X	1992	07	10.00470	10 13 10.98	+06 41 39.6			809
	Comet Shoemaker-Levy (1991d)							
/1991d	1992	06	03.30269	21 15 50.47	+43 14 26.7			801
/1991d	1992	06	03.30483	21 15 50.42	+43 14 26.4			801
/1991d	1992	06	18.87639	21 05 46.45	+42 28 39.8			595
/1991d	1992	06	18.89305	21 05 45.60	+42 28 34.7			595
/1991d	1992	06	20.94306	21 03 58.82	+42 17 41.7			595
/1991d	1992	06	20.96111	21 03 57.83	+42 17 36.6			595
/1991d	1992	06	21.92691	21 03 05.73	+42 12 04.5			104
/1991d	1992	06	21.93682	21 03 05.19	+42 12 00.8			104
/1991d	1992	06	21.94167	21 03 04.94	+42 11 58.6			104
/1991d	1992	06	21.94896	21 03 04.50	+42 11 56.6			104
/1991d	1992	06	23.85903	21 01 17.71	+42 00 06.2			104
/1991d	1992	06	23.86389	21 01 17.41	+42 00 04.4			104
/1991d	1992	06	27.90556	20 57 17.15	+41 31 04.5			104
/1991d	1992	06	27.91053	20 57 16.82	+41 31 01.5			104
/1991d	1992	06	28.32582	20 56 50.90	+41 27 45.5			801
/1991d	1992	06	28.34118	20 56 49.92	+41 27 38.2			801
/1991d	1992	06	28.86319	20 56 17.72	+41 23 26.7			104
/1991d	1992	06	28.86817	20 56 17.30	+41 23 21.1			104
/1991d	1992	06	29.95243	20 55 08.96	+41 14 17.1			104
/1991d	1992	06	29.95845	20 55 08.60	+41 14 14.4			104
/1991d	1992	06	30.62049	20 54 26.05	+41 08 28.3	14	T	372
/1991d	1992	06	30.63056	20 54 25.34	+41 08 23.1			372
/1991d	1992	06	30.86667	20 54 10.38	+41 06 16.6			104
/1991d	1992	06	30.87292	20 54 09.96	+41 06 12.4			104
/1991d	1992	07	01.29110	20 53 42.69	+41 02 28.8			801
/1991d	1992	07	01.30979	20 53 41.46	+41 02 18.7			801
/1991d	1992	07	02.92361	20 51 56.01	+40 47 13.2			104
/1991d	1992	07	02.93067	20 51 55.69	+40 47 08.3			104
/1991d	1992	07	07.66806	20 46 34.57	+39 57 16.1	14	T	372
/1991d	1992	07	07.67778	20 46 33.87	+39 57 10.0			372
/1991d	1992	07	19.53403	20 32 37.88	+37 15 22.9			376
/1991d	1992	07	19.53987	20 32 37.62	+37 15 16.6			376
/1991d	1992	07	26.21206	20 24 53.45	+35 21 41.7			801
/1991d	1992	07	26.22468	20 24 52.57	+35 21 28.0			801
/1991d	1992	07	28.20834	20 22 38.82	+34 44 46.7			801
/1991d	1992	07	28.23265	20 22 37.16	+34 44 19.1			801
/1991d	1992	07	30.17813	20 20 28.60	+34 07 07.9			801
/1991d	1992	07	30.18321	20 20 28.27	+34 07 02.1			801
/1991d	1992	08	03.10696	20 16 18.21	+32 48 36.6			801
/1991d	1992	08	03.11089	20 16 17.97	+32 48 32.0			801
	Comet Helin-Lawrence (1991l)							
/1991l	1992	07	29.31779	02 03 12.77	+10 45 47.5			801
/1991l	1992	07	29.32434	02 03 12.49	+10 45 50.7			801
/1991l	1992	08	03.32317	01 58 58.32	+11 31 51.0			801
/1991l	1992	08	03.33478	01 58 57.64	+11 31 57.4			801
	Periodic Comet Faye							
/1991n	1991	12	07.52257	02 11 07.11	+00 48 48.9			376

Comet Helin-Alu (1991r)

/1991r	1992	07	26.12860	18	57	29.51	+21	24	35.0		801
/1991r	1992	07	26.15262	18	57	28.75	+21	24	37.8		801
/1991r	1992	07	28.18703	18	56	31.14	+21	27	57.5		801
/1991r	1992	07	28.23058	18	56	29.87	+21	28	01.0		801
/1991r	1992	07	30.18103	18	55	36.40	+21	30	36.8		801
/1991r	1992	07	30.20499	18	55	35.75	+21	30	38.2		801
/1991r	1992	07	04.07396	19	09	03.40	+20	05	12.4		589
/1991r	1992	07	04.07938	19	09	03.19	+20	05	13.8		589
/1991r	1992	07	04.08717	19	09	02.94	+20	05	15.0		589
/1991r	1992	07	04.09494	19	09	02.73	+20	05	16.3		589

Comet Shoemaker-Levy (1991a1)

/1991a 1	1992	06	05.92639	01	40	50.53	+57	14	28.8		595
/1991a 1	1992	06	05.93750	01	40	51.93	+57	14	59.4		595
/1991a 1	1992	06	18.91389	02	36	21.05	+69	05	36.9		595
/1991a 1	1992	06	18.92430	02	36	26.14	+69	06	20.2		595
/1991a 1	1992	06	20.89586	02	54	36.63	+71	15	04.5		046
/1991a 1	1992	06	20.89777	02	54	37.30	+71	15	14.9		046
/1991a 1	1992	06	20.89950	02	54	38.95	+71	15	22.1		046
/1991a 1	1992	06	20.90903	02	54	44.77	+71	15	59.4		595
/1991a 1	1992	06	20.91875	02	54	51.15	+71	16	39.1		595
/1991a 1	1992	06	25.44227	04	06	01.57	+76	05	04.4		657
/1991a 1	1992	06	25.44330	04	06	02.96	+76	05	08.1		657
/1991a 1	1992	06	25.44431	04	06	04.25	+76	05	11.1		657
/1991a 1	1992	06	26.98611	04	45	48.23	+77	24	51.1		046
/1991a 1	1992	06	26.98802	04	45	50.62	+77	24	55.0		046
/1991a 1	1992	06	26.98912	04	45	53.37	+77	24	58.5		046
/1991a 1	1992	06	26.99931	04	46	12.01	+77	25	26.6		046
/1991a 1	1992	06	27.00069	04	46	14.48	+77	25	28.6		046
/1991a 1	1992	06	27.00197	04	46	17.36	+77	25	33.4		046
/1991a 1	1992	06	27.96003	05	16	20.52	+78	03	20.0		046
/1991a 1	1992	06	27.96130	05	16	23.11	+78	03	23.5		046
/1991a 1	1992	06	27.96291	05	16	26.53	+78	03	26.1		046
/1991a 1	1992	06	27.99310	05	17	27.48	+78	04	27.7		046
/1991a 1	1992	06	27.99432	05	17	30.26	+78	04	29.7		046
/1991a 1	1992	06	27.99559	05	17	32.55	+78	04	31.5		046
/1991a 1	1992	06	28.95520	05	51	42.22	+78	29	12.4	7.5 T	503
/1991a 1	1992	06	28.96325	05	52	00.35	+78	29	19.3		046
/1991a 1	1992	06	28.96435	05	52	02.41	+78	29	19.6		046
/1991a 1	1992	06	28.96551	05	52	05.31	+78	29	22.4		046
/1991a 1	1992	06	29.98368	06	31	32.14	+78	37	50.0		046
/1991a 1	1992	06	29.98455	06	31	34.54	+78	37	50.2		046
/1991a 1	1992	06	29.98542	06	31	36.97	+78	37	50.8		046
/1991a 1	1992	06	30.00174	06	32	16.02	+78	37	49.0		046
/1991a 1	1992	06	30.00260	06	32	18.29	+78	37	48.9		046
/1991a 1	1992	06	30.00347	06	32	20.07	+78	37	48.2		046
/1991a 1	1992	06	30.00434	06	32	22.16	+78	37	47.9		046
/1991a 1	1992	07	08.97480	10	34	55.27	+66	42	39.7		046
/1991a 1	1992	07	08.97654	10	34	56.72	+66	42	27.1		046
/1991a 1	1992	07	08.97770	10	34	57.34	+66	42	17.0		046
/1991a 1	1992	07	08.97880	10	34	58.34	+66	42	08.0		046
/1991a 1	1992	07	18.25579	11	37	08.19	+44	25	45.2		657
/1991a 1	1992	07	19.23846	11	40	20.62	+42	03	08.3		657
/1991a 1	1992	07	21.47882	11	46	28.56	+36	46	16.2	8 T	372
/1991a 1	1992	07	21.48125	11	46	28.92	+36	45	56.8		372

Comet Mueller (1991h1)

/1991h 1	1992	02	08.76771	03 01 11.90	+25 08 15.4					046
/1991h 1	1992	02	08.77187	03 01 10.26	+25 07 49.7					046

Comet Tanaka-Machholz (1992d)

/1992d	1992	05	19.92014	02 01 24.27	+62 41 24.3					502
/1992d	1992	05	22.75781	02 27 26.83	+63 53 01.6					894
/1992d	1992	05	22.76111	02 27 28.65	+63 53 07.1					894

Periodic Comet Shoemaker-Levy 8

/1992f	1992	05	29.12723	14 44 09.74	-12 47 22.1					801
/1992f	1992	05	29.15255	14 44 09.06	-12 47 16.3					801
/1992f	1992	06	03.12596	14 42 10.44	-12 29 15.5					801
/1992f	1992	06	03.15848	14 42 09.66	-12 29 08.8					801
/1992f	1992	06	25.18524	14 39 40.48	-11 48 54.9	16.7	T			675
/1992f	1992	06	25.26163	14 39 40.93	-11 48 53.7					675
/1992f	1992	06	28.18438	14 40 10.59	-11 48 34.9					675
/1992f	1992	06	28.23281	14 40 11.13	-11 48 35.6					675
/1992f	1992	06	29.08493	14 40 21.95	-11 48 41.9					801
/1992f	1992	06	29.12099	14 40 22.37	-11 48 43.3					801
/1992f	1992	07	02.07513	14 41 07.73	-11 49 53.2					801
/1992f	1992	07	02.10968	14 41 08.05	-11 49 53.9					801
/1992f	1992	07	04.55626	14 41 54.33	-11 51 38.8					413
/1992f	1992	07	04.55884	14 41 54.36	-11 51 38.4					413

Periodic Comet Mueller 4

/1992g	1992	06	03.09443	13 52 24.60	+28 20 11.0				1	801
/1992g	1992	06	03.11769	13 52 24.64	+28 19 59.7				1	801
/1992g	1992	06	29.07836	13 59 59.55	+24 01 07.9					801
/1992g	1992	06	29.09362	14 00 00.03	+24 00 57.4					801
/1992g	1992	07	02.08222	14 01 40.39	+23 25 59.0					801
/1992g	1992	07	02.09593	14 01 40.92	+23 25 49.2					801

Comet Machholz (1992k)

/1992k	1992	07	05.46597	04 57 14.57	+34 42 04.6	9	T			675
/1992k	1992	07	05.47523	04 57 16.76	+34 41 44.2				2	675
/1992k	1992	07	09.78993	05 16 46.04	+31 32 56.8	10	T			372
/1992k	1992	07	09.79549	05 16 47.56	+31 32 42.3				3	372
/1992k	1992	07	10.71690	05 20 47.57	+30 51 07.8	10	T			399
/1992k	1992	07	10.78403	05 21 05.11	+30 48 06.5	10	T			372
/1992k	1992	07	10.78715	05 21 05.65	+30 47 56.2	10	T			372

Periodic Comet Giclas

/1992l	1992	06	30.77569	01 41 10.98	+03 36 51.6	18	T	4		372
/1992l	1992	07	07.76111	01 55 51.12	+04 36 17.9	18	T	4		372
/1992l	1992	07	07.77222	01 55 52.52	+04 36 21.8			4		372
/1992l	1992	07	09.77604	02 00 04.42	+04 52 38.6	18.5	T	4		372
/1992l	1992	07	09.78403	02 00 05.40	+04 52 40.7			4		372
/1992l	1992	07	28.32918	02 38 22.57	+07 04 05.0					801
/1992l	1992	07	28.34494	02 38 24.53	+07 04 10.3					801
/1992l	1992	08	02.31786	02 48 23.60	+07 32 50.2					801
/1992l	1992	08	02.32568	02 48 24.47	+07 32 51.5					801

Periodic Comet Wolf

/1992m	1992	07	10.75069	00 48 20.13	+22 15 58.0	20	T	5		372
/1992m	1992	07	25.71875	01 04 29.29	+22 56 53.1	20	T	6		372
/1992m	1992	07	26.69479	01 05 25.80	+22 58 11.9	20	T			372
/1992m	1992	07	26.71529	01 05 27.49	+22 58 14.9					372

Periodic Comet Schuster

/1992n	1992 07 28.74375	03 55 36.60	+10 56 14.7	18	T		372
/1992n	1992 07 28.75660	03 55 38.81	+10 56 28.0				372
/1992n	1992 07 29.76597	03 58 20.07	+11 13 47.8	18	T	7	372
/1992n	1992 07 29.77517	03 58 21.61	+11 13 55.4			7	372

Note 1: only three reference stars. 2: very dark film. 3: difficult to measure. 4: comet very diffuse. 5: nearly stellar with faint condensation. 6: bad seeing. 7: comet small and uncondensed, faint tail in p.a. 245 .

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OBSERVATIONS OF MINOR PLANETS.

The observations are listed separately for each observatory code. Alphabetic note codes shown with some of the observations are defined according to the scheme below. Numerical codes are defined in the headings for the individual observatories.

A earlier approximate position inferior
a sense of motion ambiguous
B black or dark plate
b bad seeing
C correction to earlier position
c crowded star field
D declination uncertain
d diffuse image
E at or near edge of plate
F faint image
f involved with emulsion or plate flaw
G poor guiding
g no guiding
I involved with star
i inkdot measured
M measurement difficult
N near edge of plate, measurement uncertain
O image out of focus
o plate measured in one direction only
P position uncertain
p poor image
R right ascension uncertain
r poor distribution of reference stars
S poor sky
s streaked image
T time uncertain
t trailed image
U uncertain image
u unconfirmed image
V very faint image
W weak image
w weak solution

Object	Date	UT	R. A. (2000)	Decl.	Mag.	N Obs.

046 Klet
J. Ticha, Hvezdarna Klet, CS-37001 Ceske Budejovice, Czechoslovakia
Observers Z. Moravec, J. Ticha, M. Tichy, Z. Vavrova

1985 CN1		1992 02 29.90074	11 08 14.46	+08 53 22.7	16.0		046
1985 CN1		1992 02 29.91498	11 08 13.75	+08 53 25.4			046
1985 CN1		1992 03 04.95521	11 04 10.38	+09 10 38.0			046
1985 CN1		1992 03 04.96944	11 04 09.77	+09 10 39.5			046
1992 DO4	*	1992 02 29.90074	11 06 27.90	+08 32 04.5	16.7		046
1992 DO4		1992 02 29.91498	11 06 27.04	+08 32 07.3			046
1992 DO4		1992 03 04.95521	11 02 19.26	+08 45 41.2			046
1992 DO4		1992 03 04.96944	11 02 18.37	+08 45 43.4			046
1992 DP4	*	1992 02 29.90074	11 07 39.10	+08 26 39.9	16.6		046
1992 DP4		1992 03 04.95521	11 04 39.72	+08 44 52.9			046
1992 DP4		1992 03 04.96944	11 04 38.82	+08 44 58.3			046
1992 DQ4	*	1992 02 29.90074	11 07 44.93	+08 41 23.9	16.7	U	046
1992 DQ4		1992 03 04.95521	11 04 45.98	+09 03 38.9			046
1992 DQ4		1992 03 04.96944	11 04 45.19	+09 03 45.2		U	046
1992 DR4	*	1992 02 29.90074	11 10 55.91	+08 49 39.0	16.7		046
1992 DR4		1992 02 29.91498	11 10 55.08	+08 49 40.9			046
1992 DR4		1992 03 04.95521	11 06 47.94	+09 07 43.9			046
1992 DS4	*	1992 02 29.90074	11 11 46.93	+09 15 51.3	16.7		046
1992 DS4		1992 02 29.91498	11 11 46.25	+09 15 56.6			046
1992 DS4		1992 03 04.95521	11 08 03.04	+09 27 52.3			046
1992 DS4		1992 03 04.96944	11 08 01.93	+09 27 56.9			046
1992 DT4	*	1992 02 29.90074	11 12 26.48	+08 28 17.1	16.7		046
1992 DT4		1992 02 29.91498	11 12 25.94	+08 28 18.7		U	046
1992 DT4		1992 03 04.95521	11 08 49.39	+08 37 14.2			046
(47)		1992 02 29.90074	11 08 17.33	+08 12 13.3			046
(47)		1992 02 29.91498	11 08 16.60	+08 12 16.9			046
(47)		1992 03 01.86689	11 07 29.47	+08 16 05.8			046
(47)		1992 03 01.88124	11 07 28.75	+08 16 09.2			046
(47)		1992 03 04.95521	11 04 55.34	+08 28 25.6			046
(47)		1992 03 04.96944	11 04 54.61	+08 28 29.4			046
(318)		1992 03 01.04171	11 19 35.66	+05 37 05.8			046
(318)		1992 03 01.05641	11 19 35.06	+05 37 13.0			046
(494)		1992 02 09.93616	08 28 05.29	+29 39 00.0			046
(494)		1992 02 09.95074	08 28 04.53	+29 39 01.6			046
(679)		1992 02 09.93616	08 28 58.41	+30 33 33.6			046
(679)		1992 02 09.95074	08 28 57.52	+30 33 42.3			046
(847)		1992 03 02.00427	11 08 49.35	+01 34 43.2		E	046
(847)		1992 03 02.01851	11 08 48.55	+01 34 47.0		E	046
(2761)		1992 02 29.90074	11 07 17.85	+09 53 27.3			046
(2761)		1992 02 29.91498	11 07 17.06	+09 53 31.1			046
(2761)		1992 03 01.86689	11 06 30.80	+09 57 26.0			046
(2761)		1992 03 01.88124	11 06 30.19	+09 57 28.3			046
(2761)		1992 03 04.95521	11 03 59.82	+10 09 52.4			046
(2761)		1992 03 04.96944	11 03 59.11	+10 09 55.5			046
(4613)		1992 02 29.90074	11 09 29.97	+08 46 35.5			046
(4613)		1992 02 29.91498	11 09 29.12	+08 46 42.7			046
(4613)		1992 03 01.86689	11 08 39.82	+08 53 43.7			046
(4613)		1992 03 01.88124	11 08 39.04	+08 53 51.3			046
(4613)		1992 03 04.95521	11 05 59.04	+09 16 21.0			046
(4613)		1992 03 04.96944	11 05 58.28	+09 16 26.7			046

104 San Marcello Pistoiese
L. Tesi, Osservatorio di Pian dei Termini, Viale Panoramico 45, I-51028
San Marcello Pistoiese (PT), Italy
Observers L. Tesi, P. Gigli
Measurers L. Tesi, G. Cattani
SAOC

1988 LA		1992 06 23.89201	16 28 08.22	-11 35 26.1			104
1988 LA		1992 06 23.90451	16 28 07.61	-11 35 35.7			104

1988 LA		1992 06 28.95451	16 24 43.35	-12 42 19.2			104
1988 LA		1992 06 28.96563	16 24 42.98	-12 42 27.0			104
1988 LA		1992 06 30.00174	16 24 07.09	-12 56 29.0			104
1988 LA		1992 06 30.89722	16 23 38.13	-13 08 44.5			104
1988 LA		1992 06 30.90972	16 23 37.90	-13 08 52.7			104
(5118)		1992 06 23.95833	20 48 12.06	-03 14 24.6			104
(5118)		1992 06 23.96771	20 48 11.93	-03 14 19.4			104
(5118)		1992 06 28.89167	20 46 42.32	-02 25 02.5			104
(5118)		1992 06 28.90313	20 46 42.07	-02 24 55.8			104
(5118)		1992 06 30.93472	20 45 52.59	-02 05 43.1			104
(5118)		1992 06 30.94722	20 45 52.15	-02 05 37.7			104

301 Mont Megantic
M. Drinkwater, Mont Megantic Astronomical Observatory, C.P. 24,
Notre-dame-des Bois, PQ J0B 2E0, Canada
Long. and Parallax 288.8467, 0.70279, +0.70926 (see MPC 19348)

1991 FH6	*	1991 03 18.02524	08 41 21.27	+35 44 44.3	19.5	R	301
1991 FH6		1991 03 18.03262	08 41 21.23	+35 44 42.7			301
1991 FH6		1991 03 18.04001	08 41 21.19	+35 44 41.0			301

364 JCPM Kagoshima Station
M. Takeishi, Odori 4, Hamatonbetsu Esashigun, Hokkaido 098-57, Japan
Observer M. Mukai
Measurer M. Takeishi
0.25-m f/4.2 Wright-Schmidt telescope
GSC

1989 VT1		1991 02 12.54931	10 08 53.18	+13 33 47.6	17		364
1989 VT1		1991 02 12.56667	10 08 52.36	+13 33 54.5			364

372 Geisei
T. Seki, Kamimachi 2-9-35, Kochi, Japan
0.60-m reflector
ACRS

1991 LH7	*	1991 06 07.72896	23 00 59.13	+06 28 24.2	17		372
1991 LH7		1991 06 07.74926	23 00 59.14	+06 28 26.8			372
1991 PT9		1991 07 18.66214	19 46 00.76	-11 42 43.6	16		372
1991 PT9		1991 07 18.67466	19 45 59.59	-11 42 25.9			372
1991 PX14		1991 09 07.63473	21 54 55.78	-01 35 43.3	17		372
1991 PX14		1991 09 07.64827	21 54 55.30	-01 35 44.3			372
1992 OK	*	1992 07 29.65799	21 25 40.25	+00 00 20.5	16.5		372
1992 OK		1992 07 29.66979	21 25 39.45	+00 00 24.0			372
1992 OK		1992 07 31.68674	21 24 26.83	+00 07 34.5	16.5		372
1992 OK		1992 07 31.69861	21 24 26.29	+00 07 36.0			372
(32)		1992 07 29.78229	05 39 22.76	+21 07 42.8	14.5		372
(32)		1992 07 29.78576	05 39 23.13	+21 07 42.6			372
(32)		1992 07 29.78924	05 39 23.46	+21 07 42.2			372

376 Uenohara
N. Kawasato, 3-51, Hana-Koganei, Kodaira, Tokyo 187, Japan
0.30-m reflector + CCD
GSC

1989 XB		1992 07 27.67639	20 32 38.87	-16 45 19.4	18		376
1989 XB		1992 07 27.69306	20 32 37.94	-16 45 25.2			376
1991 JE1		1992 07 27.64201	22 02 40.38	-01 38 23.0			376
1991 JE1		1992 07 27.66146	22 02 39.57	-01 38 30.3			376

399 Kushiro
H. Kaneda, Taiyo MS 2-H, 2 chome 2-15, Kawazoe 8 jo, Minami-ku,
Sapporo 005, Japan

Observer S. Ueda
Measurer H. Kaneda
0.25-m f/3.4 reflector
GSC

1975 VK2	1991 11 11.60417	04 09 16.36	+19 00 37.3	17	399
1975 VK2	1991 11 11.61910	04 09 15.63	+19 00 35.9		399
1975 VK2	1991 11 13.52922	04 07 38.18	+18 57 37.9	17	399
1975 VK2	1991 11 13.54421	04 07 37.30	+18 57 37.5		399
1975 YD	1991 12 04.43333	02 12 26.79	+07 30 09.0	16	399
1975 YD	1991 12 04.45451	02 12 26.68	+07 30 00.1		399
1975 YD	1991 12 07.58981	02 12 30.54	+07 06 49.0	16	399
1975 YD	1991 12 07.61111	02 12 30.65	+07 06 38.8		399
1977 QY3	1991 12 05.59931	03 38 12.92	+13 25 20.8	16.5	399
1977 QY3	1991 12 05.61424	03 38 11.89	+13 25 20.6		399
1977 QY3	1991 12 07.50417	03 36 21.83	+13 25 31.0	17	399
1977 QY3	1991 12 07.51910	03 36 20.86	+13 25 32.6		399
1978 VR4	1991 12 04.54653	04 01 21.47	+17 57 51.2	16.5	399
1978 VR4	1991 12 04.56146	04 01 20.37	+17 57 45.7		399
1978 VY14	1991 12 05.42917	03 10 54.18	+16 55 33.7	17.5	399
1978 VY14	1991 12 05.44375	03 10 53.57	+16 55 29.9		399
1978 VY14	1991 12 07.47083	03 09 20.94	+16 52 21.2	17	399
1978 VY14	1991 12 07.48576	03 09 20.15	+16 52 20.0		399
1981 WA1	1991 12 05.55278	04 13 39.14	+17 12 04.3	17	399
1981 WA1	1991 12 05.56777	04 13 38.27	+17 12 02.1		399
1982 DQ6	1991 11 05.46528	02 26 45.61	+19 20 22.0	16.5	399
1982 DQ6	1991 11 05.47986	02 26 44.58	+19 20 20.0		399
1982 DQ6	1991 11 09.66806	02 22 03.07	+19 12 30.6	16.5	399
1982 DQ6	1991 11 09.68391	02 22 02.06	+19 12 29.6		399
1983 XE	1991 11 11.63889	04 21 56.61	+21 20 19.8	17	399
1983 XE	1991 11 11.65417	04 21 55.87	+21 20 14.4		399
1983 XE	1991 11 13.60069	04 20 23.35	+21 07 55.3	17	399
1983 XE	1991 11 13.61563	04 20 22.52	+21 07 50.9		399
1983 XE	1991 12 04.54653	04 01 24.55	+18 44 30.9	17	399
1983 XE	1991 12 04.56146	04 01 23.86	+18 44 26.7		399
1985 TQ1	1991 12 04.47292	02 16 39.52	+20 07 07.0	17	399
1985 TQ1	1991 12 04.49410	02 16 38.83	+20 07 03.4		399
1989 GA3	1991 12 04.54653	04 15 48.55	+20 13 27.8	17	399
1989 GA3	1991 12 04.56146	04 15 47.63	+20 13 24.7		399
1989 GA3	1991 12 05.55278	04 14 44.06	+20 09 57.5	17	399
1989 GA3	1991 12 05.56777	04 14 43.08	+20 09 56.5		399
1990 MX	1991 12 05.68125	03 55 26.36	+18 47 18.8	17	399
1990 MX	1991 12 05.69653	03 55 25.41	+18 47 17.9		399
1990 MX	1991 12 09.55764	03 51 22.56	+18 44 24.0	17	399
1990 MX	1991 12 09.57396	03 51 21.73	+18 44 23.8		399
1991 TF4	1991 11 04.50139	02 44 06.39	+18 46 40.4	16	399
1991 TF4	1991 11 04.51632	02 44 05.50	+18 46 37.1		399
1991 TF4	1991 11 11.49583	02 37 34.23	+18 31 19.9	16	399
1991 TF4	1991 11 11.51076	02 37 33.40	+18 31 17.0		399
1991 UY	1991 12 04.43333	02 16 49.44	+08 37 20.2	15.5	399
1991 UY	1991 12 04.45451	02 16 48.73	+08 37 27.2		399
1991 UY	1991 12 07.58981	02 15 40.04	+08 52 10.4	16.5	399
1991 UY	1991 12 07.61111	02 15 39.67	+08 52 17.4		399
1991 UC1	1991 12 04.43333	02 19 45.24	+06 41 38.6	17	399
1991 UC1	1991 12 04.45451	02 19 44.51	+06 41 34.3		399
1991 UQ1	1991 12 04.47292	02 20 59.52	+19 07 04.5	16.5	399
1991 UQ1	1991 12 04.49410	02 20 58.80	+19 07 07.7		399
1991 UQ1	1991 12 07.62986	02 19 30.37	+19 16 27.6	17	399
1991 UQ1	1991 12 07.65116	02 19 29.67	+19 16 31.5		399
1991 UD3	1991 12 04.43333	02 23 10.65	+08 43 53.6	16.5	399

1991 UD3		1991	12	04.45451	02	23	10.23	+08	43	47.1		399
1991 UD3		1991	12	07.58981	02	22	31.51	+08	30	43.6	17.5	399
1991 UD3		1991	12	07.61111	02	22	31.27	+08	30	38.1		399
1991 UM4		1991	10	29.48403	02	15	30.06	+16	04	20.6	17.5	399
1991 UM4		1991	10	29.49896	02	15	29.07	+16	04	15.4		399
1991 UM4		1991	10	31.47928	02	13	30.34	+15	55	22.4	17	399
1991 UM4		1991	10	31.49497	02	13	29.45	+15	55	18.9		399
1991 UM4		1991	11	09.49456	02	04	46.27	+15	13	56.1	17.5	399
1991 UM4		1991	11	09.50938	02	04	45.51	+15	13	52.9		399
1991 UO4		1991	09	30.49167	01	49	10.45	+19	27	10.9	17	399
1991 UO4		1991	09	30.50660	01	49	09.49	+19	27	11.8		399
1991 UO4	*	1991	10	28.46250	01	19	09.75	+18	01	28.9	17	399
1991 UO4		1991	10	28.47778	01	19	08.60	+18	01	23.7		399
1991 UO4		1991	10	29.41250	01	18	12.15	+17	56	45.7	17	399
1991 UO4		1991	10	29.42743	01	18	11.14	+17	56	41.9		399
1991 UO4		1991	11	09.45775	01	08	33.98	+17	01	21.3	17	399
1991 UO4		1991	11	09.47396	01	08	33.32	+17	01	19.4		399
1991 UO4		1991	11	11.45839	01	07	11.20	+16	51	43.2	17	399
1991 UO4		1991	11	11.47465	01	07	10.51	+16	51	37.7		399
1991 VU		1991	12	05.42917	03	13	06.17	+18	47	16.8	16.5	399
1991 VU		1991	12	05.44375	03	13	05.70	+18	47	10.2		399
1991 VU		1991	12	07.47083	03	11	49.59	+18	33	49.7	16.5	399
1991 VU		1991	12	07.48576	03	11	49.10	+18	33	46.8		399
1991 VU		1991	12	09.52361	03	10	39.24	+18	20	54.7	16.5	399
1991 VU		1991	12	09.53854	03	10	38.68	+18	20	51.0		399
1991 VA1		1991	12	04.47292	02	14	36.61	+18	01	38.2	17.5	399
1991 VA1		1991	12	04.49410	02	14	36.04	+18	01	31.6		399
1991 VB1		1991	11	11.49583	02	26	15.63	+21	01	19.2	17.5	399
1991 VB1		1991	11	11.51076	02	26	14.70	+21	01	15.3		399
1991 VE1		1991	12	04.47292	02	19	50.27	+17	42	14.6	17	399
1991 VE1		1991	12	04.49410	02	19	49.84	+17	42	02.9		399
1991 VE1		1991	12	07.62986	02	18	52.30	+17	17	54.5	17	399
1991 VE1		1991	12	07.65116	02	18	51.93	+17	17	43.5		399
1991 VR3		1991	12	05.59931	03	44	09.94	+11	26	37.7	16	399
1991 VR3		1991	12	05.61424	03	44	09.25	+11	26	42.0		399
1991 VR3		1991	12	07.50417	03	42	42.05	+11	33	09.8	16	399
1991 VR3		1991	12	07.51910	03	42	41.25	+11	33	13.3		399
1991 VA4		1991	12	05.59931	03	36	45.26	+15	05	12.2	17	399
1991 VA4		1991	12	05.61424	03	36	44.52	+15	05	10.3		399
1991 VA4		1991	12	07.50417	03	35	09.47	+15	05	19.3	17	399
1991 VA4		1991	12	07.51910	03	35	08.62	+15	05	18.3		399
1991 VG4		1991	12	09.55764	03	54	44.62	+21	53	44.3	17	399
1991 VG4		1991	12	09.57396	03	54	43.95	+21	53	33.6		399
1991 VX4		1991	11	11.49583	02	36	13.67	+21	59	13.9	17	399
1991 VX4		1991	11	11.51076	02	36	12.74	+21	59	17.2		399
1991 VE5		1991	12	04.43333	02	21	45.74	+08	11	58.2	17	399
1991 VE5		1991	12	04.45451	02	21	45.18	+08	12	01.5		399
1991 VM5		1991	12	04.43333	02	22	58.82	+10	41	32.4	16.5	399
1991 VM5		1991	12	04.45451	02	22	58.22	+10	41	37.7		399
1991 VM5		1991	12	07.58981	02	21	42.50	+10	51	14.0	17	399
1991 VM5		1991	12	07.61111	02	21	42.01	+10	51	20.3		399
1991 VP7		1991	11	04.53542	02	41	25.12	+12	09	57.4	17	399
1991 VP7		1991	11	04.55035	02	41	24.26	+12	09	48.0		399
1991 VM12		1991	12	05.42917	03	12	13.35	+17	29	35.8	17.5	399
1991 VM12		1991	12	05.44375	03	12	12.57	+17	29	34.8		399
1991 VM12		1991	12	09.52361	03	09	38.06	+17	21	42.2	17.5	399
1991 VM12		1991	12	09.53854	03	09	37.42	+17	21	42.2		399
1991 VV12	*	1991	11	04.50139	02	34	46.69	+19	32	39.1	17	399
1991 VV12		1991	11	04.51632	02	34	45.81	+19	32	34.9		399

1991 VV12		1991 11 05.49931	02 33 55.33	+19 27 28.9	17		399
1991 VV12		1991 11 05.51528	02 33 54.52	+19 27 22.4			399
1991 VV12		1991 11 11.49583	02 28 55.74	+18 55 47.9	17.5		399
1991 VV12		1991 11 11.51076	02 28 54.91	+18 55 41.2			399
1991 VX12	*	1991 11 04.50139	02 36 06.88	+20 20 07.9	17.5		399
1991 VX12		1991 11 04.51632	02 36 06.03	+20 20 05.0			399
1991 VX12		1991 11 05.49931	02 35 17.43	+20 14 20.7	17		399
1991 VX12		1991 11 05.51528	02 35 16.50	+20 14 14.3			399
1991 VX12		1991 11 11.49583	02 30 24.13	+19 38 26.3	17		399
1991 VX12		1991 11 11.51076	02 30 23.23	+19 38 19.4			399
1991 VY12	*	1991 11 11.63889	04 12 37.78	+21 20 19.0	17		399
1991 VY12		1991 11 11.65417	04 12 36.93	+21 20 15.2			399
1991 VY12		1991 11 13.60069	04 10 56.39	+21 11 27.9	17		399
1991 VY12		1991 11 13.61563	04 10 55.54	+21 11 24.8			399
1991 VY12		1991 12 05.68125	03 50 52.94	+19 24 19.7	17		399
1991 VY12		1991 12 05.69653	03 50 52.06	+19 24 16.9			399
1991 VY12		1991 12 09.55764	03 47 48.66	+19 06 41.8	17		399
1991 VY12		1991 12 09.57396	03 47 47.98	+19 06 35.4			399
1991 VY12		1991 12 14.61476	03 44 17.70	+18 45 25.4	17		399
1991 VY12		1991 12 14.63021	03 44 16.88	+18 45 23.0			399
1991 XM2	*	1991 12 04.43333	02 15 54.68	+11 01 48.3	16.5		399
1991 XM2		1991 12 04.45451	02 15 54.16	+11 01 40.4			399
1991 XM2		1991 12 07.58981	02 14 47.07	+10 41 30.0	17		399
1991 XM2		1991 12 07.61111	02 14 46.68	+10 41 23.1			399
1991 XN2	*	1991 12 04.47292	02 23 31.41	+21 00 25.7	16.5		399
1991 XN2		1991 12 04.49410	02 23 30.85	+21 00 21.9			399
1991 XN2		1991 12 07.62986	02 22 23.04	+20 50 46.2	17		399
1991 XN2		1991 12 07.65116	02 22 22.53	+20 50 43.3			399
1991 XO2	*	1991 12 05.42917	03 16 29.24	+15 13 34.1	17		399
1991 XO2		1991 12 05.44375	03 16 28.79	+15 13 30.2			399
1991 XO2		1991 12 07.47083	03 15 19.64	+15 02 47.9	17.5		399
1991 XO2		1991 12 07.48576	03 15 18.99	+15 02 42.0			399
1991 XO2		1991 12 09.48750	03 14 18.46	+14 52 57.3	17		399
1991 XO2		1991 12 09.50255	03 14 17.86	+14 52 53.5			399
1991 XP2	*	1991 12 05.42917	03 17 49.24	+17 53 36.5	17		399
1991 XP2		1991 12 05.44375	03 17 48.45	+17 53 35.2			399
1991 XP2		1991 12 09.52361	03 15 13.62	+17 37 30.0	17.5		399
1991 XP2		1991 12 09.53854	03 15 13.05	+17 37 26.9			399
1991 YZ		1991 12 09.59931	08 06 08.20	+27 57 21.6	17.5		399
1991 YZ		1991 12 09.62083	08 06 07.64	+27 57 22.6			399
1991 YZ		1991 12 14.69861	08 03 36.58	+28 01 26.6	17		399
1991 YZ		1991 12 14.72049	08 03 35.83	+28 01 27.7			399
1992 AU1		1991 12 09.59931	08 03 14.65	+27 59 35.2	16		399
1992 AU1		1991 12 09.62083	08 03 14.86	+28 00 11.4			399
1992 AU1		1991 12 14.69861	08 03 50.85	+30 17 55.7	16		399
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1992 MA		1992 06 27.50417	17 20 50.05	-22 35 22.0	16.5		399
1992 MA		1992 06 27.52083	17 20 49.20	-22 35 19.4			399
1992 MA		1992 06 27.53542	17 20 48.50	-22 35 18.5			399
1992 MA		1992 06 29.53403	17 19 16.92	-22 33 52.9	16.5		399

402 Dynic Astronomical Observatory
A. Sugie, Dynic Astronomical Observatory, Taga 270, Taga-Cho, Inukami-Gun, Shiga-Ken, 522-03, Japan
0.25-m f/3.4 Schmidt
PPM

1991 CN5		1991 02 09.49549	09 20 41.11	+13 22 38.6	17.0	d	402
1991 CN5	*	1991 02 09.51215	09 20 39.71	+13 22 37.8	17.0	d	402

413 Siding Spring
R. H. McNaught, Siding Spring Observatory, Coonabarabran, N.S.W. 2357, Australia
Observers R. H. McNaught, Q. A. Parker, K. S. Russell, D. Steel, A. Savage
Measurer R. H. McNaught
1.2-m U.K. Schmidt, Uppsala Southern Schmidt, 1.0-m reflector + CCD

1948	AF	1992	07	03.70426	22	22	53.42	-23 43 51.1		413
1948	AF	1992	07	03.70644	22	22	53.45	-23 43 54.0		413
1948	AF	1992	07	04.63778	22	23	07.63	-24 04 49.3		413
1948	AF	1992	07	04.63970	22	23	07.65	-24 04 52.0		413
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1978	SN7	1992	06	10.70279	15	34	51.93	-13 57 28.8		413
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1987	SL	1992	08	05.42709	13	45	01.78	-52 48 22.0		413
1987	SL	1992	08	05.42861	13	45	02.13	-52 48 22.4		413
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1988	DO	1992	06	19.59772	15	14	41.70	-29 03 55.2		413
1988	DO	1992	06	19.60038	15	14	41.63	-29 03 54.1		413
1988	DO	1992	07	04.58382	15	11	41.75	-27 28 10.0		413
1988	DO	1992	07	04.58785	15	11	41.75	-27 28 08.5		413
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1988	DO	1992	07	05.58906	15	11	45.00	-27 22 40.5		413
1988	DD5	1992	06	19.57668	13	36	02.25	-22 11 24.2		413
1988	DD5	1992	06	19.57876	13	36	02.36	-22 11 23.6		413
1988	DD5	1992	07	04.54178	13	52	41.65	-21 10 57.9		413
1988	DD5	1992	07	04.54428	13	52	41.84	-21 10 57.6		413
1988	RA	1992	07	03.69207	22	06	56.01	-46 58 37.9		413
1988	RA	1992	07	04.63102	22	06	20.74	-47 05 17.7		413
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1988	RA	1992	08	05.46485	21	31	11.38	-49 51 56.6		413
1988	RA	1992	08	05.46752	21	31	11.16	-49 51 57.0		413
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1989	BW	1992	07	04.56659	14	48	52.31	-09 06 37.1		413
1989	BW	1992	07	05.57787	14	48	44.70	-09 08 23.6		413
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1989	UE4	1992	06	09.83263	21	01	29.28	-06 56 45.8		413
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1989	YP	1992	07	04.59818	16	30	36.57	-04 43 40.8		413
1991	JY	1992	06	09.83784	05	44	11.75	-79 30 47.7		413
1991	JY	1992	06	10.66226	05	58	37.40	-78 55 10.2		413
1991	JY	1992	06	10.66534	05	58	40.59	-78 55 02.4		413
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1992	EB1	1992	07	05.46343	12	57	15.62	-43 57 02.2		413
1992	EB1	1992	07	05.46640	12	57	16.21	-43 57 02.3		413
1992	ED1	1992	04	30.44481	10	42	56.70	-08 31 03.1		413
1992	EE1	1992	07	05.43487	12	33	03.26	-13 03 45.8		413
1992	EE1	1992	07	05.43711	12	33	03.40	-13 03 47.8		413
1992	FD	1986	10	21.40251	21	56	25.47	-07 16 03.7		413
1992	FD	1986	10	21.46501	21	56	26.40	-07 16 37.6		413
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1992	FD	1992	05	24.49530	09	56	00.36	+12 17 24.7		413
1992	FD	1992	06	19.38370	10	38	04.46	+12 16 46.4		413
1992	FD	1992	06	19.38590	10	38	04.68	+12 16 46.3		413
1992	FE	1992	07	03.36421	11	50	10.59	-05 32 45.3		413
1992	FE	1992	07	03.36693	11	50	10.90	-05 32 49.0		413

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1992	FJ1		1975	05	10.48561	12	06	58.42	-32	09	30.1		413
1992	FJ1		1976	05	27.77019	21	33	25.07	-24	44	47.6	17 V	413
1992	FJ1		1992	05	24.53838	11	18	21.52	-20	33	18.4		413
1992	FJ1		1992	05	24.53973	11	18	21.56	-20	33	18.2		413
1992	FJ1		1992	06	19.39016	11	35	17.55	-20	29	31.7		413
1992	FJ1		1992	06	19.39851	11	35	17.99	-20	29	32.5		413
1992	FK1		1992	05	24.50434	10	15	33.14	-20	37	57.2		413
1992	FK1		1992	05	24.50719	10	15	33.47	-20	37	56.6		413
1992	FL1		1992	07	05.47697	14	36	08.74	-24	04	48.6		413
1992	FL1		1992	07	05.47958	14	36	08.99	-24	04	48.6		413
1992	FM1		1992	05	24.56060	12	21	09.07	-42	40	02.4		413
1992	FM1		1992	05	24.56265	12	21	09.04	-42	40	01.7		413
1992	FM1		1992	06	19.56203	12	31	20.81	-40	29	54.5		413
1992	FM1		1992	06	19.56549	12	31	21.00	-40	29	53.7		413
1992	FW1		1992	06	19.43400	11	43	34.42	+05	51	54.7		413
1992	FW1		1992	06	19.43605	11	43	34.55	+05	51	54.6		413
1992	GH		1982	04	15.74931	15	38	41.84	-48	08	22.0		413
1992	GH		1992	05	09.49888	12	18	08.94	-27	48	13.3		413
1992	GH		1992	05	09.50152	12	18	08.79	-27	48	12.6		413
1992	GH		1992	05	10.63134	12	17	12.16	-27	44	32.6		413
1992	GH		1992	05	10.63542	12	17	11.92	-27	44	31.6		413
1992	GH		1992	05	24.55477	12	10	37.64	-27	01	56.4		413
1992	GH		1992	05	24.55709	12	10	37.61	-27	01	56.0		413
1992	GH		1992	06	18.47142	12	19	31.62	-26	39	03.6		413
1992	GH		1992	06	18.47392	12	19	31.74	-26	39	03.7		413
1992	HE		1992	07	04.82205	04	20	31.02	-30	10	21.0		413
1992	HE		1992	07	04.82400	04	20	31.04	-30	10	17.5		413
1992	HE		1992	07	04.82620	04	20	31.05	-30	10	13.6		413
1992	HE		1992	07	29.82517	04	25	01.26	-18	36	00.8		413
1992	HE		1992	07	29.82753	04	25	01.19	-18	35	56.1		413
1992	HE		1992	07	30.76981	04	25	06.78	-18	11	07.9	15.5 V	413
1992	HE		1992	08	02.81552	04	25	18.00	-16	51	20.2		413
1992	HE		1992	08	04.71811	04	25	20.40	-16	01	43.1		413
1992	HE		1992	08	04.78053	04	25	20.19	-16	00	06.5		413
1992	JE		1992	07	04.54868	14	34	44.19	+00	50	30.4		413
1992	JE		1992	07	04.55183	14	34	44.41	+00	50	29.7		413
1992	JE		1992	08	05.44101	15	41	07.03	-03	59	13.7		413
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1992	NA	*	1992	07	01.65833	21	19	20.97	-46	05	23.0	16.5 V	413
1992	NA		1992	07	01.72778	21	19	29.18	-46	06	04.3		413

1992	NA		1992	07	03.72074	21 23 55.82	-46 26 17.7				413
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1992	NA		1992	07	04.75735	21 26 16.80	-46 36 35.8				413
1992	NA		1992	07	04.83691	21 26 27.08	-46 37 18.2				413
1992	NA		1992	07	04.83900	21 26 27.36	-46 37 19.3				413
1992	NA		1992	07	05.55192	21 28 08.84	-46 44 20.8				413
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1992	NA		1992	07	28.57554	22 37 04.36	-48 39 37.7	15.0	V		413
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1992	NH		1992	07	22.56845	19 09 28.62	-18 38 29.4	16.5	V		413
1992	NH		1992	07	22.59970	19 09 26.87	-18 39 16.6				413
1992	NJ	*	1992	07	01.65833	21 42 45.60	-46 53 46.7	17.5	V		413
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1992	NJ		1992	07	03.72074	21 41 43.93	-47 08 45.8				413
1992	NJ		1992	07	04.76122	21 41 09.96	-47 16 12.5				413
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1992	NJ		1992	07	27.57903	21 21 54.55	-49 25 25.0	17.5	V		413
1992	NJ		1992	07	27.62069	21 21 51.81	-49 25 34.3				413
1992	NJ		1992	08	05.45513	21 12 03.71	-49 47 19.4				413
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1992	NK	*	1992	07	01.65833	21 44 05.19	-42 15 40.8	16.5	V		413
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1992	NK		1992	07	22.72167	21 40 10.11	-47 01 40.4				413
1992	OA	*	1992	07	26.36985	14 58 20.53	-75 15 27.5	17.5	V	b	413
1992	OA		1992	07	26.40804	14 58 10.55	-75 14 55.5			b	413
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1992	OA		1992	07	28.51850	14 50 56.72	-74 50 08.0				413
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1992	OB	*	1992	07	26.68789	21 43 26.29	-43 50 54.7	17.5	V	p	413
1992	OB		1992	07	27.7909	21 42 29.19	-43 58 06.5			T	413
1992	OB		1992	07	28.56613	21 41 48.76	-44 03 01.4				413
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1992	OF		1992	07	28.78418	00 34 18.32	-03 34 43.4				413
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1992 OG		1992	07	28.78418	00	42	08.82	-04	30	33.5	413
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1992 OG		1992	07	30.72854	00	44	24.65	-05	02	08.6	413
1992 OJ	*	1992	07	27.51878	19	21	12.42	-33	48	27.2	14.5 V 413
1992 OJ		1992	07	27.55003	19	21	10.51	-33	48	05.9	413
1992 OJ		1992	07	30.38646	19	18	31.05	-33	13	51.6	413
1992 OJ		1992	07	30.39518	19	18	30.64	-33	13	45.8	413
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1992 OJ		1992	07	31.75829	19	17	18.29	-32	57	02.2	b 413
1992 OJ		1992	08	05.44894	19	13	41.68	-31	58	40.8	413
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1992 ON	*	1992	07	28.68711	23	37	25.46	-26	35	40.2	18 V 413
1992 ON		1992	07	28.72877	23	37	21.91	-26	35	11.3	413
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1992 OO		1992	07	30.6106	22	38	39.66	-25	15	16.8	p 413
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1992 OO		1992	07	31.55355	22	38	29.90	-25	40	22.8	15.7 V b 413
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1992 OO		1992	08	02.80001	22	37	58.58	-26	40	25.5	413
3129 T-2		1992	07	21.67472	20	05	00.54	+01	35	30.6	413
(692)		1992	07	01.65833	21	47	09.78	-44	51	17.5	413
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(692)		1992	07	22.65917	21	34	13.95	-47	33	40.4	413
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(1427)		1992	07	27.51878	19	23	06.23	-32	21	43.1	413
(1427)		1992	07	27.55003	19	23	04.66	-32	21	51.4	413
(1458)		1992	07	21.67472	20	11	41.95	+00	33	47.6	413
(1563)		1989	06	13.64240	19	10	41.11	-29	31	44.6	413
(1563)		1989	06	13.70490	19	10	37.52	-29	32	04.3	413
(1563)		1992	05	21.58432	15	53	22.41	-21	41	20.5	413
(1563)		1992	05	21.60372	15	53	21.03	-21	41	20.9	413
(1591)		1992	07	26.62539	21	47	39.23	-44	32	25.8	17.5 V 413
(1591)		1992	07	26.68789	21	47	35.86	-44	33	32.4	413
(1591)		1992	07	27.78955	21	46	38.80	-44	52	39.2	413
(1591)		1992	07	28.56613	21	45	58.13	-45	05	51.8	413
(1989)		1992	07	27.51878	19	18	47.94	-34	59	25.9	413
(1989)		1992	07	27.55003	19	18	45.88	-34	59	25.1	413
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(3674)		1992	07	04.77160	23	48	12.84	+15	22	59.1	413
(4179)		1992	07	03.69736	20	37	49.48	-18	16	35.3	413
(4179)		1992	07	03.69951	20	37	49.38	-18	16	35.6	413
(4179)		1992	07	04.62525	20	37	12.94	-18	19	04.5	413
(4179)		1992	07	04.62696	20	37	12.86	-18	19	04.8	413
(4690)		1992	07	21.48184	17	26	16.31	-31	51	11.9	413
(4690)		1992	07	21.51309	17	26	14.93	-31	50	48.3	413
(5202)		1992	04	30.44481	10	36	18.46	-09	38	49.7	413

552 San Vittore
E. Colombini, Via S. Vittore 44, I-40136 Bologna, Italy
Observers C. Vacchi, G. Sassi, R. di Luca
Measurers C. Vacchi, V. Goretti, E. Colombini
AGK3, SAOC
0.45-m f/5 reflector

(1857)	1981 08 25.87708	22 31 18.50	-00 26 14.6	552
(1857)	1981 08 25.89167	22 31 17.62	-00 26 19.3	552
(4742)	1987 01 03.83264	03 42 22.46	+09 18 35.1	552
(4742)	1987 01 03.84792	03 42 22.31	+09 18 24.5	552

553 Chorzow
I. Wlodarczyk, Planetarium and Astronomical Observatory,
PL-41501 Chorzow 1 s.p.10, Poland
Observers I. Wlodarczyk, T. Firszt, M. Szczepanski
Measurers A. Pajka, T. Piwek
0.2-m f/5 astrograph
PPM

(4)	1992 03 07.89702	11 38 42.71	+14 31 44.6	553
(4)	1992 03 07.91557	11 38 41.86	+14 31 53.6	553
(4)	1992 03 07.93652	11 38 40.66	+14 32 04.5	553
(4)	1992 03 09.83521	11 36 56.29	+14 47 09.5	553
(4)	1992 03 09.84861	11 36 55.55	+14 47 15.8	553
(4)	1992 03 09.86181	11 36 54.74	+14 47 22.0	553
(4)	1992 03 30.93024	11 18 17.57	+16 49 47.0	553
(4)	1992 04 07.90671	11 13 00.72	+17 08 03.0	553
(4)	1992 04 07.92755	11 13 00.00	+17 08 03.5	553

589 Santa Lucia Stroncone
A. Vagnozzi, Via Santa Lucia 68, I-05039 Stroncone (Terni), Italy
Observers A. Vagnozzi, V. Risoldi, G. Bernabei
0.50-m f/2.8 Ritchey-Chretien + CCD
GSC

1987 GK	1992 07 04.01929	19 57 15.36	-04 45 05.3	589
1987 GK	1992 07 04.02368	19 57 15.10	-04 45 06.6	589
1987 GK	1992 07 04.03212	19 57 14.73	-04 45 08.3	589
1987 GK	1992 07 04.04082	19 57 14.31	-04 45 10.7	589
1992 LR	1992 06 25.92347	16 05 15.63	-09 48 58.0	589
1992 LR	1992 07 03.87653	16 23 41.25	-06 57 50.9	589
1992 LR	1992 07 03.88163	16 23 42.10	-06 57 44.3	589
1992 LR	1992 07 03.89826	16 23 44.65	-06 57 22.5	589
1992 LR	1992 07 03.92049	16 23 48.00	-06 56 52.5	589
3129 T-2	1992 07 21.88021	20 04 52.28	+01 33 03.6	589
3129 T-2	1992 07 21.89410	20 04 51.67	+01 32 54.4	589
3129 T-2	1992 07 21.90729	20 04 51.06	+01 32 45.6	589
3129 T-2	1992 07 21.91632	20 04 50.63	+01 32 39.5	589
(4674)	1992 07 21.83271	19 32 08.04	+13 27 02.8	589
(4674)	1992 07 21.84105	19 32 07.44	+13 27 03.3	589
(4674)	1992 07 21.84992	19 32 06.75	+13 27 03.8	589
(4866)	1992 07 03.94022	19 34 07.28	-07 29 06.4	589
(4866)	1992 07 03.95519	19 34 06.90	-07 29 06.1	589
(4866)	1992 07 03.96631	19 34 06.29	-07 29 06.0	589
(4866)	1992 07 03.98389	19 34 05.39	-07 29 06.0	589
(4866)	1992 07 03.99969	19 34 04.42	-07 29 05.6	589
(4866)	1992 07 04.00944	19 34 03.97	-07 29 05.3	589
(4899)	1992 07 09.84068	18 26 32.44	+20 08 56.2	589
(4899)	1992 07 09.84827	18 26 32.09	+20 08 54.0	589
(4899)	1992 07 09.85174	18 26 31.97	+20 08 52.9	589
(4899)	1992 07 09.87188	18 26 31.04	+20 08 45.6	589

(4899)	1992 07 09.88076	18 26 30.63	+20 08 42.6		589
(4899)	1992 07 09.88702	18 26 30.35	+20 08 40.5		589
(4899)	1992 07 10.82797	18 25 50.10	+20 03 04.9		589
(4899)	1992 07 10.83785	18 25 49.66	+20 03 00.8		589
(4899)	1992 07 11.88672	18 25 05.50	+19 56 15.0		589
(4899)	1992 07 11.89144	18 25 05.28	+19 56 12.8		589
(4899)	1992 07 11.94089	18 25 03.09	+19 55 53.1		589
(4899)	1992 07 11.95056	18 25 02.69	+19 55 49.2		589
(5256)	1992 06 20.96457	19 05 15.67	+01 45 38.7		589
(5256)	1992 07 22.84410	18 39 55.85	+03 36 00.0		589
(5256)	1992 07 22.85111	18 39 55.54	+03 35 59.3		589
(5256)	1992 07 22.85993	18 39 55.18	+03 35 58.5		589
(5256)	1992 07 22.86778	18 39 54.89	+03 35 57.7		589
(5256)	1992 07 23.87728	18 39 16.04	+03 33 59.1		589
(5256)	1992 07 23.88457	18 39 15.75	+03 33 58.2		589
(5256)	1992 07 23.88866	18 39 15.59	+03 33 57.7		589
(5256)	1992 07 24.88957	18 38 38.50	+03 31 42.5		589
(5256)	1992 07 24.90354	18 38 37.96	+03 31 40.5		589
(5256)	1992 07 24.90901	18 38 37.75	+03 31 39.8		589
(5260)	1992 06 21.87889	15 53 48.39	-00 35 22.4		589
(5260)	1992 06 21.88458	15 53 48.13	-00 35 22.6		589
(5260)	1992 06 21.89062	15 53 47.95	-00 35 22.8		589
(5260)	1992 06 21.89708	15 53 47.69	-00 35 23.4		589
(5261)	1992 07 24.92455	20 32 23.57	+34 02 02.9		589
(5261)	1992 07 24.92923	20 32 23.17	+34 02 09.2		589
(5261)	1992 07 24.94194	20 32 22.08	+34 02 22.6		589
(5261)	1992 07 24.94969	20 32 21.48	+34 02 29.8		589

595 Farra d’Isonzo
L. Bittesini, Via dei Conventi 10, I-34070 Farra D’Isonzo (GO), Italy
Observers G. Lombardi, F. Piani
Measurers G. Lombardi, F. Piani
0.4-m f/4.5 reflector
PPM

(3906)	1992 07 03.90764	16 55 21.49	+12 07 40.5		595
(3906)	1992 07 03.92569	16 55 20.80	+12 07 31.0		595

596 Colleverde di Guidonia
V. S. Casulli, Via M. Rosa 1, I-00010 Colleverde di Guidonia (RM), Italy
0.31-m f/2.8 Baker-Schmidt + CCD
GSC

1955 QN	1992 07 28.87903	20 25 40.50	-08 23 37.9		596
1955 QN	1992 07 28.89271	20 25 39.58	-08 23 38.3		596
1955 QN	1992 07 28.90290	20 25 38.90	-08 23 39.2		596
1955 QN	1992 07 29.87136	20 24 39.14	-08 24 43.4		596
1955 QN	1992 07 29.88972	20 24 37.96	-08 24 46.0		596
1955 QN	1992 07 29.89805	20 24 37.35	-08 24 47.4		596
1989 SL	1992 07 25.89365	20 40 28.32	-06 28 15.2		596
1989 SL	1992 07 25.90761	20 40 27.54	-06 28 15.7		596
1989 SL	1992 07 25.91917	20 40 26.89	-06 28 16.0		596
1989 SL	1992 07 25.92578	20 40 26.62	-06 28 16.0		596
1990 BQ1	1992 07 30.91268	21 44 55.04	+00 42 34.4		596
1990 BQ1	1992 07 30.92077	21 44 54.37	+00 42 39.7		596
1990 BQ1	1992 07 30.92868	21 44 53.81	+00 42 45.5		596
1990 BQ1	1992 07 30.93554	21 44 53.04	+00 42 50.9		596
1990 BQ1	1992 07 31.90757	21 43 35.11	+00 55 28.2		596
1990 BQ1	1992 07 31.91907	21 43 34.26	+00 55 36.9		596
1990 BQ1	1992 07 31.93032	21 43 33.24	+00 55 45.0		596
1990 BQ1	1992 07 31.93976	21 43 32.53	+00 55 51.5		596

3129 T-2	1992 07 19.84228	20 06 19.40	+01 54 56.9		596
3129 T-2	1992 07 19.86569	20 06 18.40	+01 54 42.9		596
3129 T-2	1992 07 19.88288	20 06 17.60	+01 54 31.5		596
3129 T-2	1992 07 19.89869	20 06 16.85	+01 54 20.6		596
3129 T-2	1992 07 20.85276	20 05 36.25	+01 44 15.8		596
3129 T-2	1992 07 20.86951	20 05 35.53	+01 44 05.4		596
3129 T-2	1992 07 20.89160	20 05 34.54	+01 43 50.4		596
(5118)	1992 07 30.84577	20 23 45.67	+00 50 05.2		596
(5118)	1992 07 30.86646	20 23 44.55	+00 50 07.8		596
(5118)	1992 07 30.88578	20 23 43.47	+00 50 09.7		596
(5118)	1992 07 31.85436	20 22 52.58	+00 51 56.6		596
(5118)	1992 07 31.86842	20 22 51.83	+00 51 57.3		596
(5118)	1992 07 31.88523	20 22 50.89	+00 52 00.0		596
(5252)	1992 06 27.88295	18 38 27.79	-10 45 50.6		596
(5252)	1992 06 27.89538	18 38 27.12	-10 45 53.8		596
(5252)	1992 06 27.90639	18 38 26.51	-10 45 56.9		596
(5252)	1992 06 27.91650	18 38 25.96	-10 46 00.0		596

597 Springe
N. Ehring, Detmoldstrasse 8, W-3000 Hannover 1, Federal Republic of Germany

(2)	1992 07 07.92681	17 38 56.63	+23 44 04.6		597
(2)	1992 07 07.93580	17 38 56.22	+23 44 01.5		597
(246)	1992 07 07.94354	18 04 39.20	+00 22 03.3		597
(246)	1992 07 07.95546	18 04 38.67	+00 21 59.5		597
(480)	1992 07 08.98648	21 45 37.59	+17 40 57.1		597
(480)	1992 07 08.99060	21 45 37.49	+17 40 59.1		597
(483)	1992 05 25.94891	16 29 56.49	+03 28 08.4		597
(483)	1992 05 25.95865	16 29 56.14	+03 28 10.5		597
(502)	1992 05 25.96546	16 00 31.28	+21 24 43.4		597
(502)	1992 05 25.97870	16 00 30.47	+21 24 39.4		597
(582)	1992 07 08.95698	20 02 56.35	+07 31 23.6		597
(582)	1992 07 08.97103	20 02 55.62	+07 31 19.3		597
(631)	1992 07 08.92541	20 43 25.73	+09 34 00.5		597
(631)	1992 07 08.93501	20 43 25.39	+09 34 01.5		597
(788)	1992 07 07.96152	19 28 50.54	-01 39 11.5		597
(788)	1992 07 07.96898	19 28 50.20	-01 39 12.4		597

657 Victoria, Climenhaga Observatory
J. B. Tatum, Dept. of Physics, University of Victoria, P.O. Box 1700, Victoria, BC V8W 2Y2, Canada
Observers J. B. Tatum, D. D. Balam
0.25-m Schmidt, 0.5-m reflector + CCD

1992 LR	1992 07 03.32071	16 22 02.45	-07 10 30.8		657
1992 LR	1992 07 03.32348	16 22 02.86	-07 10 26.9		657
1992 LR	1992 07 03.32588	16 22 03.24	-07 10 23.9		657
1992 LR	1992 07 03.34142	16 22 05.67	-07 10 02.4		657
1992 LR	1992 07 03.34341	16 22 05.96	-07 09 59.7		657
1992 LR	1992 07 03.34554	16 22 06.31	-07 09 56.9		657
1992 LR	1992 07 04.33439	16 25 02.27	-06 47 33.2		657
1992 LR	1992 07 04.33581	16 25 02.50	-06 47 31.4		657
1992 LR	1992 07 04.33731	16 25 02.74	-06 47 29.1		657
(9)	1992 06 05.29502	16 09 31.23	-20 53 59.3		657
(9)	1992 06 05.34288	16 09 28.25	-20 53 57.9		657
(34)	1992 06 05.33524	17 06 34.81	-14 33 57.5		657
(34)	1992 06 05.40399	17 06 30.89	-14 33 49.8		657
(60)	1992 05 24.27986	14 51 57.96	-12 39 09.4		657
(60)	1992 05 24.33663	14 51 54.98	-12 38 56.6		657
(136)	1992 05 22.33931	16 23 37.15	-06 44 40.8		657
(136)	1992 05 22.35389	16 23 36.29	-06 44 35.5		657

(814)	1992 05 22.33931	16 24 01.91	-08 41 16.6			657
(814)	1992 05 22.35389	16 24 01.13	-08 41 19.1			657
(1097)	1992 05 24.27986	14 48 20.20	-13 25 05.7			657
(1097)	1992 05 24.33663	14 48 17.07	-13 24 54.1			657
(1445)	1991 10 17.42431	03 20 06.67	+15 40 34.8			657
(1445)	1991 10 17.48507	03 20 04.46	+15 40 25.1			657
(5256)	1992 07 03.35642	18 55 20.39	+03 08 46.5			657
(5256)	1992 07 03.35881	18 55 20.27	+03 08 47.2			657
(5256)	1992 07 03.36140	18 55 20.14	+03 08 48.0			657

675 Palomar
E. Helin, MS 183-501, Jet Propulsion Laboratory, Pasadena, CA 91109, U.S.A. (2)
C. Shoemaker, P.O. Box 984, Flagstaff, AZ 86002, U.S.A. (3)
C. J. van Houten, Sterrewacht Leiden, Postbus 9513, NL-2300 RA Leiden, The Netherlands (4)
E. Bowell, Lowell Observatory, 1400 West Mars Hill Road, Flagstaff, AZ 86001, U.S.A. (6)
J. Mueller, Palomar Observatory, Palomar Mountain, CA 92060, U.S.A. (7)
9 = 3 + 6
Observers J. Alu (2, S), C. Brewer (7, L), T. Gehrels (4, L), E. Helin (2, S), H. E. Holt (3, S), C. T. Kowal (6, L), K. A. Lawler (3, S), K. Lawrence (2, S), L. Lee (2, S), G. J. Leonard (3, S), D. H. Levy (3, S), J. D. Mendenhall (7, L), D. Moraru (2, S), J. Mueller (7, L), C. S. Shoemaker (3, S), E. M. Shoemaker (3, S), J. Stiffler (3, S)
Measurers S. J. Bus (9), B. M. Cudnik (9), M. A. Dahm (9), K. Lawrence (2), L. Lee (2), G. J. Leonard (9), D. H. Levy (7), D. Moraru (2), J. Mueller (7), C. M. Olmstead (6), C. S. Shoemaker (3), B. A. Skiff (9), C. J. van Houten (4), I. van Houten-Groeneveld (4), A. Wisse (4)
1.2-m (L) and 0.46-m (S) Schmidt telescopes

1931 FC		1980 10 14.40729	01 58 47.39	+17 32 33.8	17.2 V	6	675
1949 WU	*	1949 11 19.25833	03 07 12.24	+09 49 27.8	17.5	6	675
1949 WU		1949 11 19.28646	03 07 10.52	+09 49 33.3		6	675
1949 WU		1949 11 21.24375	03 05 19.33	+09 53 38.5	17.0	6	675
1949 WU		1949 11 21.26979	03 05 17.78	+09 53 41.3		6	675
1949 WV	*	1949 11 19.25833	03 07 16.71	+15 17 06.1	18.0	6	675
1949 WV		1949 11 19.28646	03 07 15.28	+15 16 57.4		6	675
1949 WV		1949 11 21.24375	03 05 35.99	+15 07 39.5	17.8	6	675
1949 WV		1949 11 21.26979	03 05 34.62	+15 07 31.8		6	675
1949 WW	*	1949 11 19.25833	03 07 32.56	+10 36 02.1	17.5	6	675
1949 WW		1949 11 19.28646	03 07 30.84	+10 35 59.6		6	675
1949 WW		1949 11 21.24375	03 05 34.91	+10 32 07.5	17.0	6	675
1949 WW		1949 11 21.26979	03 05 33.39	+10 32 04.2		6	675
1949 WX	*	1949 11 19.25833	03 08 22.62	+11 33 30.7	18.0	6	675
1949 WX		1949 11 19.28646	03 08 21.10	+11 33 26.3		6	675
1949 WX		1949 11 21.24375	03 06 32.26	+11 28 37.3	18.0	6	675
1949 WX		1949 11 21.26979	03 06 30.81	+11 28 35.2		6	675
1949 WY	*	1949 11 19.25833	03 10 33.61	+13 44 18.5	18.2	6	675
1949 WY		1949 11 19.28646	03 10 31.93	+13 44 16.2		6	675
1949 WZ	*	1949 11 19.25833	03 11 03.11	+14 06 02.6	17.8	6	675
1949 WZ		1949 11 19.28646	03 11 01.45	+14 06 01.7		6	675
1949 WA1	*	1949 11 19.25833	03 11 34.07	+14 43 12.7	17.2	6	675
1949 WA1		1949 11 19.28646	03 11 32.11	+14 43 12.4		6	675
1949 WB1	*	1949 11 19.25833	03 12 57.17	+12 26 42.6	17.5	6	675
1949 WB1		1949 11 19.28646	03 12 55.46	+12 26 34.6		6	675
1949 WC1	*	1949 11 19.25833	03 14 24.73	+13 06 09.6	17.8	6	675
1949 WC1		1949 11 19.28646	03 14 23.21	+13 06 03.4		6	675
1949 WD1	*	1949 11 19.25833	03 14 41.19	+13 21 30.9	17.8	6	675
1949 WD1		1949 11 19.28646	03 14 39.66	+13 21 25.9		6	675

1949	WE1	*	1949	11	19.25833	03	15	29.86	+11	29	45.6	17.0	6 675
1949	WE1		1949	11	19.28646	03	15	28.13	+11	29	49.9		6 675
1949	WF1	*	1949	11	21.24375	03	00	26.02	+10	33	12.6	16.8	6 675
1949	WF1		1949	11	21.26979	03	00	24.30	+10	33	22.3		6 675
1949	WG1	*	1949	11	21.24375	03	00	32.35	+10	13	48.3	18.2	6 675
1949	WG1		1949	11	21.26979	03	00	30.88	+10	13	43.6		6 675
1949	WH1	*	1949	11	21.24375	03	03	13.60	+13	34	32.4	17.5	6 675
1949	WH1		1949	11	21.26979	03	03	12.08	+13	34	27.6		6 675
1949	WJ1	*	1949	11	21.24375	03	04	21.44	+12	45	30.4	18.2	6 675
1949	WJ1		1949	11	21.26979	03	04	20.56	+12	45	20.3		6 675
1949	WK1	*	1949	11	21.24375	03	04	36.63	+14	04	23.2	18.0	6 675
1949	WK1		1949	11	21.26979	03	04	34.36	+14	04	28.7		6 675
1949	WL1	*	1949	11	21.24375	03	04	58.24	+15	25	47.2	18.2	6 675
1949	WL1		1949	11	21.26979	03	04	56.86	+15	25	34.2		6 675
1949	WM1	*	1949	11	21.25417	02	58	45.84	+12	12	39.7	16.5	6 675
1949	WM1		1949	11	21.26979	02	58	45.10	+12	12	41.0		6 675
1949	WM1		1949	11	21.28542	02	58	44.36	+12	12	41.4		6 675
1949	WN1	*	1949	11	21.25417	02	59	12.11	+12	45	15.3	18.0	6 675
1949	WN1		1949	11	21.26979	02	59	11.53	+12	45	09.2		6 675
1949	WN1		1949	11	21.28542	02	59	10.97	+12	45	03.3		6 675
1949	WO1	*	1949	11	21.25417	02	59	57.98	+12	28	01.9	17.2	6 675
1949	WO1		1949	11	21.26979	02	59	57.36	+12	27	58.8		6 675
1949	WO1		1949	11	21.28542	02	59	56.66	+12	27	56.0		6 675
1953	SN	*	1953	09	17.30521	22	51	16.82	-10	08	01.0	17.5	6 675
1953	SN		1953	09	17.32847	22	51	15.82	-10	08	12.4		6 675
1953	SO	*	1953	09	17.30521	22	54	16.58	-08	40	20.0	16.0	6 675
1953	SO		1953	09	17.32847	22	54	15.20	-08	40	18.6		6 675
1953	SP	*	1953	09	17.30521	22	54	43.84	-08	26	00.6	18.0	6 675
1953	SP		1953	09	17.32847	22	54	42.85	-08	26	07.8		6 675
1953	TS3	*	1953	10	10.37535	02	14	46.93	+00	43	09.8	17.5	6 675
1953	TS3		1953	10	10.39931	02	14	45.64	+00	43	00.6		6 675
1953	XU1	*	1953	12	07.42396	06	27	30.96	+28	47	21.1	16.5	6 675
1953	XU1		1953	12	07.44792	06	27	29.67	+28	47	32.4		6 675
1954	GP	*	1954	04	02.40626	15	04	23.55	-12	07	19.3		6 675
1954	GP		1954	04	02.43751	15	04	22.35	-12	07	09.6		6 675
1954	OM	*	1954	07	29.38125	22	22	15.96	-23	42	31.6	16.8	6 675
1954	OM		1954	07	29.40556	22	22	15.03	-23	42	39.2		6 675
1964	BF		1954	05	23.24826	14	33	29.03	-06	32	48.8		6 675
1964	BF		1954	05	23.27188	14	33	27.83	-06	32	46.3		6 675
1969	TA		1991	09	12.48542	01	10	30.22	+17	40	01.0	16.8	9 675
1969	TA		1991	09	12.50898	01	10	29.47	+17	39	55.7		9 675
1969	TA		1991	09	16.47222	01	08	20.15	+17	24	06.6		9 675
1969	TA		1991	09	16.50608	01	08	18.86	+17	23	57.0		9 675
1971	QN		1981	10	26.31979	01	47	34.68	+15	57	53.5	15.2 V	6 675
1974	SX1		1991	09	15.25035	21	32	39.06	-22	07	38.0	17.2	9 675
1974	SX1		1991	09	15.29619	21	32	37.38	-22	07	24.6		9 675
1975	TR2		1953	09	17.30521	22	59	37.44	-10	13	31.4	17.2	6 675
1975	TR2		1953	09	17.32847	22	59	36.42	-10	13	37.8		6 675
1975	TS3		1955	03	22.19653	08	33	35.85	+30	51	36.2		6 675
1977	SG3		1953	10	10.39931	01	55	39.05	-00	28	04.2		6 675
1978	SR4		1978	10	27.28976	01	07	17.45	+07	28	02.7		6 675
1978	SR4		1978	10	27.32101	01	07	16.09	+07	27	53.0		6 675
1978	SR4		1978	10	28.27848	01	06	33.52	+07	22	28.9		6 675
1978	SR4		1978	10	28.30973	01	06	32.24	+07	22	20.2		6 675
1978	SR4		1978	10	29.29167	01	05	49.84	+07	16	57.4		6 675
1978	SR4		1978	10	29.32292	01	05	48.59	+07	16	47.9		6 675
1978	VL5		1991	09	12.48542	01	03	35.99	+16	13	40.5	16.8	9 675
1978	VL5		1991	09	12.50898	01	03	35.20	+16	13	36.8		9 675
1978	VL5		1991	09	16.47222	01	00	59.80	+16	04	38.4		9 675

1978	VL5		1991	09	16.50608	01	00	58.23	+16	04	32.4		9	675
1979	KG		1992	06	28.30694	16	44	45.40	-07	16	54.9	17.0	9	675
1979	KG		1992	06	28.33732	16	44	43.98	-07	17	03.3		9	675
1979	KG		1992	06	29.26510	16	44	01.99	-07	21	12.3		9	675
1979	KG		1992	06	29.29497	16	44	00.58	-07	21	21.3		9	675
1979	KG		1992	06	30.27135	16	43	17.16	-07	25	50.0		9	675
1979	KG		1992	06	30.30122	16	43	15.80	-07	25	59.7		9	675
1979	MY2		1980	10	14.46128	02	23	22.58	+17	26	22.0	18.8 V	6	675
1979	MH7		1992	07	05.32691	19	24	47.20	-12	57	58.2	17.0	2	675
1979	MH7		1992	07	05.35660	19	24	45.65	-12	58	10.1		2	675
1979	MO7		1980	10	14.46128	02	20	55.04	+17	23	59.7	18.0 V	6	675
1979	SC		1979	09	20.29965	00	09	38.55	-04	06	34.1	16.2 V	6	675
1979	SC		1979	09	21.29827	00	08	37.40	-04	10	58.4		6	675
1980	FT3		1981	08	30.29340	22	11	12.09	-07	15	43.2	16.2 V	6	675
1980	FT3		1981	08	31.28924	22	10	21.85	-07	21	49.1		6	675
1980	LE1		1992	05	28.18264	10	11	48.66	-01	40	18.3	16.5	2	675
1980	LE1		1992	05	28.20434	10	11	50.04	-01	40	17.3		2	675
1980	TW5		1954	11	23.38472	06	25	05.90	+23	54	16.1		6	675
1980	TW5		1954	11	23.40868	06	25	05.13	+23	54	14.4		6	675
1980	TP15	*	1980	10	14.46128	02	24	04.75	+22	12	08.6	15.8 V	6	675
1980	UF1		1980	10	14.40729	02	07	48.72	+19	37	32.5	17.5 V	6	675
1980	UG1		1980	10	14.40729	02	03	42.37	+21	11	57.6	17.2 V	6	675
1980	UK1		1980	10	14.40729	02	06	32.63	+19	23	36.6	16.5 V	6	675
1980	UL1		1980	10	14.40729	02	06	44.38	+19	35	47.5	16.0 V	6	675
1980	UM1		1980	10	14.40729	02	10	13.18	+21	23	25.1	16.8 V	6	675
1980	UM1		1980	10	14.46128	02	10	10.18	+21	23	10.4		6	675
1980	UN1		1980	10	14.40729	02	11	44.71	+17	52	26.4	17.0 V	6	675
1980	UN1		1980	10	14.46128	02	11	41.78	+17	52	13.5		6	675
1980	UO1		1980	10	14.40729	02	09	17.49	+18	36	59.3	17.2 V	6	675
1980	UO1		1980	10	14.46128	02	09	15.15	+18	36	30.5		6	675
1980	UQ1		1980	10	14.46128	02	13	15.68	+21	02	57.0	17.2 V	6	675
1980	UR1		1980	10	14.46128	02	13	26.60	+20	13	54.7	16.8 V	6	675
1980	US1		1980	10	14.46128	02	23	13.23	+18	05	31.0	16.8 V	6	675
1980	UU1		1980	10	14.46128	02	24	54.83	+17	47	59.3	16.8 V	6	675
1980	UW1		1980	10	14.46128	02	25	00.49	+17	44	32.0	17.0 V	6	675
1980	VW2		1980	10	14.46128	02	29	41.27	+18	35	38.6	17.8 V	6	675
1980	VX2		1980	10	14.46128	02	26	22.82	+23	10	56.6	17.0 V	6	675
1980	VZ2		1980	10	14.46128	02	31	36.55	+21	09	42.2	16.5 V	6	675
1981	DC2		1991	09	12.48542	00	51	58.65	+19	38	51.7	16.5	9	675
1981	DC2		1991	09	12.50898	00	51	57.82	+19	38	44.3	17.5	9	675
1981	DC2		1991	09	16.47222	00	49	45.88	+19	13	58.5		9	675
1981	DC2		1991	09	16.50608	00	49	44.71	+19	13	45.5		9	675
1981	QR1		1981	08	30.34965	22	24	16.50	-07	09	29.5	15.8 V	6	675
1981	QR1		1981	08	31.34549	22	23	31.50	-07	15	04.6		6	675
1981	QH2		1954	05	23.24826	14	30	57.55	-07	26	25.9		6	675
1981	QH2		1954	05	23.27188	14	30	56.34	-07	26	19.4		6	675
1981	QV3	*	1981	08	30.29340	21	55	50.54	-06	28	05.5	17.5 V	6	675
1981	QV3		1981	08	31.28924	21	55	12.58	-06	36	29.7		6	675
1981	QW3	*	1981	08	30.29340	21	56	18.07	-08	39	01.3	17.0 V	6	675
1981	QW3		1981	08	31.28924	21	55	33.46	-08	44	34.7		6	675
1981	QX3	*	1981	08	30.29340	21	57	33.32	-08	43	19.5	17.0 V	6	675
1981	QX3		1981	08	31.28924	21	56	43.96	-08	45	39.2		6	675
1981	QY3	*	1981	08	30.29340	21	57	56.38	-10	20	26.2	16.5 V	6	675
1981	QY3		1981	08	31.28924	21	57	08.51	-10	25	30.9		6	675
1981	QZ3	*	1981	08	30.29340	21	59	34.66	-08	33	23.9	17.5 V	6	675
1981	QZ3		1981	08	31.28924	21	58	50.07	-08	41	57.2		6	675
1981	QA4	*	1981	08	30.29340	22	00	14.68	-07	07	48.6	16.8 V	6	675
1981	QA4		1981	08	31.28924	21	59	30.00	-07	17	52.3		6	675
1981	QB4	*	1981	08	30.29340	22	00	52.36	-10	05	46.8	17.2 V	6	675

1981 QB4		1981	08	31.28924	22	00	06.19	-10	10	23.6	6	675
1981 QC4	*	1981	08	30.29340	22	02	17.59	-09	12	04.2	18.5 V	6 675
1981 QC4		1981	08	31.28924	22	01	32.40	-09	18	37.8	6	675
1981 QD4	*	1981	08	30.29340	22	03	31.06	-10	27	34.9	16.2 V	6 675
1981 QD4		1981	08	31.28924	22	02	30.11	-10	27	15.5	6	675
1981 QE4	*	1981	08	30.29340	22	06	46.46	-08	23	38.8	16.5 V	6 675
1981 QE4		1981	08	31.28924	22	05	52.26	-08	27	09.2	6	675
1981 QF4	*	1981	08	30.29340	22	07	59.16	-09	06	57.2	17.5 V	6 675
1981 QF4		1981	08	31.28924	22	07	02.24	-09	06	29.6	6	675
1981 QG4	*	1981	08	30.29340	22	09	17.39	-06	35	27.0	17.8 V	6 675
1981 QG4		1981	08	31.28924	22	08	32.35	-06	41	45.5	6	675
1981 QH4	*	1981	08	30.29340	22	09	38.33	-04	52	15.2	16.5 V	6 675
1981 QH4		1981	08	31.28924	22	08	47.92	-04	55	10.1	6	675
1981 QJ4	*	1981	08	30.29340	22	11	20.20	-09	00	26.5	16.8 V	6 675
1981 QJ4		1981	08	31.28924	22	10	33.67	-09	03	22.6	6	675
1981 QK4	*	1981	08	30.29340	22	14	33.23	-09	05	26.9	16.8 V	6 675
1981 QK4		1981	08	31.28924	22	13	48.20	-09	10	09.6	6	675
1981 QL4	*	1981	08	30.34965	22	20	05.78	-02	20	30.5	16.5 V	6 675
1981 QL4		1981	08	31.34549	22	19	04.38	-02	22	50.1	6	675
1981 QM4	*	1981	08	30.34965	22	20	08.05	-03	24	40.1	17.2 V	6 675
1981 QM4		1981	08	31.34549	22	19	02.17	-03	19	52.0	6	675
1981 QN4	*	1981	08	30.34965	22	20	54.78	-07	13	47.3	17.0 V	6 675
1981 QN4		1981	08	31.34549	22	19	51.59	-07	15	47.9	6	675
1981 QO4	*	1981	08	30.34965	22	22	51.17	-06	58	15.4	16.8 V	6 675
1981 QO4		1981	08	31.34549	22	21	23.65	-06	52	33.7	6	675
1981 QP4	*	1981	08	30.34965	22	23	16.59	-03	54	39.3	16.2 V	6 675
1981 QP4		1981	08	31.34549	22	22	10.68	-03	54	54.1	6	675
1981 QQ4	*	1981	08	30.34965	22	28	30.26	-02	46	56.7	17.5 V	6 675
1981 QQ4		1981	08	31.34549	22	27	31.19	-02	46	18.2	6	675
1981 QR4	*	1981	08	30.34965	22	29	37.83	-03	31	34.4	17.5 V	6 675
1981 QR4		1981	08	31.34549	22	28	38.84	-03	37	12.3	6	675
1981 QS4	*	1981	08	30.34965	22	31	28.34	-01	40	58.4	17.8 V	6 675
1981 QS4		1981	08	31.34549	22	30	39.31	-01	46	40.2	6	675
1981 QT4	*	1981	08	30.34965	22	32	01.08	-04	39	14.2	17.5 V	6 675
1981 QT4		1981	08	31.34549	22	31	05.86	-04	41	23.9	6	675
1981 QU4	*	1981	08	30.34965	22	32	53.61	-03	09	39.1	17.5 V	6 675
1981 QU4		1981	08	31.34549	22	31	54.54	-03	15	43.7	6	675
1981 QV4	*	1981	08	30.34965	22	33	15.12	-07	14	51.2	17.0 V	6 675
1981 QV4		1981	08	31.34549	22	32	24.60	-07	16	21.0	6	675
1981 QW4	*	1981	08	30.34965	22	33	18.77	-01	24	50.4	17.2 V	6 675
1981 QW4		1981	08	31.34549	22	32	45.79	-01	34	17.7	6	675
1981 QX4	*	1981	08	30.34965	22	33	59.43	-02	46	59.8	18.0 V	6 675
1981 QX4		1981	08	31.34549	22	33	11.11	-02	51	41.5	6	675
1981 QY4	*	1981	08	30.34965	22	35	24.46	-06	51	14.3	16.2 V	6 675
1981 QY4		1981	08	31.34549	22	34	31.22	-06	57	05.8	6	675
1981 QZ4	*	1981	08	30.34965	22	38	17.06	-02	23	06.7	17.2 V	6 675
1981 QZ4		1981	08	31.34549	22	37	15.38	-02	27	45.0	6	675
1981 QA5	*	1981	08	30.34965	22	40	11.62	-01	48	34.7	17.0 V	6 675
1981 QA5		1981	08	31.34549	22	39	32.73	-01	59	39.5	6	675
1981 US		1981	10	24.24063	01	39	05.36	+13	30	40.9	15.2 V	6 675
1981 US		1981	10	25.32570	01	37	43.31	+13	34	33.6	6	675
1981 US		1981	10	26.31979	01	36	28.98	+13	38	03.4	6	675
1981 UT		1981	10	24.24063	01	29	19.02	+13	03	38.9	15.8 V	6 675
1981 UT		1981	10	25.32570	01	28	13.16	+12	59	10.4	6	675
1981 UT		1981	10	26.31979	01	27	13.73	+12	55	04.6	6	675
1981 UU		1981	10	24.24063	01	45	33.56	+13	53	35.1	16.2 V	6 675
1981 UU		1981	10	25.32570	01	44	44.71	+13	37	49.2	6	675
1981 UU		1981	10	26.31979	01	44	00.63	+13	23	23.4	6	675
1981 UG27	*	1981	10	24.24063	01	23	11.26	+13	16	31.7	16.2 V	6 675

1981 UG27		1981	10	25.32570	01	22	11.50	+13	15	42.4		6 675
1981 UH27	*	1981	10	24.24063	01	23	43.08	+14	13	00.2	17.5 V	6 675
1981 UH27		1981	10	25.32570	01	22	51.10	+14	01	47.1		6 675
1981 UH27		1981	10	26.31979	01	22	04.33	+13	51	33.0		6 675
1981 UJ27	*	1981	10	24.24063	01	23	51.21	+14	32	28.8	16.8 V	6 675
1981 UJ27		1981	10	25.32570	01	22	43.90	+14	28	06.1		6 675
1981 UK27	*	1981	10	24.24063	01	25	08.86	+16	27	23.1	18.2 V	6 675
1981 UK27		1981	10	25.32570	01	24	09.90	+16	18	21.4		6 675
1981 UK27		1981	10	26.31979	01	23	16.62	+16	10	04.4		6 675
1981 UL27	*	1981	10	24.24063	01	26	55.56	+13	36	22.0	16.8 V	6 675
1981 UL27		1981	10	25.32570	01	25	51.14	+13	31	49.8		6 675
1981 UL27		1981	10	26.31979	01	24	52.80	+13	27	39.4		6 675
1981 UM27	*	1981	10	24.24063	01	27	07.25	+17	52	52.4	17.8 V	6 675
1981 UM27		1981	10	25.32570	01	26	06.06	+17	47	55.5		6 675
1981 UM27		1981	10	26.31979	01	25	10.86	+17	43	18.7		6 675
1981 UN27	*	1981	10	24.24063	01	27	12.45	+18	13	28.4	17.5 V	6 675
1981 UN27		1981	10	25.32570	01	26	15.83	+18	05	33.4		6 675
1981 UN27		1981	10	26.31979	01	25	24.51	+17	58	12.1		6 675
1981 UO27	*	1981	10	24.24063	01	27	54.60	+12	37	33.9	17.5 V	6 675
1981 UO27		1981	10	25.32570	01	26	58.20	+12	32	48.0		6 675
1981 UO27		1981	10	26.31979	01	26	07.16	+12	28	27.7		6 675
1981 UP27	*	1981	10	24.24063	01	28	04.44	+18	17	36.5	17.5 V	6 675
1981 UP27		1981	10	25.32570	01	26	56.03	+18	15	58.1		6 675
1981 UP27		1981	10	26.31979	01	25	54.28	+18	14	21.0		6 675
1981 UQ27	*	1981	10	24.24063	01	28	11.79	+15	22	58.7	17.0 V	6 675
1981 UQ27		1981	10	25.32570	01	27	19.99	+15	18	48.7		6 675
1981 UQ27		1981	10	26.31979	01	26	33.14	+15	14	58.3		6 675
1981 UR27	*	1981	10	24.24063	01	28	25.27	+14	45	11.8	16.2 V	6 675
1981 UR27		1981	10	25.32570	01	27	21.02	+14	43	02.8		6 675
1981 UR27		1981	10	26.31979	01	26	22.72	+14	41	03.8		6 675
1981 US27	*	1981	10	24.24063	01	28	26.52	+16	38	49.0	17.5 V	6 675
1981 US27		1981	10	25.32570	01	27	15.63	+16	37	53.4		6 675
1981 US27		1981	10	26.31979	01	26	12.01	+16	36	57.8		6 675
1981 UT27	*	1981	10	24.24063	01	29	18.78	+15	56	03.4	18.2 V	6 675
1981 UT27		1981	10	25.32570	01	28	19.73	+15	54	56.5		6 675
1981 UT27		1981	10	26.31979	01	27	26.07	+15	53	52.1		6 675
1981 UU27	*	1981	10	24.24063	01	29	19.07	+13	07	10.0	17.5 V	6 675
1981 UU27		1981	10	25.32570	01	28	23.57	+13	03	08.6		6 675
1981 UU27		1981	10	26.31979	01	27	33.73	+12	59	28.0		6 675
1981 UV27	*	1981	10	24.24063	01	29	20.01	+14	43	36.2	15.0 V	6 675
1981 UV27		1981	10	25.32570	01	28	14.60	+14	45	08.8		6 675
1981 UV27		1981	10	26.31979	01	27	15.89	+14	46	30.4		6 675
1981 UW27	*	1981	10	24.24063	01	30	01.59	+12	18	36.8	17.2 V	6 675
1981 UW27		1981	10	25.32570	01	29	07.60	+12	22	05.3		6 675
1981 UW27		1981	10	26.31979	01	28	19.37	+12	25	15.1		6 675
1981 UX27	*	1981	10	24.24063	01	30	17.17	+12	13	18.7	16.2 V	6 675
1981 UX27		1981	10	25.32570	01	29	04.18	+12	10	31.8		6 675
1981 UX27		1981	10	26.31979	01	27	57.76	+12	08	00.0		6 675
1981 UY27	*	1981	10	24.24063	01	30	20.56	+15	47	14.7	16.5 V	6 675
1981 UY27		1981	10	25.32570	01	29	06.71	+15	44	27.4		6 675
1981 UY27		1981	10	26.31979	01	27	59.95	+15	41	51.6		6 675
1981 UZ27	*	1981	10	24.24063	01	30	52.22	+12	28	26.2	16.0 V	6 675
1981 UZ27		1981	10	25.32570	01	29	51.51	+12	19	34.3		6 675
1981 UZ27		1981	10	26.31979	01	28	56.55	+12	11	27.6		6 675
1981 UA28	*	1981	10	24.24063	01	30	56.31	+13	05	36.9	17.5 V	6 675
1981 UA28		1981	10	25.32570	01	29	56.81	+12	59	02.2		6 675
1981 UA28		1981	10	26.31979	01	29	02.97	+12	53	02.3		6 675
1981 UB28	*	1981	10	24.24063	01	31	02.56	+12	21	01.2	16.5 V	6 675
1981 UB28		1981	10	25.32570	01	30	04.26	+12	21	19.8		6 675

1981 UB28		1981	10	26.31979	01	29	11.87	+12	21	37.5	6	675
1981 UC28	*	1981	10	24.24063	01	31	11.00	+13	19	20.4	16.8 V	6 675
1981 UC28		1981	10	25.32570	01	30	02.42	+13	16	07.7	6	675
1981 UC28		1981	10	26.31979	01	29	00.29	+13	13	09.7	6	675
1981 UD28	*	1981	10	24.24063	01	31	15.55	+12	20	16.4	16.5 V	6 675
1981 UD28		1981	10	25.32570	01	30	14.19	+12	12	22.8	6	675
1981 UD28		1981	10	26.31979	01	29	18.76	+12	05	12.4	6	675
1981 UE28	*	1981	10	24.24063	01	31	25.87	+14	24	20.9	17.0 V	6 675
1981 UE28		1981	10	25.32570	01	30	29.07	+14	19	50.6	6	675
1981 UE28		1981	10	26.31979	01	29	37.72	+14	15	42.8	6	675
1981 UF28	*	1981	10	24.24063	01	31	26.04	+15	04	44.8	18.2 V	6 675
1981 UF28		1981	10	25.32570	01	30	15.66	+15	01	48.6	6	675
1981 UF28		1981	10	26.31979	01	29	12.11	+14	59	05.7	6	675
1981 UG28	*	1981	10	24.24063	01	31	28.01	+15	05	28.3	18.5 V	6 675
1981 UG28		1981	10	25.32570	01	30	21.38	+15	00	08.7	6	675
1981 UG28		1981	10	26.31979	01	29	20.85	+14	55	13.9	6	675
1981 UH28	*	1981	10	24.24063	01	31	54.69	+12	53	11.3	17.5 V	6 675
1981 UH28		1981	10	25.32570	01	30	58.06	+12	48	57.9	6	675
1981 UH28		1981	10	26.31979	01	30	06.78	+12	45	07.2	6	675
1981 UJ28	*	1981	10	24.24063	01	31	55.55	+12	39	25.2	18.2 V	6 675
1981 UJ28		1981	10	25.32570	01	30	52.01	+12	33	07.4	6	675
1981 UJ28		1981	10	26.31979	01	29	54.21	+12	27	21.6	6	675
1981 UK28	*	1981	10	24.24063	01	32	14.83	+14	51	00.2	16.8 V	6 675
1981 UK28		1981	10	25.32570	01	31	05.67	+14	49	56.5	6	675
1981 UK28		1981	10	26.31979	01	30	03.20	+14	48	56.2	6	675
1981 UL28	*	1981	10	24.24063	01	32	15.09	+18	11	38.0	16.8 V	6 675
1981 UL28		1981	10	25.32570	01	31	17.21	+18	08	52.0	6	675
1981 UL28		1981	10	26.31979	01	30	24.57	+18	06	14.8	6	675
1981 UM28	*	1981	10	24.24063	01	32	18.31	+12	15	31.3	15.5 V	6 675
1981 UM28		1981	10	25.32570	01	31	11.68	+12	12	48.1	6	675
1981 UM28		1981	10	26.31979	01	30	11.23	+12	10	20.2	6	675
1981 UN28	*	1981	10	24.24063	01	32	27.60	+16	41	33.0	17.8 V	6 675
1981 UN28		1981	10	25.32570	01	31	23.86	+16	32	11.2	6	675
1981 UN28		1981	10	26.31979	01	30	26.10	+16	23	32.4	6	675
1981 UO28	*	1981	10	24.24063	01	32	44.85	+13	51	33.0	17.5 V	6 675
1981 UO28		1981	10	25.32570	01	31	41.51	+13	43	01.4	6	675
1981 UO28		1981	10	26.31979	01	30	44.39	+13	35	13.0	6	675
1981 UP28	*	1981	10	24.24063	01	33	06.11	+16	08	43.2	17.5 V	6 675
1981 UP28		1981	10	25.32570	01	32	11.79	+15	59	00.2	6	675
1981 UP28		1981	10	26.31979	01	31	22.55	+15	50	03.0	6	675
1981 UQ28	*	1981	10	24.24063	01	33	27.72	+13	23	33.8	18.2 V	6 675
1981 UQ28		1981	10	25.32570	01	32	28.14	+13	19	01.4	6	675
1981 UQ28		1981	10	26.31979	01	31	34.54	+13	14	52.2	6	675
1981 UR28	*	1981	10	24.24063	01	33	33.04	+17	28	42.4	16.8 V	6 675
1981 UR28		1981	10	25.32570	01	32	34.83	+17	25	05.6	6	675
1981 UR28		1981	10	26.31979	01	31	42.13	+17	21	41.1	6	675
1981 US28	*	1981	10	24.24063	01	33	56.05	+16	56	07.1	17.2 V	6 675
1981 US28		1981	10	25.32570	01	33	04.14	+16	51	15.2	6	675
1981 US28		1981	10	26.31979	01	32	16.95	+16	46	44.4	6	675
1981 UT28	*	1981	10	24.24063	01	33	56.84	+16	01	05.5	17.0 V	6 675
1981 UT28		1981	10	25.32570	01	32	47.44	+15	58	38.5	6	675
1981 UT28		1981	10	26.31979	01	31	44.58	+15	56	19.8	6	675
1981 UU28	*	1981	10	24.24063	01	34	10.39	+14	39	29.9	17.5 V	6 675
1981 UU28		1981	10	25.32570	01	33	10.12	+14	38	55.7	6	675
1981 UU28		1981	10	26.31979	01	32	15.90	+14	38	22.3	6	675
1981 UV28	*	1981	10	24.24063	01	34	15.00	+12	32	48.1	18.0 V	6 675
1981 UV28		1981	10	25.32570	01	33	19.08	+12	27	42.8	6	675
1981 UV28		1981	10	26.31979	01	32	28.50	+12	23	02.3	6	675
1981 UW28	*	1981	10	24.24063	01	34	15.40	+16	50	25.2	18.0 V	6 675

1981 UW28		1981	10	25.32570	01	33	21.64	+16	43	00.2		6 675
1981 UW28		1981	10	26.31979	01	32	32.99	+16	36	09.1		6 675
1981 UX28	*	1981	10	24.24063	01	34	26.08	+18	06	48.5	17.0 V	6 675
1981 UX28		1981	10	25.32570	01	33	28.99	+17	56	58.9		6 675
1981 UX28		1981	10	26.31979	01	32	37.50	+17	47	51.1		6 675
1981 UY28	*	1981	10	24.24063	01	34	54.25	+15	51	18.4	17.8 V	6 675
1981 UY28		1981	10	25.32570	01	33	56.22	+15	42	46.4		6 675
1981 UY28		1981	10	26.31979	01	33	03.55	+15	34	50.8		6 675
1981 UZ28	*	1981	10	24.24063	01	34	56.14	+16	01	26.8	16.5 V	6 675
1981 UZ28		1981	10	25.32570	01	34	02.50	+15	57	49.3		6 675
1981 UZ28		1981	10	26.31979	01	33	13.77	+15	54	27.1		6 675
1981 UA29	*	1981	10	24.24063	01	37	13.96	+13	53	31.6	17.2 V	6 675
1981 UA29		1981	10	25.32570	01	36	18.90	+13	46	11.4		6 675
1981 UA29		1981	10	26.31979	01	35	28.99	+13	39	27.8		6 675
1981 UB29	*	1981	10	24.24063	01	37	30.20	+14	23	25.5	17.5 V	6 675
1981 UB29		1981	10	25.32570	01	36	35.03	+14	19	17.9		6 675
1981 UB29		1981	10	26.31979	01	35	44.88	+14	15	29.8		6 675
1981 UC29	*	1981	10	24.24063	01	37	37.27	+16	19	20.6	18.0 V	6 675
1981 UC29		1981	10	25.32570	01	36	41.70	+16	23	21.5		6 675
1981 UC29		1981	10	26.31979	01	35	51.56	+16	26	55.9		6 675
1981 UD29	*	1981	10	24.24063	01	37	39.22	+12	53	09.1	18.0 V	6 675
1981 UD29		1981	10	25.32570	01	36	13.27	+13	00	45.0		6 675
1981 UD29		1981	10	26.31979	01	34	55.07	+13	07	40.0		6 675
1981 UE29	*	1981	10	24.24063	01	38	55.59	+15	22	45.5	18.0 V	6 675
1981 UE29		1981	10	25.32570	01	37	45.51	+15	21	37.1		6 675
1981 UE29		1981	10	26.31979	01	36	42.03	+15	20	30.3		6 675
1981 UF29	*	1981	10	24.24063	01	39	03.39	+12	59	30.3	16.5 V	6 675
1981 UF29		1981	10	25.32570	01	37	54.65	+12	56	49.6		6 675
1981 UF29		1981	10	26.31979	01	36	52.26	+12	54	21.0		6 675
1981 UG29	*	1981	10	24.24063	01	40	05.15	+14	17	01.5	17.5 V	6 675
1981 UG29		1981	10	25.32570	01	38	57.84	+14	13	36.3		6 675
1981 UG29		1981	10	26.31979	01	37	56.79	+14	10	26.5		6 675
1981 UH29	*	1981	10	24.24063	01	41	09.51	+16	19	13.8	16.2 V	6 675
1981 UH29		1981	10	25.32570	01	40	19.21	+16	13	02.0		6 675
1981 UH29		1981	10	26.31979	01	39	33.51	+16	07	19.7		6 675
1981 UJ29	*	1981	10	24.24063	01	42	04.85	+13	05	15.7	16.5 V	6 675
1981 UJ29		1981	10	25.32570	01	41	05.71	+13	01	24.8		6 675
1981 UJ29		1981	10	26.31979	01	40	11.99	+12	57	52.7		6 675
1981 UK29	*	1981	10	24.24063	01	42	23.08	+15	37	19.9	17.0 V	6 675
1981 UK29		1981	10	25.32570	01	41	29.10	+15	25	16.6		6 675
1981 UK29		1981	10	26.31979	01	40	40.09	+15	14	12.2		6 675
1981 UL29	*	1981	10	24.24063	01	43	50.82	+13	07	44.3	17.0 V	6 675
1981 UL29		1981	10	25.32570	01	43	04.21	+12	53	30.4		6 675
1981 UL29		1981	10	26.31979	01	42	22.15	+12	40	29.2		6 675
1981 UM29	*	1981	10	24.24063	01	44	02.23	+13	48	06.7	15.5 V	6 675
1981 UM29		1981	10	25.32570	01	42	56.36	+13	47	34.5		6 675
1981 UM29		1981	10	26.31979	01	41	56.54	+13	47	03.6		6 675
1981 UN29	*	1981	10	24.24063	01	44	09.78	+14	41	08.0	17.0 V	6 675
1981 UN29		1981	10	25.32570	01	43	01.83	+14	43	46.5		6 675
1981 UN29		1981	10	26.31979	01	42	00.70	+14	46	06.7		6 675
1981 UO29	*	1981	10	24.24063	01	44	44.12	+16	10	19.6	16.0 V	6 675
1981 UO29		1981	10	25.32570	01	43	31.84	+16	10	52.5		6 675
1981 UO29		1981	10	26.31979	01	42	25.90	+16	11	19.6		6 675
1981 UP29	*	1981	10	24.24063	01	45	08.95	+14	57	02.5	16.8 V	6 675
1981 UP29		1981	10	25.32570	01	44	08.21	+14	48	09.0		6 675
1981 UP29		1981	10	26.31979	01	43	13.13	+14	39	59.4		6 675
1981 UQ29	*	1981	10	24.24063	01	45	11.65	+12	36	28.2	15.0 V	6 675
1981 UQ29		1981	10	25.32570	01	44	13.11	+12	30	12.7		6 675
1981 UQ29		1981	10	26.31979	01	43	19.90	+12	24	27.4		6 675

1981 UR29	*	1981	10	24.24063	01	45	44.76	+14	58	48.1	17.5 V	6 675
1981 UR29		1981	10	25.32570	01	44	50.67	+14	49	30.9		6 675
1981 UR29		1981	10	26.31979	01	44	01.88	+14	40	59.9		6 675
1981 US29	*	1981	10	24.24063	01	46	02.51	+14	57	20.2	17.8 V	6 675
1981 US29		1981	10	25.32570	01	45	01.28	+14	53	24.5		6 675
1981 US29		1981	10	26.31979	01	44	06.12	+14	49	47.6		6 675
1981 UT29	*	1981	10	24.24063	01	47	31.33	+14	36	13.4	17.5 V	6 675
1981 UT29		1981	10	25.32570	01	46	42.16	+14	28	48.6		6 675
1981 UT29		1981	10	26.31979	01	45	57.52	+14	22	02.0		6 675
1981 UU29	*	1981	10	24.24063	01	47	42.03	+12	46	10.5	17.8 V	6 675
1981 UU29		1981	10	25.32570	01	46	42.63	+12	39	23.6		6 675
1981 UU29		1981	10	26.31979	01	45	48.91	+12	33	11.0		6 675
1981 UV29	*	1981	10	25.32570	01	42	56.26	+12	27	09.5	17.0 V	6 675
1981 UV29		1981	10	26.31979	01	41	33.03	+13	29	57.1		6 675
1981 UW29	*	1981	10	25.32570	01	47	20.70	+12	39	47.2	17.2 V	6 675
1981 UW29		1981	10	26.31979	01	46	22.57	+12	38	54.2		6 675
1981 UX29	*	1981	10	25.32570	01	47	29.13	+12	37	27.9	17.5 V	6 675
1981 UX29		1981	10	26.31979	01	46	41.12	+12	32	49.7		6 675
1984 CM1		1955	11	16.28611	03	29	08.86	+04	26	12.3		6 675
1984 DQ		1981	08	30.34965	22	32	16.27	-07	07	40.3	17.5 V	6 675
1984 DQ		1981	08	31.34549	22	31	15.30	-07	09	34.7		6 675
1984 SH6		1949	11	19.25833	03	31	27.78	+12	31	37.8	17.5	6 675
1984 SH6		1949	11	19.28646	03	31	26.20	+12	31	31.7		6 675
1985 CM1		1954	05	23.24826	14	33	38.89	-05	39	40.5		6 675
1985 CM1		1954	05	23.27188	14	33	37.90	-05	39	38.5		6 675
1985 FC2		1949	11	19.25833	03	09	35.13	+14	06	59.5	16.8	6 675
1985 FC2		1949	11	19.27865	03	09	33.76	+14	07	01.0		6 675
1985 FC2		1949	11	21.25417	03	07	31.09	+14	08	30.7		6 675
1985 FC2		1949	11	21.26979	03	07	30.18	+14	08	31.4		6 675
1985 FC2		1953	10	10.37535	02	17	18.00	+01	10	34.0	17.2	6 675
1985 FC2		1953	10	10.39931	02	17	16.73	+01	10	30.9		6 675
1985 FC2		1955	03	13.19583	08	56	18.52	+37	52	19.9		6 675
1985 FC2		1955	03	13.22153	08	56	17.90	+37	52	14.0		6 675
1985 JL		1954	07	29.38125	22	23	08.98	-23	40	40.6		6 675
1985 JL		1954	07	29.40556	22	23	07.89	-23	40	51.7		6 675
1985 JX1		1992	06	25.34792	19	28	44.40	-17	53	50.9	17.5	3 675
1985 JX1		1992	06	25.37882	19	28	42.62	-17	53	56.9		3 675
1985 JX1		1992	06	27.36615	19	26	59.56	-18	00	23.2		3 675
1985 JX1		1992	06	27.39658	19	26	57.91	-18	00	28.9		3 675
1985 PO		1949	11	19.25833	03	27	43.93	+12	51	57.5	17.8	6 675
1985 PO		1949	11	19.28646	03	27	42.22	+12	51	51.4		6 675
1985 QR		1991	11	07.45833	05	44	57.54	+09	03	54.6	17.2	9 675
1985 QR		1991	11	07.49288	05	44	56.74	+09	03	47.1		9 675
1985 QR		1991	11	09.47674	05	44	16.17	+08	56	50.5		9 675
1985 RS		1954	07	29.38125	22	18	35.37	-23	16	08.7		6 675
1985 RS		1954	07	29.40556	22	18	34.22	-23	16	12.7		6 675
1985 RS		1981	10	24.24063	01	25	13.54	+17	39	15.6	16.8 V	6 675
1985 RS		1981	10	25.32570	01	24	11.59	+17	36	01.7		6 675
1985 RS		1981	10	26.31979	01	23	15.47	+17	33	02.1		6 675
1986 AH		1992	06	28.25747	15	41	00.85	+13	19	28.5	18.2	9 675
1986 AH		1992	06	28.28681	15	40	59.76	+13	18	56.8		9 675
1986 AH		1992	06	29.25851	15	40	30.05	+13	03	08.2	18.5	9 675
1986 AH		1992	06	29.28958	15	40	29.05	+13	02	37.7		9 675
1986 AA3	*	1986	01	12.38542	09	20	16.93	+59	17	17.1	17.5	3 675
1986 AA3		1986	01	12.46753	09	20	11.84	+59	18	47.4		3 675
1986 AB3	*	1986	01	12.38542	09	28	17.65	+60	34	54.9	17	3 675
1986 AB3		1986	01	12.46753	09	28	15.95	+60	36	28.0		3 675
1986 AC3	*	1986	01	12.45278	10	34	38.37	+54	19	29.4	17.5	3 675
1986 AC3		1986	01	12.53455	10	34	40.93	+54	20	51.9		3 675

1986	CE2	1981	10	24.24063	01	43	12.47	+15	57	18.1	16.0 V	6 675
1986	CE2	1981	10	25.32570	01	41	58.68	+15	53	29.8		6 675
1986	CE2	1981	10	26.31979	01	40	51.51	+15	49	57.0		6 675
1986	RY5	1950	12	09.21667	04	11	18.28	+17	43	06.2		6 675
1986	RY5	1950	12	09.24410	04	11	16.75	+17	43	00.4		6 675
1986	RH12	1955	11	16.28611	03	26	38.93	+07	56	15.8		6 675
1986	RH12	1955	11	16.31250	03	26	37.38	+07	55	59.7		6 675
1986	UU	1992	06	25.21406	15	22	56.71	-15	47	11.2	17.2	9 675
1986	UU	1992	06	25.24392	15	22	55.79	-15	47	03.5		9 675
1986	UU	1992	06	25.26979	15	22	55.11	-15	46	55.4	17.2	9 675
1986	UU	1992	06	25.31100	15	22	53.90	-15	46	45.2		9 675
1986	UU	1992	06	26.20712	15	22	31.40	-15	42	56.5	16.8	9 675
1986	UU	1992	06	26.24288	15	22	30.48	-15	42	49.1		9 675
1986	UU	1992	06	27.19566	15	22	08.35	-15	38	57.1	17.2	9 675
1986	UU	1992	06	27.23681	15	22	07.38	-15	38	48.6	17.5	9 675
1986	UU	1992	06	28.19896	15	21	47.07	-15	35	02.6	17.2	9 675
1986	UU	1992	06	28.22569	15	21	46.46	-15	34	55.0		9 675
1986	WN7	1953	12	07.42396	06	30	20.37	+28	40	03.8		6 675
1986	WN7	1953	12	07.44792	06	30	19.27	+28	40	04.4		6 675
1986	WO7	1980	10	14.46128	02	31	40.71	+21	21	31.4	17.2 V	6 675
1987	EV	1981	08	30.29340	21	56	06.34	-09	33	19.7	17.2 V	6 675
1987	EV	1981	08	31.28924	21	55	08.65	-09	36	57.8		6 675
1987	PL	1992	07	05.40538	21	55	25.83	-08	10	18.0	16.0	2 675
1987	PL	1992	07	05.44497	21	55	25.06	-08	10	10.7		2 675
1987	WY	1991	09	13.47153	01	36	13.87	+25	19	22.4	16.5	9 675
1987	WY	1991	09	13.50712	01	36	13.69	+25	19	17.7		9 675
1987	WY	1991	09	14.50573	01	36	10.24	+25	16	54.0		9 675
1987	WY	1991	09	15.51198	01	36	04.87	+25	14	08.1		9 675
1987	WY	1991	09	16.51580	01	35	57.68	+25	11	01.2		9 675
1988	BB	1991	09	12.48542	01	06	49.49	+17	33	38.5	17.5	9 675
1988	BB	1991	09	12.50898	01	06	48.70	+17	33	38.8		9 675
1988	BB	1991	09	16.47222	01	04	20.97	+17	31	25.6		9 675
1988	BB	1991	09	16.50608	01	04	19.56	+17	31	24.3		9 675
1988	EJ1	1992	07	02.43594	19	47	17.00	-14	33	08.1	17.0	2 675
1988	EJ1	1992	07	02.45816	19	47	15.79	-14	33	07.4		2 675
1988	EJ1	1992	07	05.32691	19	44	23.12	-14	35	59.3	17.0	2 675
1988	EJ1	1992	07	05.35660	19	44	21.21	-14	35	59.6		2 675
1988	JW	1992	02	04.37483	09	36	25.31	+25	07	11.5	18.0	3 675
1988	JW	1992	02	04.40694	09	36	23.37	+25	07	30.4		3 675
1988	JW	1992	02	08.41372	09	32	29.08	+25	47	18.6		3 675
1988	JW	1992	02	27.22344	09	14	00.26	+28	22	38.5	18.3	3 675
1988	JW	1992	02	27.26597	09	13	57.84	+28	22	53.8		3 675
1988	LA	1992	06	25.28976	16	27	06.89	-11	53	33.1	15.5	3 675
1988	LA	1992	06	25.32448	16	27	05.20	-11	53	59.3		3 675
1988	LA	1992	06	29.25516	16	24	32.90	-12	46	19.7		3 675
1988	LA	1992	06	29.28403	16	24	31.67	-12	46	45.5		3 675
1988	TD	1954	11	23.40868	06	21	11.07	+24	16	28.3		6 675
1988	TH1	1992	02	04.24444	06	34	23.38	+11	01	29.5	18.5	3 675
1988	TH1	1992	02	04.28281	06	34	22.84	+11	01	34.5		3 675
1988	TH1	1992	02	05.24635	06	34	03.05	+11	03	33.3		3 675
1989	BR1	1956	05	08.29896	15	54	31.05	-20	50	27.7		6 675
1989	BR1	1956	05	08.31806	15	54	30.19	-20	50	26.2		6 675
1989	CK2	1992	04	25.38889	15	54	36.50	-00	54	34.3	18.2	3 675
1989	CK2	1992	04	25.41372	15	54	35.88	-00	54	32.2		3 675
1989	CK2	1992	04	29.39149	15	52	49.53	-00	48	01.2		3 675
1989	CK2	1992	04	29.42899	15	52	48.46	-00	47	59.3		3 675
1989	CK2	1992	06	03.30955	15	35	28.95	-00	32	27.7	18.2	3 675
1989	CK2	1992	06	03.33698	15	35	28.22	-00	32	29.8		3 675
1989	CK2	1992	06	05.31441	15	34	33.04	-00	34	15.1		3 675

1989	CK2		1992	06	05.35104	15	34	32.04	-00	34	17.3			3	675
1989	GF4		1981	10	24.24063	01	46	05.99	+12	39	31.1	16.0	V	6	675
1989	GF4		1981	10	25.32570	01	45	12.00	+12	31	30.6			6	675
1989	GF4		1981	10	26.31979	01	44	23.03	+12	24	11.5			6	675
1989	SA3		1954	07	29.38125	22	22	04.37	-22	00	19.4			6	675
1989	SA3		1954	07	29.40556	22	22	03.45	-22	00	27.9			6	675
1989	TS		1953	10	10.47674	03	56	11.60	+12	16	31.8			6	675
1989	TS		1953	10	10.50000	03	56	10.42	+12	16	48.5			6	675
1989	TZ15		1980	10	14.46128	02	20	39.52	+22	37	28.7	17.5	V	6	675
1989	TH18	*	1989	10	01.29462	23	30	29.45	-09	59	59.0	16.5		2	675
1989	TH18		1989	10	01.32083	23	30	27.96	-09	59	57.0			2	675
1989	TH18		1989	10	04.22448	23	28	04.03	-09	52	40.2			2	675
1989	TH18		1989	10	04.25330	23	28	02.44	-09	52	32.6			2	675
1989	WE		1992	06	28.30694	16	41	06.21	-13	20	35.0	17.5		9	675
1989	WE		1992	06	28.33732	16	41	04.92	-13	20	35.3			9	675
1989	WE		1992	06	29.26510	16	40	25.24	-13	21	02.6			9	675
1989	WE		1992	06	29.29497	16	40	24.16	-13	21	03.3			9	675
1989	WE		1992	06	30.27135	16	39	43.28	-13	21	35.4			9	675
1989	WE		1992	06	30.30122	16	39	42.08	-13	21	34.0			9	675
1989	YF5		1992	07	27.22986	18	44	36.05	-18	23	59.7	16.0		2	675
1989	YF5		1992	07	27.25417	18	44	34.81	-18	23	51.5			2	675
1989	YK8		1992	04	28.37101	16	09	24.84	-11	52	47.4	16.8		9	675
1989	YK8		1992	04	28.40469	16	09	23.59	-11	52	41.7			9	675
1989	YK8		1992	06	25.26979	15	30	17.61	-11	06	24.7	16.5		9	675
1989	YK8		1992	06	25.31100	15	30	16.70	-11	06	28.6			9	675
1989	YK8		1992	06	26.20712	15	29	58.42	-11	08	08.1	16.5		9	675
1989	YK8		1992	06	26.24288	15	29	57.59	-11	08	12.7			9	675
1989	YK8		1992	06	28.19896	15	29	20.99	-11	12	04.6	16.8		9	675
1989	YK8		1992	06	28.22569	15	29	20.48	-11	12	08.5			9	675
1990	KG2		1955	11	16.28611	03	22	17.76	+08	14	48.7			6	675
1990	KG2		1955	11	16.31250	03	22	16.51	+08	14	40.2			6	675
1990	OD4		1991	11	07.45833	05	45	44.59	+09	08	32.8	16.5		9	675
1990	OD4		1991	11	07.49288	05	45	43.74	+09	08	22.4			9	675
1990	OD4		1991	11	09.47674	05	44	56.42	+08	57	12.0			9	675
1990	QU5		1981	08	30.29340	22	02	58.79	-08	45	21.4	16.2	V	6	675
1990	QU5		1981	08	31.28924	22	02	13.47	-08	50	51.5			6	675
1990	SV16		1990	09	14.27604	22	21	39.87	-19	21	41.8	17.8		9	675
1990	SV16		1990	09	14.31354	22	21	38.65	-19	21	56.5			9	675
1990	SX16		1954	07	29.38125	22	13	48.79	-24	56	04.8			6	675
1990	SX16		1954	07	29.40556	22	13	47.54	-24	56	10.0			6	675
1990	TN3		1989	04	08.23924	12	49	49.70	-00	16	11.8	17		2	675
1990	TN3		1989	04	08.26493	12	49	47.15	-00	16	15.5			2	675
1991	CE		1992	06	26.24288	15	45	07.67	-17	43	17.3			9	675
1991	CE		1992	06	28.19896	15	44	19.39	-17	44	53.9	17.2		9	675
1991	CE		1992	06	28.22569	15	44	18.67	-17	44	54.6			9	675
1991	CM5		1991	01	18.38889	08	33	38.47	+15	32	02.5	16.0		3	675
1991	CM5		1991	01	18.42291	08	33	36.03	+15	32	44.3			3	675
1991	CM5		1991	01	19.33628	08	32	33.00	+15	52	13.4			3	675
1991	CM5		1991	01	19.36788	08	32	30.76	+15	52	54.4			3	675
1991	FF1		1992	07	02.39358	18	32	14.26	-02	35	53.0	16.5		2	675
1991	FF1		1992	07	02.41771	18	32	13.04	-02	35	55.7			2	675
1991	FF1		1992	07	05.28958	18	29	42.64	-02	42	30.3			2	675
1991	FF1		1992	07	05.30885	18	29	41.58	-02	42	33.3			2	675
1991	GA		1954	07	29.38125	22	12	14.37	-26	14	12.3			6	675
1991	GA		1954	07	29.40556	22	12	13.13	-26	14	20.5			6	675
1991	JT		1980	10	14.40729	01	53	31.47	+19	50	11.1	17.2	V	6	675
1991	JY1		1954	04	02.44514	15	06	00.08	-15	42	25.9			6	675
1991	JY1		1954	05	23.24826	14	27	52.97	-04	48	04.5			6	675
1991	JY1		1954	05	23.27188	14	27	52.10	-04	47	49.0			6	675

1991 NG		1952	02	01.31944	09	07	13.26	+02	12	21.6		6 675
1991 NG		1952	02	01.35764	09	07	10.83	+02	12	23.2		6 675
1991 PG1		1991	09	15.25035	21	42	51.71	-27	21	20.8	17.2	9 675
1991 PG1		1991	09	15.29619	21	42	51.58	-27	21	39.5		9 675
1991 PM5		1991	07	16.37500	21	19	49.45	-01	57	39.5	17.5	7 675
1991 PM5		1991	07	16.43750	21	19	50.65	-02	00	04.6		7 675
1991 PM5		1991	08	05.27500	21	22	42.05	-16	29	25.9		3 675
1991 PM5		1991	08	05.31302	21	22	41.58	-16	31	06.9		3 675
1991 PM5		1991	08	07.32240	21	22	30.27	-17	57	53.1		3 675
1991 PM5		1991	08	07.35069	21	22	29.80	-17	59	06.9		3 675
1991 PF15		1981	08	30.29340	21	55	30.97	-05	55	52.2	15.8 V	6 675
1991 PF15		1981	08	31.28924	21	54	39.73	-06	00	29.2		6 675
1991 RY16		1955	03	22.17083	08	13	25.29	+28	59	12.6		6 675
1991 RY16		1955	03	22.19633	08	13	25.28	+28	59	07.6		6 675
1991 RH25		1953	12	07.42396	06	50	18.59	+27	22	36.2		6 675
1991 RH25		1953	12	07.44792	06	50	17.20	+27	22	42.5		6 675
1991 RC27		1991	11	08.17587	00	52	05.61	+05	18	43.3	17.5	9 675
1991 RC27		1991	11	08.20799	00	52	04.18	+05	18	51.0		9 675
1991 RL27		1991	09	16.47222	01	22	45.33	+21	45	29.4		9 675
1991 RL27		1991	09	16.50608	01	22	44.32	+21	45	11.1		9 675
1991 RX27		1991	09	12.48542	01	18	17.43	+19	41	37.1	17.8	9 675
1991 RX27		1991	09	12.50898	01	18	16.79	+19	41	37.4		9 675
1991 RX27		1991	09	16.47222	01	16	38.87	+19	42	29.2		9 675
1991 RX27		1991	09	16.50608	01	16	37.83	+19	42	28.5		9 675
1991 RY27		1991	09	16.47222	01	23	44.26	+18	46	16.5	17.5	9 675
1991 RY27		1991	09	16.50608	01	23	43.14	+18	46	11.6		9 675
1991 RC29	*	1991	09	13.47153	01	23	19.60	+27	50	58.1	17.8	9 675
1991 RC29		1991	09	13.50712	01	23	18.50	+27	51	32.9		9 675
1991 RC29		1991	09	15.51198	01	22	16.59	+28	23	46.7		9 675
1991 RC29		1991	09	16.51580	01	21	41.88	+28	39	24.0		9 675
1991 RD29	*	1991	09	13.47153	01	26	28.23	+26	58	36.1	17.5	9 675
1991 RD29		1991	09	13.50712	01	26	27.14	+26	58	37.9		9 675
1991 RD29		1991	09	14.50573	01	25	56.54	+26	59	43.9		9 675
1991 RD29		1991	09	15.51198	01	25	24.29	+27	00	35.5		9 675
1991 RD29		1991	09	16.51580	01	24	50.83	+27	01	13.9		9 675
1991 RE29	*	1991	09	13.47153	01	32	47.38	+29	30	40.3	17.8	9 675
1991 RE29		1991	09	13.50712	01	32	46.66	+29	30	38.2		9 675
1991 RE29		1991	09	14.50573	01	32	29.38	+29	29	46.6		9 675
1991 RE29		1991	09	15.51198	01	32	09.84	+29	28	29.9		9 675
1991 RE29		1991	09	16.51580	01	31	48.47	+29	26	49.2		9 675
1991 RF29	*	1991	09	13.47153	01	33	02.45	+26	22	47.7	17.2	9 675
1991 RF29		1991	09	13.50712	01	33	01.38	+26	22	51.6		9 675
1991 RF29		1991	09	14.50573	01	32	30.64	+26	24	19.3		9 675
1991 RF29		1991	09	15.51198	01	31	57.94	+26	25	32.3		9 675
1991 RF29		1991	09	16.51580	01	31	23.75	+26	26	29.6		9 675
1991 RG29	*	1991	09	13.47153	01	37	13.69	+29	04	13.8	18.0	9 675
1991 RG29		1991	09	13.50712	01	37	13.07	+29	04	12.7		9 675
1991 RG29		1991	09	14.50573	01	36	53.51	+29	03	54.1		9 675
1991 RG29		1991	09	15.51198	01	36	32.47	+29	03	20.7		9 675
1991 RG29		1991	09	16.51580	01	36	10.07	+29	02	33.2		9 675
1991 RH29	*	1991	09	13.47153	01	40	33.23	+31	54	14.8	17.0	9 675
1991 RH29		1991	09	13.50712	01	40	32.61	+31	54	22.7		9 675
1991 RH29		1991	09	14.50573	01	40	14.18	+31	58	23.8		9 675
1991 RH29		1991	09	15.51198	01	39	53.66	+32	02	09.1		9 675
1991 RH29		1991	09	16.51580	01	39	31.35	+32	05	36.1		9 675
1991 RJ29	*	1991	09	13.47153	01	41	25.22	+30	18	23.2	17.2	9 675
1991 RJ29		1991	09	13.50712	01	41	24.57	+30	18	33.1		9 675
1991 RJ29		1991	09	14.50573	01	41	05.83	+30	23	16.2		9 675
1991 RJ29		1991	09	15.51198	01	40	45.36	+30	27	48.8		9 675

1991 RJ29		1991	09	16.51580	01	40	23.30	+30	32	05.1			9	675
1991 RK29	*	1991	09	13.47153	01	42	03.41	+28	40	55.5	17.8		9	675
1991 RK29		1991	09	13.50712	01	42	02.34	+28	40	59.5			9	675
1991 RK29		1991	09	14.50573	01	41	32.89	+28	43	02.6			9	675
1991 RK29		1991	09	15.51198	01	41	01.79	+28	44	55.7			9	675
1991 RK29		1991	09	16.51580	01	40	29.31	+28	46	35.7			9	675
1991 RL29	*	1991	09	13.47153	01	46	20.44	+30	47	25.7	16.8		9	675
1991 RL29		1991	09	13.50712	01	46	19.57	+30	47	25.8			9	675
1991 RL29		1991	09	14.50573	01	45	55.23	+30	47	43.1			9	675
1991 RL29		1991	09	15.51198	01	45	29.60	+30	47	51.1			9	675
1991 RL29		1991	09	16.51580	01	45	02.96	+30	47	46.7			9	675
1991 RM29	*	1991	09	13.47153	01	46	52.94	+30	47	38.4	17.5		9	675
1991 RM29		1991	09	13.50712	01	46	52.67	+30	47	47.6			9	675
1991 RM29		1991	09	14.50573	01	46	45.37	+30	52	04.9			9	675
1991 RM29		1991	09	15.51198	01	46	36.10	+30	56	09.4			9	675
1991 RM29		1991	09	16.51580	01	46	24.96	+30	59	55.6			9	675
1991 RN29	*	1991	09	12.48542	00	57	48.46	+21	44	00.9	17.0		9	675
1991 RN29		1991	09	12.50898	00	57	47.13	+21	44	15.8			9	675
1991 RN29		1991	09	16.47222	00	54	00.76	+22	23	02.8			9	675
1991 RN29		1991	09	16.50608	00	53	58.58	+22	23	22.2			9	675
1991 RO29	*	1991	09	12.48542	00	58	39.44	+21	50	08.8	17.2		9	675
1991 RO29		1991	09	12.50898	00	58	38.69	+21	50	04.3	17.8		9	675
1991 RO29		1991	09	16.47222	00	56	35.19	+21	36	14.3			9	675
1991 RO29		1991	09	16.50608	00	56	33.92	+21	36	07.5			9	675
1991 RP29	*	1991	09	12.48542	01	01	16.73	+22	21	55.3	17.5		9	675
1991 RP29		1991	09	12.50898	01	01	16.17	+22	22	08.1			9	675
1991 RP29		1991	09	16.47222	00	59	42.24	+22	53	54.5			9	675
1991 RP29		1991	09	16.50608	00	59	41.11	+22	54	09.6			9	675
1991 RQ29	*	1991	09	12.48542	01	02	13.43	+22	17	27.6	17.2		9	675
1991 RQ29		1991	09	12.50898	01	02	12.65	+22	17	24.8			9	675
1991 RQ29		1991	09	16.47222	01	00	06.46	+22	07	17.9			9	675
1991 RQ29		1991	09	16.50608	01	00	05.24	+22	07	12.9			9	675
1991 RR29	*	1991	09	12.48542	01	04	35.63	+17	03	56.1	18.2		9	675
1991 RR29		1991	09	12.50898	01	04	34.88	+17	03	52.3			9	675
1991 RR29		1991	09	16.47222	01	02	23.03	+16	54	39.1			9	675
1991 RR29		1991	09	16.50608	01	02	21.72	+16	54	33.1			9	675
1991 RS29	*	1991	09	12.48542	01	05	39.96	+20	52	42.6	16.8		9	675
1991 RS29		1991	09	12.50898	01	05	39.17	+20	52	41.5			9	675
1991 RS29		1991	09	16.47222	01	03	21.49	+20	49	59.6			9	675
1991 RS29		1991	09	16.50608	01	03	20.16	+20	49	58.6			9	675
1991 RT29	*	1991	09	12.48542	01	05	45.40	+17	16	54.5	17.8		9	675
1991 RT29		1991	09	12.50898	01	05	44.50	+17	17	01.6			9	675
1991 RT29		1991	09	16.47222	01	02	56.71	+17	35	32.1			9	675
1991 RT29		1991	09	16.50608	01	02	55.11	+17	35	39.4			9	675
1991 RU29	*	1991	09	12.48542	01	07	17.43	+17	50	32.7	16.8		9	675
1991 RU29		1991	09	12.50898	01	07	16.83	+17	50	30.4			9	675
1991 RU29		1991	09	16.47222	01	05	26.88	+17	44	20.9			9	675
1991 RU29		1991	09	16.50608	01	05	25.81	+17	44	17.2			9	675
1991 RV29	*	1991	09	12.48542	01	07	48.12	+18	00	05.1	17.8		9	675
1991 RV29		1991	09	12.50898	01	07	47.34	+18	00	05.8			9	675
1991 RV29		1991	09	16.47222	01	05	34.10	+18	01	14.4			9	675
1991 RV29		1991	09	16.50608	01	05	32.77	+18	01	14.4			9	675
1991 RW29	*	1991	09	12.48542	01	14	33.23	+20	36	19.2	18.0		9	675
1991 RW29		1991	09	12.50898	01	14	32.54	+20	36	18.2			9	675
1991 RW29		1991	09	16.47222	01	12	18.04	+20	32	52.1			9	675
1991 RW29		1991	09	16.50608	01	12	16.75	+20	32	48.9			9	675
1991 RX29	*	1991	09	14.42865	01	11	56.56	+17	40	34.6	18.2		9	675
1991 RX29		1991	09	14.47951	01	11	54.78	+17	40	31.2			9	675
1991 RX29		1991	09	16.47222	01	10	49.40	+17	37	53.1	18.2		9	675

1991 RX29		1991 09 16.50608	01 10 48.19	+17 37 50.2		9	675
1991 SV1		1991 11 08.17587	00 42 36.43	+06 40 06.1	17.5	9	675
1991 SV1		1991 11 08.20799	00 42 35.34	+06 40 07.9		9	675
1991 SM2		1991 11 08.17587	00 49 07.19	+08 00 22.3	18.0	9	675
1991 SM2		1991 11 08.20799	00 49 05.87	+08 00 22.6		9	675
1991 TG4		1991 09 13.47153	01 42 12.10	+28 21 39.1	17.0	9	675
1991 TG4		1991 09 13.50712	01 42 11.38	+28 21 28.3		9	675
1991 TG4		1991 09 14.50573	01 41 53.43	+28 16 27.7		9	675
1991 TG4		1991 09 15.51198	01 41 33.23	+28 11 00.2		9	675
1991 TG4		1991 09 16.51580	01 41 11.03	+28 05 07.6		9	675
1991 UT2		1955 03 13.22153	08 50 11.44	+32 10 06.5		6	675
1991 UT2		1955 03 13.23716	08 50 11.14	+32 10 05.6		6	675
1991 UH4		1991 12 01.33142	04 36 52.90	+23 05 49.3	17.0	9	675
1991 UH4		1991 12 01.36354	04 36 50.52	+23 05 34.8		9	675
1991 UH4		1991 12 02.28229	04 35 47.19	+22 59 47.1		9	675
1991 UH4		1991 12 02.31615	04 35 44.79	+22 59 33.2		9	675
1991 VB		1991 09 15.51198	01 11 02.22	+28 53 00.3	18.2	9	675
1991 VB		1991 09 16.51580	01 12 09.81	+29 06 13.5		9	675
1991 VK		1991 09 12.48542	01 09 01.76	+20 26 18.2	18.8	9	675
1991 VK		1991 09 12.50898	01 09 01.23	+20 26 31.8	18.0	9	675
1991 VK		1991 09 16.47222	01 07 34.07	+21 10 29.3	18.2	9	675
1991 VK		1991 09 16.50608	01 07 32.97	+21 10 51.5		9	675
1991 VJ3		1954 11 23.38472	06 04 22.33	+26 43 27.2		6	675
1991 VJ3		1954 11 23.40868	06 04 21.43	+26 43 33.1		6	675
1991 VJ3		1956 05 08.29896	15 55 10.70	-20 38 31.3		6	675
1991 VX3		1954 11 23.38472	06 10 01.77	+24 46 18.7		6	675
1991 VX3		1954 11 23.40868	06 10 00.83	+24 46 20.8		6	675
1991 VC4		1991 09 12.48542	01 09 04.31	+19 23 10.0	17.0	9	675
1991 VC4		1991 09 12.50898	01 09 03.77	+19 23 03.9		9	675
1991 XE2	*	1991 12 01.33142	04 32 10.12	+22 45 32.8	16.0	9	675
1991 XE2		1991 12 01.36354	04 32 08.03	+22 45 35.2		9	675
1991 XE2		1991 12 02.28229	04 31 09.10	+22 47 23.7		9	675
1991 XE2		1991 12 02.31615	04 31 06.89	+22 47 27.5		9	675
1991 XG2	*	1991 12 01.33142	04 52 36.41	+20 34 05.3	17.2	9	675
1991 XG2		1991 12 01.36345	04 52 34.37	+20 33 57.6		9	675
1991 XG2		1991 12 02.28229	04 51 39.59	+20 30 36.7		9	675
1991 XG2		1991 12 02.31615	04 51 37.53	+20 30 29.5		9	675
1991 XH2	*	1991 12 01.33142	04 55 49.43	+20 35 25.9	17.2	9	675
1991 XH2		1991 12 01.36345	04 55 47.75	+20 35 25.1		9	675
1991 XH2		1991 12 02.28229	04 54 57.30	+20 34 40.4		9	675
1991 XH2		1991 12 02.31615	04 54 55.41	+20 34 39.5		9	675
1991 XJ2	*	1991 12 01.37743	05 09 02.56	+24 50 09.6	16.5	9	675
1991 XJ2		1991 12 01.41094	05 09 00.07	+24 49 58.9		9	675
1991 XJ2		1991 12 03.36493	05 06 39.48	+24 37 38.7	16.5	9	675
1991 XJ2		1991 12 03.39809	05 06 37.01	+24 37 27.1		9	675
1991 XK2	*	1991 12 01.38368	05 34 36.92	+23 46 19.7	17.0	9	675
1991 XK2		1991 12 01.41753	05 34 34.62	+23 46 21.9		9	675
1991 XK2		1991 12 03.36493	05 32 27.15	+23 49 13.7	17.0	9	675
1991 XK2		1991 12 03.39809	05 32 24.87	+23 49 16.2		9	675
1991 XL2	*	1991 12 03.43542	06 41 26.77	+42 59 47.1	17.5	9	675
1991 XL2		1991 12 03.46875	06 41 24.50	+42 59 49.8		9	675
1992 AY2	*	1992 01 01.43715	08 29 19.01	+30 11 42.8	16	3	675
1992 AY2		1992 01 01.47344	08 29 14.83	+30 11 10.7		3	675
1992 AY2		1992 01 10.44028	08 11 41.38	+27 50 01.8	15.0	2	675
1992 AY2		1992 01 10.46319	08 11 38.52	+27 49 37.8		2	675
1992 EU1		1953 10 10.37535	01 56 07.32	-00 42 18.0		6	675
1992 EU1		1953 10 10.39931	01 56 05.92	-00 42 26.5		6	675
1992 FR		1955 11 16.28611	03 24 18.18	+05 04 09.7		6	675
1992 FR		1955 11 16.31250	03 24 16.86	+05 04 02.7		6	675

1992	FJ1	1954	09	04.35486	23	55	47.01	+19	15	13.2		6	675
1992	FJ1	1954	09	04.37049	23	55	46.36	+19	15	14.0		6	675
1992	JE	1992	06	25.19931	14	26	20.20	+01	05	08.5	17.3	3	675
1992	JE	1992	06	25.23021	14	26	21.12	+01	05	08.3		3	675
1992	JE	1992	06	26.18576	14	26	59.00	+01	05	22.4		3	675
1992	JN1	1992	06	28.19896	15	51	02.58	-13	42	31.3	16.5	9	675
1992	JN1	1992	06	28.22569	15	51	01.52	-13	42	40.4	16.8	9	675
1992	KC	1992	06	26.24288	15	24	19.89	-12	02	55.5	17.8	9	675
1992	KC	1992	06	28.19896	15	24	18.84	-12	06	12.1	18.0	9	675
1992	KD	1992	06	25.20573	15	27	05.48	+10	21	56.7	17.2	3	675
1992	KD	1992	06	25.23628	15	27	08.11	+10	22	51.9		3	675
1992	KD	1992	06	28.25156	15	31	46.79	+11	48	21.4		3	675
1992	KD	1992	06	28.28108	15	31	49.32	+11	49	07.1		3	675
1992	KE	1992	06	25.26979	15	41	14.45	-12	16	03.8	16.5	9	675
1992	KE	1992	06	25.31100	15	41	13.31	-12	16	14.8	16.8	9	675
1992	KE	1992	06	26.20712	15	40	51.27	-12	20	15.8	16.5	9	675
1992	KE	1992	06	26.24288	15	40	50.34	-12	20	26.4	16.8	9	675
1992	KE	1992	06	28.19896	15	40	07.19	-12	29	33.1	16.8	9	675
1992	KE	1992	06	28.22569	15	40	06.56	-12	29	41.5	16.5	9	675
1992	KQ	1992	06	28.30694	16	45	48.33	-12	53	52.6	16.5	9	675
1992	KQ	1992	06	28.33732	16	45	46.95	-12	54	05.5		9	675
1992	KQ	1992	06	29.26510	16	45	04.27	-13	01	26.3		9	675
1992	KQ	1992	06	29.29497	16	45	02.85	-13	01	40.3		9	675
1992	KQ	1992	06	30.27135	16	44	19.01	-13	09	29.3		9	675
1992	KQ	1992	06	30.30122	16	44	17.56	-13	09	43.1		9	675
1992	LC	1992	06	25.19253	13	49	27.86	-17	56	34.4	17.5	3	675
1992	LC	1992	06	25.22309	13	49	32.87	-17	57	32.3		3	675
1992	LC	1992	06	26.19253	13	52	04.43	-18	27	03.1		3	675
1992	LC	1992	06	26.22760	13	52	09.67	-18	28	06.6		3	675
1992	LC	1992	06	27.20277	13	54	39.25	-18	56	35.0		3	675
1992	LC	1992	06	27.21649	13	54	41.20	-18	56	56.4		3	675
1992	LC	1992	06	28.19149	13	57	08.02	-19	24	12.9		3	675
1992	LC	1992	06	28.20590	13	57	10.25	-19	24	40.2	17.8	3	675
1992	LC	1992	06	29.19253	13	59	36.23	-19	51	07.7		3	675
1992	LC	1992	06	29.20677	13	59	38.39	-19	51	32.2		3	675
1992	LE	1992	06	24.29948	17	14	00.94	+02	45	28.6	16.9	3	675
1992	LE	1992	06	24.33507	17	13	59.40	+02	45	15.6		3	675
1992	LE	1992	06	25.30347	17	13	20.49	+02	39	32.6		3	675
1992	LE	1992	06	25.33906	17	13	18.96	+02	39	19.8		3	675
1992	LE	1992	06	26.28194	17	12	41.93	+02	33	26.7		3	675
1992	LE	1992	06	26.31198	17	12	40.68	+02	33	15.7		3	675
1992	LE	1992	06	29.31198	17	10	48.34	+02	12	38.6		3	675
1992	LE	1992	06	29.33993	17	10	47.17	+02	12	26.0		3	675
1992	LF	1992	06	25.30347	17	06	21.97	+03	59	18.8	18.2	3	675
1992	LF	1992	06	25.33906	17	06	20.43	+03	59	12.8		3	675
1992	LF	1992	06	26.28194	17	05	41.45	+03	56	22.1		3	675
1992	LF	1992	06	26.31198	17	05	40.18	+03	56	18.0		3	675
1992	LF	1992	06	29.31198	17	03	39.56	+03	46	12.0		3	675
1992	LF	1992	06	29.33993	17	03	38.53	+03	46	05.6		3	675
1992	LG	1992	04	28.37101	15	58	44.33	-15	31	37.5	17.2	9	675
1992	LG	1992	04	28.40469	15	58	42.57	-15	31	31.8		9	675
1992	LG	1992	06	25.21406	15	12	11.07	-14	27	06.7	17.2	9	675
1992	LG	1992	06	25.24392	15	12	10.77	-14	27	09.5		9	675
1992	LJ	1992	04	28.37101	16	01	49.43	-13	02	40.0	17.2	9	675
1992	LJ	1992	04	28.40469	16	01	47.98	-13	02	29.1		9	675
1992	LJ	1992	06	28.19896	15	22	09.19	-11	46	37.2	17.8	9	675
1992	LJ	1992	06	28.22569	15	22	08.88	-11	46	38.7	18.0	9	675
1992	LK	1992	04	28.37101	16	09	04.65	-15	48	01.1	17.0	9	675
1992	LK	1992	04	28.40469	16	09	03.40	-15	48	03.6		9	675

1992 LK	1992	06	25.21406	15	19	21.49	-17	49	13.6	17.0	9	675
1992 LK	1992	06	25.24392	15	19	20.79	-17	49	21.1		9	675
1992 LK	1992	06	27.19566	15	18	51.12	-17	58	11.2	17.0	9	675
1992 LK	1992	06	27.23681	15	18	50.58	-17	58	24.5	17.2	9	675
1992 LK	1992	06	29.19948	15	18	30.13	-18	07	42.0	17.0	9	675
1992 LK	1992	06	29.23177	15	18	29.81	-18	07	51.6		9	675
1992 LM	1992	06	25.21406	15	25	36.72	-17	29	40.8	17.8	9	675
1992 LM	1992	06	25.24392	15	25	35.87	-17	29	43.1	18.0	9	675
1992 LM	1992	06	25.26979	15	25	35.22	-17	29	42.2	18.2	9	675
1992 LM	1992	06	25.31100	15	25	34.29	-17	29	45.8	17.8	9	675
1992 LM	1992	06	27.19566	15	24	54.24	-17	32	18.2	17.5	9	675
1992 LM	1992	06	27.23681	15	24	53.29	-17	32	23.1	17.8	9	675
1992 LM	1992	06	29.19948	15	24	17.42	-17	35	16.7	17.5	9	675
1992 LM	1992	06	29.23177	15	24	16.82	-17	35	20.0	17.8	9	675
1992 LN	1992	04	28.37101	16	14	28.86	-13	31	10.6	17.5	9	675
1992 LN	1992	04	28.40469	16	14	27.29	-13	31	10.1		9	675
1992 LN	1992	06	25.26979	15	26	15.70	-14	46	25.1	17.5	9	675
1992 LN	1992	06	25.31100	15	26	14.83	-14	46	33.1	17.8	9	675
1992 LN	1992	06	26.20712	15	25	57.94	-14	49	59.8	17.5	9	675
1992 LN	1992	06	26.24288	15	25	57.13	-14	50	06.5		9	675
1992 LN	1992	06	27.19566	15	25	40.72	-14	53	50.5	17.5	9	675
1992 LN	1992	06	27.23681	15	25	39.92	-14	54	01.0		9	675
1992 LN	1992	06	28.19896	15	25	25.34	-14	57	50.1	17.5	9	675
1992 LN	1992	06	28.22569	15	25	24.90	-14	57	55.8	17.8	9	675
1992 LN	1992	06	29.19948	15	25	11.68	-15	01	54.5	17.5	9	675
1992 LN	1992	06	29.23177	15	25	11.32	-15	02	02.1		9	675
1992 LP	1992	06	25.21406	15	27	41.44	-16	16	00.0	17.5	9	675
1992 LP	1992	06	25.24392	15	27	40.37	-16	16	00.6		9	675
1992 LP	1992	06	25.26979	15	27	39.74	-16	16	00.3	17.5	9	675
1992 LP	1992	06	25.31100	15	27	38.37	-16	16	00.8	17.8	9	675
1992 LP	1992	06	26.20712	15	27	13.27	-16	16	23.5	17.8	9	675
1992 LP	1992	06	26.24288	15	27	12.22	-16	16	20.3		9	675
1992 LP	1992	06	27.19566	15	26	47.32	-16	16	52.6	17.5	9	675
1992 LP	1992	06	27.23681	15	26	46.11	-16	16	55.7		9	675
1992 LP	1992	06	28.19896	15	26	22.75	-16	17	29.9	17.8	9	675
1992 LP	1992	06	28.22569	15	26	22.31	-16	17	32.4		9	675
1992 LP	1992	06	29.19948	15	26	00.50	-16	18	16.1	17.5	9	675
1992 LP	1992	06	29.23177	15	25	59.71	-16	18	20.4		9	675
1992 LQ	1992	04	28.37101	16	18	26.06	-15	34	06.0	17.8	9	675
1992 LQ	1992	04	28.40469	16	18	24.75	-15	34	07.1		9	675
1992 LQ	1992	06	25.26979	15	33	28.74	-16	56	17.1	17.8	9	675
1992 LQ	1992	06	25.31100	15	33	27.65	-16	56	23.5		9	675
1992 LQ	1992	06	26.20712	15	33	03.85	-16	58	47.4	17.5	9	675
1992 LQ	1992	06	26.24288	15	33	02.87	-16	58	55.7	17.8	9	675
1992 LQ	1992	06	28.19896	15	32	14.75	-17	04	24.6	18.0	9	675
1992 LR	1992	06	25.27639	16	04	09.48	-10	01	47.2	15.0	3	675
1992 LR	1992	06	25.31753	16	04	12.64	-10	00	55.6		3	675
1992 LR	1992	06	26.25712	16	05	50.75	-09	41	50.6		3	675
1992 LR	1992	06	26.28854	16	05	53.31	-09	41	11.5		3	675
1992 LR	1992	06	27.20955	16	07	37.05	-09	22	15.5		3	675
1992 LR	1992	06	27.23003	16	07	38.92	-09	21	49.6		3	675
1992 LR	1992	06	28.26337	16	09	40.92	-09	00	16.3		3	675
1992 LR	1992	06	28.29167	16	09	43.88	-08	59	38.4		3	675
1992 LR	1992	06	29.25156	16	11	47.25	-08	39	21.7		3	675
1992 LR	1992	06	29.28403	16	11	50.63	-08	38	40.7		3	675
1992 LS	1992	06	25.26979	15	36	11.34	-14	11	39.1	17.8	9	675
1992 LS	1992	06	25.31100	15	36	10.37	-14	11	36.3		9	675
1992 LS	1992	06	26.20712	15	35	52.72	-14	10	35.0	17.5	9	675
1992 LS	1992	06	26.24288	15	35	52.05	-14	10	33.2	17.8	9	675

1992 LS		1992	06	28.19896	15	35	18.08	-14	08	47.0	18.0	9	675
1992 LS		1992	06	28.22569	15	35	17.67	-14	08	45.8	17.8	9	675
1992 LU	*	1992	06	04.30035	15	49	53.12	+02	34	29.2	17.3	9	675
1992 LU		1992	06	04.32934	15	49	51.80	+02	34	33.4	17.4	9	675
1992 LU		1992	06	27.18872	15	38	25.10	+01	57	53.3	17.8	3	675
1992 LU		1992	06	27.22378	15	38	24.71	+01	57	45.3		3	675
1992 LU		1992	06	28.21910	15	38	11.47	+01	53	29.8		3	675
1992 LU		1992	06	28.24531	15	38	11.07	+01	53	22.4		3	675
1992 LU		1992	06	29.21979	15	37	59.44	+01	48	54.8		3	675
1992 LU		1992	06	29.24497	15	37	59.74	+01	49	02.2		3	675
1992 ME	*	1992	06	21.19792	15	49	41.60	+17	38	08.0		7	675
1992 ME		1992	06	21.25694	15	49	40.00	+17	36	40.2		7	675
1992 ME		1992	06	26.19983	15	48	06.02	+15	24	45.5	16.8	9	675
1992 ME		1992	06	26.23594	15	48	05.42	+15	23	46.5		9	675
1992 ME		1992	06	28.25747	15	47	42.20	+14	27	36.8		9	675
1992 ME		1992	06	29.25851	15	47	34.03	+13	59	24.4	17.0	9	675
1992 ME		1992	06	29.28958	15	47	33.70	+13	58	31.4		9	675
1992 ME		1992	06	30.25955	15	47	28.24	+13	30	56.9	17.0	9	675
1992 ME		1992	06	30.29236	15	47	27.99	+13	30	01.8		9	675
1992 ME		1992	07	02.20538	15	47	23.41	+12	35	05.7	15.5	2	675
1992 ME		1992	07	02.22830	15	47	23.17	+12	34	25.5		2	675
1992 ME		1992	07	05.25139	15	47	32.29	+11	06	11.4		2	675
1992 ME		1992	07	05.27500	15	47	32.43	+11	05	29.3		2	675
1992 MF	*	1992	06	27.32396	18	03	50.61	+09	38	43.8	17.8	3	675
1992 MF		1992	06	27.35475	18	03	49.09	+09	38	43.1		3	675
1992 MF		1992	06	29.32847	18	02	22.99	+09	37	38.9		3	675
1992 MF		1992	06	29.35677	18	02	21.73	+09	37	38.0		3	675
1992 MF		1992	06	30.32031	18	01	40.07	+09	36	42.2		3	675
1992 MF		1992	06	30.34826	18	01	38.85	+09	36	40.8		3	675
1992 MG	*	1992	06	28.30694	16	46	21.20	-09	38	16.4	17.8	9	675
1992 MG		1992	06	28.33732	16	46	20.00	-09	38	12.6		9	675
1992 MG		1992	06	29.26510	16	45	45.09	-09	36	04.5		9	675
1992 MG		1992	06	29.29497	16	45	43.98	-09	36	02.1		9	675
1992 MG		1992	06	30.27135	16	45	08.08	-09	33	56.5		9	675
1992 MG		1992	06	30.30122	16	45	07.02	-09	33	52.7		9	675
1992 MH	*	1992	06	28.30694	16	48	26.15	-09	40	36.4	18.2	9	675
1992 MH		1992	06	28.33732	16	48	25.01	-09	40	31.8		9	675
1992 MH		1992	06	29.26510	16	47	51.30	-09	38	18.2		9	675
1992 MH		1992	06	29.29497	16	47	50.18	-09	38	14.7		9	675
1992 MH		1992	06	30.27135	16	47	15.49	-09	36	00.4		9	675
1992 MH		1992	06	30.30122	16	47	14.45	-09	35	55.9		9	675
1992 MJ	*	1992	06	28.30694	16	53	11.06	-09	30	36.2	17.0	9	675
1992 MJ		1992	06	28.33732	16	53	09.57	-09	30	41.2		9	675
1992 MJ		1992	06	29.26510	16	52	22.16	-09	33	31.3		9	675
1992 MJ		1992	06	29.29497	16	52	20.59	-09	33	37.8		9	675
1992 MJ		1992	06	30.27135	16	51	31.87	-09	36	46.8		9	675
1992 MJ		1992	06	30.30122	16	51	30.28	-09	36	51.6		9	675
1992 MK	*	1992	06	28.30694	16	53	48.02	-13	36	21.0	17.5	9	675
1992 MK		1992	06	28.33732	16	53	46.83	-13	36	16.6		9	675
1992 MK		1992	06	29.26510	16	53	09.86	-13	34	11.4		9	675
1992 MK		1992	06	29.29497	16	53	08.64	-13	34	07.5		9	675
1992 MK		1992	06	30.27135	16	52	30.53	-13	32	01.4		9	675
1992 MK		1992	06	30.30122	16	52	29.36	-13	31	57.0		9	675
1992 ML	*	1992	06	25.21406	15	14	29.92	-21	13	20.7	17.5	9	675
1992 ML		1992	06	25.24392	15	14	29.05	-21	13	13.7		9	675
1992 ML		1992	06	27.19566	15	14	00.64	-21	09	05.8	17.8	9	675
1992 ML		1992	06	27.23681	15	13	59.97	-21	08	59.3		9	675
1992 MM	*	1992	06	27.19566	15	17	59.49	-18	02	03.8	17.5	9	675
1992 MM		1992	06	27.23681	15	17	58.79	-18	02	06.3	17.8	9	675

1992	MM		1992	06	29.19948	15	17	31.26	-18 03 11.0	17.8	9 675
1992	MM		1992	06	29.23177	15	17	30.69	-18 03 12.3	17.5	9 675
1992	NC	*	1992	07	02.31944	17	19	43.11	-02 43 07.9	16.0	2 675
1992	NC		1992	07	02.35243	17	19	41.46	-02 43 09.0		2 675
1992	NC		1992	07	05.23403	17	17	36.95	-02 44 33.2		2 675
1992	NC		1992	07	05.25747	17	17	36.00	-02 44 33.2		2 675
1992	ND	*	1992	07	02.33767	17	52	24.67	-19 10 05.3	15.5	2 675
1992	ND		1992	07	02.36736	17	52	22.93	-19 10 18.0		2 675
1992	ND		1992	07	05.28316	17	49	57.18	-19 29 37.8		2 675
1992	ND		1992	07	05.30226	17	49	56.16	-19 29 45.2		2 675
1992	NE	*	1992	07	02.33767	17	56	31.77	-16 24 30.2	16.0	2 675
1992	NE		1992	07	02.36736	17	56	30.14	-16 24 23.4		2 675
1992	NE		1992	07	05.28316	17	54	04.80	-16 11 54.4		2 675
1992	NE		1992	07	05.30226	17	54	03.76	-16 11 48.8		2 675
1992	NF	*	1992	07	02.38767	18	47	25.02	-14 15 25.4	16.5	2 675
1992	NF		1992	07	02.41128	18	47	23.88	-14 15 31.7		2 675
1992	NF		1992	07	05.31441	18	44	58.91	-14 29 07.5		2 675
1992	NF		1992	07	05.35104	18	44	57.34	-14 29 17.7		2 675
1992	NG	*	1992	07	02.38767	18	51	16.03	-13 26 02.0	17.0	2 675
1992	NG		1992	07	02.41128	18	51	14.95	-13 26 06.0		2 675
1992	NG		1992	07	05.31441	18	48	14.73	-13 38 33.5		2 675
1992	NG		1992	07	05.35104	18	48	12.72	-13 38 41.6		2 675
1992	NH	*	1992	07	02.43021	19	28	40.64	-09 28 40.2	16.0	2 675
1992	NH		1992	07	02.45243	19	28	39.40	-09 29 13.6		2 675
1992	NH		1992	07	05.29601	19	25	58.30	-10 45 28.9		2 675
1992	NH		1992	07	05.31528	19	25	57.10	-10 46 00.1		2 675
1992	NL	*	1992	07	02.39358	18	25	40.93	-02 38 59.3	16.5	2 675
1992	NL		1992	07	02.41771	18	25	39.58	-02 39 10.1		2 675
1992	NL		1992	07	05.28958	18	23	10.81	-03 01 35.8		2 675
1992	NL		1992	07	05.30885	18	23	09.62	-03 01 46.3		2 675
1992	NN	*	1992	07	02.44688	19	34	34.79	-26 03 42.6	16.5	2 675
1992	NN		1992	07	02.47083	19	34	33.29	-26 03 49.8		2 675
1992	NN		1992	07	05.34497	19	32	11.99	-26 18 31.3		2 675
1992	NN		1992	07	05.37188	19	32	10.12	-26 18 37.0		2 675
1992	NO	*	1992	07	02.44688	19	44	50.38	-26 03 52.9	16.5	2 675
1992	NO		1992	07	02.47083	19	44	49.11	-26 04 01.1		2 675
1992	NO		1992	07	05.34497	19	42	10.59	-26 16 03.1		2 675
1992	NO		1992	07	05.37188	19	42	09.06	-26 16 10.1		2 675
1992	NP	*	1992	07	02.44688	19	28	43.91	-26 30 23.3	16.0	2 675
1992	NP		1992	07	02.47083	19	28	42.20	-26 30 17.1		2 675
1992	NP		1992	07	05.34497	19	25	38.36	-26 19 25.7		2 675
1992	NP		1992	07	05.37188	19	25	36.52	-26 19 18.2		2 675
1992	NP		1992	07	26.24861	19	03	14.93	-24 38 42.2	16.0	2 675
1992	NP		1992	07	26.26840	19	03	13.84	-24 38 35.3		2 675
1992	NP		1992	07	28.29670	19	01	20.63	-24 27 09.2		2 675
1992	NP		1992	07	28.32014	19	01	19.31	-24 27 01.4		2 675
1992	NR	*	1992	07	05.38993	21	22	12.03	-08 09 48.1	16.5	2 675
1992	NR		1992	07	05.42326	21	22	11.22	-08 10 01.5		2 675
1992	NR		1992	07	26.29983	21	09	40.91	-10 57 22.8	16.5	2 675
1992	NR		1992	07	26.32448	21	09	39.61	-10 57 37.7		2 675
1992	NR		1992	07	28.43003	21	08	00.87	-11 18 03.9		2 675
1992	NR		1992	07	28.45694	21	07	59.57	-11 18 18.8		2 675
1992	OH	*	1992	07	27.37361	21	04	17.92	-23 04 15.7	16.0	2 675
1992	OH		1992	07	27.39583	21	04	15.54	-23 03 55.2		2 675
1992	OH		1992	07	28.22813	21	02	53.33	-22 51 24.3		2 675
1992	OH		1992	07	28.42396	21	02	33.10	-22 48 27.6		2 675
1992	OL	*	1992	07	27.45833	22	25	56.25	-13 10 35.0	16.5	2 675
1992	OL		1992	07	27.47569	22	25	54.75	-13 10 22.4		2 675
1992	OL		1992	07	29.46302	22	23	04.30	-12 45 42.1		2 675

1992 OL		1992	07	29.48472	22	23	02.52	-12	45	24.0	2	675
1992 OM	*	1992	07	27.45833	22	31	24.80	-10	23	41.8	15.5	2	675
1992 OM		1992	07	27.47569	22	31	24.89	-10	23	14.0		2	675
1992 OM		1992	07	29.46302	22	31	31.27	-09	25	14.6		2	675
1992 OM		1992	07	29.48472	22	31	31.02	-09	24	37.7		2	675
1992 OO	*	1992	07	27.46476	22	38	59.95	-23	52	30.3	15.5	2	675
1992 OO		1992	07	27.48125	22	38	59.74	-23	52	55.7		2	675
1992 OP	*	1992	07	27.32153	19	57	19.61	-17	15	08.3	16.5	2	675
1992 OP		1992	07	27.34462	19	57	18.35	-17	14	52.5		2	675
1992 OP		1992	07	29.33976	19	55	51.56	-16	52	08.6		2	675
1992 OP		1992	07	29.36111	19	55	50.29	-16	51	54.4		2	675
1992 OQ	*	1992	07	27.32153	19	58	41.50	-16	38	05.1	16.0	2	675
1992 OQ		1992	07	29.33976	19	57	35.34	-17	17	48.0		2	675
1992 OQ		1992	07	29.36111	19	57	34.55	-17	18	14.3		2	675
1992 OR	*	1992	07	27.32153	20	02	35.59	-15	50	36.6	15.5	2	675
1992 OR		1992	07	27.34462	20	02	34.66	-15	50	56.3		2	675
1992 OR		1992	07	29.33976	20	01	15.38	-16	21	18.6		2	675
1992 OR		1992	07	29.36111	20	01	14.39	-16	21	37.3		2	675
1992 OS	*	1992	07	26.24861	18	55	04.38	-22	27	56.3	16.5	2	675
1992 OS		1992	07	26.26840	18	55	03.59	-22	27	48.6		2	675
1992 OS		1992	07	28.29670	18	53	55.19	-22	11	41.0		2	675
1992 OS		1992	07	28.32014	18	53	54.29	-22	11	29.5		2	675
2835 P-L		1955	04	20.26181	11	59	38.42	+00	57	57.8		6	675
2835 P-L		1955	04	20.28681	11	59	37.45	+00	57	55.8		6	675
2835 P-L	*	1960	09	24.46184	00	39	21.45	+01	37	45.3	18.0	4	675
2835 P-L		1960	09	26.31530	00	37	26.00	+01	31	42.7		4	675
2835 P-L		1960	09	27.40836	00	36	16.72	+01	28	06.3		4	675
2835 P-L		1960	09	28.39725	00	35	13.84	+01	24	49.4		4	675
2835 P-L		1960	10	17.27085	00	15	41.82	+00	29	37.4		4	675
2835 P-L		1960	10	17.31529	00	15	39.25	+00	29	31.4		4	675
2835 P-L		1960	10	26.31531	00	08	05.13	+00	14	48.5		4	675
3063 P-L	*	1960	09	24.47431	00	21	40.42	+12	38	59.5	18.2	4	675
3063 P-L		1960	09	25.22986	00	21	08.15	+12	36	10.2		4	675
3063 P-L		1960	09	26.29514	00	20	22.09	+12	32	05.4		4	675
3063 P-L		1960	09	27.27569	00	19	39.65	+12	28	15.0		4	675
3063 P-L		1960	09	28.34722	00	18	53.24	+12	23	57.4		4	675
3063 P-L		1960	09	29.34722	00	18	10.02	+12	19	51.2		4	675
3063 P-L		1960	09	29.47153	00	18	04.41	+12	19	21.3		4	675
4113 P-L		1949	11	21.24375	03	03	27.49	+15	40	37.6	17.8	6	675
4113 P-L		1949	11	21.26979	03	03	25.87	+15	40	28.7		6	675
6516 P-L		1980	10	14.46128	02	27	16.99	+19	02	10.7	17.0 V	6	675
6568 P-L		1953	09	17.30521	22	47	19.88	-09	41	24.3	18.2	6	675
6568 P-L		1953	09	17.32847	22	47	18.43	-09	41	29.6		6	675
1216 T-1		1971	03	24.38924	12	15	35.14	-01	55	24.8		4	675
1216 T-1		1971	03	25.27326	12	14	46.12	-01	49	21.8	19.8	4	675
1216 T-1	*	1971	03	25.31562	12	14	43.70	-01	49	06.4		4	675
1216 T-1		1971	03	26.26771	12	13	51.06	-01	42	39.1		4	675
1216 T-1		1971	03	27.32500	12	12	52.22	-01	35	29.5		4	675
2105 T-1		1971	03	24.37118	12	05	46.84	+01	32	12.2		4	675
2105 T-1		1971	03	25.24340	12	04	59.47	+01	37	35.3		4	675
2105 T-1	*	1971	03	25.28715	12	04	57.00	+01	37	52.0	19.0	4	675
2105 T-1		1971	03	26.25208	12	04	04.46	+01	43	44.9		4	675
2105 T-1		1971	03	27.31181	12	03	06.68	+01	50	13.1		4	675
2105 T-1		1971	04	02.41285	11	57	41.91	+02	25	56.8		4	675
1136 T-2		1949	11	21.26979	03	01	30.91	+12	51	26.0		6	675
1128 T-3		1954	07	29.38125	22	19	58.61	-21	47	25.7		6	675
1128 T-3		1954	07	29.40556	22	19	57.45	-21	47	28.5		6	675
3398 T-3		1950	12	09.21667	04	01	30.71	+16	14	41.3		6	675
3398 T-3		1950	12	09.24410	04	01	29.20	+16	14	38.7		6	675

3398 T-3	1953 09 17.30521	22 47 11.63	-08 51 33.6	18.5	6	675
3398 T-3	1953 09 17.32847	22 47 10.61	-08 51 41.8		6	675
(32)	1950 12 09.21667	04 11 03.41	+17 04 22.1		6	675
(32)	1950 12 09.24410	04 11 01.88	+17 04 16.4		6	675
(70)	1954 04 02.42188	15 03 46.69	-12 33 34.1		6	675
(70)	1954 04 02.44514	15 03 45.97	-12 33 36.5		6	675
(75)	1980 10 14.40729	02 04 48.07	+17 35 08.3		6	675
(119)	1981 08 30.29340	21 52 53.30	-04 38 08.9		6	675
(119)	1981 08 31.28924	21 52 06.54	-04 44 50.4		6	675
(122)	1992 06 25.26979	15 43 48.26	-17 36 05.6		9	675
(122)	1992 06 25.31100	15 43 47.18	-17 36 02.8		9	675
(122)	1992 06 26.20712	15 43 25.02	-17 35 07.1		9	675
(122)	1992 06 26.24288	15 43 24.12	-17 35 04.8		9	675
(122)	1992 06 28.19896	15 42 38.93	-17 33 16.3		9	675
(122)	1992 06 28.22569	15 42 38.29	-17 33 14.2		9	675
(135)	1992 06 25.21406	15 03 20.66	-21 07 16.3		9	675
(135)	1992 06 25.24392	15 03 20.08	-21 07 13.0		9	675
(135)	1992 06 27.19566	15 02 54.79	-21 03 19.1		9	675
(135)	1992 06 27.23681	15 02 54.24	-21 03 14.8		9	675
(135)	1992 06 29.19948	15 02 36.82	-20 59 47.0		9	675
(135)	1992 06 29.23177	15 02 36.52	-20 59 43.6		9	675
(147)	1981 08 30.34965	22 27 21.73	-06 36 05.2		6	675
(147)	1981 08 31.34549	22 26 37.43	-06 40 26.3		6	675
(151)	1991 09 15.25035	21 19 44.55	-25 06 10.5		9	675
(151)	1991 09 15.29619	21 19 43.08	-25 06 07.7		9	675
(258)	1992 04 28.37101	16 13 31.60	-11 14 31.7		9	675
(258)	1992 04 28.40469	16 13 30.25	-11 14 16.6		9	675
(269)	1954 05 23.24826	14 20 25.64	-04 31 05.6		6	675
(269)	1954 05 23.27188	14 20 24.73	-04 31 02.4		6	675
(274)	1949 11 21.24375	03 04 32.69	+13 41 56.5		6	675
(274)	1949 11 21.26979	03 04 31.40	+13 41 55.5		6	675
(320)	1980 10 14.40729	01 54 01.88	+15 12 18.9		6	675
(336)	1980 10 14.40729	01 49 48.89	+16 15 34.7		6	675
(349)	1991 09 15.25035	21 30 04.83	-26 18 50.9		9	675
(349)	1991 09 15.29619	21 30 03.25	-26 18 46.1		9	675
(404)	1955 11 16.28611	03 23 36.47	+04 00 53.0		6	675
(404)	1955 11 16.31250	03 23 34.84	+04 00 52.0		6	675
(428)	1981 10 24.24063	01 47 47.77	+14 09 58.4		6	675
(428)	1981 10 25.32570	01 46 38.34	+14 09 48.7		6	675
(428)	1981 10 26.31979	01 45 35.27	+14 09 37.8		6	675
(444)	1992 06 28.30694	16 54 03.65	-07 51 20.3		9	675
(444)	1992 06 28.33732	16 54 02.37	-07 51 19.7		9	675
(444)	1992 06 29.26510	16 53 22.64	-07 50 56.0		9	675
(444)	1992 06 29.29497	16 53 21.33	-07 50 55.5		9	675
(444)	1992 06 30.27135	16 52 40.32	-07 50 39.3		9	675
(444)	1992 06 30.30122	16 52 39.04	-07 50 38.7		9	675
(464)	1992 06 25.26979	15 42 04.81	-11 13 07.6		9	675
(464)	1992 06 25.31100	15 42 03.38	-11 13 13.5		9	675
(464)	1992 06 26.20712	15 41 34.40	-11 15 26.9		9	675
(464)	1992 06 26.24288	15 41 33.18	-11 15 33.0		9	675
(464)	1992 06 28.19896	15 40 33.32	-11 20 41.2		9	675
(464)	1992 06 28.22569	15 40 32.52	-11 20 45.0		9	675
(502)	1992 06 26.19983	15 38 26.68	+16 04 02.6		9	675
(502)	1992 06 26.23594	15 38 25.90	+16 03 31.4		9	675
(502)	1992 06 28.25747	15 37 49.35	+15 33 59.7		9	675
(502)	1992 06 28.28681	15 37 48.81	+15 33 33.3		9	675
(502)	1992 06 29.25851	15 37 33.77	+15 19 08.3		9	675
(502)	1992 06 29.28958	15 37 33.27	+15 18 39.8		9	675

(509)		1980	10	14.40729	01	59	59.73	+16	19	56.2			6	675
(559)		1991	09	15.25035	21	45	23.93	-23	03	49.4			9	675
(559)		1991	09	15.29619	21	45	22.36	-23	03	58.0			9	675
(579)		1992	04	28.37101	16	05	39.91	-12	47	22.2			9	675
(579)		1992	04	28.40469	16	05	38.49	-12	47	20.8			9	675
(579)		1992	06	25.26979	15	22	31.81	-13	38	02.5			9	675
(579)		1992	06	25.31100	15	22	30.79	-13	38	11.6			9	675
(579)		1992	06	26.20712	15	22	10.14	-13	40	45.1			9	675
(579)		1992	06	26.24288	15	22	09.29	-13	40	51.9			9	675
(579)		1992	06	28.19896	15	21	27.90	-13	46	45.0			9	675
(579)		1992	06	28.22569	15	21	27.33	-13	46	49.8			9	675
(633)		1992	06	03.45017	23	30	00.68	-03	45	36.6		17.5	3	675
(637)		1992	06	25.21406	15	10	37.09	-18	09	08.4			9	675
(637)		1992	06	25.24392	15	10	36.60	-18	09	05.8			9	675
(674)		1953	10	10.37535	02	14	45.67	+01	00	12.7			6	675
(674)		1953	10	10.39931	02	14	44.45	+01	00	10.3			6	675
(714)		1992	06	25.26979	15	35	15.10	-13	41	38.1			9	675
(714)		1992	06	25.31100	15	35	14.19	-13	41	27.2			9	675
(714)		1992	06	26.20712	15	34	54.46	-13	37	20.9			9	675
(714)		1992	06	26.24288	15	34	53.67	-13	37	10.7			9	675
(714)		1992	06	28.19896	15	34	14.69	-13	28	41.5			9	675
(714)		1992	06	28.22569	15	34	14.14	-13	28	34.5			9	675
(723)		1992	04	28.37101	16	04	05.86	-13	55	46.1			9	675
(723)		1992	04	28.40469	16	04	04.49	-13	55	39.3			9	675
(723)		1992	06	25.26979	15	24	40.21	-11	47	32.8			9	675
(723)		1992	06	25.31100	15	24	39.21	-11	47	34.0			9	675
(723)		1992	06	26.20712	15	24	20.73	-11	47	39.6			9	675
(723)		1992	06	26.24288	15	24	19.91	-11	47	40.7			9	675
(723)		1992	06	28.19896	15	23	42.71	-11	48	10.0			9	675
(723)		1992	06	28.22569	15	23	42.16	-11	48	11.2			9	675
(758)		1992	04	28.37101	15	48	29.96	-13	42	59.1			9	675
(758)		1992	04	28.40469	15	48	28.36	-13	42	54.2			9	675
(777)		1953	12	07.42396	06	28	21.43	+29	03	01.8			6	675
(777)		1953	12	07.44792	06	28	20.12	+29	02	58.5			6	675
(826)		1980	10	14.40729	02	01	57.09	+16	30	48.9			6	675
(837)		1992	06	28.30694	16	39	09.93	-12	05	11.0		16.8	9	675
(837)		1992	06	28.33732	16	39	08.65	-12	05	09.2			9	675
(837)		1992	06	29.26510	16	38	29.49	-12	04	29.6			9	675
(837)		1992	06	29.29497	16	38	28.19	-12	04	28.6			9	675
(837)		1992	06	30.27135	16	37	48.18	-12	03	54.8			9	675
(837)		1992	06	30.30122	16	37	46.93	-12	03	53.3			9	675
(849)		1992	04	28.37101	16	07	10.05	-17	47	27.4			9	675
(849)		1992	04	28.40469	16	07	08.88	-17	47	09.3			9	675
(913)		1991	09	15.25035	21	31	41.91	-24	40	17.2			9	675
(913)		1991	09	15.29619	21	31	41.01	-24	40	16.2			9	675
(927)		1981	10	24.24063	01	34	57.68	+17	40	08.9			6	675
(927)		1981	10	25.32570	01	34	01.41	+17	38	16.9			6	675
(927)		1981	10	26.31979	01	33	10.20	+17	36	30.3			6	675
(1011)		1954	05	23.24826	14	23	31.04	-04	20	11.1			6	675
(1011)		1954	05	23.27188	14	23	30.06	-04	20	10.4			6	675
(1072)		1954	07	29.38125	22	25	16.39	-21	42	31.7			6	675
(1072)		1954	07	29.40556	22	25	15.51	-21	42	38.6			6	675
(1082)		1992	06	25.21406	15	09	21.07	-15	05	41.8			9	675
(1082)		1992	06	25.24392	15	09	20.56	-15	05	38.3			9	675
(1082)		1992	06	27.23681	15	08	45.81	-15	04	38.8			9	675
(1082)		1992	06	29.19948	15	08	17.12	-15	04	03.6			9	675
(1082)		1992	06	29.23177	15	08	16.63	-15	04	02.4			9	675
(1107)		1955	11	16.28611	03	17	46.97	+08	41	28.6			6	675
(1107)		1955	11	16.31250	03	17	45.65	+08	41	25.7			6	675

(1119)		1953	12	07.42396	06	28	58.59	+29	17	48.2			6	675
(1119)		1953	12	07.44792	06	28	57.15	+29	17	53.3			6	675
(1143)		1992	06	27.19566	15	13	53.13	-16	54	16.5			9	675
(1143)		1992	06	27.23681	15	13	52.53	-16	54	14.4			9	675
(1143)		1992	06	29.19948	15	13	26.31	-16	52	16.5			9	675
(1143)		1992	06	29.23177	15	13	25.88	-16	52	14.5			9	675
(1167)		1992	06	25.21406	15	14	55.55	-15	33	05.9			9	675
(1167)		1992	06	25.24392	15	14	55.01	-15	33	02.3			9	675
(1167)		1992	06	27.19566	15	14	27.68	-15	29	40.2			9	675
(1167)		1992	06	27.23681	15	14	27.11	-15	29	36.4			9	675
(1167)		1992	06	29.19948	15	14	04.39	-15	26	35.8			9	675
(1167)		1992	06	29.23177	15	14	04.03	-15	26	33.1			9	675
(1230)		1992	06	28.30694	16	40	52.85	-08	31	57.1		17.5	9	675
(1230)		1992	06	28.33732	16	40	51.56	-08	31	56.8			9	675
(1230)		1992	06	29.26510	16	40	11.91	-08	31	15.9			9	675
(1230)		1992	06	29.29497	16	40	10.66	-08	31	15.0			9	675
(1230)		1992	06	30.27135	16	39	29.78	-08	30	38.2			9	675
(1230)		1992	06	30.30122	16	39	28.48	-08	30	38.0			9	675
(1292)		1954	11	23.38472	06	10	45.18	+24	08	20.5			6	675
(1292)		1954	11	23.40868	06	10	44.16	+24	08	19.8			6	675
(1299)		1992	06	28.30694	16	37	11.91	-11	01	28.7		17.2	9	675
(1299)		1992	06	28.33732	16	37	10.70	-11	01	29.4			9	675
(1299)		1992	06	29.26510	16	36	34.68	-11	01	56.5			9	675
(1299)		1992	06	29.29497	16	36	33.49	-11	01	57.5			9	675
(1299)		1992	06	30.27135	16	35	56.22	-11	02	29.8			9	675
(1299)		1992	06	30.30122	16	35	55.07	-11	02	31.1			9	675
(1336)		1949	11	19.25833	03	16	16.52	+14	32	51.7			6	675
(1336)		1949	11	19.28646	03	16	14.98	+14	32	47.9			6	675
(1396)		1953	09	17.30521	22	49	08.14	-09	37	48.3			6	675
(1396)		1953	09	17.32847	22	49	06.80	-09	37	51.2			6	675
(1477)		1981	08	30.34965	22	26	31.25	-02	19	29.4			6	675
(1477)		1981	08	31.34549	22	25	34.45	-02	19	35.1			6	675
(1512)		1981	10	24.24063	01	40	35.55	+13	16	31.1			6	675
(1512)		1981	10	25.32570	01	39	53.49	+13	13	29.4			6	675
(1512)		1981	10	26.31979	01	39	15.20	+13	10	42.5			6	675
(1517)		1949	11	21.24375	03	00	50.21	+15	08	15.1			6	675
(1517)		1949	11	21.26979	03	00	48.76	+15	08	11.9			6	675
(1558)		1991	09	15.25035	21	25	48.41	-24	05	09.9			9	675
(1558)		1991	09	15.29619	21	25	47.12	-24	05	14.5			9	675
(1569)		1992	06	28.19896	15	44	14.96	-10	46	05.3			9	675
(1569)		1992	06	28.22569	15	44	14.16	-10	46	09.0			9	675
(1593)		1991	09	15.25035	21	27	33.10	-29	01	57.9			9	675
(1593)		1991	09	15.29619	21	27	33.89	-29	02	02.7			9	675
(1594)		1949	11	19.25833	03	10	10.37	+12	54	18.9			6	675
(1594)		1949	11	19.29428	03	10	07.84	+12	54	18.3			6	675
(1594)		1949	11	21.26979	03	07	55.48	+12	54	01.5			6	675
(1664)		1991	09	15.25035	21	38	49.80	-23	06	52.7		17.8	9	675
(1664)		1991	09	15.29619	21	38	47.77	-23	06	55.2			9	675
(1771)		1992	06	25.26979	15	47	47.44	-14	58	00.9			9	675
(1771)		1992	06	25.31100	15	47	46.14	-14	58	02.7			9	675
(1771)		1992	06	26.20712	15	47	18.15	-14	59	05.8			9	675
(1771)		1992	06	26.24288	15	47	17.00	-14	59	09.1			9	675
(1771)		1992	06	28.19896	15	46	18.45	-15	01	37.1			9	675
(1771)		1992	06	28.22569	15	46	17.64	-15	01	39.4			9	675
(1811)		1955	11	16.28611	03	23	34.23	+07	29	49.1			6	675
(1811)		1955	11	16.31250	03	23	32.94	+07	29	43.3			6	675
(1928)		1992	04	28.37101	16	08	00.17	-15	01	05.3			9	675
(1928)		1992	04	28.40469	16	07	58.69	-15	00	56.3			9	675
(1928)		1992	06	25.26979	15	21	37.63	-11	43	34.6			9	675

(1928)		1992	06	26.20712	15	21	17.68	-11	43	23.5			9	675
(1928)		1992	06	26.24288	15	21	16.77	-11	43	24.1			9	675
(1928)		1992	06	28.19896	15	20	39.42	-11	43	25.9			9	675
(1928)		1992	06	28.22569	15	20	38.83	-11	43	26.0			9	675
(1933)		1981	08	30.29340	22	05	45.33	-08	51	43.3			6	675
(1933)		1981	08	31.28924	22	04	56.94	-09	01	02.4			6	675
(1946)		1980	10	14.46128	02	21	07.92	+17	56	00.1			6	675
(1973)		1955	04	20.26181	12	02	09.77	+00	55	00.2			6	675
(1973)		1955	04	20.28681	12	02	08.97	+00	55	08.1			6	675
(2021)		1992	04	28.37101	16	16	52.80	-11	40	49.8			9	675
(2021)		1992	04	28.40469	16	16	51.61	-11	40	39.5			9	675
(2028)		1992	06	04.26024	15	26	42.99	-18	36	43.4		17.8	9	675
(2028)		1992	06	04.29271	15	26	41.50	-18	36	26.5			9	675
(2028)		1992	06	26.20712	15	17	43.93	-16	10	42.1			9	675
(2028)		1992	06	26.24288	15	17	43.77	-16	10	31.0			9	675
(2028)		1992	06	28.19896	15	17	41.61	-16	01	53.6			9	675
(2028)		1992	06	28.22569	15	17	41.58	-16	01	46.0			9	675
(2029)		1980	10	14.46128	02	07	23.02	+23	06	37.3			6	675
(2033)		1981	08	30.29340	21	56	33.66	-09	52	43.4			6	675
(2033)		1981	08	31.28924	21	55	29.04	-09	54	27.0			6	675
(2041)		1949	11	21.24375	03	00	22.00	+12	09	18.7			6	675
(2069)		1991	09	15.25035	21	38	55.11	-26	44	29.8			9	675
(2069)		1991	09	15.29619	21	38	53.48	-26	44	31.2			9	675
(2090)		1991	09	12.48542	01	21	01.95	+18	44	27.6			9	675
(2090)		1991	09	12.50898	01	21	01.10	+18	44	30.8			9	675
(2090)		1991	09	16.47222	01	18	30.40	+18	53	01.9			9	675
(2090)		1991	09	16.50608	01	18	28.97	+18	53	03.8			9	675
(2103)		1991	09	12.48542	01	00	13.08	+17	14	53.0			9	675
(2103)		1991	09	12.50898	01	00	12.29	+17	14	51.3			9	675
(2103)		1991	09	16.47222	00	57	49.89	+17	07	59.5			9	675
(2103)		1991	09	16.50608	00	57	48.60	+17	07	54.8			9	675
(2115)		1980	10	14.40729	01	47	57.23	+18	51	19.8			6	675
(2132)		1992	04	28.37101	16	04	34.52	-16	39	27.3			9	675
(2132)		1992	04	28.40469	16	04	33.03	-16	39	25.2			9	675
(2132)		1992	06	25.21406	15	20	31.83	-15	50	06.3			9	675
(2132)		1992	06	25.24392	15	20	31.07	-15	50	09.0			9	675
(2132)		1992	06	25.26979	15	20	30.40	-15	50	07.7			9	675
(2132)		1992	06	25.31100	15	20	29.33	-15	50	08.5			9	675
(2132)		1992	06	26.20712	15	20	08.84	-15	50	47.1			9	675
(2132)		1992	06	26.24288	15	20	08.04	-15	50	48.9			9	675
(2132)		1992	06	28.19896	15	19	27.00	-15	52	24.2			9	675
(2132)		1992	06	28.22569	15	19	26.43	-15	52	25.5			9	675
(2132)		1992	06	29.19948	15	19	07.99	-15	53	21.2			9	675
(2132)		1992	06	29.23177	15	19	07.41	-15	53	22.3			9	675
(2159)		1980	10	14.40729	02	02	33.28	+15	58	09.7			6	675
(2184)		1981	10	24.24063	01	43	01.99	+17	00	20.1			6	675
(2184)		1981	10	25.32570	01	42	12.26	+16	54	06.5			6	675
(2184)		1981	10	26.31979	01	41	27.11	+16	48	21.7			6	675
(2206)		1992	06	04.26024	15	13	38.17	-16	18	42.4			9	675
(2206)		1992	06	04.29271	15	13	36.66	-16	18	44.0			9	675
(2206)		1992	06	25.21406	15	02	50.32	-16	52	34.8			9	675
(2206)		1992	06	25.24392	15	02	49.72	-16	52	38.8			9	675
(2230)		1949	11	21.26979	03	00	35.55	+13	02	18.3			6	675
(2240)		1992	06	04.26024	15	18	17.88	-18	12	40.6			9	675
(2240)		1992	06	04.29271	15	18	16.47	-18	12	34.3			9	675
(2266)		1980	10	14.40729	01	46	47.64	+19	40	29.7			6	675
(2307)		1991	09	12.48542	01	17	53.10	+17	57	44.6			9	675
(2307)		1991	09	12.50898	01	17	52.35	+17	57	42.1			9	675
(2307)		1991	09	16.47222	01	15	45.95	+17	48	25.3			9	675

(2307)		1991	09	16.50608	01	15	44.71	+17	48	19.4		9	675
(2352)		1991	09	12.48542	00	57	09.97	+22	17	47.1		9	675
(2352)		1991	09	12.50898	00	57	09.19	+22	17	42.0		9	675
(2352)		1991	09	16.47222	00	55	03.94	+22	01	25.9		9	675
(2352)		1991	09	16.50608	00	55	02.69	+22	01	17.0		9	675
(2399)		1954	05	23.25626	14	20	26.77	-04	17	12.7		6	675
(2399)		1954	05	23.28751	14	20	25.49	-04	17	09.5		6	675
(2409)		1992	04	28.37101	15	59	55.24	-14	35	26.4		9	675
(2409)		1992	04	28.40469	15	59	53.60	-14	35	19.1		9	675
(2433)		1953	10	10.47674	03	59	14.00	+11	41	41.9		6	675
(2465)		1981	08	30.29340	22	08	46.69	-07	10	29.9		6	675
(2465)		1981	08	31.28924	22	07	56.89	-07	14	06.5		6	675
(2476)		1992	04	28.37101	16	19	57.70	-14	40	42.3		9	675
(2476)		1992	04	28.40469	16	19	56.43	-14	40	41.3		9	675
(2476)		1992	06	25.26979	15	35	53.75	-15	11	05.6		9	675
(2476)		1992	06	25.31100	15	35	52.48	-15	11	09.6		9	675
(2476)		1992	06	26.20712	15	35	26.72	-15	13	00.0		9	675
(2476)		1992	06	26.24288	15	35	25.70	-15	13	05.2		9	675
(2476)		1992	06	28.19896	15	34	32.87	-15	17	17.2		9	675
(2476)		1992	06	28.22569	15	34	32.17	-15	17	20.5		9	675
(2513)		1981	08	30.34965	22	39	33.13	-01	15	26.1		6	675
(2513)		1981	08	31.34549	22	38	42.28	-01	19	48.8		6	675
(2513)		1988	09	13.39340	00	09	47.05	+08	15	00.0		9	675
(2513)		1988	09	13.41736	00	09	45.84	+08	14	53.2		9	675
(2513)		1988	09	14.33507	00	09	04.05	+08	10	45.5	16.0	9	675
(2513)		1988	09	14.36910	00	09	02.35	+08	10	36.2		9	675
(2639)		1949	11	19.25833	03	08	06.94	+10	12	15.2		6	675
(2639)		1949	11	21.24375	03	06	09.07	+10	10	19.2		6	675
(2639)		1949	11	21.26198	03	06	07.89	+10	10	17.9		6	675
(2659)		1992	06	25.26979	15	22	12.03	-16	41	15.6		9	675
(2659)		1992	06	25.31100	15	22	11.15	-16	41	13.4		9	675
(2659)		1992	06	26.20712	15	21	54.00	-16	40	29.7		9	675
(2659)		1992	06	26.24288	15	21	53.27	-16	40	29.3		9	675
(2659)		1992	06	28.19896	15	21	19.05	-16	39	10.7		9	675
(2659)		1992	06	28.22569	15	21	18.49	-16	39	09.4		9	675
(2659)		1992	06	29.19948	15	21	03.36	-16	38	37.9		9	675
(2686)		1988	09	13.39340	00	02	05.79	+10	54	56.3		9	675
(2686)		1988	09	13.41736	00	02	04.75	+10	54	46.9		9	675
(2686)		1988	09	14.33507	00	01	26.39	+10	49	45.0	17.0	9	675
(2686)		1988	09	14.36910	00	01	25.01	+10	49	34.1		9	675
(2696)		1992	06	28.27517	16	27	09.03	+13	50	41.1	17.5	3	675
(2696)		1992	06	28.30330	16	27	08.05	+13	50	35.7		3	675
(2696)		1992	06	29.27813	16	26	33.61	+13	46	59.3		3	675
(2696)		1992	06	29.30573	16	26	32.61	+13	46	54.0		3	675
(2696)		1992	06	30.30920	16	25	58.47	+13	42	56.0		3	675
(2696)		1992	06	30.33715	16	25	57.44	+13	42	49.0		3	675
(2713)		1992	06	04.26024	15	20	53.57	-20	33	06.0		9	675
(2713)		1992	06	04.29271	15	20	52.09	-20	33	00.9		9	675
(2713)		1992	06	06.26441	15	19	28.51	-20	27	19.9		9	675
(2713)		1992	06	06.29931	15	19	27.01	-20	27	14.7		9	675
(2726)		1992	06	25.21406	15	09	47.71	-19	46	07.5		9	675
(2726)		1992	06	25.24392	15	09	47.01	-19	46	05.8		9	675
(2770)		1992	06	27.19566	15	08	49.94	-20	12	27.5		9	675
(2770)		1992	06	27.23681	15	08	49.62	-20	12	28.3		9	675
(2810)		1953	10	10.47674	04	12	56.18	+10	51	32.2		6	675
(2810)		1953	10	10.50000	04	12	56.12	+10	51	20.0		6	675
(2834)		1988	09	13.39340	00	02	36.71	+05	51	20.1		9	675
(2834)		1988	09	13.41736	00	02	35.50	+05	51	10.7		9	675
(2834)		1988	09	14.33507	00	01	51.69	+05	45	03.4	16.8	9	675

(2834)		1988	09	14.36910	00	01	49.98	+05	44	49.3	9 675
(2851)		1954	07	29.38125	22	15	49.15	-25	37	27.7	6 675
(2851)		1954	07	29.40556	22	15	48.10	-25	37	37.4	6 675
(2852)		1949	11	19.25833	03	12	35.71	+15	30	41.0	6 675
(2852)		1949	11	19.28646	03	12	34.08	+15	30	35.7	6 675
(2854)		1981	08	30.29340	21	56	33.84	-05	35	14.7	6 675
(2854)		1981	08	31.28924	21	55	34.27	-05	39	08.7	6 675
(2874)		1954	04	02.42188	15	03	37.14	-11	41	13.0	6 675
(2874)		1954	04	02.44514	15	03	36.29	-11	41	09.2	6 675
(2878)		1991	09	12.48542	01	11	00.36	+20	33	10.4	9 675
(2878)		1991	09	12.50898	01	10	59.52	+20	33	11.7	9 675
(2878)		1991	09	16.47222	01	08	31.25	+20	37	52.3	9 675
(2878)		1991	09	16.50608	01	08	29.84	+20	37	53.6	9 675
(2881)		1981	08	30.29340	22	06	49.56	-08	49	02.2	6 675
(2881)		1981	08	31.28924	22	05	53.87	-08	56	04.9	6 675
(2898)		1992	06	28.30694	16	47	27.69	-08	52	48.6	16.5 9 675
(2898)		1992	06	28.33732	16	47	26.32	-08	52	58.7	9 675
(2898)		1992	06	29.26510	16	46	44.69	-08	58	32.7	9 675
(2898)		1992	06	29.29497	16	46	43.41	-08	58	44.7	9 675
(2898)		1992	06	30.27135	16	46	00.55	-09	04	41.7	9 675
(2898)		1992	06	30.30122	16	45	59.23	-09	04	53.3	9 675
(3044)		1992	06	30.27135	16	59	12.03	-14	24	54.8	16.5 9 675
(3044)		1992	06	30.30122	16	59	10.73	-14	24	45.9	9 675
(3129)		1992	06	28.30694	16	46	08.11	-14	55	04.5	16.8 9 675
(3129)		1992	06	28.33732	16	46	06.96	-14	55	12.0	9 675
(3129)		1992	06	29.26510	16	45	33.37	-14	58	31.1	9 675
(3129)		1992	06	29.29497	16	45	32.26	-14	58	37.9	9 675
(3129)		1992	06	30.27135	16	44	58.19	-15	02	12.9	9 675
(3129)		1992	06	30.30122	16	44	57.08	-15	02	19.0	9 675
(3139)		1991	09	13.47153	01	33	35.69	+33	37	41.3	9 675
(3139)		1991	09	13.50712	01	33	34.71	+33	37	41.7	9 675
(3139)		1991	09	14.50573	01	33	09.18	+33	37	38.2	9 675
(3139)		1991	09	16.51580	01	32	14.06	+33	36	51.5	9 675
(3166)		1991	09	15.25035	21	39	15.49	-22	44	33.4	17.0 9 675
(3166)		1991	09	15.29619	21	39	13.65	-22	44	36.4	9 675
(3184)		1992	04	28.37101	15	55	58.61	-10	48	11.7	9 675
(3184)		1992	04	28.40469	15	55	56.92	-10	48	08.7	9 675
(3197)		1955	03	22.17083	08	32	04.55	+30	48	50.4	6 675
(3197)		1955	03	22.19653	08	32	04.84	+30	48	50.1	6 675
(3300)		1980	10	14.46128	02	32	30.65	+19	03	13.4	6 675
(3427)		1981	08	30.29340	22	00	45.01	-10	07	54.3	6 675
(3427)		1981	08	31.28924	21	59	47.70	-10	11	28.2	6 675
(3459)		1991	12	31.34080	07	31	08.56	+22	55	15.5	18.5 9 675
(3459)		1991	12	31.37986	07	31	05.84	+22	55	25.7	9 675
(3464)		1981	08	30.34965	22	27	15.41	-07	06	23.7	6 675
(3464)		1981	08	31.34549	22	26	11.64	-07	08	59.0	6 675
(3491)		1992	04	28.37101	16	02	30.50	-15	02	59.6	9 675
(3491)		1992	04	28.40469	16	02	29.09	-15	02	53.6	9 675
(3491)		1992	06	26.20712	15	20	30.12	-12	47	48.8	9 675
(3491)		1992	06	28.19896	15	19	51.53	-12	47	56.4	9 675
(3519)		1953	09	17.30521	22	46	24.36	-08	56	27.5	6 675
(3519)		1953	09	17.32847	22	46	23.26	-08	56	33.3	6 675
(3639)		1981	08	30.34965	22	31	12.49	-05	26	56.3	6 675
(3639)		1981	08	31.34549	22	30	18.62	-05	32	45.4	6 675
(3659)		1949	11	19.27084	03	09	02.26	+13	30	34.3	6 675
(3659)		1949	11	21.25417	03	07	15.06	+13	21	02.7	6 675
(3727)		1981	08	30.29340	21	58	40.39	-10	24	43.5	6 675
(3727)		1981	08	31.28924	21	58	00.99	-10	30	11.2	6 675
(3774)		1991	09	12.48542	00	54	17.67	+19	29	14.8	9 675

(3774)		1991	09	12.50898	00	54	16.77	+19	29	14.0			9	675
(3774)		1991	09	16.47222	00	51	41.22	+19	24	36.7			9	675
(3774)		1991	09	16.50608	00	51	39.83	+19	24	33.2			9	675
(3796)		1981	10	24.24063	01	24	12.43	+18	21	07.8			6	675
(3796)		1981	10	25.32570	01	23	17.37	+18	14	03.2			6	675
(3796)		1981	10	26.31979	01	22	27.63	+18	07	32.2			6	675
(3817)		1949	11	19.25833	03	16	12.63	+12	36	05.6			6	675
(3817)		1949	11	19.28646	03	16	10.89	+12	35	59.3			6	675
(3843)		1953	12	07.42396	06	27	52.27	+27	55	16.8			6	675
(3843)		1953	12	07.44792	06	27	51.24	+27	55	18.8			6	675
(3860)		1991	09	12.48542	00	48	55.64	+19	08	22.7		16.0	9	675
(3860)		1991	09	12.50898	00	48	54.73	+19	08	22.1			9	675
(3878)		1949	11	19.25833	03	16	08.89	+14	42	51.7			6	675
(3878)		1949	11	19.29428	03	16	07.19	+14	42	45.6			6	675
(3882)		1992	06	28.30694	16	46	07.85	-13	46	46.3		16.5	9	675
(3882)		1992	06	28.33732	16	46	06.70	-13	46	45.3			9	675
(3882)		1992	06	29.26510	16	45	32.84	-13	46	26.7			9	675
(3882)		1992	06	29.29497	16	45	31.72	-13	46	26.1			9	675
(3882)		1992	06	30.27135	16	44	57.39	-13	46	14.3			9	675
(3882)		1992	06	30.30122	16	44	56.34	-13	46	14.5			9	675
(3886)		1949	11	21.24375	03	05	32.77	+11	46	28.3			6	675
(3886)		1949	11	21.26979	03	05	31.42	+11	46	22.4			6	675
(3919)		1949	11	21.24375	03	02	45.12	+10	30	33.9			6	675
(3919)		1949	11	21.26198	03	02	43.86	+10	30	29.3			6	675
(3933)		1953	09	17.30521	22	57	53.09	-08	59	10.5			6	675
(3933)		1953	09	17.32847	22	57	52.07	-08	59	15.2			6	675
(3943)		1981	10	25.32570	01	47	20.29	+17	06	43.4			6	675
(3943)		1981	10	26.31979	01	46	15.56	+17	06	01.5			6	675
(3957)		1992	04	28.37101	16	07	27.57	-14	03	17.3			9	675
(3957)		1992	04	28.40469	16	07	26.38	-14	03	08.9			9	675
(3957)		1992	06	25.26979	15	28	17.77	-11	13	04.7			9	675
(3957)		1992	06	25.31100	15	28	16.92	-11	13	03.8			9	675
(3957)		1992	06	26.20712	15	27	59.16	-11	12	56.2			9	675
(3957)		1992	06	26.24288	15	27	58.51	-11	12	56.4			9	675
(3957)		1992	06	28.19896	15	27	23.28	-11	12	58.6			9	675
(3957)		1992	06	28.22569	15	27	22.63	-11	13	00.7			9	675
(3968)		1981	08	30.29340	21	59	11.49	-08	08	31.0			6	675
(3968)		1981	08	31.28924	21	58	13.22	-08	10	46.9			6	675
(4010)		1981	08	30.34965	22	38	34.03	-05	07	38.8			6	675
(4010)		1981	08	31.34549	22	37	38.07	-05	10	12.3			6	675
(4035)		1992	06	25.26979	15	23	38.34	-17	01	24.6			9	675
(4035)		1992	06	26.20712	15	23	23.37	-16	59	35.7			9	675
(4035)		1992	06	26.24288	15	23	22.75	-16	59	33.2			9	675
(4035)		1992	06	28.19896	15	22	53.21	-16	55	58.6			9	675
(4093)		1991	09	12.48542	00	50	33.11	+19	08	28.5		17.8	9	675
(4093)		1991	09	12.50898	00	50	32.14	+19	08	25.4			9	675
(4188)		1954	05	23.24826	14	29	47.01	-04	32	21.8			6	675
(4188)		1954	05	23.27188	14	29	45.94	-04	32	16.5			6	675
(4201)		1980	10	14.40729	02	01	04.01	+18	21	45.6			6	675
(4201)		1991	09	12.48542	01	21	04.25	+17	21	42.5		17.2	9	675
(4201)		1991	09	12.50898	01	21	03.51	+17	21	39.6			9	675
(4201)		1991	09	16.47222	01	18	54.38	+17	09	23.6			9	675
(4201)		1991	09	16.50608	01	18	53.20	+17	09	16.4			9	675
(4213)		1980	10	14.46128	02	15	19.94	+17	47	12.2			6	675
(4214)		1955	04	20.26181	11	57	15.75	+00	37	54.2			6	675
(4214)		1955	04	20.28681	11	57	14.92	+00	37	56.7			6	675
(4225)		1954	11	23.38472	06	09	23.84	+25	05	39.3			6	675
(4225)		1954	11	23.40868	06	09	22.53	+25	05	43.0			6	675
(4265)		1992	06	25.26979	15	51	15.78	-14	31	31.8			9	675

(4265)	1992	06	25.31100	15	51	14.14	-14	31	34.1	9 675
(4265)	1992	06	26.20712	15	50	40.70	-14	31	49.0	9 675
(4265)	1992	06	26.24288	15	50	39.42	-14	31	50.1	9 675
(4265)	1992	06	28.19896	15	49	30.59	-14	32	42.0	9 675
(4265)	1992	06	28.22569	15	49	29.54	-14	32	45.6	9 675
(4393)	1949	11	21.24375	03	00	51.29	+14	05	09.6	6 675
(4393)	1949	11	21.26979	03	00	50.17	+14	05	04.4	6 675
(4431)	1992	06	28.30694	16	56	29.49	-13	19	09.4	17.5 9 675
(4431)	1992	06	28.33732	16	56	28.40	-13	19	05.9	9 675
(4431)	1992	06	29.26510	16	55	51.75	-13	17	32.5	9 675
(4431)	1992	06	29.29497	16	55	50.53	-13	17	29.8	9 675
(4431)	1992	06	30.27135	16	55	12.53	-13	15	55.8	9 675
(4431)	1992	06	30.30122	16	55	11.36	-13	15	53.1	9 675
(4499)	1981	08	30.34965	22	23	49.02	-06	48	08.4	6 675
(4499)	1981	08	31.34549	22	23	00.52	-06	50	42.4	6 675
(4524)	1953	10	10.47674	03	58	02.57	+12	06	58.4	6 675
(4525)	1955	11	16.28611	03	19	32.76	+08	46	20.9	6 675
(4525)	1955	11	16.31250	03	19	30.98	+08	46	26.5	6 675
(4571)	1955	04	20.26181	11	58	35.40	+00	52	43.1	6 675
(4571)	1955	04	20.28681	11	58	34.51	+00	52	49.7	6 675
(4576)	1955	11	16.28611	03	29	51.01	+03	50	11.7	6 675
(4576)	1955	11	16.31250	03	29	49.73	+03	50	03.4	6 675
(4578)	1954	05	23.27188	14	34	06.37	-06	28	27.5	6 675
(4578)	1981	05	08.43507	15	46	48.89	-11	31	50.4	6 675
(4578)	1981	05	09.38021	15	45	57.08	-11	29	03.4	6 675
(4619)	1981	08	30.34965	22	27	33.54	-06	46	47.0	6 675
(4619)	1981	08	31.34549	22	26	43.31	-06	51	30.0	6 675
(4645)	1981	08	30.34965	22	29	54.14	-03	23	40.1	6 675
(4645)	1981	08	31.34549	22	29	07.14	-03	31	08.0	6 675
(4678)	1953	12	07.42396	06	27	12.84	+28	46	50.9	6 675
(4678)	1953	12	07.44792	06	27	11.05	+28	46	53.7	6 675
(4716)	1954	07	29.38125	22	25	32.65	-22	24	49.2	6 675
(4716)	1954	07	29.40556	22	25	31.71	-22	24	54.7	6 675
(4720)	1992	06	25.26979	15	39	43.85	-12	18	43.7	9 675
(4720)	1992	06	25.31100	15	39	42.40	-12	18	48.8	9 675
(4720)	1992	06	28.19896	15	38	12.03	-12	23	30.5	9 675
(4720)	1992	06	28.22569	15	38	11.20	-12	23	33.5	9 675
(4793)	1992	07	27.32153	20	14	51.42	-15	48	56.1	16.0 2 675
(4793)	1992	07	27.34462	20	14	50.07	-15	49	03.0	2 675
(4793)	1992	07	29.36111	20	13	03.32	-15	58	26.7	2 675
(4839)	1992	04	28.40469	16	01	50.76	-10	31	39.9	9 675
(4884)	1953	10	10.47674	03	58	40.80	+13	38	07.2	6 675
(4884)	1953	10	10.50000	03	58	40.16	+13	38	02.7	6 675
(4899)	1992	06	29.33385	18	34	41.83	+20	39	27.5	16.5 3 675
(4899)	1992	06	29.36215	18	34	40.30	+20	39	27.4	16.5 3 675
(4931)	1992	06	26.19983	15	36	14.93	+11	44	07.9	9 675
(4967)	1991	09	15.25035	21	53	25.24	-24	36	56.2	9 675
(4967)	1991	09	15.29619	21	53	23.79	-24	37	09.6	9 675
(5050)	1956	05	08.31806	15	53	20.12	-20	56	40.9	6 675
(5063)	1980	10	14.40729	02	02	22.06	+15	29	42.3	6 675
(5076)	1952	02	01.32986	09	08	01.57	+02	10	08.7	6 675
(5076)	1952	02	01.35764	09	07	59.88	+02	10	20.8	6 675
(5126)	1992	06	30.25955	15	45	34.09	+10	29	07.3	9 675
(5126)	1992	06	30.29236	15	45	33.41	+10	29	01.7	9 675
(5134)	1991	12	31.34080	07	39	47.59	+25	08	54.3	16.8 9 675
(5134)	1991	12	31.37986	07	39	45.27	+25	09	07.6	9 675
(5143)	1992	06	28.45035	23	17	03.01	-03	26	11.0	17.2 3 675
(5143)	1992	06	28.47639	23	17	01.71	-03	26	11.8	3 675
(5143)	1992	06	29.43646	23	16	10.64	-03	26	44.4	3 675

(5143)		1992 06 29.46389	23 16 09.03	-03 26 46.1		3	675
(5174)		1981 08 30.29340	22 11 30.65	-08 00 02.6	17.8 V	6	675
(5174)		1981 08 31.28924	22 10 42.21	-08 07 12.8		6	675
(5222)		1992 06 30.25955	16 12 48.28	+10 12 26.6		9	675
(5222)		1992 06 30.29236	16 12 47.29	+10 12 32.4		9	675
(5247)		1992 06 27.43559	21 00 11.57	+22 16 11.3	16.0	9	675
(5261)		1992 06 27.43559	20 57 06.91	+21 16 19.8	18.0	9	675
(5261)		1992 06 27.46528	20 57 06.19	+21 17 22.5		9	675
(5261)		1992 06 28.42934	20 56 47.13	+21 51 13.8	18.0	9	675

690 Lowell Observatory
E. Bowell, Lowell Observatory, 1400 West Mars Hill Road,
Flagstaff, AZ 86001, U.S.A.
Observer F. K. Edmondson
Measurer M. A. Dahm
0.33-m photographic telescope

(2151)	1934 03 07.20208	11 56 16.29	+18 27 35.7			690
(2151)	1934 03 09.19792	11 54 07.63	+18 31 17.1			690
(2308)	1934 03 07.20208	11 56 41.44	+18 57 49.4			690

691 Kitt Peak, Steward Observatory
T. Gehrels, Space Sciences Building, University of Arizona,
Tucson, AZ 85721, U.S.A.
Observers T. Gehrels, D. L. Rabinowitz, J. V. Scotti
0.91-m SPACEWATCH telescope
GSC

1991 TH12	*	1991 10 13.30798	01 22 31.55	+10 19 22.3			691
1991 TH12		1991 10 13.32860	01 22 30.56	+10 19 16.3	17.9 V		691
1991 TH12		1991 10 13.34986	01 22 29.49	+10 19 10.1			691
1991 UH4		1991 12 13.16891	04 24 02.40	+21 51 21.7			691
1991 UH4		1991 12 13.19289	04 24 00.91	+21 51 13.2	17.5 V		691
1991 UH4		1991 12 13.21689	04 23 59.48	+21 51 04.7			691
1991 XO2		1991 11 29.29465	03 20 39.71	+15 50 14.6	17.1 V		691
1991 XO2		1991 11 29.31667	03 20 38.62	+15 50 06.3			691
1991 XO2		1991 11 29.33762	03 20 37.65	+15 49 57.9			691
4050 P-L		1991 10 09.28726	00 40 23.42	+07 11 36.0			691
4050 P-L		1991 10 09.30782	00 40 22.52	+07 11 26.4	18.6 V		691
4050 P-L		1991 10 09.32824	00 40 21.61	+07 11 16.6			691
(4357)		1992 04 09.26294	12 56 54.74	-07 25 45.6	16.0 V		691
(4357)		1992 04 09.28728	12 56 53.69	-07 25 33.6			691
(4357)		1992 04 09.31195	12 56 52.61	-07 25 21.4			691

760 Goethe Link
E. Bowell, Lowell Observatory, 1400 West Mars Hill Road,
Flagstaff, AZ 86001, U.S.A.
Observer J. E. Michlovic
Measurer M. A. Dahm
0.25-m refractor
PDS scanning microdensitometer
PPM, global solutions

(33)	1963 02 27.14931	09 23 17.98	+17 15 14.1	14.9		760
(33)	1963 02 27.19306	09 23 16.12	+17 15 21.5			760
(885)	1963 02 27.14931	09 16 10.57	+15 16 56.4	17.0		760
(885)	1963 02 27.19306	09 16 08.90	+15 17 05.8			760
(1247)	1963 02 27.14931	09 11 11.72	+15 19 53.5	17.0		760
(1247)	1963 02 27.19306	09 11 09.96	+15 20 00.9			760
(1321)	1963 02 27.14931	09 03 29.16	+16 25 35.5	15.6		760
(1321)	1963 02 27.19306	09 03 27.28	+16 25 36.8			760
(2033)	1963 02 27.14931	09 04 20.71	+15 50 28.1			760

(2033)	1963 02 27.19306	09 04 18.51	+15 50 22.0		760
(2256)	1963 02 27.14931	09 25 19.41	+15 29 04.7		760
(2256)	1963 02 27.19306	09 25 17.55	+15 29 12.0		760

801 Oak Ridge
R. E. McCrosky, Harvard-Smithsonian Center for Astrophysics,
60 Garden Street, Cambridge, MA 02138, U.S.A.
Observers R. E. McCrosky, C.-Y. Shao
1.5-m reflector + CCD
GSC

1942 EM	1992 06 30.15697	19 04 48.20	-20 13 04.6		801
1942 EM	1992 06 30.17535	19 04 46.95	-20 13 09.5		801
1942 EM	1992 07 02.21358	19 02 34.53	-20 20 26.9		801
1942 EM	1992 07 26.11986	18 38 24.41	-21 42 20.5		801
1942 EM	1992 07 26.13593	18 38 23.61	-21 42 21.2		801
1942 EM	1992 07 31.10604	18 34 40.75	-21 57 02.6		801
1955 QN	1992 06 29.28027	20 50 32.12	-08 57 21.1		801
1955 QN	1992 06 29.31258	20 50 31.08	-08 57 14.5		801
1955 QN	1992 07 01.28045	20 49 28.37	-08 50 49.1		801
1955 QN	1992 07 01.30209	20 49 27.60	-08 50 45.1		801
1955 QN	1992 07 26.20899	20 28 25.24	-08 21 14.4		801
1955 QN	1992 07 26.22189	20 28 24.40	-08 21 14.6		801
1955 QN	1992 07 29.17711	20 25 21.89	-08 23 57.3		801
1955 QN	1992 07 29.19181	20 25 20.95	-08 23 58.4		801
1966 PK	1992 07 31.28211	22 55 23.16	-10 35 07.2		801
1966 PK	1992 07 31.32264	22 55 22.32	-10 35 14.8		801
1969 LB	1992 07 29.26083	22 15 13.13	-11 14 11.0		801
1969 LB	1992 07 29.28517	22 15 12.20	-11 14 13.8		801
1969 LB	1992 08 02.23396	22 12 41.85	-11 22 36.4		801
1969 LB	1992 08 02.25238	22 12 41.11	-11 22 39.2		801
1969 QR	1992 06 29.15241	17 56 32.87	-14 47 23.7		801
1969 QR	1992 06 29.16416	17 56 32.16	-14 47 20.1		801
1969 QR	1992 06 30.12333	17 55 37.55	-14 42 56.6		801
1969 QR	1992 06 30.13949	17 55 36.57	-14 42 52.6		801
1971 US1	1992 06 30.12628	18 50 06.16	+00 18 09.5		801
1971 US1	1992 06 30.14258	18 50 05.33	+00 18 15.6		801
1971 US1	1992 07 02.20885	18 48 15.73	+00 28 58.1		801
1971 US1	1992 07 02.22578	18 48 14.81	+00 29 03.3		801
1974 SD3	1992 07 28.28791	22 54 42.73	+07 43 59.9		801
1974 SD3	1992 07 28.32088	22 54 42.05	+07 44 03.2		801
1974 SD3	1992 07 31.27207	22 53 39.61	+07 47 26.3		801
1974 SD3	1992 07 31.30748	22 53 38.78	+07 47 28.2		801
1976 SG2	1992 07 26.18204	19 38 46.17	-12 07 58.6		801
1976 SG2	1992 07 26.19330	19 38 45.45	-12 08 01.6		801
1976 SG2	1992 07 29.15363	19 35 48.02	-12 20 50.2		801
1976 SG2	1992 07 29.16704	19 35 47.17	-12 20 53.1		801
1976 SW3	1992 07 31.19977	20 26 04.46	-13 08 25.3		801
1976 SW3	1992 07 31.21770	20 26 03.61	-13 08 29.5		801
1976 SW3	1992 08 03.17799	20 23 44.75	-13 20 21.5		801
1976 SW3	1992 08 03.19169	20 23 44.13	-13 20 25.1		801
1976 UH16	1992 06 29.23619	19 48 03.95	-02 41 08.1		801
1976 UH16	1992 06 29.25599	19 48 03.14	-02 41 07.4		801
1976 UH16	1992 07 03.20693	19 45 23.73	-02 41 28.1		801
1976 UH16	1992 07 03.22839	19 45 22.78	-02 41 28.0		801
1976 UH16	1992 07 28.19468	19 26 58.08	-03 34 37.5		801
1976 UH16	1992 07 28.21300	19 26 57.29	-03 34 41.5		801
1976 UH16	1992 07 30.14274	19 25 36.29	-03 42 04.9		801
1976 UH16	1992 07 30.15801	19 25 35.66	-03 42 08.6		801
1978 SN7	1992 05 30.13176	15 42 48.95	-14 43 23.1		801

1978	SN7	1992	05	30.14676	15	42	48.20	-14	43	19.3	801
1978	TT2	1992	07	30.25346	22	34	22.72	-13	23	25.8	801
1978	TT2	1992	07	30.28832	22	34	21.53	-13	23	34.1	801
1978	VS5	1992	06	28.28850	19	41	42.37	-18	37	24.1	801
1978	VS5	1992	06	28.30262	19	41	41.59	-18	37	24.1	801
1978	VS5	1992	06	30.19757	19	40	03.59	-18	39	23.3	801
1978	VS5	1992	06	30.21330	19	40	02.73	-18	39	24.1	801
1979	MH7	1992	07	03.20005	19	26	39.80	-12	44	57.0	801
1979	MH7	1992	07	03.21507	19	26	39.03	-12	45	02.7	801
1979	MH7	1992	07	31.15486	19	03	01.04	-15	54	31.0	801
1979	MH7	1992	07	31.18128	19	02	59.83	-15	54	42.6	801
1980	BB	1992	07	28.29686	23	13	10.61	-09	47	13.1	801
1980	BB	1992	07	28.33943	23	13	09.88	-09	47	21.8	801
1980	BB	1992	08	02.26049	23	11	37.55	-10	05	07.3	801
1980	BB	1992	08	02.29475	23	11	36.75	-10	05	15.4	801
1980	KD	1992	07	31.18885	20	09	26.86	-17	18	17.1	801
1980	KD	1992	07	31.20654	20	09	26.04	-17	18	22.2	801
1980	KD	1992	08	03.15230	20	07	14.44	-17	32	24.3	801
1980	KD	1992	08	03.16520	20	07	13.81	-17	32	29.7	801
1980	RL7	1992	06	29.27149	21	09	13.52	-04	59	36.5	801
1980	RL7	1992	06	29.31030	21	09	12.57	-04	59	28.1	801
1980	RL7	1992	07	28.23747	20	49	16.89	-04	20	25.5	801
1980	RL7	1992	07	28.25135	20	49	16.12	-04	20	26.2	801
1980	RL7	1992	07	29.18979	20	48	25.34	-04	21	24.9	801
1980	RL7	1992	07	29.20447	20	48	24.52	-04	21	25.8	801
1981	EP40	1992	06	29.14016	17	34	09.42	-08	56	24.2	801
1981	EP40	1992	06	29.15434	17	34	08.63	-08	56	23.8	801
1981	EP40	1992	07	03.13429	17	30	45.15	-08	55	56.6	r 801
1981	EP40	1992	07	03.15698	17	30	44.00	-08	55	57.0	r 801
1981	QE3	1992	07	28.26876	22	27	21.46	-13	36	30.7	801
1981	QE3	1992	07	28.30218	22	27	20.51	-13	36	37.6	801
1981	QE3	1992	08	02.23922	22	24	54.73	-13	56	10.5	801
1981	QE3	1992	08	02.26626	22	24	53.81	-13	56	17.3	801
1981	SM	1992	07	29.21042	20	56	41.43	-16	22	36.4	801
1981	SM	1992	07	29.23008	20	56	40.29	-16	22	39.8	801
1981	SM	1992	08	02.20954	20	52	41.84	-16	32	37.8	801
1981	SM	1992	08	02.22219	20	52	41.04	-16	32	39.7	801
1981	VP2	1992	08	02.28006	23	37	23.70	-06	38	29.4	801
1981	VP2	1992	08	02.34161	23	37	23.66	-06	38	37.3	801
1982	PC	1992	07	28.30755	23	52	51.47	+00	19	36.0	801
1982	PC	1992	07	28.34178	23	52	52.31	+00	19	35.4	801
1982	RO1	1992	08	02.16362	20	09	08.58	-15	16	30.3	801
1982	RO1	1992	08	02.18082	20	09	07.47	-15	16	33.6	801
1982	RO1	1992	08	03.17323	20	08	07.05	-15	19	23.2	801
1982	RO1	1992	08	03.18769	20	08	06.16	-15	19	25.4	801
1982	SC2	1992	08	03.26279	23	34	52.20	-08	12	49.2	801
1982	SC2	1992	08	03.28204	23	34	51.82	-08	12	55.7	801
1982	SG4	1992	07	31.25683	23	23	21.89	+06	13	53.6	801
1982	SG4	1992	07	31.29987	23	23	21.22	+06	13	52.1	801
1982	SV5	1992	07	26.23409	20	43	53.75	-09	08	18.6	801
1982	SV5	1992	07	26.25073	20	43	52.83	-09	08	23.9	801
1982	SV5	1992	07	29.18383	20	41	11.35	-09	25	37.0	801
1982	SV5	1992	07	29.19951	20	41	10.44	-09	25	42.8	801
1982	TD2	1992	08	02.30723	00	37	13.39	+09	13	39.2	r 801
1982	TD2	1992	08	02.32161	00	37	13.86	+09	13	44.5	801
1982	TD2	1992	08	03.30547	00	37	48.53	+09	20	18.7	801
1982	TD2	1992	08	03.31720	00	37	48.91	+09	20	23.4	801
1982	UB7	1992	07	29.21971	21	22	13.57	+06	37	38.9	801
1982	UB7	1992	07	29.24017	21	22	12.68	+06	37	37.8	801

1982 UB7	1992	07	31.22466	21	20	50.19	+06 35 23.9	801
1982 UB7	1992	07	31.24013	21	20	49.51	+06 35 22.6	801
1982 UE7	1992	08	02.22718	21	25	32.31	-13 51 29.6	801
1982 UE7	1992	08	02.24655	21	25	31.37	-13 51 33.7	801
1982 UE7	1992	08	03.21512	21	24	47.17	-13 55 19.5	801
1982 UE7	1992	08	03.24315	21	24	45.83	-13 55 26.4	801
1983 PX	1992	06	28.11602	16	53	57.72	-08 15 13.4	801
1983 PX	1992	06	28.13248	16	53	57.03	-08 15 12.3	801
1983 PX	1992	06	30.08995	16	52	41.91	-08 13 33.1	801
1983 PX	1992	06	30.10792	16	52	41.21	-08 13 32.3	801
1983 PX	1992	07	29.08830	16	46	26.20	-09 07 03.8	801
1983 PX	1992	07	29.12194	16	46	26.59	-09 07 11.8	801
1983 PX	1992	08	02.08053	16	47	36.32	-09 23 33.4	801
1983 PX	1992	08	02.10622	16	47	36.81	-09 23 40.3	801
1983 RY4	1992	07	26.30082	22	23	45.89	+04 02 24.1	801
1983 RY4	1992	07	26.32056	22	23	45.41	+04 02 29.6	801
1983 RY4	1992	07	29.27353	22	22	32.75	+04 15 39.2	801
1983 RY4	1992	07	29.29751	22	22	32.04	+04 15 45.1	801
1984 UX	1992	07	31.30475	01	29	43.56	+05 48 28.3	801
1984 UX	1992	07	31.31953	01	29	44.71	+05 48 38.0	801
1984 UX	1992	08	03.31424	01	33	40.45	+06 21 06.4	801
1984 UX	1992	08	03.32683	01	33	41.39	+06 21 14.6	801
1985 DX2	1992	07	28.24041	21	16	23.88	-06 26 58.0	801
1985 DX2	1992	07	28.25777	21	16	23.14	-06 27 03.2	801
1985 DX2	1992	07	29.21406	21	15	43.07	-06 32 01.5	801
1985 DX2	1992	07	29.23326	21	15	42.24	-06 32 07.3	801
1985 FE3	1992	06	29.07033	14	18	21.75	-07 29 28.9	801
1985 FE3	1992	06	29.08232	14	18	22.20	-07 29 37.3	801
1985 FE3	1992	07	02.08600	14	20	32.55	-08 05 02.3	801
1985 FE3	1992	07	02.09976	14	20	33.15	-08 05 12.1	801
1985 HG1	1992	07	02.09166	14	55	50.96	-13 23 30.4	801
1985 HG1	1992	07	02.12225	14	55	51.25	-13 23 36.3	801
1985 JX1	1992	06	29.21781	19	25	19.33	-18 06 42.5	801
1985 JX1	1992	06	30.19433	19	24	25.10	-18 10 08.8	801
1985 JX1	1992	06	30.20931	19	24	24.22	-18 10 12.0	801
1985 JX1	1992	07	31.15199	18	56	11.54	-20 13 17.1	801
1985 JX1	1992	07	31.17824	18	56	10.46	-20 13 23.8	801
1985 JX1	1992	08	02.11888	18	54	58.23	-20 20 38.6	801
1985 RL1	1992	06	29.11176	16	01	19.21	-09 34 33.7	801
1985 RL1	1992	06	29.13307	16	01	18.56	-09 34 31.4	801
1985 RL1	1992	07	03.06095	15	59	40.64	-09 28 13.2	801
1985 RL1	1992	07	03.10628	15	59	39.61	-09 28 09.7	801
1985 UH3	1992	05	30.17208	16	39	22.15	-16 44 44.2	801
1985 UH3	1992	05	30.18394	16	39	21.43	-16 44 42.9	801
1985 UH3	1992	07	02.15656	16	10	13.77	-16 11 17.7	801
1985 UH3	1992	07	02.17939	16	10	13.03	-16 11 18.2	801
1985 YH	1992	07	26.26609	21	49	34.84	+00 04 02.9	801
1985 YH	1992	07	26.28374	21	49	34.01	+00 04 03.7	801
1985 YH	1992	07	29.25611	21	47	13.12	+00 05 47.6	801
1985 YH	1992	07	29.27078	21	47	12.40	+00 05 47.9	801
1986 RA	1992	07	26.09065	16	03	10.23	+12 57 31.3	801
1986 RA	1992	07	26.11093	16	03	10.53	+12 57 16.9	801
1986 RA	1992	08	02.07500	16	05	57.13	+11 26 54.7	801
1986 RA	1992	08	02.08832	16	05	57.54	+11 26 43.5	801
1987 GK	1992	07	30.14749	19	34	53.49	-07 05 29.0	801
1987 GK	1992	07	30.16250	19	34	52.72	-07 05 36.3	801
1987 GK	1992	08	02.15708	19	32	35.67	-07 26 33.8	801
1987 GK	1992	08	02.17389	19	32	34.95	-07 26 41.1	801
1987 PL	1992	07	26.26353	21	44	49.34	-07 33 38.1	801

1987 PL	1992 07 26.28109	21 44 48.57	-07 33 37.4				801
1987 PL	1992 07 29.25209	21 42 37.56	-07 32 22.7				801
1987 PL	1992 07 29.26863	21 42 36.78	-07 32 22.4				801
1987 QW1	1992 07 30.18934	21 17 06.05	-14 16 01.9				801
1987 QW1	1992 07 30.23248	21 17 04.02	-14 16 12.4				801
1987 QW1	1992 08 03.20597	21 13 58.92	-14 32 45.9				801
1987 QW1	1992 08 03.22087	21 13 58.19	-14 32 49.8				801
1987 RG	1992 07 29.20814	20 53 17.78	-18 22 09.8				801
1987 RG	1992 07 29.22716	20 53 16.88	-18 22 15.2				801
1987 RG	1992 07 31.22094	20 51 44.97	-18 31 44.5				801
1987 RG	1992 07 31.23750	20 51 44.17	-18 31 49.1				801
1987 RG	1992 08 02.20404	20 50 12.89	-18 41 08.2				801
1987 RG	1992 08 02.21928	20 50 12.15	-18 41 12.5				801
1987 RG	1992 08 03.20231	20 49 26.41	-18 45 50.2				801
1987 RG	1992 08 03.22999	20 49 25.08	-18 45 58.0				801
1987 ST1	1992 07 26.20047	20 29 03.64	-15 22 09.6				801
1987 ST1	1992 07 26.21898	20 29 02.61	-15 22 10.8				801
1987 ST1	1992 07 31.19209	20 24 39.42	-15 24 17.2				801
1987 ST1	1992 07 31.20914	20 24 38.54	-15 24 18.2				801
1987 SC6	1992 06 29.17707	18 57 50.68	-21 08 17.0				801
1987 SC6	1992 06 29.19378	18 57 49.86	-21 08 17.9				801
1987 SC6	1992 06 30.18922	18 57 01.04	-21 09 34.5				801
1987 SC6	1992 06 30.20267	18 57 00.37	-21 09 35.4				801
1987 VG1	1992 07 29.29490	23 17 53.15	+09 27 55.1				801
1987 VG1	1992 07 29.32862	23 17 52.64	+09 28 01.6				801
1987 VG1	1992 08 02.27742	23 16 47.33	+09 39 11.4				801
1987 VG1	1992 08 02.31019	23 16 46.68	+09 39 16.3				801
1988 EJ1	1992 06 29.24103	19 50 21.34	-14 30 55.4				801
1988 EJ1	1992 06 29.25937	19 50 20.27	-14 30 56.2				801
1988 EJ1	1992 07 03.20992	19 46 31.40	-14 33 49.4				801
1988 EJ1	1992 07 03.22534	19 46 30.44	-14 33 50.2				801
1988 EJ1	1992 07 26.17951	19 22 42.25	-15 13 41.3				801
1988 EJ1	1992 07 29.14813	19 19 55.84	-15 20 40.9				801
1988 EJ1	1992 07 29.16485	19 19 54.95	-15 20 40.6				801
1988 JQ	1992 07 26.32445	23 20 25.22	-13 25 05.7				801
1988 JQ	1992 07 26.33417	23 20 25.18	-13 25 15.8				801
1988 JQ	1992 07 28.31023	23 20 17.68	-14 00 02.4				801
1988 JQ	1992 07 28.33497	23 20 17.49	-14 00 28.8				801
1988 LA	1992 06 29.11452	16 24 37.78	-12 44 26.9				801
1988 LA	1992 06 29.12863	16 24 37.25	-12 44 38.7				801
1988 LA	1992 07 03.06949	16 22 34.87	-13 38 42.6				801
1988 LA	1992 07 03.08688	16 22 34.35	-13 38 57.2				801
1988 PT	1992 06 29.25178	21 10 06.92	+04 06 15.4				801
1988 PT	1992 06 29.27805	21 10 06.36	+04 06 19.3				801
1988 PT	1992 07 02.31111	21 08 58.29	+04 12 37.5				801
1988 PT	1992 07 02.33023	21 08 57.75	+04 12 39.6				801
1988 RT6	1992 07 26.30846	22 45 44.14	+03 02 53.2				801
1988 RT6	1992 07 26.33020	22 45 43.81	+03 02 45.9				801
1988 RT6	1992 07 29.28757	22 44 58.17	+02 45 07.0				801
1988 RT6	1992 07 29.31182	22 44 57.69	+02 44 57.9				801
1988 RU6	1992 07 30.19484	21 18 50.18	-12 50 22.4				801
1988 RU6	1992 07 30.23539	21 18 48.01	-12 50 32.5				801
1988 RU6	1992 08 03.20936	21 15 18.95	-13 07 30.5				801
1988 RU6	1992 08 03.23409	21 15 17.60	-13 07 36.7				801
1988 TQ	1992 07 31.23108	21 34 00.01	-17 37 42.9				801
1988 TQ	1992 07 31.24605	21 33 59.28	-17 37 47.7				801
1988 TQ	1992 08 02.23102	21 32 26.03	-17 48 56.9				801
1988 TQ	1992 08 02.24968	21 32 25.11	-17 49 03.0				801
1988 TA1	1992 06 29.15693	17 34 03.56	-10 06 57.7				801

1988 TA1	1992 07 02.18209	17 31 50.62	-10 05 58.1			801
1988 TA1	1992 07 02.19455	17 31 50.06	-10 05 58.0			801
1988 TQ4	1992 07 26.27400	22 12 33.59	-11 34 07.9			801
1988 TQ4	1992 07 26.29494	22 12 32.88	-11 34 12.4			801
1988 TQ4	1992 07 31.24368	22 09 36.42	-11 53 38.9			801
1988 TQ4	1992 07 31.26247	22 09 35.66	-11 53 43.7			801
1988 VT	1992 06 28.29557	20 43 39.35	+00 42 31.4			801
1988 VT	1992 06 28.31733	20 43 38.78	+00 42 38.0			801
1988 VT	1992 07 02.29831	20 41 45.26	+01 01 38.7			801
1988 VT	1992 07 02.32177	20 41 44.52	+01 01 42.4			801
1989 AO6	1992 08 02.29722	23 57 57.08	+05 46 03.5			801
1989 AO6	1992 08 02.33080	23 57 56.73	+05 46 09.8			801
1989 BW	1992 04 30.22284	15 14 22.68	-08 54 08.0			801
1989 SL	1992 07 02.30826	20 58 33.17	-07 02 40.2			801
1989 SL	1992 07 02.32729	20 58 32.60	-07 02 36.4			801
1989 SL	1992 07 29.18148	20 37 12.44	-06 31 29.4			801
1989 SL	1992 07 29.19726	20 37 11.44	-06 31 30.6			801
1989 SL	1992 07 31.21142	20 35 09.83	-06 34 23.6			801
1989 SL	1992 07 31.22660	20 35 08.86	-06 34 25.0			801
1989 SG5	1992 06 29.24386	20 11 42.19	-13 02 03.2			801
1989 SG5	1992 06 29.26420	20 11 41.24	-13 02 07.1			801
1989 SG5	1992 07 03.23100	20 08 37.19	-13 16 07.7			801
1989 SG5	1992 07 03.24815	20 08 36.32	-13 16 11.5			801
1989 SG5	1992 07 26.19111	19 47 37.94	-15 07 56.3			801
1989 SG5	1992 07 26.20631	19 47 37.08	-15 08 01.4			801
1989 SG5	1992 07 29.15954	19 44 59.70	-15 24 17.3			801
1989 SG5	1992 07 29.17428	19 44 58.90	-15 24 22.2			801
1989 UF	1992 07 30.15544	20 31 33.45	-08 02 01.7			801
1989 UF	1992 07 30.16742	20 31 32.67	-08 02 04.9			801
1989 UF	1992 08 02.18369	20 28 28.46	-08 14 43.8			801
1989 UF	1992 08 02.19528	20 28 27.72	-08 14 46.9			801
1989 UH1	1992 06 29.16635	18 15 58.03	-13 22 38.4			801
1989 UH1	1992 06 29.17919	18 15 57.25	-13 22 38.0			801
1989 UH1	1992 07 03.17274	18 11 56.96	-13 18 41.9			801
1989 UH1	1992 07 03.18902	18 11 55.96	-13 18 40.7			801
1989 UH1	1992 07 29.10752	17 51 46.99	-13 28 30.4			801
1989 UH1	1992 07 29.14054	17 51 46.05	-13 28 32.4			801
1989 UH1	1992 07 31.08758	17 50 54.64	-13 31 30.1			801
1989 UU1	1992 08 02.30104	00 01 14.68	+09 43 18.7			801
1989 UU1	1992 08 02.32863	00 01 14.55	+09 43 26.7			801
1989 UK2	1992 08 03.33885	02 58 08.64	+29 49 52.8			801
1989 UK2	1992 08 03.34748	02 58 09.72	+29 49 56.3			801
1989 WE	1992 06 29.12441	16 40 31.44	-13 20 58.4			801
1989 WE	1992 06 29.14237	16 40 30.65	-13 20 59.2			801
1989 WE	1992 07 03.12222	16 37 50.22	-13 23 36.1			801
1989 WE	1992 07 03.14516	16 37 49.31	-13 23 33.7			801
1989 WL7	1992 06 29.05904	17 20 17.09	-11 24 04.9			801
1989 WL7	1992 06 29.07404	17 20 16.23	-11 24 09.1			801
1989 WL7	1992 07 03.12933	17 16 44.95	-11 45 58.5			801
1989 WL7	1992 07 03.15182	17 16 43.73	-11 46 06.1			801
1989 XD	1992 06 28.29152	20 18 47.39	-13 28 45.9			801
1989 XD	1992 06 28.31027	20 18 46.54	-13 28 43.9			801
1989 XD	1992 06 30.22001	20 17 19.12	-13 25 04.9			801
1989 XD	1992 06 30.23381	20 17 18.43	-13 25 03.1			801
1989 XF	1992 07 03.11867	16 29 16.88	-14 23 11.9			801
1989 XF	1992 07 03.14137	16 29 15.94	-14 23 15.7			801
1989 XO	1992 07 28.29009	23 05 39.73	+01 42 06.7			801
1989 XO	1992 07 28.31256	23 05 39.20	+01 42 09.8			801
1989 XO	1992 07 30.30714	23 04 52.84	+01 46 19.1			801

1989	XO	1992	07	30.32367	23	04	52.41	+01	46	21.1	801
1989	YF5	1992	06	28.25330	19	13	46.32	-21	04	31.5	801
1989	YF5	1992	06	28.27097	19	13	45.20	-21	04	25.2	801
1989	YF5	1992	06	30.18647	19	11	46.41	-20	53	50.5	801
1989	YF5	1992	06	30.20008	19	11	45.53	-20	53	45.8	801
1989	YF5	1992	07	26.12183	18	45	30.70	-18	29	50.4	801
1989	YF5	1992	07	26.13774	18	45	29.94	-18	29	43.0	801
1989	YF5	1992	07	31.10867	18	41	39.31	-18	04	04.7	801
1989	YP5	1992	06	30.20588	20	07	39.63	-17	30	24.7	801
1989	YP5	1992	06	30.22271	20	07	38.89	-17	30	29.1	801
1989	YP5	1992	07	03.22159	20	05	30.83	-17	43	46.2	801
1989	YP5	1992	07	03.23912	20	05	29.98	-17	43	51.3	801
1989	YP5	1992	07	28.20473	19	43	39.89	-19	53	49.9	801
1989	YP5	1992	07	28.22772	19	43	38.62	-19	53	57.2	801
1990	BJ	1992	07	26.17416	19	36	03.56	-16	01	13.1	801
1990	BJ	1992	07	26.18554	19	36	02.61	-16	01	07.4	801
1990	BJ	1992	07	28.20167	19	33	16.99	-15	44	02.0	801
1990	BJ	1992	07	28.21517	19	33	15.83	-15	43	55.4	801
1990	BU	1992	07	26.32258	22	59	21.05	-05	45	25.7	801
1990	BU	1992	07	26.34383	22	59	20.57	-05	45	18.2	801
1990	BU	1992	07	29.28947	22	58	11.52	-05	28	24.6	801
1990	BU	1992	07	29.31376	22	58	10.83	-05	28	16.4	801
1990	BC1	1992	07	28.19970	19	27	55.79	-13	17	27.5	801
1990	BC1	1992	07	28.22464	19	27	54.60	-13	17	34.4	801
1990	BC1	1992	07	29.15083	19	27	14.23	-13	21	54.9	801
1990	BQ1	1992	06	29.28277	22	13	10.65	-06	51	09.9	801
1990	BQ1	1992	06	29.30375	22	13	10.11	-06	50	51.9	801
1990	BQ1	1992	07	01.31970	22	12	19.11	-06	21	02.8	801
1990	BQ1	1992	07	01.33426	22	12	18.69	-06	20	49.1	801
1990	BQ1	1992	07	26.26762	21	50	51.70	-00	19	36.1	801
1990	BQ1	1992	07	26.27882	21	50	50.85	-00	19	26.8	801
1990	BQ1	1992	07	28.24918	21	48	22.88	+00	07	15.2	801
1990	BQ1	1992	07	28.26038	21	48	22.00	+00	07	24.0	801
1990	BR1	1992	07	30.18648	20	45	59.65	-12	22	09.6	801
1990	BR1	1992	07	30.20065	20	45	58.75	-12	22	13.9	801
1990	BR1	1992	08	02.20154	20	43	25.44	-12	43	00.8	801
1990	BR1	1992	08	02.21669	20	43	24.64	-12	43	06.2	801
1990	BS1	1992	06	29.22790	19	29	44.75	-20	38	39.2	801
1990	BS1	1992	06	29.24662	19	29	43.91	-20	38	45.1	801
1990	BS1	1992	07	02.21589	19	27	26.65	-20	53	55.1	801
1990	BS1	1992	07	02.25963	19	27	24.59	-20	54	08.3	801
1990	BS1	1992	07	03.19782	19	26	40.49	-20	58	57.2	801
1990	BS1	1992	07	03.21270	19	26	39.85	-20	59	03.9	801
1990	BT1	1992	06	29.10154	15	55	33.84	-09	30	27.9	801
1990	BT1	1992	06	29.11736	15	55	33.29	-09	30	30.2	801
1990	BJ2	1992	06	29.26943	20	21	32.19	-17	13	15.8	801
1990	BJ2	1992	06	29.28904	20	21	31.46	-17	13	18.5	801
1990	BJ2	1992	07	31.18525	19	58	16.72	-19	00	35.2	801
1990	BJ2	1992	07	31.20343	19	58	15.89	-19	00	39.0	801
1990	BJ2	1992	08	02.16044	19	56	49.34	-19	07	19.2	801
1990	BJ2	1992	08	02.17779	19	56	48.55	-19	07	23.1	801
1990	DA	1992	07	26.29215	23	29	21.51	-08	53	10.5	801
1990	DA	1992	07	26.30558	23	29	21.59	-08	53	21.5	801
1990	EJ2	1992	06	30.22565	20	18	29.69	-08	17	23.2	801
1990	EJ2	1992	06	30.24684	20	18	28.93	-08	17	22.0	801
1990	EJ2	1992	07	03.23406	20	16	42.00	-08	14	44.7	801
1990	EJ2	1992	07	03.25666	20	16	41.16	-08	14	43.1	801
1990	TZ	1992	06	30.07660	14	30	56.31	-15	51	41.7 S	801
1990	TZ	1992	06	30.10024	14	30	56.39	-15	51	33.6	801

1990 TZ	1992	07	02.08823	14	31	16.55	-15	40	18.2	801
1990 TZ	1992	07	02.11588	14	31	16.87	-15	40	09.5	801
1990 YT	1992	06	30.14958	18	51	32.63	-19	25	34.7	801
1990 YT	1992	06	30.16093	18	51	31.84	-19	25	35.3	801
1990 YT	1992	07	02.21147	18	49	25.09	-19	27	34.0	801
1990 YT	1992	07	02.23296	18	49	23.68	-19	27	35.4	801
1991 AJ1	1992	06	30.08715	13	40	15.18	+05	09	06.6	801
1991 AJ1	1992	07	03.07220	13	41	07.38	+04	42	04.2	801
1991 AJ1	1992	07	03.09417	13	41	07.78	+04	41	52.4 r	801
1991 BR	1992	07	02.30495	20	57	27.66	-06	47	23.0	801
1991 BR	1992	07	02.32471	20	57	26.97	-06	47	25.2	801
1991 BR	1992	07	26.24628	20	39	07.69	-08	22	56.3	801
1991 BR	1992	07	29.17927	20	36	30.32	-08	40	14.7	801
1991 BR	1992	07	29.19410	20	36	29.56	-08	40	19.8	801
1991 BV	1992	05	29.21063	16	38	19.05	-02	51	27.9	801
1991 BV	1992	05	29.22753	16	38	18.18	-02	51	26.5	801
1991 BV	1992	06	28.10582	16	14	48.04	-03	30	20.7	801
1991 BV	1992	06	28.12976	16	14	47.23	-03	30	25.5	801
1991 BV	1992	07	02.16950	16	12	37.26	-03	45	41.4	801
1991 BV	1992	07	02.19124	16	12	36.63	-03	45	46.4	801
1991 BQ2	1992	06	28.17499	17	50	06.49	-15	49	45.5	801
1991 BQ2	1992	06	28.18584	17	50	05.90	-15	49	47.5	801
1991 BQ2	1992	06	30.13318	17	48	19.29	-15	58	05.7	801
1991 BQ2	1992	06	30.14591	17	48	18.56	-15	58	08.5	801
1991 CB	1992	06	30.07957	14	59	40.91	+05	07	19.5	801
1991 CB	1992	06	30.10304	14	59	40.67	+05	07	10.0	801
1991 CB	1992	07	03.07985	14	59	18.88	+04	47	03.2	801
1991 CB	1992	07	03.11411	14	59	18.66	+04	46	49.2	801
1991 CF	1992	07	30.30418	22	48	17.42	-02	24	50.3	801
1991 CF	1992	07	30.31981	22	48	16.94	-02	24	55.1	801
1991 CF	1992	08	02.24341	22	46	43.97	-02	41	04.0	801
1991 CF	1992	08	02.27047	22	46	42.99	-02	41	13.4	801
1991 CF	1992	08	03.25457	22	46	08.78	-02	47	04.6	801
1991 CF	1992	08	03.27182	22	46	08.14	-02	47	10.9	801
1991 FF1	1992	07	26.10083	18	13	43.83	-04	04	56.0	801
1991 FF1	1992	07	26.11438	18	13	43.31	-04	05	00.6	801
1991 FF1	1992	07	29.14414	18	11	56.10	-04	21	09.6	801
1991 FF1	1992	07	29.16208	18	11	55.47	-04	21	15.5 r	801
1991 GD	1992	08	02.30466	00	36	55.98	+32	51	56.7	801
1991 GD	1992	08	02.31478	00	36	56.33	+32	52	05.0	801
1991 GD	1992	08	03.30106	00	37	31.42	+33	05	26.4	801
1991 GD	1992	08	03.30958	00	37	31.70	+33	05	33.3	801
1991 JE1	1992	07	28.25424	22	02	19.91	-01	41	04.2	801
1991 JE1	1992	07	28.27839	22	02	19.07	-01	41	10.6	801
1991 JE1	1992	07	31.23472	22	00	36.59	-01	54	39.5	801
1991 JE1	1992	07	31.25990	22	00	35.65	-01	54	46.7	801
1992 JB	1992	06	29.08909	15	47	19.85	+10	41	01.7	801
1992 JB	1992	06	29.10606	15	47	20.58	+10	40	51.2	801
1992 JB	1992	07	03.08377	15	50	36.91	+09	57	03.4	801
1992 JB	1992	07	03.09900	15	50	37.60	+09	56	52.8	801
1992 JE	1992	06	28.07047	14	28	22.25	+01	04	35.9	801
1992 JE	1992	06	28.09249	14	28	23.17	+01	04	34.7	801
1992 JE	1992	06	30.05873	14	30	03.86	+01	02	05.7	801
1992 JE	1992	06	30.06843	14	30	04.34	+01	02	04.3	801
1992 KD	1992	06	28.07865	15	31	30.98	+11	43	47.7	801
1992 KD	1992	06	28.08953	15	31	31.99	+11	44	05.9	801
1992 KD	1992	07	02.10569	15	37	47.42	+13	18	21.1	801
1992 KD	1992	07	02.11279	15	37	48.06	+13	18	29.9	801
1992 LR	1992	07	26.10314	18	22	13.74	+02	28	35.1	801

1992 LR	1992 07 26.10435	18 22 14.25	+02 28 37.2			801
1992 LR	1992 07 28.18959	18 38 21.96	+03 18 08.4			801
1992 LR	1992 07 28.19132	18 38 22.74	+03 18 10.6			801
1992 LR	1992 07 30.09498	18 53 33.58	+03 59 41.3			801
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1992 LR	1992 08 03.14597	19 26 04.49	+05 13 10.8			801
1992 LR	1992 08 03.14796	19 26 05.38	+05 13 12.5			801
2023 P-L	1992 08 02.16764	20 17 34.33	-19 59 59.9			801
2023 P-L	1992 08 02.18744	20 17 33.37	-20 00 02.5			801
2532 P-L	1992 06 30.09237	17 17 38.18	-09 16 45.0			801
2532 P-L	1992 06 30.11061	17 17 37.32	-09 16 44.6			801
2780 P-L	1992 06 29.23090	19 31 06.50	-17 00 56.0			801
2780 P-L	1992 06 29.24891	19 31 05.60	-17 00 59.2			801
2780 P-L	1992 07 03.20418	19 27 50.71	-17 10 47.4			801
2780 P-L	1992 07 03.21775	19 27 49.99	-17 10 50.1			801
4027 P-L	1992 07 28.24510	21 45 30.10	-09 35 58.0			801
4027 P-L	1992 07 28.26485	21 45 29.24	-09 36 01.3			801
4027 P-L	1992 07 30.24095	21 44 05.61	-09 40 51.7			801
4027 P-L	1992 07 30.25854	21 44 04.84	-09 40 54.1			801
6040 P-L	1992 07 26.25306	21 35 06.68	-13 59 15.5			801
6040 P-L	1992 07 26.27182	21 35 05.81	-13 59 17.6			801
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7063 P-L	1992 07 28.28096	22 47 00.62	+01 14 36.0			801
7063 P-L	1992 07 28.33692	22 46 59.79	+01 14 44.6			801
7063 P-L	1992 07 30.30086	22 46 32.75	+01 19 15.6			801
7063 P-L	1992 07 30.32769	22 46 32.22	+01 19 19.2			801
9546 P-L	1992 06 29.13052	17 30 58.04	-22 19 17.0			801
9546 P-L	1992 06 29.14849	17 30 57.19	-22 19 17.9			801
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1232 T-1	1992 06 29.26694	20 18 42.20	-12 29 16.2			801
1232 T-1	1992 07 01.27001	20 17 03.59	-12 31 41.6			801
1232 T-1	1992 07 01.28286	20 17 02.96	-12 31 43.1			801
1232 T-1	1992 07 26.18801	19 52 26.75	-13 37 48.1			801
1232 T-1	1992 07 26.20322	19 52 25.83	-13 37 51.8			801
1232 T-1	1992 07 30.15054	19 48 33.40	-13 52 15.1			801
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(3551)	1992 06 29.18533	18 03 47.64	+00 47 17.2			801
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(3674)	1992 06 29.32202	23 40 53.38	+12 50 21.1			801
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(3674)	1992 07 26.33582	00 14 36.78	+26 25 55.1			801
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(3674)	1992 07 29.34154	00 17 52.19	+28 05 14.6			801

(3674)	1992 07 29.34516	00 17 52.41	+28 05 21.8		801
(4015)	1992 06 29.32625	23 50 04.45	+02 38 56.2		801
(4015)	1992 06 29.32772	23 50 04.90	+02 38 59.5		801
(4015)	1992 08 02.33345	03 14 21.52	+23 36 30.3		801
(4015)	1992 08 02.33580	03 14 22.34	+23 36 33.3		801
(4179)	1992 06 29.27605	20 40 13.48	-18 06 55.9		801
(4179)	1992 06 29.31438	20 40 12.39	-18 07 00.8		801
(4179)	1992 07 26.19557	20 11 35.21	-19 54 18.1		801
(4179)	1992 07 26.20476	20 11 34.26	-19 54 21.4		801
(4179)	1992 07 28.20649	20 08 07.04	-20 06 01.5		801
(4179)	1992 07 28.21733	20 08 05.83	-20 06 05.4		801
(4341)	1992 07 02.10282	15 16 22.29	-05 45 02.0		801
(4341)	1992 07 02.11894	15 16 22.45	-05 45 18.0		801
(4957)	1992 06 29.29465	22 57 39.61	+47 54 51.2		801
(4957)	1992 06 29.29802	22 57 40.09	+47 55 01.8		801
(5143)	1992 07 26.30316	22 36 19.67	-05 17 22.3		801
(5143)	1992 07 26.31287	22 36 18.51	-05 17 26.5		801
(5143)	1992 07 28.27470	22 32 24.23	-05 31 44.9		801
(5143)	1992 07 28.28516	22 32 22.95	-05 31 49.6		801
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(5261)	1992 07 01.28743	20 55 34.44	+23 29 38.9		801
(5261)	1992 07 01.29439	20 55 34.25	+23 29 51.7		801
(5261)	1992 07 26.22721	20 30 36.31	+34 24 12.2		801
(5261)	1992 07 26.23720	20 30 35.33	+34 24 20.9		801
(5261)	1992 07 28.21030	20 27 51.06	+34 54 51.4		801
(5261)	1992 07 28.23441	20 27 48.90	+34 55 12.3		801
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(5264)	1992 07 02.13270	16 00 18.19	+14 16 31.8		801
(5264)	1992 07 02.14807	16 00 17.89	+14 16 27.1		801

809 European Southern Observatory
E. W. Elst, Observatoire Royal de Belgique, Avenue Circulaire 3, B-1180 Brussels, Belgium
Observers E. W. Elst, G. Pizarro, O. Pizarro
Measurers E. W. Elst, J. P. Olivier
1.0-m Schmidt, GPO 0.4-m astrograph
PPM

1990 UF1	1990 11 12.16389	02 47 59.13	+14 15 17.9	17.4	809
1990 UF1	1990 11 12.17500	02 47 58.38	+14 15 17.3		809
1990 UF1	1990 11 12.18542	02 47 57.54	+14 15 16.5		809
1990 UH1	1990 11 11.15208	03 17 21.73	+03 08 38.8	17.0	809
1990 UH1	1990 11 11.16806	03 17 20.71	+03 08 42.8		809
1990 UH1	1990 11 11.18264	03 17 19.80	+03 08 46.5		809
1990 UL1	1990 11 18.12917	02 54 19.65	+08 25 43.1		809
1990 UL1	1990 11 18.13993	02 54 19.02	+08 25 43.2		809
1990 UL1	1990 11 18.15069	02 54 18.36	+08 25 43.7		809
1990 UL1	1990 11 20.20486	02 52 27.78	+08 25 23.6		809
1990 UL1	1990 11 20.21528	02 52 27.14	+08 25 24.0		809
1990 UL1	1990 11 20.22569	02 52 26.49	+08 25 24.1		809
1990 UU1	1990 11 11.15208	03 18 25.05	+03 12 29.6	18.0	809
1990 UU1	1990 11 11.16806	03 18 24.17	+03 12 20.6		809
1990 UU1	1990 11 11.18264	03 18 23.36	+03 12 13.5		809
1990 UU1	1990 11 19.08681	03 11 48.41	+02 03 31.7		809
1990 UU1	1990 11 19.09722	03 11 47.90	+02 03 26.2		809
1990 UU1	1990 11 19.10764	03 11 47.26	+02 03 20.3		809
1990 UX1	1990 11 11.15208	03 23 04.66	+04 15 59.6	18.0	809
1990 UX1	1990 11 11.16806	03 23 03.91	+04 15 51.0		809
1990 UX1	1990 11 11.18264	03 23 03.11	+04 15 44.2		809

1990	UX1		1990	11	19.08681	03	16	30.86	+03 12 58.3	809
1990	UX1		1990	11	19.09722	03	16	30.35	+03 12 53.9	809
1990	UX1		1990	11	19.10764	03	16	29.79	+03 12 49.4	809
1990	UY1		1990	11	11.15208	03	20	38.81	+03 05 25.2 17.5	809
1990	UY1		1990	11	11.16806	03	20	37.74	+03 05 24.7	809
1990	UY1		1990	11	11.18264	03	20	36.79	+03 05 24.4	809
1990	UY1		1990	11	19.08681	03	12	35.95	+03 09 14.1	809
1990	UY1		1990	11	19.09722	03	12	35.36	+03 09 15.5	809
1990	UY1		1990	11	19.10764	03	12	34.73	+03 09 15.8	809
1990	UT5		1990	11	13.20069	03	01	53.25	+10 16 13.2 17.8	809
1990	UT5		1990	11	13.21111	03	01	52.61	+10 16 11.2	809
1990	UT5		1990	11	13.22153	03	01	52.17	+10 16 08.6	809
1990	UT5		1990	11	15.14722	03	00	08.69	+10 10 54.7	809
1990	UT5		1990	11	15.15764	03	00	08.19	+10 10 53.0	809
1990	UT5		1990	11	15.16806	03	00	07.50	+10 10 51.2	809
1990	UT5		1990	11	18.12917	02	57	31.18	+10 03 22.5	809
1990	UT5		1990	11	18.13993	02	57	30.55	+10 03 20.6	809
1990	UT5		1990	11	18.15069	02	57	29.96	+10 03 19.4	809
1990	UT5		1990	11	20.20486	02	55	44.24	+09 58 34.2	809
1990	UT5		1990	11	20.21528	02	55	43.63	+09 58 33.0	809
1990	UT5		1990	11	20.22569	02	55	43.06	+09 58 31.6	809
1990	VX6		1990	11	11.15208	03	18	31.94	+03 40 53.5 17.8	809
1990	VX6		1990	11	11.16806	03	18	31.13	+03 40 53.7	809
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1990	VS11		1990	11	12.16389	02	41	19.08	+14 37 29.8 18.2	809
1990	VS11		1990	11	12.17500	02	41	18.38	+14 37 28.3	809
1990	VS11		1990	11	12.18542	02	41	17.78	+14 37 27.1	809
1990	VU11		1990	11	12.16389	02	43	51.26	+14 45 51.0 17.7	809
1990	VU11		1990	11	12.17500	02	43	50.60	+14 45 49.5	809
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1990	VV11		1990	11	12.16389	02	44	18.85	+14 36 27.4 17.5	809
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1990	VY14		1990	11	11.19358	03	27	35.09	+14 01 45.3 17.5	809
1990	VY14		1990	11	11.20764	03	27	34.25	+14 01 43.3	809
1990	VY14		1990	11	11.21806	03	27	33.57	+14 01 42.9	809
1990	VK15	*	1990	11	12.16389	02	41	32.41	+15 50 28.2 17.6	809
1990	VK15		1990	11	12.17500	02	41	31.73	+15 50 20.6	809
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1990	VN15	*	1990	11	13.20069	02	59	05.38	+10 06 32.2 18.0	809
1990	VN15		1990	11	13.21111	02	59	04.82	+10 06 32.9	809
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1990	VO15	*	1990	11	13.20069	03	00	01.89	+10 55 38.2 18.2	809
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1990	VP15	*	1990	11	13.20069	03	00	51.31	+10 37 54.8 18.0	809
1990	VP15		1990	11	13.21111	03	00	50.67	+10 37 44.1	809
1990	VP15		1990	11	13.22153	03	00	50.09	+10 37 38.3	809
1990	VP15		1990	11	15.14722	02	58	35.66	+10 08 16.7	809
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1990	VQ15	*	1990	11	13.20069	03	01	30.10	+09 14 17.4 18.2	809
1990	VQ15		1990	11	13.21111	03	01	29.69	+09 14 11.5	809

1990 VQ15		1990	11	13.22153	03	01	29.16	+09	14	07.1		809
1990 VQ15		1990	11	15.14722	03	00	03.57	+08	58	05.0		809
1990 VQ15		1990	11	15.15764	03	00	03.08	+08	58	00.5		809
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1990 VQ15		1990	11	18.15069	02	57	52.45	+08	33	46.9		809
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1990 VR15		1990	11	15.14722	03	01	25.33	+09	08	55.1		809
1990 VR15		1990	11	15.15764	03	01	24.86	+09	08	50.7		809
1990 VR15		1990	11	15.16806	03	01	24.36	+09	08	46.9		809
1990 VS15	*	1990	11	11.15208	03	21	22.42	+04	09	32.0	17.5	809
1990 VS15		1990	11	11.16806	03	21	22.31	+04	09	23.6		809
1990 VS15		1990	11	11.18264	03	21	22.19	+04	09	16.5		809
1990 VT15	*	1990	11	11.19358	03	23	11.55	+14	42	36.4	17.7	809
1990 VT15		1990	11	11.20764	03	23	10.95	+14	42	34.6		809
1990 VT15		1990	11	11.21806	03	23	10.26	+14	42	32.6		809
1990 VU15	*	1990	11	11.19358	03	27	40.40	+13	35	09.7	18.0	809
1990 VU15		1990	11	11.20764	03	27	39.80	+13	35	05.0		809
1990 VU15		1990	11	11.21806	03	27	39.20	+13	35	01.6		809
1990 WC9		1990	11	14.30139	03	15	51.21	+12	48	40.1	18.0	809
1990 WC9		1990	11	14.31181	03	15	50.58	+12	48	40.0		809
1990 WD9		1990	11	14.30139	03	16	56.61	+13	32	57.3	17.8	809
1990 WD9		1990	11	14.31181	03	16	56.10	+13	32	53.6		809
1990 WE9		1990	11	11.19358	03	23	32.54	+13	35	34.6		809
1990 WE9		1990	11	11.20764	03	23	31.66	+13	35	31.5		809
1990 WE9		1990	11	11.21806	03	23	30.96	+13	35	28.2		809
1990 WE9		1990	11	14.30139	03	20	25.24	+13	22	48.8	18.0	809
1990 WE9		1990	11	14.31181	03	20	24.60	+13	22	46.2		809
1990 WJ14		1990	11	14.30139	03	23	05.57	+12	28	24.6	18.0	809
1990 WJ14		1990	11	14.31181	03	23	04.88	+12	28	23.1		809
1990 WO15	*	1990	11	16.27604	04	33	30.16	+22	07	35.2		809
1990 WO15		1990	11	17.29271	04	32	41.85	+22	04	00.9	18.0	809
1990 WP15	*	1990	11	18.12917	02	53	04.65	+08	30	36.6		809
1990 WP15		1990	11	18.13993	02	53	04.16	+08	30	34.4		809
1990 WP15		1990	11	18.15069	02	53	03.82	+08	30	31.0		809
1991 PA19	*	1991	08	02.11806	20	54	22.22	-20	39	54.8		809
1991 PA19		1991	08	02.13125	20	54	21.46	-20	39	54.8	19.1	809
1991 PA19		1991	08	02.14444	20	54	20.61	-20	39	56.9		809
1991 PA19		1991	08	14.16181	20	43	02.32	-20	53	48.5	19.1	809
1991 PA19		1991	08	14.17500	20	43	01.61	-20	53	47.7		809
1991 PA19		1991	08	14.18819	20	43	00.88	-20	53	47.7		809
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1991 PB19		1991	08	02.13125	20	55	26.58	-17	18	29.4	18.6	809
1991 PB19		1991	08	02.14444	20	55	25.82	-17	18	37.5		809
1991 PB19		1991	08	14.16181	20	43	35.63	-18	31	55.9	19.0	809
1991 PB19		1991	08	14.17500	20	43	34.76	-18	32	01.1		809
1991 PB19		1991	08	14.18819	20	43	33.96	-18	32	05.7		809
1991 PC19	*	1991	08	02.11806	20	56	02.63	-20	22	33.8		809
1991 PC19		1991	08	02.13125	20	56	01.96	-20	22	34.0	19.3	809
1991 PC19		1991	08	02.14444	20	56	01.06	-20	22	35.2		809
1991 PC19		1991	08	14.16181	20	44	47.15	-20	28	53.5	20.0	809
1991 PC19		1991	08	14.17500	20	44	46.32	-20	28	53.5		809
1991 PC19		1991	08	14.18819	20	44	45.63	-20	28	52.5		809
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1991 PD19		1991	08	02.13125	20	58	15.42	-17	49	49.9	19.0	809
1991 PD19		1991	08	02.14444	20	58	14.69	-17	49	52.8		809

1991 PD19		1991	08	14.16181	20 47 33.40	-18 38 27.1	18.7		809
1991 PD19		1991	08	14.17500	20 47 32.71	-18 38 29.6			809
1991 PD19		1991	08	14.18819	20 47 31.94	-18 38 33.1			809
1991 PE19	*	1991	08	02.11806	20 58 43.79	-21 25 54.9			809
1991 PE19		1991	08	02.13125	20 58 43.02	-21 25 56.9	18.5		809
1991 PE19		1991	08	02.14444	20 58 42.42	-21 26 01.3			809
1991 PE19		1991	08	14.16181	20 49 06.90	-22 12 55.3	19.0		809
1991 PE19		1991	08	14.17500	20 49 06.20	-22 12 58.0			809
1991 PE19		1991	08	14.18819	20 49 05.52	-22 13 01.2			809
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1991 PF19		1991	08	02.13125	20 58 56.93	-19 45 46.4	19.2		809
1991 PF19		1991	08	02.14444	20 58 56.04	-19 45 47.3			809
1991 PF19		1991	08	14.16181	20 45 56.40	-19 59 31.0	19.4		809
1991 PF19		1991	08	14.17500	20 45 55.61	-19 59 31.7			809
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1991 PG19	*	1991	08	02.11806	20 59 18.51	-18 22 39.0			809
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1991 PG19		1991	08	02.14444	20 59 16.95	-18 22 43.5			809
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1991 PG19		1991	08	14.17500	20 48 17.56	-18 53 38.8			809
1991 PG19		1991	08	14.18819	20 48 16.81	-18 53 40.1			809
1991 PH19	*	1991	08	02.11806	21 01 14.96	-19 21 03.6			809
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1991 PH19		1991	08	02.14444	21 01 13.03	-19 21 08.0			809
1991 PH19		1991	08	14.16181	20 48 23.61	-19 52 32.1	19.4		809
1991 PH19		1991	08	14.17500	20 48 22.77	-19 52 33.4			809
1991 PH19		1991	08	14.18819	20 48 21.99	-19 52 35.3			809
1991 PJ19	*	1991	08	02.11806	21 01 34.88	-18 13 45.5			809
1991 PJ19		1991	08	02.13125	21 01 34.13	-18 13 47.5	18.8		809
1991 PJ19		1991	08	02.14444	21 01 33.46	-18 13 50.1			809
1991 PJ19		1991	08	14.16181	20 51 43.31	-18 55 24.6	18.7		809
1991 PJ19		1991	08	14.17500	20 51 42.65	-18 55 27.3			809
1991 PJ19		1991	08	14.18819	20 51 42.09	-18 55 29.5			809
1991 PK19	*	1991	08	02.11806	21 02 06.09	-21 29 12.7			809
1991 PK19		1991	08	02.13125	21 02 05.38	-21 29 13.4	18.6		809
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1991 PK19		1991	08	14.18819	20 50 01.88	-21 33 37.6			809
1991 PL19	*	1991	08	02.11806	21 02 07.13	-21 03 54.2			809
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1991 PL19		1991	08	02.14444	21 02 05.38	-21 03 59.9			809
1991 PL19		1991	08	14.16181	20 49 31.67	-21 42 03.8	19.4		809
1991 PL19		1991	08	14.17500	20 49 30.88	-21 42 05.6			809
1991 PL19		1991	08	14.18819	20 49 30.10	-21 42 08.4			809
1991 PM19	*	1991	08	02.11806	21 02 41.05	-18 03 53.1			809
1991 PM19		1991	08	02.13125	21 02 40.08	-18 03 54.1	19.5		809
1991 PM19		1991	08	02.14444	21 02 39.09	-18 03 56.6			809
1991 PM19		1991	08	14.16181	20 47 29.90	-18 29 55.0	19.4		809
1991 PM19		1991	08	14.17500	20 47 29.02	-18 29 55.8			809
1991 PM19		1991	08	14.18819	20 47 28.01	-18 29 57.0			809
1991 PN19	*	1991	08	02.11806	21 02 44.03	-19 44 54.9			809
1991 PN19		1991	08	02.13125	21 02 43.30	-19 44 57.1	18.6		809
1991 PN19		1991	08	02.14444	21 02 42.48	-19 44 57.8			809
1991 PN19		1991	08	14.16181	20 51 39.34	-20 05 19.5	18.7		809
1991 PN19		1991	08	14.17500	20 51 38.54	-20 05 21.0			809
1991 PN19		1991	08	14.18819	20 51 37.90	-20 05 21.6			809
1991 PO19	*	1991	08	02.11806	21 04 00.81	-19 58 00.9			809

1991	PO19		1991	08	02.13125	21	04	00.08	-19 58 03.8	18.6	809
1991	PO19		1991	08	02.14444	21	03	59.36	-19 58 07.0		809
1991	PO19		1991	08	14.16181	20	53	52.70	-20 46 08.4	19.4	809
1991	PO19		1991	08	14.17500	20	53	51.97	-20 46 11.7		809
1991	PO19		1991	08	14.18819	20	53	51.27	-20 46 13.9		809
1991	PP19	*	1991	08	02.11806	21	04	10.37	-17 56 58.3		809
1991	PP19		1991	08	02.13125	21	04	09.56	-17 57 01.5	18.6	809
1991	PP19		1991	08	02.14444	21	04	08.73	-17 57 05.5		809
1991	PP19		1991	08	14.16181	20	52	19.99	-18 54 38.5	18.7	809
1991	PP19		1991	08	14.17500	20	52	19.16	-18 54 42.1		809
1991	PP19		1991	08	14.18819	20	52	18.35	-18 54 44.9		809
1991	PQ19	*	1991	08	02.11806	21	06	50.78	-21 05 13.4		809
1991	PQ19		1991	08	02.13125	21	06	49.90	-21 05 16.9	18.6	809
1991	PQ19		1991	08	02.14444	21	06	49.16	-21 05 21.8		809
1991	PQ19		1991	08	14.16181	20	55	32.31	-22 12 05.2	19.4	809
1991	PQ19		1991	08	14.17500	20	55	31.51	-22 12 09.9		809
1991	PQ19		1991	08	14.18819	20	55	30.79	-22 12 13.3		809
1991	PR19	*	1991	08	02.11806	21	11	31.67	-20 12 28.2		809
1991	PR19		1991	08	02.13125	21	11	30.95	-20 12 29.2	19.0	809
1991	PR19		1991	08	02.14444	21	11	30.09	-20 12 31.9		809
1991	PR19		1991	08	14.16181	21	02	10.48	-21 41 59.3	19.6	809
1991	PR19		1991	08	14.17500	21	02	09.84	-21 42 04.2		809
1991	PR19		1991	08	14.18819	21	02	09.15	-21 42 09.7		809
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1991	PS19		1991	08	06.25764	21	50	56.06	-15 35 34.9		809
1991	PS19		1991	08	06.27083	21	50	55.37	-15 35 37.9		809
1991	PS19		1991	08	14.20625	21	44	51.77	-16 09 07.7	19.2	809
1991	PS19		1991	08	14.21944	21	44	50.98	-16 09 11.0		809
1991	PS19		1991	08	14.23264	21	44	50.40	-16 09 14.6		809
1991	PT19	*	1991	08	10.30278	21	29	11.84	-10 22 12.8		809
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1991	PT19		1991	08	10.32361	21	29	10.54	-10 22 15.5		809
1991	PT19		1991	08	14.28194	21	25	16.44	-10 31 39.8		809
1991	PT19		1991	08	14.29236	21	25	15.77	-10 31 41.5		809
1991	PT19		1991	08	14.30278	21	25	15.14	-10 31 42.9	18.0	809
1991	RJ11		1991	08	02.11806	20	49	24.37	-19 21 19.9		809
1991	RJ11		1991	08	02.13125	20	49	23.61	-19 21 21.9	18.3	809
1991	RJ11		1991	08	02.14444	20	49	23.05	-19 21 25.3		809
1991	RJ11		1991	08	14.16181	20	40	06.76	-20 05 50.4	18.7	809
1991	RJ11		1991	08	14.17500	20	40	06.19	-20 05 52.9		809
1991	RJ11		1991	08	14.18819	20	40	05.53	-20 05 55.9		809
1991	RN11		1991	08	02.11806	21	04	23.14	-19 03 38.9		809
1991	RN11		1991	08	02.13125	21	04	22.37	-19 03 43.0	18.3	809
1991	RN11		1991	08	02.14444	21	04	21.53	-19 03 47.8		809
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1991	RP11		1991	08	02.14444	21	04	13.81	-17 23 42.1		809
1991	RP11		1991	08	14.16181	20	53	43.20	-18 19 34.1	18.5	809
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1991	RD12		1991	08	03.10486	21	28	29.63	-15 44 53.2		809
1991	RD12		1991	08	03.11806	21	28	28.99	-15 44 56.6		809
1991	RD12		1991	08	05.26458	21	26	46.26	-15 55 48.5	17.7	809
1991	RD12		1991	08	05.27500	21	26	45.72	-15 55 50.2		809

1991 RD12		1991 08 05.28542	21 26 45.14	-15 55 53.2				809
1991 VW12	*	1991 11 09.17361	04 07 00.29	+07 17 43.6				809
1991 VW12		1991 11 09.18681	04 06 59.59	+07 17 31.4				809
1991 VW12		1991 11 12.20347	04 04 22.54	+06 39 54.0		19.4		809
1991 VW12		1991 11 12.21667	04 04 21.77	+06 39 43.9				809
1991 VW12		1991 11 12.22986	04 04 21.04	+06 39 34.2				809
1992 CD4	*	1992 02 02.21458	08 09 36.15	+14 44 37.3		18.8		809
1992 CD4		1992 02 02.22778	08 09 35.53	+14 44 40.3				809
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1992 CD4		1992 02 12.23472	08 02 02.64	+15 31 48.1				809
1992 GY1		1992 04 23.14514	13 48 52.46	-08 59 47.1				809
1992 GY1		1992 04 23.15833	13 48 51.69	-08 59 41.3				809
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1992 GY1		1992 04 25.08889	13 47 10.61	-08 44 45.7		18.0		809
1992 GY1		1992 04 25.10208	13 47 09.92	-08 44 39.8				809
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(60)		1990 11 14.30139	03 15 48.54	+13 38 22.8		12.0		809
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(67)		1990 11 11.20764	03 24 15.10	+13 46 00.1				809
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(80)		1990 11 20.13472	02 44 18.27	+12 27 24.8				809
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(886)		1990 11 11.19358	03 25 55.34	+13 39 35.2				809
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(886)		1990 11 14.30139	03 22 40.10	+13 50 43.2				809
(886)		1990 11 14.31181	03 22 39.38	+13 50 45.4				809
(959)		1990 11 16.27604	04 35 11.02	+22 34 17.6				809
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(2207)		1990 11 13.20069	03 03 17.15	+09 07 53.6		16.8		809
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(2207)		1990 11 15.15764	03 02 16.10	+09 03 17.8				809
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(3869)		1990 11 17.29271	04 27 07.81	+22 31 19.2		17.5		809
(4016)		1990 11 12.16389	02 42 19.42	+14 31 52.6		17.5		809
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(5226)		1990 11 13.21111	02 57 39.89	+09 44 41.0				809
(5226)		1990 11 13.22153	02 57 39.06	+09 44 42.3				809
(5226)		1990 11 18.12917	02 52 08.15	+09 53 44.9				809
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(5226)		1990 11 18.15069	02 52 06.73	+09 53 47.2				809
(5226)		1990 11 20.20486	02 49 52.60	+09 58 23.4				809
(5226)		1990 11 20.21528	02 49 51.82	+09 58 25.7				809
(5226)		1990 11 20.22569	02 49 51.21	+09 58 27.2				809

894 Otomo
S. Otomo, Kiyosato 3545-3902, Takane-cho, Kitakoma-gun, Yamanashi-ken, 407-03, Japan
0.25-m f/3.4 reflector
PPM

1979 UQ		1992 07 08.73507	20 14 27.95	-15 46 58.2	16.6		894
1979 UQ		1992 07 09.71632	20 13 34.22	-15 48 00.9	16.5		894
1979 UQ		1992 07 09.73229	20 13 33.26	-15 48 01.2			894
1989 YP5		1992 07 09.66285	20 00 22.23	-18 14 53.5	16.8		894
1989 YP5		1992 07 09.67604	20 00 21.45	-18 14 59.4			894
1992 NM	*	1992 07 08.62917	19 50 05.25	-20 12 23.6	17.0		894
1992 NM		1992 07 08.64236	19 50 04.70	-20 12 27.8			894
1992 NM		1992 07 09.68924	19 49 02.10	-20 17 32.9			894
1992 NM		1992 07 09.70243	19 49 01.32	-20 17 35.5			894
1992 NM		1992 07 23.56076	19 34 39.28	-21 25 25.8	16.8		894
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1992 NQ	*	1992 07 08.72326	20 38 42.14	-14 51 16.3	16.5		894
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1992 NQ		1992 07 23.66354	20 27 10.46	-16 51 01.2			894

* * * * *

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The name of the orbit computer is shown on the line giving T for a comet and Epoch for a displayed minor-planet orbit; for many of the minor planets (O-C) residuals are shown in full (in R.A. and Decl.); observations are identified by date and observatory code, X referring to an approximate and Y to a semiaccurate position. For displayed minor planets "Id." shows those involved in establishing the identifications (generally with the principal contributors first), "k" indicating key identifications and "d" (only) double (or multiple) designations; no identifier is shown if only the orbit computer is involved and the results were not previously published. J-P indicates that only the perturbations by the outer planets were considered, and a and n are then related by a gravitational constant augmented by the masses of the inner planets. For the one-opposition orbits, equinox 2000.0 is used, and the columns headed Arc and O show the time span in days covered by the observations and the number of observations utilized in the computation (0 = 10 or more). In the note column N, D means that there

are double (or multiple) designations, E means that the value of the eccentricity was assumed, F means both; the double designations are listed at the end; the codes for the orbit computers (column C) are as listed above.

Comet Levy (1990 XX)
Epoch 1990 Nov. 5.0 TT = JDT 2448200.5
T 1990 Oct. 24.68374 TT Marsden
q 0.9387053 (2000.0) P Q
z -0.0004446 Peri. 242.66562 -0.03550933 -0.87260886
+/-0.0000038 Node 139.36465 -0.42055452 +0.45522108
e 1.0004174 Incl. 131.58287 -0.90657211 -0.17699588
From 314 observations 1990 May 21-1992 Apr. 1, mean residual 0".95. Non-gravitational parameters A1 = +3.03 +/- 0.12, A2 = -0.2153 +/- 0.0560.

Comet Shoemaker-Levy (1991d)
Epoch 1992 Jan. 19.0 TT = JDT 2448640.5
T 1991 Dec. 31.18125 TT Marsden
q 2.2650305 (2000.0) P Q
z +0.0028694 Peri. 74.36527 -0.34226567 +0.75618395
+/-0.0000020 Node 145.12952 -0.39181509 -0.65435291
e 0.9935006 Incl. 77.28807 +0.85401121 +0.00284594
From 265 observations 1991 Jan. 22-1992 Aug. 3, mean residual 0".82.

Comet Helin-Lawrence (1991l)
Epoch 1992 Jan. 19.0 TT = JDT 2448640.5
T 1992 Jan. 20.02690 TT Marsden
q 1.5177205 (2000.0) P Q
z -0.0002884 Peri. 271.15915 +0.00030144 +0.97893665
+/-0.0000023 Node 11.83496 +0.48507054 +0.17839319
e 1.0004377 Incl. 95.45643 -0.87447497 +0.09929201
From 81 observations 1991 Feb. 23-1992 Aug. 3, mean residual 0".70.

Comet Machholz (1992k)
T 1992 July 10.95771 TT Nakano
q 0.8197701 (2000.0) P Q
Peri. 162.91772 +0.67522976 -0.25109344
Node 235.13227 +0.53847355 +0.81040421
e 1.0 Incl. 57.70503 +0.50409424 -0.52933648
From 7 observations 1992 July 5-10.

Comet Shoemaker-Levy (1991a1)
Epoch 1992 Aug. 6.0 TT = JDT 2448840.5
T 1992 July 24.50690 TT Marsden
q 0.8362502 (2000.0) P Q
z +0.0001655 Peri. 145.24022 -0.36674411 -0.62106895
+/-0.0000043 Node 49.05055 -0.91397617 +0.10157812
e 0.9998616 Incl. 113.49786 +0.17362693 -0.77714557
From 124 observations 1991 Oct. 6-1992 July 21, mean residual 0".91.

Periodic Comet Schuster (1992n)
Epoch 1992 Sept. 15.0 TT = JDT 2448880.5
T 1992 Sept. 6.42249 TT Nakano
q 1.5392395 (2000.0) P Q
n 0.13573162 Peri. 355.73343 +0.68692370 -0.67630029
a 3.7498626 Node 50.60186 +0.67653378 +0.46143328
e 0.5895211 Incl. 20.13405 +0.26540132 +0.57419269
P 7.26
From 40 observations 1977-1992, mean residual 1".00.

One-opposition minor planets

Planet	H	Epoch	M	Peri.	Node	Incl.	e	a	Arc	O	N	C
1979 SC	13.5	790904	88.19	221.27	33.14	4.78	0.1035	2.2803	5	5		W
1979 SD	14.0	790904	18.69	285.21	48.31	3.88	0.0744	2.7016	5	6		W
1980 UF1	15.6	801028	28.86	346.55	7.23	8.42	0.1725	2.2731	19	3		E
1980 UG1	14.1	801028	51.14	79.87	232.48	12.07	0.2750	2.6646	19	3		E
1980 UK1	15.5	801028	18.55	49.23	311.10	2.62	0.2861	2.2777	19	3		E
1980 UM1	14.5	801028	318.11	175.02	269.74	4.84	0.0999	2.2518	19	4		E
1980 UN1	14.7	801028	26.47	75.59	276.06	2.50	0.2371	2.6110	19	4		E
1980 UO1	12.8	801028	58.30	109.02	220.73	21.47	0.0539	3.1372	19	4		E
1980 UQ1	15.2	801028	0.21	131.03	263.60	4.51	0.1507	2.3141	19	3		E
1980 UR1	14.8	801028	333.46	201.38	234.12	7.73	0.2142	2.3496	19	3		E
1980 US1	15.2	801028	11.89	10.18	7.02	4.40	0.2107	2.3034	19	3		E
1980 UW1	14.7	801028	32.06	38.96	310.36	1.68	0.1913	2.4067	19	3		E
1980 VW2	15.5	801028	358.58	25.00	13.39	6.09	0.1177	2.3121	19	5		E
1980 VX2	13.0	801028	252.41	284.88	225.63	24.53	0.0634	2.5328	19	5		E
1980 VZ2	14.9	801028	14.19	112.10	261.13	3.60	0.2434	2.3683	19	3		E
1981 QE4	14.0	810824	54.65	306.48	307.03	3.84	0.2189	2.5303	4	3	D	W
1981 QP4	13.5	810824	60.48	309.57	321.01	11.85	0.0396	2.3423	7	3	D	W
1981 RF7	13.5	810824	338.81	27.13	350.98	9.06	0.3222	3.0508	5	3	D	W
1981 US	13.2	811023	35.09	314.29	23.47	14.83	0.2000	2.4214	7	8	E	E
1981 UU	14.8	811023	2.39	169.12	217.13	11.09	0.1647	2.2936	6	6		E
1981 UB22	14.8	811023	26.04	160.38	178.23	5.72	0.3955	2.5478	3	4	D	N
1981 UC23	13.9	811023	287.44	276.09	204.16	8.77	0.0239	3.1712	32	7	D	N
1981 UD23	14.0	811023	21.00	299.56	77.55	3.31	0.0845	2.3571	31	5	D	N
1981 UE23	12.3	811023	19.45	332.80	50.91	21.92	0.0466	3.2090	31	3	D	N
1981 UJ23	13.1	811023	148.46	184.70	67.69	11.55	0.0761	3.0129	31	4	D	N
1981 UV23	13.2	811023	14.41	318.59	59.00	7.12	0.2362	2.4285	52	4	D	N
1981 UE25	13.6	811023	47.43	214.77	115.58	2.20	0.1930	3.1201	32	4	D	N
1981 UU25	14.1	811023	318.66	61.78	50.64	9.71	0.3286	3.0937	32	4	D	N
1981 UH27	14.4	811023	61.15	97.70	222.60	11.18	0.0500	2.5131	2	3	E	E
1981 UK27	14.1	811023	126.49	3.43	235.05	9.92	0.3000	2.3890	2	3	E	E
1981 UL27	13.0	811023	161.56	218.24	1.84	6.28	0.1843	2.3852	2	3		E
1981 UM27	15.1	811023	14.49	44.54	325.88	5.13	0.1050	2.5119	2	3		E
1981 UN27	14.4	811023	313.78	207.09	256.96	6.65	0.2852	2.8209	2	3		E
1981 UO27	14.1	811023	333.60	73.10	343.02	2.82	0.0500	2.7329	2	3	E	E
1981 UP27	15.5	811023	351.91	45.72	354.35	7.50	0.1576	2.3898	2	3		E
1981 UQ27	12.6	811023	69.56	313.05	342.40	5.46	0.1972	3.2035	2	3		E
1981 UR27	12.4	811023	209.75	169.19	11.54	11.65	0.0500	2.6710	2	3	E	E
1981 US27	15.7	811023	12.19	9.01	2.94	7.70	0.1500	2.2862	2	3	E	E
1981 UT27	14.0	811023	317.55	64.85	11.90	14.52	0.0728	3.1844	2	3	E	W
1981 UU27	16.3	811023	347.09	72.83	337.16	2.02	0.2500	2.3693	2	3	E	E
1981 UV27	13.6	811023	11.40	357.16	11.70	7.90	0.2500	2.4449	2	3	E	E
1981 UW27	17.0	811023	353.16	24.56	16.97	4.71	0.2996	2.2173	2	3		W
1981 UY27	13.0	811023	93.14	251.81	11.61	12.56	0.3000	2.3877	2	3	E	E
1981 UZ27	12.2	811023	155.78	2.55	219.66	8.45	0.2528	2.2755	2	3		E
1981 UA28	14.6	811023	310.73	172.41	269.03	2.22	0.0500	2.4564	2	3	E	E
1981 UB28	14.6	811023	14.13	343.49	17.33	7.10	0.3000	2.8322	2	3	E	E
1981 UC28	13.7	811023	168.89	205.66	12.08	7.69	0.0583	2.3570	2	3		E
1981 UD28	13.8	811023	102.51	44.51	235.03	3.26	0.0500	2.2858	2	3	E	E
1981 UE28	13.5	811023	53.78	341.17	343.07	3.98	0.1000	2.7878	2	3	E	E
1981 UF28	16.4	811023	352.16	38.01	0.11	5.33	0.1000	2.2023	2	3	E	E
1981 UH28	13.9	811023	66.41	317.43	358.38	3.96	0.0500	2.7891	2	3	E	E
1981 UJ28	14.9	811023	242.50	223.90	295.10	1.74	0.1500	2.3648	2	3	E	E
1981 UK28	15.0	811023	356.56	24.90	8.38	6.89	0.1500	2.3345	2	3	E	E
1981 UO28	14.8	811023	92.78	37.40	240.51	4.18	0.1555	2.2462	2	3		E
1981 UP28	13.8	811023	258.70	275.22	227.91	11.47	0.1270	2.6300	2	3		E
1981 UQ28	15.6	811023	41.63	324.92	351.55	3.17	0.3000	2.7263	2	3	E	E
1981 UR28	14.6	811023	340.09	91.51	331.83	4.49	0.2600	2.7402	2	3		E

1981	US28	13.1	811023	306.89	161.23	304.07	4.44	0.2201	3.2786	2	3		E
1981	UT28	14.4	811023	351.09	34.53	4.32	7.75	0.0531	2.4027	2	3		E
1981	UU28	16.2	811023	3.90	15.85	6.22	5.34	0.2500	2.4692	2	3	E	E
1981	UV28	15.8	811023	340.13	101.27	317.71	1.44	0.2137	2.6585	2	3		E
1981	UW28	14.8	811023	343.25	154.73	254.47	5.51	0.0991	2.7461	2	3		E
1981	UX28	15.5	811023	336.04	172.92	251.01	5.53	0.1846	2.2517	2	3		E
1981	UY28	15.9	811023	326.36	207.05	246.32	4.68	0.3367	2.6091	2	3		E
1981	UZ28	12.6	811023	319.85	97.17	345.98	5.45	0.1639	3.2170	2	3		E
1981	UA29	12.9	811023	116.10	20.36	228.21	7.13	0.2720	2.6613	2	3		E
1981	UB29	12.7	811023	158.67	220.85	1.30	6.10	0.2442	2.7998	2	3		E
1981	UC29	18.0	811023	344.32	58.31	4.04	4.48	0.3394	2.2007	2	3	E	W
1981	UD29	15.8	811023	345.55	27.14	25.36	20.33	0.2336	2.7363	2	3		E
1981	UE29	16.0	811023	357.97	22.21	9.89	7.20	0.1335	2.3668	2	3		E
1981	UF29	13.6	811023	170.06	200.92	17.67	7.49	0.0081	2.3983	2	3		E
1981	UG29	14.1	811023	109.13	251.56	12.34	7.69	0.1617	2.4515	2	3		E
1981	UH29	11.3	811023	116.18	6.46	243.47	7.02	0.2679	3.0124	2	3		E
1981	UJ29	12.1	811023	114.96	234.29	15.73	6.88	0.2739	2.7312	2	3		E
1981	UK29	13.1	811023	172.32	357.01	218.21	20.46	0.1219	2.5803	2	3		E
1981	UL29	14.7	811023	15.71	151.31	214.86	13.53	0.1856	2.6582	2	3		E
1981	UM29	13.0	811023	2.11	7.23	19.55	8.82	0.1500	2.6813	2	3	E	E
1981	UN29	16.1	811023	19.77	334.40	18.18	7.56	0.3000	2.4005	2	3	E	E
1981	UO29	12.2	811023	229.30	144.31	21.27	19.50	0.0500	2.7151	2	3	E	E
1981	UP29	13.3	811023	106.44	32.24	227.12	8.26	0.2442	2.4256	2	3		E
1981	UQ29	12.4	811023	321.62	193.42	246.33	1.55	0.1449	2.5686	2	3		E
1981	UR29	15.4	811023	33.17	104.61	232.22	5.39	0.2428	2.5716	2	3		E
1981	US29	16.4	811023	24.76	359.08	349.77	2.72	0.2500	2.3918	2	3	E	E
1981	UT29	13.5	811023	68.73	84.45	225.76	8.25	0.1000	3.0730	2	3	E	E
1981	UU29	16.0	811023	26.35	112.44	240.60	1.57	0.1676	2.3664	2	3		E
1990	SV16	14.5	900906	346.35	234.66	128.01	8.19	0.2815	2.7653	6	5	E	W
1990	UL1	13.5	901016	2.73	285.52	106.57	4.52	0.1755	2.2599	35	0		M
1990	UT5	12.5	901016	101.92	180.97	111.25	4.80	0.0690	2.7401	35	0		M
1990	UL11	12.0	901016	12.74	306.58	77.46	3.15	0.0904	2.7562	35	6	D	M
1990	VX6	13.0	901105	36.24	265.55	100.15	11.64	0.0628	2.9678	6	9		M
1990	VY14	13.0	901105	6.61	311.11	88.25	4.22	0.1772	2.6479	13	7		M
1990	VQ15	12.5	901105	91.67	81.81	215.12	24.31	0.1640	3.2347	5	9		M
1990	VR15	13.5	901105	341.29	236.80	198.10	8.22	0.2158	2.7301	4	8	D	M
1990	WE9	15.0	901105	36.83	200.87	155.47	2.65	0.1828	2.4050	8	8		M
1990	WJ14	14.0	901105	16.56	220.50	159.83	2.93	0.2405	2.3975	10	9	D	M
1991	CM5	13.5	910124	257.11	107.47	125.95	24.02	0.0592	1.9420	23	8		W
1991	EY1	14.1	910305	322.76	247.02	318.10	4.72	0.1779	2.3276	16	7	D	N
1991	ED2	14.1	910305	4.60	345.39	162.32	4.68	0.0968	2.2658	31	0	D	N
1991	GF11	16.6	910414	349.11	158.77	57.34	2.99	0.1366	2.4184	8	6	F	N
1991	LF1	14.9	910613	279.16	264.28	88.69	4.41	0.1746	2.2677	21	9	D	N
1991	LJ1	15.8	910613	5.61	353.64	252.44	1.46	0.1476	2.3607	21	9	F	N
1991	LZ1	16.6	910613	335.96	55.57	238.06	3.62	0.2290	2.2136	21	9	D	N
1991	PG1	14.4	910901	4.79	194.27	127.84	12.48	0.2766	2.4324	40	0		E
1991	PT9	13.6	910812	14.20	358.31	287.02	24.64	0.2164	2.2791	29	6		N
1991	PX14	14.7	910812	358.26	69.05	260.97	5.45	0.1512	2.3658	32	6		N
1991	RC27	13.5	911011	4.90	342.92	28.27	13.71	0.1779	2.6413	56	0		W
1991	RL27	13.2	910921	27.24	124.94	214.82	20.16	0.1105	2.6503	6	7		E
1991	RX27	13.5	910901	4.13	86.20	272.24	6.19	0.2261	2.7429	5	8		W
1991	RY27	13.5	910901	274.74	232.46	253.56	6.57	0.2854	2.2940	3	6		W
1991	RC29	15.1	910921	9.33	21.99	330.48	13.84	0.3357	2.5485	3	4		E
1991	RD29	12.4	910921	50.08	40.87	279.16	11.52	0.0807	2.8467	3	5		E
1991	RE29	14.3	910921	14.07	114.60	242.22	13.39	0.1000	2.1708	3	5	E	E
1991	RF29	12.6	910921	71.25	19.35	278.65	10.08	0.0694	2.4405	3	5		E
1991	RG29	12.7	910921	309.41	204.17	246.34	16.60	0.2026	3.0561	3	5		E
1991	RH29	12.8	910921	357.15	107.47	274.17	12.79	0.1199	2.4988	3	5		E
1991	RJ29	12.4	910921	6.93	72.96	295.33	12.48	0.2453	3.2671	3	5		E

1991	RK29	12.2	910921	247.10	227.54	286.93	12.30	0.2150	2.6242	3	5		E	
1991	RM29	13.4	910921	331.32	154.29	267.62	12.02	0.2128	2.5835	3	5		E	
1991	SV1	14.0	910921	26.36	317.19	17.83	6.82	0.1522	2.3750	59	6		W	
1991	SM2	14.0	910921	304.27	59.40	15.96	6.98	0.0659	2.2753	58	8		W	
1991	TF4	13.0	911120	6.98	21.23	16.51	3.23	0.2127	2.6370	58	0		N	
1991	TG4	13.3	911011	259.52	270.34	222.75	19.53	0.1008	1.9560	51	0		E	
1991	UC1	12.6	911031	255.76	318.32	187.75	7.08	0.0140	2.5978	47	0		N	
1991	UQ1	13.6	911120	351.73	23.08	38.92	8.52	0.1813	2.2899	39	0		N	
1991	VU	12.8	911120	21.85	141.40	244.30	6.92	0.1540	2.6083	35	0		N	
1991	VB1	13.9	911031	57.20	318.71	9.71	6.02	0.1466	2.3379	7	6		N	
1991	VA4	14.5	911120	341.13	341.60	105.17	3.13	0.2024	2.3292	28	0		N	
1991	VG4	13.8	911210	356.48	180.71	252.43	11.76	0.1439	2.5302	34	8		N	
1991	VX4	15.4	911031	355.82	24.67	23.54	6.82	0.2507	2.2695	7	6		N	
1991	VE5	13.7	911120	53.79	221.89	110.31	3.76	0.2010	2.2051	30	0		N	
1991	VM5	13.6	911120	48.77	266.98	70.17	6.34	0.2127	2.3238	32	0		N	
1991	VP7	14.0	911031	38.05	137.03	211.04	11.05	0.1745	2.9613	5	8		N	
1991	VM12	12.7	911120	54.70	271.89	66.59	1.62	0.2013	3.1629	31	0		N	
1991	VY12	13.2	911210	27.94	147.73	239.71	4.18	0.1717	2.7266	33	0		N	
1991	XO2	14.6	911210	3.53	194.72	223.98	4.46	0.2026	2.3568	10	9		N	
1992	AU1	12.9	920119	349.99	45.56	87.86	24.70	0.2532	2.2709	54	0		N	
1992	EA1	14.0	920319	36.45	225.49	259.42	11.94	0.1606	2.6688	51	9		W	
1992	KC	14.6	920607	1.19	63.08	180.77	3.72	0.1289	2.2322	35	0		E	
1992	KQ	12.5	920607	323.90	202.60	103.71	14.88	0.1790	2.6696	32	9		W	
1992	LE	13.5	920607	343.41	136.49	153.01	14.70	0.2972	2.8860	26	0		W	
1992	LF	12.0	920607	255.41	225.27	152.57	20.17	0.1543	3.1946	25	0		W	
1992	LJ	13.8	920607	356.36	104.31	144.75	4.09	0.1472	2.4678	61	0		E	
1992	LM	12.7	920607	88.56	68.03	74.48	6.76	0.1096	2.6566	26	0		E	
1992	LN	13.4	920607	28.38	123.70	88.77	7.42	0.0637	2.3810	62	0		E	
1992	LQ	12.6	920607	322.12	211.55	75.71	11.45	0.0690	2.9959	59	0		E	
1992	LS	13.7	920607	317.59	98.29	203.99	4.09	0.1530	2.5155	25	0		E	
1992	LU	13.0	920607	45.17	13.67	175.42	14.29	0.1117	2.5844	25	8		W	
1992	ME	14.0	920627	359.58	134.10	120.60	24.20	0.2522	2.2995	45	0		W	
1992	MF	13.0	920627	336.19	119.40	187.26	21.61	0.1684	3.2551	3	6		W	
1992	MG	12.7	920627	306.45	110.19	219.55	12.73	0.1500	3.0533	2	6	E	E	
1992	MH	12.5	920627	278.76	122.23	225.21	15.50	0.0500	3.2266	2	6	E	E	
1992	MJ	13.3	920627	311.23	202.00	142.55	8.55	0.3016	2.5453	2	6		E	
1992	MK	11.7	920627	167.98	220.92	230.15	12.24	0.1000	2.9840	2	6	E	E	
1992	NJ	12.5	920717	259.68	24.56	27.02	22.81	0.0710	3.1952	35	0		W	
1992	NP	12.5	920627	313.70	51.62	298.23	11.86	0.1993	2.6052	26	8		W	
1992	NR	12.5	920717	52.98	98.80	143.49	14.19	0.1311	2.6282	23	6		W	
1992	OB	14.0	920717	328.65	321.71	37.47	16.55	0.2704	2.9648	2	3		W	
1992	OC	16.0	920717	345.42	330.09	358.05	15.59	0.2728	2.3175	2	3		W	
1992	OF	14.5	920717	349.73	280.53	68.19	3.65	0.3171	2.4102	5	5		W	
1992	OG	14.5	920717	1.81	183.36	147.92	25.24	0.3027	2.6560	2	4		W	
1992	ON	16.5	920717	29.48	285.69	342.19	24.91	0.2133	1.9225	5	5		W	
1992	OO	12.5	920717	358.21	195.05	123.07	26.00	0.1825	2.3592	6	7		W	
1071	T-1	18.0	710310	15.12	182.76	333.81	1.71	0.1428	2.2199	2	4	E	W	
1084	T-1	16.5	710310	55.65	258.13	210.67	3.96	0.1352	2.3617	3	5	E	W	
1103	T-1	15.5	710310	348.01	303.61	249.37	3.66	0.0174	2.7854	8	4		W	
1110	T-1	15.5	710310	73.34	133.23	325.81	4.84	0.0727	2.6891	8	5		W	
1115	T-1	15.0	710310	114.98	204.64	205.15	5.27	0.1673	2.6856	3	5		W	
1128	T-1	18.0	710310	322.90	19.98	211.62	4.47	0.1949	2.2463	2	4	E	W	
1130	T-1	16.5	710310	31.29	281.20	195.70	9.37	0.3294	2.2000	9	6	E	W	
1144	T-1	14.5	710310	96.83	143.70	285.71	4.17	0.1469	3.1769	2	4	E	W	
1218	T-1	18.0	710310	5.15	187.07	347.21	4.44	0.0406	2.2173	3	5	E	W	
1233	T-1	17.0	710310	302.08	79.89	188.63	23.90	0.2715	2.4074	2	4	E	W	
1260	T-1	14.5	710310	177.08	15.16	350.41	9.73	0.1057	2.7055	9	5	E	W	
1263	T-1	15.5	710310	126.94	37.78	2.67	11.34	0.1783	2.3689	3	5	E	W	
1284	T-1	16.0	710310	79.23	63.59	8.05	2.64	0.2675	2.4979	2	6	E	W	

1294	T-1	16.0	710310	248.97	308.37	356.41	2.82	0.1207	2.3555	8	7	E	W
2021	T-1	17.5	710310	342.99	90.66	117.54	1.22	0.3088	2.6764	3	4	E	W
2027	T-1	18.5	710310	340.25	214.21	356.79	2.09	0.2885	2.2385	2	4	E	W
2065	T-1	14.0	710310	153.00	10.60	7.58	13.81	0.1635	2.8999	2	4	E	W
2087	T-1	14.0	710330	134.99	218.31	175.90	11.76	0.1882	2.9729	22	7		W
2089	T-1	16.0	710310	9.59	209.92	309.44	0.18	0.2805	2.8782	3	5	E	W
2090	T-1	17.0	710310	15.45	327.81	181.22	6.44	0.2613	2.4000	8	5	E	W
2094	T-1	17.5	710310	30.18	97.64	38.40	2.56	0.1462	2.1908	2	4	E	W
2101	T-1	16.0	710310	52.43	287.15	173.39	11.95	0.2340	2.7710	8	5	E	W
2139	T-1	16.5	710310	35.10	311.68	165.60	4.63	0.2842	2.7208	3	5	E	W
2164	T-1	16.0	710310	267.79	265.33	29.17	5.56	0.2190	2.2631	9	5		W
2173	T-1	16.5	710310	40.98	296.90	173.47	2.76	0.2793	2.6530	2	4	E	W
2174	T-1	16.5	710310	55.72	291.01	174.99	2.48	0.1587	2.2302	9	6		W
2200	T-1	16.5	710310	277.84	140.04	139.70	2.84	0.1659	2.2363	3	5	E	W
2211	T-1	15.5	710310	352.51	157.78	31.49	4.14	0.1290	3.1518	2	4	E	W
2221	T-1	14.0	710310	177.64	340.56	22.51	3.45	0.3161	2.7652	8	5	E	W
2242	T-1	15.0	710310	94.62	341.95	92.84	2.02	0.1023	3.0737	2	4	E	W
2243	T-1	16.0	710310	130.91	234.13	160.56	7.65	0.1965	2.2666	2	4	E	W
2286	T-1	18.0	710310	328.99	86.64	146.88	2.24	0.3058	2.2196	2	4	E	W
2304	T-1	16.5	710310	303.06	229.45	39.51	2.40	0.2847	2.4627	3	6	E	W
2308	T-1	17.0	710310	324.92	212.33	15.86	6.30	0.1804	2.2867	9	9		W
2313	T-1	12.5	710310	335.51	38.63	172.78	17.80	0.0729	5.1713	3	8	E	W
2317	T-1	16.5	710310	41.21	108.14	18.27	13.03	0.1342	2.5304	2	6	E	W
2323	T-1	15.0	710310	68.57	348.77	93.11	3.56	0.2620	2.8048	2	6	E	W
3034	T-1	12.0	710310	65.66	117.57	355.28	12.18	0.0660	5.1732	8	5	E	W
3039	T-1	17.5	710310	340.40	308.91	261.35	1.18	0.2215	2.3556	2	4	E	W
3152	T-1	15.5	710310	357.95	185.83	0.97	13.12	0.1010	3.0552	2	4	E	W
3160	T-1	17.0	710310	15.93	195.34	325.79	1.22	0.1201	2.3201	2	4	E	W
3278	T-1	17.0	710310	317.01	254.26	355.88	4.67	0.2476	2.4534	2	4	E	W
3291	T-1	11.5	710310	8.67	325.75	213.18	7.12	0.0810	5.2150	2	4	E	W
3339	T-1	16.0	710310	356.89	161.15	27.27	4.36	0.1380	2.8954	2	6	E	W
4089	T-1	16.5	710330	1.69	129.22	54.88	1.58	0.2431	3.0715	7	4	E	W
4357	T-1	14.5	710419	26.33	34.17	127.17	2.08	0.1045	3.1641	51	7		W
4380	T-1	14.0	710310	224.40	206.89	131.63	2.21	0.2372	3.2042	3	4	E	W
4411	T-1	13.5	710330	186.81	329.37	33.98	2.61	0.2550	2.9015	7	4	E	W
4503	T-1	14.5	710509	322.37	57.72	207.91	15.56	0.2924	2.8439	3	5		W
4514	T-1	14.0	710509	358.57	354.94	205.99	13.60	0.1099	2.8026	3	5	E	W
4645	T-1	13.5	710509	273.56	256.52	48.01	6.56	0.1994	2.2498	3	3	E	W
4838	T-1	13.6	710509	177.53	243.11	136.28	4.62	0.1960	2.2768	3	3	E	W

1981 QE4 = 1981 RC3 (G. V. Williams)
1981 QP4 = 1981 RB4 (G. V. Williams)
1981 RF7 = 1981 QS1 (S. Nakano)
1981 UB22 = 1981 UY19 (S. Nakano)
1981 UC23 = 1981 WV3 (S. Nakano)
1981 UD23 = 1981 WU2 (S. Nakano)
1981 UE23 = 1981 WF6 (S. Nakano)
1981 UJ23 = 1981 WY3 (S. Nakano)
1981 UV23 = 1981 TP2 = 1981 WK6 (S. Nakano)
1981 UE25 = 1981 SD8 (S. Nakano)
1981 UU25 = 1981 SV8 (S. Nakano)
1990 UL11 = 1990 WM9 (B. G. Marsden)
1990 VR15 = 1990 VK9 (B. G. Marsden)
1990 WJ14 = 1990 WF9 (B. G. Marsden)
1991 EY1 = 1991 DJ2 (S. Nakano)
1991 ED2 = 1991 CY2 (G. V. Williams, MPC 20484)
1991 ED2 = 1991 DR2 (S. Nakano)
1991 GF11 = 1991 HU2 (S. Nakano)
1991 LF1 = 1991 KW2 (S. Nakano)

1991 LJ1 = 1991 KV2 (S. Nakano)
1991 LZ1 = 1991 KZ2 (S. Nakano)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(32) Pomona Obs. 162 M 231.37031 Peri. 338.90625
H 7.56 G 0.15 Opp. 42 n 0.23703015 Node 220.67531
rms res. 0".97 (M-C) 1910-1991 e 0.0847656 Incl. 5.52935

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(70) Panopaea Obs. 105 M 306.10938 Peri. 255.61638
H 8.11 G 0.14 Opp. 28 n 0.23315930 Node 48.02897
rms res. 0".87 (M-C) 1920-1989 e 0.1831647 Incl. 11.58080

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(274) Philagoria Obs. 94 M 206.70814 Peri. 122.71895
H 10.1 G 0.15 Opp. 25 n 0.18591819 Node 92.99610
rms res. 0".98 (M-C) 1914-1991 e 0.1252006 Incl. 3.68166

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(668) Dora Obs. 40 M 327.16464 Peri. 113.03574
H 11.8 G 0.15 Opp. 12 n 0.21106194 Node 214.85812
rms res. 1".02 (M-C) 1908-1985 e 0.2354486 Incl. 6.82879

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(816) Juliana Obs. 29 M 235.39836 Peri. 23.05489
H 10.0 G 0.15 Opp. 14 n 0.18904342 Node 128.16737
rms res. 0".91 (M-C) 1916-1991 e 0.1032190 Incl. 14.29608

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(1026) Ingrid Obs. 13 M 134.18127 Peri. 211.88052
H 13.3 G 0.15 Opp. 6 n 0.29130321 Node 104.81587
rms res. 0".75 (M-C) 1923-1991 e 0.1822315 Incl. 5.40201

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(1087) Arabis Obs. 39 M 77.01991 Peri. 28.94178
H 9.73 G 0.15 Opp. 15 n 0.18800587 Node 30.75493
rms res. 1".15 (M-C) 1927-1990 e 0.0881778 Incl. 10.06015

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(1119) Euboea Obs. 50 M 203.83869 Peri. 229.39629
H 11.2 G 0.15 Opp. 20 n 0.23337302 Node 57.62367
rms res. 1".00 (M-C) 1930-1992 e 0.1519779 Incl. 7.85710

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(1234) Elyna Obs. 44 M 211.12607 Peri. 90.09349
H 10.71 G 0.15 Opp. 14 n 0.18872785 Node 305.07628
rms res. 0".99 (M-C) 1931-1988 e 0.0941098 Incl. 8.52828

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(1356) Nyanza Obs. 49 M 88.97826 Peri. 287.07245
H 9.9 G 0.15 Opp. 18 n 0.18215500 Node 70.22583
rms res. 0".98 (M-C) 1931-1991 e 0.0479604 Incl. 7.94770

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(1362) Griqua Obs. 84 M 213.25349 Peri. 262.44152
H 11.18 G 0.15 Opp. 20 n 0.16996725 Node 121.47118
rms res. 0".87 (M-C) 1931-1990 e 0.3665256 Incl. 24.17643

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(1563) Noel Obs. 30 M 73.12169 Peri. 115.88577
H 13.3 G 0.15 Opp. 10 n 0.30386550 Node 53.83922
rms res. 1".02 (M-C) 1930-1992 e 0.0856569 Incl. 5.98903

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(1699) Honkasalo Obs. 45 M 179.97974 Peri. 50.71479
H 12.5 G 0.15 Opp. 14 n 0.29964445 Node 274.04311
rms res. 0".99 (M-C) 1931-1991 e 0.1656307 Incl. 1.97286

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(1799) Koussevitzky Obs. 45 M 323.07094 Peri. 192.57322
H 10.9 G 0.15 Opp. 9 n 0.18755075 Node 157.06285
rms res. 0".85 (M-C) 1950-1990 e 0.1267473 Incl. 11.51064

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2028) Janequeo Obs. 20 M 345.34164 Peri. 27.03753
H 14 G 0.15 Opp. 7 n 0.28322971 Node 243.05688
rms res. 0".80 (M-C) 1968-1992 e 0.1119027 Incl. 7.94885

Epoch 1992 June 27.0 TT = JDT 2448800.5 Yeomans
(2060) Chiron Obs. 108 M 334.48989 Peri. 339.15606
H 6.0 G 0.15 Opp. 19 n 0.01932788 Node 209.39095
rms res. 0".75 (M-P) 1895-1992 e 0.3845537 Incl. 6.92782

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2151) Hadwiger Obs. 45 M 128.97561 Peri. 83.76573
H 11.1 G 0.15 Opp. 9 n 0.24044624 Node 28.29790
rms res. 0".91 (M-C) 1934-1989 e 0.0576904 Incl. 15.45531

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2206) Gabrova Obs. 27 M 21.27203 Peri. 155.78579
H 11.3 G 0.15 Opp. 7 n 0.18824702 Node 64.02609
rms res. 0".95 (M-C) 1968-1992 e 0.0449019 Incl. 10.91870

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2226) Cunitza Obs. 32 M 133.73519 Peri. 331.65717
H 11.6 G 0.15 Opp. 12 n 0.20251558 Node 43.23890
rms res. 0".98 (M-C) 1936-1990 e 0.0785558 Incl. 2.54715

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2240) Tsai Obs. 57 M 142.70287 Peri. 28.31963
H 11.8 G 0.15 Opp. 8 n 0.17685166 Node 60.72420
rms res. 1".03 (M-C) 1972-1992 e 0.1590029 Incl. 0.84793

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2253) Espinette Obs. 29 M 122.11314 Peri. 175.27328
H 12.9 G 0.15 Opp. 6 n 0.28571370 Node 144.14315
rms res. 0".91 (M-C) 1932-1990 e 0.2786983 Incl. 3.87326

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2258) Viipuri Obs. 38 M 240.64268 Peri. 171.56716
H 11.4 G 0.15 Opp. 12 n 0.22279157 Node 308.01198
rms res. 0".86 (M-C) 1928-1988 e 0.0785942 Incl. 1.48509

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2284) San Juan Obs. 50 M 173.56811 Peri. 67.30080
H 12.7 G 0.15 Opp. 9 n 0.27789656 Node 146.08941
rms res. 0".89 (M-C) 1916-1991 e 0.0498440 Incl. 5.28260

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2308) Schilt Obs. 62 M 48.42917 Peri. 232.60930
H 11.8 G 0.15 Opp. 9 n 0.24251876 Node 34.73456
rms res. 0".87 (M-C) 1934-1991 e 0.1755420 Incl. 14.20640

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2311) El Leoncito Obs. 72 M 246.28160 Peri. 181.85003
H 10.52 G 0.15 Opp. 10 n 0.14242290 Node 157.45403
rms res. 0".89 (M-C) 1974-1991 e 0.0532979 Incl. 6.63703

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2352) Kurchatov Obs. 26 M 70.33708 Peri. 113.36991
H 11.1 G 0.15 Opp. 9 n 0.18024932 Node 232.77389
rms res. 0".86 (M-C) 1953-1991 e 0.1187215 Incl. 14.77517

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2382) Nonie Obs. 53 M 66.79649 Peri. 66.43968
H 11.4 G 0.15 Opp. 6 n 0.21523771 Node 246.39881
rms res. 0".87 (M-C) 1977-1991 e 0.3304247 Incl. 31.05642

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2387) Xi'an Obs. 24 M 168.44281 Peri. 37.61237
H 11.3 G 0.15 Opp. 9 n 0.18779115 Node 53.64963
rms res. 0".89 (M-C) 1936-1989 e 0.0794608 Incl. 10.96542

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2389) Dibaj Obs. 17 M 339.53074 Peri. 336.92867
H 12.9 G 0.15 Opp. 8 n 0.25781225 Node 334.30513
rms res. 0".75 (M-C) 1935-1991 e 0.2309493 Incl. 7.81299

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2399) Terradas Obs. 29 M 71.05072 Peri. 159.53843
H 13.2 G 0.15 Opp. 7 n 0.29407799 Node 146.43166
rms res. 1".11 (M-C) 1954-1988 e 0.1697768 Incl. 5.12526

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2407) 1973 DH Obs. 47 M 101.74495 Peri. 8.76021
H 10.77 G 0.15 Opp. 11 n 0.19729331 Node 342.97175
rms res. 0".78 (M-C) 1930-1990 e 0.2198103 Incl. 2.48932

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2451) Dollfus Obs. 30 M 256.97397 Peri. 323.84441
H 12.1 G 0.15 Opp. 8 n 0.21880095 Node 332.33632
rms res. 0".99 (M-C) 1940-1989 e 0.1496080 Incl. 8.58533

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2481) 1977 UQ Obs. 51 M 235.67483 Peri. 317.86262
H 13.8 G 0.15 Opp. 6 n 0.23919251 Node 13.82476
rms res. 0".76 (M-C) 1948-1992 e 0.2645607 Incl. 2.26936

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2482) Perkin Obs. 46 M 213.63636 Peri. 358.48751
H 12.7 G 0.15 Opp. 5 n 0.19662372 Node 103.32875
rms res. 0".70 (M-C) 1953-1985 e 0.0629805 Incl. 3.13396

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2513) Baetsle Obs. 25 M 36.05676 Peri. 97.06924
H 13.4 G 0.15 Opp. 8 n 0.28513869 Node 258.05218
rms res. 0".81 (M-C) 1943-1988 e 0.1812491 Incl. 3.15939

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2516) Roman Obs. 38 M 355.38751 Peri. 313.34360
H 13.7 G 0.15 Opp. 6 n 0.28637532 Node 123.36153
rms res. 0".87 (M-C) 1964-1991 e 0.1643179 Incl. 1.09092

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2517) Orma Obs. 33 M 79.54771 Peri. 292.00247
H 11.7 G 0.15 Opp. 9 n 0.17447047 Node 72.61164
rms res. 0".83 (M-C) 1968-1991 e 0.1855998 Incl. 2.63156

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2519) Annagerman Obs. 69 M 47.66407 Peri. 228.51067
H 11.3 G 0.15 Opp. 11 n 0.17717215 Node 83.93896
rms res. 1".04 (M-C) 1958-1991 e 0.1745457 Incl. 2.42475

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2525) O'Steen Obs. 81 M 350.19468 Peri. 285.14892
H 10.5 G 0.15 Opp. 11 n 0.17764461 Node 87.15975
rms res. 0".68 (M-C) 1931-1990 e 0.1953506 Incl. 2.77777

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2527) Gregory Obs. 45 M 276.02600 Peri. 177.78702
H 13.0 G 0.15 Opp. 7 n 0.25466384 Node 186.67830
rms res. 0".83 (M-C) 1954-1989 e 0.1859810 Incl. 2.61182

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2553) Viljev Obs. 92 M 4.21432 Peri. 242.09379
H 11.3 G 0.15 Opp. 10 n 0.18183008 Node 120.55060
rms res. 0".59 (M-C) 1940-1991 e 0.0578438 Incl. 5.24308

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2561) Margolin Obs. 32 M 310.56503 Peri. 276.15969
H 13.3 G 0.15 Opp. 8 n 0.25980986 Node 166.31633
rms res. 0".78 (M-C) 1931-1991 e 0.1360492 Incl. 2.48354

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2573) Hannu Olavi Obs. 22 M 154.42374 Peri. 151.49956
H 11.4 G 0.15 Opp. 6 n 0.18802532 Node 54.46390
rms res. 1".09 (M-C) 1930-1991 e 0.1028371 Incl. 12.97647

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2576) Yesenin Obs. 29 M 120.22968 Peri. 1.25010
H 11.3 G 0.15 Opp. 5 n 0.18208906 Node 311.78385
rms res. 0".84 (M-C) 1957-1988 e 0.1360246 Incl. 12.19767

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2581) 1980 VX Obs. 34 M 138.38319 Peri. 192.12816
H 13.3 G 0.15 Opp. 8 n 0.29482408 Node 260.95023
rms res. 0".90 (M-C) 1960-1992 e 0.0984366 Incl. 2.49200

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2582) Harimaya-Bashi Obs. 37 M 52.24339 Peri. 246.63355
H 10.5 G 0.15 Opp. 5 n 0.17200996 Node 56.72648
rms res. 0".96 (M-C) 1938-1990 e 0.0641340 Incl. 18.17535

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2591) Dworetsky Obs. 47 M 244.30108 Peri. 266.87199
H 11.4 G 0.15 Opp. 14 n 0.19550991 Node 356.85774
rms res. 0".78 (M-C) 1934-1990 e 0.0395972 Incl. 1.55526

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2607) Yakutia Obs. 34 M 10.08350 Peri. 336.20864
H 13.4 G 0.15 Opp. 7 n 0.26909249 Node 0.01068
rms res. 0".97 (M-C) 1951-1991 e 0.2292176 Incl. 2.10451

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2613) Plzen Obs. 47 M 28.66808 Peri. 202.61615
H 11.2 G 0.15 Opp. 5 n 0.18585092 Node 278.10069
rms res. 0".95 (M-C) 1979-1992 e 0.0487114 Incl. 13.00139

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2615) Saito Obs. 13 M 118.84403 Peri. 344.14116
H 12.2 G 0.15 Opp. 6 n 0.17507061 Node 323.44212
rms res. 1".00 (M-C) 1951-1990 e 0.1657034 Incl. 4.27817

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2646) Abetti Obs. 31 M 118.17280 Peri. 40.05066
H 11.6 G 0.15 Opp. 9 n 0.18792831 Node 352.80806
rms res. 0".96 (M-C) 1943-1990 e 0.0907988 Incl. 9.68067

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2655) Guangxi Obs. 16 M 27.92040 Peri. 351.22269
H 11.2 G 0.15 Opp. 5 n 0.17198103 Node 88.58618
rms res. 0".97 (M-C) 1974-1991 e 0.1477659 Incl. 17.07987

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2658) Gingerich Obs. 20 M 101.40402 Peri. 316.86228
H 12.4 G 0.15 Opp. 9 n 0.18406338 Node 215.99162
rms res. 0".89 (M-C) 1932-1991 e 0.2944140 Incl. 9.28614

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2668) Tataria Obs. 25 M 154.58229 Peri. 62.21898
H 13.3 G 0.15 Opp. 10 n 0.27934200 Node 298.46453
rms res. 0".77 (M-C) 1969-1992 e 0.0776167 Incl. 3.15563

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2678) Aavasaksa Obs. 41 M 54.94183 Peri. 45.75201
H 12.4 G 0.15 Opp. 7 n 0.29003674 Node 54.21836
rms res. 0".73 (M-C) 1938-1989 e 0.0864028 Incl. 3.44842

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2679) Kittisvaara Obs. 30 M 53.46866 Peri. 281.18504
H 11.9 G 0.15 Opp. 10 n 0.23233312 Node 208.44516
rms res. 0".88 (M-C) 1939-1990 e 0.1049120 Incl. 10.07929

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2680) Mateo Obs. 20 M 158.67794 Peri. 335.56838
H 13.5 G 0.15 Opp. 6 n 0.26446856 Node 3.26821
rms res. 0".91 (M-C) 1953-1990 e 0.2139452 Incl. 2.43722

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2686) Linda Susan Obs. 24 M 119.07488 Peri. 279.66871
H 11.6 G 0.15 Opp. 7 n 0.18938108 Node 226.33568
rms res. 0".80 (M-C) 1955-1988 e 0.0527103 Incl. 9.29747

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2687) 1982 HG Obs. 27 M 111.53218 Peri. 255.47896
H 11.89 G 0.15 Opp. 10 n 0.24650896 Node 49.87903
rms res. 1".00 (M-C) 1931-1990 e 0.1226512 Incl. 10.09147

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2693) Yan'an Obs. 12 M 122.85505 Peri. 345.95357
H 13.3 G 0.15 Opp. 5 n 0.29399761 Node 60.00978
rms res. 1".02 (M-C) 1947-1987 e 0.1808056 Incl. 7.30613

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2695) Christabel Obs. 24 M 345.18884 Peri. 288.61916
H 12.3 G 0.15 Opp. 5 n 0.22101796 Node 63.39241
rms res. 1".09 (M-C) 1961-1990 e 0.0789189 Incl. 14.89149

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2705) Wu Obs. 20 M 242.99636 Peri. 334.43264
H 13.6 G 0.15 Opp. 5 n 0.30411304 Node 8.55655
rms res. 0".86 (M-C) 1976-1990 e 0.1597307 Incl. 4.52961

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2713) Luxembourg Obs. 51 M 326.34292 Peri. 300.27993
H 11.5 G 0.15 Opp. 12 n 0.20442019 Node 340.19772
rms res. 0".89 (M-C) 1938-1992 e 0.0221915 Incl. 1.36114

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2714) Matti Obs. 32 M 346.55195 Peri. 144.22920
H 13.4 G 0.15 Opp. 6 n 0.29321728 Node 134.38879
rms res. 1".06 (M-C) 1938-1989 e 0.2048009 Incl. 6.08960

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2719) Suzhou Obs. 50 M 26.11109 Peri. 321.19813
H 13.5 G 0.15 Opp. 10 n 0.30454751 Node 125.40507
rms res. 0".96 (M-C) 1907-1991 e 0.1230849 Incl. 0.62148

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2746) Hissao Obs. 49 M 165.21598 Peri. 321.72066
H 13.4 G 0.15 Opp. 7 n 0.29240060 Node 177.42862
rms res. 0".94 (M-C) 1954-1991 e 0.0844342 Incl. 3.97093

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2763) Jeans Obs. 46 M 222.15859 Peri. 33.44430
H 12.6 G 0.15 Opp. 10 n 0.26428450 Node 309.02860
rms res. 0".92 (M-C) 1930-1989 e 0.2159241 Incl. 3.54006

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2774) Tenojoki Obs. 27 M 238.46163 Peri. 112.21246
H 11.1 G 0.15 Opp. 6 n 0.17386886 Node 291.41893
rms res. 0".86 (M-C) 1942-1990 e 0.1455805 Incl. 8.54046

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2776) Baikal Obs. 44 M 344.77143 Peri. 319.85855
H 12.5 G 0.15 Opp. 11 n 0.27043764 Node 187.90837
rms res. 0".70 (M-C) 1945-1991 e 0.1736425 Incl. 4.76760

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2781) 1982 QH Obs. 31 M 227.21290 Peri. 259.25033
H 11.7 G 0.15 Opp. 6 n 0.17692200 Node 146.96013
rms res. 0".90 (M-C) 1962-1990 e 0.1892817 Incl. 2.30912

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2810) Lev Tolstoj Obs. 24 M 35.59500 Peri. 259.79230
H 12.6 G 0.15 Opp. 7 n 0.23409267 Node 193.51761
rms res. 0".68 (M-C) 1953-1991 e 0.1508953 Incl. 12.72688

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2821) 1978 SQ Obs. 27 M 187.37526 Peri. 348.93899
H 13.4 G 0.15 Opp. 6 n 0.25896094 Node 58.94277
rms res. 0".90 (M-C) 1921-1992 e 0.1989549 Incl. 6.76118

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2827) Vellamo Obs. 22 M 80.02241 Peri. 204.10208
H 12.0 G 0.15 Opp. 7 n 0.28094969 Node 345.78937
rms res. 0".85 (M-C) 1933-1989 e 0.0308646 Incl. 8.63495

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2829) 1948 PK Obs. 19 M 36.23532 Peri. 341.19852
H 10.3 G 0.15 Opp. 6 n 0.18193349 Node 324.27749
rms res. 1".02 (M-C) 1948-1990 e 0.1929940 Incl. 14.32499

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2834) Christy Carol Obs. 25 M 221.37709 Peri. 278.90344
H 12.0 G 0.15 Opp. 8 n 0.24295699 Node 208.91971
rms res. 0".86 (M-C) 1950-1990 e 0.1547046 Incl. 6.44318

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2838) 1971 UM1 Obs. 35 M 266.68345 Peri. 332.82647
H 14.6 G 0.15 Opp. 7 n 0.27513698 Node 80.45633
rms res. 0".67 (M-C) 1953-1989 e 0.1891585 Incl. 2.13150

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2874) Jim Young Obs. 26 M 302.98250 Peri. 321.87208
H 13.2 G 0.15 Opp. 9 n 0.29303920 Node 79.37268
rms res. 0".85 (M-C) 1954-1991 e 0.1342150 Incl. 4.89250

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2896) 1931 RN Obs. 14 M 184.66629 Peri. 120.70532
H 12.7 G 0.15 Opp. 6 n 0.29802872 Node 171.91038
rms res. 0".99 (M-C) 1931-1991 e 0.1878918 Incl. 5.99098

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2919) Dali Obs. 49 M 285.94822 Peri. 114.89388
H 11.6 G 0.15 Opp. 9 n 0.17695118 Node 162.42000
rms res. 0".72 (M-C) 1961-1992 e 0.1407752 Incl. 1.40988

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2941) Alden Obs. 73 M 185.24311 Peri. 64.36792
H 13.9 G 0.15 Opp. 8 n 0.31236193 Node 10.59187
rms res. 0".75 (M-C) 1930-1990 e 0.0897643 Incl. 3.24681

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2948) Amosov Obs. 23 M 191.68252 Peri. 244.56431
H 12.5 G 0.15 Opp. 6 n 0.20353591 Node 209.33026
rms res. 1".03 (M-C) 1969-1988 e 0.1085415 Incl. 12.30743

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2987) Sarabhai Obs. 32 M 37.43711 Peri. 335.04439
H 12.1 G 0.15 Opp. 8 n 0.20087493 Node 167.66483
rms res. 1".01 (M-C) 1960-1992 e 0.0679331 Incl. 1.01058

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3044) 1983 RE3 Obs. 26 M 323.97894 Peri. 70.16224
H 12.0 G 0.15 Opp. 7 n 0.20481021 Node 242.83615
rms res. 1".04 (M-C) 1978-1992 e 0.1599039 Incl. 13.52285

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(3674) Erbisbuhl Obs. 30 M 326.88541 Peri. 97.37908
H 11.7 G 0.15 Opp. 5 n 0.27172657 Node 297.44516
rms res. 0".87 (M-C) 1963-1992 e 0.3748835 Incl. 21.01677

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(3709) Polypoites Obs. 41 M 152.58243 Peri. 246.98963
H 9.1 G 0.15 Opp. 8 n 0.08156165 Node 187.18995
rms res. 0".78 (M-C) 1971-1991 e 0.0621499 Incl. 19.59974

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3796) Lene Obs. 23 M 253.39538 Peri. 356.00746
H 11.8 G 0.15 Opp. 6 n 0.22226775 Node 270.01205
rms res. 0".95 (M-C) 1931-1990 e 0.1496463 Incl. 6.50664

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3817) Lencarter Obs. 33 M 308.91277 Peri. 112.44048
H 14.5 G 0.15 Opp. 4 n 0.28838271 Node 151.86511
rms res. 0".64 (M-C) 1949-1986 e 0.1096459 Incl. 3.26694

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3843) OISCA Obs. 49 M 318.56816 Peri. 27.24435
H 10.6 G 0.15 Opp. 6 n 0.12276860 Node 29.50837
rms res. 0".87 (M-C) 1953-1991 e 0.1282582 Incl. 3.92821

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3933) Portugal Obs. 31 M 294.44288 Peri. 235.18931
H 12.5 G 0.15 Opp. 5 n 0.16876129 Node 43.98624
rms res. 0".86 (M-C) 1953-1988 e 0.1008487 Incl. 1.71430

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(4015) 1979 VA Obs. 58 M 347.20389 Peri. 90.86953
H 15.99 G 0.15 Opp. 3 n 0.22957023 Node 271.06519
rms res. 0".83 (M-C) 1979-1992 e 0.6228015 Incl. 2.78598

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(4225) 1989 BN Obs. 24 M 180.40653 Peri. 258.09289
H 13.2 G 0.15 Opp. 5 n 0.29364082 Node 62.19017
rms res. 0".68 (M-C) 1954-1989 e 0.1075881 Incl. 3.48572

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(4265) Kani Obs. 35 M 263.63581 Peri. 243.02482
H 12.8 G 0.15 Opp. 7 n 0.26061934 Node 127.43904
rms res. 1".09 (M-C) 1940-1992 e 0.2015572 Incl. 4.34863

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(4357) Korinthos Obs. 22 M 332.84003 Peri. 42.59146
H 11.6 G 0.15 Opp. 6 n 0.18925512 Node 201.65801
rms res. 0".94 (M-C) 1973-1992 e 0.0611433 Incl. 10.51340

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(4431) 1978 WU14 Obs. 23 M 178.91352 Peri. 218.43373
H 11.2 G 0.15 Opp. 6 n 0.18445803 Node 223.76690
rms res. 0".74 (M-C) 1962-1992 e 0.1094376 Incl. 10.89831

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(4524) 1981 RV4 Obs. 34 M 43.30517 Peri. 148.90573
H 13.1 G 0.15 Opp. 5 n 0.27881348 Node 177.40932
rms res. 0".71 (M-C) 1953-1990 e 0.1336032 Incl. 7.27735

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(4525) 1982 JB3 Obs. 20 M 273.48457 Peri. 29.86512
H 12.7 G 0.15 Opp. 6 n 0.23839806 Node 73.15054
rms res. 0".91 (M-C) 1951-1991 e 0.1966296 Incl. 13.53739

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(4578) Kurashiki Obs. 12 M 247.14091 Peri. 3.54048
H 13.4 G 0.15 Opp. 6 n 0.21982354 Node 129.99126
rms res. 0".95 (M-C) 1954-1990 e 0.2415492 Incl. 5.25389

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(4678) Ninian Obs. 16 M 180.77191 Peri. 322.78857
H 13.5 G 0.15 Opp. 4 n 0.28892717 Node 30.67765
rms res. 0".70 (M-C) 1953-1990 e 0.2136254 Incl. 3.74577

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(5076) 1973 SG4 Obs. 18 M 332.82692 Peri. 219.02125
H 12.8 G 0.15 Opp. 5 n 0.26234904 Node 189.71984
rms res. 0".66 (M-C) 1952-1991 e 0.2326358 Incl. 9.49468

(5267)* 1966 CF = 1973 AL3 = 1988 DG
Discovered 1966 Feb. 13 at the Purple Mountain Observatory.
Id. T. Kobayashi (MPC 13055)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Nagata

M 71.39055	(2000.0)	P	Q
n 0.27013740	Peri. 42.45948	-0.91189708	-0.38480843
a 2.3699885	Node 114.39245	+0.32175253	-0.88614890
e 0.0857940	Incl. 9.01524	+0.25479212	-0.25819103
P 3.65	H 13.1	G 0.15	

Residuals in seconds of arc

660213	330	0.6+	0.2+	880408	399	0.4+	0.5-	901121 809	0.7+	1.4-
660216	330	0.9-	2.3-	880408	399	0.8-	0.3+	901121 809	0.4-	0.9-
660225	330	(5.3+	1.3-)	901020	801	0.4-	0.7+	901122 894	2.1+	1.9-
730102	095	(5.4+	6.7-)	901020	801	0.0	0.7+	901122 894	0.8-	0.7+
880219	399	0.5-	0.3-	901111	894	0.9+	0.8+	920423 657	0.1-	1.0-
880219	399	1.4-	0.8+	901111	894	1.8-	1.0+	920423 657	0.7+	0.8-
880219	399	0.3-	0.9+	901115	809	0.5+	0.8-	920423 657	0.8-	0.5-
880221	399	(3.8+	0.1-)	901115	809	0.2+	1.4-	920429 801	0.3+	1.0-
880221	399	2.4+	0.6+	901115	809	0.7+	0.9-	920429 801	0.1-	1.2-
880221	399	2.1+	0.8+	901115	801	1.3+	0.6+	920506 801	0.1+	1.3-
880312	399	0.0	0.5-	901115	801	1.1+	0.7+	920506 801	0.0	1.0-
880313	399	1.5+	0.7+	901117	809	0.6+	1.1-	920529 801	1.1-	1.0-
880313	399	0.8-	1.7+	901117	809	1.6-	1.8-	920529 801	1.3-	1.4-
880313	399	1.9-	1.1+	901117	809	1.0-	0.8-			
880408	399	0.2+	0.7-	901121	809	0.8+	1.3-			

(5268)* 1971 US1 = 1958 TO1 = 1988 QT
Discovered 1971 Oct. 26 by L. Kohoutek at Bergedorf.
Id. C. M. Bardwell (MPC 13589), S. Nakano (ibid.)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bardwell

M 324.67282	(2000.0)	P	Q
n 0.22914986	Peri. 118.19685	+0.91537043	+0.36891343
a 2.6447806	Node 220.74263	-0.39732091	+0.89244839
e 0.2593194	Incl. 14.30342	+0.06506209	+0.25968971
P 4.30	H 12.9	G 0.15	

Residuals in seconds of arc

581010	690	0.0	2.6-	711030	029	0.6-	0.9+	711119 029	0.1+	1.1+
581011	690	(33.7+	16.2+)	711110	029	0.8+	1.0+	711119 029	0.1-	0.1+
711026	029	0.3+	1.0+	711110	029	0.0	0.6+	880817 675	0.6-	0.4-

880818 675 0.3+ 1.3- 920529 801 0.7- 0.4+ 920702 801 0.8- 0.6+
880916 054 0.7- 0.6- 920529 801 1.1- 0.3+ 920702 801 0.5- 0.9+
880920 054 0.1- 0.6+ 920630 801 0.8+ 0.2-
880920 054 0.9+ 0.2+ 920630 801 1.7+ 0.5+

(5269)* 1978 SL6 = 1978 UN = 1988 TY1
Discovered 1978 Sept. 28 by N. S. Chernykh at the Crimean Astrophysical Observatory.
Id. T. Furuta (d, JAM 1968), T. Kobayashi (MPC 13853)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Nagata

M	89.62753	(2000.0)	P	Q
n	0.29707682	Peri. 240.02506	+0.87991076	+0.47493554
a	2.2244545	Node 91.61664	-0.43099884	+0.81014208
e	0.1560942	Incl. 0.79692	-0.19999264	+0.34366560
P	3.32	H 14.2	G 0.15	

Residuals in seconds of arc
780928 095 0.6- 0.3- 881102 399 (2.7+ 1.5+) 881111 399 (2.7- 0.5-)
781004 095 0.4- 0.0 881102 399 1.7+ 1.1+ 881111 399 1.9+ 1.3+
781026 675 0.5+ 0.2+ 881102 372 0.9- 0.1+ 881111 046 1.3+ 1.1-
781027 675 2.0+ 0.6- 881102 399 (2.6+ 1.6+) 881111 046 1.4- 0.8-
781028 688 0.1- 1.5- 881102 372 1.9+ 0.7+ 910806 675 0.1- 0.1+
781028 688 0.4- 1.0- Y 881104 046 2.0- 1.0+ 910806 675 0.3- 0.7-
881013 372 (2.5- 7.7+) 881104 046 1.5- 0.3+ 910810 675 0.4- 0.4+
881013 372 (4.4- 8.8+) 881105 372 (2.8+ 10.2+)Y 910810 675 0.1+ 0.0
881018 372 0.3+ 0.5+ 881105 046 1.3+ 0.3- 910909 801 0.3+ 0.1+
881018 372 (0.4- 2.6+) 881105 046 1.1+ 1.9+ 910909 801 0.2+ 0.4-
881019 372 0.4- 0.5+ 881106 372 (1.6+ 5.3+)Y 910912 801 0.5+ 0.3+
881022 372 0.3- 0.7- 881110 046 0.5- 0.1+ 910912 801 0.2- 0.6+
881102 399 1.3- 0.3+ 881110 046 0.5- 0.4-
881102 399 1.5- 0.8- 881111 399 0.0 0.6-

(5270)* 1979 KR = 1972 TZ2 = 1975 GG1 = 1988 RU2
Discovered 1979 May 19 by R. M. West at the European Southern Observatory.
Id. T. Kobayashi (MPC 14014)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Nagata

M	27.15111	(2000.0)	P	Q
n	0.23858603	Peri. 50.83103	-0.32696134	+0.94255457
a	2.5745779	Node 200.40330	-0.91629069	-0.33391484
e	0.1394280	Incl. 11.32530	-0.23131720	-0.00957924
P	4.13	H 13.1	G 0.15	

Residuals in seconds of arc
721005 095 0.1- 2.1+ 910317 801 0.2- 0.2+ 920530 801 0.2- 0.1+
750415 805 0.5- 1.8+ 910317 801 0.1- 0.3+ 920604 801 0.3- 0.0
790519 809 0.0 0.4- 910317 894 (1.0+ 2.8-) 920604 801 0.1- 0.1+
790521 809 0.6+ 0.2- 910317 894 1.0- 0.3- 920625 657 0.0 0.1+
790523 809 0.3+ 0.7+ 910320 801 0.2- 0.2+ 920625 657 0.0 0.3-
790523 809 0.3+ 0.4+ 910320 801 0.2- 0.3+ 920625 657 0.1- 1.0-
790524 809 0.1+ 0.5+ 920430 801 0.3+ 0.1- 920626 657 0.6+ 0.1-
880905 675 0.2- 0.3- 920430 801 0.4+ 0.1+ 920626 657 0.2- 0.1-
880907 675 0.1+ 0.1- 920507 801 0.3+ 1.0- 920626 657 0.3- 0.1+
910217 894 0.4+ 1.1- 920507 801 0.3+ 0.4+
910217 894 0.5+ 1.1- 920530 801 0.1- 0.0

(5271)* 1979 MH7 = 1982 BH10 = 1991 DZ
Discovered 1979 June 25 by E. F. Helin and S. J. Bus at Siding Spring.
Id. G. V. Williams (MPC 17955), H. Kaneda (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M	88.64865	(2000.0)	P	Q
n	0.22599835	Peri. 52.65495	-0.97974761	+0.08269808
a	2.6693112	Node 131.30544	-0.12573382	-0.96287903
e	0.1149546	Incl. 14.04947	+0.15583846	-0.25695332
P	4.36	H 13.1	G 0.15	

Residuals in seconds of arc

790624	413	1.2- 0.2-	790823	675	0.4- 0.4-	920703	801	0.7+ 0.4+
790625	413	0.7+ 0.1+	820119	095	(0.1+ 10.0-)	920705	675	0.5- 0.2+
790629	413	1.2- 0.3+	820120	095	0.0 0.8-	920705	675	0.8+ 0.6-
790724	675	0.8+ 0.3+	910218	675	0.1+ 0.2-	920731	801	0.1- 0.6-
790724	413	0.7- 0.6-	910218	675	0.9- 0.3+	920731	801	1.1- 1.2-
790725	675	0.2+ 0.4+	910219	675	0.8+ 0.1-			
790727	675	1.7+ 0.3+	920703	801	0.0 0.7+			

(5272)* 1981 QH2 = 1971 OZ = 1971 QG2

Discovered 1981 Aug. 30 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Id. H. Oishi (MPC 12122)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano

M	95.89832	(2000.0)	P	Q
n	0.29912558	Peri. 197.29473	+0.99152170	+0.12587474
a	2.2142858	Node 155.40497	-0.10816604	+0.93708119
e	0.1929252	Incl. 4.44454	-0.07200576	+0.32562924
P	3.29	H 14.4	G 0.15	

Residuals in seconds of arc

540523	675	0.4- 1.5-	810926	688	1.4- 1.6-	911004	801	0.4- 1.3+
540523	675	0.4+ 0.0	811004	688	0.4- 1.9-	911006	046	0.7- 0.7-
710727	095	2.8- 1.4+	811004	688	1.0+ 1.1-	911006	046	0.8- 1.8-
710819	808	1.2+ 1.2+	910913	675	0.7+ 0.8-	911008	801	0.5- 1.3+
810830	688	1.5+ 0.7+	910913	675	1.4+ 0.3+	911008	801	0.5- 1.3+
810830	688	1.2+ 0.4+	910915	675	0.4+ 0.1+	911106	801	0.1+ 0.1-
810905	095	0.8+ 1.1-	910915	675	0.4- 0.2+	911106	801	0.0 0.2-
810926	688	(3.4- 1.9-)	911004	801	0.4- 1.4+			

(5273)* 1982 DQ6 = 1984 UO1

Discovered 1982 Feb. 16 at the Xinglong Station of the Peking Observatory.

Id. B. G. Marsden (MPC 10387)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Marsden

M	26.99223	(2000.0)	P	Q
n	0.28073529	Peri. 68.81725	+0.04828884	-0.99822508
a	2.3099613	Node 18.51753	+0.87088451	+0.02498971
e	0.0868815	Incl. 6.30072	+0.48910975	+0.05405736
P	3.51	H 13.4	G 0.15	

Residuals in seconds of arc

820216	327	0.5- 0.2+	841030	046	1.0+ 0.3-	911011	801	0.6+ 1.2+
820219	327	1.0+ 0.2+	841031	046	(2.8+ 1.6-)	911011	801	0.9+ 0.9+
820224	327	1.0- 1.0+	860413	801	0.8+ 0.3-	911105	399	1.0- 0.1-
820228	327	(11.3+ 0.0)	870826	801	1.1- 0.0	911105	399	1.2- 0.7-
841028	046	0.0 1.1+	910909	801	0.4+ 1.1+	911109	399	2.0- 0.2-
841028	046	0.4+ 1.2-	910909	801	0.2+ 1.0+	911109	399	1.1- 0.8+
841029	046	1.0+ 2.3-	911008	801	0.7+ 0.7+			
841029	046	0.6+ 1.8-	911008	801	0.7+ 0.8+			

(5274)* 1985 RS = 1962 HG = 1988 HC

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

Id. B. G. Marsden (MPC 14350, unpublished)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Marsden

M	327.31027	(2000.0)	P	Q
n	0.22523537	Peri. 216.57171	-0.80273126	+0.59634093
a	2.6753359	Node 0.03734	-0.48820352	-0.65704167
e	0.1391247	Incl. 11.61945	-0.34246144	-0.46116564
P	4.38	H 12.1	G 0.15	

Residuals in seconds of arc

540729 675	0.3-	0.6-	880317 809	0.2+	0.5-	880417 046	1.7-	0.2-
540729 675	1.1+	0.2-	880317 809	0.2+	0.7+	880418 046	(2.3-	1.5-)
620428 076	(46.7+	1.5+)	880318 809	0.1-	0.4-	880418 046	1.0-	1.6-
811024 675	0.1+	0.1-	880318 809	0.2+	0.2+	880419 046	0.9-	0.2-
811025 675	0.3-	1.2-	880324 809	0.6+	0.1-	880419 046	0.4-	0.2-
811026 675	0.0	0.6-	880324 809	0.1+	0.6+	920101 801	0.1+	0.4+
850823 095	0.0	0.2+	880325 809	0.2-	0.9-	920101 801	0.3+	1.1-
850914 688	1.5+	1.7-	880325 809	0.1+	0.1+	920106 801	0.2-	0.5-
850914 688	(3.3+	2.5-)	880416 046	0.1-	0.4-	920106 801	0.1-	0.4-
850918 688	0.3+	1.0-	880416 046	(2.8+	0.9+)	920205 801	0.1+	0.1-
850918 688	0.3+	0.6+	880417 046	0.4+	0.3+	920205 801	0.1-	0.3-

(5275)* 1986 UU = 1986 XC1 = 1989 NF1

Discovered 1986 Oct. 28 by Z. Vavrova at Klet.

Id. F. N. Bowman (d, MPC 11723), H. E. Holt (MPC 15067)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M	296.49820	(2000.0)	P	Q
n	0.30225507	Peri. 108.17913	+0.95967296	+0.26706211
a	2.1989752	Node 236.41736	-0.28083441	+0.89672041
e	0.2550081	Incl. 6.04843	-0.01264317	+0.35294524
P	3.26	H 13.6	G 0.15	

Residuals in seconds of arc

861007 095	(2.3+	2.8+)	890709 675	0.4+	0.1-	920605 675	0.0	0.7-
861012 095	0.4-	0.1+	890802 675	0.1-	0.1-	920605 675	1.6-	0.5-
861028 046	0.4-	1.4-	890802 675	0.0	0.2+	920606 675	0.2-	0.9-
861028 046	(0.4-	2.6-)	890930 801	0.3+	0.8+	920606 675	1.7-	2.0-
861103 046	0.6-	1.2+	890930 801	0.9+	0.7+	920625 675	0.1+	0.9-
861103 046	0.5-	1.8+	891025 801	1.4-	0.5+	920625 675	0.7-	1.0-
861108 046	1.4+	1.0-	891030 801	0.4-	0.1+	920625 675	0.3+	0.3+
861108 046	0.5-	1.7-	910115 688	0.9+	0.1-	920625 675	0.1-	0.4-
861127 095	0.4-	1.0-	910115 688	1.0+	0.0	920626 675	0.6-	1.3+
861204 688	0.4+	0.5-	910410 688	0.4+	0.1+	920626 675	0.0	0.3-
861204 688	0.5+	1.2-	910410 688	0.5+	0.2+	920627 675	0.4-	0.4-
890707 675	0.1-	0.8+	920530 801	0.1-	0.7+	920627 675	0.3+	1.7-
890707 675	0.2+	0.0	920530 801	0.2-	0.7+	920628 675	0.0	0.1+
890709 675	1.6+	0.1-	920603 675	1.2+	1.1+	920628 675	0.0	1.6+

(5276)* 1987 GK = 1989 TH2

Discovered 1987 Apr. 1 by E. F. Helin at Palomar.

Id. S. J. Bus (MPC 15557)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M	77.16991	(2000.0)	P	Q
n	0.23675280	Peri. 26.78667	-0.96584614	+0.25541718
a	2.5878512	Node 167.77151	-0.25887991	-0.94399994
e	0.1682762	Incl. 11.88633	-0.01106473	-0.20886881
P	4.16	H 13.0	G 0.15	

Residuals in seconds of arc

870224 809	0.2+	0.6-	870225 809	0.4-	0.1-	870227 809	0.2-	0.2+
870224 809	0.1+	0.3-	870226 809	0.1-	0.3-	870227 809	0.1+	0.3+
870224 809	0.4+	0.1-	870226 809	0.3+	0.4-	870228 809	0.7-	0.0
870225 809	0.8-	0.2+	870226 809	0.5+	0.0	870228 809	0.5-	0.1+
870225 809	0.5-	0.1+	870227 809	0.1-	0.1+	870228 809	0.2-	0.0

870301	809	0.3-	0.3+	870307	809	0.4+	0.0	910114	801	0.7-	0.1+
870301	809	0.1+	0.3+	870307	809	0.6+	0.1-	910114	801	1.0-	1.2-
870301	809	0.1+	0.1+	870307	809	0.6+	0.1-	910119	801	0.5-	0.1-
870302	809	0.6+	0.2+	870308	809	0.5-	0.2-	910119	801	0.4-	0.0
870302	809	0.5+	0.3+	870308	809	0.6-	0.2+	910214	675	0.0	1.1-
870302	809	0.6+	0.1+	870308	809	0.7-	0.1-	910214	675	(1.1+	2.3-)
870303	809	0.1+	0.6-	870309	809	0.3-	0.1-	910218	675	0.9+	0.2-
870303	809	0.6+	0.4-	870309	809	0.3-	0.3+	910218	675	1.2+	0.7+
870303	809	0.8+	0.2-	870309	809	0.3-	0.1-	910220	675	0.0	1.0-
870304	809	0.9+	0.3+	870310	809	0.7-	0.0	910220	675	(0.5-	2.3-)
870304	809	0.4+	0.2+	870310	809	0.6-	0.1-	920704	589	0.1-	0.3-
870304	809	0.3+	0.2+	870310	809	0.6-	0.2-	920704	589	0.7-	0.8-
870305	809	0.3+	0.3+	870401	675	(14.0-	0.2+)	920704	589	0.1+	0.8-
870305	809	0.4+	0.4+	870401	675	(13.2-	1.2-)	920704	589	0.4+	1.4-
870305	809	0.8+	0.2+	870403	675	(9.9-	1.6+)	920730	801	0.4+	0.8+
870306	809	0.6-	0.2+	870403	675	(9.9-	2.2-)	920730	801	0.1-	0.3-
870306	809	0.6-	0.0	891003	807	1.0+	0.3-	920802	801	0.4-	0.3+
870306	809	0.3-	0.1-	891028	807	0.6-	0.3-	920802	801	0.4+	0.2+

(5277)* 1988 DO

Discovered 1988 Feb. 22 by R. H. McNaught at Siding Spring.

Epoch 1992 June 27.0 TT = JDT 2448800.5 Marsden

M	108.20910		(2000.0)	P	Q
n	0.28167630	Peri.	187.79382	-0.59810504	-0.79075561
a	2.3048138	Node	299.03519	+0.74309104	-0.48630981
e	0.1404468	Incl.	8.57015	+0.30014340	-0.37176381
P	3.50	H	14.3	G 0.15	

Residuals in seconds of arc

780706	413	1.0-	1.4+	880310	413	1.1-	0.4-	920422	413	0.6+	0.3-
780706	413	1.0+	0.9-	880310	413	0.7+	0.9-	920422	413	0.5+	0.3-
861004	413	0.2+	0.8-	880412	413	0.9-	0.4-	920524	413	1.7-	0.9+
861004	413	1.5+	1.9-	880414	413	0.2+	0.2-	920524	413	1.7-	0.8+
880219	413	1.8-	0.2+	880420	413	0.4+	1.0+	920619	413	0.7+	0.4-
880219	413	(3.5+	1.1-)	880420	413	0.2-	0.1+	920619	413	0.7+	0.5-
880222	413	(2.5-	0.5+)	880420	413	0.7+	0.7-	920704	413	0.4-	0.2-
880222	413	1.5+	0.3+	880420	413	0.1-	1.3-	920704	413	0.4-	0.1-
880223	413	0.6-	0.1-	880420	413	0.5-	0.5+	920705	413	0.4-	0.6-
880223	413	0.6+	0.4+	920331	413	0.6+	0.0	920705	413	0.6-	0.1+
880225	413	1.3-	0.6-	920421	413	0.7+	0.2+				
880225	413	1.1+	0.6-	920421	413	1.1+	0.4-				

(5278)* 1988 EJ1 = 1978 EF7 = 1985 JJ1 = 1986 TQ12

Discovered 1988 Mar. 12 by E. F. Helin at Palomar.

Id. B. G. Marsden (MPC 17822)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Marsden

M	108.08780		(2000.0)	P	Q
n	0.29827984	Peri.	305.30771	-0.98589720	-0.15937649
a	2.2184694	Node	225.58284	+0.16711604	-0.92139234
e	0.0854256	Incl.	4.09836	+0.00888528	-0.35445069
P	3.30	H	13.5	G 0.15	

Residuals in seconds of arc

780305	095	0.1+	1.4+	880410	675	0.9-	0.0	910219	675	0.3+	0.3-
850511	675	1.1+	1.3-	910111	675	0.5+	0.4+	910219	675	0.7+	0.8-
850515	675	(40.9-	26.8-)	910111	675	0.2+	0.7+	910220	675	1.2-	1.1-
861005	095	(0.3-	5.9-)	910115	675	0.2+	0.4+	920629	801	0.0	0.3+
880312	675	0.4+	1.5+	910115	675	0.3+	0.4+	920629	801	0.1-	0.1+
880315	675	0.3-	0.4-	910214	675	0.2+	1.3-	920702	675	(2.7-	0.4-)
880410	675	(2.7-	0.8+)	910214	675	0.6-	0.5-	920702	675	0.5-	1.4+

920703 801 0.2+ 0.1+ 920705 675 0.0 0.3+ 920729 801 0.6- 0.2-
920703 801 0.1+ 0.2+ 920726 801 0.4- 0.4-
920705 675 0.3+ 1.4- 920729 801 (1.3- 2.9-)

(5279)* 1988 LA = 1930 QN = 1949 HT = 1949 JG
Discovered 1988 June 8 by T. Rodriquez at Palomar.
Id. C. M. Bardwell (MPC 13470), O. Kippes (d, MPC 1278)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bardwell

M	343.16018	(2000.0)	P	Q	
n	0.25271100	Peri.	191.83858	+0.38572385	+0.89353831
a	2.4777261	Node	101.19831	-0.82621614	+0.44537983
e	0.2876112	Incl.	13.54780	-0.41058983	-0.05679871
P	3.90	H	12.8	G 0.15	

Residuals in seconds of arc

300821 078 0.1- 0.4+ 880614 675 0.5+ 1.3- 920623 104 1.0+ 0.4+
300821 078 0.9+ 1.2- 920302 801 0.4+ 0.2- 920623 104 0.9+ 0.4+
300822 078 0.5+ 0.4- 920506 801 1.6- 0.6+ 920625 675 0.6+ 0.5-
300822 078 0.9- 0.6+ 920506 801 1.5- 0.8+ 920625 675 0.8- 0.4+
490424 760 1.8- 1.5+ 920507 801 1.4- 0.8+ 920628 104 0.7+ 1.7-
490424 760 0.2- 1.7+ 920507 801 1.3- 0.8+ 920628 104 1.5+ 0.5-
490503 760 2.8+ 0.4+ 920603 675 (3.3- 2.5-) 920629 801 0.8- 0.4+
490503 760 (4.3+ 0.0) 920603 596 0.1- 0.2- 920629 801 0.6- 0.1+
880510 675 0.6- 2.4- 920603 596 0.2+ 0.5+ 920629 675 0.9+ 0.9+
880511 675 0.1- 0.4+ 920603 596 0.0 0.1- 920629 675 0.8- 1.5-
880512 675 0.3- 1.8- 920605 675 1.3- 2.2- 920630 104 1.1+ 0.7+
880514 675 0.4- 0.9- 920605 675 2.2- 1.3- 920630 104 0.7- 0.1-
880608 675 0.5+ 1.8- 920605 410 2.2+ 0.9+ 920630 104 2.2+ 1.9+
880610 675 0.8- 0.1+ 920605 410 0.2+ 1.6+ 920703 801 0.9- 0.4+
880612 675 0.7+ 0.7- 920605 410 2.6+ 1.4+ 920703 801 0.9- 0.3+

(5280)* 1988 PT = 1979 HX3
Discovered 1988 Aug. 11 by C. Mikolajczak and R. Coker at Palomar.
Id. C. M. Bardwell (MPC 13678)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bardwell

M	44.01974	(2000.0)	P	Q	
n	0.23666956	Peri.	41.92827	-0.53608868	+0.84194043
a	2.5884580	Node	195.96609	-0.82153343	-0.53701864
e	0.2084121	Incl.	12.85499	-0.19414366	-0.05241464
P	4.16	H	13.0	G 0.15	

Residuals in seconds of arc

790425 095 0.2+ 0.4- 910113 675 0.0 0.1+ 910321 801 0.7+ 0.2-
790430 095 (0.6- 6.2+) 910113 675 2.1- 0.2+ 920530 801 0.1+ 0.4+
790501 095 0.1- 0.6+ 910115 675 1.4+ 2.3+ 920530 801 0.1- 0.2-
880811 675 0.1- 0.0 910115 675 2.1- 1.7+ 920629 801 0.0 0.5+
880812 675 0.2- 0.3+ 910320 801 1.3+ 0.3- 920629 801 0.2+ 0.5+
880903 675 0.5- 0.2- 910320 801 0.7+ 0.3- 920702 801 0.2+ 0.3+
880906 675 0.0 1.1+ 910321 801 0.8+ 0.3- 920702 801 0.2- 0.5+

(5281)* 1988 SO1 = 1968 YE = 1990 AB1 = 1991 EP
Discovered 1988 Sept. 16 by S. J. Bus at Cerro Tololo.
Id. R. Nagata (MPC 18114)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Nagata

M	233.72679	(2000.0)	P	Q	
n	0.18873825	Peri.	260.98361	+0.90643745	-0.38938388
a	3.0099741	Node	121.77782	+0.42163988	+0.85661128
e	0.1224128	Incl.	11.09286	-0.02430962	+0.33852223
P	5.22	H	10.7	G 0.15	

Residuals in seconds of arc

681222 095 (1.3-	5.3-)	881106 807	0.5-	0.1-	920427 691	1.6-	0.3+
880916 807	0.4+	1.2-	900104 511	0.0	0.4-	920427 691	0.2+	1.2+
880918 807	1.2+	1.8-	900104 511	0.2-	1.7-	920427 691	1.8-	0.4+
881005 807	0.6-	0.2+	910309 875	0.2-	0.2-	920524 894	0.0	0.6-
881006 807	0.7-	0.1+	910309 875	0.2-	0.3+	920524 894	0.8+	0.4-
881007 807	0.5-	0.2+	910314 875	0.0	0.5-	920528 596	0.1+	0.6-
881104 807	0.0	0.0	910314 875	0.7-	0.7-	920528 596	1.0+	1.8-

(5282)* 1988 VT = 1984 YL3

Discovered 1988 Nov. 2 by Y. Oshima at Gekko.

Id. S. Nakano (MPC 14954)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Marsden

M 333.12566	(2000.0)	P	Q	
n 0.21848183	Peri. 106.07376	+0.87643476	+0.45594968	
a 2.7301877	Node 227.09480	-0.48135343	+0.83807656	
e 0.1236518	Incl. 12.20300	+0.01268811	+0.29956231	
P 4.51	H 12.8	G 0.15		

Residuals in seconds of arc

830614 413	0.4+	0.1-	881103 888	1.1+	0.5+	891229 888	1.6-	0.6-
830614 413	0.1-	0.3-	881105 888	0.8+	0.0	891229 888	1.4+	0.0
831007 413	0.4-	1.2+	881105 888	0.5+	0.4-	920529 801	0.7+	0.5-
831007 413	0.2-	0.2-	881107 888	0.9+	0.0	920529 801	0.5+	0.3+
841227 095(15.6-	5.6-)	881107 888	0.2+	0.4-	920628 801	0.2-	0.5+	
881102 888	0.1+	0.4-	881111 888	0.1+	0.1-	920628 801	0.2+	0.4+
881102 888	2.4-	1.2-	881111 888	0.5-	0.1+	920702 801	0.6-	0.5+
881103 888	0.4+	0.5+	881130 888	0.9-	0.5+	920702 801	0.1-	2.0-
881103 888(13.9+	0.4+)	881130 888	0.3-	0.7+				

(5283)* 1989 BW = 1978 GF2

Discovered 1989 Jan. 31 by C. S. Shoemaker at Palomar.

Id. B. G. Marsden (MPC 18431), G. V. Williams (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M 158.49955	(2000.0)	P	Q	
n 0.08296105	Peri. 354.76674	+0.40301299	-0.86987368	
a 5.2065882	Node 71.21660	+0.85019789	+0.24082074	
e 0.1490505	Incl. 17.48343	+0.33873895	+0.43049409	
P 11.88	H 9.3	G 0.15		

Residuals in seconds of arc

780411 095	1.3+	2.8+	900222 675	0.5-	0.9+	910514 675	0.1+	1.3-
890109 675	1.0-	0.7-	910309 675	0.0	1.5-	910516 675	0.9-	0.3-
890131 675	1.0-	1.1-	910309 675	0.6+	0.3+	910516 675	0.5+	0.2-
890202 675	0.9+	0.4+	910414 675	0.2-	0.5+	920430 801	0.8-	0.3-
890307 675	0.0	1.7-	910414 675	0.6-	1.1-	920704 413	0.7-	0.3-
890308 675	0.8+	0.8-	910414 400	2.5+	0.3+	920704 413	0.7-	0.3-
900221 675	0.5-	0.1+	910414 400	1.2+	2.1+	920705 413	0.4-	0.6-
900222 675	0.5-	0.7+	910416 675	0.1+	0.4+	920705 413	0.6-	0.6-

(5284)* 1989 CK2

Discovered 1989 Feb. 1 by C. S. Shoemaker at Palomar.

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M 144.97098	(2000.0)	P	Q	
n 0.08303577	Peri. 342.65460	+0.06187239	-0.93931015	
a 5.2034642	Node 102.76654	+0.95185226	-0.04617454	
e 0.0842956	Incl. 20.24268	+0.30024837	+0.33994758	
P 11.87	H 9.9	G 0.15		

Residuals in seconds of arc

890110 675	0.1+	0.3+	890201 675	0.0	1.9+	890307 675	0.9+	0.1-
890110 675	0.6+	0.6-	890201 675	2.0-	1.2-	890308 675	0.4+	0.9-

900221 675 (0.2+ 2.4-) 910415 675 0.6+ 1.0+ 920425 675 (0.1- 2.2-)
900222 675 0.2- 1.8- 910417 675 0.0 0.6+ 920429 675 0.2- 0.1-
900327 675 (0.7+ 2.3+) 910417 675 0.3+ 0.8+ 920429 675 0.4- 1.7-
900327 675 0.0 0.4- 910513 675 (2.2+ 1.0+) 920603 675 0.7- 0.5+
910312 675 0.8+ 0.3+ 910513 675 0.5- 1.6+ 920603 675 0.2+ 0.3-
910312 675 0.8+ 0.8+ 910515 675 (0.5- 3.4+) 920605 675 0.2- 0.1-
910415 675 (0.1- 2.5+) 920425 675 0.7- 1.7- 920605 675 0.3+ 0.2-

(5285)* 1989 EO11

Discovered 1989 Mar. 9 by C. S. Shoemaker at Palomar.

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bardwell

M 196.44475		(2000.0)	P	Q
n 0.08540537	Peri.	257.60949	+0.68972885	-0.67994518
a 5.1067657	Node	144.30214	+0.70905760	+0.70390112
e 0.0495934	Incl.	25.24863	-0.14666779	+0.20542094
P 11.54	H	9.9	G 0.15	

Residuals in seconds of arc

890109 675 0.6- 1.4- 910312 675 0.1- 1.8- 910513 675 0.7- 1.4-
890109 675 1.0- 0.6- 910312 675 0.0 1.0- 910515 675 1.2- 0.7+
890309 675 0.9+ 0.9- 910413 801 0.2- 1.1+ 920425 675 0.4+ 0.1-
890309 675 1.1+ 2.2- 910413 801 0.8- 1.1+ 920425 675 1.0- 1.0-
900327 675 0.0 1.4+ 910415 675 (1.6- 3.6-) 920429 675 1.0- 0.3-
900327 675 1.1+ 1.5+ 910417 675 0.4- 1.3- 920429 675 0.2- 0.0
900420 675 0.4+ 0.5+ 910417 675 0.5- 1.9- 920603 675 0.0 0.1-
900422 675 0.3- 1.2+ 910512 801 0.8+ 1.8+ 920603 675 1.0- 1.9-
900525 675 0.5- 1.0+ 910512 801 0.1- 1.0+ 920605 675 1.3+ 0.8+
900526 675 0.8+ 1.9+ 910513 801 0.3+ 0.8+ 920605 675 1.5+ 0.8-
910309 675 0.2+ 0.9- 910513 801 0.4+ 1.0+

(5286)* 1989 VT1 = 1979 YS3 = 1982 KF2

Discovered 1989 Nov. 4 by M. Mukai and M. Takeishi at the JCPM Kagoshima Station.

Id. S. Nakano (MPC 15721)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano

M 211.00988		(2000.0)	P	Q
n 0.19795967	Peri.	272.55980	+0.83675787	-0.54577643
a 2.9157587	Node	120.52143	+0.52061556	+0.76786959
e 0.0230627	Incl.	2.94917	+0.16969297	+0.33541674
P 4.98	H	12.2	G 0.15	

Residuals in seconds of arc

791218 095 0.9+ 0.4- 891125 364 1.7- 0.2- 920430 801 0.3+ 0.1+
820516 675 0.4- 0.1+ 910212 364 0.3+ 0.0 920507 801 0.2+ 0.3+
820516 675 0.3- 0.6+ 910212 364 0.9+ 1.2+ 920507 801 0.1+ 0.3-
820517 675 0.5+ 0.4+ 910317 809 1.0- 0.3- 920603 675 0.2+ 0.9-
820518 675 0.1+ 1.4+ 910317 809 0.4- 0.6- 920603 675 0.2- 0.9-
891104 364 0.0 1.3+ 910317 809 0.3+ 0.9- 920605 675 0.9- 0.5-
891104 364 0.0 0.2- 910319 809 0.2- 0.0 920605 675 0.2+ 2.0-
891120 364 1.2+ 1.8- 910319 809 0.1- 0.2+ 920606 675 0.1+ 0.2+
891120 364 0.3- 1.7- 910319 809 0.2- 0.3+
891125 364 0.5+ 1.8+ 920430 801 0.1- 0.1+

(5287)* 1989 WE = 1942 BG = 1971 SR = 1987 HP1

Discovered 1989 Nov. 20 by Y. Mizuno and T. Furuta at Kani.

Id. R. Nagata (MPC 17209)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Nagata
M 217.08725 (2000.0) P Q
n 0.22433774 Peri. 261.67222 +0.59491500 -0.80200967
a 2.6824676 Node 151.60837 +0.77460812 +0.55429444
e 0.2082681 Incl. 6.45390 +0.21461221 +0.22257172
P 4.39 H 12.1 G 0.15
Residuals in seconds of arc

420115 053	(50.1+	9.6-)X	910313 801	0.0	0.7+	910412 801	0.2+	0.5+
710916 808	0.5+	0.9-	910313 801	0.1+	0.2+	920530 801	0.7+	0.4+
870424 046	0.6+	2.0-	910313 801	0.0	0.8+	920530 801	0.3+	1.0+
870425 046	1.3-	1.3-	910313 801	0.0	0.5+	920628 675	0.8-	0.8+
891026 095	2.6+	0.1-	910316 801	0.3+	0.0	920628 675	0.1+	1.3+
891106 095	1.0+	2.0+	910316 801	0.1+	0.2-	920629 801	0.7+	0.6+
891106 095	0.6+	1.9+	910317 801	0.1+	0.1-	920629 801	0.6+	0.3+
891120 403	(0.5-	6.8+)	910317 801	0.1+	0.0	920629 675	(2.7-	0.2+)
891121 403	1.0-	0.6-	910318 801	0.3+	0.3-	920629 675	0.6+	0.4+
891121 403	0.7-	0.6-	910318 801	0.2+	0.3-	920630 675	2.0-	0.1+
891124 095	0.8+	1.2+	910320 801	0.4+	0.3-	920630 675	(1.0-	2.5+)
891201 403	1.2-	0.7+	910320 801	0.7+	0.3-	920703 801	(1.3+	2.9-)
891201 403	0.1-	1.0-	910412 801	0.3+	0.5+	920703 801	1.3+	0.6+

(5288)* 1989 XD = 1930 XP = 1965 AT = 1980 TT = 1982 BC2
Discovered 1989 Dec. 3 by Y. Mizuno and T. Furuta at Kani.
Id. K. Ichikawa (MPC 15726)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Ichikawa
M 207.88677 (2000.0) P Q
n 0.23450585 Peri. 177.67974 -0.05111183 -0.97715861
a 2.6043555 Node 275.19987 +0.91291499 +0.03803201
e 0.1262786 Incl. 11.95396 +0.40493678 -0.20908042
P 4.20 H 11.5 G 0.15
Residuals in seconds of arc

301213 690	2.2+	3.4-	891203 403	2.1+	0.5- Y	891223 391	0.8+	1.7+
301214 690	1.6-	0.2-	891203 403	0.5-	0.6+ Y	891225 391	(4.2+	0.4+)
301216 690	(6.6+	1.7+)	891205 403	0.9+	0.4-	891225 391	1.6+	1.1+
650108 330	(9.6-	4.7-)	891205 403	0.2+	1.1-	920603 801	0.5+	0.4-
801003 033	0.9-	1.0-	891208 403	0.9-	0.7+ Y	920603 801	0.8+	1.3-
801003 033	(7.6+	2.8+)	891208 403	1.5-	0.7+ Y	920628 801	0.3+	0.3-
820124 688	1.2-	1.6-	891218 403	1.4-	0.3-	920628 801	0.5+	0.6-
820131 688	0.1-	0.9-	891218 403	0.4+	0.9-	920630 801	0.3+	0.4-
820131 688	1.0-	0.7-	891223 391	0.4-	1.1+	920630 801	0.1-	0.1-

(5289)* 1990 KG2 = 1974 HB3 = 1986 TD10 = 1991 PN11
Discovered 1990 May 28 at El Leoncito.
Id. H. E. Holt (k, MPC 18820), G. V. Williams (ibid.)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 99.82632 (2000.0) P Q
n 0.18894503 Peri. 115.29077 +0.58002113 +0.81395771
a 3.0077777 Node 190.34857 -0.79709759 +0.55891401
e 0.0880394 Incl. 10.38385 -0.16796108 +0.15839186
P 5.22 H 12.1 G 0.15
Residuals in seconds of arc

551116 675	0.3-	0.1-	900528 808	1.5+	0.5+	910810 675	0.5-	0.4-
551116 675	0.5+	0.7-	900528 808	1.0-	0.9-	910913 675	0.2+	0.2+
740425 805	0.4-	0.2-	900618 808	0.1-	0.0	910913 675	0.0	0.1-
811025 675	0.2+	0.4+	900618 808	0.5-	0.2+	910915 675	0.2+	0.2-
811026 675	0.1-	0.5+	900620 808	0.4+	0.1+	910915 675	0.2+	0.5+
861003 095	0.2-	0.6-	910809 675	0.4-	0.1+			

(5290)* 1990 OD4 = 1957 FF = 1981 RR = 1986 VF9
Discovered 1990 July 30 by H. E. Holt at Palomar.
Id. R. Nagata (MPC 17023)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano

M	128.09589	(2000.0)	P	Q
n	0.21796131	Peri. 158.52766	+0.97706999	+0.21049745
a	2.7345326	Node 189.49192	-0.21241493	+0.95334193
e	0.0622935	Incl. 11.19491	-0.01463331	+0.21640235
P	4.52	H 12.0	G 0.15	

Residuals in seconds of arc

570321	024	0.8-	2.1-	900730	675	1.1-	0.0	911130	596	0.0	0.2+
810901	704	0.3-	1.9-	900730	675	0.2-	0.2+	911130	596	0.2+	0.1-
810901	704	1.3-	0.1+	900829	095	0.1-	1.7-	911130	596	0.4-	0.5-
810902	704	(0.7-	3.1+)	900914	675	0.0	0.1+	920101	801	0.1+	0.1+
810903	704	2.2+	0.5+	900914	675	0.3-	0.7+	920101	801	0.1+	0.0
810903	704	1.2+	0.0	900915	675	1.1+	0.2-	920107	801	0.4-	0.5-
861104	095	1.2-	1.5+	900915	675	(2.8+	3.8+)	920107	801	0.3-	0.4-
900726	675	0.2-	0.8-	911107	675	0.7+	1.0-	920207	801	0.3-	0.2-
900726	675	0.1+	0.2-	911107	675	0.4+	0.4+	920207	801	0.4-	0.0
900728	675	0.0	0.0	911109	675	1.1+	1.3-				

(5291)* 1990 YT = 1961 BB = 1969 JC = 1982 XM1 = 1984 FE1 = 1989 SB10
Discovered 1990 Dec. 20 by M. Matsuyama and K. Watanabe at Kushiro.
Id. H. Kaneda (MPC 17650)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda

M	61.61109	(2000.0)	P	Q
n	0.26184015	Peri. 351.01871	-0.93484493	+0.35461210
a	2.4197949	Node 209.77018	-0.32349705	-0.87129497
e	0.1583032	Incl. 2.04919	-0.14633735	-0.33925703
P	3.76	H 13.1	G 0.15	

Residuals in seconds of arc

610122	760	0.2-	0.8+	890929	809	0.9+	0.5+	910106	400	1.6-	0.5+
690505	095	0.8+	2.2+	890929	809	1.2+	0.5+	910123	399	1.3+	1.0-
821213	381	0.6-	0.3+	901220	399	1.0-	0.7+	910123	399	0.3+	0.9+
821214	381	0.2+	0.2+	901220	399	0.3+	0.1+	920530	801	0.1-	0.1-
821214	381	0.3-	0.5+	901223	399	1.3-	0.4+	920530	801	0.7+	0.2-
840330	675	(4.3+	4.8-)	901223	399	1.8-	1.0+	920603	801	0.6+	0.3-
840331	675	1.1+	0.8-	901225	399	0.3+	1.4-	920603	801	0.6-	0.4-
890926	809	0.9-	0.3+	901225	399	0.3+	2.0-	920630	801	0.1+	0.1-
890926	809	0.4-	0.2+	910105	400	0.8+	0.4-	920630	801	0.8-	0.1-
890926	809	0.0	0.1+	910105	400	1.4+	0.8-	920702	801	0.4-	0.2+
890929	809	0.6+	0.6+	910106	400	0.0	0.8+	920702	801	0.9-	0.0

(5292)* 1991 AJ1 = 1952 RG = 1972 LA = 1976 KL = 1983 AB2 = 1988 JL2
= 1988 JX2
Discovered 1991 Jan. 12 by H. Shiozawa and M. Kizawa at Fujieda.
Id. T. Urata (MPC 17832)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano

M	238.35003	(2000.0)	P	Q
n	0.23984363	Peri. 261.16870	+0.96193167	+0.06173596
a	2.5655703	Node 94.97248	+0.04043553	+0.93127759
e	0.1557943	Incl. 15.49959	-0.27028214	+0.35904140
P	4.11	H 11.8	G 0.15	

Residuals in seconds of arc

520909	078	(0.1+	5.0-)Y	830122	688	(0.5+	3.3-)	880515	688	0.8-	0.3+
720607	095	0.2+	2.1-	830122	688	0.4-	0.7+	880515	688	0.4+	0.6-
760525	095	2.2-	0.3+	880505	399	0.7-	1.5-	910112	898	0.5+	0.6-
830112	688	0.4-	0.2+	880505	399	2.4+	1.5-	910112	898	0.2+	0.8-
830112	688	0.8+	0.4-	880505	399	2.3+	1.1-	910117	898	0.3+	0.1+

910117	898	2.2-	0.6+		920420	596	0.3+	0.4+		920429	801	0.5-	0.4+
910119	898	0.3+	0.9-		920420	596	(3.3-	0.0)		920504	801	0.5+	0.6+
910119	898	0.4+	1.3-		920421	596	0.8-	0.9+		920504	801	0.3+	0.5+
910205	898	0.6-	0.8-		920421	596	0.2-	0.3-		920630	801	0.2+	0.4+
910205	898	1.2+	1.0+		920421	596	0.6+	0.9+		920703	801	0.1+	0.1+
920420	596	1.7-	1.0+		920429	801	0.5-	0.5+		920703	801	0.0	0.4+

(5293)* 1991 BQ2 = 1969 AB = 1978 EZ6 = 1985 VA3 = 1989 UW7

Discovered 1991 Jan. 23 by M. Matsuyama and K. Watanabe at Kushiro.

Id. H. Kaneda (MPC 17969)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda

M	142.28428		(2000.0)	P	Q
n	0.22607063	Peri.	9.43783	-0.50629214	-0.83248625
a	2.6687422	Node	111.28026	+0.77461575	-0.55369940
e	0.1115543	Incl.	13.97435	+0.37899698	+0.01958598
P	4.36	H	11.5	G 0.15	

Residuals in seconds of arc

690115	095	(3.5-	4.9-)		910123	399	0.3-	0.6-		920529	801	0.1+	0.8-
780306	095	1.5-	0.7-		910123	399	1.4+	0.1-		920603	801	1.1+	0.9-
780411	095	0.5+	0.3-		910208	399	0.1+	1.3+		920603	801	0.5+	1.0-
851110	095	2.9+	1.2-		910208	399	0.5-	1.4+		920628	801	0.4-	0.1-
891029	807	0.5+	0.4+		910219	399	1.1-	0.0		920628	801	0.0	0.6+
891029	399	1.3-	1.0+		910219	399	1.0-	1.0-		920630	801	0.3-	0.0
891029	399	1.7-	1.6-		910313	402	0.8+	0.4+		920630	801	0.6-	0.5+
891029	399	0.3+	0.9-		910313	402	0.2+	0.7-					
891030	807	0.3+	0.1+		920529	801	0.4+	0.3-					

(5294)* 1991 CB = 1962 CH = 1981 BV = 1988 NJ

Discovered 1991 Feb. 3 by K. Endate and K. Watanabe at Kitami.

Id. H. Kaneda (MPC 18126)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda

M	143.21413		(2000.0)	P	Q
n	0.20313405	Peri.	316.48401	+0.06475845	-0.96875685
a	2.8660311	Node	128.32216	+0.97861079	+0.01470759
e	0.1304443	Incl.	17.76775	+0.19526206	+0.24757595
P	4.85	H	11.4	G 0.15	

Residuals in seconds of arc

620204	760	1.8+	0.1+		910122	675	0.8-	0.5-		920502	400	0.9+	0.3+
620204	760	0.6-	1.8+		910203	400	(3.8+	1.1+)		920502	400	0.3-	0.4-
810130	095	1.5+	1.1-		910204	400	0.3+	0.5+		920506	801	0.5-	0.1-
860205	675	0.8-	0.3+		910204	400	0.8+	0.5+		920506	801	0.2-	1.1-
860205	675	0.7-	0.5-		910218	675	0.3+	0.9-		920506	400	(3.3+	2.8-)
860206	675	2.2-	0.6+		910218	675	0.6+	1.6-		920506	400	0.4-	0.1+
860206	675	2.1-	0.1-		910219	675	1.0+	0.5-		920630	801	0.1-	0.6+
860207	675	1.0+	0.5-		910219	675	1.1+	0.5-		920630	801	0.2-	0.4+
860207	675	0.4-	0.6+		910220	400	1.6+	1.7+		920703	801	0.1-	0.4+
880711	675	0.1+	0.1-		910220	400	0.6-	0.5+		920703	801	0.0	0.6+
880713	675	1.0+	0.2+		920429	801	0.8-	0.4-					
910122	675	0.0	0.8-		920429	801	0.7-	0.5-					

(5295)* 1991 CE = 1952 BX1 = 1969 EQ1 = 1978 WD3

Discovered 1991 Feb. 5 by Y. Mizuno and T. Furuta at Kani.

Id. H. Kaneda (MPC 17969)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda

M	74.09613		(2000.0)	P	Q
n	0.17735970	Peri.	80.47774	-0.95262633	-0.28396234
a	3.1373725	Node	82.96613	+0.21770924	-0.88677981
e	0.1058963	Incl.	6.30198	+0.21238119	-0.36467377
P	5.56	H	11.6	G 0.15	

Residuals in seconds of arc

520129	711	1.0+	2.2+	Y	910205	403	(5.1+ | 3.1+)Y	920430	801	0.1-	0.5+
520129	711	1.6-	1.4-	Y	910208	403	0.5+	1.1- Y	920430	801	0.5+	0.4-
520131	711	(20.1- | 0.5-)		910208	403	1.8-	2.0+ Y	920506	801	0.3-	0.2-
690313	095	1.1+	0.3-		910217	403	2.3+	0.9+ Y	920506	801	0.4+	0.2-
781129	675	0.2+	0.5+		910217	403	1.3-	0.4- Y	920626	675	0.1+	0.3+
781130	675	0.2-	0.5+		910223	403	0.2-	1.7-	920628	675	0.1+	0.3+
910205	403	(4.8+	3.2+)Y		910223	403	(3.2-	2.0-)	920628	675	0.7-	1.0+

(5296)* 9546 P-L = 1976 PG = 1982 SR5

Discovered 1960 Oct. 17 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. T. Kobayashi (MPC 14631)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano

M	35.00211		(2000.0)	P	Q
n	0.17825988	Peri.	124.32688	-0.70198560	+0.71053950
a	3.1268014	Node	101.00697	-0.66857278	-0.63400986
e	0.1031003	Incl.	2.83062	-0.24541118	-0.30522962
P	5.53	H	11.4	G 0.15	

Residuals in seconds of arc

600924	675	1.0+	0.1+		910217	894	0.5-	0.1+	920603	801	0.3+	0.1-
601017	675	0.3+	0.8+		910220	400	(3.0+ | 1.7+)	920620	596	1.4-	1.1+
601022	675	1.7-	0.2+		910220	400	1.1+	2.1-	920620	596	0.4-	1.2+
601024	675	0.3+	0.6-		910305	071	(0.7+ | 4.2-)	920620	596	1.3-	1.2+
601026	675	0.4+	0.1+		910317	894	0.1+	0.4+	920629	801	0.4+	0.3-
760801	095	0.4-	1.6-		910317	894	1.4-	1.4+	920629	801	0.6+	0.6-
820916	095	0.2+	0.4-		910320	372	1.5-	0.1+	920702	801	1.1+	0.1+
910214	400	1.5+	0.7-		910320	372	(2.9- | 0.9+)	920702	801	0.1+	0.4-
910214	400	2.0+	0.9-		920530	801	0.7+	0.5-				
910217	894	1.8-	0.5+		920530	801	0.4+	1.1-				

(5297)* 4170 T-2 = 1979 OK = 1985 DC4 = 1986 NF

Discovered 1973 Sept. 29 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. T. Kobayashi (MPC 15258)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Nagata

M	102.62321		(2000.0)	P	Q
n	0.28968393	Peri.	310.75848	-0.19009302	-0.98012776
a	2.2621416	Node	150.05697	+0.93151056	-0.19830045
e	0.1248635	Incl.	6.52195	+0.31008502	-0.00514853
P	3.40	H	14.1	G 0.15	

Residuals in seconds of arc

730919	675	0.8-	1.3-		860708	010	0.1-	0.5+	900925	809	1.0-	1.3-
730919	675	0.1+	0.8-		900915	809	1.3+	1.3+	901015	801	0.1-	0.2-
730920	675	2.0-	0.0		900915	809	1.6+	1.5+	901015	801	0.2-	0.2-
730924	675	1.2+	1.1+		900915	809	0.8+	1.3+	901021	801	0.2-	0.0
730924	675	0.4-	0.7+		900918	801	0.7-	0.6-	901021	801	0.1-	0.1-
730925	675	0.4+	1.0-		900918	801	0.6-	0.6-	920401	801	0.3-	0.4-
730925	675	1.3+	1.3-		900921	801	0.7-	0.2+	920401	801	0.4-	0.4-
730929	675	(1.9+ | 3.3-)		900921	801	0.8-	0.1-	920430	801	0.2-	0.2-
730929	675	(1.5+ | 4.2-)		900922	809	1.2+	0.2+	920430	801	0.3-	0.3-
790721	809	0.9+	0.8-		900922	809	1.1+	0.6-	920507	801	0.3-	0.2-
850220	675	0.4+	1.5-		900922	809	0.5+	0.2-	920507	801	0.5-	0.5-
850222	675	(1.0+ | 4.0-)		900925	809	0.6-	0.7-				
860707	010	(5.9- | 1.7+)		900925	809	0.5-	0.7-				

1968 OL = 1992 NH
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 21.86503 (2000.0) P Q
n 0.28636098 Peri. 126.95327 -0.36423509 +0.85899018
a 2.2796079 Node 117.87062 -0.93003311 -0.31529093
e 0.2591765 Incl. 24.01846 -0.04869511 -0.40339497
P 3.44 H 14.0 G 0.15
Residuals in seconds of arc

680728	808	0.4-	0.0	680820	808	0.4-	0.2+	920705 675 0.0 0.5-
680801	808	0.7-	0.4+	680823	808	(1.2-	2.7-)	920705 675 0.2- 0.2-
680802	808	0.3+	0.3-	920702	675	0.3-	0.5-	920722 413 0.0 1.0-
680813	808	1.1+	0.2-	920702	675	0.8+	1.2+	920722 413 0.3- 1.0+

1973 NA = 1992 OA
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 12.70418 (2000.0) P Q
n 0.25956656 Peri. 118.23860 -0.23235385 +0.34376211
a 2.4339046 Node 101.12279 -0.80927431 -0.58723420
e 0.6384088 Incl. 68.01389 +0.53952458 -0.73279165
P 3.80 H 15.5 G 0.15
Residuals in seconds of arc

730704	675	(6.0+	18.0+)	730709	485	0.7-	0.6+	730731 821 (1.2- 4.0-)
730704	675	(12.8+	34.8+)	730709	485	0.7+	1.7+	730801 821 (1.4- 4.3-)
730704	675	(1.1-	5.1+)	730709	485	0.8-	1.1-	730801 808 0.0 1.7+
730704	675	(2.0+	12.0+)	730711	485	1.6-	0.3+	920726 413 (0.8+ 2.6-)
730706	675	0.2+	0.0	730711	485	1.4+	1.5-	920726 413 0.4+ 0.9+
730706	675	(3.9-	0.1+)	730718	485	0.5-	0.1-	920727 413 0.1+ 1.0-
730706	675	(7.3+	15.2+)	730718	485	1.2+	0.6-	920727 413 0.9- 0.5+
730706	675	(4.6+	13.3+)	730720	485	0.8+	0.7+	920728 413 0.5- 0.6-
730707	675	(1.7+	4.8+)	730720	485	0.3+	0.2+	920728 413 0.6- 0.2+
730707	675	(3.5+	6.8+)	730721	808	0.4+	0.3+	920805 413 0.4+ 0.0
730708	675	(15.8-	14.9+)Y	730721	808	0.0	0.3+	920805 413 0.2- 0.0
730708	675	(11.6-	10.8+)Y	730726	821	0.6-	1.2-	920805 413 0.8+ 0.2-
730709	485	0.1+	0.2-	730726	821	0.4-	0.9-	

1975 TR2 = 1975 VJ10 = 1991 RY5
Id. H. Oishi (d, JAM 1274), E. Bowell (MPC 19010)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 97.62042 (2000.0) P Q
n 0.18313911 Peri. 175.67266 +0.62061686 +0.78232792
a 3.0710153 Node 132.67803 -0.72155269 +0.59620306
e 0.1235940 Incl. 4.12583 -0.30691438 +0.18029124
P 5.38 H 12.1 G 0.15
Residuals in seconds of arc

530917	675	0.3+	0.6-	751106	095	0.4+	1.1-	910916 675 1.9+ 0.0
530917	675	0.1-	0.1+	910913	675	1.8+	1.4+	911002 691 2.7- 0.6-
751003	095	1.1+	1.0+	910913	675	2.0+	1.4+	911002 691 2.5- 0.7-
751013	095	1.3-	0.3-	910916	675	1.7+	0.2+	911002 691 2.4- 0.9-

1976 AH = 1991 RL29
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 294.26832 (2000.0) P Q
n 0.17172779 Peri. 256.45170 -0.85914026 -0.41762355
a 3.2055976 Node 258.18597 +0.50130429 -0.80295320
e 0.1828128 Incl. 17.58686 -0.10282037 -0.42527253
P 5.74 H 10.3 G 0.15
Residuals in seconds of arc

760103	808	0.4+	0.5-	760106	808	0.4-	0.1+	760222 808 0.1- 0.0
760103	808	0.1-	0.9+	760106	808	0.3-	0.5-	760227 808 0.0 0.1+

760227 808 0.9+ 0.4+ 910913 675 0.0 0.1+ 910915 675 0.3- 0.8+
760305 808 (2.6+ 4.6+) 910913 675 0.3+ 0.4- 910916 675 0.3+ 0.1-
760305 808 0.4- 0.4- 910914 675 0.3- 0.3-

1978 SR4 = 1981 QY4
Id. S. J. Bus
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 137.88803 (2000.0) P Q
n 0.31198621 Peri. 145.01454 +0.99984750 +0.01427494
a 2.1530087 Node 214.17177 -0.01704436 +0.92312677
e 0.1492704 Incl. 1.02625 +0.00380329 +0.38423064
P 3.16 H 15.1 G 0.15
Residuals in seconds of arc
780927 095 0.6- 1.4+ 781027 675 0.8+ 0.4+ 781029 675 1.2+ 0.6+
781003 095 0.7+ 1.4- 781028 675 1.0- 1.1- 810830 675 0.2- 0.3+
781007 095 0.0 0.2+ 781028 675 1.9+ 0.6+ 810831 675 0.2+ 0.4-
781027 675 1.5- 0.5- 781029 675 1.4- 0.1-

1978 VE11 = 1981 UN28
Id. S. J. Bus
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 330.57046 (2000.0) P Q
n 0.29919915 Peri. 264.55348 -0.86432822 -0.49336625
a 2.2139228 Node 245.85171 +0.49332270 -0.79395292
e 0.0573087 Incl. 6.14034 +0.09782353 -0.35528651
P 3.29 H 15.0 G 0.15
Residuals in seconds of arc
781105 675 0.3+ 0.1+ 781108 675 0.2+ 0.2- 811024 675 0.1+ 0.0
781106 675 0.1- 0.5- 781129 675 0.7+ 0.3+ 811025 675 0.4+ 0.0
781107 675 0.3- 0.7+ 781130 675 0.7- 0.3- 811026 675 0.5- 0.0

1980 UL1 = 1962 WZ1 = 1989 SK5
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 241.94630 (2000.0) P Q
n 0.21510506 Peri. 94.82142 +0.87677669 +0.46544196
a 2.7586861 Node 237.48717 -0.47812885 +0.81676317
e 0.1654121 Incl. 8.24564 -0.05153105 +0.34097172
P 4.58 H 12.5 G 0.15
Residuals in seconds of arc
621130 760 0.2+ 0.6- 801102 675 0.4- 0.7+ 891029 399 2.4+ 1.7+
621130 760 0.2- 0.1- 890929 399 0.2- 1.7- 891029 399 1.4+ 0.6+
801014 675 0.5+ 0.7- 890929 399 1.8- 0.2- 891029 399 1.6- 0.1+
801031 675 0.2- 0.7+ 890929 399 0.0 0.6-

1980 UU1 = 1980 TG12 = 1949 QE1 = 1972 QG = 1976 SD4 = 1982 BR12 = 1990 EU7
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 89.07056 (2000.0) P Q
n 0.25772864 Peri. 348.26277 +0.55163247 +0.83373506
a 2.4454621 Node 315.21048 -0.76244932 +0.49225870
e 0.1798967 Incl. 1.97159 -0.33819026 +0.25013441
P 3.82 H 13.5 G 0.15
Residuals in seconds of arc
490824 690 0.1- 1.2- 801031 675 0.6+ 0.2- 900303 809 0.9+ 0.1+
490826 690 0.4+ 1.1+ 801102 675 0.6- 0.6- 900303 809 0.7+ 0.2-
720818 095 1.4- 0.7- 820130 675 0.3- 0.4- 900305 809 0.4- 0.5+
760924 095 0.2- 0.3+ 820130 675 1.0- 0.3- 900305 809 0.2- 0.4+
760929 095 2.2+ 1.5+ 820131 675 0.1- 0.3- 900305 809 0.1- 0.5+
801010 095 1.8- 1.6+ 820131 675 0.0 0.2-
801014 675 0.4+ 0.9- 900303 809 0.9+ 0.4+

1981 EL33 = 1992 OS

Epoch 1992 June 27.0 TT = JDT 2448800.5				Williams	
M 337.25978	(2000.0)		P		Q
n 0.28647002	Peri.	29.85934	+0.80871192		+0.58073974
a 2.2790294	Node	294.34445	-0.55793694		+0.70707273
e 0.3148909	Incl.	5.88498	-0.18625627		+0.40347182
P 3.44	H 15.5		G 0.15		

Residuals in seconds of arc

810202 413	0.9+	0.5+	810307 413	0.3-	0.2+	920726 675	0.1+	1.0+
810214 413	0.1+	0.2+	810311 413	0.5+	0.2-	920726 675	0.4+	0.7-
810301 413	0.8-	0.4+	810315 413	0.5-	0.2-	920728 675	0.0	0.2-
810301 413	0.3+	0.8-	810315 413	(3.7+	0.1-)	920728 675	0.6-	0.1-
810307 413	(3.4-	0.9+)	810429 413	0.2-	0.0			

1981 EY39 = 1216 T-1

Epoch 1992 June 27.0 TT = JDT 2448800.5				Williams	
M 134.70477	(2000.0)		P		Q
n 0.29469614	Peri.	346.08371	-0.99787881		-0.06503025
a 2.2364185	Node	190.18911	+0.06122797		-0.92194403
e 0.0954906	Incl.	0.96875	+0.02211366		-0.38182494
P 3.34	H 17.0		G 0.15		

Residuals in seconds of arc

710324 675	2.6+	2.6-	810213 413	0.3-	0.2-	810316 413	0.5-	0.3-
710325 675	1.6-	1.2+	810302 413	1.7-	0.3+	810329 413	1.2-	1.2+
710325 675	0.8-	0.6-	810302 413	0.7-	1.7-	810329 413	2.7+	0.3+
710326 675	0.2+	0.4-	810307 413	1.8+	0.3+	810408 413	0.3+	1.6+
710327 675	1.4-	0.1-	810311 413	1.1+	0.1+	810426 413	0.6-	1.0-
810209 413	0.4+	0.2-	810311 413	0.7-	1.5+	810502 413	0.2+	0.2+

1981 PF = 1992 NL

Epoch 1992 June 27.0 TT = JDT 2448800.5				Williams	
M 330.34541	(2000.0)		P		Q
n 0.26542131	Peri.	181.36825	+0.85559348		+0.50414575
a 2.3979798	Node	147.49147	-0.47283300		+0.85348931
e 0.2896216	Incl.	12.62452	-0.21068641		+0.13188274
P 3.71	H 14.5		G 0.15		

Residuals in seconds of arc

810726 688	0.1+	0.0	810811 046	0.3+	0.5+	810831 675	1.5-	0.1-
810726 688	0.7-	0.9-	810812 046	0.5-	1.5+	810831 675	0.2-	0.6+
810806 046	0.6+	2.1-	810812 046	0.9-	0.0	920702 675	0.5+	0.0
810806 046	0.7+	1.2-	810826 688	1.4+	0.9+	920702 675	0.2+	0.3-
810808 801	0.8-	0.6+	810826 688	(0.9+	3.0-)	920705 675	0.6+	0.8+
810808 046	0.2+	2.0+	810829 801	0.3+	1.6+	920705 675	1.3-	0.1-
810808 046	(0.0	3.0+)	810830 688	1.1+	2.5-			
810810 046	0.1-	1.3-	810830 688	(0.8-	7.1-)			

1981 US22 = 1981 WB6 = 1988 VP7

Epoch 1992 June 27.0 TT = JDT 2448800.5				Nakano	
M 48.01936	(2000.0)		P		Q
n 0.28252693	Peri.	287.42609	+0.99162342		-0.06679676
a 2.3001852	Node	76.51235	+0.10748647		+0.90135723
e 0.1551352	Incl.	6.52778	-0.07162164		+0.42789408
P 3.49	H 14.3		G 0.15		

Residuals in seconds of arc

811024 675	0.7-	0.1+	881103 033	0.2-	0.7-	881105 033	0.0	0.1+
811025 675	0.5+	0.2+	881103 033	0.2-	0.0	881106 033	0.8+	0.3-
811026 675	0.3+	0.3+	881105 877	(5.5-	0.6-)			
811124 095	0.6-	0.4+	881105 877	(5.9-	2.6-)			

1981 UZ24 = 1981 SP8 = 1988 VJ3 = 1991 NF2
Id. A. Lowe (k), G. V. Williams
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M 87.70740	(2000.0)	P	Q	
n 0.28242248	Peri. 269.47801	+0.70000448	+0.70656074	
a 2.3007523	Node 45.56062	-0.58369858	+0.64978387	
e 0.1270874	Incl. 8.35584	-0.41144829	+0.28027280	
P 3.49	H 14.5	G 0.15		

Residuals in seconds of arc

810924 033	0.9-	0.5+	881102 372	0.2+	1.5-	910716 675	0.1-	0.5-
810924 033	0.1-	0.1-	881103 372	0.0	1.2+	910716 675	1.1+	0.6-
811025 675	1.1+	0.5-	910713 675	1.3-	0.7+			
811026 675	0.4-	0.4+	910713 675	0.3+	0.3+			

1981 UE26 = 1981 SZ8 = 1991 VW
Id. S. Nakano, A. Lowe
Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano

M 70.27965	(2000.0)	P	Q	
n 0.19842088	Peri. 277.91727	+0.94431209	-0.32462798	
a 2.9112386	Node 101.03807	+0.31934976	+0.86476353	
e 0.0697993	Incl. 3.14051	+0.07931212	+0.38314581	
P 4.97	H 12.3	G 0.15		

Residuals in seconds of arc

810924 033	0.1+	0.1+	811026 675	0.2+	0.2-	911104 400	1.6+	1.9+
810924 033	0.2-	0.4+	911102 400	0.8-	0.7-	911104 400	0.9-	0.3-
811025 675	0.0	0.5-	911102 400	0.0	0.6-			

1981 UU26 = 1991 RH15
Id. A. Lowe
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M 222.84015	(2000.0)	P	Q	
n 0.28682765	Peri. 23.67446	-0.83018287	+0.55716418	
a 2.2771346	Node 190.25037	-0.52709466	-0.79561114	
e 0.0189029	Incl. 6.15882	-0.18156986	-0.23784659	
P 3.44	H 14.5	G 0.15		

Residuals in seconds of arc

811025 675	0.5-	0.4-	910911 675	0.8-	0.7-	910915 691	0.3-	0.1+
811026 675	0.5+	0.4+	910915 691	0.7-	0.2+	910915 675	0.1-	0.3+
910911 675	0.9+	0.7+	910915 691	0.4-	0.8+	910915 675	1.4+	1.4-

1982 RO1 = 1989 UU2
Id. R. Nagata (MPC 17014)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano

M 281.89301	(2000.0)	P	Q	
n 0.28722232	Peri. 151.93134	+0.86363622	-0.50241777	
a 2.2750481	Node 238.28752	+0.45294595	+0.80935779	
e 0.1523437	Incl. 2.78530	+0.22129718	+0.30416500	
P 3.43	H 14.2	G 0.15		

Residuals in seconds of arc

820914 046	2.2+	0.7-	891021 400	2.2+	1.5+	891103 675	0.1-	0.1-
820914 046	0.9-	0.5-	891021 400	(1.3+	4.6+)	891104 675	0.5-	0.0
820915 046	0.8-	0.4-	891023 095	0.3-	0.4-	891104 675	0.2-	1.2-
820915 046	0.1+	1.1-	891023 095	1.5+	0.8-	920802 801	0.0	0.0
820916 046	1.9+	1.2+	891029 877	(5.4-	1.1+)	920802 801	0.2-	0.3-
820916 046	2.5-	1.5+	891029 877	(1.2-	3.2+)	920803 801	0.1-	0.1+
820926 095	(0.8+	4.3+)	891102 877	(2.9-	5.9+)	920803 801	0.2+	0.4+
890930 675	0.4-	0.2-	891102 877	1.1-	2.2+			
890930 675	0.4-	0.4-	891103 675	0.7-	0.6-			

1984 CM1 = 1981 QC4
Id. S. J. Bus
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 303.45631 (2000.0) P Q
n 0.21802934 Peri. 1.16003 -0.95873567 -0.27957538
a 2.7339638 Node 162.34107 +0.25945003 -0.93462273
e 0.2088922 Incl. 9.79547 +0.11623943 -0.21981346
P 4.52 H 13.0 G 0.15
Residuals in seconds of arc

551116	675	0.0	0.3-	840306	688	0.9-	0.1-	840403	688	0.0	1.1-
810830	675	1.4+	0.9+	840306	688	0.2-	0.3-	840403	688	0.3-	0.2+
810831	675	1.3-	1.1-	840309	688	0.5+	1.2-	840403	095	0.5+	0.5-
840206	688	0.4+	0.7+	840309	688	0.3-	0.4-	840405	095	1.2+	1.7+
840206	688	0.0	0.9+	840329	095	0.9-	0.2+				

1984 SH6 = 1990 EN5
Id. G. V. Williams (MPC 17203)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 330.88571 (2000.0) P Q
n 0.25133711 Peri. 252.72946 +0.87763250 -0.47736475
a 2.4867472 Node 135.75781 +0.46002104 +0.81336522
e 0.1241010 Incl. 3.56689 +0.13469161 +0.33250552
P 3.92 H 14.3 G 0.15
Residuals in seconds of arc

491119	675	0.7-	0.1-	840927	809	0.6+	1.7-	841001	809	0.5+	0.2-
491119	675	1.1+	1.5-	840927	809	1.1+	1.2-	900302	809	1.0-	0.8-
840922	809	0.3-	0.2+	840927	809	1.1+	1.3-	900302	809	0.6-	0.9-
840922	809	0.2-	0.4+	840928	809	0.7-	0.6+	900302	809	0.0	0.8-
840922	809	0.0	0.3+	840928	809	0.2-	0.6+	900303	809	0.6-	1.0-
840923	809	0.1-	0.1-	840928	809	0.2+	1.1+	900303	809	0.3-	1.1-
840923	809	0.0	0.1+	840929	809	0.1+	0.5-	900303	809	0.3+	0.9-
840923	809	0.2+	0.5+	840929	809	0.2+	0.2-	910606	809	1.1+	1.1-
840924	809	1.4-	0.4-	840929	809	0.2+	0.2+	910606	809	0.1+	1.2-
840924	809	1.3-	0.5-	840930	809	0.6-	0.3-	910606	809	0.1-	0.4-
840924	809	1.2-	0.1-	840930	809	0.2-	0.0	910608	809	0.2-	0.5-
840926	809	0.8+	0.6-	840930	809	0.2+	0.3-	910608	809	0.4-	0.4-
840926	809	1.1+	0.5-	841001	809	0.1-	0.4-	910608	809	1.0-	0.5-
840926	809	1.3+	0.6-	841001	809	0.3+	0.1+				

1985 FC2 = 1991 RJ25
Id. H. E. Holt (MPC 20142)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 250.39694 (2000.0) P Q
n 0.23333961 Peri. 133.86317 -0.95137123 +0.22925443
a 2.6130261 Node 60.39946 -0.30318471 -0.81505695
e 0.0752730 Incl. 13.68825 +0.05451426 -0.53209452
P 4.22 H 12.6 G 0.15
Residuals in seconds of arc

491119	675	0.3+	0.8-	550313	675	0.1+	0.1-	850423	688	(3.6-	1.3-)
491119	675	0.7-	0.3-	550313	675	0.4+	0.3+	850423	688	0.7+	0.5+
491121	675	1.0-	0.3+	850322	688	(4.2-	0.5+)	910911	675	0.4+	1.0-
491121	675	0.2+	0.3+	850322	688	2.5-	0.1-	910911	675	0.4+	0.6-
531010	675	0.0	0.5+	850414	688	1.6+	0.7-	910913	675	0.5+	0.3-
531010	675	0.6+	0.6+	850414	688	0.7-	0.8-				

1985 GA1 = 1992 NQ
Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano
M 12.27445 (2000.0) P Q
n 0.29707069 Peri. 141.36644 +0.07632432 +0.99422875
a 2.2244852 Node 132.87141 -0.93845328 +0.09717630
e 0.1712666 Incl. 5.90440 -0.33686798 -0.04545277
P 3.32 H 13.9 G 0.15
Residuals in seconds of arc

850415	688	0.7-	0.9-	850515	688	0.3-	1.2+	920723 894 0.5- 0.5-
850415	688	0.8+	0.6-	850515	688	0.7+	0.7+	920723 894 0.1+ 0.4+
850424	688	1.3+	0.1-	920708	894	0.8+	0.8-	
850424	688	1.8-	0.2-	920708	894	0.3-	0.6+	

1985 JL = 1990 HO2
Id. H. Kaneda (MPC 16870)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano
M 223.32458 (2000.0) P Q
n 0.21765742 Peri. 125.97042 -0.91265936 +0.37570575
a 2.7370773 Node 76.58514 -0.40756185 -0.80692481
e 0.2240082 Incl. 9.52296 -0.03076090 -0.45576039
P 4.53 H 13.3 G 0.15
Residuals in seconds of arc

540729	675	0.6+	0.1-	890202	675	0.5-	0.2-	910912 675 0.3- 0.5-
540729	675	0.2+	1.1-	890202	675	0.3-	1.1+	910912 675 (2.2+ 8.5+)
850511	675	0.9-	0.3+	890307	675	1.4+	0.9-	910912 675 1.6- 0.4+
850514	675	1.8-	1.7-	890307	675	0.2-	0.4-	910912 675 0.2+ 0.0
850515	688	0.8+	0.7+	890308	675	0.6+	0.4-	910915 675 0.0 0.3+
850515	688	2.8+	2.7+	890308	675	0.2-	1.1-	910915 675 0.4+ 0.9-
850518	688	2.4-	0.8+	900427	413	2.0+	0.1+	910916 675 0.2- 0.2+
850518	688	0.7-	1.3+	900427	413	(3.5+	0.6-)	910916 675 1.0- 1.9+
850521	688	2.0+	1.3-	900430	413	1.1+	1.5-	
850521	688	0.2+	0.4+	900430	413	0.4-	1.6-	

1985 UH3 = 1989 WP1
Id. H. Kaneda (MPC 15710), S. Nakano (ibid.), T. Kobayashi (ibid.)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano
M 303.48021 (2000.0) P Q
n 0.25943911 Peri. 191.52389 +0.93392320 +0.35631609
a 2.4347016 Node 147.55567 -0.32357070 +0.87679308
e 0.2240322 Incl. 3.07147 -0.15195216 +0.32291291
P 3.80 H 13.2 G 0.15
Residuals in seconds of arc

850921	095	0.6+	1.9-	891125	399	0.7-	1.1+	891201 399 0.2+ 1.2-
851017	049	(1.7+	5.4+)	891125	399	1.5-	0.3+	920530 801 0.3- 0.1-
851017	049	0.1+	2.8+	891125	399	1.1-	0.5+	920530 801 0.2+ 0.3-
851018	095	0.4-	0.9-	891201	399	2.3+	0.4-	920702 801 0.2- 0.0
851112	095	0.5-	0.2+	891201	399	1.1+	1.0-	920702 801 0.3+ 0.1+

1986 RY5 = 1978 JD2 = 1990 WK7
Id. H. Kaneda (MPC 18810)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 258.51604 (2000.0) P Q
n 0.27062415 Peri. 77.19454 +0.57042386 +0.81801484
a 2.3671459 Node 227.83718 -0.78696639 +0.51854748
e 0.1381299 Incl. 5.72552 -0.23516064 +0.24891814
P 3.64 H 13.3 G 0.15
Residuals in seconds of arc

501209	675	1.1-	0.8+	780506	095	0.3-	2.1-	860911 095 0.8+ 0.4+
501209	675	0.9+	1.9+	860907	095	0.3+	0.8+	861005 095 0.8- 1.5-

901113 675	0.4+	0.4+	901114 675	0.8+	0.5+	901208 400	0.5-	1.6-
901113 675	0.4+	0.5-	901124 400	1.3-	0.8-	901208 400	0.3-	0.9-
901114 675	0.6+	0.2+	901124 400	0.4+	2.0-			

1986 WN7 = 1991 RH10
Id. E. Bowell (MPC 19298)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell

M 27.81233		(2000.0)	P	Q	
n 0.17753038	Peri.	84.01140	+0.80390034	-0.59098792	
a 3.1353613	Node	312.19331	+0.50369636	+0.73631613	
e 0.1398089	Incl.	5.18184	+0.31628186	+0.32950241	
P 5.55	H	12.3	G 0.15		

Residuals in seconds of arc

531207 675	0.8-	0.0	861204 046	0.7-	0.5+	910912 675	0.0	0.6-
531207 675	0.9+	0.7+	861207 046	(3.0-	1.7+)	910912 675	0.0	0.2-
861129 046	0.0	1.6-	861207 046	(2.6-	0.2-)	910914 675	0.0	0.4-
861129 046	0.7+	0.9-	861209 046	(4.8+	0.3+)	910914 675	0.3-	1.4+
861204 046	1.6-	0.5+	861209 046	1.7+	0.7+			

1986 WO7 = 1991 RX3
Id. H. Kaneda (MPC 19298)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell

M 338.91601		(2000.0)	P	Q	
n 0.17475968	Peri.	132.64260	-0.05892118	-0.99713908	
a 3.1684137	Node	320.66053	+0.89264425	-0.03139408	
e 0.1349993	Incl.	4.28361	+0.44689433	-0.06876094	
P 5.64	H	12.9	G 0.15		

Residuals in seconds of arc

801014 675	0.2+	0.6-	861207 046	1.7+	0.5+	911002 033	0.2-	0.5-
861129 046	0.8+	0.4-	910912 033	0.0	0.2-	911002 033	0.8-	0.2-
861129 046	(3.4+	0.7-)	910912 033	1.0+	0.3+	911003 033	0.1-	0.7-
861204 046	1.2-	0.8+	910914 033	1.2+	0.6+	911004 033	0.6-	0.1+
861204 046	1.3-	0.0	910915 033	0.8-	0.6+	911009 033	0.4-	0.4+
861207 046	0.0	0.7-	910915 033	0.6+	0.4-	911009 033	0.1-	0.5+

1988 CW4 = 1991 VX12
Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda

M 348.00691		(2000.0)	P	Q	
n 0.19038449	Peri.	213.69178	-0.23088030	-0.96638420	
a 2.9925977	Node	249.88062	+0.91716816	-0.17735019	
e 0.0439123	Incl.	6.91924	+0.32480279	-0.18614104	
P 5.18	H	12.6	G 0.15		

Residuals in seconds of arc

880213 809	0.9+	0.5-	880221 809	0.2-	0.3+	911104 399	0.8-	0.8+
880215 809	1.4+	0.5-	880223 809	0.1+	0.2+	911105 399	1.3+	0.2+
880216 809	0.7-	0.1-	880223 809	0.5-	0.2+	911105 399	0.3-	0.6-
880216 809	0.3-	0.0	880223 809	1.5-	0.3+	911111 399	0.9+	1.3+
880216 809	0.4-	0.3-	880310 413	0.1+	0.3+	911111 399	1.5-	0.2-
880221 809	0.1+	0.3-	880310 413	1.4+	0.2+			
880221 809	0.3-	0.3+	911104 399	0.4+	1.4-			

1988 PK
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bardwell

M 3.06794		(2000.0)	P	Q	
n 0.26243390	Peri.	175.46010	+0.93567539	+0.35230087	
a 2.4161437	Node	163.86827	-0.32595687	+0.88454731	
e 0.2398097	Incl.	4.10541	-0.13514322	+0.30571252	
P 3.76	H	14.5	G 0.15		

From 14 observations 1988 Aug. 11-Nov. 5, mean residual 1".08.

1988 TC1 = 1981 UM28
Id. S. J. Bus
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 355.67164 (2000.0) P Q
n 0.28102539 Peri. 42.30993 +0.57707158 -0.81651673
a 2.3083714 Node 12.47684 +0.72666267 +0.50384732
e 0.1423308 Incl. 4.51165 +0.37275964 +0.28184802
P 3.51 H 13.7 G 0.15
Residuals in seconds of arc

811024	675	0.3+	0.4+	880911	033	0.2-	0.1-	881019	399	0.0	0.6+
811025	675	1.3+	1.1-	881013	399	(2.9+	1.1+)	881019	399	0.3-	0.2+
811026	675	1.2-	0.2-	881013	399	0.5+	0.4-	881031	399	0.2+	0.4-
880908	033	0.3-	0.6+	881013	399	(3.1+	0.2-)	881031	399	1.4+	1.0+
880908	033	0.3+	0.2-	881016	399	0.0	0.3+	881031	399	1.8-	0.5+
880909	033	0.4+	0.5+	881016	399	0.4+	0.2-				
880910	033	0.2-	0.6-	881019	399	1.0-	0.9-				

1988 VQ2 = 1992 NK
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 332.91161 (2000.0) P Q
n 0.22036011 Peri. 287.47752 +0.92859346 +0.27023749
a 2.7146513 Node 57.54426 -0.10092367 +0.84342450
e 0.2846203 Incl. 17.54249 -0.35711146 +0.46433480
P 4.47 H 12.5 G 0.15
Residuals in seconds of arc

881112	675	(0.6+	7.0-)	881117	399	1.6-	0.5+	920701	413	0.2+	1.9-
881113	675	1.0+	0.6-	881117	399	1.7-	0.5+	920701	413	0.1-	1.3+
881114	399	1.2-	0.5+	881117	399	1.6-	0.3-	920703	413	0.1+	0.4-
881114	399	1.3-	0.7-	881201	054	0.2+	0.9+	920703	413	0.9-	0.6+
881114	399	1.1-	0.6-	881201	054	0.6+	0.3-	920711	413	0.3-	0.1-
881115	875	0.8+	0.3+	881202	399	1.2+	1.3+	920722	413	0.7+	0.4-
881115	875	0.0	0.7+	881202	399	1.8+	0.4+	920722	413	0.3+	0.6+
881115	875	0.4+	0.9-	881202	399	1.5+	0.5-				
881117	399	0.8-	1.0-	881202	399	2.1+	0.1+				

1989 AC2 = 1991 RO18
Epoch 1992 June 27.0 TT = JDT 2448800.5 Ichikawa
M 347.14847 (2000.0) P Q
n 0.26983424 Peri. 211.67709 -0.19351614 -0.98107640
a 2.3717633 Node 249.48162 +0.90155407 -0.17526142
e 0.1606291 Incl. 0.38979 +0.38697773 -0.08229536
P 3.65 H 14.3 G 0.15
Residuals in seconds of arc

890104	046	1.4-	0.7-	890111	046	2.0+	0.1+	910916	675	0.3-	0.7-
890104	046	1.5+	0.4-	890111	046	0.3-	2.4+	910916	675	0.5+	0.2+
890109	046	2.1-	0.3-	910913	675	0.3+	0.2+				
890109	046	0.4+	1.1-	910913	675	0.6-	0.4+				

1989 BW1 = 1991 VT9
Epoch 1992 June 27.0 TT = JDT 2448800.5 Ichikawa
M 351.93980 (2000.0) P Q
n 0.28006090 Peri. 28.51202 -0.64313256 -0.76435002
a 2.3136681 Node 101.55300 +0.69327525 -0.60690309
e 0.1026985 Incl. 2.71237 +0.32519216 -0.21780195
P 3.52 H 14.2 G 0.15
Residuals in seconds of arc

890129	046	1.3-	0.3+	890130	046	2.7+	0.3+	890202	046	0.3-	1.2-
890129	046	0.8+	0.1-	890131	046	0.9-	0.0	890202	046	0.9+	0.6+
890130	046	1.1-	1.0+	890131	046	0.8-	0.8-	911104	691	0.2+	0.1+

911104 691 0.0 0.2- 911105 691 0.1- 0.1+ 911108 691 0.2- 0.0
911104 691 0.2+ 0.2- 911108 691 0.2+ 0.1+ 911108 691 0.4- 0.1+
911105 691 0.3+ 0.2+ 911108 691 0.1- 0.2- 911108 691 0.3- 0.2+
911105 691 0.2- 0.1- 911108 691 0.3+ 0.1-

1989 CP = 1966 CA1 = 1991 TS7
Epoch 1992 June 27.0 TT = JDT 2448800.5 Ichikawa
M 344.13750 (2000.0) P Q
n 0.25711119 Peri. 115.51087 -0.27874648 -0.96034142
a 2.4493756 Node 350.66710 +0.86564419 -0.24823079
e 0.1363575 Incl. 2.36447 +0.41588525 -0.12698756
P 3.83 H 13.6 G 0.15
Residuals in seconds of arc
660214 330 0.6+ 1.6+ 890207 399 0.3- 0.2- 890211 399 1.3- 1.3-
890204 399 0.9+ 1.1- 890207 399 0.3+ 0.2+ 890213 875 1.1+ 0.2-
890204 399 1.1- 0.8- 890207 875 0.7+ 0.1+ 911007 033 0.1- 0.1-
890204 399 0.1- 0.4+ 890207 399 0.2+ 0.0 911007 033 0.2- 0.0
890204 399 0.4+ 1.3+ 890207 875 0.7+ 0.3+ 911008 033 0.3+ 0.1+
890205 875 0.5- 0.9+ 890211 399 1.0- 0.4+
890205 875 0.5+ 0.0 890211 399 1.0- 1.6-

1989 EQ = 1981 QX3
Id. S. J. Bus
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 291.23561 (2000.0) P Q
n 0.18475220 Peri. 119.60129 +0.26568182 -0.95864533
a 3.0531136 Node 314.61103 +0.82751141 +0.28107303
e 0.1909109 Incl. 8.24103 +0.49460898 +0.04468882
P 5.33 H 12.2 G 0.15
Residuals in seconds of arc
810830 675 0.4+ 0.4+ 890305 413 1.0+ 0.6+ 890328 046 1.3- 0.0
810831 675 0.5- 0.1- 890326 046 0.3- 1.6- 890328 046 0.4- 0.2+
890302 413 1.0- 0.6+ 890326 046 0.7- 0.8- 890429 413 0.3+ 1.3+
890302 413 0.5+ 0.6+ 890327 046 1.7+ 1.5-
890304 413 0.6- 1.2+ 890327 046 1.0+ 0.2-

1989 GA3 = 1970 EJ3 = 1985 DX3
Id. S. Nakano (MPC 14795)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano
M 351.91463 (2000.0) P Q
n 0.26242750 Peri. 280.13232 -0.84178042 -0.53940849
a 2.4161830 Node 227.22792 +0.50583872 -0.77455577
e 0.1548119 Incl. 1.64530 +0.18850177 -0.33030568
P 3.76 H 14.1 G 0.15
Residuals in seconds of arc
700310 805 1.2+ 1.5+ 890403 809 1.0- 0.7- 890410 809 1.8+ 1.3-
700310 805 0.4+ 0.4+ 890405 809 0.5- 0.1- 890410 809 0.8+ 0.9-
700310 805 0.5- 0.9+ 890405 809 0.3- 0.5- 890410 809 0.2+ 0.9-
850220 675 0.4- 0.5- 890405 809 0.8- 0.1- 911204 399 1.9- 0.6-
850222 675 0.2+ 0.1+ 890408 809 0.5+ 1.2+ 911204 399 0.8- 0.6-
890403 809 1.5- 0.5- 890408 809 0.0 0.5+ 911205 399 1.4+ 1.6-
890403 809 0.7- 0.9- 890408 809 0.2+ 0.8+ 911205 399 1.6+ 0.6+

1989 GC4 = 1976 US19 = 1981 UX29 = 1991 TH12
Id. E. Bowell (k), G. V. Williams

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M 188.42518	(2000.0)	P	Q	
n 0.19539993	Peri. 324.63715	-0.51823709	+0.85502933	
a 2.9411676	Node 274.14188	-0.78025053	-0.48170679	
e 0.0695827	Incl. 1.08267	-0.35019914	-0.19205055	
P 5.04	H 13.5	G 0.15		

Residuals in seconds of arc

761024 381	1.0+	0.2-	890405 809	1.1-	0.7+	890408 809	0.6+	0.1-
761024 381	0.9-	0.4+	890406 809	0.0	0.2-	890408 809	0.1+	0.3-
811025 675	0.5+	0.1-	890406 809	0.6-	0.5+	890412 809	0.7+	1.4-
811026 675	0.6-	0.4-	890406 809	0.1+	0.1+	890412 809	0.7+	0.6+
890403 809	0.1+	0.0	890407 809	0.1-	0.5-	911013 691	0.1-	0.3+
890403 809	0.2+	0.4-	890407 809	0.1-	0.0	911013 691	0.2+	0.2+
890403 809	0.4+	0.4-	890407 809	0.4-	0.0	911013 691	0.2-	0.1+
890405 809	0.7-	0.3+	890408 809	0.1+	1.3+			

1989 GF4 = 1990 RZ8
Id. H. Kaneda (MPC 18116)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell

M 165.11633	(2000.0)	P	Q	
n 0.21044634	Peri. 81.51900	+0.49497178	+0.86598357	
a 2.7992508	Node 218.41648	-0.83549757	+0.45181911	
e 0.2218940	Incl. 6.58356	-0.23863516	+0.21431740	
P 4.68	H 12.7	G 0.15		

Residuals in seconds of arc

811024 675	0.7+	0.7+	890406 809	1.5-	0.2+	900916 675	0.0	1.8-
811025 675	0.3+	0.1-	890406 809	0.6-	0.6-	900917 675	0.5-	0.2+
811026 675	0.9-	0.7-	890406 809	1.0-	0.0	900917 675	0.2+	0.2+
890403 809	0.0	0.3+	900830 095	(1.5+	5.0+)	900919 675	0.1+	0.3+
890403 809	0.8+	0.3-	900830 095	(0.9+	7.2+)	900919 675	1.1+	0.1+
890403 809	0.6+	0.4+	900913 675	0.2-	0.1+	900923 095	0.1+	1.4+
890405 809	0.9+	0.5+	900915 095	(0.1-	7.3+)			
890405 809	0.7+	0.8-	900916 675	0.9-	0.5-			

1989 TZ15 = 1975 TB1 = 1978 ER9
Id. H. Kaneda (MPC 18432)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano

M 317.98270	(2000.0)	P	Q	
n 0.21101549	Peri. 256.44660	-0.33541978	+0.94193418	
a 2.7942150	Node 353.88455	-0.79618419	-0.29247312	
e 0.1144551	Incl. 8.59660	-0.50357154	-0.16498327	
P 4.67	H 12.7	G 0.15		

Residuals in seconds of arc

751003 095	1.8-	1.0+	891005 809	0.7+	0.8-	891008 809	1.0-	1.0+
780315 675	0.5+	0.1+	891005 809	0.9+	0.8-	891008 809	0.6-	1.1+
780316 675	0.7+	0.1+	891005 809	1.2+	0.9-	920206 801	0.8-	0.1+
801014 675	0.3-	0.5+	891007 809	0.4+	0.1+	920206 801	1.0-	0.2-
891004 809	0.3-	0.6-	891007 809	0.7+	0.1+	920313 894	1.1+	0.0
891004 809	0.1+	0.8-	891007 809	0.9+	0.1+	920313 894	0.1+	0.7-
891004 809	0.5+	1.0-	891008 809	1.2-	0.8+	920313 894	1.0-	0.4+

1990 EJ2 = 1962 TO = 1975 VT1 = 1975 XB7
Id. H. Kaneda (MPC 16879), S. Nakano
Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano

M 313.70865	(2000.0)	P	Q	
n 0.16002441	Peri. 119.25754	+0.98459056	+0.12579946	
a 3.3600460	Node 233.77510	-0.15815715	+0.93695945	
e 0.1145473	Incl. 8.66058	+0.07461733	+0.32600841	
P 6.16	H 12.0	G 0.15		

Residuals in seconds of arc

621004 760	0.1-	0.5+	900224 809	1.5-	0.4-	900304 809	0.3-	0.6-
621004 760	0.1+	0.7-	900302 809	1.9+	0.1+	920630 801	0.3+	0.6+
751102 095(10.5-		2.2-)	900302 809	0.6+	0.8+	920630 801	0.3+	0.5+
751202 330	0.0	0.7+	900302 809	0.5-	0.0	920703 801	0.6-	0.5-
900224 809	0.3-	0.6+	900304 809	0.8+	0.3+	920703 801	0.2-	0.2+
900224 809	0.7-	0.4-	900304 809	0.1+	0.1-			

1990 EU4 = 1981 UG28
Id. S. J. Bus

Epoch 1992 June 27.0 TT = JDT 2448800.5				Bowell
M 247.98982		(2000.0)	P	Q
n 0.27912639	Peri.	178.16991	-0.91518223	-0.40221691
a 2.3188293	Node	338.05768	+0.36890136	-0.81021869
e 0.0798077	Incl.	3.95136	+0.16233692	-0.42634169
P 3.53	H	15.2	G 0.15	

Residuals in seconds of arc

811024 675	0.5+	1.0+	900302 809	0.1+	1.0-	900416 809	0.9+	0.1+
811025 675	0.7+	0.3-	900304 809	0.5+	0.6+	900416 809	0.0	0.2+
811026 675	1.2-	0.7-	900304 809	0.3+	0.3+	900416 809	0.5+	0.5-
900302 809	0.2-	0.6-	900304 809	0.4+	0.2+	900417 809	0.9-	0.0
900302 809	1.2-	0.5+	900415 809	1.7+	0.1-	900417 809	2.1-	0.3+

1990 OO2 = 1975 CL = 1980 BB1 = 1986 WS4 = 1991 XL2
Id. H. E. Holt, G. V. Williams

Epoch 1992 June 27.0 TT = JDT 2448800.5				Williams
M 158.64355		(2000.0)	P	Q
n 0.23491944	Peri.	352.97135	+0.80518505	+0.57895210
a 2.6012978	Node	330.45608	-0.53062575	+0.60667701
e 0.1397390	Incl.	15.09602	-0.26478925	+0.54475451
P 4.20	H	12.5	G 0.15	

Residuals in seconds of arc

750208 033	0.1+	0.2-	900725 675	0.3-	0.3-	900730 675	0.3+	0.1-
750208 033	0.4-	1.0+	900725 675	0.2+	0.5-	900730 675	0.6+	0.9-
800123 095	0.4+	0.0	900729 675	0.8-	0.5-	900914 675	0.8+	0.0
861126 010	0.1+	0.5-	900729 675	0.1+	0.6+	900914 675	1.5+	0.4+
861126 010	0.5-	1.3+	900729 675	0.3-	0.3-	911203 675	0.5+	0.7-
861126 010	1.7-	1.3+	900729 675	0.5-	0.2-	911203 675	1.6-	2.3-

1990 TN3
Id. E. F. Helin (1989 obs.)

Epoch 1992 June 27.0 TT = JDT 2448800.5				Williams
M 227.71534		(2000.0)	P	Q
n 0.35849497	Peri.	4.43224	+0.90229815	-0.41108782
a 1.9625196	Node	21.35082	+0.38376376	+0.62864222
e 0.0942042	Incl.	20.89738	+0.19642662	+0.66016344
P 2.75	H	14.0	G 0.15	

Residuals in seconds of arc

890408 675	0.9+	0.8-	901016 675	1.1+	1.5-	901215 801	0.3-	0.3+
890408 675	0.9-	0.9+	901118 675	0.3+	0.2-	901215 801	0.2-	0.2+
901015 675	1.5-	0.8+	901118 675	0.6+	0.2-	901220 801	0.2-	0.6+
901015 675	0.6-	0.7+	901119 675	0.7+	1.1-	901220 801	0.4-	0.4+
901016 675	0.5-	0.3+	901119 675	0.8+	0.1+			

1990 WJ3 = 1985 FF3 = 1986 RQ1 = 1992 GY1
Epoch 1992 June 27.0 TT = JDT 2448800.5 Ichikawa

M 22.09360	(2000.0)	P	Q	
n 0.28892897	Peri. 11.25790	-0.89196280	+0.45170072	
a 2.2660804	Node 195.63810	-0.42013797	-0.84382947	
e 0.0834114	Incl. 4.08548	-0.16699235	-0.28968654	
P 3.41	H 13.8	G 0.15		

Residuals in seconds of arc

850322	413	0.0	0.5+	901119	809	0.4+	1.1-	920404	303	0.6+	1.1-
850322	413	0.2+	0.2+	901119	809	0.9+	0.9-	920423	809	2.9-	0.4-
860905	046	(0.3+	5.1-)	901122	809	0.4-	0.1-	920423	809	(3.4-	0.7-)
860905	046	1.4+	3.6-	901122	809	1.0+	1.8-	920423	809	2.2-	1.4-
901118	809	1.2-	0.6-	901122	809	0.9+	1.3-	920425	809	0.3-	0.1-
901118	809	0.2-	0.2-	920403	303	0.8+	1.8-	920425	809	0.2+	0.2-
901118	809	0.1+	0.0	920403	303	0.7+	2.1-	920425	809	0.0	0.4-
901119	809	0.4-	0.7-	920403	303	0.9+	0.7-				

1991 BV
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bardwell

M 156.30739	(2000.0)	P	Q	
n 0.23362516	Peri. 307.65683	-0.03704569	-0.99046468	
a 2.6108964	Node 143.78130	+0.97294597	-0.06605007	
e 0.1375245	Incl. 12.97771	+0.22804331	+0.12090120	
P 4.22	H 12.0	G 0.15		

Residuals in seconds of arc

910119	402	1.2+	0.1+	910219	675	2.2-	1.0-	910411	033	0.1-	0.2-
910119	402	1.5+	0.5+	910220	402	1.8-	0.7+	910412	033	0.3+	0.0
910120	402	0.3+	2.5+	910220	402	0.9-	1.1-	910413	033	0.0	0.0
910207	402	0.3+	0.7-	910221	402	0.9+	1.5-	910512	801	0.1-	0.3+
910207	402	0.8+	0.2+	910221	402	0.2+	1.0-	910512	801	0.3+	0.2+
910207	220	(1.3-	6.0-)	910306	402	0.1+	0.3-	910513	801	0.4+	0.2+
910207	220	(2.4-	4.8-)	910306	402	0.9+	1.3-	910513	801	0.4+	0.7-
910208	220	(2.3-	6.2-)	910317	402	0.1-	0.4-	920529	801	0.5-	0.2-
910209	402	0.4+	2.1+	910317	402	1.9+	0.5+	920529	801	0.3+	0.1+
910209	402	0.2+	1.5+	910318	402	0.4-	1.8+	920628	801	0.3-	0.4-
910214	511	0.7+	1.9-	910318	402	0.2+	0.9+	920628	801	0.4+	0.1-
910216	511	0.8-	0.9-	910408	033	0.8-	0.3+	920702	801	0.2-	0.3+
910218	675	2.6-	0.7-	910409	033	0.2+	0.2+	920702	801	0.4+	0.6+
910218	675	0.8-	0.3-	910410	033	0.3+	0.3+				

1991 EE
Epoch 1992 June 27.0 TT = JDT 2448800.5 Marsden

M 97.87926	(2000.0)	P	Q	
n 0.29280459	Peri. 115.06084	+0.24824443	+0.96817345	
a 2.2460399	Node 169.16715	-0.93860348	+0.24853578	
e 0.6241776	Incl. 9.75890	-0.23957926	+0.02949802	
P 3.37	H 17.5	G 0.15		

From 74 observations 1991 Mar. 13-Oct. 8, mean residual 0".59.

1991 GH11 = 1980 FK2
Epoch 1992 June 27.0 TT = JDT 2448800.5 Ichikawa

M 117.73161	(2000.0)	P	Q	
n 0.18242148	Peri. 2.07908	-0.83201452	-0.55419126	
a 3.0790641	Node 144.22915	+0.50835809	-0.77968274	
e 0.2070707	Incl. 2.44903	+0.22208985	-0.29149077	
P 5.40	H 14.2	G 0.15		

Residuals in seconds of arc

800316	809	0.5-	0.1-	800316	809	1.0-	1.0+	800317	809	1.0+	0.5-
800316	809	0.2+	0.9-	800316	809	1.1-	1.0+	800317	809	0.4+	0.9-

800317 809 0.5+ 0.6+ 910411 033 0.1- 0.6+ 910419 809 2.2- 0.3+
800317 809 0.5+ 0.3- 910412 033 0.3- 1.0+ 910419 809 1.0+ 0.9-
910411 033 0.8+ 0.3+ 910419 809 0.8+ 1.3-

1991 JY1
Id. E. Bowell (1954 obs.)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 38.93783 (2000.0) P Q
n 0.24121336 Peri. 116.92029 +0.82181414 +0.52155644
a 2.5558487 Node 213.16319 -0.54318881 +0.83869885
e 0.2282208 Incl. 24.78809 +0.17195183 +0.15672626
P 4.09 H 11.8 G 0.15
Residuals in seconds of arc
540402 675 1.5- 0.3- 910511 675 0.2+ 0.3- 910807 801 0.3- 0.6+
540523 675 0.6- 0.6+ 910512 675 0.6- 1.0+ 910807 801 0.4+ 0.0
540523 675 2.0+ 0.2- 910617 675 1.1+ 0.8- 910811 801 0.2- 0.1+
910511 675 0.2+ 0.2+ 910617 675 0.7- 1.1- 910811 801 0.0 0.4+

1991 NG = 1987 QD11
Id. B. G. Marsden
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 61.02184 (2000.0) P Q
n 0.23580131 Peri. 37.80449 +0.67603315 +0.69493737
a 2.5948081 Node 276.20946 -0.72180071 +0.55761309
e 0.1386777 Incl. 14.26927 -0.14826638 +0.45401508
P 4.18 H 11.6 G 0.15
Residuals in seconds of arc
520201 675 1.0+ 0.0 910707 675 0.3+ 0.8+ 910709 675 0.1+ 0.3-
520201 675 1.0- 0.1+ 910707 675 0.6- 0.7- 910816 675 0.4- 0.7-
870828 095 0.1- 0.3+ 910709 675 0.2+ 0.7+ 910816 675 0.4+ 0.2-

1991 PJ3 = 1981 UJ27 = 1988 TR4
Id. E. Bowell (k), G. V. Williams
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 313.59113 (2000.0) P Q
n 0.28031481 Peri. 107.15400 -0.12084623 -0.99255950
a 2.3122707 Node 349.75250 +0.87597593 -0.09956994
e 0.0974121 Incl. 4.80236 +0.46697148 -0.07008180
P 3.52 H 14.5 G 0.15
Residuals in seconds of arc
811024 675 0.2- 1.0+ 910802 809 0.7+ 1.2- 910814 809 0.9- 0.9+
811025 675 0.2- 0.0 910802 809 0.4- 1.5- 910814 809 1.2- 0.7+
881013 888 0.0 1.6- 910807 809 1.7+ 1.9+ 910814 809 1.5- 0.3+
881013 888 0.6+ 0.4+ 910807 809 0.1+ 0.7+
910802 809 1.3+ 1.4- 910807 809 0.1+ 0.1-

1991 PM5 = 1982 OP
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 167.05320 (2000.0) P Q
n 0.43716335 Peri. 140.28382 +0.06834292 +0.98078292
a 1.7193867 Node 132.78711 -0.96691167 +0.11024176
e 0.2551957 Incl. 14.41865 -0.24578661 -0.16097087
P 2.25 H 17.5 G 0.15
Residuals in seconds of arc
820727 675 0.4+ 0.7- 820728 675 1.3- 2.6- 910716 675 0.5- 1.7-
820727 675 0.6+ 2.8+ 820728 675 0.7- 1.6+ 910716 675 1.0+ 0.9+
820727 675 1.3+ 1.0+ 820728 675 0.3- 0.1- 910803 809 0.5+ 0.5+

910803	809	0.6+	0.6+	910805	809	1.8-	1.1+	910805	675	1.5+	0.2-
910803	809	0.2+	0.6-	910805	675	0.6+	0.6+	910807	675	0.2+	2.4-
910805	809	1.0-	1.9+	910805	809	1.0-	1.3+	910807	675	0.2-	3.9-

1991 RK7 = 1981 QZ4

Epoch 1992 June 27.0 TT = JDT 2448800.5				Bowell	
M 208.54067		(2000.0)	P	Q	
n 0.30717933	Peri.	321.39304	-0.33296925	+0.94061793	
a 2.1754113	Node	289.07009	-0.84684215	-0.32913199	
e 0.1223000	Incl.	4.01052	-0.41471658	-0.08312665	
P 3.21	H	14.7	G 0.15		

Residuals in seconds of arc

810830	675	0.8-	0.2+	910913	033	0.1-	0.7-	911006	033	0.9-	0.2+
810831	675	0.7+	0.0	910914	033	0.2-	0.1-	911009	033	0.8+	0.5+
910910	033	0.2-	0.1+	910915	033	0.1+	0.1-	911009	033	0.1+	0.1+
910911	033	0.9+	0.1+	911005	033	1.1-	0.0	911010	033	1.4+	0.2+
910913	033	0.1+	0.6-	911006	033	0.8-	0.0				

1991 RJ11 = 1989 CT5

Epoch 1992 June 27.0 TT = JDT 2448800.5				Williams	
M 67.35605		(2000.0)	P	Q	
n 0.17802294	Peri.	192.71881	+0.47791833	+0.87746166	
a 3.1295753	Node	105.84308	-0.80217130	+0.45484578	
e 0.1149230	Incl.	2.42373	-0.35793194	+0.15223784	
P 5.54	H	14.0	G 0.15		

Residuals in seconds of arc

890202	033	0.5-	0.0	910814	809	0.1-	0.1+	910904	809	0.2-	0.8+
890204	033	0.5+	0.3-	910814	809	0.3+	0.3+	910907	809	0.4+	1.2-
910802	809	0.7+	0.8-	910814	809	0.5-	0.1-	910907	809	0.2-	1.1-
910802	809	0.9-	0.4+	910904	809	1.6+	0.8+	910907	809	1.7-	0.4-
910802	809	0.3+	0.2+	910904	809	0.4+	0.7+				

1991 RN11 = 1988 YF

Epoch 1992 June 27.0 TT = JDT 2448800.5				Williams	
M 10.42949		(2000.0)	P	Q	
n 0.26028674	Peri.	299.11292	+0.68174668	-0.72965186	
a 2.4294130	Node	107.80496	+0.68913970	+0.61608295	
e 0.1737943	Incl.	3.20280	+0.24557673	+0.29673215	
P 3.79	H	14.5	G 0.15		

Residuals in seconds of arc

881230	046	2.5-	0.2+	910802	809	0.3-	0.3+	910904	809	1.7+	1.4-
881230	046	1.5+	0.1-	910802	809	0.1-	0.7+	910904	809	0.1-	0.7-
890102	046	1.3+	0.5-	910802	809	0.9-	0.5+	910904	809	0.6-	0.5-
890102	046	2.2-	0.2+	910814	809	0.3+	0.1-	910907	809	0.9+	0.4+
890103	046	0.2-	0.1+	910814	809	0.3+	0.5-	910907	809	0.9-	0.9+
890103	046	2.0+	0.3+	910814	809	0.9+	0.3-	910907	809	1.2-	0.9+

1991 RP11 = 2105 T-1 = 1976 SU7

Epoch 1992 June 27.0 TT = JDT 2448800.5				Williams	
M 74.35084		(2000.0)	P	Q	
n 0.25879076	Peri.	208.21592	+0.83526007	+0.54942745	
a 2.4387664	Node	118.44019	-0.49973150	+0.77497778	
e 0.1543144	Incl.	1.41292	-0.22936664	+0.31231222	
P 3.81	H	15.0	G 0.15		

Residuals in seconds of arc

710324	675	0.2-	1.9-	710327	675	1.0-	1.5+	910802	809	0.1+	0.4-
710325	675	0.1+	0.2-	710402	675	0.7+	0.5-	910802	809	0.8-	1.2-
710325	675	0.1-	0.4+	760925	095	0.9+	2.1-	910814	809	1.3+	0.6+
710326	675	0.1-	0.6-	910802	809	0.1-	1.7-	910814	809	1.2+	0.1+

910814 809 0.9+ 0.0 910904 809 1.7- 0.5+ 910907 809 0.7- 0.8+
910904 809 0.3+ 0.0 910907 809 0.4+ 0.9+
910904 809 1.5- 0.2+ 910907 809 0.2+ 1.2+

1991 RD12 = 1979 BT2
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 348.38037 (2000.0) P Q
n 0.20653979 Peri. 281.89883 +0.65146655 -0.75726157
a 2.8344376 Node 127.34899 +0.71678703 +0.59433725
e 0.1175936 Incl. 3.34092 +0.24861153 +0.27077324
P 4.77 H 13.5 G 0.15
Residuals in seconds of arc
790127 675 0.9- 0.2+ 910805 809 1.5+ 2.0- 910904 809 0.6+ 0.4+
790129 675 0.9+ 0.1- 910805 809 1.2+ 0.5- 910906 809 0.2+ 0.8-
910803 809 1.7- 0.7+ 910805 809 0.4+ 0.4- 910906 809 1.1- 0.3-
910803 809 0.8- 0.8+ 910904 809 1.0+ 0.7+ 910906 809 0.8- 0.7-
910803 809 0.8- 1.4+ 910904 809 0.3+ 0.8+

1991 RY16 = 1982 XP1
Id. K. Ichikawa (MPC 20339)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 185.85648 (2000.0) P Q
n 0.20500902 Peri. 163.60322 -0.68630602 +0.71856440
a 2.8485296 Node 62.89954 -0.68068018 -0.58009683
e 0.0700591 Incl. 7.25813 -0.25623920 -0.38360509
P 4.81 H 12.4 G 0.15
Residuals in seconds of arc
550322 675 0.8+ 0.5+ 821214 381 0.7- 0.3- 910915 675 0.5- 0.4-
550322 675 0.8- 0.5- 821214 381 0.4+ 0.5- 910917 675 0.4- 0.7-
821213 381 0.4- 0.2- 910912 675 0.1+ 1.6+ 910917 675 0.2- 0.1+
821213 381 0.6+ 1.0+ 910915 675 1.0+ 0.6-

1991 RX23 = 1981 UL28
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 8.46286 (2000.0) P Q
n 0.18801514 Peri. 38.62523 +0.82327415 -0.56752000
a 3.0176868 Node 355.89841 +0.47088716 +0.69446527
e 0.0360947 Incl. 9.54665 +0.31699362 +0.44231102
P 5.24 H 12.9 G 0.15
Residuals in seconds of arc
811024 675 0.3+ 0.0 910908 691 0.6- 0.6- 910912 675 0.3+ 0.2+
811025 675 0.6+ 0.3+ 910908 691 0.4- 0.5- 910912 675 0.6+ 0.4+
811026 675 0.9- 0.3- 910911 675 1.2+ 0.5+ 910916 675 (2.6- 3.4+)
910908 691 0.8- 0.3- 910911 675 0.1+ 0.5+ 910916 675 0.4- 0.2-

1991 RH25 = 1977 SM2
Id. G. V. Williams
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 90.62587 (2000.0) P Q
n 0.28245779 Peri. 288.46495 +0.99189029 +0.05417390
a 2.3005606 Node 68.55913 +0.00140837 +0.89986939
e 0.1654064 Incl. 7.09538 -0.12708918 +0.43278202
P 3.49 H 13.1 G 0.15
Residuals in seconds of arc
531207 675 0.2- 0.7+ 910911 675 0.2+ 0.3- 911109 808 (7.3- 1.3+)
531207 675 0.2+ 0.7- 910913 675 0.3- 0.1- 911109 808 0.1- 0.2-
770919 095 0.1- 0.2+ 911101 808 0.7+ 0.4- 911112 808 0.7- 0.9+
910911 675 0.1- 0.4+ 911101 808 0.5+ 0.1- 911112 808 0.1- 0.2-

1991 UH4 = 1935 SO = 1963 TO = 1984 WU4
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 108.17837 (2000.0) P Q
n 0.28308104 Peri. 101.62358 +0.99400192 +0.05525606
a 2.2971826 Node 255.26223 -0.08677385 +0.92372380
e 0.2306883 Incl. 5.60025 +0.06656180 +0.37905292
P 3.48 H 14.0 G 0.15
Residuals in seconds of arc

350921	024	0.4+	0.8-	911031	033	0.4-	0.7-	911202 675	0.8-	0.8-
631013	760	1.2-	0.2+	911101	033	1.1-	0.1-	911202 675	0.2-	1.9-
631013	760	0.4+	1.3+	911110	033	1.6+	0.1-	911213 691	0.6-	1.0+
841120	010	0.1+	0.1+	911111	033	1.2+	0.3+	911213 691	0.9-	1.0+
841121	010	1.2+	2.4+	911201	675	0.8+	0.1-	911213 691	0.4-	1.1+
911030	033	0.5-	1.0-	911201	675	0.1+	2.3-			

1991 UM4 = 1983 RD8 = 1990 LC
Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda
M 214.80012 (2000.0) P Q
n 0.26300785 Peri. 241.80241 -0.53190071 +0.84680218
a 2.4126273 Node 356.06027 -0.76207519 -0.48010576
e 0.1586059 Incl. 2.31608 -0.36921950 -0.22896403
P 3.75 H 13.0 G 0.15
Residuals in seconds of arc

830911	095	0.2+	0.4-	911019	399	0.5+	0.7+	911031 399	0.4+	1.0+
900614	413	0.1-	0.0	911019	399	1.0+	0.9+	911109 399	1.1-	1.8-
900615	413	0.1+	0.2+	911029	399	1.2-	0.9-	911109 399	0.1+	1.0-
911018	399	1.1+	1.9+	911029	399	2.2-	2.2-			
911018	399	1.9+	1.6+	911031	399	0.6-	0.2+			

1991 UO4 = 1981 RP4 = 1981 SY3
Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda
M 152.74884 (2000.0) P Q
n 0.30230583 Peri. 322.32508 +0.49120171 +0.87002223
a 2.1987290 Node 337.00259 -0.77059885 +0.41145217
e 0.0947269 Incl. 6.20324 -0.40607670 +0.27160346
P 3.26 H 13.6 G 0.15
Residuals in seconds of arc

810905	095	0.2-	0.1+	911028	399	0.6+	0.2+	911109 399	1.6+	0.9+
810925	095	0.6+	0.9-	911028	399	2.0-	0.5-	911109 399	(2.6+	3.7+)
910930	399	0.0	0.7+	911029	399	0.4+	0.9-	911111 399	1.0+	0.1-
910930	399	1.7-	1.8+	911029	399	0.9-	0.3-	911111 399	0.8+	1.0-

1991 VB
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 72.80386 (2000.0) P Q
n 0.29431418 Peri. 134.15548 +0.85334051 -0.50995802
a 2.2383531 Node 256.78692 +0.44090294 +0.81685852
e 0.4098860 Incl. 6.39362 +0.27823476 +0.26960153
P 3.35 H 17.0 G 0.15
From 16 observations 1991 Sept. 15-1992 Jan. 13, mean residual 0".92.

1991 VA1 = 1988 DU4 = 1990 ON
Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda
M 115.14554 (2000.0) P Q
n 0.17056087 Peri. 68.60941 +0.67710886 +0.71802627
a 3.2202020 Node 245.06386 -0.72368610 +0.61002860
e 0.1175755 Incl. 10.23533 -0.13342423 +0.33511697
P 5.78 H 11.7 G 0.15

Residuals in seconds of arc

880225	413	0.4+	0.7-	900721	675	0.6+	0.0	911111	399	0.3-	0.8-
880225	413	0.4-	0.8+	911104	399	1.5+	0.6+	911111	399	2.2-	2.2-
900718	675	0.4+	0.3-	911104	399	0.1-	0.5+	911204	399	0.9+	0.0
900718	675	0.5-	0.1-	911105	399	1.3+	0.1+	911204	399	0.1+	0.3+
900721	675	0.5-	0.5+	911105	399	1.1-	1.5+				

1991 VJ3 = 1984 UH
Id. G. V. Williams
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell

M	56.03252	(2000.0)	P	Q	
n	0.29229672	Peri.	19.62677	+0.29138977	-0.95452945
a	2.2486408	Node	53.48176	+0.86686595	+0.23564481
e	0.1398839	Incl.	4.49409	+0.40451875	+0.18260626
P	3.37	H	13.9	G 0.15	

Residuals in seconds of arc

541123	675	0.5-	0.7-	911111	881	1.2+	0.2-	911213	881	0.5-	0.1-
541123	675	0.6+	1.0-	911114	881	0.9+	0.3+	911228	033	0.1-	1.4+
560508	675	0.1+	0.2+	911114	881	0.2-	0.1+	911228	033	0.2+	1.3+
841023	688	0.9+	0.8-	911202	881	0.6-	0.5+	920103	033	0.3-	0.2-
841023	688	0.9-	0.8+	911202	881	1.0-	0.8-	920103	033	0.2+	0.1-
911111	881	0.3+	0.7+	911213	881	0.5-	1.1-				

1991 VX3 = 1976 HC1
Id. G. V. Williams
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell

M	16.80817	(2000.0)	P	Q	
n	0.29195867	Peri.	61.92048	-0.42754460	-0.90362545
a	2.2503762	Node	53.41458	+0.81770487	-0.39875423
e	0.0768741	Incl.	1.84268	+0.38544048	-0.15638449
P	3.38	H	13.9	G 0.15	

Residuals in seconds of arc

541123	675	0.4-	0.3+	911113	399	0.6+	0.1-	911214	691	0.0	0.5+
541123	675	0.3+	0.1+	911113	399	1.8+	0.1+	911214	691	0.2-	0.4+
760430	808	0.3-	0.8-	911205	399	1.6-	0.5-	911214	691	0.2-	0.5+
760430	808	0.2-	0.6-	911205	399	(2.5-	0.5+)	920224	691	0.3+	0.9+
911111	881	(4.1+	0.5-)	911207	399	1.1-	1.5-	920224	691	0.8-	0.6-
911111	399	1.1+	0.4-	911207	399	0.3-	0.7-	920224	691	0.5+	1.3+
911111	881	(3.8+	1.2+)	911209	399	0.8-	0.7-				
911111	399	(2.8+	0.3+)	911209	399	1.1+	0.2-				

1991 VC4
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell

M	39.46094	(2000.0)	P	Q	
n	0.25681609	Peri.	194.81138	+0.54664738	-0.82732193
a	2.4512516	Node	222.27042	+0.78648691	+0.56027538
e	0.1905541	Incl.	11.08182	+0.28742821	+0.04037223
P	3.84	H	12.8	G 0.15	

From 8 observations 1991 Sept. 12-Dec. 8, mean residual 0".52.

1992 EU1 = 1982 HC1
Id. S. Nakano
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell

M	50.88277	(2000.0)	P	Q	
n	0.29320341	Peri.	56.59684	-0.96721962	-0.22597840
a	2.2440027	Node	110.11037	+0.17199959	-0.91858963
e	0.1323520	Incl.	7.08640	+0.18682170	-0.32423271
P	3.36	H	13.1	G 0.15	

Residuals in seconds of arc

531010	675	0.0	0.3-	920403	400	(4.9+	2.7-)	920422	402	0.6-	0.1-
531010	675	0.0	0.2+	920405	402	0.3+	0.2-	920422	402	0.5+	0.3-
820424	688	1.3-	0.9-	920405	402	0.0	0.3+	920426	402	0.3+	0.1+
820424	688	0.7+	0.6-	920407	400	0.5+	0.3+	920426	402	1.2+	0.8+
920312	402	0.8+	1.6-	920407	400	0.1+	0.3+	920505	402	0.2-	0.6+
920312	402	1.7-	0.2+	920407	402	0.3-	0.4+	920505	402	0.4-	0.2+
920403	400	(0.4+	2.8+)	920407	402	0.1+	0.2+				

1992 HE

Epoch 1992 June 27.0 TT = JDT 2448800.5					Williams
M	1.70868		(2000.0)	P	Q
n	0.29380540	Peri.	262.59962	+0.24728651	+0.92803310
a	2.2409364	Node	27.32066	-0.45723871	+0.36524569
e	0.5717706	Incl.	37.36978	-0.85427287	+0.07314478
P	3.35	H	14.0	G 0.15	

From 30 observations 1992 Apr. 25-Aug. 4, mean residual 0".63.

1992 HL

Epoch 1992 June 27.0 TT = JDT 2448800.5					Bardwell
M	356.92965		(2000.0)	P	Q
n	0.23403629	Peri.	61.52544	-0.36356529	+0.93081243
a	2.6078378	Node	187.45482	-0.92338629	-0.36540725
e	0.2013244	Incl.	16.81373	-0.12319919	-0.00810917
P	4.21	H	12.5	G 0.15	

From 8 observations 1992 Apr. 30-July 26, mean residual 0".63.

1992 JA

Epoch 1992 June 27.0 TT = JDT 2448800.5					Bardwell
M	31.74978		(2000.0)	P	Q
n	0.27454565	Peri.	326.52575	-0.89171531	+0.30564099
a	2.3445509	Node	234.88427	-0.27072569	-0.95124609
e	0.2018812	Incl.	24.08438	-0.36270017	-0.04140607
P	3.59	H	13.0	G 0.15	

From 11 observations 1992 May 1-July 26, mean residual 0".76.

1992 JB

Epoch 1992 May 18.0 TT = JDT 2448760.5					Bardwell
M	35.95182		(2000.0)	P	Q
n	0.50737951	Peri.	306.71695	-0.94757880	-0.26899349
a	1.5568524	Node	218.54247	+0.29922393	-0.93634469
e	0.3601119	Incl.	16.06657	-0.11206902	-0.22561278
P	1.94	H	17.0	G 0.15	

From 44 observations 1992 Apr. 26-July 3.

1992 JE

Epoch 1992 June 27.0 TT = JDT 2448800.5					Williams
M	344.17857		(2000.0)	P	Q
n	0.30408217	Peri.	109.46603	+0.54987503	+0.83488258
a	2.1901578	Node	193.97415	-0.79952359	+0.51758235
e	0.4629860	Incl.	5.86315	-0.24165982	+0.18729546
P	3.24	H	16.0	G 0.15	

From 32 observations 1992 May 2-Aug. 5, mean residual 0".77.

1992 JG
Epoch 1992 May 18.0 TT = JDT 2448760.5 Williams
M 329.56495 (2000.0) P Q
n 0.28923935 Peri. 239.29462 +0.47038924 +0.87853406
a 2.2644590 Node 58.99081 -0.77284110 +0.45560238
e 0.4246307 Incl. 5.56647 -0.42597019 +0.14354227
P 3.41 H 17.0 G 0.15
From 22 observations 1992 May 2-July 5.

1992 JP
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bardwell
M 38.56881 (2000.0) P Q
n 0.17352396 Peri. 66.61053 -0.93418790 +0.27385002
a 3.1834382 Node 128.47699 -0.32261223 -0.92209977
e 0.0653012 Incl. 16.98504 +0.15236248 -0.27338285
P 5.68 H 11.0 G 0.15
From 11 observations 1992 May 2-July 31, mean residual 1".23.

1992 JN1
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 320.15768 (2000.0) P Q
n 0.23649473 Peri. 217.98468 +0.60974730 +0.75722264
a 2.5897335 Node 90.83394 -0.65774349 +0.64825281
e 0.1740843 Incl. 13.54247 -0.44224623 +0.07988852
P 4.17 H 12.5 G 0.15
From 18 observations 1992 May 6-Aug. 5, mean residual 0".83.

1992 KD
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bardwell
M 9.61661 (2000.0) P Q
n 0.27509938 Peri. 355.34246 -0.52794983 +0.73344713
a 2.3414037 Node 242.18290 -0.76272360 -0.63121345
e 0.4337178 Incl. 28.95394 -0.37352602 +0.25223975
P 3.58 H 16.0 G 0.15
From 39 observations 1992 May 27-July 4.

1992 KE = 1977 NL = 1980 EL1
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 330.69648 (2000.0) P Q
n 0.25635922 Peri. 184.78811 +0.36327985 +0.92308503
a 2.4541631 Node 106.55653 -0.85036668 +0.38388543
e 0.1370252 Incl. 7.56911 -0.38066293 +0.02336665
P 3.84 H 13.0 G 0.15
Residuals in seconds of arc

770714 095	0.2+	0.8-	920528 402	2.5-	0.5-	920626 675	0.2+	0.7+
800315 095	0.2-	0.4-	920602 402	1.6+	0.4-	920626 675	0.4+	0.1-
920525 402	1.5+	0.7+	920602 402	0.2+	1.9+	920628 675	0.4+	0.7+
920525 402	1.2-	1.5-	920625 675	0.3+	0.1+	920628 675	0.0	0.0
920528 402	0.9-	0.9-	920625 675	0.4+	0.1-			

1992 LC
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 20.77357 (2000.0) P Q
n 0.24659809 Peri. 89.59911 -0.83725498 -0.47514530
a 2.5185055 Node 62.01272 +0.29358761 -0.80814978
e 0.7055657 Incl. 17.84676 +0.46131379 -0.34803860
P 4.00 H 15.5 G 0.15
From 15 observations 1992 June 4-Aug. 5, mean residual 0".93.

1992 LG = 1985 BO1 = 1988 AU5 = 1990 WY12
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 52.20344 (2000.0) P Q
n 0.30726054 Peri. 83.27921 -0.97397703 +0.22102609
a 2.1750280 Node 109.48092 -0.22323310 -0.89724951
e 0.0518932 Incl. 3.05003 -0.03918845 -0.38221823
P 3.21 H 14.0 G 0.15
Residuals in seconds of arc

850120 691	0.6+	0.3-	901124 400	0.8+	2.0-	920605 675	(5.0+	2.4-)
850120 691	0.1-	0.3-	920428 675	0.5+	0.4-	920606 675	0.9-	0.0
850120 691	0.1+	0.1+	920428 675	0.3-	0.3+	920606 675	0.1+	1.0-
880111 033	1.2-	0.1+	920603 675	0.3+	0.9-	920625 675	0.9-	1.1-
880111 033	0.3-	0.0	920603 675	0.2-	0.4-	920625 675	0.1+	0.3-
901124 400	1.2+	2.8-	920605 675	0.3-	0.8-			

1992 LK = 1982 SN = 1982 UR11
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 330.25952 (2000.0) P Q
n 0.28390919 Peri. 224.87694 +0.50195246 +0.85800200
a 2.2927133 Node 75.54030 -0.75858704 +0.49726941
e 0.2263984 Incl. 6.46195 -0.41543884 +0.12866897
P 3.47 H 14.0 G 0.15
Residuals in seconds of arc

820922 688	2.0+	0.8-	920603 675	0.1+	0.4+	920627 675	0.7-	1.2+
820922 688	0.4-	0.7-	920605 675	0.1-	0.0	920627 675	1.0+	0.7-
821021 095	1.6-	1.3+	920606 675	0.3-	0.1+	920629 675	0.1+	0.2+
920428 675	1.3-	0.3-	920606 675	0.1+	0.4+	920629 675	0.7+	0.1-
920428 675	0.1+	1.0-	920625 675	0.6+	0.2-			
920603 675	0.5+	0.3-	920625 675	0.5-	0.2+			

1992 LP = 1969 VF1
Epoch 1992 June 27.0 TT = JDT 2448800.5 Ichikawa
M 286.66897 (2000.0) P Q
n 0.29063017 Peri. 243.79780 +0.96825126 +0.24492517
a 2.2572288 Node 101.99141 -0.20720893 +0.89827595
e 0.1830962 Incl. 2.93066 -0.13983549 +0.36484514
P 3.39 H 13.6 G 0.15
Residuals in seconds of arc

691111 095	0.7+	0.9+	920606 675	0.2+	0.7-	920627 675	0.1+	0.8+
691113 095	0.7-	0.9-	920625 675	1.2+	0.2-	920627 675	1.0-	1.0-
920603 675	0.5+	0.1-	920625 675	0.7-	0.3-	920628 675	1.9-	1.5+
920603 675	0.4+	0.1-	920625 675	2.0+	0.5+	920628 675	1.6+	0.1+
920605 675	0.3+	0.1-	920625 675	0.7+	0.6+	920629 675	0.4-	0.6+
920605 675	1.8-	1.2+	920626 675	0.5-	0.4-	920629 675	0.8-	2.2-
920606 675	0.1+	0.2-	920626 675	(0.4-	3.7+)			

1992 LR
Epoch 1992 June 27.0 TT = JDT 2448800.5 Marsden
M 348.70572 (2000.0) P Q
n 0.39806447 Peri. 67.50206 +0.51350715 +0.85761602
a 1.8302079 Node 233.42660 -0.79969291 +0.46631129
e 0.4088242 Incl. 2.02484 -0.31112965 +0.21690676
P 2.48 H 18.0 G 0.15
From 77 observations 1992 May 21-Aug. 3, mean residual 0".67.

1992 MA = 1976 OP = 1982 SB8 = 1987 QO1 = 1988 VF11
Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda
M 339.75769 (2000.0) P Q
n 0.18160446 Peri. 91.60126 +0.41112791 +0.91157411
a 3.0882921 Node 202.67498 -0.83895927 +0.37728305
e 0.1540027 Incl. 0.37826 -0.35654058 +0.16337115
P 5.43 H 12.0 G 0.15
Residuals in seconds of arc

760727	095	1.5+	0.7+	881102	400	0.1+	1.2-	920625	399	2.1-	0.0
760801	095	1.2-	0.5-	881102	400	0.5+	1.5+	920627	399	0.8+	0.8-
820919	095	0.8-	0.2-	920622	399	0.7-	1.8-	920627	399	0.2+	1.1+
820927	095	0.1-	0.8-	920622	399	0.2+	0.6+	920627	399	0.3+	1.4+
870830	046	1.5+	1.1+	920625	399	0.0	0.8-	920629	399	0.7+	0.9-
870830	046	0.8-	0.4-	920625	399	0.0	0.7+				

1992 NA
Epoch 1992 July 17.0 TT = JDT 2448820.5 Williams
M 344.18638 (2000.0) P Q
n 0.26642647 Peri. 7.83352 +0.99867167 +0.04151136
a 2.3919447 Node 349.63913 -0.05144340 +0.83673767
e 0.5615623 Incl. 9.77153 +0.00290904 +0.54602827
P 3.70 H 16.5 G 0.15
From 18 observations 1992 July 1-Aug. 2.

1992 NM = 1949 WW
Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano
M 288.61424 (2000.0) P Q
n 0.29409423 Peri. 253.33756 +0.97840992 -0.19811405
a 2.2394689 Node 118.05619 +0.20574660 +0.90673308
e 0.1071423 Incl. 3.82454 +0.01955428 +0.37227133
P 3.35 H 14.0 G 0.15
Residuals in seconds of arc

491119	675	0.4-	0.1-	920708	894	1.3-	0.1+	920723	894	0.3+	1.1+
491119	675	0.4+	0.9+	920708	894	2.4+	0.3-	920726	894	0.4-	1.2-
491121	675	0.6-	0.2-	920709	894	0.8-	0.4-				
491121	675	0.5+	0.6-	920709	894	0.2-	0.8+				

1992 OJ = 1973 QH1 = 1986 AP1 = 1986 AM2
Id. G. V. Williams, F. N. Bowman (d, MPC 10610)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 10.62920 (2000.0) P Q
n 0.20531076 Peri. 310.03382 -0.06013068 +0.97340160
a 2.8457379 Node 314.96065 -0.79397872 -0.18086838
e 0.2629588 Incl. 18.20580 -0.60496454 +0.14062699
P 4.80 H 12.0 G 0.15
Residuals in seconds of arc

730829	095	0.6+	1.1-	860112	688	(5.5+	0.9-)	920730	413	0.7+	0.1-
730902	095	0.2-	0.5+	860112	688	0.6-	1.0+	920731	413	0.4+	0.0
860111	688	1.7-	1.1-	920727	413	0.7+	0.6+	920731	413	0.0	0.4-
860111	688	1.5-	1.5-	920727	413	1.0+	0.4-	920805	413	1.3-	0.5-
860117	688	2.4+	0.2-	920730	413	0.5-	0.4+	920805	413	1.1-	0.6-
860117	688	(3.7+	0.2-)	920730	413	0.4+	0.1-				

1992 OM
Epoch 1992 July 17.0 TT = JDT 2448820.5 Williams
M 1.26234 (2000.0) P Q
n 0.31466396 Peri. 346.73941 +0.50924849 +0.85469567
a 2.1407768 Node 313.76647 -0.77632032 +0.40564788
e 0.3970424 Incl. 8.02382 -0.37147374 +0.32395232
P 3.13 H 15.5 G 0.15
From 5 observations 1992 July 27-Aug. 4.

2835 P-L = 1981 UX27
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 299.22687 (2000.0) P Q
n 0.28364207 Peri. 114.89019 -0.66149281 -0.74894886
a 2.2941525 Node 16.70589 +0.63018902 -0.58313664
e 0.1517702 Incl. 7.75058 +0.40655759 -0.31468599
P 3.47 H 13.8 G 0.15
Residuals in seconds of arc
550420 675 0.3- 0.3- 600927 675 0.0 0.5+ 601026 675 0.5+ 0.7+
550420 675 0.2+ 0.0 600928 675 0.6- 0.6- 811024 675 0.6+ 0.6+
600924 675 0.2- 0.8- 601017 675 0.2- 0.2- 811025 675 0.8+ 0.8-
600926 675 0.6+ 0.8+ 601017 675 0.0 0.4- 811026 675 1.4- 0.0

3063 P-L = 1991 RX29
Id. E. Bowell
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 217.56205 (2000.0) P Q
n 0.15998188 Peri. 270.74886 -0.91787815 +0.38077704
a 3.3606414 Node 291.63843 -0.29912266 -0.84898958
e 0.0084965 Incl. 6.91061 -0.26081669 -0.36636805
P 6.16 H 12.5 G 0.15
Residuals in seconds of arc
600924 675 0.1+ 0.3+ 600928 675 0.5+ 0.0 910914 675 0.9- 0.3+
600925 675 0.2+ 0.4+ 600929 675 0.7+ 0.8- 910916 675 0.6+ 0.2-
600926 675 0.7+ 0.0 600929 675 0.9- 0.4+ 910916 675 0.2+ 0.0
600927 675 0.1- 0.1+ 910914 675 0.4+ 0.0

1136 T-2 = 1977 RM15
Id. E. Bowell (MPC 17976)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 65.20319 (2000.0) P Q
n 0.24219911 Peri. 344.49036 -0.93140920 -0.36393204
a 2.5489092 Node 174.15892 +0.33943401 -0.87397697
e 0.0702977 Incl. 3.10365 +0.13138283 -0.32205236
P 4.07 H 14.0 G 0.15
Residuals in seconds of arc
491121 675 0.0 0.1+ 730929 675 0.5+ 1.3- 731005 675 0.2- 0.1+
730919 675 0.1- 0.7+ 730929 675 (0.5+ 2.5-) 731005 675 0.7+ 1.2+
730919 675 0.0 0.2+ 730930 675 0.1- 0.0 731005 675 0.4- 0.7-
730920 675 1.1- 1.5+ 730930 675 0.2- 0.2- 731005 675 1.2+ 0.4+
730924 675 0.3+ 0.5- 731004 675 (0.4- 2.9-) 770909 675 0.2+ 0.9+
730924 675 1.5- 0.3- 731004 675 1.0+ 1.1+ 770910 675 0.2- 0.7-
730925 675 (2.8- 3.2-) 731004 675 0.1+ 1.3-
730925 675 0.7- 0.7- 731004 675 0.4+ 0.3-

1128 T-3 = 4192 P-L
Id. K. Hurukawa (MPC 12802)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M 265.01389	(2000.0)	P	Q	
n 0.17569451	Peri. 335.31825	+0.81469488	+0.57812864	
a 3.1571649	Node 349.01556	-0.48486377	+0.63640378	
e 0.1337716	Incl. 13.71033	-0.31808705	+0.51064420	
P 5.61	H 13.5	G 0.15		

Residuals in seconds of arc

540729	675	1.2+	0.2+	600928	675	0.3+	0.5-	771017	675	0.0	0.2-
540729	675	0.3+	1.2-	771007	675	0.7+	1.3-	771017	675	0.4-	0.9+
600924	675	0.5+	0.3-	771011	675	1.6+	0.6+	771022	675	(0.1-	2.6-)
600925	675	0.6+	0.6-	771011	675	0.0	1.8+	771022	675	(0.7+	2.6-)
600925	675	0.0	0.9-	771012	675	0.0	0.1+	880818	511	1.9-	1.9+
600926	675	0.0	1.0-	771012	675	0.9+	0.1+	880818	511	2.3-	2.1+
600926	675	0.2+	0.8-	771016	675	1.4-	0.0				
600928	675	0.4+	1.2-	771016	675	0.8-	0.4+				

3398 T-3 = 1991 YN
Id. G. V. Williams (MPC 19691)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell

M 85.69626	(2000.0)	P	Q	
n 0.28969112	Peri. 266.93992	+0.52058110	-0.85361210	
a 2.2621041	Node 151.66471	+0.79801439	+0.47874806	
e 0.1276737	Incl. 2.23205	+0.30359240	+0.20529659	
P 3.40	H 15.0	G 0.15		

Residuals in seconds of arc

501209	675	0.9-	1.4+	771012	675	1.2+	0.0	771017	675	0.3-	0.2-
501209	675	0.3+	1.3+	771012	675	0.3-	0.7-	771021	675	0.2+	0.3+
530917	675	1.4-	1.3-	771012	675	1.9+	0.0	771021	675	0.2-	0.6+
530917	675	2.0+	0.5-	771012	675	0.1+	0.8-	911230	511	0.9+	1.7-
771007	675	0.6-	1.5-	771016	675	0.0	0.1+	911230	511	0.8+	0.9-
771011	675	0.9-	1.0+	771016	675	0.4+	1.0-	911231	511	1.1-	0.2-
771011	675	1.7-	1.2+	771017	675	0.1+	1.2+	911231	511	0.9-	0.4-

* * * * *

EPHEMERIDES.

1973 NA a,e,i = 2.43, 0.64, 68 Elements MPC 20627

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992	08 06	14 38.9	-73 34.6	0.851	1.474	104.1	41.9	17.6
1992	08 16	14 43.3	-72 47.7	1.050	1.565	98.7	39.7	18.2
1992	08 26	14 58.2	-72 31.3	1.244	1.655	93.9	37.5	18.6
1992	09 05	15 20.0	-72 33.9	1.433	1.744	89.5	35.3	18.9
1992	09 15	15 47.3	-72 46.9	1.615	1.831	85.3	33.2	19.2
1992	09 25	16 19.3	-73 02.7	1.789	1.917	81.4	31.2	19.5
1992	10 05	16 55.6	-73 15.3	1.956	2.000	77.8	29.3	19.7
1992	10 15	17 35.5	-73 18.9	2.115	2.081	74.4	27.5	19.9
1992	10 25	18 18.0	-73 08.4	2.265	2.160	71.2	25.8	20.1
1992	11 04	19 01.6	-72 40.3	2.407	2.237	68.2	24.3	20.3
1992	11 14	19 45.0	-71 52.8	2.540	2.312	65.5	22.9	20.4

1992 LC a,e,i = 2.52, 0.71, 18 Elements MPC 20645

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992	08 06	15 17.19	-29 09.7	1.382	1.857	100.5	32.5	18.9
1992	08 16	15 35.71	-30 23.8	1.578	1.952	95.3	31.1	19.3
1992	08 26	15 54.05	-31 23.3	1.779	2.044	89.9	29.6	19.6
1992	09 05	16 12.34	-32 11.2	1.982	2.134	84.4	28.0	19.9
1992	09 15	16 30.62	-32 49.5	2.186	2.221	78.7	26.4	20.1
1992	09 25	16 48.90	-33 19.3	2.389	2.305	73.0	24.6	20.3

1992 10 05	17 07.19	-33 41.4	2.589	2.387	67.2	22.7	20.5
1992 10 15	17 25.47	-33 56.4	2.785	2.466	61.3	20.8	20.7
1992 10 25	17 43.68	-34 04.6	2.973	2.543	55.3	18.8	20.9

1992 KD a,e,i = 2.34, 0.43, 29 Elements MPC 20645

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992 08 06	16 36.27	+16 59.8	0.875	1.508	105.7	40.4	18.2
1992 08 16	16 54.50	+16 20.1	0.976	1.552	102.6	39.5	18.5
1992 08 26	17 13.37	+15 21.8	1.080	1.600	99.8	38.5	18.7
1992 09 05	17 32.86	+14 13.6	1.188	1.650	97.1	37.3	19.0
1992 09 15	17 52.89	+13 02.5	1.299	1.701	94.3	36.1	19.2
1992 09 25	18 13.36	+11 53.3	1.414	1.754	91.4	34.9	19.4
1992 10 05	18 34.20	+10 50.0	1.534	1.807	88.4	33.6	19.6
1992 10 15	18 55.29	+09 55.9	1.658	1.861	85.1	32.3	19.8
1992 10 25	19 16.50	+09 12.7	1.787	1.915	81.7	30.9	20.0
1992 11 04	19 37.77	+08 42.0	1.919	1.969	78.0	29.5	20.2
1992 11 14	19 58.96	+08 24.4	2.055	2.023	74.2	28.1	20.3
1992 11 24	20 20.00	+08 19.9	2.193	2.076	70.1	26.6	20.5
1992 12 04	20 40.83	+08 28.2	2.333	2.129	65.9	25.0	20.6

1992 OM a,e,i = 2.14, 0.40, 8 Elements MPC 20648

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992 08 06	22 30.22	-05 54.6	0.317	1.311	156.6	17.9	14.5
1992 08 16	22 25.45	-01 51.2	0.327	1.330	164.2	11.9	14.4
1992 08 26	22 19.29	+01 15.9	0.351	1.356	168.4	8.6	14.5
1992 09 05	22 14.11	+03 23.3	0.388	1.387	165.3	10.6	14.8
1992 09 15	22 11.73	+04 41.0	0.438	1.422	158.4	15.1	15.3
1992 09 25	22 12.84	+05 24.5	0.502	1.462	150.8	19.5	15.8
1992 10 05	22 17.52	+05 49.4	0.578	1.504	143.4	23.4	16.3
1992 10 15	22 25.37	+06 08.4	0.667	1.550	136.3	26.4	16.8
1992 10 25	22 35.76	+06 29.1	0.767	1.597	129.6	28.7	17.2

1992 NA a,e,i = 2.39, 0.56, 10 Elements MPC 20647

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992 08 06	23 15.46	-46 56.9	0.179	1.157	139.6	34.7	14.5
1992 08 11	23 43.54	-44 22.5	0.153	1.132	138.6	36.3	14.2
1992 08 16	00 15.83	-39 51.6	0.129	1.111	137.6	37.9	13.8
1992 08 21	00 51.83	-32 27.3	0.108	1.092	136.1	40.0	13.4
1992 08 26	01 30.12	-21 12.5	0.093	1.076	133.2	43.2	13.2
1992 08 31	02 08.62	-06 16.3	0.086	1.064	127.9	48.5	13.1
1992 09 05	02 45.22	+09 49.6	0.087	1.055	120.7	55.2	13.3
1992 09 10	03 18.35	+23 41.7	0.097	1.050	114.1	61.0	13.7
1992 09 15	03 47.14	+33 58.9	0.112	1.049	109.8	64.5	14.1
1992 09 20	04 11.35	+41 10.8	0.130	1.051	107.7	65.6	14.5
1992 09 25	04 31.01	+46 12.6	0.150	1.057	107.3	64.9	14.8
1992 09 30	04 46.37	+49 47.4	0.171	1.067	108.1	63.1	15.0
1992 10 05	04 57.72	+52 23.7	0.192	1.080	109.8	60.6	15.2
1992 10 10	05 05.36	+54 19.3	0.212	1.097	112.3	57.4	15.4
1992 10 15	05 09.50	+55 44.7	0.233	1.116	115.2	53.9	15.5
1992 10 20	05 10.29	+56 45.9	0.253	1.138	118.6	50.2	15.7
1992 10 25	05 07.94	+57 25.8	0.273	1.163	122.3	46.2	15.8
1992 10 30	05 02.86	+57 44.8	0.293	1.190	126.3	42.2	15.9
1992 11 04	04 55.69	+57 43.1	0.314	1.219	130.5	38.2	15.9
1992 11 09	04 47.15	+57 21.0	0.336	1.250	134.7	34.3	16.0
1992 11 14	04 38.02	+56 39.5	0.360	1.282	138.8	30.6	16.1
1992 11 19	04 28.99	+55 40.2	0.385	1.315	142.6	27.1	16.2
1992 11 24	04 20.69	+54 25.7	0.414	1.350	145.9	24.2	16.4
1992 11 29	04 13.62	+52 59.6	0.445	1.385	148.5	21.9	16.5
1992 12 04	04 08.06	+51 25.9	0.479	1.421	150.1	20.3	16.7

1992 HE a,e,i = 2.24, 0.57, 37 Elements MPC 20644

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992 08 06	04 25.31	-15 28.5	0.792	1.128	76.2	60.8	15.9
1992 08 16	04 23.80	-11 09.1	0.772	1.196	83.0	57.2	15.9
1992 08 26	04 18.90	-06 45.6	0.742	1.269	91.5	52.7	15.8
1992 09 05	04 09.06	-02 09.7	0.707	1.347	102.0	47.1	15.7
1992 09 15	03 52.74	+02 45.4	0.674	1.426	114.7	39.8	15.5
1992 09 25	03 28.83	+07 56.4	0.653	1.506	129.6	30.9	15.3
1992 10 05	02 57.81	+13 02.2	0.654	1.586	146.1	20.6	15.1
1992 10 15	02 22.94	+17 26.1	0.687	1.665	162.6	10.3	15.0
1992 10 25	01 49.45	+20 39.3	0.754	1.743	171.2	5.0	15.0
1992 11 04	01 21.96	+22 42.1	0.855	1.821	160.6	10.4	15.6
1992 11 14	01 02.44	+23 55.8	0.984	1.896	147.9	16.1	16.2
1992 11 24	00 50.54	+24 43.5	1.134	1.970	136.3	20.2	16.8
1992 12 04	00 45.01	+25 21.6	1.301	2.042	126.0	23.0	17.2
1992 12 14	00 44.43	+25 59.4	1.480	2.113	116.6	24.6	17.6
1992 12 24	00 47.61	+26 41.1	1.666	2.181	108.0	25.4	18.0
1993 01 03	00 53.68	+27 28.7	1.858	2.247	100.0	25.5	18.3
1993 01 13	01 01.96	+28 22.3	2.051	2.312	92.4	25.2	18.5
1993 01 23	01 11.97	+29 21.5	2.243	2.375	85.3	24.4	18.8
1993 02 02	01 23.36	+30 25.6	2.433	2.435	78.4	23.4	19.0
1993 02 12	01 35.87	+31 33.6	2.618	2.494	71.9	22.1	19.1
1993 02 22	01 49.32	+32 44.5	2.797	2.551	65.5	20.7	19.3
1993 03 04	02 03.58	+33 57.5	2.967	2.606	59.4	19.1	19.4
1993 03 14	02 18.51	+35 11.5	3.127	2.659	53.5	17.5	19.5
1993 03 24	02 34.06	+36 25.8	3.276	2.711	47.9	15.8	19.6
1993 04 03	02 50.15	+37 39.6	3.413	2.760	42.5	14.2	19.7
1993 04 13	03 06.72	+38 52.1	3.537	2.808	37.5	12.5	19.7
1993 04 23	03 23.73	+40 02.9	3.647	2.854	32.8	11.0	19.8

1992 JG a,e,i = 2.26, 0.42, 6 Elements MPC 20645

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992 08 26	15 57.50	-27 49.9	0.826	1.304	89.9	50.8	19.0
1992 09 05	16 33.18	-29 34.9	0.857	1.304	88.3	50.6	19.1
1992 09 15	17 11.73	-30 43.7	0.894	1.311	87.1	50.0	19.2
1992 09 25	17 52.08	-31 08.9	0.938	1.325	86.0	49.0	19.3
1992 10 05	18 33.02	-30 47.3	0.991	1.346	85.1	47.7	19.4
1992 10 15	19 13.27	-29 40.7	1.054	1.374	84.0	46.2	19.6
1992 10 25	19 51.85	-27 54.8	1.127	1.406	82.8	44.5	19.7
1992 11 04	20 28.18	-25 37.7	1.211	1.444	81.3	42.8	19.9
1992 11 14	21 02.01	-22 58.4	1.305	1.485	79.4	40.9	20.0
1992 11 24	21 33.41	-20 04.7	1.409	1.530	77.2	39.0	20.2
1992 12 04	22 02.59	-17 03.1	1.522	1.578	74.6	37.0	20.4

1992 JE a,e,i = 2.19, 0.46, 6 Elements MPC 20644

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992 08 26	16 53.25	-09 00.1	0.462	1.179	99.7	57.6	16.8
1992 09 05	17 35.32	-11 20.7	0.475	1.192	100.8	56.2	16.8
1992 09 15	18 20.21	-13 14.1	0.499	1.214	102.3	54.0	16.9
1992 09 25	19 05.88	-14 26.7	0.536	1.244	103.7	51.6	17.0
1992 10 05	19 50.36	-14 52.3	0.589	1.282	104.6	49.0	17.2
1992 10 15	20 32.07	-14 33.4	0.656	1.325	104.7	46.7	17.5
1992 10 25	21 10.24	-13 38.5	0.739	1.374	103.9	44.6	17.7
1992 11 04	21 44.82	-12 16.7	0.835	1.427	102.4	42.8	18.0
1992 11 14	22 16.11	-10 36.5	0.944	1.483	100.1	41.1	18.3
1992 11 24	22 44.61	-08 44.6	1.065	1.540	97.2	39.5	18.6
1992 12 04	23 10.86	-06 45.5	1.195	1.600	93.9	37.9	18.9
1992 12 14	23 35.30	-04 42.9	1.335	1.660	90.1	36.4	19.2
1992 12 24	23 58.33	-02 39.1	1.482	1.721	86.0	34.8	19.5

1993 01 03	00 20.28	-00 36.0	1.634	1.781	81.7	33.1	19.7
1993 01 13	00 41.38	+01 25.0	1.791	1.842	77.2	31.4	19.9
1993 01 23	01 01.83	+03 22.7	1.950	1.902	72.5	29.6	20.1
1993 02 02	01 21.80	+05 16.1	2.110	1.961	67.7	27.7	20.3

Comet Bradfield (1992i) Elements MPC 20481

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1
1992 08 26	08 48.28	+29 29.7	2.655	1.834	28.7	15.4	15.8
1992 09 05	08 51.33	+30 39.9	2.678	1.980	37.8	18.2	16.1
1992 09 15	08 53.12	+32 00.2	2.672	2.124	47.3	20.4	16.4
1992 09 25	08 53.27	+33 33.7	2.643	2.264	57.3	21.9	16.7
1992 10 05	08 51.23	+35 23.5	2.594	2.402	67.8	22.7	16.9
1992 10 15	08 46.35	+37 31.3	2.533	2.537	78.8	22.7	17.1
1992 10 25	08 37.79	+39 57.3	2.468	2.669	90.5	21.9	17.2
1992 11 04	08 24.53	+42 37.7	2.407	2.799	102.8	20.2	17.4
1992 11 14	08 05.58	+45 23.1	2.362	2.927	115.5	17.8	17.5
1992 11 24	07 40.34	+47 57.4	2.342	3.053	128.3	14.7	17.7
1992 12 04	07 09.26	+49 59.0	2.357	3.177	140.2	11.5	17.9
1992 12 14	06 34.64	+51 08.7	2.416	3.300	149.1	8.8	18.1
1992 12 24	06 00.14	+51 19.0	2.520	3.420	152.0	7.8	18.3
1993 01 03	05 29.46	+50 37.9	2.669	3.539	147.6	8.6	18.6
1993 01 13	05 04.77	+49 23.6	2.859	3.656	138.8	10.2	18.9
1993 01 23	04 46.46	+47 54.9	3.081	3.772	128.4	11.8	19.2
1993 02 02	04 33.90	+46 25.5	3.329	3.886	117.7	13.0	19.5
1993 02 12	04 26.07	+45 03.9	3.593	3.999	107.3	13.6	19.8

Periodic Comet Giacobini-Zinner (1991m) Elements MPC 14592

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m2
1992 09 05	08 23.09	-04 44.5	2.749	2.079	40.0	18.1	20.2
1992 09 15	08 39.43	-06 35.3	2.772	2.168	44.2	18.9	20.4
1992 09 25	08 54.19	-08 27.3	2.785	2.256	48.9	19.6	20.5
1992 10 05	09 07.34	-10 19.6	2.785	2.342	54.1	20.2	20.6
1992 10 15	09 18.84	-12 11.3	2.774	2.427	59.6	20.8	20.7
1992 10 25	09 28.59	-14 01.3	2.752	2.511	65.7	21.1	20.7
1992 11 04	09 36.48	-15 48.3	2.720	2.593	72.1	21.3	20.8
1992 11 14	09 42.35	-17 30.4	2.679	2.674	79.1	21.3	20.8
1992 11 24	09 46.04	-19 05.4	2.632	2.754	86.5	21.0	20.8
1992 12 04	09 47.37	-20 30.3	2.582	2.832	94.3	20.3	20.8
1992 12 14	09 46.23	-21 41.5	2.532	2.909	102.5	19.3	20.8
1992 12 24	09 42.61	-22 34.6	2.486	2.984	111.0	17.9	20.8
1993 01 03	09 36.63	-23 04.9	2.450	3.058	119.6	16.2	20.7
1993 01 13	09 28.68	-23 08.4	2.428	3.130	128.0	14.3	20.7
1993 01 23	09 19.37	-22 42.4	2.424	3.202	135.5	12.4	20.7
1993 02 02	09 09.50	-21 47.0	2.444	3.272	141.3	10.8	20.7
1993 02 12	08 59.96	-20 25.4	2.489	3.340	144.3	9.9	20.7
1993 02 22	08 51.54	-18 44.0	2.561	3.408	143.5	9.9	20.8
1993 03 04	08 44.82	-16 50.4	2.661	3.474	139.4	10.7	21.0

Comet Levy (1990 XX) Elements MPC 20602

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1
1992 09 05	09 03.19	+32 01.5	8.480	7.694	36.5	4.5	18.0
1992 09 15	09 06.88	+32 09.0	8.455	7.776	44.9	5.2	18.0
1992 09 25	09 10.07	+32 20.8	8.411	7.857	53.6	5.9	18.1
1992 10 05	09 12.64	+32 37.2	8.349	7.939	62.6	6.4	18.1
1992 10 15	09 14.50	+32 58.6	8.275	8.020	71.8	6.8	18.1
1992 10 25	09 15.55	+33 25.0	8.191	8.100	81.3	7.0	18.2
1992 11 04	09 15.69	+33 56.5	8.103	8.181	91.0	7.0	18.2
1992 11 14	09 14.85	+34 32.6	8.016	8.261	100.9	6.8	18.2
1992 11 24	09 12.97	+35 12.6	7.935	8.340	111.0	6.3	18.2

1992 12 04	09 10.02	+35 55.6	7.867	8.419	121.2	5.7	18.2
1992 12 14	09 06.03	+36 40.0	7.817	8.498	131.3	5.0	18.3
1992 12 24	09 01.08	+37 24.3	7.789	8.577	141.1	4.1	18.3
1993 01 03	08 55.30	+38 06.6	7.788	8.655	150.2	3.2	18.3
1993 01 13	08 48.91	+38 44.9	7.819	8.733	157.1	2.5	18.4
1993 01 23	08 42.17	+39 17.9	7.881	8.811	159.7	2.2	18.4
1993 02 02	08 35.37	+39 44.4	7.977	8.888	156.3	2.6	18.5
1993 02 12	08 28.81	+40 03.7	8.104	8.966	149.1	3.2	18.6
1993 02 22	08 22.77	+40 16.0	8.261	9.042	140.1	4.0	18.6
1993 03 04	08 17.47	+40 21.6	8.444	9.119	130.5	4.7	18.7
1993 03 14	08 13.08	+40 21.5	8.648	9.195	120.7	5.3	18.8
1993 03 24	08 09.67	+40 16.5	8.868	9.271	110.9	5.8	18.9
1993 04 03	08 07.31	+40 07.7	9.100	9.347	101.3	6.0	19.0
1993 04 13	08 05.96	+39 56.2	9.337	9.422	91.8	6.1	19.1

Periodic Comet Vaisala 1 Elements MPC 16379

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m2
1992 09 15	07 43.22	+14 57.3	3.192	2.787	57.7	17.8	21.0
1992 09 25	07 58.39	+14 22.1	3.015	2.723	63.7	19.3	20.7
1992 10 05	08 13.31	+13 43.1	2.835	2.660	69.8	20.7	20.5
1992 10 15	08 27.89	+13 01.4	2.652	2.597	76.0	21.9	20.3
1992 10 25	08 42.02	+12 18.5	2.468	2.534	82.3	22.9	20.0
1992 11 04	08 55.57	+11 36.1	2.284	2.473	88.9	23.6	19.7
1992 11 14	09 08.40	+10 56.6	2.103	2.412	95.7	24.1	19.4
1992 11 24	09 20.32	+10 22.8	1.927	2.352	102.8	24.2	19.1
1992 12 04	09 31.10	+09 58.0	1.758	2.293	110.3	23.8	18.8
1992 12 14	09 40.51	+09 46.2	1.597	2.236	118.1	22.8	18.5
1992 12 24	09 48.25	+09 52.2	1.447	2.181	126.6	21.2	18.2
1993 01 03	09 54.01	+10 20.6	1.311	2.128	135.6	18.9	17.9
1993 01 13	09 57.56	+11 15.7	1.192	2.077	145.3	15.6	17.6
1993 01 23	09 58.75	+12 39.9	1.091	2.029	155.7	11.5	17.3
1993 02 02	09 57.70	+14 31.6	1.013	1.984	166.6	6.6	17.0
1993 02 12	09 55.00	+16 43.2	0.957	1.943	175.8	2.1	16.8
1993 02 22	09 51.59	+19 02.1	0.926	1.906	168.6	5.9	16.6
1993 03 04	09 48.83	+21 12.1	0.918	1.873	157.5	11.7	16.5
1993 03 14	09 48.07	+22 58.9	0.930	1.844	146.8	17.2	16.5
1993 03 24	09 50.30	+24 13.5	0.960	1.821	137.0	21.9	16.5
1993 04 03	09 56.04	+24 51.8	1.004	1.803	128.3	25.8	16.6
1993 04 13	10 05.26	+24 54.3	1.059	1.791	120.6	28.8	16.7
1993 04 23	10 17.57	+24 23.5	1.123	1.784	113.8	31.0	16.8
1993 05 03	10 32.46	+23 22.6	1.194	1.783	107.8	32.5	16.9
1993 05 13	10 49.28	+21 55.9	1.272	1.789	102.6	33.5	17.0
1993 05 23	11 07.51	+20 07.2	1.356	1.800	97.8	33.9	17.2
1993 06 02	11 26.70	+18 00.6	1.446	1.816	93.5	33.9	17.4
1993 06 12	11 46.48	+15 40.6	1.542	1.838	89.4	33.5	17.6
1993 06 22	12 06.58	+13 10.8	1.644	1.866	85.6	32.9	17.8
1993 07 02	12 26.85	+10 35.0	1.753	1.898	81.9	32.0	18.0
1993 07 12	12 47.14	+07 56.7	1.867	1.934	78.2	31.0	18.2
1993 07 22	13 07.41	+05 18.7	1.986	1.974	74.5	29.7	18.4
1993 08 01	13 27.63	+02 43.7	2.111	2.018	70.7	28.3	18.7
1993 08 11	13 47.76	+00 13.8	2.241	2.066	66.9	26.8	18.9
1993 08 21	14 07.82	-02 09.2	2.374	2.116	63.0	25.2	19.1
1993 08 31	14 27.81	-04 23.9	2.510	2.168	58.9	23.5	19.4
1993 09 10	14 47.72	-06 29.2	2.648	2.223	54.7	21.7	19.6
1993 09 20	15 07.57	-08 24.4	2.787	2.280	50.3	19.8	19.8
1993 09 30	15 27.33	-10 08.7	2.924	2.338	45.7	17.9	20.0
1993 10 10	15 46.99	-11 41.9	3.059	2.397	41.0	15.9	20.2
1993 10 20	16 06.53	-13 03.7	3.191	2.458	36.2	13.8	20.4
1993 10 30	16 25.91	-14 13.9	3.316	2.520	31.2	11.8	20.6

Comet Helin-Alu (1992a) Elements MPC 19818

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1
1992	09 15	11 10.59	-26 37.3	3.916	3.087	30.1	9.4	16.4
1992	09 25	11 27.99	-28 53.1	3.942	3.110	29.6	9.2	16.4
1992	10 05	11 45.62	-31 10.3	3.964	3.136	29.8	9.1	16.5
1992	10 15	12 03.44	-33 27.5	3.981	3.165	30.7	9.3	16.5
1992	10 25	12 21.42	-35 43.9	3.993	3.196	32.3	9.6	16.6
1992	11 04	12 39.51	-37 58.3	3.998	3.230	34.5	10.0	16.6
1992	11 14	12 57.66	-40 09.8	3.998	3.267	37.3	10.6	16.7
1992	11 24	13 15.79	-42 17.4	3.992	3.305	40.6	11.2	16.7
1992	12 04	13 33.79	-44 20.6	3.978	3.346	44.4	11.9	16.7
1992	12 14	13 51.55	-46 18.5	3.958	3.390	48.7	12.6	16.8
1992	12 24	14 08.91	-48 11.0	3.930	3.435	53.3	13.3	16.8
1993	01 03	14 25.65	-49 57.5	3.896	3.482	58.3	13.9	16.9
1993	01 13	14 41.56	-51 37.9	3.855	3.531	63.7	14.5	16.9
1993	01 23	14 56.35	-53 12.3	3.808	3.581	69.4	14.9	16.9
1993	02 02	15 09.71	-54 40.4	3.755	3.633	75.4	15.2	17.0
1993	02 12	15 21.29	-56 02.2	3.699	3.687	81.6	15.4	17.0
1993	02 22	15 30.73	-57 17.2	3.641	3.742	88.1	15.3	17.0
1993	03 04	15 37.64	-58 24.7	3.583	3.798	94.9	15.1	17.1
1993	03 14	15 41.71	-59 23.2	3.527	3.856	101.8	14.6	17.1
1993	03 24	15 42.72	-60 10.6	3.477	3.915	108.9	13.9	17.1
1993	04 03	15 40.63	-60 44.1	3.434	3.974	115.9	13.1	17.2
1993	04 13	15 35.71	-61 00.6	3.404	4.035	122.7	12.1	17.2
1993	04 23	15 28.55	-60 57.2	3.387	4.096	129.1	11.0	17.3
1993	05 03	15 20.05	-60 31.8	3.389	4.159	134.6	9.9	17.3
1993	05 13	15 11.30	-59 44.5	3.411	4.222	138.6	9.1	17.4
1993	05 23	15 03.30	-58 37.4	3.455	4.286	140.6	8.6	17.5
1993	06 02	14 56.88	-57 14.4	3.522	4.350	140.2	8.6	17.6
1993	06 12	14 52.49	-55 40.9	3.613	4.416	137.5	8.9	17.7
1993	06 22	14 50.31	-54 02.1	3.727	4.481	132.9	9.6	17.9

1990 VA a,e,i = 0.99, 0.28, 14 Elements MPC 19307

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992	10 05	06 00.76	+25 47.4	0.426	1.165	101.9	57.1	20.0
1992	10 15	06 03.12	+20 59.6	0.388	1.194	111.2	51.1	19.7
1992	10 25	05 58.04	+15 11.7	0.351	1.217	122.0	43.8	19.3
1992	11 04	05 43.89	+08 18.7	0.320	1.236	134.0	35.2	18.9
1992	11 14	05 20.37	+00 42.2	0.302	1.249	145.3	26.8	18.6
1992	11 24	04 49.80	-06 31.6	0.301	1.257	150.3	22.9	18.5
1992	12 04	04 17.82	-11 58.4	0.318	1.260	145.2	26.5	18.7
1992	12 14	03 50.84	-15 00.4	0.351	1.258	135.2	33.5	19.1
1992	12 24	03 32.20	-15 57.3	0.394	1.251	124.7	40.3	19.6
1993	01 03	03 22.30	-15 28.7	0.441	1.238	115.3	45.9	19.9
1993	01 13	03 19.83	-14 09.5	0.489	1.220	107.1	50.4	20.2

Periodic Comet Wiseman-Skiff (1986 XV) Elements MPC 16380

Date	TT	R. A. (2000)	Decl.	Delta	r	Variation		m2
1992	10 15	21 09.40	+07 26.5	2.021	2.637	-0.68	-8.4	21.2
1992	10 25	21 10.58	+06 35.6	2.076	2.574	-0.65	-7.9	21.2
1992	11 04	21 14.53	+05 55.4	2.136	2.511	-0.63	-7.5	21.1
1992	11 14	21 21.06	+05 28.2	2.198	2.448	-0.63	-7.0	21.1
1992	11 24	21 29.94	+05 15.4	2.261	2.385	-0.63	-6.6	21.0
1992	12 04	21 40.95	+05 17.8	2.320	2.321	-0.65	-6.3	21.0
1992	12 14	21 53.87	+05 35.4	2.373	2.258	-0.67	-6.0	20.9
1992	12 24	22 08.52	+06 08.0	2.421	2.195	-0.70	-5.8	20.8
1993	01 03	22 24.74	+06 55.2	2.461	2.132	-0.75	-5.7	20.7
1993	01 13	22 42.42	+07 55.9	2.493	2.070	-0.80	-5.5	20.6
1993	01 23	23 01.47	+09 09.1	2.518	2.009	-0.86	-5.4	20.5

1993 02 02	23 21.85	+10 33.3	2.535	1.950	-0.92	-5.3	20.4
1993 02 12	23 43.53	+12 06.6	2.546	1.892	-1.00	-5.2	20.3
1993 02 22	00 06.54	+13 47.1	2.550	1.836	-1.08	-5.0	20.2
1993 03 04	00 30.89	+15 32.1	2.549	1.782	-1.16	-4.7	20.0

Comet Shoemaker-Levy (1991a1) Elements MPC 20602

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1
1992 10 15	12 22.26	-36 01.6	2.433	1.654	30.6	17.9	11.6
1992 10 25	12 23.46	-40 04.9	2.509	1.787	35.0	18.6	12.0
1992 11 04	12 23.52	-44 09.7	2.564	1.920	40.4	19.6	12.4
1992 11 14	12 21.76	-48 18.2	2.601	2.051	46.6	20.5	12.7
1992 11 24	12 17.20	-52 31.1	2.626	2.181	53.1	21.2	13.0
1992 12 04	12 08.37	-56 46.1	2.641	2.310	59.9	21.7	13.2
1992 12 14	11 53.11	-60 56.8	2.653	2.437	66.7	21.8	13.5
1992 12 24	11 28.36	-64 50.5	2.666	2.562	73.3	21.6	13.7
1993 01 03	10 50.47	-68 04.8	2.685	2.686	79.5	21.1	13.9
1993 01 13	09 58.1	-70 07.5	2.715	2.809	85.1	20.4	14.2
1993 01 23	08 57.1	-70 27.7	2.762	2.929	89.9	19.6	14.4
1993 02 02	08 00.70	-68 59.5	2.827	3.049	93.4	18.8	14.6
1993 02 12	07 18.12	-66 09.4	2.912	3.167	95.7	18.1	14.8
1993 02 22	06 49.96	-62 33.8	3.018	3.283	96.7	17.4	15.1
1993 03 04	06 32.95	-58 41.5	3.145	3.399	96.2	16.9	15.3
1993 03 14	06 23.69	-54 51.4	3.289	3.512	94.7	16.4	15.5
1993 03 24	06 19.70	-51 14.6	3.448	3.625	92.2	16.0	15.8
1993 04 03	06 19.34	-47 57.0	3.619	3.737	89.0	15.5	16.0
1993 04 13	06 21.49	-45 01.8	3.797	3.847	85.3	15.1	16.2
1993 04 23	06 25.40	-42 29.7	3.981	3.956	81.3	14.6	16.5
1993 05 03	06 30.56	-40 20.7	4.166	4.064	77.2	14.0	16.7
1993 05 13	06 36.57	-38 33.8	4.349	4.171	73.2	13.4	16.9
1993 05 23	06 43.16	-37 08.0	4.527	4.277	69.4	12.8	17.1
1993 06 02	06 50.11	-36 01.9	4.699	4.382	65.8	12.2	17.3
1992 08 26	00 13.33	+10 04.2	1.944	2.833	145.2	11.7	16.6
- 5.06 -1.00	+9.3 - 7.7	1989 EQ	20635	- 8.25 +0.08	- 31.4 - 4.6		
1992 09 25	23 51.36	+09 25.4	1.783	2.777	170.5	3.4	16.0
1992 09 25	01 15.12	+06 14.9	1.513	2.488	162.5	7.0	18.3
- 8.33 -0.81	- 34.5 - 3.9	3176 T-2	18133	- 8.20 +0.85	- 31.3 + 5.1		
1992 10 25	00 47.25	+04 19.6	1.511	2.471	160.6	7.7	18.3
1992 09 25	01 13.55	-11 07.8	2.301	3.261	159.8	6.1	17.9
- 7.74 -0.52	- 60.1 + 4.0	1982 DK	10828	- 7.45 +0.60	- 15.8 + 9.6		
1992 10 25	00 48.70	-13 12.1	2.352	3.246	149.2	9.0	18.0
1992 10 25	02 23.17	+07 37.3	1.010	2.000	+2.82	+12.9	16.4
- 8.86 -0.13	- 64.0 + 4.3	1988 PK	20633	- 3.80 +1.50	-9.9 +11.4		
1992 11 24	02 01.18	+05 33.4	1.169	2.071	+2.40	+11.1	17.2
1992 10 25	03 51.32	+15 02.3	0.916	1.856	152.6	14.3	16.5
- 5.92 -1.67	- 66.9 - 3.6	1982 SL1	13685	- 8.83 +0.83	- 51.2 + 9.0		
1992 11 24	03 24.56	+11 41.8	0.916	1.892	167.7	6.4	16.2
1992 10 25	03 49.77	+17 00.7	2.029	2.949	152.8	8.9	17.0
- 6.43 -0.91	- 24.4 - 2.2	1986 QA4	14476	- 8.13 +0.40	- 25.8 + 2.1		
1992 11 24	03 25.51	+15 37.5	2.006	2.984	170.5	3.1	16.7
1992 10 25	03 52.08	+22 14.8	1.737	2.652	151.2	10.4	17.5
- 6.78 -1.13	- 19.9 - 4.8	1981 EZ18	19858	- 9.08 +0.46	- 38.4 - 0.3		
1992 11 24	03 25.32	+20 38.9	1.685	2.666	171.9	3.0	17.1

1992 10 25	03 54.27	+27 28.3	0.932	1.856	149.0	16.0	16.6
- 6.19 -1.84	- 19.6 -10.9	1985 TP3	11740	- 9.44 +0.90	- 68.1 - 2.3		
1992 11 24	03 25.73	+25 00.8	0.926	1.907	171.0	4.7	16.1
1992 10 25	03 56.92	+20 23.9	1.521	2.436	150.6	11.6	17.9
- 8.10 -1.27	- 43.7 - 5.1	(4855)	18402	-10.33 +0.62	- 56.0 + 2.1		
1992 11 24	03 25.78	+17 41.1	1.503	2.484	171.4	3.4	17.5
1992 10 25	03 52.95	+11 31.0	1.895	2.813	152.1	9.5	16.0
- 6.79 -0.99	-3.1 + 0.5	1975 LR	19010	- 8.82 +0.39	+9.3 + 3.5		
1992 11 24	03 26.97	+11 34.8	1.867	2.841	168.0	4.1	15.7
1992 10 25	03 55.92	+24 57.7	1.161	2.080	149.6	14.0	15.7
- 6.65 -1.57	- 20.7 - 7.8	1980 RC1	18416	- 9.51 +0.73	- 53.1 - 1.0		
1992 11 24	03 27.42	+22 54.4	1.154	2.136	172.1	3.6	15.3
1992 10 25	03 56.08	+03 01.9	1.943	2.845	149.6	10.2	16.4
- 7.37 -1.04	- 20.4 + 3.4	1990 FP	16586	- 9.76 +0.34	+ 15.4 + 7.8		
1992 11 24	03 27.84	+02 46.4	1.878	2.829	160.6	6.7	16.1
1992 10 25	03 59.63	+40 40.5	1.491	2.350	141.1	15.4	16.6
- 7.53 -1.67	+ 37.7 -12.2	1987 MK	12322	-11.07 +0.68	- 45.9 -12.3		
1992 11 24	03 27.37	+40 28.7	1.451	2.399	158.9	8.5	16.3
1992 10 25	03 54.51	+27 42.8	1.779	2.680	148.8	11.1	16.1
- 6.38 -1.13	- 11.5 - 6.6	1981 SW7	18421	- 8.60 +0.47	- 44.3 - 2.8		
1992 11 24	03 29.08	+26 12.0	1.749	2.729	171.0	3.3	15.7
1992 10 25	03 58.04	+20 44.5	1.614	2.525	150.3	11.3	17.1
- 7.25 -1.36	- 14.9 - 4.4	(5009)	19287	-10.76 +0.37	- 32.6 - 0.3		
1992 11 24	03 27.83	+19 26.0	1.503	2.485	172.4	3.0	16.6
1992 10 25	04 02.42	+24 14.3	1.200	2.112	148.4	14.3	18.3
- 8.17 -1.64	-5.2 - 6.8	1981 EZ22	10540	-11.23 +0.76	- 37.3 - 1.9		
1992 11 24	03 28.87	+23 01.4	1.196	2.179	172.4	3.4	17.9
1992 10 25	04 00.42	+21 45.5	1.610	2.518	149.5	11.6	17.7
- 7.01 -1.43	+ 12.1 - 3.4	1986 GD	13858	-11.19 +0.26	-7.8 - 2.1		
1992 11 24	03 29.99	+21 49.5	1.472	2.455	172.9	2.8	17.1
1992 10 25	03 54.63	+03 59.1	2.189	3.092	150.3	9.2	17.5
- 6.00 -0.84	- 45.4 + 2.3	1986 QS3	16427	- 7.82 +0.30	- 14.5 + 7.4		
1992 11 24	03 31.81	+02 19.9	2.162	3.110	160.5	6.1	17.3
1992 10 25	03 57.87	+23 36.2	1.352	2.266	149.6	12.8	15.6
- 5.66 -1.46	+ 27.7 - 4.4	1982 YL1	17433	- 9.24 +0.45	+0.4 - 3.3		
1992 11 24	03 31.97	+24 16.5	1.301	2.283	172.6	3.2	15.1
1992 10 25	03 57.19	+15 20.6	1.839	2.753	151.2	10.0	18.2
- 5.96 -1.05	-8.6 - 1.1	1975 VB1	18281	- 8.36 +0.34	-5.9 + 2.3		
1992 11 24	03 33.15	+14 52.6	1.799	2.779	171.5	3.0	17.8
1992 10 25	04 10.19	+48 22.6	2.049	2.838	134.7	14.4	17.6
- 9.25 -1.63	+ 12.1 -12.4	1991 NQ	18827	-12.98 +0.58	- 76.1 -14.0		
1992 11 24	03 32.75	+46 49.9	1.935	2.851	153.2	9.0	17.3
1992 10 25	04 00.82	+22 44.7	1.972	2.871	149.2	10.2	17.9
- 6.30 -1.09	- 39.8 - 5.2	1981 DZ	18805	- 9.04 +0.29	- 59.7 - 0.3		
1992 11 24	03 35.26	+20 06.4	1.871	2.855	174.2	2.0	17.4

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1992 10 25    03 59.94   +21 15.4    2.340    3.238   149.7     8.9    18.0
- 6.30 -0.88  - 15.7 - 3.1   1986 TR3    19500   - 8.28 +0.29  - 27.3 - 0.1
1992 11 24    03 35.91   +20 05.4    2.300    3.284   174.4     1.7    17.6

1992 10 25    04 03.55   +09 27.8    1.666    2.572   149.3    11.4    16.4
- 5.62 -1.16  - 51.0 + 0.2   1991 NE3    20023   - 8.54 +0.30  - 28.3 + 7.1
1992 11 24    03 39.62   +07 16.1    1.616    2.585   165.8     5.4    16.0

1992 10 25    04 08.87   +17 08.8    1.238    2.148   148.2    14.1    17.1
- 7.01 -1.53  - 34.6 - 3.0   1988 PM1    20501   -10.23 +0.58  - 33.8 + 3.8
1992 11 24    03 39.11   +15 13.6    1.244    2.227   172.7     3.2    16.7

1992 10 25    04 04.56   +11 51.0    1.720    2.625   149.3    11.1    16.3
- 5.85 -1.15  - 38.7 - 0.5   1991 NM6    20023   - 8.75 +0.30  - 24.3 + 5.3
1992 11 24    03 39.98   +10 05.8    1.668    2.643   168.5     4.3    15.9

1992 10 25    04 07.90   +34 11.7    1.971    2.832   143.4    12.1    17.0
- 6.34 -1.26    +9.2 - 7.6   1986 PS4    18810   - 9.62 +0.31  - 39.4 - 6.9
1992 11 24    03 41.07   +33 25.3    1.893    2.862   166.5     4.6    16.6

1992 10 25    04 11.68   +27 41.4    1.859    2.736   145.3    11.9    17.8
- 6.90 -1.44  + 43.4 - 3.6   1981 GG     10544   -11.70 +0.08  + 10.7 - 6.1
1992 11 24    03 40.98   +29 07.4    1.702    2.680   170.4     3.5    17.1

1992 10 25    04 04.80   +19 44.5    2.027    2.924   148.9    10.1    16.8
- 5.26 -1.07  - 18.3 - 3.0    (5204)     20133   - 8.36 +0.17  - 28.4 + 0.3
1992 11 24    03 42.09   +18 28.3    1.907    2.892   175.3     1.6    16.2

1992 10 25    04 10.99   +20 37.8    1.755    2.646   147.3    11.7    18.5
- 6.54 -1.34    -7.2 - 3.3   1979 HE3    11518   -10.60 +0.18  - 22.2 - 0.7
1992 11 24    03 42.48   +19 48.9    1.630    2.616   175.8     1.6    17.9

1992 10 25    04 07.09   -01 32.2    2.311    3.180   145.4    10.2    17.0
- 5.63 -0.85  - 51.3 + 4.0   1987 YL1    18627   - 7.77 +0.21    -9.3 + 9.1
1992 11 24    03 45.04   -03 12.5    2.294    3.220   155.9     7.2    16.9

1992 10 25    04 10.94   +24 42.4    2.247    3.125   146.4    10.1    16.8
- 6.66 -1.08  - 22.3 - 4.7   1991 PA12   20338   - 9.69 +0.19  - 45.4 - 1.9
1992 11 24    03 44.09   +22 55.8    2.128    3.114   175.6     1.4    16.2

1992 10 25    04 16.73   +24 50.7    1.024    1.926   145.1    17.2    16.9
- 6.60 -2.00  + 23.9 - 6.1   1975 TE     14011   -11.65 +0.59  - 15.1 - 4.7
1992 11 24    03 44.57   +25 01.4    1.011    1.996   174.3     2.8    16.3

1992 10 25    04 12.02   +23 00.6    1.997    2.880   146.6    11.0    17.2
- 5.91 -1.15  - 10.5 - 3.9    (4926)     18786   - 9.17 +0.19  - 28.9 - 1.4
1992 11 24    03 46.92   +21 57.0    1.909    2.895   176.7     1.1    16.6

1992 10 25    04 11.07   +19 47.1    1.863    2.753   147.4    11.2    17.1
- 5.28 -1.17  - 15.5 - 2.9    (4960)     18801   - 8.64 +0.18  - 25.1 + 0.4
1992 11 24    03 47.70   +18 40.2    1.778    2.765   176.6     1.2    16.5

1992 10 25    04 15.85   +17 12.4    1.261    2.161   146.6    14.7    18.0
- 6.01 -1.59  - 33.8 - 2.9   3105 T-3    15425   -10.12 +0.40  - 34.0 + 3.5
1992 11 24    03 47.98   +15 18.9    1.236    2.220   174.0     2.7    17.5

1992 10 25    04 11.88   +09 46.0    1.993    2.880   147.3    10.7    16.7
- 5.23 -1.02  - 60.6 - 0.1    (4934)     18790   - 8.00 +0.19  - 41.5 + 6.3
1992 11 24    03 49.79   +07 01.0    1.945    2.914   166.2     4.6    16.4
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1992 10 25    04 12.25   +24 00.5    1.081    1.986   146.3    16.1    17.0
- 3.56 -1.80  + 10.6 - 5.4   1981 EZ47   14016   - 9.14 +0.26  - 20.2 - 3.2
1992 11 24    03 49.40   +23 42.1    1.008    1.994   176.0     2.0    16.3

1992 10 25    04 26.95   +18 57.7    1.325    2.207   143.8    15.4    15.7
- 6.65 -2.06  + 84.3 + 4.6   1986 AK     12959   -16.20 -0.58  + 94.3 - 2.5
1992 11 24    03 49.97   +23 39.1    1.098    2.084   176.2     1.8    14.5

1992 10 25    04 15.76   -01 58.8    2.207    3.062   143.2    11.2    15.8
- 5.20 -0.96  - 41.7 + 4.3    (4967)     19004   - 8.03 +0.11    +2.2 + 9.5
1992 11 24    03 53.93   -03 07.8    2.146    3.075   156.2     7.4    15.6

1992 10 25    04 27.55   +43 43.1    1.843    2.643   135.1    15.4    16.8
- 6.97 -1.73  + 29.1 -10.0   1983 NR     18424   -12.25 +0.24  - 48.1 -13.3
1992 11 24    03 55.07   +43 20.9    1.744    2.681   157.2     8.2    16.4

1992 10 25    04 23.36   +23 29.9    1.513    2.389   143.9    14.2    18.6
- 5.87 -1.51  - 38.8 - 5.7   5490 T-2    18834   -10.28 +0.23  - 62.0 - 0.5
1992 11 24    03 55.92   +20 49.1    1.444    2.431   179.0     0.4    17.8

1992 10 25    04 23.23   -01 17.9    1.854    2.705   141.8    13.1    17.3
- 6.69 -1.14  -107.1 + 3.9   1991 GA1    18439   - 9.72 +0.23  - 52.0 +13.2
1992 11 24    03 56.08   -05 33.7    1.859    2.780   153.8     9.0    17.2

1992 10 25    04 23.42   +09 27.4    1.995    2.863   144.5    11.6    17.5
- 6.36 -1.11  - 41.5 + 0.6    (4853)     18401   - 9.54 +0.17  - 22.4 + 5.6
1992 11 24    03 57.20   +07 42.3    1.952    2.923   167.1     4.3    17.2

1992 10 25    04 18.97   +20 33.3    2.099    2.972   145.5    10.9    16.7
- 4.60 -1.12  - 14.6 - 2.8   1988 BZ1    13450   - 8.38 +0.01  - 25.8 - 0.3
1992 11 24    03 57.42   +19 28.2    1.950    2.938   178.8     0.4    15.9

1992 10 25    04 21.85   +23 48.0    1.825    2.695   144.2    12.5    17.2
- 5.08 -1.27    -4.8 - 3.9   1986 RX2    19861   - 8.92 +0.14  - 24.7 - 1.9
1992 11 24    03 58.26   +23 00.1    1.760    2.746   177.5     0.9    16.6

1992 10 25    04 21.98   +18 21.4    1.701    2.580   145.0    12.8    15.8
- 4.48 -1.30  - 14.4 - 2.2    (4940)     18792   - 8.60 +0.09  - 19.0 + 1.1
1992 11 24    03 59.81   +17 25.3    1.622    2.608   176.8     1.2    15.1

1992 11 24    04 02.73   +12 53.8    1.865    2.846   172.3     2.7    17.4
- 9.80 +0.11  - 52.1 + 3.4   1991 LC1    18641   - 5.30 +1.21  - 18.3 + 6.9
1992 12 24    03 38.05   +11 01.6    2.048    2.884   141.6    12.2    18.1

1992 11 24    04 03.20   +22 36.2    1.369    2.356   177.8     0.9    17.2
-10.63 -0.12  - 33.5 - 3.0   1220 T-1    19320   - 5.41 +1.61  - 27.8 + 4.7
1992 12 24    03 35.95   +20 49.8    1.438    2.308   144.1    14.5    17.9

1992 11 24    04 03.67   +23 52.7    1.382    2.368   176.6     1.4    16.3
-11.93 +0.11  - 13.0 - 3.6   1985 UK3    18285   - 5.66 +1.66  - 13.9 + 3.2
1992 12 24    03 34.43   +22 59.8    1.548    2.415   144.1    13.8    17.2

1992 11 24    04 04.61   +26 39.5    1.312    2.296   173.8     2.7    15.7
-11.99 +0.10  - 22.6 - 5.5   1985 TO     18284   - 5.40 +1.74  - 29.3 + 3.2
1992 12 24    03 35.53   +25 05.4    1.470    2.342   144.6    14.1    16.5

1992 11 24    04 06.27   +32 39.2    1.963    2.935   167.8     4.1    15.7
- 9.60 +0.09  - 38.9 - 6.4   1986 TL     20144   - 4.89 +1.27  - 54.1 + 1.5
1992 12 24    03 42.36   +30 04.9    2.133    3.002   146.3    10.5    16.2
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1992 11 24	04 06.44	-06 34.3	1.175	2.102	152.8	12.4	16.7
-10.30 +0.23	+ 12.6 +18.0	1981 OH	13455	- 3.98 +1.56	+ 96.8 + 8.6		
1992 12 24	03 42.58	-03 32.4	1.375	2.183	134.9	18.6	17.3
1992 11 24	04 06.70	+08 16.0	2.233	3.204	167.6	3.8	17.1
- 8.03 0.00	- 35.3 + 4.7	1953 GH	20138	- 4.80 +0.96	+0.0 + 6.3		
1992 12 24	03 45.71	+07 20.1	2.389	3.219	141.6	10.9	17.6
1992 11 24	04 06.83	+21 06.1	1.846	2.833	178.3	0.6	16.2
- 9.27 -0.06	- 15.1 - 1.2	1989 EY1	18431	- 5.29 +1.22	-9.3 + 3.1		
1992 12 24	03 42.65	+20 21.6	1.963	2.829	145.5	11.3	16.9
1992 11 24	04 07.04	+24 05.2	1.841	2.826	176.1	1.4	17.3
- 9.61 -0.03	- 23.3 - 2.8	2281 T-2	18833	- 5.39 +1.26	- 23.5 + 2.7		
1992 12 24	03 42.18	+22 44.7	1.966	2.835	145.9	11.2	17.9
1992 11 24	04 07.65	+17 25.8	0.867	1.854	176.4	1.9	14.8
-10.89 +0.24	-177.5 + 4.5	1989 UK2	15718	- 3.03 +1.90	- 92.3 +18.7		
1992 12 24	03 43.74	+10 15.0	1.019	1.896	142.5	18.4	15.9
1992 11 24	04 07.11	+19 50.7	0.889	1.876	178.2	1.0	15.3
- 9.62 -0.06	- 10.6 - 0.3	1988 SP	14477	- 2.81 +1.92	+6.3 + 5.2		
1992 12 24	03 44.82	+19 34.0	1.001	1.897	145.9	16.9	16.3
1992 11 24	04 08.42	+11 09.1	1.639	2.618	170.4	3.6	16.9
-10.54 +0.05	- 19.1 + 4.4	1977 NK	18413	- 5.75 +1.33	+ 14.3 + 5.9		
1992 12 24	03 41.63	+10 59.1	1.815	2.662	142.4	13.0	17.6
1992 11 24	04 08.83	+22 50.7	1.745	2.731	176.9	1.1	16.5
- 9.28 -0.03	- 24.4 - 2.1	(4927)	18787	- 4.99 +1.27	- 20.6 + 3.2		
1992 12 24	03 45.05	+21 33.3	1.881	2.754	146.3	11.4	17.2
1992 11 24	04 08.95	+03 14.5	1.318	2.279	162.5	7.5	16.4
- 9.01 +0.09	- 53.4 +11.6	1990 EX2	16880	- 3.81 +1.39	+ 19.1 +10.6		
1992 12 24	03 47.33	+02 25.0	1.502	2.338	139.4	15.9	17.1
1992 11 24	04 10.24	-28 16.4	1.262	2.050	131.1	21.3	17.1
-11.10 -0.20	+ 25.8 +29.5	1983 AC1	16231	- 5.76 +1.70	+182.7 +19.2		
1992 12 24	03 41.45	-22 44.4	1.289	1.986	121.2	25.1	17.2
1992 11 24	04 11.22	+07 30.4	1.350	2.322	166.6	5.6	15.9
-10.91 0.00	+ 46.2 + 6.9	1988 XO	18630	- 5.60 +1.51	+ 77.8 + 3.2		
1992 12 24	03 43.70	+10 43.4	1.519	2.377	142.7	14.5	16.6
1992 11 24	04 12.77	+38 11.9	1.646	2.603	162.2	6.7	18.2
-12.11 -0.16	-3.8 -11.3	1990 GS	16587	- 6.75 +1.66	- 48.2 - 2.0		
1992 12 24	03 41.11	+36 36.5	1.752	2.621	145.2	12.4	18.5
1992 11 24	04 12.72	+18 38.4	1.331	2.317	176.4	1.5	15.6
- 9.34 +0.06	- 58.9 + 1.2	1987 QF7	12439	- 4.01 +1.45	- 29.9 + 7.3		
1992 12 24	03 50.14	+16 13.9	1.507	2.388	146.2	13.3	16.6
1992 11 24	04 13.61	+29 30.8	1.069	2.049	170.5	4.5	15.4
-11.19 -0.37	+ 19.5 - 8.1	1988 VM9	18815	- 5.35 +1.97	- 11.2 - 0.6		
1992 12 24	03 44.48	+29 28.9	1.136	2.031	146.8	15.4	16.0
1992 11 24	04 15.22	+21 12.5	2.271	3.257	176.4	1.1	17.6
- 8.46 -0.05	- 22.1 - 1.0	1991 PR12	20338	- 5.29 +0.99	- 16.6 + 2.7		
1992 12 24	03 52.69	+20 07.7	2.425	3.299	147.8	9.1	18.2

1992 11 24	04 17.18	+33 52.3	2.052	3.019	166.2	4.5	17.4
-11.19 -0.24	+9.5 - 7.4	1991 SY	19315	- 7.53 +1.30	- 22.0 - 1.9		
1992 12 24	03 46.27	+33 23.4	2.139	3.010	146.8	10.3	17.7
1992 11 24	04 17.26	+17 19.5	1.892	2.876	174.8	1.8	16.7
- 8.97 -0.11	- 22.2 + 0.8	1991 PQ1	19030	- 5.47 +1.12	-6.5 + 4.1		
1992 12 24	03 53.33	+16 30.2	2.025	2.900	147.0	10.6	17.3
1992 11 24	04 18.58	+23 48.3	1.028	2.013	174.6	2.6	15.4
- 9.89 -0.32	- 29.3 - 4.0	1988 TL	20146	- 4.48 +1.81	- 27.2 + 4.6		
1992 12 24	03 53.10	+22 07.6	1.100	2.005	148.3	15.0	16.0
1992 11 24	04 20.20	+25 25.5	1.377	2.361	173.3	2.8	18.2
-11.72 -0.01	- 31.4 - 4.2	1977 QN2	18619	- 5.99 +1.60	- 32.9 + 3.6		
1992 12 24	03 50.67	+23 34.4	1.555	2.445	147.9	12.3	18.9
1992 11 24	04 19.97	+23 04.8	1.465	2.450	174.7	2.1	17.9
-11.87 -0.27	-5.9 - 3.1	1981 JB3	16230	- 7.33 +1.55	-9.4 + 2.3		
1992 12 24	03 47.81	+22 31.8	1.561	2.446	147.1	12.6	18.6
1992 11 24	04 19.99	+27 43.6	1.877	2.857	171.5	2.9	15.9
-10.00 -0.11	+7.7 - 4.6	1975 TS3	11430	- 6.03 +1.25	-8.2 - 0.1		
1992 12 24	03 53.44	+27 34.3	2.043	2.929	148.8	10.0	16.5
1992 11 24	04 21.41	+32 58.2	1.712	2.682	166.7	4.9	15.3
-10.88 -0.08	- 63.8 - 8.0	1991 NG	20639	- 6.11 +1.42	- 81.4 + 2.5		
1992 12 24	03 53.16	+29 00.7	1.834	2.723	148.7	10.8	15.8
1992 11 24	04 23.34	+27 07.9	1.835	2.815	171.5	3.0	17.9
-11.09 -0.18	- 28.8 - 4.7	2247 T-3	19883	- 7.14 +1.31	- 38.7 + 1.9		
1992 12 24	03 53.25	+25 14.2	1.950	2.836	148.6	10.4	18.4
1992 11 24	04 21.59	+09 27.4	2.151	3.123	167.7	3.9	15.3
- 8.11 -0.15	- 12.1 + 4.1	(4959)	18800	- 5.46 +0.94	+ 17.5 + 5.2		
1992 12 24	03 59.24	+09 33.7	2.264	3.126	145.6	10.2	15.7
1992 11 24	04 23.60	+32 22.8	1.227	2.200	167.1	5.8	15.8
-11.38 -0.30	-7.0 - 9.7	1984 SA1	17435	- 5.89 +1.79	- 40.1 - 0.1		
1992 12 24	03 53.86	+30 54.3	1.335	2.234	148.7	13.2	16.3
1992 11 24	04 23.70	+35 29.0	1.850	2.813	164.2	5.5	16.5
-11.41 -0.14	-8.4 - 8.8	1981 ET	12443	- 6.88 +1.41	- 41.5 - 1.2		
1992 12 24	03 53.40	+34 00.0	2.005	2.888	148.2	10.3	17.0
1992 11 24	04 25.50	+37 11.5	0.900	1.866	162.5	9.2	15.7
-11.53 -0.65	+8.4 -15.7	1980 FZ3	17427	- 5.26 +2.29	- 57.6 - 3.2		
1992 12 24	03 54.88	+35 34.0	0.952	1.862	148.2	16.2	16.1
1992 11 24	04 24.67	+24 02.4	1.864	2.847	173.3	2.3	16.4
- 9.27 -0.25	- 15.0 - 2.7	1989 CU8	15563	- 6.11 +1.16	- 18.5 + 1.8		
1992 12 24	03 59.00	+23 03.7	1.953	2.846	149.7	10.0	16.9
1992 11 24	04 26.07	+22 43.4	1.714	2.697	173.5	2.4	17.1
-10.56 -0.29	- 37.2 - 2.7	1991 OZ	19029	- 7.08 +1.29	- 35.2 + 3.5		
1992 12 24	03 56.69	+20 43.3	1.786	2.677	148.8	11.0	17.6
1992 11 24	04 27.45	-19 02.7	0.808	1.687	139.8	22.2	16.7
-13.62 -0.42	+129.0 +36.1	1989 QO	16434	- 7.00 +2.17	+281.2 + 9.7		
1992 12 24	03 51.75	-07 57.8	0.860	1.696	133.7	24.8	17.0

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1992 11 24    04 25.15   -26 15.4    0.819    1.656   132.8    25.9    15.8
- 8.90 -0.22  +103.5 +36.9   1974 XT     13462   - 2.95 +1.81  +269.9 +14.2
1992 12 24    04 03.65   -16 12.8    0.892    1.697   129.6    26.5    16.1

1992 11 24    04 28.27   +24 31.4    1.392    2.374   172.4     3.2    18.0
-11.10 -0.52  - 18.5 - 4.2   1990 GN     18120   - 7.54 +1.52  - 26.3 + 2.3
1992 12 24    03 56.53   +23 11.9    1.419    2.320   149.2    12.5    18.4

1992 11 24    04 27.73   +10 50.6    1.508    2.483   168.2     4.7    15.8
- 9.95 -0.42  + 19.3 + 5.2   1989 AG     14205   - 6.93 +1.29  + 50.8 + 4.8
1992 12 24    03 59.27   +12 36.7    1.560    2.444   147.0    12.7    16.2

1992 11 24    04 28.68   +18 27.0    1.492    2.475   172.9     2.8    17.1
-10.34 -0.18    -9.1 + 0.3   1983 RM2    18624   - 6.10 +1.36    +2.9 + 3.5
1992 12 24    04 01.17   +18 11.7    1.652    2.548   149.3    11.4    17.8

1992 11 24    04 31.91   +24 04.0    1.869    2.849   171.8     2.8    16.4
- 9.28 -0.28  - 16.6 - 2.7   1991 NH1    18828   - 6.31 +1.13  - 20.1 + 1.8
1992 12 24    04 05.92   +23 00.7    1.971    2.873   151.3     9.5    16.9

1992 11 24    04 34.53   +25 58.0    1.451    2.430   170.4     3.9    17.6
-11.19 -0.48  - 14.5 - 4.8   6626 P-L    16882   - 7.63 +1.48  - 26.9 + 1.5
1992 12 24    04 02.68   +24 44.2    1.514    2.420   150.7    11.5    18.0

1992 11 24    04 33.52   +20 56.9    1.741    2.722   172.1     2.8    16.7
- 8.96 -0.33  - 23.4 - 1.1   1982 UQ6    18808   - 6.11 +1.14  - 17.4 + 3.2
1992 12 24    04 08.21   +19 47.7    1.825    2.729   151.3    10.0    17.1

1992 11 24    04 37.02   +13 26.5    1.065    2.043   168.6     5.5    16.1
-10.96 -0.29  - 29.3 + 4.9   1985 SE1    10390   - 5.91 +1.64  + 10.7 + 7.1
1992 12 24    04 08.17   +12 54.5    1.218    2.123   149.1    13.8    16.9

1992 11 24    04 38.69   +33 52.9    1.956    2.918   164.2     5.3    16.7
- 9.68 -0.34  - 24.6 - 7.3   1991 NG1    18828   - 6.71 +1.18  - 52.0 - 0.9
1992 12 24    04 11.30   +31 46.1    2.046    2.952   152.3     8.9    17.0

1992 11 24    04 39.04   +29 25.1    1.724    2.696   167.5     4.6    17.3
-10.73 -0.35    +2.8 - 5.8   4667 P-L    15904   - 7.31 +1.31  - 19.8 - 0.8
1992 12 24    04 08.93   +28 50.1    1.854    2.762   152.1     9.6    17.8

1992 11 24    04 47.46   +61 39.3    0.954    1.813   138.1    21.3    16.2
-19.97 -1.73  + 26.7 -34.4   1988 EC     15068   - 9.46 +3.90  -144.8 -14.8
1992 12 24    03 52.78   +58 04.8    0.997    1.846   137.5    21.1    16.4

1992 11 24    04 38.55   +08 44.3    2.137    3.101   164.9     4.7    17.5
- 8.48 -0.30  - 28.3 + 4.3    (5159)     19993   - 6.46 +0.89    +5.0 + 6.0
1992 12 24    04 13.97   +08 06.2    2.223    3.102   148.1     9.7    17.8

1992 11 24    04 44.65   +23 12.7    0.896    1.875   169.3     5.6    15.1
-15.44 -1.13  +197.8 - 3.5    (4761)     17946   -10.96 +2.31  +127.2 -13.9
1992 12 24    03 58.66   +31 39.5    1.004    1.918   149.7    15.0    15.8

1992 11 24    04 40.65   +27 28.8    2.018    2.992   168.4     3.8    17.3
-10.21 -0.42  - 21.5 - 4.5   1990 DX     16241   - 7.85 +1.09  - 35.8 + 0.5
1992 12 24    04 10.77   +25 53.6    2.069    2.977   152.6     8.7    17.5

1992 11 24    04 44.85   +18 34.3    1.342    2.319   169.2     4.6    16.3
-10.83 -0.63  - 17.5   0.0    (4929)     18788   - 8.00 +1.42    -5.1 + 4.2
1992 12 24    04 12.82   +17 52.6    1.393    2.307   151.8    11.6    16.6
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1992 11 24    04 45.05   +13 13.9    1.314    2.287   166.9     5.6    16.8
-10.08 -0.67  - 37.1 + 3.2    (4794)     18098   - 7.67 +1.35    -2.4 + 7.5
1992 12 24    04 14.70   +12 06.6    1.340    2.247   150.2    12.6    17.1

1992 11 24    04 44.66   +24 58.7    2.102    3.077   168.8     3.6    15.6
- 8.79 -0.34  - 37.2 - 2.9    (4976)     19007   - 6.58 +0.97  - 40.7 + 2.0
1992 12 24    04 19.20   +22 52.9    2.191    3.107   154.3     7.9    15.9

1992 11 24    04 45.88   +02 55.9    1.679    2.625   159.1     7.7    15.3
- 8.74 -0.43  + 32.4 + 9.0   1979 KO     13691   - 6.61 +1.04  + 79.3 + 5.6
1992 12 24    04 20.13   +05 49.7    1.764    2.651   148.0    11.3    15.5

1992 11 24    04 47.67   +18 06.0    1.503    2.478   168.5     4.6    16.5
-10.34 -0.44  + 15.8 + 0.5   1982 JR1    18622   - 7.29 +1.28  + 21.9 + 1.7
1992 12 24    04 18.05   +19 00.5    1.637    2.554   153.3     9.9    17.0

1992 11 24    04 48.03   +25 17.9    1.235    2.210   168.0     5.3    15.7
- 9.18 -0.74    -6.0 - 4.0   1987 RD1    14352   - 6.68 +1.44  - 17.9 + 1.0
1992 12 24    04 20.21   +24 32.6    1.268    2.198   154.7    11.0    16.0

1992 11 24    04 49.06   +17 55.1    1.645    2.619   168.1     4.5    18.1
-10.25 -0.57  - 28.7 + 0.1   1991 PT1    18829   - 8.18 +1.16  - 15.6 + 4.2
1992 12 24    04 18.23   +16 40.8    1.686    2.600   152.7    10.0    18.4

1992 11 24    04 49.03   +16 47.0    1.842    2.815   167.8     4.3    17.5
- 9.05 -0.43  - 13.2 + 1.1   3201 T-2    18834   - 7.02 +1.01    +0.8 + 3.4
1992 12 24    04 22.25   +16 24.1    1.929    2.844   153.5     8.9    17.8

1992 11 24    04 51.69   +46 20.8    2.159    3.067   152.1     8.7    17.3
-11.00 -0.63  + 11.8 -11.6   1986 TQ     20144   - 8.66 +1.28  - 49.7 - 6.8
1992 12 24    04 18.66   +45 15.0    2.209    3.090   148.4     9.6    17.4

1992 11 24    04 48.76   -03 03.9    2.346    3.259   153.5     7.8    17.5
- 8.12 -0.27    -9.3 + 8.7   1991 PE1    19309   - 6.36 +0.78  + 42.3 + 7.4
1992 12 24    04 25.11   -02 11.8    2.485    3.329   143.7    10.1    17.7

1992 11 24    04 51.37   +25 57.5    2.190    3.160   167.0     4.0    16.6
- 9.13 -0.50  + 15.1 - 2.8   1979 FQ2    14472   - 7.75 +0.90    +1.6 - 1.0
1992 12 24    04 23.47   +26 19.2    2.237    3.159   155.5     7.4    16.8

1992 11 24    04 53.06   +22 12.4    0.981    1.957   167.5     6.3    16.4
-10.12 -0.78    +0.0 - 2.0   1981 SZ6    18621   - 6.62 +1.68    -1.3 + 2.2
1992 12 24    04 23.41   +22 02.5    1.071    2.006   155.2    11.9    16.9

1992 11 24    04 52.60   +22 58.7    1.670    2.642   167.5     4.6    16.8
- 8.33 -0.58    -4.3 - 1.8   1977 DQ3    16021   - 6.65 +1.06    -7.7 + 1.2
1992 12 24    04 27.09   +22 35.2    1.716    2.645   156.1     8.7    17.1

1992 11 24    04 55.91   +19 53.9    1.172    2.145   166.8     6.0    18.0
-10.03 -1.05  - 17.5 - 1.0   1978 VR8    16422   - 8.90 +1.40  - 10.4 + 3.9
1992 12 24    04 22.96   +19 03.1    1.135    2.066   154.5    11.8    18.1

1992 11 24    04 57.83   +33 03.9    1.501    2.459   162.1     7.1    18.4
-11.29 -0.97    +7.0 - 8.1   1990 GE     17963   - 9.88 +1.38  - 36.2 - 3.9
1992 12 24    04 21.72   +32 12.1    1.481    2.406   154.4    10.2    18.4

1992 11 24    04 53.82   +20 40.4    1.793    2.765   167.4     4.5    15.5
- 8.11 -0.54    -7.3 - 0.6   1991 PB13   20151   - 6.60 +0.97    -3.9 + 2.0
1992 12 24    04 28.97   +20 18.9    1.844    2.772   156.1     8.2    15.7
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1992 11 24	04 57.19	+23 46.4	1.143	2.116	166.4	6.3	15.4
- 9.54 -0.99	- 21.0 - 3.6	2416 T-3	13863	- 7.87 +1.46		- 27.9 + 2.3	
1992 12 24	04 26.53	+22 22.0	1.139	2.076	155.9	11.1	15.6
1992 11 24	04 59.44	-01 32.7	1.615	2.537	153.5	10.0	15.5
- 9.50 -0.45	-104.6 +11.9	1991 JY1	20639	- 7.24 +1.07		- 18.9 +14.1	
1992 12 24	04 31.55	-04 42.0	1.758	2.610	142.9	13.1	15.9
1992 11 24	04 59.30	+05 51.0	2.161	3.104	159.4	6.4	17.1
- 8.88 -0.53	-0.7 + 5.7	1990 KG	16588	- 8.10 +0.77		+ 36.4 + 5.9	
1992 12 24	04 31.44	+06 44.3	2.174	3.071	150.8	9.0	17.2
1992 11 24	05 01.34	+35 54.4	2.141	3.085	159.6	6.4	18.1
-10.27 -0.63	+ 36.2 - 7.1	1975 VV2	16421	- 8.86 +1.03		-5.4 - 5.1	
1992 12 24	04 29.56	+36 36.7	2.224	3.140	154.5	7.8	18.3
1992 11 24	05 00.72	+19 12.8	1.802	2.769	165.6	5.1	16.4
- 9.07 -0.58	- 17.6 - 0.1	1981 ED19	15407	- 7.66 +0.98		-9.9 + 2.8	
1992 12 24	04 32.73	+18 26.2	1.859	2.789	156.5	8.1	16.6
1992 11 24	05 04.67	+25 48.6	1.236	2.202	164.2	7.0	16.2
-10.26 -1.07	- 13.1 - 4.7	1990 DM1	16879	- 9.12 +1.39		- 30.3 + 0.4	
1992 12 24	04 31.04	+24 34.1	1.225	2.166	157.2	10.2	16.3
1992 11 24	05 06.12	+13 13.7	1.476	2.436	162.6	7.0	17.3
- 9.75 -0.85	- 29.1 + 3.0	1953 GN	19009	- 8.96 +1.08		+0.3 + 6.3	
1992 12 24	04 34.48	+12 24.3	1.474	2.400	154.6	10.1	17.4
1992 11 24	05 03.56	+16 14.7	2.608	3.568	164.3	4.3	17.1
- 7.62 -0.43	-6.4 + 1.1	1985 QL4	19018	- 6.96 +0.63		+3.9 + 2.3	
1992 12 24	04 39.73	+16 08.7	2.652	3.580	157.4	6.1	17.3
1992 11 24	05 03.78	+06 00.0	0.921	1.876	158.7	11.0	14.7
- 7.72 -0.89	- 72.9 +11.3	(5076)	20615	- 5.71 +1.39		+ 13.2 +14.2	
1992 12 24	04 39.41	+04 25.0	0.991	1.911	150.9	14.5	15.0
1992 11 24	05 05.13	+08 01.5	1.316	2.268	159.8	8.6	18.0
- 8.29 -0.67	- 29.9 + 7.6	3269 T-2	16439	- 6.56 +1.13		+ 22.1 + 8.3	
1992 12 24	04 39.53	+07 48.4	1.408	2.328	153.1	11.0	18.3
1992 11 24	05 08.73	+46 37.2	2.362	3.257	150.4	8.6	17.4
-10.83 -0.69	+5.2 -10.6	1980 RP	18805	- 9.25 +1.12		- 53.0 - 6.7	
1992 12 24	04 35.27	+45 18.3	2.422	3.315	150.7	8.3	17.5
1992 11 24	05 07.56	+37 43.9	1.933	2.870	157.4	7.6	15.8
- 9.62 -0.72	- 19.1 - 8.8	1986 SD2	18810	- 8.29 +1.08		- 62.2 - 3.8	
1992 12 24	04 37.36	+35 32.7	1.954	2.882	156.4	7.9	15.8
1992 11 24	05 10.60	+20 04.3	1.499	2.462	163.4	6.6	16.9
-10.72 -0.83	-3.6 - 0.5	(4890)	18610	- 9.44 +1.18		-1.0 + 1.9	
1992 12 24	04 36.63	+19 53.1	1.549	2.488	157.8	8.6	17.1
1992 11 24	05 08.60	+36 45.9	1.993	2.932	158.0	7.3	17.3
- 9.39 -0.77	+ 11.5 - 7.5	1991 RX23	20641	- 8.55 +1.00		- 31.0 - 4.9	
1992 12 24	04 38.42	+36 11.6	2.012	2.939	156.3	7.7	17.3
1992 11 24	05 12.84	+27 14.1	1.182	2.143	162.1	8.2	17.1
-11.35 -1.05	+ 17.7 - 5.2	1972 RU3	8785	- 9.51 +1.52		-9.8 - 2.0	
1992 12 24	04 36.77	+27 20.0	1.250	2.194	158.4	9.5	17.3

1992 11 24	05 11.72	+20 28.7	1.826	2.786	163.2	5.9	18.0
- 9.64 -0.72	-3.8 - 0.6	4272 T-1	19523	- 8.85 +0.94	-2.7 + 1.4		
1992 12 24	04 40.93	+20 15.3	1.863	2.803	158.9	7.3	18.1
1992 11 24	05 13.60	+14 04.0	1.320	2.277	161.3	8.0	18.0
- 9.82 -0.88	- 12.7 + 3.6	1981 QQ2	19015	- 8.64 +1.19	+ 14.6 + 5.1		
1992 12 24	04 42.08	+14 04.1	1.376	2.314	157.0	9.6	18.1
1992 11 24	05 12.82	+10 48.8	1.023	1.980	159.9	9.8	16.4
- 7.63 -1.08	-9.7 + 7.3	1988 VE7	19024	- 7.00 +1.25	+ 39.5 + 7.7		
1992 12 24	04 46.56	+11 32.8	1.045	1.986	156.7	11.3	16.5
1992 11 24	05 18.92	+20 57.9	1.040	2.001	161.5	9.0	16.2
- 8.52 -1.16	- 22.8 - 0.7	1988 TM1	20016	- 7.76 +1.33	- 15.5 + 3.5		
1992 12 24	04 49.88	+19 52.6	1.078	2.033	160.8	9.1	16.3
1992 11 24	05 18.78	+20 15.6	2.304	3.255	161.5	5.5	17.3
- 8.28 -0.56	-6.8 - 0.3	1991 PE	18829	- 7.76 +0.70	-4.7 + 1.2		
1992 12 24	04 52.40	+19 55.8	2.379	3.326	161.4	5.4	17.4
1992 11 24	05 20.73	+16 02.3	1.038	1.995	160.3	9.6	16.1
- 8.42 -1.22	- 38.2 + 2.3	1978 TB2	12326	- 8.26 +1.25	-8.5 + 7.0		
1992 12 24	04 51.12	+14 43.6	1.046	1.996	159.2	10.1	16.1
1992 11 24	05 23.53	+32 41.6	1.925	2.863	157.8	7.5	16.7
-10.32 -0.93	+ 53.0 - 5.4	1987 VT	16026	-10.25 +0.94	+ 13.1 - 6.0		
1992 12 24	04 49.20	+34 21.7	1.975	2.915	159.1	6.9	16.8
1992 11 24	05 24.47	+32 27.7	1.508	2.450	157.7	8.8	16.4
-10.16 -1.17	+0.1 - 7.1	1990 CH	18818	-10.32 +1.13	- 40.5 - 4.2		
1992 12 24	04 49.47	+31 21.8	1.488	2.436	160.3	7.8	16.4
1992 11 24	05 20.31	+31 41.9	2.504	3.443	158.9	5.9	16.2
- 7.95 -0.67	+ 17.1 - 3.9	1972 RY3	17623	- 8.03 +0.64	-7.5 - 3.3		
1992 12 24	04 53.90	+31 54.9	2.511	3.456	161.0	5.3	16.2
1992 11 24	05 22.76	+11 50.2	1.042	1.993	158.3	10.6	15.7
- 8.19 -1.24	- 25.4 + 5.9	(4936)	18790	- 8.37 +1.19	+ 20.8 + 8.2		
1992 12 24	04 53.41	+11 39.0	1.044	1.991	158.1	10.6	15.7
1992 11 24	05 24.93	+24 53.6	1.598	2.548	159.9	7.6	16.1
- 9.49 -0.91	+ 28.0 - 2.3	1978 VE5	15405	- 9.05 +1.01	+ 11.4 - 2.1		
1992 12 24	04 53.57	+25 52.3	1.669	2.623	162.2	6.6	16.2
1992 11 24	05 22.43	+09 41.9	1.732	2.670	157.3	8.2	17.2
- 7.90 -0.77	- 59.5 + 4.1	3066 P-L	16438	- 7.85 +0.78	- 19.8 + 8.2		
1992 12 24	04 55.94	+07 35.3	1.750	2.678	156.0	8.6	17.2
1992 11 24	05 22.90	+18 50.4	1.573	2.525	160.4	7.5	17.0
- 7.99 -0.90	-5.1 + 0.8	1991 RD12	20641	- 8.04 +0.88	+3.5 + 2.3		
1992 12 24	04 55.58	+18 45.2	1.589	2.542	161.8	6.9	17.0
1992 11 24	05 27.17	+22 30.9	1.203	2.156	159.6	9.2	16.2
- 9.48 -1.33	+ 15.1 - 0.8	1990 BF2	19865	-10.15 +1.16	+8.0 - 0.4		
1992 12 24	04 53.10	+23 04.8	1.189	2.147	162.1	8.1	16.1
1992 11 24	05 29.47	+27 30.3	1.562	2.506	158.4	8.3	18.1
-10.97 -1.01	- 17.4 - 4.7	1981 EJ5	9683	-10.48 +1.12	- 38.1 - 0.8		
1992 12 24	04 53.35	+25 59.8	1.602	2.557	162.2	6.8	18.2

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1992 11 24    05 25.62   +20 08.4    1.964    2.911   159.9     6.7    16.1
- 8.32 -0.82  - 28.4 - 0.7   1991 PH11   19311   - 8.72 +0.70  - 25.0 + 2.2
1992 12 24    04 57.25   +18 42.8    1.934    2.886   162.2     6.0    16.0

1992 11 24    05 26.86   +23 02.0    2.057    3.002   159.7     6.6    17.8
- 8.61 -0.91  + 18.2 - 0.7   1985 JL     20632   - 9.63 +0.63  + 11.3 - 0.9
1992 12 24    04 56.66   +23 46.7    1.988    2.943   163.0     5.6    17.6

1992 11 24    05 27.95   +18 32.4    1.708    2.654   159.2     7.6    18.4
- 9.14 -0.98  - 18.2 + 0.3   1990 DD2    17444   - 9.75 +0.80  - 10.3 + 2.6
1992 12 24    04 56.32   +17 45.2    1.676    2.628   161.6     6.8    18.3

1992 11 24    05 29.46   +17 53.6    1.623    2.568   158.7     8.0    17.7
- 9.76 -0.95  - 21.5 + 0.7   1978 QG2    14344   - 9.84 +0.91  - 10.4 + 3.2
1992 12 24    04 56.61   +17 01.2    1.641    2.592   161.4     6.9    17.7

1992 11 24    05 27.14   -11 37.2    1.870    2.712   141.3    13.2    17.8
- 8.26 -0.87  - 47.6 +12.9   1986 EN     16426   - 9.07 +0.65  + 44.7 +15.5
1992 12 24    04 58.34   -11 46.4    1.822    2.656   140.6    13.6    17.7

1992 11 24    05 30.79   -12 29.8    1.219    2.075   140.1    17.8    16.8
- 9.36 -1.16  -115.6 +18.8    (4868)     18407   - 9.65 +1.06  + 22.7 +22.8
1992 12 24    04 58.16   -14 56.5    1.250    2.086   137.7    18.5    16.9

1992 11 24    05 27.46   +18 48.9    2.000    2.944   159.3     6.8    16.7
- 7.80 -0.72  - 38.7   0.0   3034 P-L    15423   - 7.82 +0.70  - 28.9 + 3.3
1992 12 24    05 01.42   +17 01.5    2.028    2.980   162.5     5.7    16.7

1992 11 24    05 27.73   +21 43.9    2.698    3.639   159.5     5.5    17.6
- 7.56 -0.57    -3.8 - 0.6    (5014)     19485   - 7.71 +0.52    -5.4 + 0.4
1992 12 24    05 02.81   +21 28.4    2.725    3.681   164.1     4.2    17.6

1992 11 24    05 31.63   +14 09.4    1.744    2.681   157.2     8.2    16.9
- 9.35 -0.94    -4.9 + 2.9   1989 YF     16435   - 9.90 +0.78  + 15.2 + 3.6
1992 12 24    04 59.58   +14 23.4    1.740    2.689   160.9     6.9    16.9

1992 11 24    05 31.27   +09 33.9    1.643    2.574   155.4     9.2    17.2
- 8.31 -1.02  + 14.1 + 6.1   1990 KC1    18295   - 9.45 +0.70  + 51.1 + 5.3
1992 12 24    05 01.46   +11 13.3    1.599    2.544   159.4     7.8    17.1

1992 11 24    05 32.87   +24 00.0    1.755    2.697   158.2     7.8    17.6
- 9.01 -1.04    +2.9 - 1.7    (5031)     19491   - 9.99 +0.77    -7.4 - 0.8
1992 12 24    05 01.03   +23 51.6    1.718    2.677   164.0     5.8    17.5

1992 11 24    05 30.97   +12 36.6    1.990    2.924   156.8     7.6    17.9
- 8.36 -0.77  - 28.0 + 2.8   1991 NS2    19029   - 8.68 +0.67    -3.7 + 4.9
1992 12 24    05 02.75   +11 45.3    2.003    2.947   160.0     6.6    17.9

1992 11 24    05 40.95   +41 06.5    1.700    2.604   150.3    10.8    16.4
-11.87 -1.24  - 43.1 -12.0   1991 NP     20337   -11.86 +1.20  -108.0 - 6.3
1992 12 24    05 00.81   +37 09.3    1.671    2.615   159.6     7.5    16.2

1992 11 24    05 38.15   +42 10.2    1.345    2.256   150.1    12.6    17.0
- 9.83 -1.46    +2.2 -12.5   1981 EK4    15878   -10.12 +1.33  - 72.6 - 8.7
1992 12 24    05 03.05   +40 17.5    1.362    2.304   157.9     9.3    16.9

1992 11 24    05 32.47   +21 05.6    2.293    3.232   158.4     6.5    16.9
- 7.18 -0.77    -4.4 - 0.3    (5249)     20488   - 8.13 +0.50    -4.3 + 0.6
1992 12 24    05 07.16   +20 50.9    2.232    3.192   165.0     4.6    16.8
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1992 11 24    05 30.79   +12 41.3    0.727    1.681   156.9    13.3    14.8
- 4.39 -1.61  - 24.6 + 7.3   1981 YS1    15553   - 6.16 +1.15  + 33.2 + 9.9
1992 12 24    05 09.85   +12 49.5    0.706    1.669   162.0    10.5    14.6

1992 11 24    05 37.90   +34 45.1    1.477    2.405   154.2    10.3    16.9
- 8.23 -1.36  + 28.8 - 6.5   3233 T-1    19324   - 9.85 +0.92  - 19.6 - 7.2
1992 12 24    05 06.56   +35 00.3    1.440    2.395   161.8     7.4    16.7

1992 11 24    05 38.26   +19 48.7    1.557    2.496   156.9     8.9    16.6
- 7.78 -1.06  - 14.8 + 0.3    (4920)     18784   - 8.79 +0.77    -8.6 + 2.1
1992 12 24    05 10.02   +19 10.2    1.551    2.514   165.2     5.7    16.4

1992 11 24    05 37.90   -01 38.6    1.635    2.522   147.3    12.2    16.3
- 7.11 -0.90  - 72.3 +10.0   3227 T-1    19324   - 7.83 +0.67    +4.1 +13.4
1992 12 24    05 12.59   -03 27.1    1.662    2.559   149.6    11.2    16.3

1992 11 24    05 38.62   +02 52.0    1.846    2.746   150.1    10.3    16.6
- 7.37 -0.92  - 46.3 + 6.8    (4974)     19006   - 8.65 +0.55    +8.1 +10.0
1992 12 24    05 11.89   +01 48.5    1.797    2.716   154.1     9.1    16.5

1992 11 24    05 41.55   +20 14.2    2.009    2.940   156.2     7.8    17.4
- 7.59 -0.90    -1.4 + 0.3   4314 T-3    20519   - 8.75 +0.56    +1.0 + 0.8
1992 12 24    05 14.34   +20 12.7    1.984    2.950   166.5     4.5    17.2

1992 11 24    05 46.15   +18 27.6    1.560    2.489   154.9     9.7    17.1
- 9.33 -1.18    -1.1 + 1.2   1991 JS1    18639   -10.69 +0.78    +6.6 + 1.7
1992 12 24    05 12.49   +18 35.1    1.552    2.517   165.5     5.6    16.9

1992 11 24    05 43.23   +26 13.3    2.086    3.013   155.7     7.8    16.9
- 7.85 -0.98  + 20.5 - 1.6   1991 RY16   20641   - 9.40 +0.53    +5.9 - 2.5
1992 12 24    05 14.58   +26 54.7    2.035    3.001   166.8     4.3    16.7

1992 11 24    05 41.88   +21 06.0    1.766    2.699   156.2     8.5    16.1
- 7.12 -0.95    -2.7   0.0    (4941)     18793   - 8.15 +0.65    -1.4 + 0.8
1992 12 24    05 16.02   +20 58.6    1.775    2.743   167.0     4.6    15.9

1992 11 24    05 47.57   +41 12.0    2.188    3.079   149.3     9.4    18.3
- 9.64 -1.12  + 17.7 - 7.7   1981 ET10   20011   -10.94 +0.74  - 35.3 - 7.9
1992 12 24    05 13.26   +40 46.0    2.165    3.103   158.8     6.6    18.1

1992 11 24    05 44.42   +12 30.9    1.564    2.488   153.7    10.1    17.6
- 7.62 -1.01  - 43.8 + 3.7   4089 P-L    15903   - 8.54 +0.72  - 10.6 + 6.6
1992 12 24    05 17.00   +11 03.9    1.589    2.543   162.2     6.8    17.5

1992 11 24    05 57.85   +49 36.5    0.957    1.842   142.7    18.9    15.7
-13.31 -2.12  -104.0 -24.3   1988 MB     13458   -12.17 +2.13  -221.4 - 6.7
1992 12 24    05 11.68   +40 55.4    0.961    1.911   158.5    10.9    15.5

1992 11 24    05 45.52   +25 06.9    1.805    2.734   155.3     8.7    18.6
- 7.04 -1.08    +0.4 - 1.6   6676 P-L    14962   - 8.85 +0.56  - 10.7 - 1.3
1992 12 24    05 18.66   +24 50.8    1.745    2.715   168.0     4.3    18.3

1992 11 24    05 47.53   +17 44.4    1.907    2.830   154.4     8.7    18.1
- 7.43 -0.99    -6.3 + 1.4    (5194)     20006   - 9.10 +0.51    +3.7 + 2.0
1992 12 24    05 19.96   +17 39.4    1.859    2.825   166.7     4.6    17.8

1992 11 24    05 52.60   +30 01.0    1.346    2.270   152.9    11.4    18.3
- 8.21 -1.59  + 11.3 - 4.3   1990 EU4    20637   -11.24 +0.78  - 23.3 - 5.2
1992 12 24    05 19.04   +29 44.8    1.275    2.243   166.8     5.8    17.9
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1992 11 24	05 54.34	+32 54.5	1.109	2.033	151.8	13.3	17.0
- 8.87 -1.75	+ 13.0 - 7.1	1964 TU2	14182	-10.99 +1.14		- 36.8 - 6.4	
1992 12 24	05 19.18	+32 17.6	1.116	2.083	165.5	6.8	16.8
1992 11 24	05 54.13	+24 21.6	1.512	2.435	153.4	10.5	17.5
- 9.33 -1.26	+ 14.0 - 1.4	4254 T-2	15086	-10.76 +0.83		+0.7 - 1.9	
1992 12 24	05 20.14	+24 44.5	1.540	2.511	168.3	4.6	17.3
1992 11 24	05 53.36	+15 45.1	1.628	2.545	152.7	10.3	17.7
- 8.50 -1.23	-4.4 + 2.7	1977 EL	19011	-10.79 +0.58		+ 13.0 + 3.0	
1992 12 24	05 21.08	+15 57.3	1.572	2.537	166.1	5.3	17.4
1992 11 24	05 50.16	+03 14.6	1.929	2.815	148.0	10.7	17.2
- 7.41 -0.89	- 35.1 + 7.0	(5001)	19284	- 8.64 +0.52		+ 15.8 + 8.7	
1992 12 24	05 23.49	+02 42.7	1.934	2.862	156.3	7.9	17.2
1992 11 24	05 54.33	+23 38.5	1.859	2.777	+1.21	-4.5	17.2
- 8.80 -1.02	- 47.7 - 2.3	1991 NL	19309	-10.00 +0.66		- 52.3 + 1.5	
1992 12 24	05 23.01	+21 01.5	1.855	2.826	+1.25	-3.5	17.0
1992 11 24	05 53.10	+38 26.7	2.866	3.752	149.8	7.6	17.7
- 8.44 -0.82	-5.5 - 5.5	1936 NB	14182	- 9.55 +0.49		- 40.9 - 5.1	
1992 12 24	05 23.70	+37 16.5	2.830	3.781	162.8	4.4	17.5
1992 11 24	05 54.49	+35 55.5	2.238	3.136	150.6	8.9	16.3
- 8.04 -1.07	+ 35.4 - 4.7	1981 TJ4	14947	- 9.97 +0.51		-2.7 - 6.6	
1992 12 24	05 24.55	+36 48.1	2.211	3.166	163.3	5.1	16.2
1992 11 24	05 59.44	+41 58.1	2.035	2.913	147.0	10.6	18.5
- 8.76 -1.41	+ 33.9 - 7.0	6114 P-L	19035	-11.83 +0.56		- 24.4 -10.2	
1992 12 24	05 24.92	+42 18.4	1.938	2.877	158.8	7.1	18.3
1992 11 24	05 53.27	+21 45.6	2.125	3.042	153.6	8.3	17.4
- 6.52 -0.98	+3.4 + 0.1	(5082)	19826	- 8.67 +0.36		+2.5 - 0.1	
1992 12 24	05 28.02	+21 54.7	2.033	3.007	170.0	3.3	17.1
1992 11 24	05 57.48	+11 01.3	1.377	2.287	150.2	12.4	15.3
- 7.64 -1.29	+ 27.1 + 6.9	(5122)	19841	- 9.79 +0.67		+ 61.4 + 3.7	
1992 12 24	05 27.70	+13 20.0	1.383	2.348	165.6	6.0	15.1
1992 11 24	05 55.19	+20 02.6	2.010	2.924	153.0	8.8	17.4
- 6.90 -1.00	-2.1 + 0.6	1981 QY2	19496	- 8.94 +0.41		+1.5 + 0.8	
1992 12 24	05 28.81	+20 01.5	1.950	2.923	169.6	3.5	17.1
1992 11 24	06 01.07	+29 24.2	1.203	2.123	151.3	12.9	16.8
- 8.05 -1.82	+ 41.6 - 2.6	1969 UP1	18412	-12.02 +0.76		+6.5 - 7.0	
1992 12 24	05 26.19	+30 44.9	1.148	2.119	167.6	5.7	16.4
1992 11 24	05 57.12	+06 41.1	1.637	2.532	148.4	11.8	18.3
- 6.60 -1.13	- 72.2 + 4.9	1981 DV	11044	- 8.93 +0.46		- 22.9 +10.4	
1992 12 24	05 30.90	+04 08.2	1.582	2.523	158.4	8.2	18.1
1992 11 24	05 59.11	+17 42.9	1.454	2.370	151.7	11.4	16.6
- 7.51 -1.23	- 66.3 + 0.6	(4943)	18794	- 9.38 +0.67		- 47.0 + 5.8	
1992 12 24	05 30.26	+14 43.3	1.454	2.422	167.0	5.2	16.4
1992 11 24	05 57.68	+25 16.1	1.973	2.885	152.5	9.1	16.9
- 7.10 -1.09	+ 12.1 - 1.0	1986 QB1	12133	- 9.41 +0.43		+1.0 - 2.0	
1992 12 24	05 30.12	+25 37.6	1.910	2.885	170.4	3.2	16.5

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1992 11 24    05 56.66   +09 45.0    2.292    3.185   149.9     8.9    17.0
- 6.44 -0.83  - 30.8 + 3.6    (5289)     20623   - 8.07 +0.34    -2.3 + 5.4
1992 12 24    05 32.74   +08 52.0    2.249    3.202   162.8     5.2    16.8

1992 11 24    06 01.94   +18 49.7    1.236    2.155   151.3    12.7    16.9
- 7.66 -1.49  - 15.2 + 1.7   1981 UM11   13855   -10.27 +0.74    -2.8 + 2.6
1992 12 24    05 30.90   +18 20.9    1.230    2.204   169.3     4.7    16.6

1992 11 24    06 03.85   +20 54.9    1.656    2.565   151.1    10.7    17.4
- 7.68 -1.19  - 13.3 + 0.3    (5078)     19824   - 9.75 +0.57  - 10.8 + 1.0
1992 12 24    05 34.45   +20 17.4    1.657    2.633   171.0     3.4    17.1

1992 11 24    05 58.45   +12 11.2    2.344    3.240   150.4     8.7    17.1
- 6.00 -0.83  - 19.6 + 2.9   4277 T-1    19880   - 7.81 +0.29    +2.6 + 4.1
1992 12 24    05 35.67   +11 43.5    2.284    3.246   165.6     4.3    16.8

1992 11 24    06 00.64   +13 12.5    1.141    2.057   150.2    13.8    17.1
- 5.32 -1.51  - 88.0 + 2.2   1981 EF5    10769   - 8.66 +0.57  - 47.3 +10.7
1992 12 24    05 35.82   +09 33.7    1.088    2.051   163.8     7.7    16.8

1992 11 24    06 07.88   +29 16.1    1.733    2.634   149.8    10.9    17.0
- 7.94 -1.43  + 16.0 - 2.5   1617 T-2    19882   -11.57 +0.42  - 10.2 - 4.9
1992 12 24    05 35.20   +29 29.1    1.633    2.607   169.9     3.8    16.5

1992 11 24    06 06.04   +34 08.7    2.144    3.033   149.1     9.6    17.3
- 7.60 -1.22  + 36.8 - 3.4   1980 DD1    19013   -10.67 +0.35    +2.8 - 6.7
1992 12 24    05 35.73   +35 14.3    2.056    3.020   165.9     4.5    17.0

1992 11 24    06 04.79   +20 38.9    2.009    2.911   150.8     9.5    17.2
- 7.53 -1.07  - 13.1 + 0.2   1991 QC     19032   - 9.82 +0.40  - 11.5 + 0.8
1992 12 24    05 36.05   +20 00.8    1.956    2.932   171.2     2.9    16.8

1992 11 24    06 08.86   +21 50.2    1.572    2.477   150.0    11.5    18.2
- 8.12 -1.40    -6.8   0.0   1984 HS1    14192   -11.25 +0.51    -8.9    0.0
1992 12 24    05 36.29   +21 26.6    1.517    2.494   171.7     3.2    17.7

1992 11 24    06 06.22   +20 01.2    1.517    2.425   150.4    11.6    17.0
- 6.90 -1.25    -1.3 + 1.3   1981 SN1    13301   - 9.14 +0.57    +4.5 + 0.9
1992 12 24    05 38.80   +20 06.6    1.541    2.518   171.8     3.2    16.8

1992 11 24    06 05.99   +20 22.9    2.154    3.052   150.5     9.2    16.2
- 6.60 -1.00    +1.5 + 0.8   1986 RF13   14949   - 8.98 +0.31    +4.2 + 0.4
1992 12 24    05 40.20   +20 32.2    2.089    3.067   172.3     2.5    15.8

1992 11 24    06 06.81   +21 50.3    2.372    3.268   150.4     8.6    17.3
- 6.62 -0.91    -2.8 + 0.1    (5228)     20320   - 8.63 +0.30    -3.7 - 0.1
1992 12 24    05 41.71   +21 40.8    2.333    3.311   173.0     2.1    17.0

1992 11 24    06 12.49   +31 00.3    1.580    2.476   148.5    12.0    16.5
- 7.57 -1.60  + 40.7 - 2.3    (4993)     19280   -11.94 +0.40    +8.0 - 7.1
1992 12 24    05 39.53   +32 22.5    1.490    2.462   168.7     4.5    16.0

1992 11 24    06 12.07   +15 09.0    1.409    2.307   148.1    13.1    18.1
- 7.30 -1.42  - 35.2 + 3.0   1981 WF9    16695   -10.41 +0.52    -9.8 + 5.2
1992 12 24    05 41.93   +13 57.4    1.381    2.352   168.3     4.9    17.8

1992 11 24    06 07.07   +27 54.8    2.482    3.374   150.2     8.4    17.7
- 6.25 -0.93    -5.2 - 1.9   3063 P-L    20648   - 8.52 +0.26  - 19.7 - 2.2
1992 12 24    05 42.71   +27 18.0    2.395    3.372   172.5     2.2    17.3
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